Appendix V3-1A

Record of Meetings and Major Correspondence with Community and Stakeholder Groups

Sabina
GOLD & SILVER CORP.

Appendix V3-1A. Record of Meetings and Major Correspondence with Community and Stakeholder Groups

Date	Individual(s) / Organization	Type of Activity
Cambridge Bay		
February 14, 2012	Brenda Sitatak HTO Manager	Introductions and information sharing.
February 14, 2012	Renee Krucas Executive Director, Kitikmeot Heritage Society	Introductions and information sharing.
February 14, 2012	Connie Kapolak High School Principal	Introductions and information sharing.
March 27, 2012	Brenda Sitatak HTO Manager	Introductions and update.
March 27, 2012	Stephen King, Senior Administrative Officer Jim McEchrean, Economic Development Officer Hamlet of Cambridge Bay	Project introduction.
April 5, 2012	Renee Krucas Executive Director, Kitikmeot Heritage Society	Letter / invitation to nominate representatives to the Cambridge Bay Community Advisory Group.
April 5, 2012	Stephen King, Senior Administrative Officer Hamlet of Cambridge Bay	Letter / invitation to nominate representative to the Cambridge Bay Community Advisory Group.
April 5, 2012	Brenda Sitatak HTO Manager	Letter / invitation to nominate representative to the Cambridge Bay Community Advisory Group.
June 14, 2012	General public	Call-in radio show.
June 14, 2012	Jessie Lyall, HTO Board Member Brenda Sitatak, HTO Manager	Project introduction.
June 14, 2012	General public	Public meeting - Project overview.
June 14, 2012	Hamlet Council and administration	Project introduction.
June 15, 2012	Cambridge Bay Community Advisory Group	Project introduction.
September 11-12, 2012	Cambridge Bay Community Advisory Group	Sabina hosted a dinner and meeting for the Cambridge Bay and Kugluktuk Community Advisory Groups (CAGs) in Cambridge Bay on September 11, 2012. The CAGs also visited the Back River Project site on September 12, 2012.
September 27-29, 2012	Interviews conducted with a number of individuals representing a variety of interests in the community including: government administration; health, wellness and social services; safety and protection services; business and economic development; and education and training	Socio-economic baseline data collection; documentation of expected Project benefits, Project concerns, and suggested mitigation measures.
November 19, 2012	General public	Call-in radio show.

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Date	Individual(s) / Organization	Type of Activity
November 19, 2012	High school students and staff	Mining and geology presentation.
November 19, 2012	General public	Public open house.
November 19, 2012	Cambridge Bay Community Advisory Group	Project update.
November 30 - December 1, 2012	Local hunters from Cambridge Bay	Land use focus group.
February 5-6, 2013	General public	Sabina representatives participated in NIRB's scoping meetings for the Project and were available to the public for questions and information sharing.
February 5, 2013	Cambridge Bay Community Advisory Group	Project update.
April 23, 2013	General public	Public meeting - Project overview/update.
April 23, 2013	Cambridge Bay HTO	Project overview/update.
August 20, 2013	General public	Sabina provided an overview of the Back River Project and its traditional knowledge study.
August 20, 2013	General public	The Kitikmeot Inuit Association provided an overview of the Naonaiyaotit Traditional Knowledge Project (NTKP) report completed for the Back River Project and additional traditional knowledge workshops being conducted.
August 21, 2013	Cambridge Bay Community Advisory Group	Project update and review of Inuinnaqtun terminology for traditional seasons.
August 21-23, 2013	Selected elders and knowledge holders	A series of traditional knowledge workshops were held with selected elders and local knowledge holders for Sabina's traditional knowledge study. These workshops focused on the topics of 'heritage and land use', 'terrestrial environment' and 'marine environment'.
November 19, 2013	General public	Public meeting - Project overview/update & DEIS submission overview.
November 19, 2013	Cambridge Bay Community Advisory Group	Project update.
November 19, 2013	Cambridge Bay high school students	Project overview and discussion of future employment opportunities.
November 19, 2013	General public	Radio update.
January 23, 2014	General public	Career fair participation.
February 2014	Kitikmeot Heritage Society	Letter – Update on January 2014 DEIS submission to NIRB and NWB. DEIS Plain Language Summary included.
February 2014	Cambridge Bay Community Advisory Group	Letter – Update on January 2014 DEIS submission to NIRB and NWB. DEIS Plain Language Summary included.

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Date	Individual(s) / Organization	Type of Activity
February 2014	Hamlet of Cambridge Bay	Letter – Update on January 2014 DEIS submission to NIRB and NWB. DEIS Plain Language Summary included.
February 2014	Cambridge Bay HTO	Letter – Update on January 2014 DEIS submission to NIRB and NWB. DEIS Plain Language Summary included.
March 25, 2014	General public	NIRB held community information sessions for the Project's DEIS and were available to the public for questions and information sharing. Note – Sabina representatives were unable to attend due to flight cancellations.
March 28, 2014	Cambridge Bay Community Advisory Group	Project update.
April 27, 2014	General public	Radio update / call-in radio show.
April 28, 2014	Jim McEchrean, Economic Development Officer, Hamlet of Cambridge Bay	Project update.
April 28, 2014	Brendan Griebel, Executive Director, Kitikmeot Heritage Society	Introductions and Project update/overview.
April 28, 2014	General public	Radio update / call-in radio show.
June 7-10, 2014	Selected elders and knowledge holders	A series of traditional knowledge interviews were held with selected elders and local knowledge holders as a component of proposed fish offsetting activities in the Bernard Harbour, Nunavut area.
July 14-15, 2014	Cambridge Bay Community Advisory Group	Sabina hosted the Cambridge Bay and Kugluktuk Community Advisory Groups at the Back River Project site on July 14-15. Site tours were provided and Project information was shared.
October 28,2014	Hamlet of Cambridge Bay	Project update.
November 20, 2014	Cambridge Bay Community Readiness Initiative Committee	Sabina met with Cambridge Bay's Community Readiness Initiative Committee.
December 18, 2014	Cambridge Bay Community Readiness Initiative Committee	Sabina met with Cambridge Bay's Community Readiness Initiative Committee.
February 5, 2015	Cambridge Bay high school students	Project overview and discussion of future employment opportunities.
February 9, 2015	Kitikmeot Heritage Society representatives	Project update and discussion of potential future donations.
February 9, 2015	Gordon Bligh, Arctic College	Project update and discussion of mine-related training/education.
March 10, 2015	Cambridge Bay Community Readiness Initiative Committee	Sabina met with Cambridge Bay's Community Readiness Initiative Committee.

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Date	Individual(s) / Organization	Type of Activity
April 7, 2015	Cambridge Bay Community Readiness Initiative Committee	Sabina met with Cambridge Bay's Community Readiness Initiative Committee.
May 10, 2015	Cambridge Bay Community Readiness Initiative Committee	Sabina met with Cambridge Bay's Community Readiness Initiative Committee.
June 15, 2015	Cambridge Bay Community Advisory Group	Project update and FEIS submission overview.
June 16, 2015	Hamlet of Cambridge Bay Representatives	Project update and FEIS submission overview.
June 16, 2015	General public	Public meeting – Project update and FEIS submission overview.
October 7, 2015 *(*planned to occur)*	*Cambridge Bay HTO*	*Project update and FEIS submission overview.*
Fall 2015/Winter 2016 *(*planned to occur)*	*Hamlet of Cambridge Bay*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Fall 2015/Winter 2016 *(*planned to occur)*	*Cambridge Bay HTO*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Fall 2015/Winter 2016 *(*planned to occur)*	*Cambridge Bay Community Advisory Group*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Kugluktuk		
April 11, 2012	Barbara Adjun HTO Manager	Letter / invitation to nominate representative to the Kugluktuk Community Advisory Group.
April 26, 2013	Donald LeBlanc, Senior Administrative Officer Hamlet of Kugluktuk	Letter / invitation to nominate representative to the Kugluktuk Community Advisory Group.
June 12, 2012	Kugluktuk HTO	Project introduction.
June 12, 2012	General public	Public meeting - Project overview.
June 13, 2012	Donald LeBlanc, Senior Administrative Officer Hamlet of Kugluktuk	Project introduction.
June 13, 2012	Kugluktuk Community Advisory Group	Project introduction.
September 11-12, 2012	Kugluktuk Community Advisory Group	Sabina hosted a dinner and meeting for the Kugluktuk and Cambridge Bay Community Advisory Groups (CAGs) in Cambridge Bay on September 11, 2012. The CAGs also visited the Back River Project site on September 12, 2012.

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Date	Individual(s) / Organization	Type of Activity
October 1-3, 2012	Interviews conducted with a number of individuals representing a variety of interests in the community including: government administration; health, wellness and social services; safety and protection services; business and economic development; and education and training	Socio-economic baseline data collection; documentation of expected Project benefits, Project concerns, and suggested mitigation measures.
November 21, 2012	High school students and staff	Mining and geology presentation.
November 21, 2012	General public	Public meeting - Project overview/update.
November 21, 2012	Kugluktuk Community Advisory Group	Project update.
November 27, 2012	Local hunters from Kugluktuk	Land use focus group.
February 7-8, 2013	General public	Sabina representatives participated in NIRB's scoping meetings for the Project and were available to the public for questions and information sharing.
February 8, 2013	Kugluktuk Community Advisory Group	Project update.
April 22, 2013	General public	Public meeting - Project overview/update.
April 22, 2013	Kugluktuk Community Advisory Group	Project update.
August 12, 2013	General public	Sabina provided an overview of the Back River Project and its traditional knowledge study.
August 13, 2013	General public	The Kitikmeot Inuit Association provided an overview of the Naonaiyaotit Traditional Knowledge Project (NTKP) report completed for the Back River Project and additional traditional knowledge workshops being conducted.
August 14-16, 2013	Selected elders and knowledge holders	A series of traditional knowledge workshops were held with selected elders and local knowledge holders for Sabina's traditional knowledge study. These workshops focused on the topics of 'heritage and land use', 'terrestrial environment' and 'marine environment'.
November 18, 2013	General public	Public meeting - Project overview/update & DEIS submission overview.
November 18, 2013	Kugluktuk Hamlet Council	Project update.
November 18, 2013	Kugluktuk Community Advisory Group	Project update.
November 18, 2013	Kugluktuk high school students	Project overview and discussion of future employment opportunities.
January 24, 2014	General public	Career fair participation.

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Date	Individual(s) / Organization	Type of Activity
February 12, 2014	Donald LeBlanc, Senior Administrative Officer Hamlet of Kugluktuk	Letter / invitation to nominate representative to the Kugluktuk Community Advisory Group.
February 2014	Kugluktuk Community Advisory Group	Letter – Update on January 2014 DEIS submission to NIRB and NWB. DEIS Plain Language Summary included.
February 2014	Hamlet of Kugluktuk	Letter – Update on January 2014 DEIS submission to NIRB and NWB. DEIS Plain Language Summary included.
February 2014	Kugluktuk HTO	Letter – Update on January 2014 DEIS submission to NIRB and NWB. DEIS Plain Language Summary included.
March 19, 2014	David Nivingalok (Chairperson) and Kevin Klengenberg (Secretary-Treasurer), Kugluktuk HTO	Teleconference to discuss proposed fish offsetting work to be conducted at Bernard Harbour.
March 24, 2014	General public	Sabina representatives participated in NIRB's community information sessions for the Project's DEIS and were available to the public for questions and information sharing.
March 24, 2014	Kugluktuk Community Advisory Group	Project update.
March 25, 2014	Kugluktuk HTO	Meeting to discuss proposed fish offsetting work to be conducted at Bernard Harbour and the associated TK study.
April 29, 2014	Kugluktuk HTO	Meeting to discuss Kugluktuk HTO-Sabina Bernard Harbour Restoration Project Agreement.
April 30, 2014	Kugluktuk Community Readiness Initiative Committee	Sabina met with Kugluktuk's Community Readiness Initiative Committee in Kugluktuk to discuss the plans and goals of the committee and how Sabina might contribute.
April 30, 2014	Donald LeBlanc, SAO, Hamlet of Kugluktuk	Project update.
May 2, 2014	Kugluktuk Community Readiness Initiative Committee	Sabina met with Kugluktuk's Community Readiness Initiative Committee in Yellowknife to discuss the plans and goals of the committee and how Sabina might contribute.
June 1-6, 2014	Selected elders and knowledge holders	A series of traditional knowledge interviews were held with selected elders and local knowledge holders as a component of proposed fish offsetting activities in the Bernard Harbour, Nunavut area. A project overview meeting/presentation was also held with local study participants prior to the interviews commencing.

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Date	Individual(s) / Organization	Type of Activity
July 13, 2014	Bernard Harbour TK study participants, HTO chairperson, and acting HTO manager	A TK study results verification meeting was held with participants in the Bernard Harbour TK study and with the Kugluktuk HTO chairperson and acting manager. Various clarifications were made by the participants, which were later incorporated into the final TK study report.
July 14-15, 2014	Kugluktuk Community Advisory Group	Sabina hosted the Cambridge Bay and Kugluktuk Community Advisory Groups at the Back River Project site on July 14-15. Site tours were provided and Project information was shared.
July 17, 2014	Kugluktuk HTO chairperson	The chairperson of the Kugluktuk HTO accompanied Sabina representatives and various other attendees during a day-long site visit to the Bernard Harbour stream restoration project.
February 12, 2015	Kugluktuk Community Advisory Group	Sabina provided a Project update and administered a country food consumption questionnaire.
February 12, 2015	Kugluktuk HTO representatives	Sabina met with the Kugluktuk HTO chairperson, treasurer, and manager to provide an update on the Bernard Harbour restoration project and Bernard Harbour TK study.
February 17, 2015	Kugluktuk HTO	Letter and copy of the draft 'Traditional Knowledge Study Report on the Arctic Char Fishery in the Nulahugyuk Creek – Hingittok Lake Area (Bernard Harbour), Nunavut' provided to the HTO.
April 21, 2015	Kugluktuk HTO	Final copy of the 'Traditional Knowledge Study Report on the Arctic Char Fishery in the Nulahugyuk Creek – Hingittok Lake Area (Bernard Harbour), Nunavut' provided to the HTO.
May 8, 2015	Barbara Adjun, Kugluktuk HTO Manager	Phone update on the Bernard Harbour restoration project.
May 21, 2015	David Nivingalok, Kugluktuk HTO Chairperson	Phone update on the Bernard Harbour restoration project.
May 27, 2015	Hamlet of Kugluktuk	Sabina participated (via teleconference) in a multi-stakeholder information session hosted on Kugluktuk's Community Readiness Initiative where feedback was sought on the draft Kugluktuk Community Readiness Report.
June 17, 2015	General public	Public meeting – Project update and FEIS submission overview. The results of the Bernard Harbour TK study and plans for the Bernard Harbour restoration project were also reviewed.
June 18, 2015	Kugluktuk Community Advisory Group	Project update and FEIS submission overview.

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Date	Individual(s) / Organization	Type of Activity
June 18, 2015	Kugluktuk HTO	Project update and FEIS submission overview. The results of the Bernard Harbour TK study and plans for the Bernard Harbour restoration project were also reviewed.
June 19, 2015	Hamlet of Kugluktuk	Project update and FEIS submission overview.
July 8, 2015	David Nivingalok, Kugluktuk HTO Chairperson	Letter providing information on the 2015 Bernard Harbour work proposal.
*Fall 2015/Winter 2016** *(*planned to occur)*	*Hamlet of Kugluktuk*	*Delivery of letter and digital version of Sabina's FEIS submission.*
*Fall 2015/Winter 2016** *(*planned to occur)*	*Kugluktuk HTO*	*Delivery of letter and digital version of Sabina's FEIS submission.*
*Fall 2015/Winter 2016** *(*planned to occur)*	*Kugluktuk Community Advisory Group*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Kingaok and Omingmaktok		
April 5, 2012	Sam Kapolak, Chairperson Bathurst Inlet HTO	Letter / invitation to nominate representative to the Cambridge Bay Community Advisory Group.
April 5, 2012	Peter Kapolak, Chairperson Omingmaktok HTO	Letter / invitation to nominate representative to the Cambridge Bay Community Advisory Group.
November 18, 2012	Various residents of Kingaok and Omingmaktok	Sabina hosted a Project information meeting in Cambridge Bay specifically for residents of Kingaok and Omingmaktok.
November 30 - December 1, 2012	Local hunters from the Bathurst Inlet area	Land use focus group.
Fall 2012	Interviews conducted with selected individuals from the Bathurst Inlet area for Sabina's socio-economic study	Socio-economic baseline data collection; documentation of expected Project benefits, Project concerns, and suggested mitigation measures.
January 1, 2013	Boyd Warner President, Bathurst Inlet Lodge	Project discussion (via phone).
August 14-16, 2013 (in Kugluktuk) August 21-23 (in Cambridge Bay)	Selected elders and knowledge holders from or familiar with the Bathurst Inlet area	A series of traditional knowledge workshops were held with selected elders and local knowledge holders for Sabina's traditional knowledge study. These workshops focused on the topics of 'heritage and land use', 'terrestrial environment' and 'marine environment'.
November 19, 2013	Various residents of Kingaok and Omingmaktok	Project update in Cambridge Bay specifically for residents of Kingaok and Omingmaktok and the Cambridge Bay community advisory group.
February 2014	Omingmaktok HTO	Letter – Update on January 2014 DEIS submission to NIRB and NWB. DEIS Plain Language Summary included.

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Date	Individual(s) / Organization	Type of Activity
September 24, 2014	Residents of Kingaok and Omingmaktok	Letter / invitation to attend October 28, 2014 dinner and meeting on the Back River Project in Cambridge Bay, specifically for residents of Kingaok and Omingmaktok.
October 28, 2014	Residents of Kingaok and Omingmaktok	Dinner and meeting on the Back River Project in Cambridge Bay, specifically for residents of Kingaok and Omingmaktok.
January 21, 2015	Residents of Kingaok and Omingmaktok	Letter / invitation to attend February 8, 2015 dinner and meeting on the Back River Project in Cambridge Bay, specifically for residents of Kingaok and Omingmaktok.
May 21, 2015	Residents of Kingaok and Omingmaktok	Letter / invitation to attend June 15, 2015 dinner and meeting on the Back River Project in Cambridge Bay, specifically for residents of Kingaok and Omingmaktok.
June 15, 2015	Residents of Kingaok and Omingmaktok	Dinner and meeting on the Back River Project (re: Project update and FEIS submission overview) in Cambridge Bay, specifically for residents of Kingaok and Omingmaktok.
Fall 2015/Winter 2016 (*planned to occur)*	*Kingaok HTO*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Fall 2015/Winter 2016 (*planned to occur)*	*Omingmaktok HTO*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Gjoa Haven		
June 20, 2012	Hamlet Council members and staff	Project introduction.
June 20, 2012	General public	Public meeting - Project overview.
September 17-19, 2012	Interviews conducted with a number of individuals representing a variety of interests in the community including: government administration; health, wellness and social services; business and economic development; and education and training	Socio-economic baseline data collection; documentation of expected Project benefits, Project concerns, and suggested mitigation measures.
February 12, 2013	General public	Sabina representatives participated in NIRB's scoping meeting for the Project and were available to the public for questions and information sharing.
February 13, 2013	General public	Radio Show - Project update and notice of upcoming Actua educational program for Kitikmeot youth.
April 24, 2013	General public	Public meeting - Project overview/update.
April 24, 2013	Gjoa Haven HTO	Project overview/update.
April 24, 2013	General public	Radio Show - Project update.

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Date	Individual(s) / Organization	Type of Activity
November 20, 2013	General public	Public meeting - Project overview/update & DEIS submission overview.
November 20, 2013	Gjoa Haven HTO	Project update.
November 20, 2013	Hamlet of Gjoa Haven representatives	Project update.
November 20, 2013	Gjoa Haven high school students	Project overview and discussion of future employment opportunities.
November 20, 2013	General public	Radio update.
January 21, 2014	General public	Career fair participation.
February 2014	Hamlet of Gjoa Haven	Letter – Update on January 2014 DEIS submission to NIRB and NWB. DEIS Plain Language Summary included.
February 2014	Gjoa Haven HTO	Letter – Update on January 2014 DEIS submission to NIRB and NWB. DEIS Plain Language Summary included.
March 26, 2014	General public	NIRB held community information sessions for the Project's DEIS and were available to the public for questions and information sharing. Note – Sabina representatives were unable to attend due to flight cancellations.
*October 6, 2015** *(*planned to occur)*	*General public*	*Project update and FEIS submission overview.*
*Fall 2015/Winter 2016** *(*planned to occur)*	*Hamlet of Gjoa Haven*	*Delivery of letter and digital version of Sabina's FEIS submission.*
*Fall 2015/Winter 2016** *(*planned to occur)*	*Gjoa Haven HTO*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Taloyoak		
June 19, 2012	General public	Public meeting - Project overview.
June 19, 2012	Taloyoak HTO	Project overview.
June 19, 2012	Tommy Aiyout, Mayor of Taloyoak David Irqquit, Assistant SAO Hamlet of Taloyoak	Project overview.
September 25-26, 2012	Interviews conducted with a number of individuals representing a variety of interests in the community including: government administration; health, wellness and social services; safety and protection services; business and economic development; and education and training	Socio-economic baseline data collection; documentation of expected Project benefits, Project concerns, and suggested mitigation measures.

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Date	Individual(s) / Organization	Type of Activity
February 13, 2013	General public	Sabina representatives participated in NIRB's scoping meeting for the Project and were available to the public for questions and information sharing.
February 14, 2013	General public	Radio Show - Project update and notice of upcoming Actua educational program for Kitikmeot youth.
April 25, 2013	General public	Public meeting - Project overview/update.
April 25, 2013	General public	Radio Show - Project update.
November 21, 2013	General public	Public meeting - Project overview/update & DEIS submission overview.
November 21, 2013	Taloyoak HTO	Project update.
November 21, 2013	Taloyoak Hamlet Council	Project update.
November 21, 2013	Taloyoak high school students	Project overview and discussion of future employment opportunities.
November 21, 2013	General public	Radio update.
January 20, 2014	General public	Career fair participation.
February 2014	Hamlet of Taloyoak	Letter – Update on January 2014 DEIS submission to NIRB and NWB. DEIS Plain Language Summary included.
February 2014	Taloyoak HTO	Letter – Update on January 2014 DEIS submission to NIRB and NWB. DEIS Plain Language Summary included.
March 28, 2014	General public	NIRB held community information sessions for the Project's DEIS and were available to the public for questions and information sharing. Note – Sabina representatives were unable to attend due to flight cancellations.
June 17, 2015	General public	Public meeting – Project update and FEIS submission overview.
June 17, 2015	Hamlet of Taloyoak	Project update and FEIS submission overview.
Fall 2015/Winter 2016 (*planned to occur)*	*Hamlet of Taloyoak*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Fall 2015/Winter 2016 (*planned to occur)*	*Taloyoak HTO*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Kugaaruk		
June 18, 2012	General public	Public meeting - Project overview.

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Date	Individual(s) / Organization	Type of Activity
September 20-21, 2012	Interviews conducted with a number of individuals representing a variety of interests in the community including: government administration; health, wellness and social services; safety and protection services; business and economic development; and education and training	Socio-economic baseline data collection; documentation of expected Project benefits, Project concerns, and suggested mitigation measures.
February 11, 2013	General public	Sabina representatives participated in NIRB's scoping meeting for the Project and were available to the public for questions and information sharing.
February 11, 2013	General public	Radio Show - Project update and notice of upcoming Actua educational program for Kitikmeot youth.
April 26, 2013	General public	Public meeting - Project overview/update.
April 26, 2013	General public	Radio Show - Project update.
April 26, 2013	Kugaaruk Hamlet Council	Project overview/update.
November 22, 2013	General public	Public meeting - Project overview/update & DEIS submission overview.
November 22, 2013	Kugaaruk Hamlet Council	Project update.
November 22, 2013	Kugaaruk high school students	Project overview and discussion of future employment opportunities.
November 22, 2013	General public	Radio update.
January 22, 2014	General public	Career fair participation.
February 2014	Hamlet of Kugaaruk	Letter – Update on January 2014 DEIS submission to NIRB and NWB. DEIS Plain Language Summary included.
February 2014	Kugaaruk HTO	Letter – Update on January 2014 DEIS submission to NIRB and NWB. DEIS Plain Language Summary included.
March 27, 2014	General public	NIRB held community information sessions for the Project's DEIS and were available to the public for questions and information sharing. Note – Sabina representatives were unable to attend due to flight cancellations.
June 16, 2015	General public	Public meeting – Project update and FEIS submission overview.
Fall 2015/Winter 2016 (*planned to occur)*	*Hamlet of Kugaaruk*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Fall 2015/Winter 2016 (*planned to occur)*	*Kugaaruk HTO*	*Delivery of letter and digital version of Sabina's FEIS submission.*

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Date	Individual(s) / Organization	Type of Activity
Yellowknife / Other Locations in the Northwest Territories		
November 15, 2012	Yellowknives Dene First Nation representatives	Project overview.
November 16, 2012	General public	Public meeting – Project overview.
February 20, 2013	General public	Sabina representatives participated in NIRB's scoping meeting for the Project and were available to the public for questions and information sharing.
November 12, 2013	Tlicho Government / Kwe Beh Working Group representatives	Project overview.
November 13, 2013	Deninu K'ue First Nation representatives	Project overview.
November 13, 2013	General public	Public meeting - Project overview/update.
November 14, 2013	Yellowknives Dene First Nation representative (T. Slack)	Project update.
November 15, 2013	North Slave Métis Alliance representatives	Project overview.
January 24, 2013	Yellowknives Dene First Nation (Attn: Todd Slack)	Delivery of two USB memory sticks with full digital versions of Sabina's DEIS submission included on each.
January 24, 2013	Tlicho Government / Kwe Beh Working Group (Attn: Henry Zoe and Sonny Zoe)	Delivery of two USB memory sticks with full digital versions of Sabina's DEIS submission included on each.
January 24, 2013	North Slave Métis Alliance (Attn: Eric Binion)	Delivery of two USB memory sticks with full digital versions of Sabina's DEIS submission included on each.
January 24, 2013	Deninu K'ue First Nation (Attn: Chief Louis Balsillie and Stephen Cuthbert)	Delivery of two USB memory sticks with full digital versions of Sabina's DEIS submission included on each.
April 1, 2014	General public	Sabina representatives participated in NIRB's community information sessions for the Project's DEIS and were available to the public for questions and information sharing.
May 8, 2014	Yellowknives Dene First Nation	Email update re: DEIS / NIRB regulatory process.
May 8, 2014	Tlicho Government / Kwe Beh Working Group	Email update re: DEIS / NIRB regulatory process.
May 8, 2014	North Slave Métis Alliance	Email update re: DEIS / NIRB regulatory process.
May 8, 2014	Lutsel K'e Dene First Nation	Email update re: DEIS / NIRB regulatory process.
May 8, 2014	Deninu K'ue First Nation	Email update re: DEIS / NIRB regulatory process.
May 8, 2014	Dene Nation	Email update re: DEIS / NIRB regulatory process.
July 24, 2014	Yellowknives Dene First Nation	Email update re: Sabina's DEIS IR responses.
July 24, 2014	Tlicho Government / Kwe Beh Working Group	Email update re: Sabina's DEIS IR responses.
July 24, 2014	North Slave Métis Alliance	Email update re: Sabina's DEIS IR responses.
July 24, 2014	Lutsel K'e Dene First Nation	Email update re: Sabina's DEIS IR responses.

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Date	Individual(s) / Organization	Type of Activity
July 24, 2014	Deninu K'ue First Nation	Email update re: Sabina's DEIS IR responses.
July 24, 2014	Dene Nation	Email update re: Sabina's DEIS IR responses.
July 25, 2014	North Slave Métis Alliance representative (Matt Hoover)	Phone call to discuss Sabina's DEIS Information Request responses and future regulatory timelines/requirements.
May 28, 2015	Yellowknives Dene First Nation	Emailed letter and notice of June 15, 2015 public meeting in Yellowknife.
May 28, 2015	Tlicho Government	Emailed letter and notice of June 15, 2015 public meeting in Yellowknife.
May 28, 2015	Deninu Kue First Nation	Emailed letter and notice of June 15, 2015 public meeting in Yellowknife.
May 28, 2015	North Slave Métis Alliance	Emailed letter and notice of June 15, 2015 public meeting in Yellowknife.
May 28, 2015	Lutsel K'e Dene First Nation	Emailed letter and notice of June 15, 2015 public meeting in Yellowknife.
June 15, 2015	General public	Public meeting - Project update and FEIS submission overview.
Fall 2015/Winter 2016 (*planned to occur)*	*Yellowknives Dene First Nation*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Fall 2015/Winter 2016 (*planned to occur)*	*Tlicho Government / Kwe Beh Working Group*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Fall 2015/Winter 2016 (*planned to occur)*	*North Slave Métis Alliance*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Fall 2015/Winter 2016 (*planned to occur)*	*Lutsel K'e Dene First Nation*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Fall 2015/Winter 2016 (*planned to occur)*	*Deninu K'ue First Nation*	*Delivery of letter and digital version of Sabina's FEIS submission.*
Fall 2015/Winter 2016 (*planned to occur)*	*Yellowknives Dene First Nation*	*Project / FEIS update meeting.*
Fall 2015/Winter 2016 (*planned to occur)*	*Tlicho Government / Kwe Beh Working Group*	*Project / FEIS update meeting.*
Fall 2015/Winter 2016 (*planned to occur)*	*North Slave Métis Alliance*	*Project / FEIS update meeting.*
Fall 2015/Winter 2016 (*planned to occur)*	*Lutsel K'e Dene First Nation*	*Project / FEIS update meeting.*

Appendix V3-1A. Record of Meetings and Major Correspondence with Community and Stakeholder Groups

Date	Individual(s) / Organization	Type of Activity
Other		
February 13-15, 2012	Various community, government, and industry stakeholders participated	Sabina participated in the Kitikmeot Trade Show in Cambridge Bay.
March 28, 2012	Various community, government, and industry stakeholders participated	Sabina participated in the Kitikmeot Socio-Economic Monitoring Committee meeting in Cambridge Bay.
April 16-19, 2012	Various community, government, and industry stakeholders participated	Sabina participated in the Nunavut Mining Symposium in Iqaluit.
September 25-27, 2012	Various community, government, and industry stakeholders participated	Sabina participated in the Nunavut Trade Show in Iqaluit.
October 30-31, 2012	Various community, government, and industry stakeholders participated	Sabina participated in the Kitikmeot Stakeholders Meeting in Cambridge Bay to discuss training and labour market needs in the Kitikmeot Region.
November 13-15, 2012	Various community, government, and industry stakeholders participated	Sabina participated in the Yellowknife Geoscience Forum.
March 30, 2013	Various community, government, industry, and other stakeholders	Sabina issued the winter 2013 edition of its Project newsletter 'Back River News' via email and at various locations in the Kitikmeot communities.
February 11-13, 2013	Various community, government, and industry stakeholders participated	Sabina participated in the Kitikmeot Trade Show in Cambridge Bay.
April 8-11, 2013	Various community, government, and industry stakeholders participated	Sabina participated in the Nunavut Mining Symposium in Iqaluit.
June 28, 2013	Various community, government, industry, and other stakeholders	Sabina issued the summer 2013 edition of its Project newsletter 'Back River News' via email and at various locations in the Kitikmeot communities.
September 12, 2013	Various community, government, and industry stakeholders participated	Sabina participated in a meeting on Community Readiness in the Kitikmeot Region, hosted by the Kitikmeot Inuit Association and Canadian Northern Economic Development Agency, in Cambridge Bay.
September 24-26, 2013	Various community, government, and industry stakeholders participated	Sabina participated in the Nunavut Trade Show in Iqaluit.
October 9, 2013	Various community, government, industry, and other stakeholders	Sabina provided an email update on the results of its pre-feasibility study for the Back River Project.
October 18, 2013	Various community, government, and industry stakeholders participated	Sabina participated (via teleconference) in the Kitikmeot Stakeholders Working Group meeting in Cambridge Bay to discuss training and employment activities and opportunities in the Kitikmeot Region.

Appendix V3-1A. Record of Meetings and Major Correspondence with Community and Stakeholder Groups

Date	Individual(s) / Organization	Type of Activity
November 15, 2013	Various community, government, industry, and other stakeholders	Sabina issued the fall 2013 edition of its Project newsletter 'Back River News' via email and at various locations in the Kitikmeot communities.
November 19-21, 2013	Various community, government, and industry stakeholders participated	Sabina participated in the Yellowknife Geoscience Forum.
November 20-21, 2013	Various community, government, and industry stakeholders participated	Sabina participated in the Kitikmeot Socio-Economic Monitoring Committee meeting in Cambridge Bay.
December 3, 2013	Various community, government, and industry stakeholders participated	Sabina participated (via teleconference) in the Kitikmeot Stakeholders Working Group meeting in Cambridge Bay to discuss training and employment activities and opportunities in the Kitikmeot Region.
January 22, 2014	Various community, government, industry, and other stakeholders	Sabina issued the spring 2014 edition of its Project newsletter 'Back River News' via email and at various locations in the Kitikmeot communities.
February 10-12, 2014	Various community, government, and industry stakeholders participated	Sabina participated in the Kitikmeot Trade Show in Cambridge Bay.
February 12, 2014	Various community, government, industry, and other stakeholders	Sabina provided an email update on the DEIS conformity decision it received for the Back River Project.
February 18, 2014	Various community, government, and industry stakeholders participated	Sabina participated (via teleconference) in the Kitikmeot Stakeholders Working Group meeting in Cambridge Bay to discuss training and employment activities and opportunities in the Kitikmeot Region.
March 4, 2014	Various community, government, industry, and other stakeholders	Sabina provided an email update on the updated mineral resource estimate it produced for the Back River Project.
April 7-10, 2014	Various community, government, and industry stakeholders participated	Sabina participated in the Nunavut Mining Symposium in Iqaluit.
April 28, 2014	Various community, government, industry, and other stakeholders	Sabina provided an email update on recent agreements signed between Sabina and the KIA for the Back River Project.
June 5, 2014	Various community, government, and industry stakeholders participated	Sabina participated (via teleconference) in the Kitikmeot Stakeholders Working Group meeting in Cambridge Bay to discuss training and employment activities and opportunities in the Kitikmeot Region.
October 7-9, 2014	Various community, government, and industry stakeholders participated	Sabina participated in the Nunavut Trade Show in Iqaluit.

Appendix V3-1A. Record of Meetings and Major Correspondence with Community and Stakeholder Groups

Date	Individual(s) / Organization	Type of Activity
October 22, 2014	Various community, government, and industry stakeholders participated	Sabina participated (via teleconference) in the Kitikmeot Stakeholders Working Group meeting in Cambridge Bay to discuss training and employment activities and opportunities in the Kitikmeot Region.
November 13-19, 2014	Various community and government stakeholders participated	Sabina participated in the Nunavut Impact Review Board's Technical Meeting and Pre-Hearing Conference for the Back River Project in Cambridge Bay.
November 25-27, 2014	Various community, government, and industry stakeholders participated	Sabina participated in the Yellowknife Geoscience Forum.
January 13, 2015	Various community, government, industry, and other stakeholders	Email update to Sabina email distribution list re: environmental assessment progress and anticipated FEIS submission.
January 27, 2015	Various community, government, industry, and other stakeholders	Sabina issued the winter 2015 edition of its Project newsletter 'Back River News' via email and at various locations in the Kitikmeot communities.
February 4, 2015	Various government and KIA representatives participated	Sabina participated in a meeting in Cambridge Bay to establish a Terms of Reference for the Back River Socio-Economic Monitoring Committee Working Group.
February 9-11, 2015	Various community, government, and industry stakeholders participated	Sabina participated in the Kitikmeot Trade Show in Cambridge Bay.
April 13-16, 2015	Various community, government, and industry stakeholders participated	Sabina participated in the Nunavut Mining Symposium in Iqaluit.
April 21-23, 2015	Various community, government, and industry stakeholders participated	Sabina participated in the Kitikmeot Mayors' Conference in Cambridge Bay.

Appendix V3-1B

Record of Attempted Meetings with Community and Stakeholder Groups

Sabina
GOLD & SILVER CORP.

Appendix V3-1B. Record of Attempted Meetings with Community and Stakeholder Groups

Attempted Meetings			
Date	**Community**	**Individual(s) / Organization**	**Details**
June 2012	Kugaaruk	Kugaaruk Hamlet Council	Invitations for in-person meeting on June 18 made in May and June 2012; Hamlet Council informed Sabina they were unavailable.
June 2012	Kugaaruk	Kugaaruk HTO	Invitations for in-person meeting on June 18 made in May and June 2012; HTO informed Sabina they were unavailable.
June 2012	Gjoa Haven	Gjoa Haven HTO	Invitations for in-person meeting on June 20 made in May and June 2012; HTO informed Sabina they were unavailable.
June 2012	Taloyoak	Taloyoak Hamlet Council	Invitations for in-person meeting on June 19 made in May and June 2012; Hamlet Council informed Sabina they were unavailable.
August 2012	Kingaok	General public	Sabina attempted to organize an August 2012 public meeting in Kingaok in June/July 2012. Sabina was informed by local residents that the proposed time period was unworkable as community members would not be present.
August 2012	Omingmaktok	General public	Sabina attempted to organize an August 2012 public meeting in Omingmaktok in June/July 2012. Sabina was informed by local residents that the proposed time period was unworkable as community members would not be present.
April 23, 2013	Cambridge Bay	Cambridge Bay CAG	Only one CAG representative was available so the meeting was cancelled. Other CAG members were out of town or otherwise did not show up for the meeting.
April 26, 2013	Kugaaruk	Kugaaruk HTO	A meeting with the Kugaaruk HTO was arranged prior to Sabina's arrival in the community, but Sabina was informed the day of the meeting that HTO members were no longer available to meet.
August 2013	Omingmaktok	General public	Sabina attempted to organize a visit to Omingmaktok in August 2013 and host a public meeting to discuss the Project, but was informed that no community members would be present during the proposed time period.
August 2013	Kingaok	General public	Sabina attempted to organize a visit to Kingaok in August 2013 and host a public meeting to discuss the Project, but was informed that no community members would be present during the proposed time period.
November 2013	Lutsel K'e	Lutsel K'e Dene First Nation	Sabina attempted to organize a visit to Lutsel K'e to meet with the Lutsel K'e Dene First Nation leadership, but was informed a meeting could not occur. However, Sabina shared Project information and a copy of its community presentation with LKDFN representatives.
November 2013	N/A	Dene Nation	Sabina attempted to organize a meeting with Dene Nation representatives in Yellowknife, but a mutually appropriate time was not able to be identified during the week Sabina was in Yellowknife.

Appendix V3-1B. Record of Attempted Meetings with Community and Stakeholder Groups

Attempted Meetings			
Date	**Community**	**Individual(s) / Organization**	**Details**
November 2013	Kugluktuk	Kugluktuk HTO	A meeting with the Kugluktuk HTO was arranged prior to Sabina's arrival in the community, but Sabina was informed the day of the meeting that HTO members were no longer available to meet.
November 2013	Cambridge Bay	Cambridge Bay HTO	A meeting with the Cambridge Bay HTO was arranged prior to Sabina's arrival in the community, but Sabina was informed the day before the meeting that HTO members were no longer available to meet.
November 2013	Cambridge Bay	Cambridge Bay Hamlet Council	A meeting with the Cambridge Bay Hamlet Council was arranged prior to Sabina's arrival in the community, but Sabina was informed the day before the meeting that Hamlet council members were no longer available to meet.
November 2013	Kugaaruk	Kugaaruk HTO	A meeting with the Kugaaruk HTO was arranged prior to Sabina's arrival in the community, but Sabina was informed the day of the meeting that HTO members were no longer available to meet.
March 25, 2014	Cambridge Bay	General public	Sabina representatives attempted to participate in NIRB's community information sessions for the Project's DEIS, but were prevented from doing so due to flight cancellations.
March 26, 2014	Gjoa Haven	General public	Sabina representatives attempted to participate in NIRB's community information sessions for the Project's DEIS, but were prevented from doing so due to flight cancellations.
March 27, 2014	Kugaaruk	General public	Sabina representatives attempted to participate in NIRB's community information sessions for the Project's DEIS, but were prevented from doing so due to flight cancellations.
March 28, 2014	Taloyoak	General public	Sabina representatives attempted to participate in NIRB's community information sessions for the Project's DEIS, but were prevented from doing so due to flight cancellations.
July 2014	Kingaok	General public	Sabina attempted to organize a visit to Kingaok in July 2014 and host a public meeting to discuss the Project, but was informed that no community members would be present during the proposed time period.
October 7-9, 2014	Cambridge Bay	Kitikmeot Mayors' Conference - Various community, government, and industry stakeholders	Sabina was scheduled to attend and present at the 2014 Kitikmeot Mayors' Conference in Cambridge Bay but the conference was cancelled due to weather.
February 8, 2015	Cambridge Bay	Residents of Kingaok and Omingmaktok	A meeting with residents of Kingaok and Omingmaktok was cancelled due to the death of an elder in the community.
February 9, 2015	Cambridge Bay	Cambridge Bay Community Advisory Group	A meeting with the Cambridge Bay Community Advisory Group was cancelled due to the death of an elder in the community.

Appendix V3-1B. Record of Attempted Meetings with Community and Stakeholder Groups

Attempted Meetings			
Date	**Community**	**Individual(s) / Organization**	**Details**
June 16, 2015	Kugaaruk	Kugaaruk HTO	A meeting with the Kugaaruk HTO was arranged prior to Sabina's arrival in the community, but Sabina was informed the day of the meeting that the HTO was no longer available to meet.
June 17, 2015	Cambridge Bay	Cambridge Bay HTO	Sabina attempted to organize a meeting with the Cambridge Bay HTO, but a mutually appropriate time was not able to be identified during the period of time Sabina was in Cambridge Bay.
June 18, 2015	Gjoa Haven	Hamlet of Gjoa Haven	Sabina attempted to organize a meeting with the Hamlet of Gjoa Haven, but was informed the Hamlet was too busy with the Franklin ship explorations to meet during the proposed time.
June 18, 2015	Gjoa Haven	Gjoa Haven HTO	Sabina offered to meet with the Gjoa Haven HTO but was informed that a meeting was unable to occur.
June 18, 2015	Gjoa Haven	General public	Sabina and the Hamlet of Gjoa Haven had previously arranged for a public meeting to be held on the Back River Project on June 18, 2015, but was informed the day of the meeting that a meeting space was no longer available as it was being used for Parks Canada-Hamlet of Gjoa Haven meetings on the Franklin ship explorations.

Appendix V3-1C

Community and Stakeholder Group Meeting Minutes and Public Comment Forms

Sabina
GOLD & SILVER CORP.

MEETING INFORMATION	
DATE	June 12, 2012 (3pm)
TYPE OF MEETING	Project Introduction - Kugluktuk HTO
LOCATION	HTO office Kugluktuk, Nunavut
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Angele Kuliktana (Sabina) Jason Prno (Sabina) Barbara Adjun (HTO Manager) Kevin Klengenberg (HTO Board Member) Stanley Carpenter (HTO Board Member) Floyd Kaitak (HTO Member) Joe Otokiak (Interpreter)
COMMENTS	Meeting notes taken by Jason Prno

MEETING NOTES:

Meeting commenced at 3pm

Introductions

MTP provided a Project introduction presentation

Q – Will shipping only take place in the summer?

MTP – Yes. There won't be any icebreaking taking place.

Q – We don't have many questions now, but we'll likely have them next time you visit.

Q – If animals start to travel by the Project, what are your plans to protect them? Will you stop vehicles?

MTP – We want to protect the animals. Most mines will stop their road operations when animals are passing by. We will look into implementing something similar.

Q – Are you going to be using the same type of barge we use here in the community?

MTP – The plan is to use a very similar set-up. We will also look into the possibility of building a temporary dock or jetty structure. We're unsure of our exact plans at this moment.

Q – Will there be winter or all-season roads?

MTP – We're looking at multiple options, but our current plans are for winter roads, with permanent roads in and around Goose and George.

Q – Will you use the winter road from the south, from Yellowknife?

MTP – No we're not looking at using that road. Using the southern ice road is risky, as the road has been melting early.

JP – Is there anything we should know about local employment preferences? What types of shifts do people from Kugluktuk like to work? Is rotational work an issue?

Q – 2 and 2's seem to work.

Q – Rotational work shouldn't be a problem for you.

Q – There are a lot of people in the community who were laid off from Hope Bay and are now looking for work.

Q – People who were laid off will probably be happy to have work.

JP – Are there certain ways you'd prefer us to share information with you in the future?

Q – Quarterly newsletters and face-to-face meetings are useful.

Q – [Comment on sharing infrastructure at Contwoyto; response from MTP unrecorded].

Q – Are you sampling the waste rock? How will the waste rock be managed?

MTP – We're doing geochemistry and ARD/ML studies to look at this. The studies so far seem to indicate there will be some contaminants, mainly small amounts of metals, that come off the waste rock. It is not perfectly clean. Most of the waste rock will be frozen in permafrost. We still need to develop our waste rock management plan. The waste rock will need to be managed.

MEETING INFORMATION	
DATE	June 12, 2012 (7pm)
TYPE OF MEETING	Public Meeting - Kugluktuk
LOCATION	Kugluktuk Community Hall
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Angele Kuliktana (Sabina) Jason Prno (Sabina) Joe Otokiak (Interpreter) Various members of the public (see sign-in sheet)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Meeting commenced at 7:15pm.

Opening prayer by Alice Ayalik.

MTP delivered a Project overview presentation.

Q – Can you describe a bit more about your environmental monitoring programs that are currently in place and will be in place in the future?

MTP – Various baseline studies are currently being completed [describes types of studies being conducted]. In the future, a number of environmental management plans will be prepared. These plans must be prepared for the permitting process. The company, communities, and government of Nunavut are the primary groups which will work together to develop these plans.

Q – You're close to a river. It will be probably be a sensitive area with fish that can be affected.

MTP – We know that minor changes or contamination can have an impact in pristine areas like the Arctic. We want to avoid this. This year we are collecting baseline information to understand the

environmental conditions around the Project. Currently, we incinerate our sewage and treat grey water. We also treat our drill water.

Break and door prize draw.

MTP continued delivering the Project overview presentation.

Q – Our elders and grandparents told us years ago the environment needs to stay clean and we need to look after it. We were told not to put animal bones in the water. We make tea from that water and there are fish in the water. Our grandfathers told us to look after the quality of the water in the lakes. We couldn't leave bits and pieces of caribou meat on the land. If the land became too dirty, the caribou would no longer roam in that area. There are liquids at your mine that could be harmful to the land and wildlife. It's good to hear that you want to keep the environment clean. Our grandparents told us not to even put dead fish into the water, because the live fish would no longer live there. We need to look after our water and make sure it is clean. We can't even leave the skins of animals on the land. The land needs to be kept clean. Our future generations need to have healthy and clean food from the land.

MTP – Mines have to meet a number of regulatory requirements to operate now; it is different than the past. A mine also needs to meet the expectations of many groups like shareholders, government and communities. Please keep sharing your thoughts, comments and concerns with us.

Break and door prize draw.

Q – Gold mining is more toxic than diamond mining. It is a different type of mining.

MTP – Gold mining is certainly different that diamond mining. [Describes gold processing process]. Gold is heavier than water and some gold will be collected after it sinks to the bottom of the water. Other bits of gold need to be removed using flocculants and cyanide. Flocculants bind the gold to other materials and aren't really an environmental concern. Cyanide is an environmental concern. Before the tailings are disposed we will need to go through a cyanide destruction process. Meadowbank and other mines around the world use this same process. This process helps to extract more gold, but it also destroys cyanide. There are guidelines that exist for mining companies to follow when using cyanide, such as the cyanide code. This will not be like old mines in the north, like the Giant Mine.

Q – Why would you even use cyanide? How do you remove it?

MTP – It would be oxidized and heated up.

Q – What do you do with it afterwards?

MTP – We would ship it off site.

Q – What are you going to do with your tailings? Some places oppose tailings disposal.

MTP – We will have to have tailings for this project. There is no way around it. There are different methods for disposing of tailings. Exactly how this will occur will continue to be developed as we advance the Project.

Q – You can use lime to remove the cyanide.

MTP – You're correct, there are processes we can use to remove metals and cyanide. Our water discharges would also have to meet government standards.

Q – Are these Canadian standards? Does Sabina have other standards they follow?

MTP – There are Metal Mine Effluent Standards that Canadian metal mining companies must follow. However, included inside of a mine's permits there may be additional project-specific standards. Sometimes these can be stronger that the existing government standards. The KIA and communities will have the ability to review our plans and permits. The KIA will have their own scientists review and comment on these.

Q – What are Sabina's plans for training and apprenticeships, as the Project advances?

MTP – It's still early for us to comment on the specifics of this. By this time next year we will need to have a preliminary plan in place for training. We will need to assess the skills that exist in the Kitikmeot communities. There will be opportunities for training, but we still need to work on our plans for this. We will talk about human resources issues more specifically during future visits we make to the communities. We take this issue seriously.

Q – Who is getting the royalties from the Project?

MTP – The Back River Project is not on subsurface Inuit Owned Lands. Royalties will go to the federal government. IIBA monies would go to the KIA however.

Q – You're near a bird sanctuary too. How will you protect them from the tailings ponds?

MTP – There are some strict regulations in place to protect birds. We are protecting birds during our new airstrip construction. For example, every morning we need to walk the land and make sure there are no birds present prior to starting work. We will need to look into how to manage birds and tailings ponds in the future. We will also monitor marine birds.

Q – Why can't we get the royalties? This is our land and we live here.

MTP – We don't control the royalty rate. It was established back in the land claim.

Q – Is it possible for us to change that?

MTP – We've seen indications that it may be possible to change this. IIBA monies will be delivered to the KIA.

Q – Where will you be shopping for your supplies?

MTP – Everything currently comes out of Yellowknife. We will look at options to source materials elsewhere in the future. There may be opportunities for sourcing from Kugluktuk and Cambridge Bay.

Q – You don't have direct flights from the communities? They go through Yellowknife? There are some people who abuse drugs and alcohol when they pass through Yellowknife.

MTP – That is a good point. I'll be very honest with you - we've had issues with community members traveling through Yellowknife. 12 northern workers have been let go so far this year because of getting into trouble in Yellowknife. This is one of the reasons we're now building a year-round airstrip. We will soon be looking into direct flights from the communities into site. The site itself is dry; there are no drugs or alcohol permitted. We will search people's bags if we have to.

Q – You could supply your food from the Co-op here.

Door prize draw.

Meeting adjourned at 9pm.

Sign-in Sheet

Meeting: Kugluktuk

Date: June 12, 2012

	NAME	ORGANIZATION
1	Gordon Aiyaruq	
2	Junior Kuneluk	
3	Dawn Ayaluk	
4	Aimee McWilliam	
5	Erik Ayalik	
6	Angela Elatzak	
7	Bobby Kabvolak	
8	Fred Bob	
9	BANNY TOPILAC	
10	Julie Tegelak	
11	Allen Kellogok	
12	Veronica Himeak	
13	Marianne Hake	
14	Mary Ann Kaitak	
15	Elvera Elatchak	
16	Mona Aviak	
17	Chad Hayohok	
18	Maura Mulgrew	
19	JOANNE KOPAK	
20	Alexander Kuliktana	

Sign-in Sheet

Sabina GOLD & SILVER CORP.

Meeting: Kugluktuk

Date: Jun 12/12

	NAME	ORGANIZATION
1	David John [illegible]	
2	Agnes C Ahlek	
3	Jackie NOVOLIGAK	
4	Margaret Hanak	
5	Lena [illegible]	
6	Jason [illegible]	Hamlet of Kugluktuk
7	Johnny Oniak	
8	[illegible] Novoligak	
9	JOHN AVILINGAK	
10	[illegible]	
11	[illegible]	
12	Donald Havioyak	
13	[illegible]	
14	Sam Angnaluak	
15	ALICE H AYALIK	
16	Colin Kunelik	
17	Richard Kaiyogana	
18	Jean Kaiyogana	
19		
20	Edna [illegible]	

Sign-in Sheet

Sabina GOLD & SILVER CORP.

Meeting: Kugluktuk

Date: Jun 12/12

	JACKOVAK NAME	ORGANIZATION
1	Cliff Koplomik	
2	Anan Ohoviak	
3	Linda Niyakoak	
4	Wilma Pregalah	
5	Bobby Nikhaitok	
6	Willie Pigalak	
7	Louie KAKOLAK	
8	Sadie Hand	
9	Johnny Niviaxiak	
10	Hugh MacIsaac	GOV NU EDT MAR
11	Barbara Adjun	HTO.
12	molly Nikhaitok	
13	Roy Kokak	
14	MARY. KEllogok	
15	Ellen Navalik	
16	S. KEllogok	
17	GORDON KOKAK	FIRST AIR
18	Ken Mulgrew	Elavut-GN
19	ADA. OGINA	
20	MAMIE. ONIAK	

Sign-in Sheet

Sabina GOLD & SILVER CORP.

Meeting: Kugluktuk

Date: June 12/12

	NAME	ORGANIZATION
1	GARY KELLOGOK	
2	Jason Taptuna	
3	Johnny Keadjuk	
4	Dana Hitkdok	
5	Eric Kaiyogana	
6	Wanda Avakana	
7	Bruce Hikhaitok	
8	Charlie Evaglok	
9	David Evaglok	
10	Rose Evaglok	
11	Brenda Ongahak	
12	Helen Whittaker	
13	Carson Oniak	
14	Jonathan Kaiyogana	
15	Gordon Hikomak	
16	Vincent Klengenberg	
17	F Kaohina	
18	MARTHA KAOHINA	
19	LAURA KOHOKTAK	
20	Doris Elatiak	

Sign-in Sheet

Meeting: Kugluktuk

Date: June 12/17

	NAME	ORGANIZATION
1	Robert Haviovak	NWB
2	John Ohokak	
3	Lucy Maniyogena	none
4	Tommy Pigalak	
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MEETING INFORMATION	
DATE	June 13, 2012 (1:30pm)
TYPE OF MEETING	Kugluktuk Community Advisory Group Meeting
LOCATION	Kugluktuk Hamlet Office
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Angele Kuliktana (Sabina) Jason Prno (Sabina) Joe Otokiak (Interpreter) Alice Ayalik (Working Group Member) Tommy Pigalak (Working Group Member) Ryan Nivingalok (Working Group Member)
COMMENTS	Jason Prno took meeting notes

MEETING NOTES:

Introductions

Overview of purpose of community advisory groups

MTP delivered a project overview presentation

Q – You have enough money to keep operating until 2014. What are your plans for after that?

MTP – We would need to raise more money to keep operating. The Hackett River royalty could be sold to provide money to raise cash to build the mine. We could also raise money elsewhere on the market, or take out a bank loan.

Q – I hope the project goes well and hires Inuit. That would benefit the communities.

Q – Lots of mines have closed down. There are lots of people waiting to get hired.

Q – The terms of reference for the advisory group will need to be translated.

Q – How will the tailings be stored?

MTP – When selecting the proposed tailings site we looked at 20 different locations before making a decision. The selected site will have dry tailings; they would not be covered in water. They would originally be discharged as a slurry, but eventually be dewatered. The tailings location has natural rock outcrop on 3 sides; a dam would be built to contain the tailings on other side.

Q – Would this be similar to Lupin?

MTP – [Response not recorded].

Q – What would happen if there were leaks from the tailings ponds? There are fish in those lakes that could be affected.

MTP – Our environmental baseline programs are looking at these types of things. All our tailings water discharge would be treated. At closure all our dams must be deemed stable and all the runoff water must be clean. We would likely put a cap of clean material on top of the tailings material. There will be years of monitoring afterwards. Closure bonds will also be in place; these may amount to approximately $20-30 million. These will be held by the KIA or government.

Q – It is good to see these types of advisory groups formed. It is a good idea to get community feedback. I've only seen this done at one other mine. I'm glad to see it.

MTP – We are hoping to take the advisory groups down to visit the Back River site in September for a day trip. We would also like to take them to the Meadowbank mine for a visit.

Q – Where would the site tour go?

MTP – [Discussed potential locations for the visit].

Meeting adjourned.

MEETING INFORMATION	
DATE	June 13, 2012 (9:30 am)
TYPE OF MEETING	Meeting with Donald LeBlanc, Hamlet of Kugluktuk Senior Administrative Officer
LOCATION	Kugluktuk Hamlet Office
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Angele Kuliktana (Sabina) Jason Prno (Sabina) Joe Otokiak (Interpreter) Donald LeBlanc (SAO, Hamlet of Kugluktuk)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

MTP – Provided a Project overview.

Donald LeBlanc had a number of comments and questions:

- Can the Hamlet help Sabina out with their employment needs? MMG and Newmont have been to the community also. There are lots of employment opportunities out there - We shouldn't have high unemployment rates.
- What are Sabina's employment needs?
- The mayor is very set on developing a program in the community to pre-train individuals for mining. A small mock mine site could potentially be established in the community.
- If 10 people from Kugluktuk were working at the mine, even that would be substantial.
-There will be a number of developers coming in to the community in coming years who will all desperately be looking for employees
-Kugluktuk's relationship with BHP has been very good. They brought in a simulator last year and focussed on youth training. There were 9 individuals on the course.

-One training need will be to teach families/couples about mining work and the rotation lifestyle. There is also a need to teach financial management skills. The Hamlet of Kugluktuk would be interested in getting involved in this type of training, but they need funding.
-The Hamlet's goal is to try and get the various mining companies together and figure out human resources issues and strategies together.
-Donald recalled the example of a trained individual from the community having issues at a remote job site because his wife was lonely and wanted him to come home. She would call him during the nights and he didn't sleep. He had an accident at work and eventually left the job.
-The north has its own unique employment challenges; Sabina needs to be aware of this.
-People drinking alcohol excessively after their rotation can be an issue.
-Mining employment provides a number of opportunities and money that can be great for improving family livelihoods.
-Training could be conducted in Kugluktuk.

MEETING INFORMATION	
DATE	June 14, 2012 (3pm)
TYPE OF MEETING	Project Introduction – Cambridge Bay HTO
LOCATION	Cambridge Bay HTO office
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Angele Kuliktana (Sabina) Jason Prno (Sabina) Joe Otokiak (Interpreter) Brenda Sitatak (HTO Manager) Jessie Lyall (HTO Board Member)
COMMENTS	Meeting notes taken by Jason Prno

MEETING NOTES:

Meeting commenced at 3pm

Introductions

MTP provided a Project introduction presentation

Q – Will the camps be used differently in the different seasons?

MTP – It will be a year round operation, but Bathurst Inlet would only be used seasonally. Some of the exploration work will still be seasonal.

Q – Will there be training made available to people?

MTP – Yes, training opportunities will be made available. Sabina still needs to develop our training plans and programs, but it will be available.

Q – I asked that because there are people on social assistance that want to go to work. They can't find work in the community.

MTP – [Discussed the various employment, promotion and training opportunities that may be available].

Q – Do you take newcomers/inexperienced employees?

MTP – Yes. But we require a grade 10 education and a criminal record check.

Q – Do you ever have trouble hiring enough Inuit?

MTP – [Discussed current Inuit employment numbers; opportunities to improve Inuit employment numbers].

Q – I worry about the work atmosphere and issues with working with one another. Is there orientation available for workers?

AK – Currently, there is a brief orientation provided. It is focussed on site safety.

JK – Attima Hadlari will be doing our cross-cultural training in the future.

MTP – Cross-cultural training is something new for us at Sabina, but will be set-up soon.

Q – I've sometimes heard of people going away to work and coming back right away because of issues at the mine they are working at.

MTP – We have some mechanisms in place now to deal with issues that may arise for individuals.

AK – I also meet with Inuit to let them know I am available to talk to about issues they may have. Some Inuit on site feel intimidated by their lack of education and don't want to raise issues.

Q – Communication is very important. We need to work together.

Q – Will the advisory groups visit the mine site? It would be good if they could see the mine.

MTP – Yes.

Q – Are there Inuit names for the places you will be working in?

MTP – Part of the traditional knowledge study will find Inuit names for these locations.

Q – It would be good to get those names soon, because we are losing elders.

Q – People like to know why mining projects and deposits are named the way they are.

Meeting adjourned.

MEETING INFORMATION	
DATE	June 14, 2012 (7pm)
TYPE OF MEETING	Public Meeting
LOCATION	Cambridge Bay Community Hall
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Angele Kuliktana (Sabina) Jason Prno (Sabina) Joe Otokiak (Interpreter) Various members of the public (see sign-in sheet)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Meeting commenced at 7:15pm.

MTP delivered a Project introduction presentation.

Q – How far is the project from the Bathurst Inlet laydown area?

MTP / JP – We don't have those exact numbers on hand, but from the community of Bathurst Inlet it is 103 km to George Camp and 160 km to Goose Camp.

Door prize and break.

MTP continued to deliver the Project introduction presentation.

Door prize and break.

Q – Regarding criminal record checks - Is there a way to get around those? What if you committed a crime in the 1980s?

MTP – Jobs at the mine will require some sort of criminal record check. I understand KIA is looking at options for supporting the pardon process for individuals in the Kitikmeot. Sabina will look at this issue moving forward. We don't want to exclude potential employees based on minor past offences, or offences that may have taken place long ago. We need to look at this more closely as we move forward. We are happy to hear that KIA is looking at ways to deal with these challenges.

Q – When people have a criminal record that may date back years ago, they should be allowed to personally disclose/verify their record and recent non-criminal status to a company. They should be able to get over it and move on. It shouldn't prevent people from getting jobs.

MTP – Absolutely. Even if you don't have a pardon you shouldn't feel like you shouldn't apply with us. We're willing to work with you. It may take time to work with these types of individuals, but this is something we're willing to do.

MTP – I have a question for the meeting participants. When we speak about a potential laydown area at Bathurst Inlet, what concerns do you have?

Q – Its effects on marine life.

Q – Will there be winter shipping?

MTP – No.

MTP – What about when we speak of the proposed mining activities – What concerns do you have?

Q – Effects on caribou migration patterns.

Q – Effects on muskox habitat.

Q – Effects on caribou calving grounds.

Q - How long will it take to construct the road?

MTP – This hasn't been determined yet. Likely 8 months to a year, however.

MTP – Do safety issues regarding ships coming into Bathurst Inlet concern people?

[Some people in the audience nodded yes].

Door prizes.

Meeting adjourned at 8:15pm.

Sign-in Sheet

Meeting: Cambridge Bay Public Meeting

Date: June 14/2012

Sabina GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Helen Larocque	KIA
2	Martha AKOLUK	
3	Robert AKOLUK	
4	[illegible]	
5	Bill Napier	
6	ERIK MADSEN	
7	[illegible]	
8	[illegible]	
9	Martina Kapolak	
10	Peter Kapolak	
11	[illegible]	
12	Brian Langille	Qillaq Innovation
13	Dana Langille	Qillaq Innovation
14	Doyle Kavanagh	
15	Quentin Crockatt	
16	Michelle Buchan	KIA
17	Chris Aitchek	
18	Ann Klengenberg	KIA
19	Jared Fraser	GN EDS
20		

Sign-in Sheet

Sabina
GOLD & SILVER CORP.

Meeting: Cambridge Bay Public Meeting

Date: June 14/2012

	NAME	ORGANIZATION
1	Rosie Kaiyogana	
2	Donny Angulalek	
3	Ateetak Evaloakjuk	
4	Rosalyn Akhok	
5	Joanasie Avalak	
6	Amy Ekpakohak	
7	Lew Emerak	
8	Helen Ekpakohalok	
9	BELLA AKHOK	
10	JASON AKOLUK	
11	Gerald Ohokak	
12	Carson Maniyogina	
13	Tommy Kuockak	
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MEETING INFORMATION	
DATE	June 14, 2012 (1pm – 2pm)
TYPE OF MEETING	Radio show
LOCATION	Cambridge Bay radio station
ATTENDEES	Matthew Pickard Two members of the public called in to the radio show to ask questions
COMMENTS	Matthew Pickard hosted a radio show on the Back River Project. Jason Prno was present and took notes. Joe Otokiak was present and interpreted. John Kaiyogana and Angele Kuliktana were also present.

MEETING NOTES:

MTP provided a Project overview in English.

Q – Is Sabina going to be making any contributions to the community's sporting organizations?

MTP – Yes. Sabina has developed a donations policy to help guide the future donations we make. However, we have been making donations to the Kitikmeot communities for the past few years. Our current donations policy focuses on supporting traditional pursuits and youth. We haven't yet made many donations in regards to community sports. However, we will take requests for donations. You can see me tonight at the public meeting for more information.

Joe Otokiak provided a Project overview in Inuinnaqtun.

Q – How will you screen your employees? There are a number of people that have criminal records but want to work. It seems the only way you can work is if you have a clean record. Will people with criminal records be turned away? How will the wildlife be managed and monitored? Will there be impacts?

MTP – We will be doing criminal records checks on potential employees. Everyone at Sabina has these done, including myself. However, minor offences may be overlooked. We will need to determine what

types of past offences could be overlooked. Some types of criminal records may preclude you from working at Sabina. Regarding wildlife, we are still assessing whether the operation will have an impact on wildlife, through our environmental studies. We know the project is not in a caribou calving ground. We also know there are many terrestrial, avian, and marine wildlife species present in the project area. We will be developing monitoring and mitigation plans; these are required by NIRB. There are many types of mitigation options available to us, but these will need to be developed as we move forward. We are happy to hear suggestions from the community as to how we can best protect the environment. The community advisory groups we have established will be one sounding board for these matters.

MEETING INFORMATION	
DATE	June 15, 2012 (1:00 pm)
TYPE OF MEETING	Meeting with Cambridge Bay Community Advisory Group
LOCATION	Cambridge Bay Hamlet Chamber
ATTENDEES	John Kaiyogana (Sabina) Angele Kuliktana (Sabina) Jason Prno (Sabina) Joe Otokiak (Interpreter) Keith Lear Sr. (CAG member) Martina Kapolak (CAG member) Peter Kapolak (CAG member - alternate) Mary Kilaodluk (CAG member) Anna Nahogaloak (CAG member)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Meeting commenced at 1:30 pm.

Introductions

A CAG member questioned whether or not they would be in a position of conflict sitting on the CAG, as they were also a KIA board member. JP responded that this is something the member would need to determine on their own; Sabina saw no issue with having them participate on the CAG.

JP reviewed the purpose of the community advisory group and the draft terms of reference for the group.

JP provided a Project introduction presentation.

Q – You mentioned the mine will operate for 10-15 years. Could this change? Other mines, like Newmont, have come in to the community and made promises like this previously. Newmont then closed.

JP – Based on our preliminary studies and investigations, we feel confident the Project is economic to develop. [Describes these studies]. However, things can always change in the future. [Describes some of the assumptions included in the Preliminary Economic Assessment].

Q – I'm assuming mining is different today than it was in the past? Where contaminated mine sites were left behind by mining companies?

JP – [Describes some of the advances in mining regulation that have been made].

Q – You mention a number of specific sites, like the tailings area and the different mining areas. You will be looking the potential impacts at these individual areas, but will you also look at the effects you may have on the region?

JP – Yes, our baseline and other environmental investigations will look at potential effects on the region.

Q – How do you determine where the gold is? Hope Bay told us they had enough gold to build a mine too, but they recently closed.

JP – [Describes gold exploration process]. Exploration is also an ongoing process; more information is learned the longer you do it. Sometimes, your initial assessments change when more information is learned. Sometimes, new information may show that it is no longer economic to develop the mine.

Q – What are the blue and red areas shown on the mining figure you showed?

JP – Different areas of ore to be mined.

Q – Will workers be stationed at both camps?

JP – Workers will be stationed at Goose, George and the Bathurst Inlet laydown area camps, in varying numbers. The number of workers at each camp will vary depending on the stage of construction and operations.

Q – How old do you have to be to work at the mine?

JP – 18 years old.

Q – For the benefit of the elders, you should use non-metric measurements (i.e. imperial measurements). You should also be careful when you say 'Bathurst Inlet'. If you are referring to the port, say 'Bathurst Inlet Port'. Otherwise, the elders will think you are talking about the community of Bathurst Inlet.

JP – Those are great suggestions, thank you.

Q – I was talking with the KIA CLO for that area and she was getting confused with some of the place names you used.

JP – One thing we are currently working on is to have traditional place names identified for the area around our Project. These names will from the traditional knowledge study we are working on with the KIA.

Q – When will the barge start running? The caribou are calving in June.

JP – We are expecting to have about 3 supply ships come in every summer.

Q – There are a lot of caribou around the Project area. Will you stop operations when caribou migrate through?

JP – We still need to look at how we will deal with wildlife passing through site. Other mines have stopped traffic on their roads when caribou are migrating through. We will probably look at something similar. We would not drive trucks and equipment through migrating herds of caribou.

Q – What if I'm in Bay Chimo for our next advisory group meeting? Will you send a plane to come and get me?

JP – Unfortunately, we probably wouldn't. We recognize that group members may not be able to make every meeting. However, we will have meetings throughout the year; if you miss one you could always come to another one. We will also produce meeting minutes, so you will have a record of all the meetings that occurred.

JP – How would the group preferred to be paid for their time?

The group answered that cash, cheque, or bank direct deposit would be preferred.

Meeting adjourned at 3pm.

MEETING INFORMATION	
DATE	June 15, 2012 (11:00 am)
TYPE OF MEETING	Project Introduction – Cambridge Bay Hamlet Council
LOCATION	Cambridge Bay Hamlet Chamber
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Angele Kuliktana (Sabina) Jason Prno (Sabina) Joe Otokiak (Interpreter) Jim McEchrean (Economic Development Officer) Keith Lear Sr. (Deputy Mayor) Sarah Jancke (Councillor) Sterling (Hamlet of Cambridge Bay) Harry Maksagak (Councillor) Andre Otokiak (Councillor) Jessie Lyall (Councillor) Samantha (Hamlet employee) Meghan (Hamlet employee)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Meeting commenced at 11:10 am.

Opening prayer by Jesse Lyall.

MTP provided a Project introduction presentation.

Q – Will there be a tailings pond?

MTP – There will be a tailings area. Our current plans are for a natural rock-rimmed disposal area, with a dam on one side. The tailings would likely not be wet, where there would be water on top. They will probably be dry tailings that are frozen in place.

Q – What is left over after cyanide destruction?

MTP – In essence, sand. This sand will be composed of fragments of rock. This material will be placed in a closure pen and clean fill will be placed on top of this. The tailings would then be frozen into place. The KIA has their own preferred tailings disposal methods. We at Sabina still need to evaluate tailings disposal options and locations. This will be worked on over the next year.

Q – Will it be 100% cyanide removal? Or will there be some amount of cyanide left over?

MTP – Any available cyanide will be removed. Not all cyanide in the rock will leach out, however; some of it would be inaccessible and locked in the rock. It wouldn't leave the rock. Years and years of monitoring will be necessary to assess the tailings impoundment and water quality. Sabina won't be permitted to walk away from the site until we know the water is clean. The KIA and Aboriginal Affairs will hold our closure bond until this time. There are different types of cyanide destruction methods available to be used; we still need to choose the most appropriate method.

Q – You mentioned the tailings will be frozen. What about climate change in the future? Would that release cyanide?

MTP – We will be assessing climate change implications in our planning.

Q – Dry tailings sounds like a better option than using a tailings pond. Monitoring also sounds like it will be important.

Q – Will there be training opportunities for young people? Will summer jobs be available?

MTP – There are limitations to what we can do with youth. Only individuals 18 and over are permitted to work at mine sites. We will be looking at training opportunities though. Hopefully we can collaborate with other companies in the region on training initiatives.

Q – I would suggest having people on your advisory groups from Bathurst Inlet and Bay Chimo. These people also live here in Cambridge Bay. This should be a priority for you.

MTP – It is a priority for us and we have taken steps to ensure these communities are represented.

Q – Will there be an employee assistance program in place? You will have new employees going away to work and coming home with large paychecks. Sometimes paychecks are not spent wisely by individuals. We had this type of program at Lupin. Has there been thought given to this?

MTP – This is something we've begun to consider. In the south this type of program is required and may include counselling, financial advice and assistance, etc. This standard southern model can't necessarily be transplanted to north, because the north is so different. Moving forward, we will need to look at options for implementing an employee assistance program. We're not quite sure how to do it yet.

Q – There have been examples of family breakdown with mine employees.

MTP – We are aware of this. We have also had some trouble with Sabina employees traveling through Yellowknife. We have had to dismiss a number of individuals because of poor behaviour in Yellowknife. We have a 3 strike process in place for worker misbehaviour, but sometimes if the infraction is severe it only takes 1 strike to be fired. However, we have a review process in place.

Q – Nunavut is fragile from an economic, social, and environmental point of view. It is nice to see you have people on staff to liaise with the community and to communicate with the community if issues arise. This is important.

Q – Are climate change studies being conducted with your baseline studies?

MTP – Climate change studies will be conducted as part of our baseline studies. We will also do an effects assessment, on how the Project will change over time. There will be an entire section on climate change in the EIS. We will look at both the effects of climate change on the project and the effects of the Project on climate change.

Q – In regards to your tailings being frozen in permafrost. Permafrost conditions can change with climate change. Are climate change effects on tailings and a priorty for you? Can you make it a priority?

MTP – Climate change is an important aspect. Environment Canada makes climate change a priority in their regulations for mines as well. Climate change will be considered in the Project planning and EIS.

Q – Are there opportunities for further studies on climate change?

MTP – There could be.

Q – We've spoke with other mining companies and representative from the High Arctic Research Station. Climate change studies are something we've agreed we can work together on.

MTP – Sabina can support larger scale research programs like this if it is appropriate.

Q – In regards to permitting, have the federal government's recent streamlining announcements affected you?

MTP – No, it should still take us 3 years to permit the mine. We spoke to NIRB about this and there shouldn't be any changes. But, these new federal plans and timelines are still unclear.

Q – Have you looked at alternative power sources for the mine yet? Other then fuel?

MTP – We haven't looked at this yet. All mines begin the planning process with using conventional power. This is because fuel provides a constant source of power, unlike some renewable sources which don't. We are proposing fuel as our primary source of energy, with alternative energy being considered as an improvement to this system. We will look into this further as Project planning moves forward.

Q – We would like to have you participate in the upcoming career fair we are hosting in Cambridge Bay.

Q – Your shipping route, will it be east-west or west-east?

MTP – Our Project Description says both routes will be considered. The exact routing hasn't yet been determined. How many ships came into Cambridge Bay last year?

Q – 4 supply ships/sea lifts, 2 Coast Guard ships, 3 research vessels, 5 cruise ships, and about 12 small craft.

Q – Providing youth with opportunities and information about your operations is important and a good idea.

Meeting adjourned.

MEETING INFORMATION	
DATE	June 18, 2012 (7pm)
TYPE OF MEETING	Public Meeting - Kugaaruk
LOCATION	Kugaaruk Community Hall
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Jason Prno (Sabina) Joe Otokiak (Interpreter) Various members of the public (see sign-in sheet)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Meeting commenced at 7:15pm.

Opening prayer by Maria.

MTP delivered a Project overview presentation.

Q – You said you will need 900 people to work at the mine. Will these be Inuit from the Kitikmeot or white people?

MTP – Both, but we will aim to hire as many skilled Inuit as we can.

Q – Do you use any chemicals when you drill?

MTP – Yes, we use a salt and water mixture when drilling deep holes.

Q – How many Inuit will work at the mine?

MTP – This is still to be determined but we will aim to hire large numbers. However, there will be three other projects in the area advancing at the same time as us which will also draw down on the northern workforce.

Q – Will you pick employees from the Kitikmeot up and fly them directly to the mine?

MTP – We don't currently do this; northern employees are routed through Yellowknife first. We are building a permanent airstrip now, which will allow us to have direct flights to the communities. Our current plans are to have direct flights from Cambridge Bay and Kugluktuk only. But, if employee numbers are high enough from the other Kitikmeot communities we would look at having direct flights from those locations as well.

Q – We have problems sometimes if there aren't direct flights. Problems can arise if our workers have to overnight in Yellowknife or Cambridge Bay.

MTP – We acknowledge this is a problem. We have had to fire 15 people this year, 12 of which were northern workers, because of misbehaviour in Yellowknife.

Q – What do you have for health care on site?

MTP – We have a company called '1984' providing nurses on site. As the project advances, we will likely have physician assistants present on site.

Q – Young people are surviving on money and wages today. In the past we lived off the land. It will be fine if this project goes ahead as long as the environment is protected. That is where my livelihood is.

MTP – [Describes various environmental and socio-economic studies being conducted for the Project].

Q – What will happen to the waste water, waste rock, and garbage?

MTP – Waste water will be collected and treated/cleaned before it is discharged. There are government regulations in place dictating how clean the water has to be when we discharge it. Waste rock and tailings will be left on the surface. The tailings would then be capped/sealed with clean rock. Tailings from the mine will be pumped with water in a slurry mixture to where they are deposited. In regards to garbage, all hazardous waste will be shipped off site, down south. Kitchen scraps and wood would be incinerated. Some open burning may occur for larger pieces of wood. There will be also be a landfill on site for things like metals. We will additionally have a landfarm where soil contaminated by fuel spills would be cleaned.

Q – Will your tailings be regularly monitored and inspected? Who will do this?

MTP – During operations, inspections will be done by the company every day. Aboriginal Affairs, Environment Canada, and the KIA would also inspect the tailings facility. When the mine closes, the same parties will conduct inspections until the tailings are closed completely. Final closure would only occur when there is no more water coming off the tailings and no more contaminants coming out of the tailings.

Door prizes and break.

Q – How many employees are you looking for right now?

MTP – Our site is currently operational and there are around 150 people working at any one time. Approximately 38 of these individuals are from Nunavut. If people are looking for opportunities and have experience they can give us a resume. Or, feel free to pick up one of our business cards. We have most of the people we need for the year already, but not everyone yet. There are always opportunities.

Q – Do you have any job training available?

MTP – No, not yet. Next year we would start to roll out training programs. We've had discussions with the KIA about this and hope to work together with the other mineral developers in the region as well.

Q – How much of the area is cleaned up after you use it for mining?

MTP – We would remove all buildings and roads. The waste rock piles and tailings would be left on site. Other areas would likely be heavily graded. Perhaps a re-vegetation program would be implemented. The site would also eventually start to re-vegetate on its own.

Q – Has clean-up been done before on your site?

MTP – Each drill hole is cleaned up after we're done. We inspect it afterwards, as does the KIA.

Meeting adjourned at 8:15pm

Sign-in Sheet

Meeting: Kugaaruk Public Meeting

Date: June 18/2014

	NAME	ORGANIZATION
1	Eli Qayutinnuaq	
2	Mary M. Qingaqsaq	
3	Paul Illuitok	
4	Fabien Qirngnuq	
5	Bonnie Kaukitok	
6	Brandon Nartok	
7	Judas J.R KARoo	
8	Victor Kataluk	
9	Sam Inuksaglak	
10	Adele Siggut	
11	Jocelino Siggut	
12	Christina I.	
13	Rachel I.	
14	Guido Tigvareark	
15	Angeline Tigvareark	
16	Gladys Kakkianiun	
17	Blandina Kakkianiun	
18	Gyta Inuksaq	
19	ISABELLA INUKSAQ	
20	LEVI INUITOK	

Sign-in Sheet

Sabina
GOLD & SILVER CORP.

Meeting: Kugaaruk Public Meeting

Date: June 18/ 2012

	NAME	ORGANIZATION
1	Vincent Ningark	Hamlet of Kugaaruk
2	Maria. Inutuinaq	
3	Lila Nalungiaq.	
4	Elizabeth Kayaksak	
5	Mary Kayaark	
6	MARIA-NIPTAYOK	
7	Raymond Kayaroark	
8	MATTHEW K.	
9	Derek Ittimangnak	
10	Tanina Piyuardjok	
11	Columban Piyuardjok	
12	Lucy Qeekatalik	
13	Jacqueline Kayasark	
14	Char Saunders	Health Centre
15	John Kayasark	H.T
16	Caitlin Tunurialik	
17	Robyn Uggenlik	
18	Sabrina curley	
19	Jacob Sikkuark	
20		

Sign-in Sheet

Sabina GOLD & SILVER CORP.

Meeting: Kugaaruk Public Meeting

Date: June 18/2012

	NAME	ORGANIZATION
1	Joanne Ruben	
2	William Ruben	
3	Lena Kootook	
4	Guy Kringorn	
5		
6	ᓚᐃᑦ ᐅᓐᓄᓚᑦ [illegible] Pelagie Otenokitok	
7	Nick Jr Sikkuark	
8	ᐆᐸᐊᓇᓪᑲᓐᐊ	
9	ᐊᒉᓄᐊᓴᑖᐅ	
10	Lisuaun Inuksuq	
11	Stuart SR Aleekee	
12	Stuart JR Aleekee	
13	Kyle Tootiaq	
14	Doris siggnuk	
15	Agatha Nipitaqne	
16	Shannon Kayaitok	
17	Jenny Oogark	
18	Britney Ruben	
19	Shantel Qirngnuq	
20	Berniee Inaksajak	

Sign-in Sheet

Meeting: Kugaaruk Public meeting

Date: June 18 / 2012

Sabina
GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Colin Inuksaq	
2	Carol Inuksaq	
3	Colin JR Inuksaq	
4	Carla Inuksaq	
5	Royden Curley	
6	Mary Tingaskia	
7	COLIN JR NaRTOK	
8	Emiliano Qirngnuq	
9	Howard Inuksaq	
10	Christine Immingark	
11	Barnaby Immingark	
12	Ulikatalik Illuitok	
13	Martha Mandy Illuitok	
14	HELEN IMMINGARK	
15	Alice. Inuksaq	
16	Dorothy Inuksaq	
17	Michael Illuitok	
18	Shannon Kayaitok	
19	Terance Sicknok	
20		

Sign-in Sheet

Meeting: Kugaaruk Public Meeting

Date: June 18/2012

Sabina
GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	JAKE Qirngnuq	
2	Dolorosa Nartok	Kugaaruk Housing Authority
3	Makabe Nartok	IBC, KC
4	Anita Nimiqlaqtuq	Darcy Kringorn
5	James Anguti	
6	Yvo Anguti	
7	James Jr Anguti	
8	Dom. I.	
9	Jennifer. Anguti	
10	Hayden Rose. T	
11	Doreen Nanook	
12	Jeannie Illuitok	
13	Alina. Tungilik	
14	Ellie Tungilik	
15	Erica. Kukkuvak	
16	Olivia Angoti	
17	Jessie Sigglek	
18	Corey QAVVIK	
19	RYAN	
20	Rodey Siggyk	

Sign-in Sheet

Sabina GOLD & SILVER CORP.

Meeting: Kugaaruk Public Meeting

Date: June 18/2017

	NAME	ORGANIZATION
1	Roger Anguti	
2	Suzanne Kresunark	
3	Simona Alakannuark	
4	Heather Nandak	
5	Katharina Qiringnaq	
6	Rick Anguti	
7	Manique Immingark	
8	Wilfred Immingark	
9	Nathan Nartok	
10	Darrin Angotidluk	
11	Lucy Qanagsaaq	
12	Gilbert Nopachedkadlak	
13	Don Anguti	
14	Ethan Qaggutaq	
15	Mary Abby Gail Kotklanion	
16	Tad William Ruben	
17	Ian Lee Illuitok	
18	Madison Ruben	
19		
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MEETING INFORMATION	
DATE	June 19, 2012 (11 am)
TYPE OF MEETING	Meeting with Taloyoak Mayor Tommy Aiyout and Assistant SAO David Irqquit
LOCATION	Taloyoak Hamlet Office
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Jason Prno (Sabina) Joe Otokiak (Interpreter) Tommy Aiyout (Mayor) David Irqquit (Assistant SAO)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Meeting commenced at 11 am.

Q – Have your IIBA negotiations commenced yet?

MTP – No, not yet, but we hope to start them soon. We have asked the KIA to start this process.

Q – We're all worried about negotiations breaking down because of Hope Bay closing down. I really hope it goes forward. Is the project on Inuit Owned Land?

MTP – The project is not on subsurface IOL, but portions of it are on surface IOL. That means the royalties from the mine will go to the federal government and then transferred to NTI. The decision by Newmont to close Hope Bay wouldn't have been made easily.

Q- These decisions affect the communities. When companies like Newmont walk away after a $1.5 billion dollar investment, communities start wondering if other companies will walk away too. We need some sort of reassurance. Should we support the mine?

MTP – Our project has similar grades as Hope Bay, but the ore is easier to mine. Our project makes use of a number of open pits, which are less expensive to mine. Our grades are twice those of the Meadowbank Mine. Sabina is also very well-funded. There is always uncertainty in mining and you never know if projects will go ahead. Gold prices can change, for example. We also need land tenure assurances and other types of assurances in order to move forward. We need to have our agreements with the KIA in place, like our leases, licences, and IIBA.

Q – How much infrastructure do you currently have?

MTP – [Describes current infrastructure on site].

Q – There are people from Taloyoak that worked at Hope Bay and are now looking for work. Will they be hired?

MTP – We're taking resumes now and assessing the existing skill base in the Kitikmeot. We currently have 38 northern hires, and more opportunities will be provided next year.

Q – You should announce your public meeting on the radio.

MTP – We will, thank you.

Meeting adjourned at 12:00 pm.

MEETING INFORMATION	
DATE	June 19, 2012 (1pm)
TYPE OF MEETING	Taloyoak HTO – Project Introduction
LOCATION	Taloyoak HTO
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Jason Prno (Sabina) Joe Otokiak (Interpreter) Peter Qayutinuaq (HTO Chairperson) Tommy Aiyout (HTO member) David Irqquit (HTO member) Abel Aqqaq(HTO member) Lucasie Nakoolak (HTO member) Sam Tulurialak (HTO member) Elizabeth Aleekee (HTO manager)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Meeting commenced at 1:15pm.

Q – The best time to get feedback from the community is in the fall. This is when people are back in town.

[MTP delivered a Project overview presentation].

Q – Have you looked at utilizing BIPAR? Most of the communities in the Kitikmeot would like to see a road from Yellowknife built. Have you talked with the other mining companies about using this?

MTP – Sabina owns BIPAR and is working with Xstrata to assess if using BIPAR will be appropriate. MMG has decided not to use it.

Q – It may not be in your best interest, but the people of the Kitikmeot would like to have a road to Yellowknife. It would benefit all the Kitikmeot people. Could you consider it?

MTP – Xstrata and Sabina aren't looking at linking the BIPAR road to the south. BIPAR is already a very expensive project; it will cost as much to build BIPAR as it will to build our own project. If people in the region were interested in having a road to Yellowknife built, you could potentially channel IIBA monies towards this. If communities were interested in doing this, they would need to approach the KIA.

Q – It will be a hot political issue that KIA should bring up. We should look at building the road.

MTP – This could be considered. KIA has never brought it up before.

Q – Sabina could leave like Newmont did. Sabina is a junior company. Are you going to leave when you get what you want? Will you sell out to a bigger company? You will affect the wildlife. I'm getting frustrated with mining companies. We have a lot of these meetings. Hope Bay closing down angered me. I'm hoping something tangible will come out of the project you are proposing.

MTP – It is always possible that Sabina gets bought out, but this is not our objective. The jobs that were lost at Hope Bay are going to be hard to recover in the short term.

Q – Do you require the blessing of the HTOs in the region to build the project?

MTP – No, we don't. We need KIA's support, however, which represents Inuit in the region.

Q – In the NLCA it states that HTOs have a role to preserve wildlife. I will start to push and preserve wildlife.

Q – Your 3 ships a year will disturb the sea mammals. Money isn't an issue for us. The health of sea mammals comes first for us. You will have more ships after the 3 you propose. There will also be contaminants. $500 million sounds like a big amount, but the sea mammals are our priority. You should look at building the road to avoid these impacts.

MTP – BIPAR as proposed will not bring goods north from Yellowknife, it is only designed to move materials south. I think I'm hearing two main concerns from you. The first is 'what is left when Sabina leaves?' It sounds like there is a desire for benefits and infrastructure. The second is 'what impacts from shipping will occur?'

Q – If all the mining companies worked together on building a road we would support it. With all these companies proposing different shipping and ships, the Kitikmeot communities won't support it. I'm just warning you.

MTP – Thanks for your comments. We're here to learn about these concerns. If Xstrata built BIPAR we would almost certainly tie into their road system.

Q – Do you operate throughout the year?

MTP – Right now we are only seasonal. During operations we would operate year-round.

Q – You're only proposing a winter road?

MTP – Currently, yes. But our permitting documents say we will look at both winter road and permanent road options. The details of our project are not currently nailed down. We're not here to tell you what exactly the project will be. We're here to present our ideas and gather input.

Q – Why conduct another TK study and duplicate what the KIA has already one?

MTP – We're not. We have signed a TK agreement with the KIA to access their existing TK database. The KIA will lead our TK study.

Q – Your hiring preference for communities closest to the mine should be removed when you go into IIBA negotiations. The KIA board is composed of members from different parts of the Kitikmeot and they will want jobs as well. Cambridge Bay and Kugluktuk should get jobs because they are closest to your project, but hiring preference should be made equal throughout the Kitikmeot. We're really pressed for jobs here.

MTP – Cambridge Bay and Kugluktuk will be points of hire, with direct flights. The remaining Kitikmeot communities will become points of hire with direct flights if sufficient employees exist. There should be ample opportunity for people in the Kitikmeot to work at the mine.

Q – Does your project timeline depend on gold prices?

MTP – To a degree. Our preliminary economic assessment used conservative gold price numbers. These indicate that the mine would be economic down to $700 or $800/oz gold. However, if gold prices were to plummet we would have to close.

Q – We don't believe in your project timeline estimates. We've seen many mining companies close or shorten their lifespan.

MTP – Those types of things can sometimes happen.

Q – Will you hire summer students?

MTP – Everyone working on our site has to be 18. It is a rule set by the Government of Nunavut.

Q – I apologize for being critical but I am getting frustrated. My people get into a bind when they lose their jobs. It's hard to believe what mining companies say any more.

MTP – We're here to learn about your issues and suggestions. Feel free to get in touch with us if you have any more questions.

Q – This time of year is really bad for hosting meetings. The CLO should contact us later in the year. There are a lot of people looking for work and they need to know who to talk to. It's a really big issue in

this community because people don't know who to talk to. It's not as bad in other communities. We have a lot of people here that have graduated from school but are doing labour work. It is a waste.

Meeting adjourned at 2:05 pm.

MEETING INFORMATION	
DATE	June 19, 2012 (7pm)
TYPE OF MEETING	Public Meeting - Taloyoak
LOCATION	Taloyoak Community Hall
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Jason Prno (Sabina) Joe Otokiak (Interpreter) Various members of the public (see sign-in sheet)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

[Meeting commenced at 7:15pm]

[Opening prayer]

[MTP delivered a Project overview presentation]

Q – When you talk about ore are you talking about iron ore?

MTP – No, gold ore.

Q – Do you do employee hair sampling, for drug testing?

MTP – Currently, no. But during construction and operations there will be drug testing that occurs.

Q – In regards to local contracts - Are you going to hire people from the communities?

MTP – Yes. We will have both Kitikmeot contractors and people from the region that work directly for Sabina. Our focus will be to hire as many northerners as we can.

Q – When were the buildings erected on your mine site?

MTP – Some were built in the 1980s, but most are three years old or less.

Q – I understand this will be a good project, but it will impact the wildlife and environment in that area. I worked underground at Nanisivik years ago. There were big ships that came in to transport the ore. I heard the seals were affected later on because of this. Are you conducting studies on the wildlife in the area?

MTP – There can be impacts from mining. Nanisivik had impacts on seals in the port area during their winter shipping. Through our baselines studies, we are currently building our understanding of all the animals in the Project area. [Described types of baseline studies being conducted]. We will also be adding traditional knowledge to this. All this is being done to make sure we don't have an impact on traditional pursuits.

Q – Are you accepting applications right now?

MTP – Yes we are.

[Break and door prizes]

Q – I worked at George and Goose Lakes before. Goose Lake has caribou migrate through there. Have there been any changes to the caribou in this area?

MTP – My understanding is that the caribou will migrate on different paths every year. Sometimes they come very close to the site. In other years they are farther away. I'm not sure if changes to population numbers have occurred; our baselines studies will provide more information here. We are not conducting aerial caribou surveys.

Q – There are wolves and wolverines in that area as well. Are their number increasing or decreasing around the camps?

MTP – That area has a fair number of wolves right now. We're also seeing a lot of small animals like hares, which is probably why the wolf numbers are high. I don't know many more details than that.

Q – Because you don't have much information on this, maybe you can do more studies?

Q – You have environmental technicians working for you. There are Inuit who are aware of the environment – Have you consulted with these people prior to developing these two areas?

MTP – All our current activities have permits that have been issued by the KIA. To date, there hasn't been much engagement with the communities about our early permitting process. Moving forward, our community consultation and traditional knowledge studies will now begin to ramp up. We have an Inuk environmental coordinator on site and various Inuit assistants participating in the environmental programs we are conducting.

Q – If gold mining begins, how many people will you be hiring from the Kitikmeot and other areas? Some of the people here have experience working in mines.

MTP – We would look to hire as many skilled northerners as we can. Moving forward, we will first look in the communities for employees, before looking elsewhere. We won't get all our employees from the north, but we can get a lot. We will have 900 people employed at the peak of operations. Half to two-thirds of these individuals would be on-site at any one time. MMG and Xstrata are also advancing their projects at the same time as us; they will require many employees as well. If all these mines went ahead the Kitikmeot could need 5000-6000 jobs. If we prepare people properly we will have more people working.

Q – I am an elder now and no longer work. Youth do well in employment, but drugs and alcohol bring about a number of issues for them. Once they go through Yellowknife they run into problems. This is not a good situation. They can work well and make good wages, but there are issues. I support you because I want jobs and opportunities for our younger generation. I would like the elders to be consulted because they know about the land and wildlife. Thank you for your answers.

MTP – We realize that flying workers through Yellowknife is an issue. We are now constructing a year-round airstrip at Goose Camp which will allow us to have direct flights to the communities. 15 people terminated have been terminated already this year due to misbehaviour in Yellowknife; 12 of these people have been from the north. We are losing people to Yellowknife, but we are trying to address this problem with the new airstrip. Mining can provide a number of opportunities, but people need to be prepared. The mine will be dry; no drugs or alcohol will be permitted. If you break those rules you will be kicked off site. If people have drug and alcohol issues they need to deal with them before working with us. The KIA pardon process could be helpful for individuals with criminal records.

Q – Employment opportunities are being talked about in the community. Work is hard to find. We thank you for making these opportunities available to our young people. In Gjoa Haven, Taloyoak, and Kugaaruk jobs are hard to come by. I don't speak English, but I have seen mining operations on TV. Mining is dangerous work. Safety should be taken into consideration. Spills flowing towards the ocean are worrisome. When caribou and other wildlife hear noises their movements change. They tend to run away. Caribou meat is affected when the caribou are scared away and chased. Safety should be your first priority when you are going underground. It will be noisy when you are blasting; this will affect the wildlife in some way. Thank you for the opportunities you are providing for the young people and for letting me say a few words.

MTP – There are impacts with mining. Some of these impacts are good, like new jobs, and some impacts may be undesirable. If there is an unacceptable impact, a project would be very difficult if not impossible to permit. Things like blasting are allowed at mines. At some mines you could have one blast per day, but at others you could have six per day. Things like noise at the mine can have an impact. The key is to mitigate and minimize impacts that do occur. These are the types of comments we want to hear from the communities. We could potentially have wildlife monitors on site during the caribou migrations.

Q – Are there any resource deposits which have been found close to Taloyoak?

MTP – To my knowledge, there are no major resource development projects in the area.

Q – Will the environmental technicians be there prior to the project going ahead?

MTP – There will be observers present throughout the mine life. There will always be a significant number of environmental staff on site. During construction you may have 10-12 people just looking after environmental matters.

Q – How many mines does Sabina operate in the north?

MTP – None currently.

Q – How long have you been in the north?

MTP – Sabina has been pursuing Back River for nearly 4 years. Our management team has northern experience and has been involved in Miramar and Hope Bay. I have been involved in the Snap Lake and Mary River projects.

Q – Are you going to be hiring more people from the eastern Kitikmeot region? 10 or 12 of us took the camp cook course but none of us have been hired. Have you hired Kitikmeot Caterers?

MTP – We don't currently have Kitikmeot Caterers as a contractor. We use 1984 instead. We will look into this moving forward. The KIA board suggested that we use Kitikmeot Caterers.

Q – Will you only hire from the western Kitikmeot?

MTP – No we will hire from the entire Kitikmeot. Currently, our largest number of northern hires actually come from Gjoa Haven.

Q – Will you be making direct flights or will you be going through Yellowknife?

MTP – [Describes current flight arrangements and proposed direct flight arrangements in the Kitikmeot].

Q – There are a whole bunch of guys here that went through heavy equipment training. Other organizations like MMG and Nuna Logistics come through here and say they want resumes. Sometimes there is only one job and a family member is hired. You should give these trained individuals a chance.

MTP – Part of the problem for us is we don't have an HR person in our company. We are working to address this. We are hoping to come back to the communities to describe what type of employment we need and answer questions.

[Door prizes]

Q – When the mining companies come to our communities they say they can do things. In the Kitikmeot, there are two companies that just closed. They were doing well, but then there were layoffs. I wonder if the KIA will help those who were laid off. In Toronto, it might take you 2 hours to fix a

broken piece of equipment at a mine site. In the north, it will take you much longer and it will be much more expensive. Once mines get too expensive to operate, they are shut down. What route will your ships take in that region? In the Kitikmeot we eat a lot of country food. A lot of people have gone to the southern hospitals because of ailments they have had. You need to be aware of the effects of exhaust and smoke coming off your mine site. The fish and caribou will be affected by this pollution. This needs to be looked at very carefully. The BIPAR route has concerned some people, because it will affect the caribou migration route. A lot of Inuit don't make good wages because they don't have certificates / education. We are more or less laborers because of this. People from down south make good wages. Inuit work very hard, but their wages are very minimal. The different races should be treated equal. We need to get the skills to move into positions with more responsibility. Inuit seem to be left behind in mining. We will need to train people. Once mining comes in, we are left behind. Workers need to come from even the lesser populated areas. If the mine is to go ahead, I support it, but we will need to assess what is going on.

MTP – When a mine becomes non-economic it will close. A mine will not last forever even in the best circumstances. There are opportunities for Inuit in all our positions as long as they are qualified. How many people in the room are trained in something? And how many are not currently working in their field?

[Approximately 13 people raised their hands. Nearly everyone kept their hands raised when asked if they were not currently working in their field].

Q – I was at Hackett River at the end of March and I was the only one from the eastern Kitikmeot working there. The others were all from Kugluktuk or Cambridge Bay. We keep applying for jobs but don't hear anything back. It's so frustrating. There are no jobs in this town. I need to feed my family. Me and my daughters apply for jobs but we don't hear anything back.

MTP – I can't comment on Hackett River, but it brings up an important point – We need to increase our Inuit employment numbers. We have collected about 50-60 resumes so far on this trip. The closing of Hope Bay has meant a lot of people are now unemployed.

Q – Where are your courses going to be held? Cambridge Bay?

MTP – We don't know yet. The KIA has suggested the use of a simulator that can be used in any community or a barge training facility that can move to different communities. It is unlikely that each community would have training programs; some people would need to travel to get trained.

Q – Who does the screening of your applications?

MTP – If you give your resume to me, it gets forwarded to site. Angele Kuliktana is on site and she manages all northern applications.

[Door prizes]

[Meeting adjourned]

1

Sign-in Sheet

Sabina GOLD & SILVER CORP.

Meeting: TALOYOAK

Date: Jun 19/12

	NAME	ORGANIZATION
1	Johnny Kootook	
2	LEVI PEETOOLOOT	
3	[illegible]	
4	Josephe Kingatook	
5	Victor Ugyuk	
6	IDA NAPACHEE	
7	P. Totalik	
8	Mona Totalik	
9	Cloe tolalik	
10	DAX NAPACHEE	
11	George-Totalik S.r	
12	JOHN MANNILAQ	
13	Willie Mannilaq	
14	Sarah Jayko	
15	Sandra Alookee	
16	[illegible] Alookee	
17	J. [illegible] Saittuq	
18	[illegible] Saittuq	
19	Jennifer Jayko	
20	Jeannie [illegible]	

(2)

Sign-in Sheet

Meeting: KAOJOAK

Date: JUNE 19/12

Sabina GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	KatelEEetoodook	
2	Simon Tvekta	
3	Lea Nanuq	
4	Robert QQQQAQ	
5		
6	ᐊᒪᓗ ᐅᑕ	Bernadette Uttaq
7	KKlupaq	
8	ᔫᓇᓐᓄᒃᑕᒃ	Mona Nahakhokik
9	ᒪᒃᑲᓐᓄᒃᑕᒃ	Mark Nahaklolik
10	ᐅᑕᒃᑲᑦᑕᑦ	Oleekatalik
11	VERA PANILOO	
12	Martina Nahaldik.	
13	ANNIE PANILOO	
14	LINDSAY AWAIJA	
15	Kimberly Totalik	
16	ᐅᓐᓇᓐᓂᒃ	DAVID NANOOK
17	A. Tabbik	
18	ᓄᓇᕗᒻᒥᐅᑦ	Nalugiaq Peetoolodt
19	a. alaska	
20	Mary Neveadleah	

(3)

Sign-in Sheet

Sabina GOLD & SILVER CORP.

Meeting: TALOYOAK

Date: Jun 19/12

	NAME	ORGANIZATION
1	Edna Kingurtook	
2	Simon Qingnaqtuq	Hunters & Trappers Organization
3	Mary Ugyuk	
4	Martha Quqqiaq	
5	Lloyd Saittuq	
6	[illegible]	Mable Kootook
7	Jeannie Ugyuk	MLA for Nattilik
8	Elaine [illegible]	
9	MARTHA-NapaCHEEKALDAK	
10	[illegible]	
11	PETER MANNIKAQ 6C	
12	Joseph QUQQIAQ JR	
13	Clara Sigguk	
14	Willy INUKSAQ	
15	Yolande Aupalu	
16	NellieAnn Uqustuq	
17	Tony Eetuuq	
18	Rebecca Kanao	
19	Alvin KOOTOOK	
20	Rachel Totalik	

(4)

Sign-in Sheet

Sabina
GOLD & SILVER CORP.

Meeting: TALOYOAK

Date: June 19/12

	NAME	ORGANIZATION
1	Mary Neveacheak	
2	ᓯᓂᐅᑦ ᐊᓕᓐᓂᐅᑦ	MONA PANLOOSIE
3	Louisa Alookee	
4	Robin Peetooloot	
5	Ross Pamigayak	
6	Wendy ᐅᓂᒃ	
7	Lester Alookee	
8	Christalun Nanook	
9	Lena Nahalotik	
10	Mary ᓴᓐᓄᒃ	
11	Jimmy Tatolik	
12	Cindy Tucktoo	
13	ALLEN NANOOK	
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MEETING INFORMATION	
DATE	June 20, 2012 (10:45 am)
TYPE OF MEETING	Meeting with Members of the Gjoa Haven Hamlet Council
LOCATION	Gjoa Haven Hamlet Office
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Jason Prno (Sabina) Joe Otokiak (Interpreter) Allen Aglukkaq (Mayor) Teddy Carter (Councillor) Andrea Carter (Councillor) Enuk Pauloosie (SAO) Sarah Ugak (Hamlet staff person)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

[Meeting commenced at 10:45 am]

[Matthew Pickard delivered a Project introduction presentation]

Q – When I hear Back River I think about the Chantry Inlet area close to Gjoa Haven. Are they the same thing?

MTP – They are two different things. Our project is in the west. The location you are referring to is in the east.

Q – You will need to differentiate the two in your public meeting.

Q – When you say 'gold' and 'ore' are you talking about the same thing?

MTP – Yes.

Q – How will you manage your tailings?

MTP – [Describes potential tailings disposal methods and management options]. We prefer to use a slurry line to carry the tailings to the deposition area and then dry the tailings. Tailings will be capped at closure.

Q – Will MMG's port be separate from yours?

MTP – Yes, they will be different. Previously, MMG looked at utilizing BIPAR. They are no longer proposing to use this, however.

MTP – Are you aware that people from Gjoa Haven are working at our site?

Q – Yes, we know there are quite a few working there. They're not quitting, which is a good thing.

Q – Do they have an all-weather road between George and Goose?

MTP – No, not right now. [Describes potential road options for operations].

Q – He have several groups in our community that look for funding. Do you have a funding application process?

MTP – We have a donations policy in place that is focussed on supporting youth and traditional pursuits. Applications are generally sent to me for evaluation. We are hoping to collaborate with other regional mining companies on donations.

[Meeting adjourned]

MEETING INFORMATION	
DATE	June 20, 2012 (7pm)
TYPE OF MEETING	Public Meeting – Gjoa Haven
LOCATION	New Community Hall
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Jason Prno (Sabina) Joe Otokiak (Interpreter) Various members of the public (see sign-in sheet)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

[Meeting commenced at 7:15pm]

[Opening prayer]

[MTP delivered a Project overview presentation]

Q – As Inuit and original occupiers of the land we use a lot of country food and try and protect it. This is especially true for caribou. Caribou migrate to different areas, to the areas you have spoken about and south. They migrate far distances. If caribou migrate through that area how will it be dealt with by the company? How many weeks will employees work on rotation?

MTP – Caribou do move into that area. In 2009 they moved right through our camp. There could be some shifting in migration that occurs due to our mine. Other mines have shown this shifting to be somewhat minor, however. When large herds will be in the area we wouldn't run large equipment and trucks. We would modify our operations. The area of Goose Camp is 2 or 3 times the size of this community; it has a relatively small footprint. We will need to have good plans in place for dealing with wildlife. We will also need to monitor to see if we have impacts. The northern workforce will have a 2 weeks in / 2 weeks out rotation.

Q – If the ships are going to navigate through that area in the winter, people should be notified when the shipping occurs. The hunters will travel to those areas as soon as the ice forms. Drilling occurs on the land and ice. There is wildlife that goes into those areas where the drilling occurs and feed. There are chemicals used for drilling. Fish are present there as well and could be affected. The water and drilling chemicals need to be monitored. I've noticed that chemicals can flow into the lakes and oceans. Helicopters and small aircraft tend to scare wildlife. They shouldn't chase or scare wildlife. I've worked at mine sites before and seen this.

MTP – Shipping will only be done in the open water season, there will be no winter shipping. There are no chemicals used for drilling, but salt is used for drilling deep holes to make sure the water doesn't freeze. Any water that flows out of the drill first flows into a containment area in order for sediment to settle out. The water then flows out over the land. Regulations stipulate we must be 31 meters away from water. We have a standing rule at our site for all helicopters - No chasing of wildlife is allowed and flying is not permitted near herds. At least once a year, if not more, the KIA board and other organizations will inspect our site. Most of the land our project will be built on is surface owned IOL. There are no subsurface owned parcels of land; thus, NTI will receive no direct royalties. Because we are on surface owned IOL, many of our permits must come from the KIA.

Q – I've worked at a mine site before, underground. A lot of mines have been closing. There are a lot of contaminants left behind at mine sites. The wildlife that eat the plants are affected; they're not aware they shouldn't go into those areas. I'm a hunter and fisherman; that's what I use for food. I've often tasted country food that doesn't taste quite right. In areas where there is development, the meat is different. I've noticed that. If there was fencing around your project, it might help prevent this. Contaminants are always spreading on the land. Those types of projects are detrimental to the wildlife.

MTP – There can be dust that comes from a mine. That is how most of the contaminants from a mine land on the plants. We are conducting baseline studies to learn about what the current conditions are. We will then monitor the site afterwards, to see if these conditions change. Previous mines have left messes behind, like the Giant Mine. Our closure process will require the company to provide a closure bond that will be held by the KIA or Aboriginal Affairs. A project like ours will require a closure bond of about $40 million. The bond amount will be the amount required to close the site. If we leave early, we forfeit this amount. We can look at fencing options. Caribou is obviously a priority in this community.

Q – Even if there is a clean up after the mine closes, it is hard to get the land back to its original state. People who have spent time on the land in those areas should inspect the project rather than people from offices.

MTP – KIA is allowed to bring whoever they would like with them on their inspections. The community working groups we have created will also be making site visits. [Describes structure of working groups]. You should feel free to suggest to the KIA the names of people who could help them with their inspections. Could I have a copy of your email address so I can send your suggestion to the KIA?

[Door prizes and break]

Q –If I worked at one of your camps, would I have the opportunity to work at the other camp on my two weeks off?

MTP – No. Government of Nunavut regulations state that employees must have a certain amount of time off between their rotations.

Q – There are a number of heavy equipment operators in the community. There are also carpenters from here and cooks that have been trained. People from here are also capable of doing administrative work.

MTP – When Sabina comes back to the community to discuss human resources matters, make sure you come and tell us who has training in the community and what types of training they have.

Q – When NIRB does their public hearings, will Sabina come with NIRB too?

MTP – [Described how NIRB process works].

Q – You mentioned one of the camps has no airstrip, only a helipad. How do people get in?

MTP – [Described how people currently rotate into Goose and George camps at different times of the year. Described airstrip construction process].

[Door prizes]

[Meeting adjourned at 8:50 pm]

①

Sign-in Sheet

Sabina
GOLD & SILVER CORP.

Meeting: GJOA HAVEN

Date: Jun 21/12

	NAME	ORGANIZATION
1	George Ameralik	
2	Jasper Kameemalik	
3	Marvin Atqittuq	
4	Noah Siutinnuaq	
5	Leslie Ukkiktak	
6	Adam Hallaytalik	
7	Irene Ekelik	
8	Derek Qingnatuq	
9	AGNES EKELIK	
10	Roger Ekelik	
11	Craig Kakolak	
12	DAVID SIKSIK	
13	ANTHONY ANGUTTITAUruq	NEWMONT
14	Judas KAROO	
15	Celine Pauloosie	
16	Richard Dwyer	
17	Simona Akikkungnaq	
18	[illegible]	
19	SAQL Q	
20	MARK Ullikataq	Newmont

(2)

Sign-in Sheet

Meeting: GJOA HAVEN

Date: JUNE 21/12

Sabina
GOLD & SILVER CORP

	NAME	ORGANIZATION
1	Jimmy Arqviq	
2	BEN-PUTUGUQ	
3	ENOCH PAULOOSIE	
4	JANE PUTUGUQ	
5	Gail Putuguq	
6	Alice Pootogo	
7	Tommy. Kleng	
8	MARKKU NUNAK	
9	Dominic Giraoux	
10	Kelly Putuguq	
11	Paul Qaluk	
12	Leonie Aaluk	
13	SHARON DWYER	
14	Ethelanne Dwyer	
15	NAL dbb^{96}	
16	D [illegible]	
17	D. M	
18	Yvonne Nimiqtaqtus	
19	Allen Aglukkaq	
20	Billy Nimiqtaqtuq	

(3)

Sign-in Sheet

Sabina GOLD & SILVER CORP.

Meeting: GJOA HAVEN

Date: Jun 21/12

	NAME	ORGANIZATION
1	Molly Siutinnuaq	
2	Rhea Siutinnuaq	
3	Jonathan Pugiqnak	
4	Ida Porter	
5	HATKAITTUQ MABEL	
6	ᐱᐊᕐᑐᖅ	
7	Veronica Aaluk	
8	COLIN ~~P~~ [illegible]	
9	Kenneth Kaloon	
10	[illegible]	
11	[illegible]	
12	Terry Qaqutinnuaq	
13	Floyd Quqqiaq	
14	Sherry Nimiqtaqtuq	
15	Karen Ocpakoah	
16	Lucy Akoak	
17	Chris Kikoak	
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MEETING INFORMATION	
DATE	November 15, 2012 (11am)
TYPE OF MEETING	Project introduction with the Yellowknives Dene First Nation (YKDFN)
LOCATION	YKDFN Offices, Ndilo
ATTENDEES	Matthew Pickard (Sabina) Elizabeth Sherlock (Sabina) Jason Prno (Sabina) Edward Sangris (YKDFN Chief) Shannon Gault (YKDFN Executive Assistant, Dettah Chief) Todd Slack (YKDFN Research and Regulatory Specialist)
COMMENTS	Jason Prno took notes

MEETING NOTES:

MTP delivered a project overview presentation.

Q – Would Xstrata be the proponent of BIPAR?

MTP – We are looking to joint venture with them on BIPAR, although we own the project. However, they would take the lead in the development of that project.

Q – You're not even in the prefeasibility stage yet, and only have your preliminary economic assessment completed. Is it not premature to enter into the environmental assessment process now?

MTP – No, we're fairly certain the major project details won't change much from here on. However, the EA process also gives us an opportunity to make small adjustments to the project, before designs and plans are set in stone.

Q – Will all of the proposed infrastructure you mentioned be built at each site?

MTP – Much of it will be, but our Goose Camp will have a few more facilities than our George Camp.

Q - Did your preliminary economic assessment suggest only the use of winter roads?

MTP – Yes, but we have left the options for winter and all-season roads open in our Project Description.

Q – Who are your environmental consultants?

MTP – Rescan is our primary environmental consultant, although we also have third party reviewers.

Q – Has Rescan been directed by Sabina to look at environmental data in regards to the NWT diamond mines?

MTP – As much as possible, and where publically available, we will include this information in our assessment.

Q – We're telling you the same thing we told MMG. However, they're more of a concern to us because their project is found more within caribou calving grounds. From YKDFN's perspective, the burden is on the proponent to prove there won't be significant impacts that result from their project. Our current view is that your project is unprecedented and will have significant impacts. You need to prove otherwise to us first, before we can start to discuss how the project will move ahead. Even though your project is in a post-calving area doesn't mean caribou won't be sensitive to it; only less sensitive. Caribou is a big concern for us.

MTP – There is no doubt that caribou move around and through the project area. We see them on-site and through our observations. Mitigation and monitoring in regards to caribou will be accomplished under the EIS process and the NIRB guidelines that are issued for the project. That is where these issues will be worked out.

Q – Indirect effects of the project on caribou are our biggest concern, as there will be few direct effects on caribou from the mine's infrastructure. Your third party reviewers – How were they selected? This is important. I like Rescan's work, but they work for industry. Will this work be made available?

MTP – EDI will be used to review the caribou work.

Q – The proposed project is outside our Chief Drygeese Territory. But wildlife don't follow boundaries, they migrate. Since time immemorial YKDFN have relied on the caribou. Since 1995, YKDFN have been impacted the most in regards to changes in the caribou herds. There has been a significant drop in caribou numbers, due to cumulative activities in their range. We have always depended on Bathurst caribou for subsistence. There is no use beating around the bush here - Our members will not support this project if it has further effects on caribou. I know that for a fact. Elders have said the caribou are our identity. If impacts are going to happen, we are not in favour of the project. Who is to say the caribou won't bounce back though? We have had to limit our hunting of the caribou. The diamond mines are in the heart of caribou calving grounds. We don't believe the mines when they say they have no impact. They have a zone of influence. If your proposed development is in the heart of caribou calving grounds it will have significant impacts and will reduce the caribou numbers further. It's pretty hard to support something that will have future effects on our future generations. We're talking about effects that could last hundreds of years. I don't want to go to a zoo to look at a caribou. We leaders

have to walk a fine line between creating economic prosperity and protecting the environment. But, we cannot accept this project if it affects the caribou.

MTP – Thank you. We will need to assess trans-boundary effects like this in our EIS.

Q – The board established to oversee the Bathurst caribou is not working very well/not functioning well. At the GN, are you working with Mathieu Dumond?

MTP – Yes, and a combination of other people.

Q – We don't have a settled land claim. Until this occurs, exact wildlife and environmental management arrangements won't be finalized. It has been a long process. It would be a benefit to industry in the Akaitcho territory if this was finalized; it would provide them with certainty. We realize this project is in Nunavut's territory, but we need to recognize that effects can be felt in other peoples' territories. We had this issue with IZOK and wrote to the Nunavut government about our concerns on caribou. The bottom line is that it's hard for us to look at this project if there are going to be effects.

MTP – Thanks for your comments. This is all good for us to know. We should have more knowledge about our planned infrastructure and road configurations sometime mid-next year. I would be happy to come in around that time to meet with you again. The issuance of NIRB guidelines for the project assessment is a next major step and will cover some of these matters.

Q – Thank you for coming in. It is good that we are communicating clearly.

MEETING INFORMATION	
DATE	November 16, 2012 (7pm)
TYPE OF MEETING	Public Meeting - Project introduction
LOCATION	Explorer Hotel (Janvier Room) - Yellowknife
ATTENDEES	Public: See sign-in sheet Sabina: Matthew Pickard Elizabeth Sherlock Jason Prno Cheryl Wray Andy Orr
COMMENTS	Jason Prno took notes 1 public comment form received

MEETING NOTES:

MTP delivered a project overview presentation.

Q – I'm a newspaper reporter focusing on business matters. We've been hearing a lot of bad news about resource development projects recently. This sounds like good news. We're hearing that it is hard to permit projects in NWT – Can you comment on that?

MTP – I can't comment on the NWT, as our project is Nunavut based. Our impression is that Nunavut is a good place to work. It has a good, rigid permitting process run by NIRB.

Q – What about the strength of current markets? Can you comment on that? Aren't the markets in trouble right now?

MTP – You're right; it has been tough for junior mining companies to raise funds recently.

Q – Does that affect you?

MTP – Not really. We are very well funded and thus able to continue our work.

Q – Can you review the caribou information you presented again and information on the other proposed mineral developments in the region?

MTP – [Reviewed this information again].

Q – Does island caribou migrate through your project?

MTP – No, our current data shows they only come as far south as southern Bathurst Inlet.

Q – They come down a lot further than that – You might want to look at that issue closer.

MTP – Our baseline work will look at that matter.

Q – Who are your major contractors and service providers?

MTP – Northern Air Support, Air Tindi, Major Drilling, 1984, and Nuna Logistics are our major service providers.

Q – How much of the company is Canadian?

MTP – 100%. There may be small amounts of non-Canadian shareholding, but we don't have access to that information.

Meeting adjourned at 8pm.

Sign-in Sheet

Meeting: FRIDAY NOV 16, 2012

Date: Yellowknife, NWT OPEN HOUSE

Sabina GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	[redacted]	[redacted]
2	Kevin Vickers	DMS
3	Norm Case	DMS
4	Andy McMullen	BEARWISE
5	KELLY CUMMING	n/a.
6	Robin Sattwer	Mining
7	CARRIE VANDERLINDE	KBL ENVIRONMENTAL
8	JOHN MAIN	Kitikmeot Inuit Assoc.
9	Thandi Vela	NNSL
10	Tom Hoefer	Chamber of Mines
11	Liz Kingston	Chamber of Mines
12	BRAD RYDER	Xstrata Zinc Canada
13		
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Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Concerns about caribou ~~in~~ during migration esp. effects of roads (both all-season and winter roads)

Is there anything you would like to learn more about?

Is there anything we could be doing better?

Contact information (optional):

Name: _____

Address: _____

Phone number: _____

Email: _____

MEETING INFORMATION	
DATE	November 18, 2012 (3pm)
TYPE OF MEETING	Project introduction with residents of Bathurst Inlet and Bay Chimo
LOCATION	Sabina board room, Cambridge Bay
ATTENDEES	Sabina: Jason Prno Andrew Orr Robert Maksagak Bathurst Inlet and Bay Chimo Residents: See sign-in sheet
COMMENTS	Andrew Orr took notes. Connie Kapolak provided interpretation services.

MEETING NOTES:

JP delivered a project introduction presentation. Both JP and AO answered questions.

Q: What is the pond in the picture of Goose Camp?
A: Grey water discharge area.

Q: Will there be arsenic in the tailings?
A: Yes. Disposal methods for arsenic and cyanide from the tailings have yet to be determined. Cyanide could be destroyed by using certain processes, and arsenic can be paste backfilled in underground workings.

Q: Will you be building bridges to cross rivers?
A: Yes, we will likely need to make some water crossings, but no major river crossings will be made. Some small streams will likely be crossed, but stringent regulations will be followed in building and maintaining these crossings.

Q: What will happen to the pit when you are finished mining?
A: The pit could be backfilled with waste rock, or could be allowed to be naturally filled in with water.

Q: Would it benefit Bay Chimo/Bathurst Inlet to have a mine site?
A: Employment is the biggest benefit Sabina can provide to the area. However, we are here to listen to additional suggestions on what benefits people from Bay Chimo/Bathurst Inlet would like to realize. I encourage the group to think of potential benefits from the mine that Bay Chimo/Bathurst Inlet would like to see.

Q: At Hope Bay, in order for people to work at site from Bay Chimo/Bathurst Inlet, they needed to move to Cambridge Bay to catch their flights. We would like to see rotation flight pickups/drop offs at Bathurst Inlet. We would like to have our children be able to work in the future, but still be able to live in Bathurst Inlet.
A: Thank you. We can look into this.

Q: Do you stop operations during calving season?
A: No, not currently. Some mine sites in the north modify or stop their operations at certain times to help protect the caribou. We will look into these options as we move forward.

Q: Be aware that where there are bridges, caribou may try and cross in these areas. If you have bridges, you should stop vehicle traffic when caribou are crossing the river.

Q: Long ago before white people were in the north, Bay Chimo and Bathurst Inlet people used to live in the Back River area.

Q: When you are doing training for the mine site, will it be through Arctic College?
A: We are currently in discussions with the KIA in regards to developing training programs. We are also discussing this issue with Xstrata and MMG; the three companies have agreed to cooperate on training initiatives. Arctic College may be used for some training programs and some training may be done outside of Nunavut.

Sign-In Sheet

Robert Maksagak
Robert AKOLUK
Martha AKOLUK
Lucy HANILIAK
John Haniliak
Nancy Haniliak
Dena Kamoayok
Jessie Kapolak
Connie Kapolak
Peter Kapolak
Martina Kapolak
ALLEN KAPOLAK
EMMA. Klengenberg
CLARENCE Klengenberg

MEETING INFORMATION	
DATE	November 19, 2012 (130pm)
TYPE OF MEETING	Community advisory group meeting
LOCATION	Sabina board room, Cambridge Bay
ATTENDEES	Sabina: Jason Prno Andrew Orr Community advisory group members: Martina Kapolak Mary Kilaodluk Anna Nahogaloak Johnny Lyall Sr. Keith Lear Sr.
COMMENTS	Andrew Orr took meeting notes. Emily Anglualik provided interpretation services.

MEETING NOTES:

Jason Prno provided a brief project update and asked the group if they had any questions or follow-up items from their September 2012 site visits.

Q – It was good to see the Back River site and operations during our visit.

Q – It was very muddy at Goose Lake. Can you put down gavel there?
AO – There are no sources of gravel nearby, which is why this hasn't been done yet. However, there are plans to put gravel down in the future.

Q – What's the difference between geology and mineral exploration now and 50 years ago?
AO – [Described some of the major advancements].

Q – I'm assuming that no two mines are the same in terms of how you explore for gold? Or of the indicators for gold? Do you ever find fool's gold?

AO – That's correct. And yes, we often find fool's gold.

Q – Why was there a helicopter hovering over George Lake when we were there?
JP – I'm not exactly sure as I wasn't there, but it could have been taking pictures or conducting some sort of survey.

Q – I was impressed with how safe the site was and with the environmental management procedures that were in place.

Jason Prno presented and reviewed the following list of 'Important Areas of Study for the Back River Project' for the group to comment on:

Physical Environment

- Air Quality (SO_2, NO_2, O_3, TSP, PM_{10}, $PM_{2.5}$)
- Noise
- Freshwater Quality
- Surface Water Quantity
- Marine Water Quality
- Eskers

Biological Environment

- Caribou
- Grizzly Bear
- Wolverine
- Upland Breeding Birds
- Waterfowl
- Raptors
- Seabirds/Seaducks
- Arctic Grayling
- Lake Trout
- Freshwater Fish Habitat
- Marine Fish Habitat

Socio-Economic Environment

- Archaeological resources
- Health Care Services
- Community Well-Being and Delivery of Social Services
- Public Safety and Protection Services
- Employment
- The Economy
- Education and Training
- Business Opportunities
- Human Health/Country Foods

Q – What about wastewater, sewage and tailings? Will those be looked at?

JP – Yes they will. For example, these would likely be assessed under areas like 'freshwater quality' and 'surface water quality'.

Q – What are eskers? Why are they important?
JP – [Described what an esker is and their importance to wildlife].

Q – Why is studying noise important?
JP – It is something that is often looked at, especially when a new industrial development is being proposed in an Arctic environment that would not otherwise have such noise.

Q – Are you looking at global warming? Animals are coming further north now. Birds, like ptarmigan have also been changing over the last 20 years. Other birds have changed the way they sing.
JP – Yes, we will assess the potential effects of global warming in our EIS. We will also assess our contributions to global warming, through things like emissions from the mine.

Q – [Asking the question to elders in the room] Will putting a mine site in the middle of a caribou migration corridor affect the migration? Disrupt it? Destroy it?
A – There used to be big caribou migrations in this area, but not anymore. I'm not sure if mining caused this.
A – The migration has scattered and we haven't seen an abundance of caribou in this whole area, in the project area, for a long time.
A – Noise and helicopters can disperse caribou, as can vibrations. Mining uses a lot of helicopters.

Q – Have you had many bear problems at site? Grizzlies are moving further north now.
JP & AO – We haven't heard of any major issues.

Q – There are lots of wolves in that area now.

Q – Inuinnaqtun place names are needed on your maps. These places you list in English all have Inuinnaqtun names.
JP – We are in the process of working on this. We actually just received a draft traditional knowledge report from the KIA that includes traditional place names for the area.

Jason Prno reviewed the community advisory group's 'terms of reference'. Martina Kapolak, Mary Kilaodluk, Anna Nahogaloak, and Keith Lear Sr. approved and signed English and Inuinnaqtun copies of the terms of reference (Johnny Lyall Sr. had already left for work).

The advisory group members that were present agreed to wait to decide on an Inuinnaqtun name for the group.

The advisory group members that were present suggested that a youth member of the group be solicited on the local radio station. The existing advisory group members would then decide from the list of potential candidates.

Andrew Orr made an introductory geology presentation to Keith Lear and Emily Anglualik (the rest of the group members left at this point).

Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	November 19, 2012 (7pm)
TYPE OF MEETING	Open house
LOCATION	Community Hall, Cambridge Bay
ATTENDEES	Sabina: Jason Prno Andrew Orr Robert Maksagak Charlene Kaiyogana Cambridge Bay Residents: See sign-in sheet
COMMENTS	Emily Anglualik provided interpretation services. 28 public comment forms were received.

MEETING NOTES:

Sabina hosted an 'open house' which included use of:
-One project introduction presentation slide show (on a continuous loop).
-One slideshow of project photos (on a continuous loop).
-A total of 10 project information posters (5 English/5 Inuinnaqtun) on topics pertaining to 'Employment Opportunities', 'Baseline Environmental and Socio-Economic Studies', 'Working with Kitikmeot Communities', 'The Back River Project', and 'Back River Project Timeline'.
-One Sabina display booth
-Presentation handouts
-Public comment forms
-Three Sabina employees available to answer questions and provide project-related information to the public.

No notes were taken during the open house, although 28 public comment forms were received (see attached).

Sign-in Sheet

Sabina GOLD & SILVER CORP.

Meeting: Cambridge Bay Open House

Date: November 19, 2012

	NAME	ORGANIZATION
1	Lance	
2	Mary Avalak	
3	Gibson Kaosoni	
4	GEORGE OKHINA	
5	Danny Mala	Kitaung
6	MARK HAONGAK	
7	KITTY TAIPAGAK	
8	Paul TAIPAGAK	
9	Brenda Sitted	
10	Jay Jay Evalik	
11	Michelle Buchan	KIA
12	MARY KILAODLUK	
13	Richard Dwyer	Arktis
14	M. ETEGIK	
15	Annie Agligoetok	
16	Rose Doris Kaniak	
17	Rodney Tartans	R. Tart
18	Lucy Qeatjuk	L Qeatjuk
19	Richard	
20	Terry McCallum.	

Sign-in Sheet

Meeting: Cambridge Bay open House

Date: November 19, 2012

Sabina GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	J. MANIYOGINA	
2	Tom Guyette	
3	S. MANIYOGINA	
4	ANNA Atighioyak	
5	SAMKULIKTANA	
6	HARRY EPILOGI	
7	NORM JACKSON	KITIKMEOT CORP.
8	Allen Kanayok	
9	ANNIE AGGYROYAK	
10	MARY KANAK	
11	Sandi Gillis	Qiliq Innovations
12	BettyAnn Maniyogena	
13	John MacIsaac	Gov NU Minerals
14	Mary Rose Haksagak	GN Employment
15	ANNA. NAHOGALOAK	KHS
16	JeanAn Haniliak	Housing
17	WALTER HANILIAK	HAMLET
18	Myste Kamingoak	GN Employment
19	Robert & Martha Akoluk.	
20	Dillon	

Sign-in Sheet

Meeting: Cambridge Day Open House

Date: November 19, 2012

Sabina GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	M.A. Okhina	
2	Ida Hanak	
3	Anthony Otokiak	
4	Ashley Otokiak	
5	Crystal Kongayona	
6	Clothilda tatalik	
7	GWEN KITIGON	
8	BRUCE PETERSON	INNUKSHUK ENT. LTD.
9	David Analok	
10	Nikita Hikok	
11	Ivor Maksagak	
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Sabina Gold and Silver Corp.
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KIYALIKA OKAGUMAYUM TITIGAKVIKHA

Okaohigiyavatin okaohikhatin, ihomalutigiyatilunen, atukuyatilunen uvuna Utkohikhalikmi Kulmik Havaakun:

If you can protect and manage the wildlife when you operate the mine, is my condern

Pikaka hunamiklikaa ilitokgivaaligumayaknik?

If you can provide information to public & inform of its operation would be beneficial

Pikaka hunamiklikaa havaagilaktaptiknik ihoatkiyamik?

If you follow proper procedures and rules would be great & Thank you for helping people.

Okakatikhamik hivonikhiyun (atulaktok):

Atik: Anna Nahogaloak

Togaaktakvea: P.O. Box 61 Cambridge Bay

Hivayaotata napaa: 983 2365.

Kagitaoyakun: _____

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

What are theyre gonna do about Fuel, because at Summer there are alot of gaming around there,

Is there anything you would like to learn more about?

Would like More information on How the land is,

Is there anything we could be doing better?

When having Meeting's, would be nice to have no children, because Can't hear when Kid's are Screaming, or Runing around,

Contact information (optional):

Name: Mary Kiladluk

Address: Box 71 Cam-Bay, NU, X0b 0C0

Phone number: (867) 983- ~~0~~

Email: ~~0~~

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

~~Involve~~ Be involved in youth programs in the community

Is there anything you would like to learn more about?

Can't think of anything right now.

Is there anything we could be doing better?

Make sure drugs & booze do not get in to site.

Contact information (optional):

Name: _____

Address: _____

Phone number: _____

Email: _____

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Is there anything you would like to learn more about?

Is there anything we could be doing better?

Contact information (optional):

Name: David Analok

Address: 8 Aviaqsak St

Phone number: 867-983-7315

Email: danalok@hotmail.com

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

KIYALIKA OKAGUMAYUM TITIGAKVIKHA

Okaohigiyavatin okaohikhatin, ihomalutigiyatilunen, atukuyatilunen uvuna Utkohikhalikmi Kulmik Havaakun:

- More concern with animal + land.
- to be looked after before starting up mine

Pikaka hunamiklikaa ilitokgivaaligumayaknik?

Pikaka hunamiklikaa havaagilaktaptiknik ihoatkiyamik?

Okakatikhamik hivonikhiyun (atulaktok):

Atik: Mary Avalak

Togaaktakvea: Cambridge Bay, NU. X0B 0C0

Hivayaotata napaa: 867-983-2034

Kagitaoyakun:

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

HOW LONG WILL BE GOING FOR.

Is there anything you would like to learn more about?

WILL THEY BE TRAINING WHILE WORKING ON SITE.

Is there anything we could be doing better?

IT WILL IF GOOD FOR INUIT PEOPLE IN KITIKMEOT.

Contact information (optional):

Name: MARK IHAONGAK

Address: CAMBRIDGE BAY

Phone number: (867) 983-2685 HOME OR WORK 867 983 2818

Email:

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Is the job only going to be seasonal?

Is there anything you would like to learn more about?

Are there going to be any good operating dish washer

Is there anything we could be doing better?

Could you add any VTA - vacation travel assistance available?

Contact information (optional):

Name: Mary-Ann OKhina

Address: Box 1060 Cambridge Bay, NU.

Phone number: 867-983-3371

Email:

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

I am in agreement with the project.

Is there anything you would like to learn more about?

If public can be informed with the project, and learn more about the project

Is there anything we could be doing better?

If you can follow the procedures of Inuit organizations would be beneficial.

Contact information (optional):

Name: Gwen Kitigon

Address: PO Box 2175 Cambridge Bay,

Phone number: 867 983 3294

Email:

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Now are the Benefit Package

Is there anything you would like to learn more about?

Is there anything we could be doing better?

Contact information (optional):

Name: Rodney Taptona

Address: Cambridge Bay

Phone number: 867-983-3084

Email: Rodney_Taptona@hotmail.com

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

~~NTA~~ hire more local people

Is there anything you would like to learn more about?

no

Is there anything we could be doing better?

none at the moment

Contact information (optional):

Name: Danny Mala

Address: P.O. Box 1180 Cambridge Bay

Phone number: 867-983-2241

Email:

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Is there anything you would like to learn more about?

How do you dewater ponds and how long does it takes.
How many workers are their when dewatering?
What is Acid rock?

Is there anything we could be doing better?

Contact information (optional):

Name: Allen Kanayok

Address: Box 1088 Cambridge Bay N.U.

Phone number: 867-983-4962

Email: aKanayoK@hotmail.com

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

I don't have any comments, Thank-you

Is there anything you would like to learn more about?

Is there anything we could be doing better?

Contact information (optional):

Name: Paul Taipanzak

Address: P.O. Box - 2308

Phone number: 867-983-3105

Email: K Taipanzak @ NetKaster.ca

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

How would you keep the tailings pond from entering the water system? Before hiring any person they need to go though a drug test

Is there anything you would like to learn more about?

Would you be hiring senior positions in the mine?

Is there anything we could be doing better?

Keep us informed

Contact information (optional):

Name: Richard Ekpakohak

Address: Cambridge Bay NU. X0B 0C0

Phone number: _____

Email: _____

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Is there going to be any pension plan or rrsp

Is there anything you would like to learn more about?

* need more safety orientations weekly + fire drill
* need bear monitors daily for safety

Is there anything we could be doing better?

Check all buildings especially heating

Contact information (optional):

Name: GEORGE OKHINA

Address: P.O. Box 1060 Cambridge Bay, NU. X0B 0C0

Phone number: 867-983-3371

Email:

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

KIYALIKA OKAGUMAYUM TITIGAKVIKHA

Okaohigiyavatin okaohikhatin, ihomalutigiyatilunen, atukuyatilunen uvuna Utkohikhalikmi Kulmik Havaakun:

I am in agreement with the project, as long as you follow the rules + procedures of Inuit Org.

Pikaka hunamiklikaa ilitokgivaaligumayaknik?

If the community can be informed regarding this project will be beneficial + informative.

Pikaka hunamiklikaa havaagilaktaptiknik ihoatkiyamik?

Will there be ways to prevent disturbing of animals migrating when mine is in place?

Okakatikhamik hivonikhiyun (atulaktok):

Atik: Jimmy Manigoqina

Togaaktakvea: Box 1072 Cambridge Bay

Hivayaotata napaa: 8679832016

Kagitaoyakun: _____

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

I am in agreement with the project, as long as you follow the rules & procedures of Inuit Org

Is there anything you would like to learn more about?

If Community can be informed regarding project - weekly newsletters, announ., etc.

Is there anything we could be doing better?

Contact information (optional):

Name: Susie Maniyogira

Address: Box 1017 Cambridge Bay

Phone number: 9832016

Email:

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

I am in agreement with the project as long as you follow rules + procedures followed by Inuit Orgs.

Is there anything you would like to learn more about?

If you can keep the public informed about what is happening with this project.

Is there anything we could be doing better?

If you follow rules + procedures of the Inuit Orgs., Communities then that is good.

Contact information (optional):

Name: Mabel Etegik

Address: Box 1014 Cambridge Bay, NU

Phone number: 867 983 3919

Email:

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Drug test should be mandatory, also training is essential for working at the mine companies. Our local agencies should be informed.

Is there anything you would like to learn more about?

Learn how open pit works; we are used to presentation Learn how mining can affect the environment, how it is maintain to its natural form.

Is there anything we could be doing better?

Better selection of employee - not only family members or Nunavut Beneficiaries - variety of people in the Kitikmeot regions. Be fair in hiring.

Contact information (optional):

Name: Ø

Address: Cambridge Bay

Phone number: _____

Email: _____

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

As long as they follow the rules & keep the animals & peoples safe & after close-up try to recover like as before. I support your project

Is there anything you would like to learn more about?

none

Is there anything we could be doing better?

you are doing a good job as to keeping us informed

Contact information (optional):

Name: Robert Akoluk

Address: Kitik - P.O. Box 1105 Cambridge Bay

Phone number: 867-983-3113

Email:

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

I support your project no concerns

Is there anything you would like to learn more about?

Is there anything we could be doing better?

maybe have the flight go straight to the work sight & back instead of going through YK

Contact information (optional):

Name: Martha Akoluk

Address: P.O. Box 1105

Phone number: 867-983-3113

Email: m-akoluk@hotmail.com

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

When Students Graduate Give them changes to go See the Mine sites to look for work

Is there anything you would like to learn more about?

If the Place is clean, or if they cleen any Spill's

Is there anything we could be doing better?

Better information for graduate's like Give information for Geoligist, Chopper Pilats

Contact information (optional):

Name: ~~K Taipagak~~ KITTY TAIPAGAK

Address: BOX 238

Phone number: (867) 983-3105

Email: KTaipagak netKaster.ca

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

I am in agreement with the project. As long as they follow rules + procedures.

Is there anything you would like to learn more about?

- Will you be able to manage & try to preserve the caribou / animal migration around the area.

Is there anything we could be doing better?

IF you follow rules & procedures regarding project its all right. just to keep & maintain the migration of animals in place.

Contact information (optional):

Name: Mary Kaniak

Address: Cambridge Bay, NU

Phone number: 867 983-3009 (W)

Email:

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

KIYALIKA OKAGUMAYUM TITIGAKVIKHA

Okaohigiyavatin okaohikhatin, ihomalutigiyatilunen, atukuyatilunen uvuna Utkohikhalikmi Kulmik Havaakun:

I am in agreement with the project as long as they follow rules & procedures with Inuit Org.

Pikaka hunamiklikaa ilitokgivaaligumayaknik?

I have no questions.

Pikaka hunamiklikaa havaagilaktaptiknik ihoatkiyamik?

Follow rules & procedures of what Inuit Organizations are saying.

Okakatikhamik hivonikhiyun (atulaktok):

Atik: Annie Atighioyak

Togaaktakvea: Box 1126 Cambridge Bay, NU

Hivayaotata napaa: 983-3057

Kagitaoyakun:

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

I think its a positive project
If will help to educate + employ.
It is an exciting development, is already.

Is there anything you would like to learn more about?

I do like community presentations.
The IIBA's will be interesting to see.
When the company does produce it would be
nice to offer gold from the mine for sale or see if anyone
is interested maybe offer through salary deduction

Is there anything we could be doing better?

Communication is good.
Engaging elders with translators is appreciated.

Contact information (optional):

Name: Hugh John MacIsaac
Address: 2448 - 29C Tatkik St, Cam Bay NU, X0B0C0
Phone number: 867-983-4224
Email: hmacisaac@gov.nu.ca

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Plan, with all other stakeholders, to construct a all weather road from Yellowknife to Bathurst All the proposed mines and Nunavut + federal govt would need to get on board. Make the road a toll road. NWT+

Is there anything you would like to learn more about?

Is there anything we could be doing better?

Contact information (optional):

Name: Norm Jackson

Address: 10 Ouilette Rd

Phone number:

Email: njackson@kitikmeot.ca

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Would there be training?
When + where can anyone sign up to work?

Is there anything you would like to learn more about?

Is there anything we could be doing better?

Contact information (optional):

Name: DAVID HANILIAK, JEREMY HANILIAK

Address: CAMBRIDGE BAY

Phone number: (DAVID) 983-3509 - (JEREMY) 983-7325

Email:

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Is there anything you would like to learn more about?

As an engineering student, I was looking for more information about possible career options in the future.

Is there anything we could be doing better?

Contact information (optional):

Name: Thomas Guyette

Address: 36C Kilgavik St, Cambridge Bay, NU X0B 0C0

Phone number: 867 983-4145

Email: ~~tguyett~~ guyette.thomas@gmail.com

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Do Nuna Logistics be involved with Open Pit mining in Back River Gold Project. Is it going long term project once it's in production

Is there anything you would like to learn more about?

I have been working at ~~three~~ two mines here in Nunavut with Nuna Logistics. Also I have worked at Lupin Mine for pretty close to eight year That's why I like to learn more of another machinery.

Is there anything we could be doing better?

All you have to do is just take it one day a time to make it happen.

Contact information (optional):

Name: SAM KULIKTANA

Address: P.O. BOX 1093 CAMBRIDGE BAY NU. X0B-0C0

Phone number: (867) 983-3327

Email: samkuliktana@hotmail.com

MEETING INFORMATION	
DATE	November 19, 2012 (12pm – 12:45pm)
TYPE OF MEETING	Radio show
LOCATION	Cambridge Bay radio station
ATTENDEES	Jason Prno Various members of the public called in to the radio show to ask questions
COMMENTS	Jason Prno took notes

MEETING NOTES:

JP provided a Project overview and then opened the phone lines for questions from the community. Questions included:

Q – Will employees require a criminal record check before getting hired?
A – Yes, but we are willing to work with individuals that are interested in going through the pardoning process.

Q – Will you build an ice road from Cambridge Bay to your site?
A – No. Our roads will be built between the two camps and the marine laydown area.

Q – What percentage of Inuit will be working at the mine?
A – We do not have a specific target set. We are aiming to hire as many Inuit as possible.

Q – Will there be administrative jobs in Cambridge Bay made available?
A – There will likely be some jobs made available in Kitikmeot communities. We already have an office here in Cambridge Bay, managed by our community liaison officer John Kaiyogana.

Q – What will be the rotational schedule for cleaning women?
A – Likely 2 weeks in / 2 weeks out.

Q – There shouldn't be any favouritism when you hire. Family members of existing employees shouldn't be favoured over other people. I also think there shouldn't be any discrimination between Nunavut beneficiaries and non-beneficiaries. The best person for the job should get hired, regardless of them being a beneficiary.
A – Thank you for your comment. Favoritism will not be granted to family members of employees. However, NLCA beneficiaries from the Kitikmeot Region will be granted preferential employment at the mine. As Back River will be located in the Kitikmeot Region, we feel that as many benefits as possible should stay in the region.

Q – What will your rotations be?
A – Likely 2 weeks in / 2 weeks out for most employees from the Kitikmeot.

Q – What types of worker benefits will you provide? Will you provide hearing aid equipment and health, dental, and disability benefits?
A – The exact details haven't been determined yet, but all full-time workers at the mine will receive some sort of health benefits package.

Q – Will there be a community liaison officer in Cambridge Bay?
A – Yes, we already have a community liaison officer here in Cambridge Bay, John Kaiyogana. Sabina now has office space in the same building where Newmont has its office.

Q – Some social problems have arisen from 2 week in / 2 week out rotations. Workshops on budgeting and financial management would be useful. Will you make these workshops available?
A – We have heard similar suggestions from elsewhere in the Kitikmeot. We will look into this.

Q – Where is Back River? Will you be hiring camp maintainers?
A – It is about 370 km south of Cambridge Bay and 100 km south of Bathurst Inlet. Yes, we will need many different types of employees, including camp hands and maintainers.

Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	November 20, 2012 (7pm)
TYPE OF MEETING	Public meeting – Project overview
LOCATION	Community Hall, Kugluktuk
ATTENDEES	Sabina: Jason Prno Andrew Orr David Evalok Kugluktuk Residents: See sign-in sheet
COMMENTS	Andrew Orr took notes. Mona Tiktalek provided interpretation services.

MEETING NOTES:

JP delivered a project overview presentation.

Q: When will you start using haul trucks?
A: Operations are expected to commence in 2016 or 2017. This is the period where haul trucks would be used most often. However, there would still be a need for haul truck operators during the construction period as well.

Q: Will the mine site be 50% Inuit employees and 50% southern employees?
A: We currently do not have employment target numbers in place. It is our goal to hire as many qualified Inuit as possible. However, it could be a very busy time for the Kitikmeot Region in the coming years, as there are a number of different mines being proposed. If all these mines are built around the same time there will likely be more jobs available than can be filled by Kitikmeot Inuit.

Q: Are you planning to generate power in ways other than using diesel?
A: Currently, our plan is to run the mine only on diesel generators. However, we will explore other options as we move forward.

Q: Will fuel be shipped in to site? When?
A: Yes, fuel will be shipped in. This will occur during the open water season only.

Q: Is money put aside up front for reclamation?
A: Every mine in Nunavut must have an approved closure plan in place before construction begins, and a reclamation bond must be posted.

Q: What are the grades at Back River?
A: Average grades are about 5-8 grams of gold per tonne.

Sign-in Sheet

Sabina GOLD & SILVER CORP.

Meeting: Kugluktuk Public Meeting

Date: Nov 20/2012

	NAME	ORGANIZATION
1	Roy Kolkak	
2	Sophie Kolkak	
3	Tommy Pigalak	
4	M. Tiktalek	
5	D. Tiktalek	
6	Karimuzou	
7	Willie Pigwlak	
8	Joerew Bout	
9	LAURA. Kohokak	
10	Glen Tiktalek	
11	Shayne Miyok.	
12	Phil Evagloke	
13	Jason Taptuna	
14	PAT Algona	
15	Martin Anablak	
16	Mona Angulalik	
17	Donald Havioyak	
18	Matilda Algona	
19	Korrina Harvey	
20	Eric Kaiyogana	

Sign-in Sheet

Sabina GOLD & SILVER CORP.

Meeting: Kugluktuk Public Meeting

Date: Nov. 20/2012

	NAME	ORGANIZATION
1	Andy Topilak	
2	GORDON HIKOMAK	
3	DAVID JR. TIKTALEK	
4	ALEX Kellogok	
5	Bob Alonak	
6	Dallas Hikhaitok	
7	Maria Hikhaitok	
8	Michelle Hikhaitok	
9	Cynthia Hikhaitok	
10	Faith KOKAK	
11	Kenny Alorak	
12	Aggie.	
13	George Hala	
14	Ida Hala	
15	[illegible]	
16	Brenda Angohak	
17	Robert H.	
18		
19		
20		

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Will there be More Jobs

Is there anything you would like to learn more about?

More Jobs

Is there anything we could be doing better?

Hire More Inuit

Contact information (optional):

Name: Matilde Algona

Address: Box 123

Phone number: 867 987 3208 (c) 867 445 4714

Email: Matilda-Rose-algona@Hotmail.com

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Is openmine all year raund? or just certain times it's open?

Is there anything you would like to learn more about?

underground training do you guys have cook's housekeeping?

Is there anything we could be doing better?

Your doing the best for the ~~compmie~~ company.

Contact information (optional):

Name: Kari Miyok

Address: P.O. Box 164

Phone number: (867) 446-5519

Email: Kari.Miyok@hotmail.ca

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Is there anything you would like to learn more about?

Gold & Silver

Is there anything we could be doing better?

Hiring more Inuit

Contact information (optional):

Name: Ida Hala

Address: Kakakjak ST Kugluktuk. Nunavut

Phone number: 982-1828

Email: _____

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Thats Good. People wants Job.
on The roads.

Is there anything you would like to learn more about?

Wil

Is there anything we could be doing better?

Good Job.

Contact information (optional):

Name: Tommy Pigalak

Address: KuGluKTuK NU

Phone number: 1 867 982 5423

Email: Wil

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Thank you for coming to Kugluktuk,
come again.

Is there anything you would like to learn more about?

Is there anything we could be doing better?

Contact information (optional):

Name: PAT Alsoma

Address: Box # 252

Phone number: _____

Email: _____

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

MORE INUIT'S AT JOB SITE

Is there anything you would like to learn more about?

WOULD LIKE TO SEE MORE INUIT PEOPLE GET TRAINED ON HEAVY EQUIPMENTS SUCH AS DOZERS - EXCAVATOR - PRODUCTION - LOADERS - GRADER.

Is there anything we could be doing better?

66% INUIT'S, 40% SOUTHENERS

Contact information (optional):

Name: DAVID JR. TIKTALIK

Address: _____

Phone number: 982-3466

Email: CHUCKIE773@HOTMAIL.COM

MEETING INFORMATION	
DATE	November 21, 2012 (9am)
TYPE OF MEETING	Community advisory group meeting
LOCATION	Hamlet offices, Kugluktuk
ATTENDEES	Sabina: Jason Prno Andrew Orr Community advisory group members: Ryan Nivingalok David Nivingalok Alice Ayalik Tommy Pigalak
COMMENTS	Jason Prno took meeting notes Mona Tiktalek provided interpretation services.

MEETING NOTES:

Jason Prno provided a brief project update and asked the group if they had any questions or follow-up items from their September 2012 site visits.

Q – It would be nice to participate in a site visit when there are migratory animals like caribou moving through the site, to see the effects.

Q – Will operations at Back River be year round?
JP – Yes, once the mine is fully operational.

Q – Do you have wildlife monitors working on site? They work well at keeping animals away.
AO – Everyone working in the field is trained on how to deal with problem wildlife.

Q – We saw a helicopter chasing a wolf away while we were visiting a drill site at Back River. Do you always do this?

JP – We have a policy that wildlife should not be chased or pursued by aircraft unless it is an emergency and they are trying to get animals to move away from site personnel.

Q – I noticed you have a lot of employees from the eastern Kitikmeot working at site, rather than the western Kitikmeot. Will this change?
JP – We noticed that this year too. There is no particular reason why this has occurred; there is no favoritism being employed. Moving forward, we would like to hire as many Inuit as possible on site. Residents from Kugluktuk and Cambridge Bay will be given employment and contracting opportunity preference for the Project, and Cambridge Bay and Kugluktuk will serve as key points of hire.

Q – There are lots of people in Kugluktuk that want jobs. There are many high school graduates here. People at the mine site shouldn't chase animals with helicopters. We used to use noise makers to keep animals away. It's ok to chase animals away if it is an emergency, though.

Q – When you try and find a youth representative for this group, you might want to approach Gary Kennedy at the high school, and have him nominate someone from the Community Technology Studies program.

Jason Prno presented and reviewed the following list of 'Important Areas of Study for the Back River Project' for the group to comment on:

<u>Physical Environment</u>

- Air Quality (SO_2, NO_2, O_3, TSP, PM_{10}, $PM_{2.5}$)
- Noise
- Freshwater Quality
- Surface Water Quantity
- Marine Water Quality
- Eskers

<u>Biological Environment</u>

- Caribou
- Grizzly Bear
- Wolverine
- Upland Breeding Birds
- Waterfowl
- Raptors
- Seabirds/Seaducks
- Arctic Grayling
- Lake Trout
- Freshwater Fish Habitat
- Marine Fish Habitat

<u>Socio-Economic Environment</u>

- Archaeological resources
- Health Care Services
- Community Well-Being and Delivery of Social Services

- Public Safety and Protection Services
- Employment
- The Economy
- Education and Training
- Business Opportunities
- Human Health/Country Foods

Q – Will the effects of dust be looked at?
JP – Yes.

Q – Foxes are constantly around your camp. They are a very important part of the ecosystem. Their numbers fluctuate with changes in the rodent populations. Owls and hawks eat rodents too. Rodents could be a good indicator species to study.

Q – Will you clear areas of squirrels before blasting?
JP – We will try and clear away as much wildlife as possible before commencing blasting in areas. However, squirrels are very numerous in some parts of the region and clearing them all away beforehand could be difficult.

Q – Will there be drilling training made available?
JP – That is something we would likely look into, yes. We are currently in discussions with the KIA about developing training programs in the Kitikmeot. We are also having similar discussions with MMG and Xstrata.

Q – Will you have a regional office in the north?
JP – We recently established an office in Cambridge Bay, which is managed by John Kaiyogana. Moving forward, we will assess if establishing offices elsewhere in the Kitikmeot will be needed. Our headquarters will remain Vancouver.

Q – I think you should add 'wolf' to your list. There could actually be a wolf den close by to Goose Camp.

Q – Will you have direct flights to your camp? Some employees get in trouble when flying through Yellowknife.
JP – Yes, we will have direct flights from at least some Kitikmeot communities. Cambridge Bay and Kugluktuk will be points of hire. We are currently in the process of building an all-weather airstrip at Goose Camp to accommodate direct flights from the communities. We have had some issues with some of our employees flying through Yellowknife; some have had to be disciplined or fired.

Q – I agree that you should have direct flights. Some employees get stuck in Yellowknife. They party too much. Direct flights would be a good idea.

Q – I'm happy to participate in this group. We will need to help each other out as we move forward.

Q – I think we should leave naming this advisory group up to the elders.

The advisory group members that were present agreed to wait to decide on an Inuinnaqtun name for the group.

Q – I like that you use secondary containment for fuel at all your sites. That's really neat. The DEW line sites didn't do that.

Q – Does drilling cause earthquakes?
AO – No.

Q – You should use miles to describe distances when you are in Kugluktuk. People understand miles better than kilometers. Many of the islands off the coast of Kugluktuk have 'miles' in their names, like 'Three Mile Island'.

Jason Prno reviewed the community advisory group's 'terms of reference'. Ryan Nivingalok, Alice Ayalik and Tommy Pigalak approved and signed English and Inuinnaqtun copies of the terms of reference (David Nivingalok had already left for work).

MEETING INFORMATION	
DATE	Tuesday, February 5, 2013 (3pm – 4pm)
TYPE OF MEETING	Cambridge Bay Community Advisory Group Meeting
LOCATION	Sabina Board Room, Cambridge Bay
ATTENDEES	John Kaiyogana (Sabina) Jason Prno (Sabina) Keith Lear Sr. (CAG member) Johnny Lyall Sr. (CAG member) Martina Kapolak (CAG member)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Jason Prno and John Kaiyogana provided a Project update and described the NIRB scoping process for the Back River Project (NIRB's scoping meeting was occurring in Cambridge Bay at the time) to the advisory group members. The possibility of a new youth representative for the advisory group was also discussed. A name for the Cambridge Bay Advisory Group was agreed upon: Kiilinakmiut. This refers to people from the part of Victoria Island where Cambridge Bay is located.

Q – After you complete your exploration of the Project site, will you sell out to another mining company?

JP – It is Sabina's intention to develop and operate a mine the Back River site. However, we want to be completely honest - It is always possible that the company could be bought out by another firm.

Q – Why won't you have as many employees this year as last year?

JP – The type of work being done at the Goose and George Camps is changing this year. This year the focus will be more on engineering and environmental studies, as well as some drilling; these tasks will require fewer employees than last year. This change in focus is necessary for us to understand how best to build the mine and complete the EIS process.

Q – Does each mining project need an environmental assessment? Isn't there enough information known by now so that a lengthy environmental assessment doesn't need to be conducted every time?

JP – The rules in Nunavut state that an environmental assessment needs to be conducted for all mining projects that meet certain criteria. There is some existing information available for the Project area that is being used by the Company in the EIS. However, there are also a number of data gaps and the Company needs to collect information to fill these.

Q – Why are the scientists you use all from the south?

JP – We would love to hire Inuit scientists for our Project. However, they simply don't exist in large numbers and we have to hire from the south. If they did exist, they would be in very high demand in the north. Training is a very important need for the Kitikmeot Region. We need to make sure local residents have the training they need in order to work for mining companies. Training needs to occur for work-ready individuals, but we also need to start educating our youth about future opportunities. Sabina recently signed a partnership agreement with Xstrata and MMG to sponsor a youth educational initiative this summer through a group called Actua. Actua instructors will visit the 5 Kitikmeot communities to instruct youth about science, engineering and math topics during one week camps.

Q – You should post advertisements in the communities in the spring to make sure the youth know about this opportunity.

Q – No children should be allowed at public meetings for the mine. They are too distracting for the adults.

Q – The Cambridge Bay advisory group should meet with the Kugluktuk advisory group, so we can know what each other is doing and thinking.

Meeting adjourned at 4pm.

MEETING INFORMATION	
DATE	Friday, February 8, 2013 (3pm – 4pm)
TYPE OF MEETING	Kugluktuk Community Advisory Group Meeting
LOCATION	Hamlet Offices, Kugluktuk
ATTENDEES	John Kaiyogana (Sabina) Jason Prno (Sabina) Alice Ayalik (CAG member) Tommy Pigalak (CAG member) Ryan Nivingalok (CAG member) David Nivingalok (CAG member) Mona Tiktalek (Interpreter)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Jason Prno and John Kaiyogana provided a Project update and described the NIRB scoping process for the Back River Project (a NIRB scoping meeting for the Project was occurring in Kugluktuk at the time) to the advisory group members. The possibility of a new youth representative for the advisory group was also discussed. A name for the Kugluktuk Advisory Group was agreed upon: Kugluktumi Sabinakut Katimayiit. This means 'Sabina's Kugluktuk Community Advisory Group'.

Q – Caribou will be the biggest issue raised during your public meetings. That is the issue you will hear most about. The HTO is organizing a muskox aerial survey for this summer. It will focus on determining the numbers of muskox in the area east of the Coppermine River all the way to the Bathurst Inlet area. There are muskox in your area. Would Sabina be interested in supporting this survey?

JP – We could be. What type of support are you looking for?

Q – We would like to use your runways to refuel. Having a place to stay overnight would also be helpful. We may need assistance with fuel, but we may also have that covered. The HTO would be willing to share the information we learn with Sabina if they were willing to help us out.

JP – We'll look into this. Thanks.

Q – Will you be hiring this year from Kugluktuk and Cambridge Bay? Last year when we visited the Back River Project it was mainly people from the east, like Gjoa Haven, that were working there. The ratio was about 8-1 of easterners vs. westerners working there.

JK – We're looking into this and want to change that. We would also like to have more northerners, in general, working at site, and less southerners.

Q – Will you hire a community liaison officer in Kugluktuk?

JP – We may. Right now we only have John working out of our Cambridge Bay office. We have talked about where we might expand our presence in the north next. I can't promise that we actually will expand our presence, but if we did, Kugluktuk would be our next choice for a CLO office.

Q – Will you have more than two camps this year?

JK – No, just the Goose and George Camps will be operational.

JP – We would also have a camp for the proposed Marine Laydown Area, but only if the Project is approved.

Q – So, are people working at the three camps right now?

JK – No, there will only be people working at the Goose and George Camps this year.

Q – Will Sabina be training past graduates of the drilling program that was held?

JK – We have begun stressing to our contractors that they need to hire more northerners. Right now, they are not hiring enough northerners.

JP – Training is an important issue, even for youth; the youth need to be educated and made aware about what's out there. Sabina, MMG and Xstrata recently agreed to support a series of one week science camps for youth in the Kitikmeot Region, through an organization called Actua. These camps will occur this summer in each Kitikmeot community. Sabina, MMG, and Xstrata each contributed $55,000.00 to this initiative. Sabina and the other mineral developers have also begun discussions with the KIA about training needs for the region. We are hoping to develop a long term training plan for the region.

Q – Do you always work with the KIA? Would you consider working with the Hamlets? We held an introduction to mining course here. I think it was a six week course. The Economic Development Officer would play a key role in this.

JP – No, we are not committed to only working with the KIA. In this case, the KIA invited us to the table and we felt it was a good idea to participate. The KIA also has access to significant funds for this type of endeavour. We would certainly consider working with the Hamlets if there were good opportunities to pursue.

Q – The HTO has also helped mining companies find employees before. For example, we have supplied bear monitors for exploration camps before. The HTO would be another useful contact for you.

Q – Will you be hiring core splitters this summer?

JK – Yes, people can send me their resumes.

Q – Are you meeting with the Deh Cho about your Project? To discuss caribou?

JP – We have met with the Yellowknives Dene First Nation about the Project. They are primarily concerned about the effects of the Project on caribou. We also hosted a public meeting in Yellowknife. We will continue to host public meetings in Yellowknife when necessary.

JK – This summer, we will start flying employees directly from the communities. They won't be flying through Yellowknife anymore. We have had to fire a number of employees because of their actions in Yellowknife. Flying employees through Yellowknife was a mistake we made.

Q – Yes it is. It will benefit you to fly employees directly from the communities. No one will be left behind in Yellowknife. No one will go out partying and not show up for work.

Q – Past exploration projects in the area have also had problems with their employees who fly through Yellowknife.

Q – When people from here go through Yellowknife it causes problems.

Q – You should fly directly from the communities to site.

Q – Diavik and Ekati put employees from Kugluktuk on scheduled flights to Yellowknife, where they then overnight. The employees catch the charter to the mine sites the following day. This is because they don't have enough employees from Kugluktuk to justify the costs of a charter. They may only have two employees from here.

Q - It will be good to get this mine running.

Q – Will the advisory groups be making a site visit this summer? If so, when?

JK/JP – No, the full groups will not be making a visit. However, we would like one representative from each of the Kugluktuk and Cambridge Bay advisory groups to visit site this summer. They will accompany environmental scientists working for the project, to learn about what they do. We would like the advisory groups themselves to identify who will participate.

Meeting adjourned at 4pm.

PUBLIC SCOPING MEETINGS SUMMARY REPORT

for the NIRB's Review of

Sabina Gold & Silver Corp.'s "Back River" Project

(NIRB file no. 12MN036)

Photo 1: Kugaaruk Public Scoping Session

ACKNOWLEDGEMENTS

The Nunavut Impact Review Board (NIRB) would like to thank all those who participated in the recent public scoping meetings held in various communities in the Kitikmeot region of Nunavut as part of the NIRB's Review of Sabina Gold & Silver Corp.'s "Back River" proposal. The meetings were successful owing to the participation and assistance of local organizations, community members, government and non-governmental agencies, and Sabina Gold & Silver Corp. The NIRB would especially like to thank the many Elders and community members who actively participated in the public meetings, sharing input about the proposed Project and knowledge about the region with the NIRB staff and other meeting participants.

The NIRB would also like to take this opportunity to thank all of the communities for the warm hospitality offered to the NIRB staff during their recent visits.

Sincerely,

Ryan Barry
Executive Director
Nunavut Impact Review Board

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1.0 INTRODUCTION

The Nunavut Impact Review Board (NIRB or Board) was established through Article 12 of the Nunavut Land Claims Agreement (NLCA) under which the Board is mandated to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area with respect to proposed development projects and activities. This is done through the NIRB's environmental impact assessment process. An important part of this process is to inform potentially affected communities regarding proposed development projects and activities, and to promote public awareness and participation throughout the NIRB's assessment processes.

1.1 Outline of the Back River Project

The Back River project (the Project) is a proposed gold mining and milling operation located approximately 150 kilometres south of the community of Bathurst Inlet within the Kitikmeot region of Nunavut. The Project includes the use of open pit and underground mining techniques at eight deposits (Locale 1, Locale 2, Lone Cow, GH, Slave, Goose, Umwelt, and Llama). Sabina proposes to mill up to 7,000 tonnes of ore per day over a 10-18 year operation period, removing approximately 20-28 million tonnes of ore total, and producing 300,000-400,000 ounces of gold annually. The milling rate would involve up to 2 million tonnes of ore per year, with anticipated total waste rock and tailings production of 350 million tonnes and 25 million tonnes, respectively.

Sabina's proposal indicates that Project construction would take approximately two (2) years, followed by a ten to eighteen (10-18) year mine operation phase, and a five (5) year closure period. Ancillary infrastructure would include a marine access component which would support open-water shipping during the construction phase and annual resupply during operations, with the mine product, dore gold bars, to be flown to market directly from site.

The proposal submitted indicated that up to 1,600 employees would be required during the construction phase (in total), with an on-site labour requirement of up to 900 people on rotation during operations.

The proposed major project components and associated project activities include:

i. Goose Property

Activities and Facilities: development of open pit and/or underground mines to access three main deposits identified as Goose, Umwelt, and Llama; potential dewatering of Goose Lake, Llama Lake or other lake near mine pit boundaries or to gain access to the deposit; construction/mobilization of mill; tailings management facility; emulsion mixing plant and wash bay; lined bulk storage area for ammonium nitrate, reagents, and explosives magazines; ore stockpile; core logging facility; assay laboratory; warehousing facility; emergency facilities (fire and ambulance station); general maintenance building (site services); mine maintenance building; light vehicle maintenance workshop; heavy equipment maintenance workshop; diesel power plant; power utility buildings; brine mixing buildings; tailings storage area; waste management building; waste rock storage area; 600-person camp; modular potable water treatment system; fresh water sourced

from Goose Lake and other suitable lakes on property; modular sewage treatment system; fuel tank farm with capacity of 50 million litres for diesel storage; additional bulk fuel storage areas as required, with capacity of less than 100,000 litres each, at emergency shelters, airstrips, and machine shops; all-weather airstrip and associated navigation equipment including 1900-2500 metres long by 45 metres wide airstrips to accommodate Hercules C-130 aircraft and Boeing 737 Combi jet aircraft and possible helicopter landing facilities.

ii. George Property

Activities and Facilities: development of open pit and/or underground mines to access five main deposits identified as Locale 1, Locale 2, Lone Cow, GH, and Slave; construction/mobilization of lined bulk storage area for ammonium nitrate; emulsion mixing plant and wash bay; explosives magazines; reagent storage; ore stockpile, core logging facility; warehousing facility; emergency facilities (fire and ambulance station); general maintenance building (site services); mine maintenance building; waste management building; waste rock storage area; light vehicle maintenance workshop; heavy equipment maintenance workshop; diesel power plant; power utility buildings; brine mixing buildings; 350-person camp; modular potable water treatment system; fresh water sourced from George Lake and other suitable lakes on property; modular sewage treatment system; fuel tank farm with capacity of 18 million litres for diesel storage; additional bulk fuel storage areas as required, with capacity of less than 100,000 litres each, at emergency shelters, airstrips, and machine shops; all-weather airstrip and associated navigation equipment including 1900-2500 metres long by 45 metres wide airstrips to accommodate Hercules C-130 aircraft and Boeing 737 Combi jet aircraft and potential helicopter landing facilities.

iii. Mobilization and Shipping

Activities and Facilities: construction and operation of several all-weather and/or winter roads on and between the marine laydown area, Goose property, and George property used to access infrastructure and truck ore from mine sites to the mill on the Goose property. Marine access, activities, and associated infrastructure including: annual resupply and seasonal transport during the open-water season to move equipment, supplies and fuel to site on 5-10 ships per year (or equivalent via barge) during construction, and 3-5 ships per year (or equivalent via barge) during operations; ships to be routed north of Bathurst Inlet to the Coronation Gulf, and on through existing shipping corridors to the east or west; construction of laydown area situated in the southern portion of Bathurst Inlet; in-water loading and unloading facilities to include a dock, jetty, moorings and buoys; on-land infrastructure to include lined bulk storage area for ammonium nitrate; reagent storage; emergency and spill response facilities (to focus on ocean fuel spills); general maintenance building; waste management building; light vehicle maintenance workshop; additional bulk fuel storage areas of less than 100,000 litres each at emergency shelters, airstrips, and machine shops; fuel tank farm with 70-million litre capacity for diesel storage; 100-person camp; modular potable water treatment system; modular sewage treatment system; diesel power plant; fresh water sourced from lake close to marine laydown area; a small airstrip and associated navigation equipment capable of supporting Dash 7/8 aircraft. Project areas may be

accessed by fixed wing aircraft of varying sizes up to a Boeing 737 Combi (or similar) type aircraft. Flights would be anticipated at 5-10 per week with higher numbers during construction with helicopters continuing to be used for environmental monitoring, on-going exploration and other remote activities.

iv. Abandonment, Decommissioning and Reclamation

Activities and Facilities: removal of nearly all facilities and reclamation of disturbed areas at the end of the mine life excepting roads, airstrips, tailings storage areas, and waste rock areas to be returned to a condition which would be acceptable to regulators and communities.

All information received and pertaining to the Back River project proposal can be accessed from the NIRB's online public registry at the following link:

http://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/12MN036-SABINA-BACK%20RIVER/.

1.2 File History

On June 15, 2012 the Nunavut Impact Review Board (NIRB or Board) received the "Back River" project proposal (the Project) directly from Sabina Gold & Silver Corp. (Sabina; the Proponent). On July 12, 2012 the NIRB received a referral from the Nunavut Water Board (NWB) requesting that the Board screen the Back River project proposal.

The NIRB screened the Back River project proposal in accordance with Part 4 of Article 12 of the NLCA, and on September 25, 2012 issued a screening decision report to the Minister of Aboriginal Affairs and Northern Development (the Minister), recommending a review under Part 5 or 6 of Article 12 of the NLCA. On December 17, 2012, pursuant to Section 12.4.7 (b) of the NLCA, the Minister referred the Project to the NIRB for a public review pursuant to Part 5 of Article 12 of the NLCA. The Minister's referral also addressed issues as were identified in the NIRB's September 25, 2012 Screening Decision including the availability of participant funding for this Review, providing direction on transboundary impacts especially with regard to caribou, and outlining considerations regarding potential cumulative effects with other mine and transportation projects.

On December 17, 2012 the NIRB distributed the Minister's decision and commenced its Review of the Back River project.

1.3 Objectives of NIRB Scoping Process

Pursuant to Article 12 of the NLCA, the NIRB's Review process will:

- review the ecosystemic and socio-economic impacts of the proposed Project;
- gauge and define the extent of impacts on regions and communities; and
- determine on the basis of its review, whether the Project should proceed, and if so, under what terms and conditions, and then report its determination to the Minister.

The first step in the NIRB's Review process is to scope the project proposal and the potential impacts which may be associated with the possible development of the Back River project. Scoping is a process that pinpoints significant issues requiring study and analysis. This process aims to identify those components of the biophysical and/or socio-economic environment that may be impacted by the Project and/or for which there is public concern. The NIRB solicits input from the Proponent and interested parties, including territorial and federal government departments, Inuit organizations, and members of the public, in order to determine:

- Which Project components and activities will be included in the Review;
- The temporal (time-related) and spatial (physical) boundaries of the Project;
- The issues and concerns to be considered in the review, including but not limited to the issues highlighted in the Minister's December 17, 2012 referral, including;
    - Availability of participant funding, and the confirmation that participant funding would not be made available for this review;
    - Direction regarding the Board's consideration of transboundary impacts due to the location of the proposed project in relation to calving grounds of the Bathurst caribou, and
    - Consideration of potential cumulative effects from other mine and transportation developments in the area.
- Any other requirements for the assessment of the Project.

On December 21, 2012 and January 9, 2013 the NIRB released a *Draft* Scope for the assessment of the Project for review and comment by interested parties. Following the commenting period and revisions, on February 8, 2013 the Revised *Draft* Scope and *Draft* Environmental Impact Statement (EIS) Guidelines were issued for comment.

An important component of the NIRB scoping process requires the development of a public participation and awareness program which engages the public and encourages effective participation throughout the review process. Public scoping meetings held by the NIRB staff in the Kitikmeot region and in Yellowknife serve as an integral portion of this public participation and awareness program in terms of the NIRB's Review of the Back River project. Through the public scoping meetings held during the month of February, the NIRB collected and categorized comments as well as traditional and local knowledge related to the project proposal from members of the communities consulted. Issues raised at these public scoping meetings, combined with the input from other parties regarding the NIRB's scoping list have led to the NIRB's compilation of the Final Scope, which will be included within the NIRB's EIS Guidelines to be issued for the Proponents' preparation of an EIS for the Project.

2.0 NIRB PUBLIC SCOPING MEETINGS

2.1 Overview of the Public Scoping Meetings

The NIRB held meetings in the five Kitikmeot communities (i.e. Kugaaruk, Gjoa Haven, Taloyoak, Cambridge Bay, and Kugluktuk) with special invitations provided to ensure residents of Bathurst Inlet and Bay Chimo were aware of the consultations and given particular opportunities to participate, as the Board identified both seasonal communities as being

potentially impacted by the proposed Back River project. The NIRB staff facilitated afternoon open house sessions and evening public scoping meetings in each community starting February 5 through February 13. An additional public scoping meeting was held in Yellowknife on the evening of February 20 to encourage participation by parties potentially affected by impacts that may be felt within the Northwest Territories.

2.2 Setup of NIRB Open House Sessions and Public Scoping Meetings

All members of the community were invited to attend both the open house sessions and public scoping meetings. Attendees were asked to enter their name in the attendance registry when they came in the door to show their presence at the meeting (see Appendix A).

Based on the results of past community meetings in the Kitikmeot region, consultation with the Kitikmeot Inuit Association prior to planning these meetings, and the time of year projected for the tour, it was determined that the most effective method of engaging residents of Bathurst Inlet and Bay Chimo (past or present) was to invite the residents/families to attend the meetings held in either Cambridge Bay or Kugluktuk. The NIRB issued invitations to 9 families which were at the time, residing in Cambridge Bay, and 8 families which at the time, were residing in Kugluktuk to advise about the upcoming meetings and invite them to attend as persons affiliated with either Bathurst Inlet or Bay Chimo. Invitations were either hand delivered or provided to Hamlet offices, with radio announcements and follow-up phone calls to individuals' homes to ensure that the invitations were received.

In addition, recognizing that mobility challenges can affect the participation rates for these types of meetings, the local taxi or Elder's bus was able to be in service for certain meetings in order to ensure that Elders were provided with transportation to attend the meeting.

Representatives of various organizations interested in the NIRB Review were also in attendance. The following representatives attended several or all of these meetings as observers:

- Sabina Gold & Silver Corp. (the Proponent): Mr. Jason Prno and Mr. John Kaiyogana
- Aboriginal Affairs and Northern Development Canada (AANDC): Ms. Erika Marteleira
- Nunavut Water Board (NWB): Mr. Karen Kharatyan

Open house sessions were conducted from 1-4 p.m. as an informal round-table discussion, facilitated by maps (on both walls and tables) and/or a PowerPoint presentation (non-project specific or project specific) as needed. Local interpreters were present to assist in facilitating discussions with attendees. The public scoping meetings opened at 7 p.m. with a non-project specific PowerPoint being projected as people gathered for the meeting which highlighted the NIRB's mandate and introduced concepts of the environmental assessment process. Once attendees were settled, the public scoping meetings began with the project specific PowerPoint presentation to provide an overview of the NIRB's environmental assessment process, the proposed Project, and the Valued Ecosystem Components and Valued Socio-Economic Components being considered (Appendix B). Throughout the meetings, attendees were encouraged to raise any questions, comments or concerns about the proposed Project and its potential impacts. Both written and verbal comments were accepted throughout the meetings,

with verbal comments being recorded by the NIRB staff as well as representatives of the Proponent, NWB, and AANDC.

All presentations were delivered in either English/Inuktitut or English/Inuinnaqtun as appropriate for the community, with simultaneous or consecutive translation as could be provided. All sessions had snacks and refreshments available as well as door prizes offered at the commencement of public scoping sessions.

2.3 Meeting Materials

At each public meeting, the following printed materials were made available and provided to interested attendees, including:

- The NIRB's presentation (in English, Inuktitut and/or Inuinnaqtun)
- The Minister's letter to NIRB regarding the Review of the Back River Project
- The NIRB's Revised *Draft* Scope of the Back River project (in English)
- Comment Forms (in English, Inuktitut and Inuinnaqtun)
- NIRB Guides 1 through 9 (in English)
- Nunavut Land Claims Agreement (in English and Inuktitut)
- NIRB Environment Assessment Brochure (in English)
- Back River's Project Description and Plain Language Project Summary (in English, Inuktitut and Inuinnaqtun)
- Sabina's Back River Project Proposal (in English)

2.4 Communities Consulted During Public Scoping Meetings

The NIRB staff scheduled the public meetings based on consultation with community organizations and travel requirements. The public meetings were held as follows:

Community	**Date**
Cambridge Bay	February 5, 6
Kugluktuk	February 7, 8
Kugaaruk	February 11
Gjoa Haven	February 12
Taloyoak	February 13
Yellowknife	February 20

2.5 Advertisements

Public notification is essential to effective public engagement and is a necessary pre-requisite of the NIRB's public scoping meetings. The NIRB utilized a number of notification methods to advertise the public scoping meetings held in the Kitikmeot Region. Please refer to Appendix C for a sample of all advertisements distributed by the NIRB.

Radio

The NIRB distributed community flyers with scripts to the radio station in each Kitikmeot community as part of the initial public notice campaign. Upon arrival to the Kitikmeot communities, NIRB staff spoke on the air (via telephone or by visiting the local radio station) to provide an in-person announcement of the event in English and where possible, in Inuktitut or Inuinnaqtun. In Gjoa Haven, NIRB staff was unable to get on the air despite several attempts made during the 2 hours per day that the station is manned by an on-air host.

Community Flyers

Prior to the visits held in each Kitikmeot community, the NIRB enlisted the assistance of local community members for placement of the flyers around town. The flyers (see Appendix C) advertised the NIRB meetings in English/Inuktitut and English/Inuinnaqtun as appropriate for the community. When NIRB staff arrived in each community, flyer placements were verified and additional posters were placed in key business and community locations if they were not present (e.g. Co-op store, Northern store, Hamlet offices, etc.).

Newspaper

English, Inuktitut and Inuinnaqtun advertisements were printed in the Nunatsiaq News and Nunavut/News North newspaper two weeks prior to the start of the NIRB scoping meetings. Notice of the meeting in Yellowknife also appeared in the Yellowknifer newspaper, covering the week prior to, and the week of the meeting.

Community TV/Cable Ads

Cable Ads were shown on the Co-op Cable Channel in each Kitikmeot community approximately seven days prior the NIRB meetings, and were shown in English, Inuktitut and Inuinnaqtun.

3.0 MEETING NOTES FROM NIRB'S PUBLIC SCOPING MEETINGS

The following is a list of numerous comments that were provided both verbally and in writing at the scoping meetings for the proposed Back River Project as held in the Kitikmeot region. These comments will help to identify items that need to be addressed or considered throughout the environmental review process, and have been be taken into account by the NIRB in creating the Final Scope for this Project.

Please note that all comments from each community have been grouped under general headings that correspond to topics that will be covered within the EIS Guidelines for this Project.

3.1 Cambridge Bay

3.1.1 Meeting Details

Date	***Advertised Meeting Time***	***Session Attendance***
February 5, 2013	1:00 p.m. - 4:00 p.m.	8
February 5, 2013	7:00 p.m. - 9:00 p.m.	23

February 6, 2013 7:00 p.m. - 9:00 p.m. 30

3.1.2 Meeting Notes, Comments and Questions (sessions combined)

Issues regarding Gold Mining and Milling

Mining Legacy

- No comments

Gold Mining

- Are there approved methods for mining gold?
- When considering development, what is acceptable impact?
- How good is legislation protecting the environment? How does it compare to federal requirements? Is legislation adequate?
- During construction do you mean construction of road or construction of camp?
- Support so long as monitoring is occurring.
- So these people need to be listened to. Are there improved methods for gold mining, where they won't cause that damage?

Ecosystem

Terrestrial Wildlife and Habitat including Caribou

- Concerned about caribou especially, trappers, and impacts to animals from fly-overs. Helicopters are driving the caribou farther away.
- What's more important; gold or having food on your plates?
- With trappers and that, we won't have animals there. There will be impact to animals from flyovers, helicopters, like in Bathurst, we hardly see caribou anymore.
- In Holman, they're saying the same thing. Because of mining companies doing explorations and flying over at low heights.

Fish and Fish Habitat

- No comments

Marine Wildlife and Marine Habitat

- No comments

Air Quality

- No comments

Impacts from Noise and Vibrations

- No comments

Marine Water and Freshwater Quality

- I think water may be an issue?
- A question about water; water is flowing into the gulf, into the Cambridge Bay, Coronation Island area. Concern that mine wastes in the water will spread.

Vegetation

- No comments

Human Health

- Concerns that drugs may be smuggled into the communities through the mine.
- Concerns that families being relocated to suit the companies charters to and from work.
- What about arsenic? I know in Yellowknife at Giant mine there is still arsenic.

Project Closure and Reclamation

- Concerns of restoring the land after any development.
- Questions of past reclamation success at sites in Nunavut.

Cumulative Impacts

- Will there be an assessment of the 600 person camp and its impacts?

Accidents and Malfunctions

- No comments

Technological Innovations

- No comments

Regulations and Mitigation Measures

- Legislation concern - how good is legislation protecting the environment? How does it compare to federal requirements? Is legislation adequate?
- There will always be damage, everywhere. We need to put some conditions of how to mitigate our actions as human beings, we will always damage.

Shipping and Transportation

- I have shipping concerns from large number of ships and more ships from all seasons being in the area.
- Do they have to build a deep-sea port before they bring in the ships? If so there are concerns about having 5-10 ships in such a short season.
- How many ships, what type and what size ships will be going there?
- Maps show the roads/routes linking Goose Property to George Property linking to the proposed BIPR road; does Sabina have an alternate route if the BIPR does not become a reality?
- What time of year will the ships come through?
- During construction, there is going to be 5-10 ships a year going down to Baffin, and during the mine, there will be 3-5 per year. What time of the year will you ship? Will it only be in summertime?
- Open water shipping there are 5-10 ships per year during construction. Does that mean construction of the road or construction of the camp?
- It sounds to me you'll have to build a deep sea port before you start other construction. That is correct? I have shipping concerns. 5-10 ships per year, in a short shipping season, Only

July, August and September. People want to know what type of ships, what size and what kind?

Tailings Facility and Waste Management

- No comments

Socio-Economic Environment

Inuit Impact Benefits Agreement (IIBA)

- I am concerned that Inuit will not get the benefits they deserve from projects.
- Because we're so close to the mine, the companies promised us so many things, and after they got what they wanted, we didn't see anything.
- And that's where it is all over the world, it's not just an Inuit thing.
- They always ask us what we want, and they never give us what we want.
- This new mine is coming up, and I think it's going to happen the same way. They may say that we can get priority jobs, but northerners will not get any benefits. If they want to have a mine, we should at least get benefits.

Economics

- Is there going to be royalties in the future?
- Does Sabina realize that spending so much money on the construction site, where they had to shut down the Hope Bay mine? Will Sabina be the same way? Do they realize they may be spending more money on construction and then have to shut down? Nunavummiut keep getting laid off but the southerners stay on with the closure of the mine. What if they shut the mine down or the site when they're doing construction. So, if Sabina realizes that they will be spending more on the construction will they shut it down?
- Concerns that too much money will be spent towards construction; because of that the mine will shut down. I was wondering if the locals can shut down camp and keep it in care and maintenance instead of southerners.

Training and Employment

- How many people will be employed?
- How many Inuit will be hired from Nunavut?
- Contractors are always hired from the south.
- Concerns that they predict a 10-15 year mine life and then shut down camp one year later; giving hope to locals who are then disappointed.
- Not fair to hire people from the south when we have trained qualified people here in the Kitikmeot region. I am predicting the same will happen this time regarding length of mine.
- I agree, they say that they are going to be open for this long but they end up closing down the camp right away.
- How old do you have to be to work at the mines?
- How or who do we send resumes to?
- Will there be a criminal records check during hiring? It stops people from getting jobs; there shouldn't be a criminal records check.
- I am in favour of the project to bring employment.

- What is the number of Inuit that the company would employ? Concerns that company may not hire locally, especially from communities within Kitikmeot.
- Concerns of losing jobs to people trained and living in the south.
- I have fears of being laid off once the mine opens.
- We need proper training in our communities.
- First they tell us we can have the job, then they hire from a different area. They tell us they'll hire us first, but then they don't.
- As long as the people are employed and have an income, and the mining company follows the legislation rules, I am in agreement of letting the mining go ahead.
- I think the question is how many Inuit from Nunavut will be hired. Because usually you bring people up from the south to get those jobs, and the Inuit in the communities will not get these jobs. This is like anywhere there is development.
- As long as they are trained and get the proper training, I am alright with that.
- I worked for a mine before. Once they open a mine, companies always hire people from the south. Some people from the north that are trained get hired, but mostly people from the south are more qualified for the jobs. When they open a mine they say they'll be here for 15 years, but what if they close in one year? It just tears me apart, crushes my spirit when they just give up. They give us lots of hope at first, but then one year later they lay off lots of people. After Tahera, I went to Hope Bay and started my mine career there. Some of us were trained, we were qualified, and the same thing happened there; they hired people from way down south. When I was at Hope Bay, you can't tell if the mine is going to last 10 to 15 years, or if they'll shut down after a year. From my past experience, I was at Sabina last year at George Camp, the same thing again, people from down south. It's not fair because Inuit can do it too. It's not fair that the mine hires contractors from down south; they hire a lot of people from down south. You hire people from the Kitikmeot region, Cambridge Bay, Kugluktuk; you hire from there, not way down south.
- My husband worked for the mining company for so many years when Hope Bay first opened, when it was BHP, and today he is laid off too, and he has a hard time finding work. And his family is at Bathurst, but he has to stay here. And it's very hard. We move up here because they say they don't want to charter to Bathurst, so it's kind of hard.
- There are a lot of talented people in the room. Will Sabina also be doing criminal record checks, or will they be hiring people who have a criminal record? There are plenty of people who have a criminal record but can do a good job. I protect my daughter, I can interpret, but I have a criminal record. I hope they hire people with criminal records.

Community and Individual Well-being

- I have concerns about the impact of 600 people coming into a remote location and the impacts that may happen. That is the same amount of people as a small community, and there may be health implications, environment impacts from tailings, human waste. Thorough the company's assessment, have they considered how they are going to avoid or help the situation of so many people and the capacity required for water, recreation, and health. These effects should be considered with the whole effects of mining.
- The project can benefit the community.
- Goose Lake is tiny as a camp, with so many people working there. They need to expand the kitchen and dining room; that's what I see there.

- The most important things in a community are health and food. It doesn't matter about how much money that the community gets in the end, because it gets siphoned out. It's the land, the food, the animals, the people. I think that the consultations are just a screen. I've been through so many consultations for everything. With the arts, and it doesn't do anything. The legislation is already there, so nobody listens.

Land Use and Inuit Harvesting

- No comments

Culture and Heritage

- No comments

Back River Proposal

- I am in support of the project plans that are going to go forward as long as the rules or legislation are followed, and that the land, animals, and environment is monitored.
- As long as the people are employed and have an income, and the mining company abides by the legislation and follow the rules, I am in agreement of letting the mining go ahead. I cannot do it alone; I need someone to help... I'm thinking of the community wise. (*Duplicate comment*)

NIRB Process and Consultation

- How long does a screening take place?
- I have concern that more Elders and more people from Bathurst Inlet aren't present at the afternoon session to comment.
- I am unclear on NIRB process and mandate. Maybe tell more about what is going on in Article 12 so the people know.
- Concerned that community comments will not be considered in decision making.
- We should hear more comments from Elder's and youth. It would be better if the whole family came, because I can't speak for them, especially the elders, since they should be making the decisions.
- Concerns that people from a broader area should be involved in this process.
- How long is the time until a decision will be made?
- We should get the elders down from Bathurst, maybe get a charter? Have you looked for funding?
- But what if we say no, will the Board listen to us? They're talking about shipping in the winter. That's scary.
- Should be more education in the community about Article 12, because people don't know enough about it.
- Will any other Canadians be consulted? Because this affects them.

Other Issues

- Mining companies promised so many things; say they will give this and that. And once they get what they want they don't come back.
- Express fears that company will abruptly close down mine, or change projected timeframe of operations.

- Frustrated with past mining projects making unfulfilled promises and commitments.
- Concern that Land Claim isn't being enforced.
- Maybe for clarification. The Inuit had no say before the NTI, before NIRB, so maybe they don't know, that they have a say.
- What about the Nunavut Land Claims Agreement, has it been reinforced? Does the community know that it's there to protect the land itself or the people? Do they have a copy?

3.2 Kugluktuk

3.2.1 Meeting Details

Date	***Advertised Meeting Time***	***Session Attendance***
February 7, 2013	7:00 p.m. - 9:00 p.m.	16
February 8, 2013	1:00 p.m. - 4:00 p.m.	13
February 8, 2013	7:00 p.m. - 9:00 p.m.	52

3.2.2 Meeting Notes, Comments and Questions (sessions combined)

Issues regarding Gold Mining and Milling

Mining Legacy

- No comments

Gold Mining

- With the closure of Doris North, there is apathy in discussing development in the area.
- Once this is open how long will it be open and when it closes what would happen with early closing?
- I feel like a blind person or am invisible. I don't care for this, about what is being discussed. It's good that you are here to tell us about it but I don't feel good about the ideas on this map.
- Concerns of current exploration, and amount of aircraft traffic.
- How can they keep planning a gold mine when they couldn't keep mining when gold was at its highest price in the global market?

Ecosystem

Terrestrial Wildlife and Habitat including Caribou

- How would wildlife be affected?
- What is going to happen to the caribou around the area? We still go there by boat or ski doo. I think our food is more important than minerals.
- Concerned about wildlife, water, the lakes and spills into the river. It can't be cleaned up and it is going to affect the wildlife. For the calving grounds its different now, most of them are here no longer; they are moving farther away. After we are gone, we have to look at the future for our younger generation. If they start a mine it's going to affect our hunting. If there is a spill, how is it going to be cleaned up? Vegetation that the animals eat could be contaminated.

Fish and Fish Habitat

- Do they have someone to check the fish and monitoring between years and are you or another company or the Sabina to do the monitoring?
- What will happen to the fish in lakes proposed to be dewatered- transferred to a different lake, or harvested for the HTO?

Photo 2: Public comments discussed in Kugluktuk for the Back River proposal

Marine Wildlife and Marine Habitat

- No comments

Air Quality

- No comments

Impacts from Noise and Vibrations

- No comments

Marine Water and Freshwater Quality

- Would be nice if they did some testing of the waters for us and our children because our lands are vast and have large water bodies and need to be preserved.
- Concerned about wildlife, water, the lakes and spills into the river. It can't be cleaned up and it is going to affect the wildlife. For the calving grounds its different now, most of them are here no longer. They are moving farther away. After we are gone we have to look at the future for our younger generation. If they start a mine it's going to affect our hunting. If there is a spill how is it going to be cleaned up? The vegetation that the animals eat could be contaminated. (*Duplicate comment*)
- On dewatering of lakes, what will they be doing and after closure would they put it back and the fish too it might be hard for the fish to be moved.
- Concerns of water monitoring.
- Will you be testing the waters; a lot of ponds and rivers are connected to the communities.

Vegetation

- Concerned about wildlife, water, the lakes and spills into the river. It can't be cleaned up and it is going to affect the wildlife. For the calving grounds its different now, most of them are here no longer. They are moving farther away. After we are gone we have to look at the future for our younger generation. If they start a mine it's going to affect our hunting. If there is a spill how is it going to be cleaned up? The vegetation that the animals eat could be contaminated.

Human Health

- Bay Chimo people still go to Bathurst Inlet to hunt and to visit. We were out boating and found some old dynamite and I am concerned about what might be left behind, the condition

and monitoring of explosives. They are old chemicals and more dangerous. Do they travel by skidoo?

- Do they always do medical check-ups before they go to mine sites and how would that affect community centers?
- It's dangerous, the chemicals that they have. Now they are more careful with the stuff they use, more regulated.

Project Closure and Reclamation

- It won't be the same after they do the development. Will the area be cleaned up after? I am not into this but we have to think about our kid's future.
- Will there be a guarantee of site clean up after the mine has shut down?
- Will closure and reclamation be properly completed? I am concerned that it will not.

Cumulative Impacts

- Long time ago they would start mines without going to communities or elders. Like diamonds are more important than wildlife. We are not interested in diamonds. Some hunters wondering what's going on there and what are they doing and why did they not ask? Even Echo Bay area with the BIPAR project, they took people out in helicopters to show them where they were talking about developing. It is where the caribou go to their calving area. The lakes and where they may drain them; it destroys wildlife! We took 3 or more elders and went to BIPAR then a week later to Tahera. I don't care for this thing and development. When elders were asked many years ago they said that this will hurt our land and wildlife and our people don't get benefits. Around the Tahikataloak Lake where there are cabins and there was some dynamite found, I should have reported it, but didn't.
- Concerns of high traffic, large size of roads.
- A lot of people, including myself, are getting tired of this. I moved here 60 years ago, and it's all the same. And this is also about cumulative effects; we're all getting tired of this.

Accidents and Malfunctions

- No comments

Technological Innovations

- No comments

Regulations and Mitigation Measures

- No comments

Shipping and Transportation

- Will the shipping be year round?

Tailings Facility and Waste Management

- No comments

Socio-Economic Environment

Inuit Impact Benefits Agreement (IIBA)

- No comments

Economics

- How will price of gold change the development?
- Do they look at the cost of progress?

Training and Employment

- Hopes everything will work out so we have jobs, my daughter took a cooking course but never hear back from the companies.
- Once it opens do you contact Nunavut and NWT to work? Do people come from cities to work?
- As long as the people can get training. Do they get local training?
- It would be nice if they had northerners only onsite so most of Inuit onsite and have more women hired. Right now there are only men being hired.
- I have been to meetings where they said they would hire someone and not someone else. I would like to get training for camp jobs as well.
- Elders want to see this project go ahead to provide training and jobs for the community.
- How many people from the Kitikmeot will be hired?
- Concern that people from Eastern Kitikmeot communities will not be hired.
- People want on-the-job training options.
- A lot of people could be turned down; even people who have no training could do these jobs.
- When does it open for jobs?

Community and Individual Well-being

- Even if family gets jobs, the money will just be used for drugs and alcohol and not go to family. Maybe they need to learn how to use money.
- Direct flight to and from camp should instead of going through Yellowknife. People get stuck in Yellowknife due to alcohol. As we all know Lupin was successful due to direct flight to and from home communities.

Land Use and Inuit Harvesting

- There are concerns about road locations, shoreline locations and barging activity. It is a beautiful location with lots of wildlife, is an area where caribou move. It is a caribou migration route. There are a lot of families using the area all year round.
- Lots of people from Contwoyto area and during Christmas they go there and have events.
- Bathurst area is very beautiful, we go there to hunt/camp, and they should put aside some land where there should be no development. I am not against development I would just like to see some land be put aside where we can for the future be used by our young people.
- They have to be very careful with the land.
- Engineers should provide caribou crossings on the proposed all weather road.
- Are they starting it now?

- What about the winter road, will it be bringing in equipment, or coming in to shore? Where will it be?
- It makes me shake just looking at this, disturbing the land.
- It will never be the same again, eh?
- I've been right to the end of Bathurst; it's beautiful. We've got to think of our kid's future. My kids need to see these too so they know what's going on, and the fishing in the lakes.
- Bay Chimo people still travel to Bathurst to go hunting there.
- If you guys do this, you have to look after the land.
- BIPR has had little community support from day one. It only benefits the company, a road to a lake to a barge and then out? We say here, they're all promoters, not producers. Do you look at what other organizations in the past have done? Do you look at studies from before the Land Claims? These were comprehensive studies in the seventies with Elders, who have now died off.

Culture and Heritage

- In that area there are ancestral sites and how will it be if they disturb them, if you lose a part of your body it is like losing a part of you. Our ancestors say that it should not be disturbed, and if it is moved it will ruin everything.
- They should access all of the traditional knowledge and studies that were done for the land claim.
- If they start the project, would they bring back the elders to see what is happening and tell them what they will do?
- There are lots of burial sites around the area. Are they going to avoid those areas?
- What do they do if they find stuff? Who do they call?

Back River Proposal

- No comments

NIRB Process and Consultation

- Board should take in to consideration the elders interviews about the area.
- Getting tired about over consultation and BIPR had very little support from day 1. New same projects but the same project.
- Is there an Elder on the Board? There should be at least one Elder board member. They have more wisdom to make decisions than the younger board members.
- A community member should run their own community's consultation.
- Elder's cannot leave their houses to attend consultations.
- Who is on the Board? Do they represent Nunavut?
- People see the posters up, but they don't attend.

Other Issues

- No comments

3.3 Kugaaruk

3.3.1 Meeting Details

Date	***Advertised Meeting Time***	***Session Attendance***
February 11, 2013	1:00 p.m. - 4:00 p.m.	16
February 11, 2013	7:00 p.m. - 9:00 p.m.	96

3.3.2 Meeting Notes, Comments and Questions (sessions combined)

Issues regarding Gold Mining and Milling

Mining Legacy

- What kind of work are they going to be doing and what type?

Gold Mining

- How long is the project?

Ecosystem

- No comments

Terrestrial Wildlife and Habitat including Caribou

- There are concerns of caribou herd population declining in the area.
- There are a few grizzlies here, but not many.

Fish and Fish Habitat

- Concerns of damming streams, of blocking fish or food for fish.

Marine Wildlife and Marine Habitat

- I am concerned about drilling in frozen lakes.
- What about the health of wildlife in surrounding area? We need to maintain traditional food source for future generations.
- Will there be a lot of low flying aircraft over wildlife?

Air Quality

- No comments

Impacts from Noise and Vibrations

- No comments

Marine Water and Freshwater Quality

- If the project would go ahead, they will need ships. Will the vessels be used in open water season only? Or in the winter time as well?

Vegetation

- No comments

Human Health

- No comments

Project Closure and Reclamation

- No comments

Cumulative Impacts

- No comments

Accidents and Malfunctions

- No comments

Technological Innovations

- No comments

Regulations and Mitigation Measures

- No comments

Shipping and Transportation

- If the project would go ahead, they will need ships. Will the vessels be used in open water season only? Or in the winter time as well?

Tailings Facility and Waste Management

- I have concerns about the tailings ponds in permafrost; often cracks will appear in the ground and the tailings could leak into water.
- There are concerns about arsenic.

Socio-Economic Environment

Inuit Impact Benefits Agreement (IIBA)

- No comments

Economics

- No comments

Training and Employment

- If they were to hire from the Kitikmeot, how many people do they intend to employ?
- Inuit are not being hired for jobs; they are always rejected from companies.
- What about not being hired due to criminal record. People should be able to still find work, because they can't support their family.
- Would company have apprenticeship programs and hire from that, instead of hiring already certified people. They should have training on the job.
- Youth who dropped out of high school should have training provided to work in the mines.
- Concern that Inuit don't know about the chemicals being used and the mining process.
- Are there applications here?
- With a certificate for food safety, can you get a camp cooking job?

- I know there were a number people hired for the other mines, and I want to know how many they expect to employ?
- I just want to ask a question about employment. The people that would be employed from our region. I think that they should be taken better care of, especially the people that are from Kugluktuk, Cambridge, Kugaaruk, because there people that were employed were not from the east. The people employed from our community were few. There should be more employment opportunities from smaller communities. I think that should be, I think the focus should be on hiring from the Kitikmeot eastern communities.
- We're getting lots of graduates from our communities; will there be training on the job?

Community and Individual Well-being

- No comments

Land Use and Inuit Harvesting

- Land should be preserved because many people were born there, or are from there.
- Will the road be all season or a winter road?
- The biggest use for that road will be for hunting caribou, just like the diamond mine road.
- Hunting has been really good this year.
- This is the place of abandoned tents, where they get their soapstone.

Culture and Heritage

- Inuktitut doesn't have words to adequately describe chemicals and processes used in mining. Direct translation is 'poison', which is often misinterpreted.
- Tailings ponds, which in Inuktitut are described as 'over burden of rocks' but I have concerns that this misleads the communities into thinking it is safe.
- We tried to get an after hour culture and arts, to try it at the camps.

Back River Proposal

- Is the mine going to be directly on the Back River? Where are the tailings ponds going to be?

NIRB Process and Consultation

- Why does the board feel this project needs a review? Does every project go under a review?
- Are the board members from across Nunavut?

Other Issues

- No comments

3.4 Gjoa Haven

3.4.1 Meeting Details

Date	*Advertised Meeting Time*	*Session Attendance*
February 12, 2013	1:00 p.m. - 4:00 p.m.	7
February 12, 2013	7:00 p.m. - 9:00 p.m.	31

3.4.2 Meeting Notes, Comments and Questions (sessions combined)

Issues regarding Gold Mining and Milling

Mining Legacy

- Concerned about mines but interested in jobs.
- There are some things that I saw that I did not like about the drilling. The salt that they used, the plants did not regrow from it. They also drill on lakes when they are frozen and those additives are not good for the lakes.

Gold Mining

- I'm really excited about the gold mine.
- How are they going to process the ore? Are they going to truck it or ship it out?
- Want the Inuit educated on the mine process. They don't know what it can do. We say it's 'poison', and they think it's only an immediate danger, but they don't know that it could take a long time. There's no word for it in Inuktitut.
- We're lucky here, to not have so many developments.

Ecosystem

- So far, the KIA watches over who gets what, but the HTO watches over the environment and fish.
- We're one of the few places with clean water. We can take care of ourselves, but animals cannot be controlled. They will go where they want. We can control people, so we need to make sure we don't ruin things. There are a lot of animals coming from the south, maybe because of global warming.

Terrestrial Wildlife and Habitat including Caribou

- Bathurst Inlet and Caribou Herd Management committee and Kitikmeot Regional Wildlife herd should develop plan to manage the herds.
- Elders say we can't control our animals but can control our people so if we give boundaries to people the animals will take care of themselves.
- Dealing with Peary, Qamanarjuaq, Bathurst and Victoria, first 32,000 caribou and government saying that 80,000 caribou missing but would a have mess if they were dead so they must have shifted, moved calving grounds.
- Will have Bathurst caribou management to make sure that the communities have participation.
- The mining does research on caribou, everything on the land including lemmings, good idea to continue monitoring for potential impacts, there should be regular monitoring. Today younger people eat traditional and modern food. I eat traditional food but I am getting accustomed to modern food too. We have to preserve and conserve for the generations to come.
- If wildlife is not dangerous they shouldn't be disturbed with exceptions of bears, we don't want helicopters, planes or snow machines chasing away any game or wildlife. There are some spills and garbage and they have to ensure that these types of accidents don't happen.

Fish and Fish Habitat

- Try to protect the land as much as possible, especially fishing spots. We need to protect our clean water and animals.
- Even if there are no fish living in a stream but it may be the life source/line for other fish in other bodies and we don't say that there are fish here or not but that it will be growing or giving something to a good food source.
- I collected samples of fish in the beginning there was nothing wrong with them, but lately they have not migrated in their natural way. When the berms are in place, they freeze and crack, the fish feed on algae and plankton and we're starting to notice the wildlife and species are getting sick due to drilling and mining activities.
- Once the company is given the go ahead, I'd like to see the fish monitored and research done with the fish.

Marine Wildlife and Marine Habitat

- No comments

Air Quality

- There were dust issues at other mines when we worked there but when we brought our concerns to the managers, nothing was ever done. The managers said that we can grow things in the kimberlite like carrots, but we don't grow things in this dust.
- Concern of dust at mine site.

Impacts from Noise and Vibrations

- Animals are afraid of noise and pollution and they are coming north.

Marine Water and Freshwater Quality

- There are 2 rivers, one is west, near to Sabina mine, another one here 150 miles from Gjoa Haven. When they talk about Back River, they concentrate on the south of here. I think they should notify us of those rivers west and east. The people have to be aware of the two different names being used for Back River. It's not the same name that is used here.
- Back River is one of the biggest rivers in Nunavut, and I am worried about materials going down river and end up near Gjoa Haven. Monitor what is happening on the ground and send reports to NIRB.
- The Back River is one of the most important traditional watersheds used by Gjoa Haven residents. We must ensure downstream effects are monitored in detail and any potential downstream effects mitigated and if not, known and consulted in transparent way to community members.
- Concerns that water quality will degrade.

Vegetation

- Disturbing the vegetation with over burden will result in caribou not having this food to eat.

Human Health

- No comment

Project Closure and Reclamation

- So what happens to the vegetation after the mine closes? I mean, the gravel that they dig up, they will have to put back on the ground, so the vegetation there and on the mine are gone, what will the caribou eat? Will it be replanted?

Cumulative Impacts

- No comments

Accidents and Malfunctions

- No comments

Technological Innovations

- No comments

Regulations and Mitigation Measures

- No comments

Shipping and Transportation

- No comments

Tailings Facility and Waste Management

- So the arsenic and waste they dump on the land, what happens to that?

Socio-Economic Environment

Inuit Impact Benefits Agreement (IIBA)

- No comments

Economics

- No comments

Training and Employment

- Many people in Kugaaruk, Gjoa Haven and Taloyoak are looking for training and/or apprenticeships. I see that Sabina is working towards that, I was wondering if apprenticeships are available for the Kitikmeot such as heavy equipment.
- How would we apply? Sometimes we send out resumes and sometimes we get rejected. I was lucky to be employed but nowadays there is a lot of competition for the jobs.
- There are many people that are going through poverty. Because of high cost of living, many people are trying to seek employment and training. People stop trying to find jobs due to their past and having a criminal record. There should be a way around it. Some people carry it on their shoulders for many years; they are trying to better their lives but it is stopping them from trying.
- There are people that are still in high school, 18, 19 year olds that drop out to look for work. Wondering if they can try to be employed at mine sites.
- With regard to youth who have criminal records who are willing and able to seek employment but because of their criminal record they aren't able to move on with their career options. There is a way to deal with it but unsure how to explain it.

- I want to point out that the education and training opportunities, they also need to take into account the other social issues that result from the mining industry. Back River is the biggest river in Nunavut. And any fluids in the river will go right down in the communities. They should do that at the end of the river.
- I have a question in regards to how would people apply? As Inuit, sometimes we send off our resumes, and sometimes there are some of us that are continually being rejected even though we keep applying for jobs. I've worked for mining companies, so I was lucky that time I was able to be requested to come to work. Today it is more competitive; I truly believe that we can train on the job.

Community and Individual Well-being

- If there were to be employment from the eastern communities it would be better to fly to another small community rather than Yellowknife to go to work. There is much concern and worries from the families of those going to work. We would like to see direct flights to and from camp to home communities.

Land Use and Inuit Harvesting

- For a lot of people, if they block off an area, they could cut off a stream – even if there are no fish. But that stream could feed other fish, and birds eat the fish. It's the blood of the land.

Culture and Heritage

- There are archeological sites in the area and they should not be disturbed. Need to look at migration routes and how the site will impact it.
- I would put forward as a concern is the integrity of that area. A lot of our descendants, that's their original place, and I would like to see that preserved. And in terms of the wildlife, I would also like to see them take into account the migration routes.

Back River Proposal

- No comments

NIRB Process and Consultation

- No comments.

Other Issues

- No comments.

3.5 Taloyoak

3.5.1 Meeting Details

Date	*Advertised Meeting Time*	*Session Attendance*
February 13, 2013	1:00 p.m. - 4:00 p.m.	21
February 13, 2013	7:00 p.m. - 9:00 p.m.	72

3.5.2 Meeting Notes, Comments and Questions (sessions combined)

Issues regarding Gold Mining and Milling

Mining Legacy

- Similar to what has been done, the guys from Jericho, Lupin, Doris North. What's different about Sabina from Jericho? They did this, the consultations. They made promises, but look at them now.
- Jericho, any more word on the abandoned mine? Oh well, maybe it'll be like the DEW line. Dirty, dirty, dirty. I'm an Inuk and I can't even walk on the land.

Gold Mining

- No mines should be done in Nunavut. It is not worth the risk of losing our animals. I'd rather teach traditional knowledge on hunting than digging for gold.
- The mines don't care about what they do wrong. NIRB consults the people and that's good, but we in the Kitikmeot are left out of the consultations. Sometimes we feel they forget that we exist.

Ecosystem

Terrestrial Wildlife and Habitat including Caribou

- Is this area around the development for migration or calving grounds of caribou or musk ox?
- The wildlife look for lichen to eat and fish eat algae and plankton, there could be runoffs and tailings could be a problem, it can ooze out of there, I would like to see safety training in place such as spill response, employees should be trained properly.
- This impacts the wildlife, humans are able to adapt but not the animals. We know what is in the land, the animals don't, and we need to take care of them.
- The animals-caribou, musk ox, and birds, their way of living will be affected.
- My concern is about wildlife because we care about our nature. We never get tired of eating our country food. We are Inuit, we live off the land. The land claims sometimes are not enforced. If they give the go ahead they want to build roads and there are lots of animals in the area. It would be nice if we had more employment for our youth, it's difficult to see our youth unemployed and the cost of living up here in the north is really high. We want to see the youth trained for good jobs.
- I was born in the area and grew up there. There is an abundance of fish, for many centuries. The area was always populated by the Inuit. The mines will extract what they want and make millions. They will damage the land and there won't be any benefits. If there are no more caribou we won't be compensated for it. The river goes for hundreds of miles and ends up in the oceans. That could impact us too because we live off the land. When they are gone how will we benefit from it because we don't know the impacts that will be done? It's nice to see employment for Inuit but its only 5-10% of Inuit.
- Sometimes animals unable to quickly adapt to environmental changes and that is a concern.
- The cumulative effects of the mines in the same area can impact wildlife.
- One year there was a helicopter all summer, and we had no caribou that summer.

Fish and Fish Habitat

- The proposed mine, is there spawning fish in the area?

- Back River has a lot of fish. It's been a fishing area for centuries, it's beautiful there, it's further than I originally thought.
- Fish eat algae and plankton, there could be runoffs and tailings could be a problem, it can ooze out of there, I would like to see safety training in place such as spill response, employees should be trained properly.
- Concerns of fish health and populations.
- In the spring, we go fishing in holes, or in natural made holes. It's like when we fish here, where we go from hole to hole, until we find fish. It's the same with the mines. But we know from before, that there were fish here yesterday, maybe not now, they moved. How much is in there? Will Yellowknife benefit? Will Australia benefit?

Marine Wildlife and Marine Habitat

- No comments

Air Quality

- No comments

Impacts from Noise and Vibrations

- No comments

Marine Water and Freshwater Quality

- No comments

Vegetation

- I am an elder now; my parents took care of the land. My parents taught me not to step on any of the flowers. Our land is beautiful and I don't like to see the land disturbed. I don't like to see my land blasted out of the ground like they did just outside of town.
- Concerns of rare plants.

Human Health

- I used to work at Goose Lake. I was the first woman to cut core, but got sick in my gallbladder.

Project Closure and Reclamation

- I think it is important that the company put money aside for reclamation. Mines only care about money; they don't care about poverty only the gold. They need to train our people to do reclaim the land. We never know what is going to happen like an oil spill and we need to be trained to handle an oil spill. When they leave we want money to be able to clean up the land after they are gone.
- Will there be money put aside in case of an oil spill? Then it affects our life, sure we want jobs but do our animals pay for it?
- Inuit people need to be trained to monitor and reclaim the land because they have a vested interest in it; mining company is only concerned with resource extraction, and the community can't rely on them.

Cumulative Impacts

- No comments

Accidents and Malfunctions

- The proposed sites, something has to happen out of the ordinary. I have a relative that died at one of the mines and we have not found his body yet. He was my cousin, we are sorry that he is gone and feel better today but we know the pain will come back again. And I know that you will do what you can to not let that happen.
- We need Inuit there to monitor the activities to ensure they can detect it right away and stop it from spreading.

Technological Innovations

- We have better communications now, if it is not approved than we will know about it. It is known we need work; this mine is close to where we live. Because we are better informed today I'm sure they won't risk our lives, it looks like this will be around for a while and because of that I support it.

Regulations and Mitigation Measures

- No comments

Shipping and Transportation

- Once you get the gold out of the ground where will the gold go?
- Shipping routes through the Northwest Passage. Is NIRB looking at ship and ship routes? The impacts to Inuit people. It will be used more.

Tailings Facility and Waste Management

- Concerns of tailings run off or leakage.
- Several concerns that any water contamination will be far reaching.

Socio-Economic Environment

Inuit Impact Benefits Agreement (IIBA)

- You are operating or going to be, do you provide any Inuit impact benefits? Are you going to donate money to our community? We want to see benefits; we do not want to see our land raped. It is our land we hint and live on the land.
- Inuit will not benefit from the mine; instead the land will be damaged and social issues brought into communities.
- If you were serious about it, you'd give us some big ticket items like boats, snowmobiles. Then we'd know you're serious. A toque? One hundred and fifty dollars in groceries? That's nothing. No one would part with a snowmobile unless they're serious. Donate something to the HTO, something for the land. Give us a stake in your business, let us put our finger in the pot, and see how hot it is. For as long as we've had mining, they've been mining and making promises. They're just here for their dollar, they're not serious. When it starts affecting our trade, our food, then it's serious. This is something we see a lot; we have no say in anything. We may think we do, but we have no voice.
- This is to Sabina. We are serious about the company, and we are serious people too. You take something from our land, you wreck our wildlife too, you take the yellow stuff, turn it into

cash. We want something too, from you Sabina. Taloyoak wants skidoo, boat, something concrete from Sabina. Taloyoak wants alcohol education, mining, clean up education. Taloyoak wants lots, because, Sabina wants lots. We only see stuff like this, small things, you know "I don't care about you, you're a drunk you're an Inuk, and we don't care about you". Don't just take from us. Next time someone comes here, I want them to win a skidoo to show you are serious. Because Inuit, we are hunters, we travel with the seals, the caribou. They travelled with the season. We need skidoos, boats. People are hungry; someone needs to provide for them. Will it be you? Will it be Sabina?

- Benefits for our community, or Nunavut, or the community. I don't think mining should be brought into the community, because we will only get a very minimal proportion. I don't think we would get any benefit from that.

Economics

- My impression is the company does not have enough information to go forward – HBML spent a lot of money and then shut down? Why?
- Where will the money go from the gold?
- They always say that they are open for many years; I want NIRB to ask them how long they predict to work. They say 5 years but might be only 2 years. Where will the money go from the remaining 3 years if they shut down early? They need to be more accurate when they tell us the length of the project.
- If they make millions will the employees make only minimum?
- Sabina will proceed like the other mines that promised jobs but didn't follow through.
- What is different with Sabina vs. HBML or Tahera? Show the community that they are serious about development and invest in the community. Invest in communities with snowmobiles, job opportunities, infrastructure, and training.

Training and Employment

- Employment is getting difficult, opportunities aren't there as much.
- Many people want jobs. That is well known in the North. One mine is opening and one is closing, we don't want to see any closing.
- I would like to see safety training in place such as spill response, employees should be trained properly.
- The youth that gets jobs they spend it on drugs and alcohol. What could go to big ticket items is being wasted on drugs and alcohol. The mining companies have to consider training on how to manage your money. They should provide a course on how to manage your money and not to blow it all at once.
- It would be nice if we had more employment for our youth, it's difficult to see our youth unemployed and the cost of living up here in the north is really high. We want to see the youth trained for good jobs.
- For us Kitikmeotmiut I suppose there are some of us are in support to see our youth being employed. There will be other companies locally that will benefit. DFO will help us protect our environment. The fact that they will be shipping the ore, it will benefit us because of the high unemployment rate. And other local businesses will benefit as well.
- Support of jobs created from project.
- Youth need employment to afford living in the north.

- Would like safety training for employees to properly handle oil spills or other accidents.
- First they tell us we can have the job, then they hire from a different area. They tell us they'll hire us first, but then they don't tell us.
- With regards to the proposal, if they were going to get into development, we want to be kept informed and employment opportunities for our youth.
- They were promised good jobs, but they got nothing. They said twenty something years, but now no jobs. But that's part of growing pains, when we start letting people into our land. Maybe we should say "no" sometimes.

Community and Individual Well-being

- There are more workers from the south and only like 2 from the north. We have too many families living on social assistance. We have lots of people asking for food, especially the grandchildren.
- Drugs and alcohol may cause social problems; the money being made from the mines would go to drugs and alcohol. How will the mines deal with social problems?
- Benefits for our community? Or Inuit? I don't think mining should be allowed in Nunavut. We will only see the minimum.
- I have concerns about safety for workers at mine.

Land Use and Inuit Harvesting

- I wonder if there are going to be any negative impacts to the environment or wildlife; would you be informing us if there are any negative impacts to the wildlife or environment?
- I know the permafrost is moving. I grew up here, I know a little bit of hunting. There were no caribou, and the Elder's used to tell us that they would come back. In the summer time, we would take about three to four weeks. There were lots of them, mostly up on the peninsula. For muskox, we never had them, we used to have to go up to Prince of Wales Island, but we have plenty now. Sometimes polar bears come, but not often. We get about fifteen or twenty tags. They say there are not enough.
- People in the community get upset by the BIPR road, because of the animals, the land, and the environment. I think they would be upset by these roads too.

Culture and Heritage

- They put my brother's ashes near Back River, near Gjoa Haven. It's a very special place, lots of memories there. I used to go with my dad, we went hunting. There's caribou, fish, birds. It takes 6 or 7 hours by dog team. We used to go all the time in spring and summer. My sister would tell stories. My brother was born there; my niece and nephews were born there too. I miss it a lot. I used to want to come back to the community when I was younger, but now I miss it. It was so dark there; the only light was the fire outside. People hardly get out there anymore though, it's too hard.
- There are ancient burial grounds, tent rings and archeological sites that should be protected, I want to see employment for our youth but there may be malfunctions and we want to see plans in place to take care of it.

Back River Proposal

- Want to know how long the mine will be open; concerns that it will close prematurely.

NIRB Process and Consultation

- The people who come to the scoping meetings aren't the ones who know the land or are at work. Maybe they should be consulted also.
- Community must be more informed of the time and date of meetings. Did you ask various bodies in the communities to attend?
- I need some clarification, the people in Gjoa Haven is much closer to the mine site, if the project gets the go ahead what did they say or what was their concerns?

Other Issues

- Want stronger voices to come forward and identify concerns. Need western arctic coordinator for comments, concerns logistic support and community presence.
- Get Inuit involved higher up in project management.
- Are you going to the Kivalliq region? There are lots of people in Baker Lake that go to the Back River area. Families go there to fish and hunt and camp. Do they know about this proposal?
- Are there houses still at Back River? There were four or five houses, and boats.

3.6 Yellowknife

3.6.1 Meeting Details

Date	***Advertised Meeting Time***	***Session Attendance***
February 20, 2013	7:00 p.m. - 10:00 p.m.	8

3.6.2 Meeting Notes, Comments and Questions

Issues regarding Gold Mining and Milling

Mining Legacy

- No comments

Gold Mining

- If project proceeds, how and who will regulate the project? If license is issued, how long will it be for? What will be sought for security and how would the NIRB make sure that issues of past developments don't happen with this and future proposals?

Ecosystem

Terrestrial Wildlife and Habitat including Caribou

- How would the Board assess the potential of caribou cumulative effect of all these projects? How is climate change considered in the process as I am concerned about the fragile tundra and continuous permafrost which may also lead to unstable roads or structures?
- Concerns about Izok Lake, winter road going through calving grounds, road going to Kugluktuk. Why not use winter road to Yellowknife?

- Caribou people we are very concerned that if you have full time road (winter road) through calving grounds and Bathurst Caribou herd has their caribou grounds and you build a road (permafrost, semi-permafrost) we know from experience living in diamond area, caribou do get affected. Very concerned going through calving grounds there will be no caribou in near future (same concerns with caribou in Alaska).
- I had previously made mention of caribou, but a whole number of other species and food products we have always taken from that area, including fish, and we will need some advice to provide you more information on this so that we can help you with this issue. Can we be assisted in putting that information together, and can we get financial assistance to participate in the process? I am not sure if that's available, or if proponent or government provides this.
- Sabina should be required to assess impacts, including socio-economic, to caribou.

Fish and Fish Habitat

- No comments

Marine Wildlife and Marine Habitat

- No comments

Air Quality

- No comments

Impacts from Noise and Vibrations

- No comments

Marine Water and Freshwater Quality

- The Dene First Nations would like to present a map of the territorial watersheds (see PHOTO 4) to illustrate our concern for the transboundary considerations of water resources.
- Does the Nunavut Water Board look at fresh and marine water?

Vegetation

- No comments

Human Health

- No comments

Project Closure and Reclamation

- No comments

Cumulative Impacts

- Number of developments in the area, impacts on caribou, impacts to physical and human environments.

Accidents and Malfunctions

- Having just had an example of a trucking accident in the news, what would the company's requirements be to transport hazardous substances and dynamite on truck, including accident planning.

Technological Innovations

- No comments

Regulations and Mitigation Measures

- No comments

Shipping and Transportation

- As Nunavut does not have many roads do you have guidelines to follow for transportation or explosives?
- If the project were allowed to proceed, why not use the same winter road and come down towards Yellowknife? Would they be going through calving grounds and setting up a port? Is there a bigger plan we aren't aware of which would help us to determine what the future would look like.
- If the company has to move hazardous substances, will transportation within Nunavut follow the NWT transportation guidelines?
- There is little information on the marine laydown area and potential moving of ore. Please give details on how long open water is there, the number of ships that would come in during construction and then during operations fewer ships. Would that be assuming that there will be a stockpile in Kugluktuk? This may impact a treaty area especially if they are going west.
- How big is the airstrip?
- Can you talk about licensing for ships bringing in supplies; are they coming in from Canada the US, or around Alaska?

Tailings Facility and Waste Management

- No comments

Socio-Economic Environment

Inuit Impact Benefits Agreement (IIBA)

- No comments

Economics

- No comments

Training and Employment

- Clarification about the workers that would be hired; are they all from Nunavut? Are they skilled workers?

Community and Individual Well-being

- Project might also affect communities further north in the Sahtu and Gwit'chen areas.
- Impacts to Yellowknife with potential of workers flying through Yellowknife to site.

Land Use and Inuit Harvesting

- There is an overlap between Dene and Inuit land use near and around area where project is being proposed. There are several historical judgments that implicate the Dene ongoing

interests in that area based on historical occupancy (Re Paulette and Registrar of Land Titles [No.2], 1973; Attorney-general of Canada v. Morrow J., 1973) and maps showing proof of occupancy (see PHOTO 3) from Alaska to the Coppermine River and land use of hunting, trapping, and fishing.

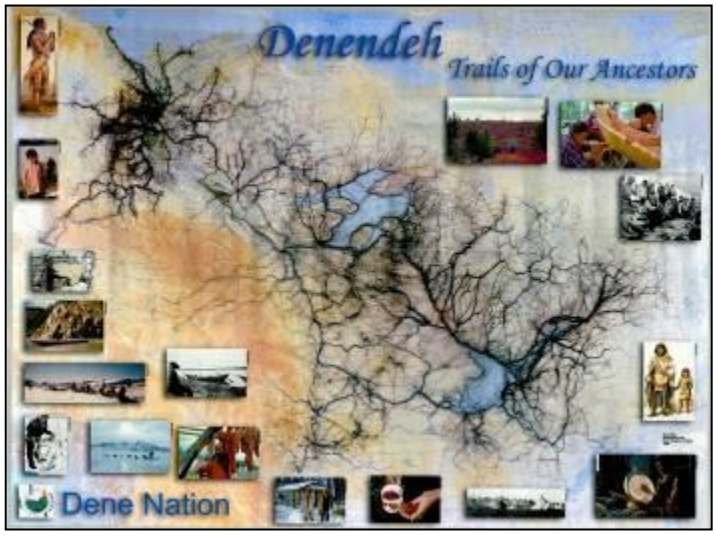


Photo 3: Dene Trails of Our Ancestors, 1988

- Would like to enter in a new relationship with the Crown regarding land use.
- Suggest a buffer zone where Inuit and Dene would work together. Propose that land uses and proposals such as this be considered by both aboriginal and Inuit together; consider developing a northern land use plan.
- What is the assurance that the underground mine won't end up under Dene lands?
- Traditional lands of Metis extended into Nunavut (see PHOTO 6). Materials provided indicate that the descendants of those people historically using the area include the Metis, and continue to use that land. Cultural and heritage sites that exist in the indicated areas require consultation of the Metis, and should include as many people as possible in these discussions.

Culture and Heritage

- I was born and raised in Yellowknife and always interacted with the Inuit and supported their petition to become Nunavut in earlier days and they also supported us to have our own type of government that we will eventually have here. We have always worked with them and we have been told that they are relatives and we know that us Athabasca people (Alaska, Northwest Territories, Northern B.C., Alberta, Navajo, and Apaches) including intermarrying, and fishing. Our people have been connected.
- The Dene First Nations have a long history of working with the Inuit as they share hunting grounds.
- We are hunters and trappers and in transition from Dene economy to market economy and if we didn't give up our lands and resources we need to have a discussion if we didn't give up the rights to this land.
- When people talk about our land and we show you the map where we have been, there is a concept of places where they don't go are still regarded as their land. They regard caribou calving and want to protect that land even if they may not go there, per se even though current laws say that if you don't occupy then it is not yours.
- Who will be involved in Sabina's Traditional Knowledge assessment? Their previous report didn't involve anyone in Northwest Territories, but NIRB needs to make sure that they involve first nation's people in the Northwest Territories.

- Concerns about cultural and heritage resources, especially Metis sites, as these might not be included in the understanding of archeological sites, but are no less important and therefore these areas that needs to be looked into as well.

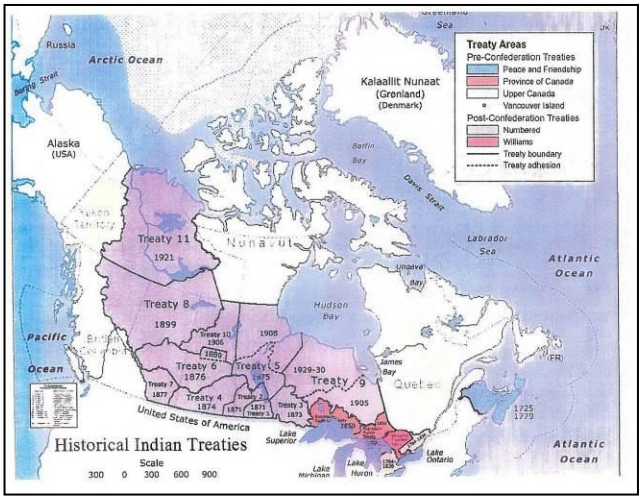


Photo 4: Map of Historic Treaties 1-11

Transboundary

- Discussion of map *Dene Trails of Our Ancestors* (Photo 3) which was produced by the Dene Nation in 1988, as proof of occupancy map for Inuit and Dene in the early 70s. A booklet was published to prove in court their rights to area based on historic occupancy and provide record of discussion with elders and catalogued 560 individuals to show where land used on individual basis for hunting, trapping, fishing, and collecting berries. Would like to provide to the NIRB this map that was compiled at the University of Alberta as evidence.
- Watersheds are important because waters used in the North flows east and north, and there is an overlap of water usage.
- Watersheds of NWT and map that shows the huge water basin part of Mackenzie Watershed and water flows north and where proposed mine site is the water goes south. The Dene entered into a treaty with Great Britain in 1900 and 1922 for the southern part of NWT and a big part of this watershed. Treaty 11 also follows the watershed and goes into Nunavut to the Coppermine River into Kugluktuk and follows coast to Yukon. Kugluktuk is in Treaty 11 and as such we have rights into the ocean. The map of historic treaties 1 to 11 presented to the NIRB illustrates the historic agreements with the Indigenous people up the last one in 1921 which was developed following discovery of oil in Norman Wells. In 1899-1900 Treaty 8 was established for the gold rush and had to be negotiated due to The Royal Proclamation Oct 7, 1763 by King James as part of the Canada Act. This treaty acknowledges that we are nations of people and recognizes anyone wanting to come into our territory needs to make a treaty with us, and further that if there are no agreements; people don't have access rights and can be reprimanded if they enter the territory. Our people have prior rights as we were using the land as hunter/gatherers for the past 13-15,000 years as shown by archaeological indicators. Case history (Re Paulette and

Photo 5: Watersheds of Northwest Territories

Registrar of Land Titles [No.2], 1973; Attorney-general of Canada v. Morrow J., 1973) proceeded under the assumption that we didn't have prior rights, but we had to contest this and challenged Canada/the Crown, and we would put a caveat over our lands proposing to freeze on development including this proposal. In the case history, the Attorney General challenged judgement in higher court, and the final decision is that we still have an interest in the land which was not surrendered, and also ruled that we were still the landowners and title remained in our hands based on proof of land use/occupancy. Therefore we challenged the Gwit'chen and other agreements built on Treaty 11 which gives rights to parts of the land and ocean currently mentioned in an ongoing court case (450m square miles).

- We didn't necessarily agree with the line of the border with Nunavut; it was determined based on a review by Bill Wonders of Dene and Inuit land use which suggested a line which then became fact. Contwoyto area was shared land. Inuit chose land on Dene side and we chose land on Nunavut side, but there are outstanding matters we still need to be discussed such as a buffer zone where overlapping land uses exist. This could be an area of shared decision-making on decisions of all matters that need to be discussed accordingly.
- Metis recognized as 1 of 3 aboriginal peoples in Canada by the Constitution Act which further recognizes firms and rights of metis people. The Metis are a distinct aboriginal group fighting up-hill battle for recognition. Recent court cases on aboriginal rights need to be defined and are engaged in this process; department of justice Canada study on ethno genesis of metis of great slave area (Jones report) to define North Slave Metis Alliance from historic metis groups which developed from early contact between Europeans and Dene people of area. Ethnicity and aboriginal status needs to be recognized (Paulette v. Dene, 1973) and North Slave Metis Alliance is in same position few decades behind. We don't have a land claim presently accepted for negotiation, but the traditional lands of the North Slave Metis extends throughout the Northwest Territories, into Nunavut, where the people traditionally occupied and traveled. This traditional land use extends up to Kugluktuk and down to Bathurst Inlet and is defined in the map presented to the NIRB, based on present land use studies and work with elders.
- Our real interest in the proposal is because of where proponent wants to do the work. The Crown plays a role because of legal and moral duty. Can you talk more about what is transboundry and implications of that and in Nunavut? What is expected if the workers coming in especially from Nunavut, Northwest Territories or other parts of country, including skilled labour, number of full time vs. part time, etc.?

Photo 6: Map of North Slave Metis land occupancy

Back River Proposal

- Very concerned regarding this project.
- The Goose and George properties, are they two separate projects? Are there two different owners?

NIRB Process and Consultation

- It was stated that the Project Certificate has no end date and that it may contain long-term requirements for life of project. Can you clarify this?

- What process is in place that ensures the proponents to discuss the project?
- How is climate change and permafrost considered by the Board in the process?
- Can you provide clarification regarding jurisdiction and mandate of the NIRB?
- Suggest that scope includes potentially affected communities in the NWT and request that proponent consult with these communities.
- It is important to include as many people as possible in these discussions. Potential impact to the future of the people.
- How would the work done by the NIRB be affected when the Land Use Plan comes into place? How will mining development be affected?
- We have not been involved in large amount in these discussions partly because we weren't on the mailing list and they are assuming that there is very little influence from our side in Nunavut. With the evidence we provide tonight, we hope you see that we have interest in the process. Can we get assurance tonight that we will be involved in process as other entities? In Avalon proceedings, parties had opportunity to come forward such as Environment Canada, Transport Canada, and communities; would the Dene Nations and communities be included as parties within this process? There are approximately 33 communities in Dene Nation and individual communities may come forward with input.
- In reference to the draft scope list, impacts on the Dene-Metis community needs to be taken into account, should clearly include caribou and potential impacts on herds, and transboundary effects need to be addressed. Others concerns to North Slave Metis Alliance especially cultural and heritage resources such as trails and cultural activities in the area or close to project area. Archaeology and ethno genesis may be less clear as Metis sites aren't recognized as archaeological because they aren't pre-contact. Sites may be misidentified as being more recent, non-aboriginal sites or Dene sites, but contain distinct elements that are traceable to metis culture and practices and concern those might be overlooked, destroyed, or buried in process of resource development.

Other Issues

- The Nunavut-wide land use plan is only being developed now, but will affect the Kitikmeot region which currently does not have a plan. What kind of changes to development in this area would result from the new plan, and would development going through the process now be grandfathered?
- What does BIPR stand for?
- The presentation mentioned consideration of transboundary effects, but I am not clear on definition or meaning. Please provide more detail.
- What are the expectations for the company to come forward and consult with people like ourselves, do we have to prove we have an interest there for them to come and talk to us?

4.0 SUMMARY AND CONCLUSION

During the NIRB's public scoping meetings, community members provided comments and questions on a variety of topics relating to gold mining, potential impacts to human health and workers, impacts to wildlife (including caribou) and marine wildlife, impacts from shipping, accidents and malfunctions, as well as transboundary and cumulative effects.

The comments and questions raised during these public scoping meetings were used to finalize the Scoping List and will be incorporated into the NIRB's EIS Guidelines for Sabina Gold & Silver Corp.'s preparation of an EIS for the Back River project. The EIS Guidelines have been circulated publicly, providing interested parties with an opportunity to submit comments on the Guidelines. Once finalized, these Guidelines for the Back River project will be available on the NIRB's online public registry for the information of any interested member of the public or agency.

APPENDIX A: MEETING SIGN-IN SHEETS, WRITTEN COMMENTS AND SUBMISSIONS

The meeting attendance/sign-in sheets for all NIRB Public Scoping Meetings conducted during its Review of the Back River project are available on the NIRB's online public registry at the following link:

http://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/12MN036-SABINA-BACK%20RIVER/02-REVIEW/04-SCOPING%20%26%20GUIDELINES/01-SCOPING/04-SCOPING%20REPORT/

APPENDIX B: NIRB'S POWERPOINT PRESENTATION

The complete NIRB PowerPoint presentation (in English, Inuktitut and Inuinnaqtun) as delivered during the Public Scoping Meetings for Sabina's Back River project is available on the NIRB's FTP site at the following link:

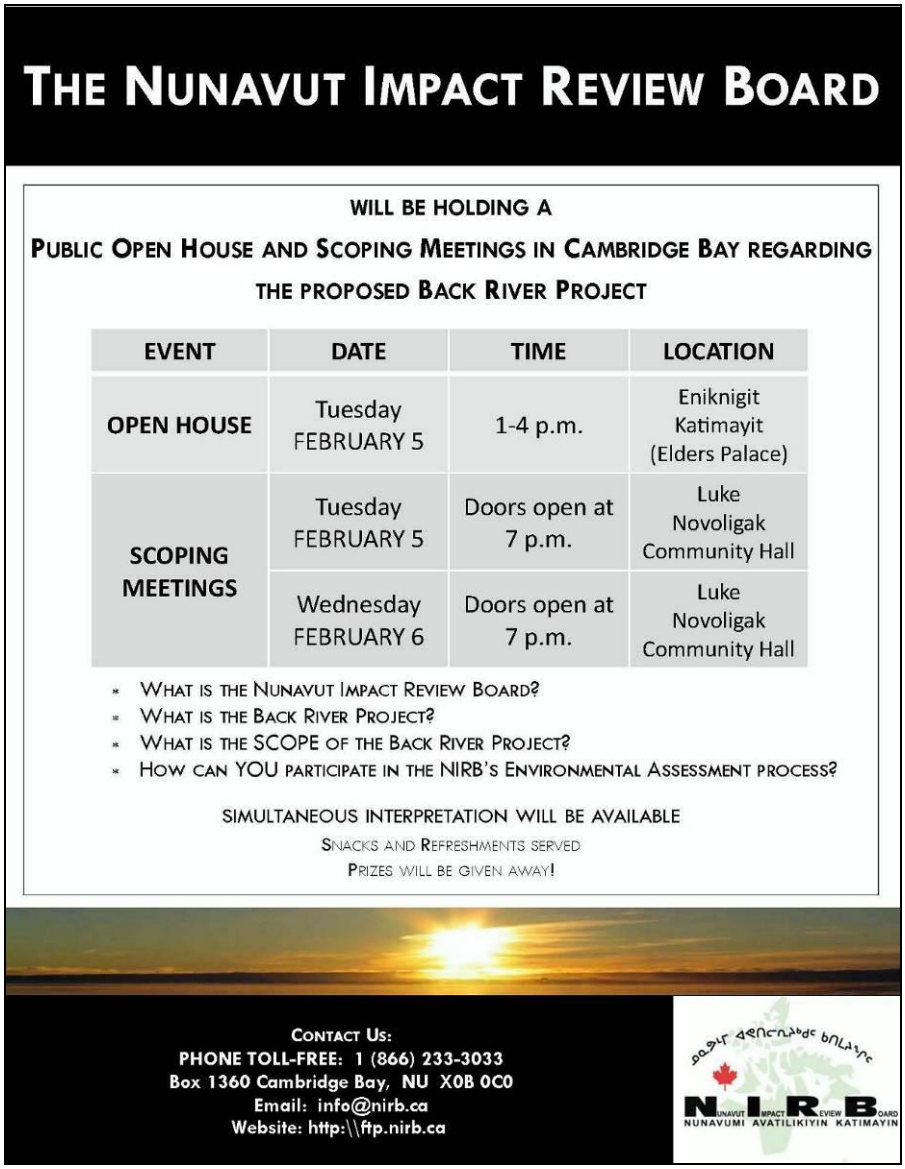
http://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/12MN036-SABINA-BACK%20RIVER/02-REVIEW/04-SCOPING%20%26%20GUIDELINES/01-SCOPING/04-SCOPING%20REPORT/.

APPENDIX C: PUBLIC MEETING NOTICE MATERIALS

Appendix C-1 Public Meeting Flyer Samples (*English, Inuktitut, and Inuinnaqtun*)

The following samples are the posters circulated for the Cambridge Bay events. The complete set of community posters for each community can be accessed on the NIRB public registry site through the following link:

http://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/12MN036-SABINA-BACK%20RIVER/02-REVIEW/04-SCOPING%20%26%20GUIDELINES/01-SCOPING/04-SCOPING%20REPORT/.



NUNAVUNMI AVATILIRINIRMUT KATIMAYIT

KATIMANAHUARTUT
KITKUTUINNARNUT QAITQUIYUT UNALU HIVUNIKHALIUTIKHAT KATIMALUTIK HAFFUMINNGAT
TUKHIUTAUHIMAYUQ UTKUHIKHALIUM KUGAA HAVAARIYAKHANUT

HULIDJUHIAT	UBLUAT	HUMUNNGARTUMI	NAYUGAKHAA
QAITQUIYUT	AIPPIUNMI, FAVYUALI 5	1-4 p.m.	INIRNIGIT KATIMAVIANI
HIVUNIKHA-LIUTIKHAT KATIMAYUT	AIPPIUNMI, FAVYUALI 5	Angmaumalutik 7 – mukpat unnungmi	LUKE NOVOLIGAK NUNALINGNI KATIMAVIANI
	PINGATTIUNMI, FAVYUALI 6	Angmaumalutik 7 – mukpat unnungmi	LUKE NOVOLIGAK NUNALINGNI KATIMAVIANI

* HUNAUYUQ NUNAVUNMI AVATILIRINIRMUT KATIMAYIT?
* HUNAUYUQ HAMNA UTKUHIKHALIUM KUGAA HAVAARIYAKHAK?
* HUNAUYUQ HAMNA HIVUNIKHAUTIKHAMUT HAFFUMINNGAT HAVAARIYAKHANMUT?
* QANURMI ILAUQATAUGIAQAQQIT UKUNINNGAT NIRB-KKUT AVATINUT IHIVGIURTAKHAN PILIRIYAKHAT?

UQAQTIUYUKHAT ILAUQATAUNIAQQUT
NIRIYAKHANNUAMIK TIITULUKAARLUTIK NIRINNARTUMIK
AMUGAKHANUT AITTURTAULUTIK

HIVAYAINNARIALIK UVAPTINGNUT :
HIVAYAUTIK AKIQANNGITTUQ : 1 (866) 233-3033
TITIRAQARVIKKUT 1360 Cambridge Bay, NU X0B 0C0
Qaritauyakkut Turaarutata : info@nirb.ca
Hilaryuartigut Turaarutata : http:\\ftp.nirb.ca

NUNAVUMI AVATILIKIYIN KATIMAYIN

Appendix C-2 Newspaper Advertisement Samples (*English, Inuktitut, and Inuinnaqtun*)

NOTICE OF PUBLIC MEETINGS

The Nunavut Impact Review Board (NIRB) is an Institution of Public Government with responsibilities for the environmental assessment of proposed projects in Nunavut as described in Article 12 of the Nunavut Land Claims Agreement (NLCA).

Back River Project Scoping & Open House Meetings

The NIRB is holding Public Meetings to discuss its Review of Sabina Gold & Silver Corporation's proposed "Back River" project.

The NIRB invites the public to attend these meetings to learn more about:

- The scope of the proposed Back River project
- The NIRB's review process
- How YOU can participate in this public review

This will be a good opportunity to ask questions and provide input into the NIRB's assessment!

Cambridge Bay, Elder's Palace
February 5
Open House

Cambridge Bay, Community Hall
February 5 and 6
Scoping Meeting

Kugluktuk, Jimmy Hikok Ilihakvik
February 7
Scoping Meeting

Kugluktuk, Community Complex
February 7 and 8
Open House and Scoping Meeting

Kugaaruk, Community Hall
February 11
Open House and Scoping Meeting

Gjoa Haven, Gideon Qitsualik Memorial Center
February 12
Open House and Scoping Meeting

Taloyoak, E.W. Lyall Recreation Complex
February 13
Open House and Scoping Meeting

Yellowknife, Northern United Place
February 20
Scoping Meeting

Meeting times to be announced on local radio stations, cable channels, and posted flyer advertisements

Snacks and refreshments will be served

Simultaneous interpretation will be provided

Contact us!
Nunavut Impact Review Board
PO Box 1360, Cambridge Bay, NU X0B 0C0
Phone Toll-Free: 1-866-233-3033
Email: info@nirb.ca
Fax: 1-867-983-2594

ᑭᒃᑯᓕᒫᓂ ᑲᑎᒪᑎᑦᑎᓂᐊᕐᓂᕐᒧᑦ ᖃᐅᔨᒃᑲᐃᒍᑎ

ᓄᓇᕗᒥ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨ (NIRB) ᐱᓕᕆᕝᕕᐅᕗᖅ ᑭᒃᑯᓕᒫᓄᑦ ᒐᕙᒪᐅᓪᓗᑎᒃ ᑲᒪᒋᔭᖃᖅᓗᑎᒃ ᐊᕙᑎᓕᕆᓂᕐᒥ ᖃᐅᔨᓴᖅᑕᕐᓂᕐᒥ ᐱᓕᕆᐊᒃᓴᐅᔪᓂᒃ ᓄᓇᕗᒻᒥ ᑕᒪᓐᓇ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓪᓗᓂ ᓄᓇᕗᒥ ᓄᓇᑖᕐᓂᕐᒧᑦ ᐊᖏᕈᑎᓂᒃ (NLCA).

ᕚᒃ ᑰᒥ (Back River) ᐱᓕᕆᐊᒃᓴᐅᑉ ᖃᓄᐃᓕᖓᓂᐊᕐᓂᖓᓄᑦ ᐊᒻᒪ ᑲᑎᒪᑎᑦᑎᑲᓐᓂᖅ

ᓄᓇᕗᒥ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨ ᑭᒃᑯᓕᒫᓂ ᑲᑎᒪᑎᑦᑎᑲᓐᓂᐊᓕᕐᒪᑕ ᐅᖃᐅᓯᖃᕐᓗᑎ ᕿᒥᕐᕈᐊᕈᑎᒋᓯᒪᔭᖏᓐᓂᒃ ᓴᐱᓇ ᑰᓗ ᖃᖓᑦᑕᕐᒧᓪᓗ ᐱᓕᕆᕝᕕᐅᑉ ᑐᕌᕈᓯᒪᔭᖏᓐᓂ "ᕚᒃ ᑰᒐ" ᐱᓕᕆᐊᒃᓴᒧᑦ.

ᓄᓇᕗᒥ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨ ᑐᙵᓱᒃᑎᑦᑎᕗᑦ ᑭᒃᑯᓕᒫᓂ ᑲᑎᒪᑎᑦᑎᑲᒃᑎᓐᓄᑦ ᐅᑯᓂᖓ ᖃᐅᔨᕚᓪᓕᕐᓂᐊᕐᔪᔨ:

- ᖃᓄᖅ ᐊᖏᓂᑎᒋᖓ ᐅᓇ ᕚᒃ ᑰᒐ ᐱᓕᕆᓂᐅᔪᖅ
- ᓄᓇᕗᒥ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨ ᕿᒥᕐᕈᐊᕐᐸᓪᓕᐊᓂᖓᓂ ᐱᓕᕆᐊᖑᔪᓪᓕᐊᓂᐅᔪᖅ
- ᖃᓄᖅ ᐃᓯᕙᑦ ᐃᓚᐅᔪᓐᓇᕐᒪᖔᑦ ᑕᒃᑯᐊ ᑭᒃᑯᓕᒫᓂ ᑲᑎᒪᑎᑦᑎᓐᓂᕐᓂ ᕿᒥᕐᕈᐊᕐᓯᒪᔭᖓᑕ ᒥᒃᓵᓄᑦ

ᐅᓇ ᐃᓕᔭᖓᓄᑦ ᐱᕕᒃᓴᒋᐊᒃᑲᐅᓂᐊᕐᒪᑦ ᐊᐱᕆᓂᒃᓴᖃᕐᓂᐊᕐᓱᑎ ᐊᒻᒪ ᑐᓴᖅᑎᑦᑎᔾᔪᑎᓯ ᓄᓇᕗᒥ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨ ᖃᐅᔨᓴᕈᑎᖏᓐᓄᑦ

ᐃᖃᓗᒃᑑᑦᑎᐊᖅ, ᐃᓐᓇᑐᖃᐃᑦ ᐅᐸᕕᖓᑦ
ᕕᕗᐊᕆ 5
ᒪᑐᐃᖓᔪᖅ ᑭᒃᑯᐃᓐᓇᕐᓄᑦ

ᐃᖃᓗᒃᑑᑦᑎᐊᖅ, ᐱᙳᐊᕝᕕᒃ
ᕕᕗᐊᕆ 5 ᐊᒻᒪ 6
ᖃᓄᑎᒋ ᐱᓕᕆᓂᐅᑉ ᒥᒃᓵᓄᑦ ᑲᑎᒪᓗᑎᒃ

ᖁᕐᓗᖅᑐᖅ, ᔨᒥ ᕼᐃᑯᒃ ᐃᓕᓴᕝᕕᒃ
ᕕᕗᐊᕆ 7
ᖃᓄᑎᒋ ᐱᓕᕆᓂᐅᑉ ᒥᒃᓵᓄᑦ ᑲᑎᒪᓗᑎᒃ

ᖁᕐᓗᖅᑐᖅ, ᐱᙳᐊᕝᕕᒃ
ᕕᕗᐊᕆ 7 ᐊᒻᒪ 8
ᒪᑐᐃᖓᔪᖅ ᑭᒃᑯᐃᓐᓇᕐᓄᑦ ᐊᒻᒪ ᖃᓄᑎᒋ ᐱᓕᕆᓂᐅᑉ ᒥᒃᓵᓄᑦ ᑲᑎᒪᓗᑎᒃ

ᑰᒑᕐᔪᒃ, ᐱᙳᐊᕝᕕᒃ
ᕕᕗᐊᕆ 11
ᒪᑐᐃᖓᔪᖅ ᑭᒃᑯᐃᓐᓇᕐᓄᑦ ᐊᒻᒪ ᖃᓄᑎᒋ ᐱᓕᕆᓂᐅᑉ ᒥᒃᓵᓄᑦ ᑲᑎᒪᓗᑎᒃ

ᐅᖅᓱᖅᑑᖅ, ᒋᑎᐊᓐ ᕿᑦᓱᐊᓕᒃ ᐃᒡᓗ
ᕕᕗᐊᕆ 12
ᒪᑐᐃᖓᔪᖅ ᑭᒃᑯᐃᓐᓇᕐᓄᑦ ᐊᒻᒪ ᖃᓄᑎᒋ ᐱᓕᕆᓂᐅᑉ ᒥᒃᓵᓄᑦ ᑲᑎᒪᓗᑎᒃ

ᑕᓗᕐᔪᐊᖅ, ᐃ. ᑕᑦᐸᔩ ᒪᐃᑉ ᐱᙳᐊᕝᕕᒃ
ᕕᕗᐊᕆ 13
ᒪᑐᐃᖓᔪᖅ ᑭᒃᑯᐃᓐᓇᕐᓄᑦ ᐊᒻᒪ ᖃᓄᑎᒋ ᐱᓕᕆᓂᐅᑉ ᒥᒃᓵᓄᑦ ᑲᑎᒪᓗᑎᒃ

ᔭᓗᓇᐃᕝ, ᓄᐊᑦ ᔪᓇᐃᑎᑦ ᐃᒡᓗ
ᕕᕗᐊᕆ 20
ᖃᓄᑎᒋ ᐱᓕᕆᓂᐅᑉ ᒥᒃᓵᓄᑦ ᑲᑎᒪᓗᑎᒃ

ᖃᖓ ᑲᑎᒪᓂᐊᕐᓂᖏᑦ ᓇᓗᓇᐃᖅᑕᐅᓂᐊᖅᐳᑦ ᓄᓇᓕᖕᓂ ᓈᓚᐅᑎᒃᑯᑦ, ᑕᓚᕖᓴᒃᑯᑦ, ᐊᒻᒪ ᑎᑎᖅᑲᒃᑯᑦ ᓴᕿᔮᖅᑎᑕᐅᓗᑎᒃ

ᑕᒻᒧᒐᓴᖅᑕᖅᑕᐅᓂᐊᖅᐳᖅ ᐊᒻᒪ ᑲᐱ

ᑐᓵᔨᖃᖅᑕᐅᓂᐊᖅᐳᖅ

ᐅᕙᑦᑎᓐᓄᑦ ᖃᐅᔨᒋᐊᕐᓇᕐᐳᓯ

Nunavut Impact Review Board
PO Box 1360, Cambridge Bay, NU X0B 0C0
ᐅᖄᓚᐅᑦ ᐊᑭᖃᓐᖏᑐᖅ: 1-866-233-3033
ᖃᕆᑕᐅᔭᒃᑯᑦ: info@nirb.ca
ᓱᑲᔪᒃᑯᑦ: 1-867-983-2594

NUNAVUMI AVATILIKIYIN KATIMAYIN

TUHAKTAKHAT INUIT KATIMANIAKTUT

Nunavumi Avatiligiyit Katimayiit (NIRB) Havakviuyuk Inuit Kavamaligiyinut munagiyut avatiligiyinut ihivgiugutainik uktugumayunit hanayakhat Nunavumi, titigakhimayut Ilangani 12 Nunavumi Nunataagutit Angigutaanut (NLCA).

Haningayuk Ihivgiuktakhait ovalo Katimaniagutait Katimayut

NIRBkut katimapkainiaktut Inunik ukagiaganik ihivgiukhimayainik Sabina Koliliit ovalo Kiplaaktut Kuapuristkut uktugumayainik "Haningayuk" hanayakhat.

NIRBkut kaitkuyut Inunik iluakataulutik hapkoa katimaniaktut ayoigiaganik hapkoninga:

- Ihivgiugutikhait uktuktakhainik Haningayuk hanayakhat
- NIRBkut ihivgiugutait atugutikhainik
- Kanuk ilaukatalaaktutit hamani ihivgiugutainik

Hamna nakuuyuk pilaaktatit apigilutit apitkutinik ovalo ikayugutikhanik ilanganu NIRBkut ihivgiuktainik!

Ikaluktutiak, Inikniit Katimaviit
February 5mi
Angmaumayut Katimayut

Ikaluktutiak, Olapkivikmi
February 5mi ovalo 6mi
Ihivgiuktut Katimayut

Kugluktuk, Jimmy Hikok Ilihakvik
February 7mi
Ihivgiuktut Katimayut

Kugluktuk, Olapkivikmi
February 7mi ovalo 8mi
Angmaumayut Katimayut ovalo Ihivgiuktut Katimayut

Kugaaruk, Olapkivikmi
February 11mi
Angmaumayut ovalo Ihivgiuktut Katimayut

Ukhuktuuq, Gideon Qitsualik Memorial Olapkivikmi
February 12mi
Angmaumayut ovalo Ihivgiuktu Katimayut

Taloyoak, E.W. Lyall Olapkivikmi
February 13mi
Angmaumayut ovalo Ihivgiuktut Katimayut

Yellowknifemi, Northern United Place
February 20mi
Ihivgiuktut Katimayut

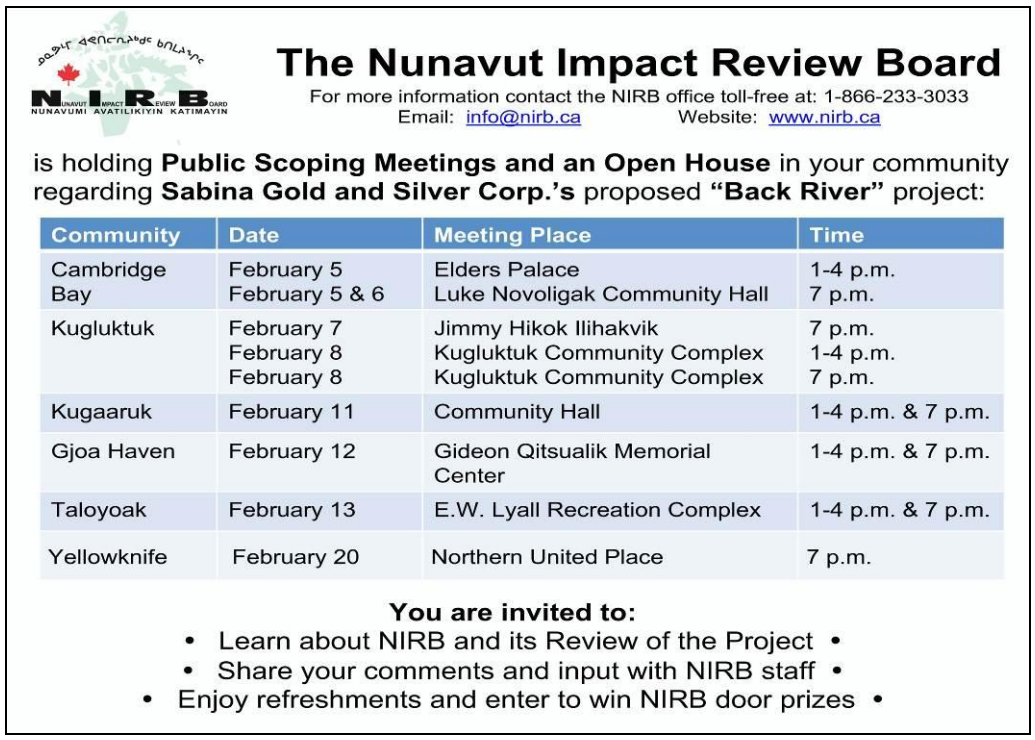
Katimaniaktut ublukhiutait ukaktauniaktut naalautikut, talavisitkut ovalo taigualaaktut takuyakhat

Nigipkainiaktut, teetuklutik ovalo kapituklutik

Ukaktikaniaktut

Takuluta!
Nunavut Avatiligiyit Katimayit
Titigakvia: PO Box 1360, Ikaluktutiak, NU X0B 0C0
Foninga Akiituk: 1-866-233-3033
Kagitauyakut: info@nirb.ca
Sukatukut: 1-867-983-2594

Appendix C-3 Cable/TV Advertisement Samples (*English, Inuktitut and Inuinnaqtun*)



The Nunavut Impact Review Board

For more information contact the NIRB office toll-free at: 1-866-233-3033
Email: info@nirb.ca Website: www.nirb.ca

is holding **Public Scoping Meetings and an Open House** in your community regarding **Sabina Gold and Silver Corp.'s** proposed **"Back River"** project:

Community	Date	Meeting Place	Time
Cambridge Bay	February 5 February 5 & 6	Elders Palace Luke Novoligak Community Hall	1-4 p.m. 7 p.m.
Kugluktuk	February 7 February 8 February 8	Jimmy Hikok Ilihakvik Kugluktuk Community Complex Kugluktuk Community Complex	7 p.m. 1-4 p.m. 7 p.m.
Kugaaruk	February 11	Community Hall	1-4 p.m. & 7 p.m.
Gjoa Haven	February 12	Gideon Qitsualik Memorial Center	1-4 p.m. & 7 p.m.
Taloyoak	February 13	E.W. Lyall Recreation Complex	1-4 p.m. & 7 p.m.
Yellowknife	February 20	Northern United Place	7 p.m.

You are invited to:

- Learn about NIRB and its Review of the Project
- Share your comments and input with NIRB staff
- Enjoy refreshments and enter to win NIRB door prizes

ᓄᓇᕗᒻᒥ ᐊᐅᑎᓕᕆᔨᒃᑯ ᑲᑎᒪᔨᖏᑦ

ᓄᓇᕗᒻᒥ ᐊᐅᑎᓕᕆᔨᒃᑯ ᖃᐅᔨᐊᖏᑦᑐᖅᓯᒪᔪᑦ: 1-866-233-3033
ᖃᓄᐃᑕᐅᔭᒃᑯ: info@nirb.ca ᓴᖅᑭᑦᓴᓐᖓ: www.nirb.ca

ᑎᒪᑎᑐᓂᐊᖅᓯᒪᓕᒐ ᑭᖑᓂᓕᒫᓂᐊᖅᑕᖏᑦᑕ ᒥᒃᓴᓕ ᐊᓕᓚᐅᓂᐊᖅᑕᖏᑦᑕ ᒥᒃᓴᓕᓂᒃ ᓄᓇᕗᑦᓂ ᐱᓕᕆᖃᑎᒌᖅᑐᓂᒃ ᓴᓇᓐ ᔭᓗ ᐊᓪᓚ ᓯᐊᐅ ᐁᓕᓴᕐᓂ ᐊᓕᓚᐊᓚᐅᔨᔪᖅᑐᓂᒃ ᐅᒥᓴᒃ "ᓯᒃ ᓇᑦ" ᐊᓕᓚᐅᒃᖢᖅ:

ᓄᓇᓕᒃ	ᐅᓪᓗᖅ	ᑲᑎᒪᓂᒃᖢᖅᓴᖅ	ᖃᒃᓯᓗᒃ
ᐃᖃᓗᐊᕐᑎᑦᑎᐊᖅ	ᐃᕐᐊᓚᓗ 5 ᐃᕐᐊᓚᓗ 5 & 6	ᐃᓐᓇᑐᖃᐃᑦ ᐅᑦᓂᓂᖏᓐ ᔪᒃ ᓄᕐᓕᓗ ᐱᓐᓴᒍᐊᖃᖅᓂᒃ	1-4 ᐅᑉᓗᒃᑯᑦ 7 ᐅᓐᓄᒃᑯᑦ
ᖃᐅᓗᑐᒃᑐᑦ	ᐃᕐᐊᓚᓗ 7 ᐃᕐᐊᓚᓗ 8 ᐃᕐᐊᓚᓗ 8	ᓕᒥ ᕿᐃᑯᒃ ᐃᓕᓴᖃᖅᓂᒃ ᖃᐅᓗᑐᒃᑐᑦ ᐱᓐᓴᒍᐊᖃᖅᓂᒃ ᖃᐅᓗᑐᒃᑐᑦ ᐱᓐᓴᒍᐊᖃᖅᓂᒃ	7 ᐅᓐᓄᒃᑯᑦ 1-4 ᐅᑉᓗᒃᑯᑦ 7 ᐅᓐᓄᒃᑯᑦ
ᑯᐱᖃᓕᒃ	ᐃᕐᐊᓚᓗ 11	ᐱᓐᓴᒍᐊᖃᖅᓂᒃ	1-4 ᐅᑉᓗᒃᑯᑦ & 7 ᐅᓐᓄᒃᑯᑦ
ᐅᑦᓂᓕᒃᑐᑦ	ᐃᕐᐊᓚᓗ 12	ᑎᑎᐊᓐ ᖃᑭᓕᐊᓕᓗᒃ ᐅᑦᓂᖏᓂᒃ	1-4 ᐅᑉᓗᒃᑯᑦ & 7 ᐅᓐᓄᒃᑯᑦ
ᑕᓗᖃᓕᐊᑦ	ᐃᕐᐊᓚᓗ 13	ᐋ ᑕᐸᓭ ᓪᐃᐅᑉᑕ	1-4 ᐅᑉᓗᒃᑯᑦ & 7 ᐅᓐᓄᒃᑯᑦ
ᓴᓗᓇᐃᓐ	ᐃᕐᐊᓚᓗ 20	ᓄᐊᑕᓐ ᔭᓇᐃᑕᑦ ᐅᑦᓂᖏᓂᒃ	7 ᐅᓐᓄᒃᑯᑦ

ᑐᓐᖓᓂᓄᑎᑕᐅᕕᓂᑦ ᐅᑯᓄᖓᓚ:

- ᐃᓕᓐᓂᐊᖃᖅᓂᐊᖅᓂᑦ ᓄᓇᕗᒻᒥ ᐊᐅᑎᓕᕆᔨᒃᑯ ᐱᓕᓚᐊᖓᑦᓂᓂᒃ ᖃᑎᖅᑭᐊᖅᑕᕐᖓᓂᓂᓗ ᐱᓕᓚᐊᓚᓴᐅᔭᔪᑦ •
- •ᐃᓱᒪᒋᔭᓂᑦ ᑐᓴᖅᑕᐅᑎᑦᓗᓱᐅᒃ ᓄᓇᕗᒻᒥ ᐊᐅᑎᓕᕆᔨᒃᑯ ᓴᓇᔨᖏᓐᓄᓕᑦ •
- ᑕᒪᓗᑎᒃᓴᖅᓂᐊᖅᑐᖅ ᐊᒻᒪ ᐃᓕᒃᓴᐅᔪᖅᑐᖅᖃᓕᓚᓂᓂ •

Tapkuat Nunavut Avatiligiyit Katimayit

Tuhaqpaligumakpan tugaqvigilugit tapkuat NIRB-kut aapisia akkiittumik talvani : 1-866-233-3033

Qagitauyakkut: info@nirb.ca Qagitauyakkuvia: www.nirb.ca

Atuqtitniaqtat **Inungnik Naunaiyainiqmun Katimaniq Takuyaqtuipkailutiklu** nunaphikni piplugu **Sabina Guulit Silverlu Kuapurisan** uuktuta **"Haningayuq Kuugaq"** havanga:

Nunaliuyuq	Uplua	Katimavikhaq	Upluqhiuta
Ikaluktutiak	Fibruari 5 Fibruari 5 & 6	Inutquqaqvik Luke Novoligak Kamiuniti Haa	1-4 uplukkut 7 unnukhaq
Kugluktuk	Fibruari 7 Fibruari 8 Fibruari 8	Jimmy Hikok Ilihakvik Kugluktuk Ulapqivikyuaq Kugluktuk Ulapqivikyuaq	7 unnukhaq 1-4 uplukkut 7 unnukhaq
Kugaaruk	Fibruari 11	Kamiuniti Haa	1-4 uplukkut 7 unnukhaqlu
Uqhuqtuuq	Fibruari 12	Gideon Qitsualik Ulapqivik	1-4 uplukkut 7 unnukhaqlu
Taloyoak	Fibruari 13	E.W. Lyall Ulapqivik	1-4 p.m. & 7 unnukhaqlu
Yellowknife	Fibruari 20	Northern United Place	7 unnukhaq

Qaitquyauyutit tapkununga:

- Ilitninut hunauyangi NIRB-kut Naunaiyaqnilu tapkuat Havanguyuq •
- Atuqatigikni uqauhiuyut ilagiaqnilu NIRB-kut havaktiit •
- Aliagilugit niuqagakhat ilauniqlu qkinahuagiangi NIRB-kut itiqpaliayunut akiyakhai •

MEETING INFORMATION	
DATE	Monday April 22, 2013 (3:00pm)
TYPE OF MEETING	Kugluktuk Community Advisory Group Meeting
LOCATION	Hamlet of Kugluktuk Offices
ATTENDEES	Alice Ayalik (CAG member) Tommy Pigalak (CAG member) Ryan Nivingalok (CAG member) David Nivingalok (CAG member) John Kaiyogana (Sabina) Jason Prno (Sabina) Max Brownhill (Sabina) Joe Otokiak (Interpreter)
COMMENTS	Max Brownhill took meeting notes.

MEETING NOTES:

John Kaiyogana and Jason Prno provided a Project update. John Kaiyogana indicated the CAG is still looking for a youth representative. Three individuals have responded to Sabina's request for a youth CAG member. However, Allen Kudlak Jr. was also put forward by one member of the CAG during the meeting. It was noted that he is a proactive member of the community and would make a good CAG member. The CAG then voted and Allen became the CAG's youth representative. It was noted that Sabina will try and meet with Allen as soon as possible.

Jason Prno discussed issues that Kitikmeot residents have mentioned about the Project to-date, reviewed a list of proposed VECs and VSECs, and reviewed a proposed Inuit seasonal calendar to be used in the EIS.

The CAG members noted the list of issues Kitikmeot residents have mentioned about the Project to-date was generally reflective of Kugluktuk's concerns.

All CAG members agreed on the content of the Inuit seasonal calendar. However, a suggestion was put forward to include information on Inuit harvesting activities on the calendar.

Q – What is the ratio of employees that come from the eastern Kitikmeot versus the western Kitikmeot?

Q – Will the shipping and marine transportation of goods be contracted out? Or will Sabina look after this themselves?

Q – The community newsletter should include information on water quality management for the Project. Spills will need to be cleaned up.

Q – Is information on Arctic char captured in the traditional knowledge report that was prepared?

Q – Is community policing part of the community well-being VSEC?

Q – Can you provide major project updates to the CAG members via email or mail? Could an agenda also be provided to the CAG members before we meet?

Meeting adjourned at 4:30pm.

MEETING INFORMATION	
DATE	Monday April 22, 2013 (7:00pm)
TYPE OF MEETING	Kugluktuk Public Meeting
LOCATION	JHI School Gymnasium
ATTENDEES	Approximately 43 members of the public attended (see sign-in sheets) John Kaiyogana (Sabina) Jason Prno (Sabina) Max Brownhill (Sabina) Joe Otokiak (Interpreter)
COMMENTS	Max Brownhill took meeting notes.

MEETING NOTES:

Jason Prno delivered a Project update/overview presentation. A list of proposed VECs and VSECs for the Project were also reviewed. Both Jason Prno and Max Brownhill answered questions.

Q – Will migrating caribou be blocked by snow banks at the Project site?

A – As part of the caribou studies we are conducting, animal crossing issues will be investigated and mitigated where appropriate. We will also learn from other projects such as Ekati and Diavik.

Q – Will the mine generate wastewater?

A – Yes, there will be organic wastewater that will have to be dealt with. Organic wastewater will be treated to meet regulatory requirements. Non-organic wastewater will be sent to a lined tailings facility.

Q – Will the Project actually proceed as promised? Hope Bay was shut down and this created a big effect on the communities.

A – Our intention is to build the mine and operate the mine; however economic conditions can always affect this decision. Sabina has studied the price of gold, done our assessment on the costs to build the mine, and we feel the Project can be built to operate for 10- 15 years, still realize a profit, and provide a number of employment opportunities.

Q – How can our people get the skills that are needed to become employed? There are a lack of opportunities here and life can become very difficult for those without skills. What about training?

A – Training will be an important focus of our work. We will have a human resources person on site and in our head office. Training plans and programs will be developed. We also recognize that youth are a key part of this, as they are the future of the region. Currently, Sabina and other regional mineral developers are committed to funding the ACTUA program this summer ($165K contributed so far), which is a science training and education camp for kids in each Kitikmeot community.

Q – Drilling is noise pollution. It's good to hear that training is happening; it is good for the mining industry.

Q – When will the mine be built and when can we start work?

A – We are currently in the exploration and permitting phase. Permitting will take approximately two to three years. Construction will commence after that and the mine will take two years to build.

Q – How will you get people, especially youth involved in the Project?

A – We are committed to engaging youth in the community. Sabina has a community advisory group that will soon have a youth member. Sabina has also made presentations to high schools in the region and is open to making additional presentations to the high schools again, at a later date.

Q – Will the open pits be dewatered?

A – Yes, the pit water will be pumped to the tailings impoundment area, and will not be directly released to the natural environment. The pits will be allowed to refill upon completion of mining activities and the water will meet regulatory discharge criteria.

Q – How often are water samples taken?

A – We have our consultants studying the surrounding water bodies so we will know what the current conditions are like. Water quality sampling will be contingent on the results of the overall program and sensitivity of each sampling location. The frequency will be agreed upon according to permit conditions.

Q – Will you use bridges or culverts?

A – It depends on the nature of the crossing and if we are operating all-weather or winter roads. Some crossings could require bridges to accommodate high flows and avoid impacts to fish habitat. Others will use culverts, if acceptable. However, this all requires more engineering work before we have that information.

Q – Will you have your own dock facility?

A – We will either develop our own small facility or use the BIPR facility, if it is built.

Q – Will you have your own shipping vessels?

A – No, Sabina intends to charter vessels. These will be used in the open water period only.

Q – What type of caribou pass through the Project?

A – The Bathurst and Ahiak herds are the two main herds.

Meeting adjourned.

Sign-in Sheet

Sabina
GOLD & SILVER CORP.

Meeting: Kugluktuk

Date: Apr 22/13

	NAME	ORGANIZATION
1	Gordon Hikomak	GN
2	Allen Kaiyogana	
3	Grant Newman	Kikiak Contracting Ltd.
4	Pat Algona	Co-op Kugluktuk
5	Preston Kaitak	
6	Mark Ailanak	
7	Bessie Sitatak	Ilavut Centre
8	Fred Sitatak	
9	John Panioyak	
10	Thomas Panioyak	
11	Chelsea akana	
12	Johnny Niviingalok	
13	George Kuliktana	
14	Cecil Atatahak	
15	Robert. Havioyak	
16	Anita Niptanatiak	
17	Paul Taptuna	
18	David Angohiatok	
19	Donald Havioyak	Kugluktuk
20	William Patch	[illegible]

Sign-in Sheet

Sabina GOLD & SILVER CORP.

Meeting: Kugluktuk

Date: Apr 22/13

	NAME	ORGANIZATION
1	Nicole Nivingalok	
2	Komek Nivingalok	
3	Marion Nivingalok	
4	Richard	
5	Elvera Elatiak	
6		
7	Laika. Kohoktak	
8	Garnet Taipana	
9	Cashmona Taipana	
10	Korrina Harvey	
11	Ryan Nivingalok	
12	Jane Taipana "Jean"	
13	Edward Ekpakohak	
14	Nellie Kanayogana	
15	Karin Klengenberg	
16	Jonathan Nivingalok	
17	[illegible]	
18	Johnny [illegible]	
19	Jean Pigalak	
20	MARIE. ONIAK	

Sign-in Sheet

Meeting: Kugluktuk

Date: Apr 22/13

	NAME	ORGANIZATION
1	Orella Pedersen	
2	Kristina Kuodluak	
3	Helen Himiak	
4	Brennan Niptanatiak	
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Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Your Camp's look Nice.

Is there anything you would like to learn more about?

None Right Now.

Is there anything we could be doing better?

Doing Good Job.

Contact information (optional):

Name: PAT Alsona

Address: Box 252 Kugluktuk

Phone number: Work 867) 982-4822 4231

Email: None!

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

ppl. from Kugluktuk should go straight home instead of over night @ Cam-Bay etc. Spouse never returns home from Cam-Bay due to drinking.

Is there anything you would like to learn more about?

How long is the catering position?

Is there anything we could be doing better?

Contact information (optional):

Name: Unavailable

Address: Kugluktuk

Phone number:

Email:

Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	Tuesday April 23, 2013 (4:00pm)
TYPE OF MEETING	Cambridge Bay HTO Meeting
LOCATION	Cambridge Bay HTO Offices
ATTENDEES	James Panioyak (HTO board chairperson) Howard Greenley (HTO board member) Johnny Lyall Sr. (HTO board member) Jessie Lyall (HTO board member) George Angohiatok (HTO board member) Brenda Sitatak (HTO manager) John Kaiyogana (Sabina) Jason Prno (Sabina) Max Brownhill (Sabina) Joe Otokiak (Interpreter)
COMMENTS	Max Brownhill took meeting notes.

MEETING NOTES:

Jason Prno delivered a Project update/overview presentation. Both Jason Prno and Max Brownhill answered questions.

Q – Will you have permafrost issues?

A – We have wells and monitoring programs in place to characterize the surface water and groundwater and help understand any permafrost issues we may have.

Q – Have you considered wind power for the Project?

A – Yes, this will be discussed in the prefeasibility study's alternatives study.

Q – Are there Inuit names used in your presentations?

A – We will be using an Inuit seasonal calendar/terminology for some parts of the EIS. We will also be using Inuit place names in parts of the EIS.

Q – You need to be clear about the difference between the Back River Project and the Back River outlet near Gjoa Haven. This is confusing people about the location.

A – Thank you, your point is noted. We have heard this same comment from individuals in other communities and we are trying to be as clear as we can in each of our presentations.

Q – How deep will your underground mining occur?

A – The deepest we will go is approximately 650 m.

Q – Will there be training opportunities made available?

A – Sabina will be developing training programs. We are now participating in a training working group with the KIA to better understand training needs in the region. We have also been engaged in smaller initiatives such as donating funds so that youth educational camps can be delivered in each Kitikmeot community this summer. These camps will be delivered in concert with other mineral developers such as MMG and Xstrata; each company contributed $55K to the program.

Q – Will uneducated people be considered for management positions?

A – In some cases, perhaps. However, most management positions will require some sort of formal educational requirement.

Q – Will there be courses for workers at the mine to upgrade their knowledge and expand their horizons? People go to the mines and come back with experience, but no further education.

A – This is an idea we could consider. Thank you for the suggestion.

Meeting adjourned.

MEETING INFORMATION	
DATE	Tuesday April 23, 2013 (7:00pm)
TYPE OF MEETING	Cambridge Bay Public Meeting
LOCATION	Elders Palace
ATTENDEES	Approximately 28 members of the public attended (see sign-in sheets) John Kaiyogana (Sabina) Jason Prno (Sabina) Max Brownhill (Sabina) Joe Otokiak (Interpreter)
COMMENTS	Max Brownhill took meeting notes.

MEETING NOTES:

Jason Prno delivered a Project update/overview presentation. A list of proposed VECs and VSECs for the Project were also reviewed. Jason Prno, John Kaiyogana, and Max Brownhill answered questions.

Q – Your list of local businesses, suppliers and contractors is not up-to-date and accurate.

A – Thank you, we will look into this.

Q – I worked at Goose Lake and there's lots of lake trout there. Are you doing a study on that?

A – The lakes in the surrounding areas have been investigated as part of our baseline studies. This information has helped us define which areas have fish and what the numbers and species are.

Q – What do you do with greywater?

A – The mine will abide by all its water permits that govern what it can discharge to the environment. The rules ensure the discharge will not have a significant impact on the environment. Sabina will follow those regulations.

Q – You mentioned that sediment quality will be investigated – What does sediment quality tell us? What will you do to the sediment?

A – This subject area provides us with a means of monitoring effects the Project may have on the environment. Metals tend to accumulate in the sediment, so these can be measured before and after mining has begun.

Q – When the mine is closed, like it was at Lupin, the employees didn't know about some of the benefits that were available to them. When they applied for those health benefits, like a hearing aid, they had difficulties. How would Sabina deal with that?

A – We will have staff and procedures in place dedicated to support employees with their health care packages.

Q – People have to fly through Yellowknife to go to work, and that is very stressful for family members at home. This needs to be looked at, so they don't fly through Yellowknife and go to the bar. Is there a plan for the people in Nunavut who will work at the mine? When I worked at Goose Camp, I was charged for Nunavut taxes and NWT taxes. The company needs to see that it's stressful for the families and creates worry when family members who are employed go to a southern area.

A – The social changes a mine can bring have been a big issue and concern for the communities we have met with. We realize that flying employees through Yellowknife is an issue. Sabina has had to discipline and even dismiss some employees because of their actions in Yellowknife. We are currently constructing a new permanent airstrip at our Goose Camp; this will allow us to avoid flying employees through Yellowknife. We intend to fly employees directly to/from Cambridge Bay and Kugluktuk. These issues will also be looked at in the EIS in the health and community well-being effects assessment.

Q – What will the company do about keeping the mine open for longer? Companies have lied to us in the past and made promises about the time the mine will be open. You don't know how this will affect other people's lives. People lose their jobs and then walk around like bums. That's not right. The standard should be that the companies should live up to what they say. Who provides for the whole community besides the hunters and HTOs? The companies need to look at how they will affect people's lives. I'm also worried about the companies leaving a lot of mess. I want the land to be there for the kids. When I was working at the mine, I saw all the caribou move through Goose Camp. There are wolves around there and I want to know what you're doing with the pickets, are you going to pick them up? Inuit people are always cleaning up the mess. There's so much talk, but no action. I'd say 85% of Cambridge Bay has a criminal record, which is no benefit to anyone. How are you going to hire anyone if we have a criminal record? These people feel like they're watched every minute. You need to trust us. There are a lot of things that need to be looked at better, like the effects of taking the man out of the community in order to go to work. When you pull out the man, there is lots of work for the women at home, and no food being harvested by the man. [Comments not recorded]. We can live without money. We don't need mining. [Comments not recorded].

Q – One of the things that Lupin did in the last 3 years that I was there was introduce an Employee Assistance Program (EAP). When a community liaison person works in close partnership with the EAP program, a lot of what the previous speaker was talking about can be cleared up and dealt with. As long as all the partnerships are brought together and people are working together, we can look after the worker. As long as the community works together, it will work out. The most important thing at the

end of the day is the health and safety of the miner, and I believe that Sabina has that same attitude. We want the guys to come back home with all their limbs intact. So the partnership has to be strong. There is lots of work to be done, and we have to build that capacity with the workers. We do the environmental assessment, get permission of the government. We break any of those rules, we're out. The previous speaker makes a good point that the EAP must be looked at immediately. There needs to be partnership with the government, community representatives, and company representatives to put the program together to get the job done.

Q – When I was working with Shear Diamonds, we had to fly in to Yellowknife. It was hard. 10-12 people were fired because of drinking. It was exhausting to travel that far, and there were rotation problems if your co-worker or cross shift was fired.

A – Thank you all for your comments, and bringing these matters to our attention. These are all important things for us to consider. Please feel free to stop by John's office anytime if you would like to bring any additional items up. A number of things were mentioned by the past few speakers, but I think the suggestion for an EAP is especially important. We recognize that programs like this will need to be in place. We will continue to have a rule in place that we will not hire anyone with a criminal record. However, I believe the KIA may be willing to work with individuals with a criminal record and help them to get a pardon.

Q – Do you have any educational and training programs in place?

A – We currently don't have any formal programs in place, like apprenticeships. These programs will be developed in the future.

Q – Would you be open to working with Nunavut Arctic College on these matters?

A – Yes, that could be an option. We are currently trying to figure out what the training needs are in the region. Then we can start developing programs.

Q – You can hear grass roots concerns from us here in Cambridge Bay. I'm trying to go to a lot of meetings and I wish there were more elders to voice their concerns and tell you how much the land means to them. Lots of people are family orientated, but it's always the same people that get the jobs. I see how things are good for some but bad for lots of others. Inuit are learning too much about money, and not willing to recognize that the land is the most important thing. Companies leave lots of their stuff on the tundra.

Q – Will you be using open pits or underground mining?

A – Both methods will be used, in varying combinations. The choice depends partly on how the deposit is located and whether it is close to the surface, or deeper. Underground mining is much more expensive than open pit mining. We are currently conducting a prefeasibility study that will help us determine the best way for mining to occur.

Q – What guarantee do we have that you will leave the ground as it was and not leave a mess behind?

A – First, I think it is important to realize there will always be some sort of environmental impact resulting from mining. For example, we will be extracting rock and leaving open pits behind in some instances. The land will never be exactly the same as it was before, but we can return the land to as natural state as possible in closure. Upon closure, Sabina will have to meet a number of different environmental management requirements pertaining to reclamation, as laid out in the Project's permits. We will remove all infrastructure and buildings, and contour features such as waste rock piles to better match the natural topography. We will have federal government and KIA project bonding in place and regular inspections will occur to ensure that cleanup is done to an adequate standard.

Q – I was laid off and have applied for work but have not managed to get hired again.

A – Unfortunately, there is a lot of competition for positions with mining companies in the Kitikmeot Region right now. We encourage you to reapply. At this time, we only have a limited number of jobs available. However, we will be preferentially hiring from across the Kitikmeot Region once construction begins.

Q – Are you looking for more resumes?

A – John Kaiyogana is always accepting resumes. He uploads them to our HR database.

Meeting adjourned.

Sign-in Sheet

Meeting: Cambridge Bay

Date: April 23 2013

Sabina
GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Johnny Avalak	
2	Heather Kigjuna	
3	Mary AVALAK	
4	Michelle Buchan	KIA
5	Raymond Ikomak	Go Cargo
6	Jason Akomak	
7	Ada Allukpik	
8	John Atigikyoak	
9	Harry Maksagak	Interested
10	Joe Paul Tapaqaq	
11	George Okhina	
12	Hugh Modson	GN Mineals
13	Derek Okhina	
14	Daphne Kaotaluk	Home Care
15	[illegible]	Arctic College Camp Rock
16	Richard Ekpakohak	Hunter
17	Betty Ann Maniyogena	
18	Helen Kavanna	
19	Mary Rose Maksagak	Dept. of Justice/GN
20	Richard Epelon	

Sign-in Sheet

Meeting: Cambridge Bay

Date: April 23, 2013

Sabina
GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Malaiya Kolola	
2	Marg Epp	
3	Bob Helak	
4	Noah Kudlak	
5	Susie Kemuktun	
6	Dennis Kaosoni	
7	Margorie Kemuktun	
8	Dwayne Allukpik	
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MEETING INFORMATION	
DATE	Wednesday April 24, 2013 (3:30pm – 4:30pm)
TYPE OF MEETING	Gjoa Haven HTO Meeting
LOCATION	Gjoa Haven HTO Offices
ATTENDEES	James Qitsualik (HTO chairperson) David Krikort (HTO board member) David Siksik (HTO board member) Simon Komagak (HTO board member) Jimmy Qiqut (HTO board member) Unrecorded HTO board member Willie Aglukkaq (HTO manager) John Kaiyogana (Sabina) Jason Prno (Sabina) Max Brownhill (Sabina) Joe Otokiak (Interpreter)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Max Brownhill delivered a Project overview presentation.

Q – It's beautiful country there around George Camp. You get wolves walk right through camp.

Q – Regarding berms and waste storage – Will the mine waste be stored in a berm?

Q – Will the mine waste in the berm already have been treated and not harmful to the environment?

Q – How do you prevent that material from leaving the tailings facility?

Q – The first few years of your mine won't have an impact on the environment. But, as the tailings pond fills up you might have spills. How will you deal with that?

Q – We are concerned about the waste rock, but we are more concerned about the tailings and chemicals that can possibly leach out to the environment. We're concerned about leaks. We don't want any animals accessing those ponds, like caribou, and drinking from them. There will also be high levels of dust in the summer. Dust suppression systems will be needed.

Q – Will you have water sampling stations? To see if the land is actually returned to as natural state as possible?

Q – Will all the jobs require an education? Should I even bother applying if I don't have an education?

Q – Will there be unilingual employees on site? They should be looked at as possible candidates when you are hiring.

Q – Even though some of us don't speak English, we can assist you. We want the young people to be employed. I'm in support of projects that will hire young people.

Q – I was part of the Hope Bay NIRB process with the HTO. Now I'm seeing it happen all over again with your project and it raises concerns. Contaminants from your mine and the chemicals you will use are our key concerns. We don't want them to get into the environment.

Q – Snow in the winter will cover the tailings pond and the snow will then blow off the tailings pond in the wind. This process will distribute the chemicals on the land. A snow fence could be helpful. Keep the animals out and the tailings in.

Q – Are there any plans to connect the mine to other roads, like BIPR?

Meeting adjourned at 4:30pm.

MEETING INFORMATION	
DATE	Wednesday April 24, 2013 (7:00pm)
TYPE OF MEETING	Gjoa Haven Public Meeting
LOCATION	Gjoa Haven Community Hall
ATTENDEES	Approximately 38 members of the public attended (see sign-in sheets) John Kaiyogana (Sabina) Jason Prno (Sabina) Max Brownhill (Sabina) Joe Otokiak (Interpreter)
COMMENTS	Max Brownhill took meeting notes.

MEETING NOTES:

Jason Prno delivered a Project update/overview presentation. A list of proposed VECs and VSECs for the Project were also reviewed. Both Jason Prno and Max Brownhill answered questions.

Q – How do you ensure that fish like Arctic char are surviving?

A – Sabina will have fish compensation measures in place and ongoing monitoring programs that let Sabina and DFO know about the health of fish populations.

Q – I see contaminants out on the land such as batteries. These can seep into the water. Fish can eat these contaminants and this is a concern. People are employed, yes, but they are not being treated well. This saddens employees and this situation needs to be looked at. These employees sometimes quit working at the site. People working with contaminants at the site need to do so in a more proficient way so that these mines do not become waste sites. This should be part of employee training.

A – Your question around contaminants in general is an important one. Hazardous materials like batteries will be removed offsite. We will also be monitoring around site to ensure that contaminants are not left onsite. Tailings will be prevented from seeping into the environment by using a lined tailings facility and use of seepage ponds to collect any tailings water that may escape. Sabina will be required to allow government inspectors on site. As an environmental representative on previous projects I can tell you that one of the topics taken very seriously on mine sites is waste management. Employees are

trained to follow waste management procedures. An example of this is placement of drip trays under trucks during refuelling. Sabina will educate employees to ensure they are following waste management procedures. We will have environmental employees on site consistently to ensure that these procedures are being followed. We will also need to ensure that employees feel comfortable talking to supervisors and reporting any waste management infractions they see.

Q – [Question not recorded].

A – Sabina will not discriminate based on age when hiring. However, all employees must meet the minimum requirements necessary to carry out the tasks of a given job. Minimum requirements include being at least 18 years of age in order to work at the Project.

Q – I come from near Back River and was raised there. There is lots of game in that area. The cost of living is high and there are no opportunities. If our young people are not hired, life will be hard for them. Some of these people could be good workers for your mine.

Q – You mentioned that you will have an environmental officer on site. How will you ensure people are doing the job right? Also, you talked about sponsorships. Do you have any sponsorship programs that you are limited to such as caribou science projects?

A – We have committed to supporting a number of different programs. For example, we have recently issued our support for a musk ox survey in the western Kitikmeot Region. We also have a community donations policy outlining priority areas for our donations. For example, we have recently helped sponsor youth science and education camps that will occur in each Kitikmeot community this summer. As far as having employees follow the environmental programs in place, it starts with talking about the environmental hazards during pre-activity and 'tailgate' meetings. During these meetings employees are told about what hazards and risks are associated with the job they are about to commence. Environmental employees typically have access to anywhere on site so that they can carry out random inspections (e.g. at refuelling areas) to ensure that environmental management plans are being followed. If something is found to be out of compliance, then steps are immediately taken to deal with the issue.

Q – Mining is becoming more permanent and it began in the 70's when we worked underground. If we're not treated well by the supervisors is there someone to go to and speak with? Many people were employed with no certificates in the past. I just want to see that my fellow community members are given an opportunity to do this work, but they may not have the skills.

A – Yes, there will be people other than your supervisor you can speak to, like human resources personnel. The development of training programs will be important. However, there will also be entry level positions available.

Q – You guys talk about youth. In the community we have low attendance in our schools. What will you do about this?

A – We don't have any current programs in place to motivate youth to stay in school, but we are open to hearing suggestions as to how we might be able to help out. For example, we could consider making presentations at the local high school to talk about mining careers with the youth.

Q – Your comments are good to hear. My husband has been with the KIA for 30 years and he has helped many people get jobs in the past. When I was young, people were living off the land, and years ago we used to see much wildlife. We enjoyed that. Eventually the wage economy made us buy things. Now there are areas where we go to on the tundra and we see tin cans everywhere. It's good to know that there are opportunities to get involved in.

A – Thank you. One additional thing I should mention is that all the comments that are made here will be documented and made part of our formal consultation record. This will be presented in our environmental assessment.

Q – I used to work for Xstrata. Will you be able to help encourage the youth to embrace employment opportunities? Maybe there are barriers for people that are not well educated that are stopping them from moving forward. Also, small criminal records can stop the youth from moving forward. We need the youth to feel better about themselves moving forward, and let them know that there are lots of opportunities out there. It would be good if Sabina could come visit our high schools and let the kids know what is out there.

A – Thank you for your suggestion about school visits. We have done these types of visits in the past, not in Gjoa Haven, but in Cambridge Bay and Kugluktuk. As for a criminal records check, the company's policy is that these will be conducted for each applicant. However, a pardons process does exist in Canada that interested individuals can apply for.

Meeting adjourned.

Sign-in Sheet

Sabina
GOLD & SILVER CORP.

Meeting: Gjoa Haven

Date: Apr 24/13

	NAME	ORGANIZATION
1	Josephine Kamookak	
2	Uriash Eleehetok	Bus Driver
3	Gord Dinnos	Hamlet
4	Betty Dinnos	—
5	TOMMY Porter JR	
6	JOHN MAC LEAN	
7	David Oblokiok	Hamlet Garage
8	Jose Uyarrai	
9	Simon Okpakok	interpreter/Translator
10	Christopher Carlson	
11	M. Sutinnuaq	
12	Noah Sutinnuaq	
13	Emma Pauloosie	
14	Salomie Qitsualik	
15	martha Kamenak	
16	[illegible]	Hamlet / HTO
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20	BEN · PUTUGUQ	

Sign-in Sheet

Meeting: GJOA HAVEN

Date: APR 24/13

Sabina
GOLD & SILVER CORP.

	M. NAME	ORGANIZATION
1	Martha Pooyatat	
2	JOSEPH AKOAK.	
3	[illegible] AKOAK	
4	[illegible]	
5	MARK Uvikatag	
6	Paul Q. OOGAK	
7	Leonard Kogvik	
8	DAVID SIKSIK	
9	MARY PORTER	
10	D. M	
11	[illegible]	
12	HELEN TUNGILIK	KIA.
13	[illegible]	
14	[illegible]	
15		
16	Roger Ekekik	
17	Alice Pootoso	
18	AGNES EKEGLIK	
19	Peter Akkikungnaq	
20	[illegible]	

Sign-in Sheet

Meeting: Good Harbour

Date: Apr 24/13

Sabina
GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Sammy Kogvik	
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MEETING INFORMATION	
DATE	Thursday April 25, 2013 (7:00pm)
TYPE OF MEETING	Taloyoak Public Meeting
LOCATION	Taloyoak Community Hall
ATTENDEES	Approximately 35 members of the public attended (see sign-in sheets) John Kaiyogana (Sabina) Jason Prno (Sabina) Max Brownhill (Sabina) Joe Otokiak (Interpreter)
COMMENTS	Max Brownhill took meeting notes.

MEETING NOTES:

Jason Prno delivered a Project update/overview presentation. A list of proposed VECs and VSECs for the Project were also reviewed. Both Jason Prno and Max Brownhill answered questions.

Q – Arctic char is a freshwater fish. This should be put in your VEC fresh water section.

A – Absolutely, it is a freshwater fish. However, no Arctic char have been documented in the freshwater lakes in the Project area. It is an anadromous fish that spends part of its life cycle in the marine environment; thus we have included it as a marine VEC.

Q – As Inuit, we hunt and fish. In the spring, we go into camp areas to make our preparations. I have been concerned about contaminants that go into the environment and the food that our wildlife eats. What do you do about contaminants?

A – There are different types of contaminants that can be found at mine sites. Monitoring at stations at different lakes and streams will occur around the site and water quality will need to meet various regulatory requirements. There will also be regular inspections conducted by government and KIA officials. As part of the EIS, we are conducting baseline studies to measure current conditions against potential changes brought on by mining in the future. These studies will help define our methodology for water and contaminants management at the mine site. A great resource for learning more about the studies we are conducting is the Back River Project website.

Q – Will you only be preferentially hiring from the communities closest to the mine?

A – We are committed to preferentially hiring people who come from the Kitikmeot Region.

Q – Where will the science camp be held for our youth?

A – These camps will be held in each Kitikmeot community this summer, but the exact dates and details have not been determined yet. Content will be tailored to each community, but they will be talking about topics related to science, engineering, math, and mining.

Q – What's the inducement for kids to go to this camp during the summer?

A – We can't force anyone to participate in these camps. But we feel the camps are a great opportunity and learning experience. There will only be 25 spaces available in each community. There is a lot potential mining in this region coming on-line in the near future and the youth really will be the future of mining in this region.

Q – If you put some certification to the programs, you may get more kids interested.

A – They may in fact get a certificate for completing the camp, but I would need to confirm this.

Q – How often would Sabina monitor the land, water and caribou against contaminated mining dust, and the effects on our rivers, creeks, and birds?

A – Monitoring is often species and environmental component specific. Currently, we keep a wildlife log on site and have aquatic and wildlife scientists conducting baseline studies to characterize existing conditions as part of our EIS. The level of monitoring is also activity-specific, such as that pertaining to vehicle traffic, and our baseline program includes air quality modelling which helps predict worst case scenarios for each proposed activity. During operations, for example, the mine will have mitigation measures in place to reduce dust at the plant site and water trucks will be used to reduce dust from mine traffic.

Meeting adjourned.

Sign-in Sheet

Meeting: TALOYOAK

Date: APR 25/13

Sabina GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	JCC	
2	Allen Totalik	
3	Simon Oopik	
4	Nelson Poodlat	
5	Nora Quayant	
6	Samantha N Qingnatow	
7	ALICE QUAYAUT	
8	SIMON OLEEKATALIK	
9	Mary ITTUNGA	
10	Melanie Ittunga	
11	Tanc de Groot	Queen's University
12	Rosie Tucktoo	
13	Pamela Mannilaq	
14	Peggy Ettunge	
15	Lisa Nannauq	
16	Lucy Oleekatalik	
17	Christalyn Nanook	
18	Johnny Tulurialik	
19	ALOLAK. TAMOLIK	
20	Hattie AQQAQ	

Sign-in Sheet

Meeting: TALOYOAK

Date: APR 25/13

Sabina
GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	MICHAEL ALEEKEE	
2	DENNIS LYALL	
3	DAVID IGLUTSIAQ	
4	Lena Ochoktoonooak.	
5	PETER MANNILAQ SR.	
6	ᐊᐅ ᐸᐅᓐ	
7	Greg Sutherland	
8	Peter Agyagy	
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10	Jeannie Ugyuk	MLA for Netsilik
11	ᐅᓂᓯᓂᒃ	
12	GLORIA KOOTOOK	
13	Wesley Tolerlik	
14	ᓴᓇᑭ ᑲᑎᕐᓗᒃ	
15	I. PANIGAYAK	
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MEETING INFORMATION	
DATE	Friday April 26, 2013 (3pm – 4pm)
TYPE OF MEETING	Kugaaruk Hamlet Meeting
LOCATION	Kugaaruk Hamlet Council Chambers
ATTENDEES	Stephan Inaksajak (Mayor) Nick Amautinuar (Deputy Mayor) Teddy Apsaktaun (Councillor) Mary Kayaksark (Councillor) Sam Kayaksark (Councillor) Greg Holitzki (SAO) John Kaiyogana (Sabina) Jason Prno (Sabina) Max Brownhill (Sabina) Joe Otokiak (Interpreter)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Max Brownhill delivered a Project overview presentation.

Q – How long is the airstrip at George Camp?

Q – Is Sabina hiring any people from the region?

Q – Is your hiring preference only for residents in the communities located close to the mine? Or will it be Kitikmeot-wide?

Q – I was with the Inuit Heritage Trust and we had a meeting where CLOs from Baffinland were present. Baffinland had CLOs in each community. I thought that was a very good idea. It can assist people in the communities to get a job. Do you have plans to have CLOs in each Kitikmeot community?

Q – Facebook is very popular up here and may be useful for Sabina.

Q – Do you provide donations to each Kitikmeot community? Do you have a contact in each community we can speak to about donations? Who would we speak to about this?

Q – We are hosting the Inuit Summer Games this year, would you sponsor that?

Q – Would you sponsor our fishing derby?

Q – Youth is the one thing I'm glad you guys are focussing on. We're having issues with youth getting into and passing the apprenticeship programs. Getting youth interested in things beyond the sciences is even important; in the trades, for example.

Meeting adjourned at 4pm.

Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	Friday April 26, 2013 (7:00pm)
TYPE OF MEETING	Kugaaruk Public Meeting
LOCATION	Kugaaruk Community Hall
ATTENDEES	Approximately 40 members of the public attended (see sign-in sheets) John Kaiyogana (Sabina) Jason Prno (Sabina) Max Brownhill (Sabina) Joe Otokiak (Interpreter)
COMMENTS	Max Brownhill took meeting notes.

MEETING NOTES:

Jason Prno delivered a Project update/overview presentation. A list of proposed VECs and VSECs for the Project were also reviewed. Both Jason Prno and Max Brownhill answered questions.

Q – When you are drilling, you create a lot of dust. Does this do any damage to the soil or the land?

A – As part of our environmental assessment, we are looking at air quality and the effects dust from the mine might have. Dust is produced at mine sites during blasting and from vehicle traffic. During construction and operations, stations will be set up around the mine, to monitor how much dust is falling and management plans will be in place to deal with any dust issues that arise.

Q – The project that you're talking about must not be the one that employed a lot of young people but closed down early and people lost their jobs?

A – No it is not. There have been some mines in this region that have closed down early. However, each project is unique and has its own individual economic limitations and other considerations to take into account. An example is Hope Bay, which was recently shut down but has since luckily been purchased by TMAC Resources. It looks as though they intend to revive the mine, which is good news for the Kitikmeot Region. However, market factors can still affect any mine's ability to operate. Sabina has conducted a positive preliminary economic assessment and believes the mine can be built economically.

Q – I'm witnessing ways of living that I've never seen before. Our young people have to learn so that they can be qualified to work in a mine. We need to make them employable and they're increasing in numbers. The other worry is that the mining companies can affect the environment, but there are a number of unemployed people.

A – Thank you for your comments.

Q – If your mine is shut down, will you be able to transfer employees to other mines?

A – One of our obligations in the EIS is to assess the potential impact on communities of a sudden closure. We have not completed that assessment yet, but we recognize that a shutdown would lead to layoffs. However, Sabina's goal is to stay operational as long as possible and run a profitable mine. Sabina has invested considerable funds in the Project so far and hopes to see return on this investment.

Meeting adjourned.

Sign-in Sheet

Meeting: KUGAARUK

Date: Apr 26/13

Sabina
GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	George Kakkianiun	
2	Jocelino Siqsuk	
3	Blandina Kakkianiun	
4	MATTEW [illegible]	
5	Alex Ningark	GLO
6	Martina Ningark	
7	Maria Kayasauk	
8	Sam. INaksajak	
9	MARY TINASHLU	
10	LEVI ILLUITOK	
11	Billy Nalungiaq	
12	Vanessa	
13	Jeannie I	
14	Tomiki Kourlik	
15	Jonathan Ningark	
16	Joanne Ruben	
17	Nancy-Jean Crawford	
18	Adele Siqquk	
19	Raymond KAYAFARK	
20	Columban Pujuardjok	

Sign-in Sheet

Sabina
GOLD & SILVER CORP.

Meeting: KUGAARUK

Date: Apr 26/13

	NAME	ORGANIZATION
1	ISABELLA INUKSAQ	
2	Mary Kayasak K	
3	Yanina Pujuardjuk	
4	MAURICE O	
5	ᐊᒍᓐᐊᕐᒃᓴᐃ	
6	Madelaine Kakkianiun	
7	Wilfred Immingark	
8	MARY ABBY Kakkianiun	
9	Ernestine Kartil	
10	Mark Kaalik Sr.	
11	Edward Inutiviak	
12	Christine Immingark	teaching.
13	Barnaby Immingark	Kugaaruk Housing Authority
14	Francis Anaittuq	
15	Sheila Tinashly	
16	WILLIAM NALUNGIAQ	
17	Isaac, Saittuq	
18	Rosemary Apsaktaun	
19	Brandon Nartok	
20	Caitlin Tuluriaalik	

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

Is there anything you would like to learn more about?

Is there anything we could be doing better?

We would like get the phone # of there work for family's can call there if something happin to his or her family at home.

Contact information (optional):

Name: Adele Siggur

Address: Box 79 Kugaaruk xoB-1K0 2V0

Phone number: 867-769-7383

Email:

MEETING INFORMATION	
DATE	Tuesday November 12, 2013 (1:30pm)
TYPE OF MEETING	Tlicho Government / Kwe Beh Working Group - Project introduction and DEIS submission overview
LOCATION	Tlicho Government offices, 4308 50th Ave., Yellowknife
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) John B. Zoe (Tlicho Government) Henry Zoe (Tlicho Government) Marjorie Matheson-Maund (Tlicho Government) Noel Bishop (Tlicho Government) William Mantla (Tlicho Government) Sonny Zoe (Tlicho Government / Chair Kwe Beh Working Group)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Opening prayer

Introductions

Henry Zoe provided an overview of the Kwe Beh Working Group and the Tlicho land claim.

Matthew Pickard delivered a Project introduction presentation and an overview of Sabina's DEIS submission.

Q – We've been involved in the NIRB process for MMG. Caribou is our main concern with that project.

Q – The cumulative effects of these projects on caribou are also a concern.

Q – What do you mean that Sabina bought BIPR?

Q – When we meet with other companies the big issue is caribou. That part of Nunavut is where they migrate. Caribou is the big issue that needs to be looked at. It is our main concern. You have to develop mitigation measures to deal with these issues. With open pits - You'll be blasting? You will also need dust control. The caribou are moving away from the areas we normally hunt in; they're not going through the mines. The Tlicho communities did not do their fall caribou hunt this year, as they couldn't find the caribou. We're doing studies now on these mines to see why this might be. Scientific and TK studies are being done on caribou.

Q – What will you be using for power at your mine? Diesel? Will you be using any wind power?

Q – So your winter road would connect to Diavik?

MTP – What is the permitting process for development that occurs in your traditional territory, but outside your co-management area?

Q – We would have to work with the NIRB process.

Q – Who does your winter road?

Q – If you use a winter road, you should not be leaving waste behind. Bring it back to the camp. Don't leave it behind in the caribou grounds. If the caribou see the waste, they will avoid the area. There has been a lot of stuff left behind in that area by other companies. Our people depend on the caribou. It's very hard for them to get caribou right now. Groceries are expensive. Right now there are a lot of mines going in, in the Barrenlands. It's good country for the caribou. Good land, good water. We don't see a lot of caribou right now.

Meeting adjourned.

MEETING INFORMATION	
DATE	Wednesday November 13, 2013 (7:00pm)
TYPE OF MEETING	Yellowknife public meeting - Project update / DEIS submission overview
LOCATION	Yellowknife Inn, Garnett Room Yellowknife, Northwest Territories
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) Various members of the public (see sign-in sheet)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Introductions

Matthew Pickard delivered a Project overview presentation and overview of Sabina's DEIS submission.

Q – What's the life of a winter road in the central Arctic? How far is the MLA from Goose Camp?

Q – Why wouldn't you combine your MLA with BIPR?

Q – You discussed the socio-economic impact and benefits of the Project in Nunavut, but there will be benefits for the NWT as well. Could you speak a bit more on what those benefit would be?

Q – Maybe we in the NWT should ask for training dollars from the government to train Kitikmeot residents that move down to Yellowknife.

Q – Effects of increased employment on the communities is a positive aspect of your project, but when the mine closes you will need to look at the effects of young people leaving their communities to find work elsewhere. They could gain employment and skills, but leave their communities.

Q – What's the potential of the mine to have more than 10 years of production?

Q – In terms of being proactive, I agree that local residents should get preference. Would you allow local businesses and communities to partner with other more experienced organizations to gain your business?

Q – Have you given any thought to your approach to employment? Will it be 100% Sabina employees? Will you use contractors?

Q – Has the option of backfilling the pits with tailings or waste rock been considered?

Q – What kind of innovations are you looking at bringing to the operation? For example, Diavik has brought wind power to their site. What is new with your mine?

Q – During your identification of VECs and during the NIRB scoping process, was there any talk of invasive species, like narwhal in Cambridge Bay?

Q – You mentioned the shipping would be similar to that used for community re-supply. Would it be from the west coast or east coast? What size would the ships be?

Meeting adjourned at 8:10pm.

Sign-in Sheet

Meeting: Yellowknife.

Date: November 13/13

Sabina GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Greg Sharam	Rescan
2	Liz Kingston	Chamber of Mines
3	Marta Simek de Jorge	Energy Wall
4	Manuel Jorge	Energy Wall
5	Adrian Boyd	Nunavut Planning Commission
6	Martina Bezzola	
7	Colin Evaglok	YK INUK
8	VIC WAUGH	
9	WANDA WAUGH	
10	TOM HOEFER	CHAMBER OF MINES
11	JOHN OLOFIELD	KBL ENVIRONMENTAL LTD
12	MARIE ADAMS	CONNOR - NPMO - Yellowknife.
13	Wayne Osborne	
14	Christine Osborne	
15	DARYL DOLYNNY	MLA RANGE LAKE
16	RYAN HESLEP	BBE / NORTERRA
17	Steve Gorzwell	Det'on Cho
18	Stu Impett	Det'on Cho Logistics / QDC Logistics
19	Stacey Menzies	MVRB
20	Chuda Durkard	MVRB

Sign-in Sheet

Meeting: Yellowknife

Date: NOVEMBER 13/13.

Sabina
GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	NICK LAWSON	PUBLIC
2	BILL BRADEN	Cdn Mining Journal (Media)
3	ROB CARROLL	Summit Helicopters & Air
4	KELLY WEATHERBY	WEATHERBY TRUCKING LTD.
5	BLAIR WEATHERBY	" "
6	CLAUDIO ARDICES	PUBLIC
7	RYAN C. PETERS	AGNORA SECURITIES / PRIVATE INVESTOR
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MEETING INFORMATION	
DATE	Wednesday November 13, 2013 (1:00pm)
TYPE OF MEETING	Deninu K'ue First Nation - Project introduction and DEIS submission overview
LOCATION	Deninu K'ue First Nation offices Fort Resolution, Northwest Territories
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) Chief Louis Balsillie (Chief, DKFN) Stephen Cuthbert (General Manager, Deninu K'ue Development Corporation) Carol Ann Chaplin (SAO, DKFN) Rosie Veerenson (IMA coordinator, DKFN)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Introductions

Matthew Pickard delivered a Project introduction presentation and overview of Sabina's DEIS submission.

Q – How far are you from the Thelon Sanctuary?

Q – In Nunavut, are the guidelines you were given the same as the DAR process by MVEIRB? The guidelines would require you to develop mitigation plans?

Q – What do people in Nunavut think about the Project?

Q – Do you have money to do Traditional Knowledge studies?

Q – What is 'close proximity' to the caribou calving areas?

Q – Was your caribou collar data from the GNWT?

Q – How do we in the NWT intervene in this NIRB process?

Q – You said you're in a Part 5 review, so NIRB has already looked at ARD and waste rock? What about arsenic trioxide at your site?

Q – Do you have a socio-economic agreement in Nunavut? Can only Nunavut residents work at your mine?

Q – Where do you buy your core boxes from? Can you find out?

Q – Our core box business hasn't been doing so well recently. DKFN doesn't have IBAs or compensation/royalties with other Akaitcho mines. In the past, however, our forefathers travelled all over the Akaitcho territory. Our approach is that this territory is to be shared amongst all the Akaitcho. Vanderberg and Associates did a TK study for us.

Q – We used to have a fibreglass plant, a sawmill, and a bison herd here. We now have a few little programs in our community, through the ASETS program. We build small cabins and core boxes. We recently lost our largest construction company, as the owner passed on. We have a hard time harvesting caribou and going to where they are. It's a long and expensive way to travel to harvest them in the winter when they are near Lutselk'e. Lutselk'e and the Yellowknives Dene First Nation are paid to charter flights into the caribou grounds by the mines, so it is easier for them. We have lots of graduates in town, but where do they go? They're stuck in Fort Resolution, and don't go out to the mines. Avalon's processing plant was originally supposed to be in Pine Point, and would have had many benefits to this community, but now they're gone. There were lots of groups coming to our community to make presentations at this time. Tamerlane Ventures at Pine Point also recently went into receivership. It will likely come around again in the future.

Meeting adjourned.

MEETING INFORMATION	
DATE	Friday November 15, 2013 (9:00am)
TYPE OF MEETING	North Slave Métis Alliance - Project introduction / DEIS submission overview
LOCATION	North Slave Métis Alliance offices Yellowknife, Northwest Territories
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) Eric Binion (NSMA, Regulatory analyst) Matt Hoover (NSMA, Regulatory analyst) Arnold Enge (NSMA, Director) Joel Dragonsmith (NSMA) Bob Mercredi (NSMA, director) Wayne Langenham (NSMA, elder) Unrecorded individual (NSMA)
COMMENTS	Jason Prno took meeting notes

MEETING NOTES:

Introductions

Matthew Pickard delivered a Project introduction presentation and overview of Sabina's DEIS submission.

Q – You will be using all-weather roads or winter roads?

Q – Will you be making use of BIPR?

Q – Will your pits be filled with water or waste? How deep are the deposits?

Q – Was this the same property that John Zigarlick owned at one point?

Q – Will there be any driving from George to Goose in the summer? Will you stockpile ore in the summer at George?

Q – Will you use dam structures for your tailings pond?

Q – Where does your shipping resupply come from? Will you need icebreakers?

Q – Have you built that TCWR connector road yet?

Q – Have you used the winter road to the MLA before?

Q – Is there any infrastructure currently at the MLA?

Q – How did you determine your Project Development Areas?

Q – You often hear 15km used as a zone of influence, which would extend beyond your Project Development Area boundaries.

Q – So you are right in the middle of the Bathurst Herd calving grounds?

Q – How tall will the tailings facility be?

Q – What is the host rock? That could have implications for acid rock drainage.

Q – Are the two deposits at George in the same host rock?

Q – How deep is that channel off the coast of the MLA?

Q – In Nunavut, is there a mandatory set-back distance for the location of fuel tanks?

Q – In Nunavut, do you have a northern hiring percentage you have to meet?

Q – Is there more information on the economic impacts of the Project on Yellowknife included in the DEIS?

Q – Within the DEIS will there be a section on the cumulative effects on caribou in the region? How have you defined residual effects?

Q – Why have you only chosen to present 5 years' worth of caribou collar data?

Q – You are trying to avoid high-value caribou habitat, but wouldn't that habitat change over time as the caribou moves around?

Q – You mentioned your grade was 6 grams / tonne. In that country it must cost $400.00/tonne to mill. I can't see how that would be economical.

Q – When do you expect to be in production? What are your shares selling at currently?

Q – What are your construction costs?

Q – I would be interested to see your caribou video show the historic range and population size of the Bathurst Herd, before the population went down.

Q – The effects assessment on water quality was only conducted on Goose Lake and George Lake?

Q – Would users of the Bathurst Herd like the NSMA and Dene be included in your management plans?

Q – In the DEIS, is there a section on the socio-economic impacts of the Project on Yellowknife?

Q – Can you share your pre-feasibility study with us?

Q – Our main concern is the cumulative effects on caribou, especially with the cumulative effects of multiple projects going through. The herd's health has been in decline. Even as traditional harvesters of the herd, we haven't had access to the herd due to regulations.

Q – I have a concern about the caribou. At Ekati, the herd would go through the area, but since the mine started the caribou don't go through there anymore. The ones that do have broken legs from the big broken rocks. I would be concerned that the calves could hurt themselves in a similar way. The roads don't even need to be high; it is the large boulders on the side of the road that can hurt them.

Q – The roads at Ekati are mostly 1m high. Some of the highest roads are 4-5 meters tall. The Ekati area is covered in boulders naturally. There are only a few areas where the caribou cross, where there are trails. They know their way around through there. Those areas are sloped / the roads are ramped for the caribou.

Q – Would you use those road ramps as well?

Q – Will your environmental team map those caribou trails as well?

Q – Our issue is often with cumulative impacts, and that the calving areas could shift over time. I hope in your application it shows adaptive management for caribou.

Q – What size of haul trucks would you use on the winter roads? What size of haul truck would you use in the open pits?

Q – Would you pre-build the ramps on the haul roads to accommodate caribou moving through the site?

Q – Will Acid Rock Drainage be an issue?

Q – Will you have quarries on site for developing roads and infrastructure?

Q – Will you use the same type of non-toxic explosives that the mines around here use?

Q – For your Llama pit, you will need to drain a lake?

Q – We'll also be looking at the socio-economic impact assessment for Yellowknife in our review. NSMA also has a development arm that provides mining services, including cargo haulage on the winter road and shotcrete production.

Q – Please keep us in mind for contracts. We used to do catering for Ekati. We're competitive with any southern company.

Q – We also sell cement. We have a plant in Spruce Grove and would ship out of Montreal.

Meeting adjourned.

MEETING INFORMATION	
DATE	Monday November 18, 2013 (10:30am)
TYPE OF MEETING	Kugluktuk Community Advisory Group - Project update / DEIS submission overview
LOCATION	Hamlet offices Kugluktuk, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Jason Prno (Sabina) Tommy Pigalak (CAG member) Allen Kudlak Jr. (CAG member)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Introductions

Jason Prno delivered a Project overview presentation and overview of Sabina's DEIS submission.

Q – Are the local employees you mentioned from this year still working at site? Or have they been laid off?

Q – Sabina has been good at providing donations in this community.

Q – It might be useful for Sabina to provide short updates about the Project on TV. On News North, for example. Everyone watches that. Short programs would be good to use.

Q – There will be more questions on how you determined 'significance' at the public meeting tonight.

Q – In the summer, the caribou around Kugluktuk (the Bluenose Herd) go east over the river. Did you look at these caribou in your environmental assessment?

Q – If you show that same caribou movement video [on the Bathurst Herd] at the public meeting tonight everyone will be amazed. It will be good for them to see.

Q – The Hamlet is training younger people to drive water trucks. This is a good thing.

Q – Does the public know about your meeting tonight?

Q – People don't seem to be attending public meetings any more. Young people should go. They need jobs, but need to go to school.

Q – As long as you keep employing Inuit, it is good.

Q – Quiet people are good workers because they don't talk back to their bosses.

Meeting adjourned at 12:00pm.

MEETING INFORMATION	
DATE	Monday November 18, 2013 (3:30pm)
TYPE OF MEETING	Hamlet of Kugluktuk – Project update / DEIS submission overview
LOCATION	Hamlet council chambers Kugluktuk, Nunavut
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) Grant Newman (Deputy Mayor) Peter Taktogon (Councillor) Sven Kerkovius (Councillor) Lucy Taipana (Councillor) Don LeBlanc (SAO) Sean Wallace (EDO)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Introductions

Matthew Pickard delivered a Project overview presentation and overview of Sabina's DEIS submission.

Q – For your tailings, will you have a fence around them? Caribou can go in there and drink the water. That's my biggest concern, and is something I've seen at past gold mines. I would like to see a fence around it.

Q – Where are you getting the aggregate from for the MLA workings?

Q – What's your plan for wastewater? Will you be treating it before discharging it?

Q – What is the cyanide destruction process that you mentioned?

Q – A lot of the time, gold is associated with arsenic content in the ore. Will you have arsenic?

Q – In your mine closure plan, are you putting sufficient money aside to deal with closure risks? How much money is being put aside?

Q – What are your production costs when your silver credits are included? Will you be producing silver?

Q – Mining is a new industry in this part of Nunavut. In Alaska, they've had development in the North Slope for many years. Have you looked at their data on the impacts of development on caribou? That data could be very helpful to you.

Q – How long is the construction period going to be? Is there an apprenticeship or training program in place? Is there a preferential hiring policy in place for Kitikmeot residents?

Q – Is Michelle Buchan the contact for the KIA training initiatives?

Q – How will you close the tailings pond?

Q – Our elders don't like it being called 'Kug'. Please try and call it 'Kugluktuk'.

Q – We have a career fair in January coming up that we wanted to let you know about and see if you could attend.

Meeting adjourned at 4:45pm.

MEETING INFORMATION	
DATE	Monday November 18, 2013 (7:00pm)
TYPE OF MEETING	Kugluktuk public meeting - Project update / DEIS submission overview
LOCATION	Recreation Complex Kugluktuk, Nunavut
ATTENDEES	Matthew Pickard (Sabina) John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) Craig Cornell (Sabina) Merle Keefe (Sabina) Various members of the public (see sign-in sheet)
COMMENTS	Cheryl Wray took meeting notes. Joe Otokiak provided interpretation services.

MEETING NOTES:

Introductions completed by John Kaiyogana.

Matthew Pickard delivered a Project overview presentation and overview of Sabina's DEIS submission.

Q – Did you have any summer students identified?

Q – Where do you guys hold all of the training? In which communities? Some people prefer to have training in their own communities.

Q – KIA should not have to foot the bill for our education. The federal government and FANS are supposed to be providing funding. Organizations like Sabina should be filling in the gaps for training. We should not be denied education.

Q – People that are in and out of jail always get denied employment. We need to think about these people. We need to give them a chance.

Q – Your presentation has a discrepancy between the ounces you present and the number of years you will be in operation. Can you clarify that? I'm curious about the IIBA – How do those approvals happen? How is community input gathered? Who negotiates the IIBA?

Q – When you said there would be discharge at George Lake – What is the discharge that you spoke of? And what are the contaminants?

Q – Can you discuss person years? Can you define a person year?

Q – What do your Community Advisory Groups do? What do they advise you on?

Q – Why do you bring an interpreter? Can't you employ one here?

Q – When is most of the employment going to happen?

Break at 7:50pm. Meeting resumed at 8:00pm. Second half of the presentation focussed on the DEIS.

Q – When conducting an EA and making plans for mitigation – Within your plans and IIBA are there repercussions if our Inuit feel like you have failed with the mitigation plans?

Q – In each of your effects assessments is there a worst case scenario for each VEC or VSEC? Have you analyzed for each worst case scenario?

Q – Let's try to work closely with the company so that we aren't stuck in a place like Fort McMurray as the federal government is changing all the legislation and we can't be left behind or a sad case scenario. We need to make sure that the company knows our concerns.

Q – Communities need to engage small business to ensure that we get involved. We need to know what opportunities are there.

Q – What about the social issues that come with the wage earners? Are you going to have support people in camp, for example, elders and social workers? An influx of money brings an influx of issues, for example, drugs, alcohol, gambling, etc. How are you going to deal with those issues?

Q – Are Goose and George Lake going to be operating even though gold prices are low?

Q – Are there royalties and what agreements do we have on those?

Presentation completed at 8:20pm. Questions ongoing until 8:40pm.

Sabina Gold and Silver Corp.
Back River Gold Project

Sabina
GOLD & SILVER CORP.

PUBLIC COMMENT FORM

Please share any comments, concerns, or suggestions you have regarding the Back River Gold Project:

We need to help our young people to learn for our future mining & environmental Impact. all workers do they have help for money management & how to budget?

Is there anything you would like to learn more about?

See if there's a place for couples having problem to get help like substance abuse or family violent? there's lot of suicide young & old family breakup etc.

Is there anything we could be doing better?

have training at local training at their own communities.

Ask a person/s if they want to attend meeting at the mines or how to attend meetings in other communities, donate to local youth group & women's and men's group communities, even to local churches.

Contact information (optional):

Name: James Allen

Address: P.O Box 97 Kugluktuk Nu X0B0E0

Phone number: 867-982-3096

Email:

Sign-in Sheet

Sabina
GOLD & SILVER CORP.

Meeting: Kugluktuk Public Meeting

Date:

	NAME	ORGANIZATION
1	Ryan Nivingalok	
2	"Jean" Jane Taipana	nil
3	Agnes Kokak	
4	Rosemary Meyok	GN
5	Colin Haniliak	
6	Marjorie Kaminjal	
7	Helen Tologanak	KIA.
8	Kome Nivingalok	JHI
9	Elwea Eletriak	
10	Andy Taptuk	
11	Preston Kapakatoak	
12	Coral Westwood	
13	PAT Alsona	
14	Donald Havioyak	Res. Jmm G
15	Colin Nivingalok	
16	Delma Niptanatiak	
17	George Kuliktakak	
18	Bessie Kuliktakak	
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Sign-in Sheet

Meeting: Kugluktuk Public Meeting

Date:

	NAME	ORGANIZATION
1	PHIL EVAGLOK	
2	Hilrok Ivarluk	
3	Priscilla Nivingalok	
4	Kuey Nivingalok	
5	ANN Rose Kerkovius	
6	SVEN KERKOVIUS.	HAMLET/HOMEOWNER
7	Nellie Kanjoyana	
8	LARRY ADSUN	HAMLET MMOS SUPERVISOR
9	WALTER ATIGAKYOAK	
10	Jonathan Aglugoktok	Hamlet swamping
11	Helen Himiak	CA
12	John P Kuadlak	
13	Jean Kavachuck	
14	Reisha Nivingalok	
15	Steven Anaktak	
16	Jennifer Maniyogena	public
17	David Evagok	SED.
18	Rose Evagok	
19	Allen Kudlak Sr	DDEC
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Sign-in Sheet

Meeting: Kugluktuk Public Meeting

Date:

Sabina GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Doris Elatiak	
2	Diana Evagaak	
3	AIFAE	
4	Doreen Vaghok	
5	Laurinia Enogaiok	
6	Allen Ipkudlak	
7	Rob Kohokhak	
8	Freddie Taptuna	
9	Mona Angulalik	
10	LAURA KOHOKTAK	
11	Betty Ankoduk	
12	Tom Norberg	
13	Darrell Ennaloak	
14	Donna Ekpakohak	
15	[illegible] HAYOHOK	
16	Agnes Allen	
17	John Hemiak	
18	GORDON HIKOAK	
19	Louie KAKOLAK	
20	Jason Taptuna	

Sign-in Sheet

Sabina
GOLD & SILVER CORP.

Meeting: Kugluktuk Public Meeting

Date:

	NAME	ORGANIZATION
1	Christine Meyok	
2	Shania Hikomak	
3	Paddy Aviugana	
4	Margaret Hanioyak [illegible]	
5	Allen Stuktuk	
6	Evan Niviuqsaloc	
7	Roy Klengenberg	
8	Thomas Panioyak	
9	Chelsea Hakerna	
10	[illegible] Kuneguna	
11	Shirley Hatogina	
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Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	Tuesday November 19, 2013 (10:00am – 11:30am)
TYPE OF MEETING	Cambridge Bay Community Advisory Group meeting / meeting with Bathurst Inlet and Bay Chimo residents – Project overview and DEIS submission overview
LOCATION	Community Hall Cambridge Bay, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Jason Prno (Sabina) Craig Cornell (Sabina) Merle Keefe (Sabina) Johnny Lyall Sr. (CAG member) Martina Kapolak (CAG member / Bay Chimo resident) Robert Akoluk (Bathurst Inlet resident) Anna Nahogaloak (CAG member) Gilbert Tikhak (Bay Chimo resident)
COMMENTS	Merle Keefe took meeting notes. Joe Otokiak provided interpretation services.

MEETING NOTES:

Jason Prno delivered a Project overview presentation and overview of Sabina's DEIS submission.

Q – You mentioned that NIRB leads the EA process. NIRB is going to a lot of meetings, but we have never had any public meetings with NIRB here in the Kitikmeot. They go to Baffin Island, but never the Kitikmeot. We don't see them - They come to work then they go. You stated that 17 people from Cambridge Bay are employed by Sabina - Is that right now? Is there anybody employed from the Kitikmeot right now?

Meeting adjourned at 11:30am.

MEETING INFORMATION	
DATE	Tuesday November 19, 2013 (7:00pm)
TYPE OF MEETING	Cambridge Bay public meeting - Project update / DEIS submission overview
LOCATION	Community Hall Cambridge Bay, Nunavut
ATTENDEES	Matthew Pickard (Sabina) Max Brownhill (Sabina) John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) Craig Cornell (Sabina) Merle Keefe (Sabina) Various members of the public (see sign-in sheet)
COMMENTS	Cheryl Wray took meeting notes. Joe Otokiak provided interpretation services.

MEETING NOTES:

Introductions conducted by John Kaiyogana.

Matthew Pickard delivered a Project overview presentation and overview of Sabina's DEIS submission.

Q – With the current C02 emission regulations that the Federal Government is proposing, how is Sabina proposing to reduce CO2 emissions so that you don't have an impact on climate change? We feel the climate change up here in the north and we will feel it especially in the Kitikmeot.

Q – What are the accommodations going to be like? Will you use trailers?

Q – What happens if the price of gold drops? Will Sabina halt their operations?

Break at 7:35pm. Meeting resumed at 7:50pm. Second half of presentation focussed on the DEIS.

Q – You state that there are no possibilities of contaminants going into the water? How can there be no effect on the water quality?

Q – From the recent news we've heard, there is a lot of water contamination coming from an industrial site in Alberta and making its way downstream. People said that would never happen. But it happens. What are you going to do to prevent that?

Q –Would you notify the public right away about a spill?

Q – Earlier, you spoke of dewatering. If you have to drain the lakes, what would you do with the fish in the lakes that you dewater?

Q – When is the Project going into operation? What type of training is going to be provided to ensure people can work?

Presentation completed at 8:10pm. Questions ongoing until 8:20pm.

Sign-in Sheet

Meeting: Com. Bay

Date: Nov. 19

Sabina GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Hallie Eplon	
2	Robert Maksagak	
3	Martina Kopolak	Advisory Committee
4	Wynter Kuliktana	KIA
5	DEREK ELIAS	
6	LINDA KNENGENBERG	
7	Allen Kanayok	
8	Ida Kuliktana	
9	Susie Mingilgak	
10	Kate Kuliktana	
11	Thomas Kaakina	
12	ATHOLIA KULIKTANA	
13	SAM KULIKTANA	
14	DEAN KULIKTANA	
15	Martha Akduk	
16	Robert Akoluk	
17	Tammy Akduk	
18	ABE EYEGETOK	
19	MIKE KAYOGANA	
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Sign-in Sheet

Meeting: Cross BAY

Date: NOV 19/13

Sabina
GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Marjorie Lyall	
2	John Lyall Jr.	
3	BEKKA AKHOK	
4	Michelle Buchan	KIA
5	Kent Gustavson	FRM Resou.
6	ALEX BUCHAN	MAC
7	GEORGE OKHINA	myself
8	NOAH KUDLAK	
9	ISA NEGLAK	
10	Donny Angvlalek	
11	Corey Dimitruk	
12	BettyAnn Manimogena	
13	Richard Ekpakohak	
14	Mary Ekpakohak	
15	Geoff Clarke	KIA
16	Jack Gladstone	Carleton University
17	[illegible]	QEC
18	Mary Rose Makpaagak	Dept. of Justice
19	Isabel Aaluk	
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MEETING INFORMATION	
DATE	Wednesday November 20, 2013 (4:00pm)
TYPE OF MEETING	Hamlet of Gjoa Haven - Project update / DEIS submission overview
LOCATION	Hamlet offices Gjoa Haven, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) Gord Dinney (SAO) Sean [unrecorded last name] (SAO in training)
COMMENTS	Cheryl Wray took meeting notes.

MEETING NOTES:

Jason Prno delivered a Project overview presentation and overview of Sabina's DEIS submission.

Q – There will be winter roads connecting the different camps?

Q – Can you clarify the location of the Project? Which province is it above?

Q – From actual production, you are 2-3 years away?

Q – When did your camp open?

Q – Where do people come from that traditionally use that area?

Q – Do people from Bay Chimo live there all year?

Q – What are Inuit Owned Lands?

Q – This winter road that you are talking about – There is no gravel laid down, is there?

Q – So what are you shipping? Are you shipping the ore out?

Q – What is the life of Goose?

Q – Is there a lot of gold there?

Q – So, is the gold 2% per tonne?

Q – What's your capacity on site in terms of processing?

Q – Do people get concerned about tailings and the waste left behind?

Q – What's left behind when you leave? Tailings?

Q – Has Sabina been around long enough so you have experience operating and closing mine sites?

Q – Are you looking at 2016 for full production?

Q – Sabina will advance the Project only so far. They will not take it into production. A larger mining company will buy them out before that.

Meeting adjourned.

MEETING INFORMATION	
DATE	Wednesday November 20, 2013 (10:45am)
TYPE OF MEETING	Gjoa Haven HTO - Project update / DEIS submission overview
LOCATION	HTO office Gjoa Haven, Nunavut
ATTENDEES	Max Brownhill (Sabina) John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) 7 HTO board members/representatives
COMMENTS	Cheryl Wray took meeting notes. Joe Otokiak provided interpretation services.

MEETING NOTES:

Introductions conducted by John Kaiyogana.

Jason Prno delivered a Project overview presentation and overview of Sabina's DEIS submission.

Q – The lake that will you be draining – Will the water be going to the containment area?

Q – My concern is that contaminants will be spread during closure by wind, rain, etc. We know that when snow covers the tailings, it could blow off and carry contaminants with it. Maybe using snow fences would help. We do not want to eat caribou with contaminants and cyanide. We need to make sure that we contain all of the contaminants. Especially with the dust. Our main concern is the tailings pond and wastes associated with the mines and that no animals have access to that water. Caribou are a big deal right now, especially with the Bathurst Herd. We want to make sure that none of the contaminants get to the caribou. You are right in the middle of the herd's range.

Q – When you are done, we have all this waste. Where is all the waste going to go? Will it be left on the site and land? Will there be barrels of waste?

Q – Re: Fencing. We need to keep animals away. We want to keep everything as natural as we can. We need to ensure that we prevent those sorts of things before it happens, using things like fencing of the tailings. Fencing will help prevent the birds and caribou from getting in. Programs have been done in the past and people have said that there wouldn't be any impacts but there have been; we know that for a fact. We want to have the fencing before anything starts so that contaminants don't happen. We want that done before any activity starts, to prevent any contamination.

Q – If Meadowbank can process 10,000 tonnes a day, what's stopping you from processing 10,000 tonnes a day?

Q – Re: potential project effects. The loss of reproduction – That is a very scary thought. One of our main concerns relates to the animals. Is that loss of reproduction for all animals?

Q – If we have loss of reproduction will that impact people too? What about contaminants? If it is potentially there for the animals then it should be there for the people. The loss of reproduction could impact people too.

Q – Even though we try to assess the movement of wildlife, they follow the movement of the moon, they go to different areas. Sure you can do all the studies you want. But over the months they move with the moon cycle. They move to different areas.

Q – I understand your point that you are not on Back River, but will you be sampling the Back River?

Q – We are not opposed to mining but we need to be kept informed. This is our environment and we want to make sure that we don't have it polluted. Our animals and our lakes. Our lakes - We can drink the water and we want to keep it that way. We don't want to have to worry about our water and animals.

Meeting adjourned.

MEETING INFORMATION	
DATE	Wednesday November 20, 2013 (7:00pm)
TYPE OF MEETING	Gjoa Haven public meeting - Project update / DEIS submission overview
LOCATION	Community Hall Gjoa Haven, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) Craig Cornell (Sabina) Max Brownhill (Sabina) Merle Keefe (Sabina) Various members of the public (see sign-in sheet)
COMMENTS	Cheryl Wray took meeting notes. Joe Otokiak provided interpretation services.

MEETING NOTES:

Jason Prno delivered a Project overview presentation and overview of Sabina's DEIS submission.

Q – You say there are two Back Rivers and your project is not on the Back River that we call Utkusik. If there are two Back Rivers, can you give exact locations of the Back Rivers that you are talking about?

Q – With respect to the George Project, can you tell us how many lakes have fish in them where you will mine? What about the fish in Back River? And Goose Lake? How many lakes have fish in them? And which lakes that have fish will you impact?

Q – With the port that you want to build, will you be shipping in the winter? How many ships are you looking at bringing in per year?

Q – Some people travel in those areas during the winter where your winter roads are going to be. People still travel in those areas from Gjoa Haven, Cambridge Bay, Bay Chimo and Bathurst Inlet. We are worried that you will be creating barriers to travel as a result of the roads.

Q – What will you be doing with the fish that you are fishing out of the lake? Is this strategy agreed to by DFO? Do other organizations agree with these activities relating to you fishing out the lake?

Q – Re: the Back River – Can you change the names to East and West Back River? Each time we hear Back River, we think of the Back River south of here. Can you change the name so that we are clear as to where you are? So we know you are not near Gjoa Haven but south of Bathurst Inlet?

Q – Can the fish be moved to another lake or will they be killed? Can you clarify that?

Q – Re: the all-weather roads leading from Bathurst Inlet to the south – Are there discussions about this all-weather road to the Port?

Q – As Inuit and hunters, maybe KIA should consult with us too before they work with you. We don't hear a lot from our own organizations. Maybe they should be working with us before they work with you.

Break at 8:30pm. Second half of presentation commenced at 8:40pm.

Q – Are you an independent environmental agency? Or do you work with Sabina? When are you done work or finished for the year? Do you leave or do you return and do more work?

Q – Hiring preferences? I understood that there will be training opportunities made available. We still have people who require training. I work with KIA and I work in training and career opportunities and I am enjoying my job. Does Sabina have policies and procedures for hiring and firing for the Project?

Q – How is it that certain individuals get employed with Grade 10 and don't have criminal records checks?

Q – Those people without criminal records do have certain levels of education and I believe that they may be qualified. But I'm not sure why they aren't getting hired?

Q – Is there a NIRB observer here when you talk about your environmental assessment?

Q – Liquids can spread across the ground. Can you provide clarification on how fast water can move through watersheds? How will you prevent contamination to water?

Q – I would like to thank Sabina for sponsoring the Sled Dog Association in Gjoa Haven. I would like to know if this will continue in the future?

Q – Would Sabina look at funding other activities such as funding the creation of an ATV or skidoo trail to make it easier for us to travel on the land?

Q – I have worked for many companies in my years. Many employees are from the north and they are very good operators, especially in the winter time. Sometimes northerners aren't treated very well.

People need to be treated the same. If there is bad weather, Inuit are capable of working in those conditions. This should be considered for employment.

Meeting adjourned at 9:30pm.

(1)

Sign-in Sheet

Sabina
GOLD & SILVER CORP.

Meeting: Gjoa Haven

Date: Nov 20/13

	NAME	ORGANIZATION
1	Peter Akkikungnaq	Cap Enterprise LTD
2	Joanasie [illegible]	
3	Simona Akkikungnaq	[illegible]
4	Mary Porter	
5	Celine Pawloosie	
6	[illegible]	
7	Noah Siutinnuaq	
8	Sammy Kogvik	
9	Elizabeth Dinney	
10	Annie Konana	
11	Gord Dinney	Hamlet
12	Linda K. Hunter	
13	Helen Tungilik	KIA
14	Agnes Akkikungnaq	
15	Saul Q.	
16	Andrea Carter	KIA
17	Leslie.Ullikatak	
18	Jessica Hunter.	
19	[illegible]	
20	Wynter Kuliktana	KIA

(2)

Sign-in Sheet

Meeting: GJOA HAVEN

Date: NOV 20/13

Sabina
GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Piulaq	KIA
2	Abe Higiniq	Sabina
3	TILMAN FRERS	SUMMIT AIR
4	Justin Porter	
5	Billy Nimiqtaqtuq	
6	Megan Porter	Nunavut Water Board.
7	SONNY PORTER	
8	MIKO PYSZAK	SUMMIT AIR
9	Alice Pootoogo	
10	Roy Pootoogo	~~Robert~~
11	JANIE POOYATAK	
12	MARK Ullikataq	
13	Leonard Kogvik	
14	BEN . PUTUGUVA	
15	JANE PUTUGUVA	
16	? Pd	
17	Eva Kogvik	
18	Robert Pootoogoolu	
19	Uriash Elechetack	
20	Christine Porter	

Sign-in Sheet

Sabina
GOLD & SILVER CORP.

Meeting: Gjoa Haven

Date: Nov 20/13

	NAME	ORGANIZATION
1	Peter Berger	
2	Bill Ekelik	
3	[illegible]	
4	Andrew Porter	
5	Lena Apiano	
6	Yvonne Nimiqtaqtuq	
7	GEORGE EKELIK	
8	[illegible]	
9	Mitchell Porter	
10	Leona Qirngnirq	
11	Samuel Ullulaq	
12	Rhoda Porter	
13	Amber Eleehetook	
14	ENUK PAULOOSIE	HAMLET OF GJOA HAVEN
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MEETING INFORMATION	
DATE	Thursday November 21, 2013 (1:30pm)
TYPE OF MEETING	Hamlet of Taloyoak - Project update / DEIS submission overview
LOCATION	Hamlet offices Taloyoak, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) Rene Boisvert (Hamlet) George Aklah (Hamlet) David Nanuq (Hamlet) David Irqiut (Hamlet) Tommy Aiyout (Hamlet)
COMMENTS	Cheryl Wray took meeting notes. Hamlet provided interpretation services.

MEETING NOTES:

Jason Prno delivered a Project overview presentation and overview of Sabina's DEIS submission.

Q – Why are your employment numbers low for Taloyoak and Kugaaruk?

Q – If all goes well, when do you expect to go into operations?

Q – When will you start the IIBA negotiations with the KIA?

Q – When do you propose to start the NIRB process?

Q – Do you use the KIA CLO in Taloyoak to help people find work at your Project?

Q – There are folks from the community who have worked with industry historically. Those projects are now closed and these people are looking for employment. I would like to see the number of employees

from each community be equal. The same number of people from each of the communities should be working at the mine.

Q – There are a number of obstacles in gaining employment, such as lack of daycares in the communities, etc. Will Sabina will be providing any programs or funding to assist with this?

Q – The place where you have your mine – There are a lot of animals like wolverines, caribou, etc. My question is, will you keep your tailings in an area where animals can't get to them? How will you protect the water from contamination?

Q – Thank you for the video [on Bathurst Herd caribou movements]. The knowledge of the Inuit or IQ – We still use the knowledge of the elders and we know that there is an impact on the caribou and animals. Therefore, we want them to be searched more often.

Q – We need more jobs for our communities. There are Inuit that work in exploration camps, etc. The young people are our future and we need more training. We worry about our land. We want to make sure that our people are working at these places.

Q – You mentioned that next summer it will be a smaller camp? What type of employees will you be looking for in the next season?

Q – A lot of the concerns voiced by the communities on things like employment will be covered in an IIBA right?

Q – Our church seems like it's going to fall apart. We require a lot of work and renovations for our church. Can you provide donations to help with our church?

Meeting adjourned at 2:45pm.

MEETING INFORMATION	
DATE	Thursday November 21, 2013 (10:00am)
TYPE OF MEETING	Taloyoak HTO meeting - Project update / DEIS submission overview
LOCATION	HTO office Taloyoak, Nunavut
ATTENDEES	Max Brownhill (Sabina) John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) George Aklah (HTO) Joe Ashevak (HTO)
COMMENTS	Cheryl Wray took meeting notes. Interpretation was not required.

MEETING NOTES:

Introductions conducted by John Kaiyogana.

Jason Prno delivered a Project overview presentation and overview of Sabina's DEIS submission.

Q – How many ounces of gold do you have? How many pounds is that?

Q – Are there still people living in Bathurst Inlet?

Q – Are there gold mines in that area already?

Q – How was everything brought in? By airplanes or ships?

Q – Do you own Goose and George? It's confusing with all the different names.

Q – In terms of employment at the Project, how many Inuit vs. non-Inuit will be employed?

Q – Are you going to provide on-the-job training? Our education levels aren't that high. We don't have a lot of machinery, therefore our youth don't have a lot of opportunity.

Q – Where will the tailings go?

Q – You are proposing a lot of flights that will disturb wildlife. I am sure you have heard a lot of concerns about disturbing wildlife?

Q – Noise pollution includes blasting as well. How will you deal with that?

Q – I have doubts that the freezing and capping of the tailings will work due to global warming.

Q – What will you do with the water from the lake that you want to drain?

Q – Do the employment numbers you provide include contractors?

Q – A big concern pertains to migrating animals. Mines and communities provide barriers to migration. Is this decline on the population due to mining?

Meeting adjourned at 11:40am.

Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	Thursday November 21, 2013 (7:15pm)
TYPE OF MEETING	Taloyoak public meeting - Project update / DEIS submission overview
LOCATION	Community Hall Taloyoak, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) Max Brownhill (Sabina) Craig Cornell (Sabina) Merle Keefe (Sabina) Various members of the public (see sign-in sheet)
COMMENTS	Cheryl Wray took meeting notes. Joe Otokiak provided interpretation services.

MEETING NOTES:

Jason Prno delivered a Project overview presentation and overview of Sabina's DEIS submission.

Q – In regards to the lake that will be fished out – What kind of fish are they and are they from the ocean or are they land-locked?

Q – Jobs in the Kitikmeot are very hard to come by. Where the population is very low, it's hard to find employment for those living in the communities. If mining does go on, employment should be made available to both men and women. Could you provide employment to smaller communities? Jobs are hard to come by.

Q – Will the tailings stay in that area or will they be shipped out to southern locations? We are worried about the wildlife. They may not be there in the winter but eventually they will go back to those areas and as Inuit that is what we depend on. Wildlife may eat in areas contaminated from mining. We are in the age where wages are important but wildlife is also important to us.

Meeting adjourned at 9:15pm.

(1)

Sign-in Sheet

Meeting: TALAROAK

Date: NOV 21/13

Sabina
GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Steven R. Quyle	
2	MANILAQ	
3	Panigayak	
4	James Ettoolook	
5	Mary Ettoolook	
6	ᐅᑦᑕᒃᑕᓐ	
7	ALICE QUAYAUT	
8	ᐊᐅᔪᓂᐅᑉ.	
9	Vera Paniloo	
10	Nancy Amarualik.	
11	Lena Kingmiaqtuq	
12	Andrew Qungtyanuaq	
13	Steckoll	
14	Hattie Ettoolook	
15	Paulosie Sayko	Hamlet of Talaroak, Rec. Dept.
16	ナムクンヒ	
17	Jeff olee	
18	ᑕᐊ ᐅᐃᔪᓐᓇᖅ	
19	Hubla Tuktoo	
20	Stella Tuktoo	

(2)

Sign-in Sheet

Meeting: TALOYOAK

Date: NOV 21/13

Sabina GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Eva Nanmuq	
2	ChriStalun Nannuq	
3	Elizabeth Ryall	
4	Mary Totalik	
5	Eli Marquiq	
6	AnnRose Totalik	
7	DENNIS LYALL	LYALL CONST LTD
8	DAVID IGLUTSAQ	
9	BRUCE TAKOLIK	
10	[illegible]	
11	[illegible]	
12	Emeliq Aaluk	
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MEETING INFORMATION	
DATE	Friday November 22, 2013 (3:20pm)
TYPE OF MEETING	Hamlet of Kugaaruk - Project update / DEIS submission overview
LOCATION	Hamlet offices Kugaaruk, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) Max Brownhill (Sabina) Mary Qayasark (Hamlet) Catherina Qirngnuq (Hamlet) Gord Dinney (Hamlet - SAO)
COMMENTS	Cheryl Wray took meeting notes.

MEETING NOTES:

Jason Prno delivered a Project overview presentation and overview of Sabina's DEIS submission.

Q – The price of gold is down a bit?

Q – Once you build a road, will you be using trucks to bring stuff down from the sea? You will only use a winter road?

Q – So, you guys are here to update us on what you are doing?

Q – Are there a lot of caribou herds passing through that area? The reason why I ask is that people from Cambridge Bay, Bathurst Inlet, etc. – That is their main diet.

Q – If you contaminate the ground, the caribou will pass by there and eat the contaminated earth. I am afraid that the material left behind will contaminate the ground and the caribou.

Q – Vehicles and noise of the helicopters – Those are disturbances to caribou.

Q – There are two different things. There are jobs for young people, but the elders also know that the ground might get contaminated from mining and impact the wildlife.

Q – Where will you be shipping the gold bars to?

Q – So the 700 person camp – Will it be starting this summer?

Q – Where is your fuel coming from?

Q – Why are you going the long route [i.e. shipping to the MLA from Eastern Canada] and not through the Mackenzie River?

Q – There are lots of small lakes there at your Project, eh?

Q – Why does your map show different colours? [The different colours represent different watersheds].

Q – What types of fish are found in Llama Lake?

Q – George Lake – Does it have char?

Q – Does NTI get involved in your Project? Do you have the go-ahead from them?

Meeting adjourned at 4:10pm.

MEETING INFORMATION	
DATE	Friday November 22, 2013 (6:30pm)
TYPE OF MEETING	Kugaaruk public meeting - Project update / DEIS submission overview
LOCATION	Community Hall Kugaaruk, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Cheryl Wray (Sabina) Jason Prno (Sabina) Max Brownhill (Sabina) Merle Keefe (Sabina) Craig Cornell (Sabina) Various members of the public (see sign-in sheet)
COMMENTS	Cheryl Wray took meeting notes. Joe Otokiak provided interpretation services.

MEETING NOTES:

Jason Prno delivered a Project overview presentation and overview of Sabina's DEIS submission.

Q – Do you have to have an education or training to work at your mine?

Q – What did you do with the drilling fluids on the site? What about the garbage? How are the tailings dealt with?

Q – Although people don't speak English, they can learn how to work by watching others. I have gone through that process myself even though I don't speak the English language. I just want to comment on that.

Q – Will I get the same pay as people from the south?

Q – Things are possible when interpreters are used for unilingual employees. We pay attention and things can be positive if interpreters are used.

Q – We are now hearing that you don't have to speak English to get a job. We have a lot of young people and jobs are hard to come by. Our young people want to work but sometimes they have a hard time finding work as they don't have the experience.

Q – Why did we have only 2 people from Kugaaruk working at your Project? Do people have to send their resumes?

Q – Maybe there needs to be community assistance in dealing with resumes, preparing resumes, and sending resumes out?

Meeting adjourned at 9:10pm.

(1)

Sign-in Sheet

Meeting: ~~KUGAARUK~~

Date: NOV 22/13

Sabina
GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Adele Siggyk	
2	Jocelino Siggyk	
3	Rita Inuksaq	
4	ISABELLA. INUKSAQ	
5	Sam Inuksajalk	
6	Alina Tungilik	
7	Erica Kukkuak	
8	Mary Kayasark	
9	Raymond KAYASARK	
10	Simeonie Angutinguriik	
11	Gwendolin Ningark	
12	Ludgarde Angutinguk	
13	Casey Siggyk	
14	Lucien Siagaq	
15	Sarene Siggyk.	
16	Carol Inuksaq	
17	Carla Inuksaq	
18	Colin Inuksaq	
19	Judas Kayuqtuq J.R	
20	Judas.S.R. KAROO	

Sign-in Sheet

(2)

Meeting: KUGAARUK

Date: NOV 22/13

Sabina
GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	MIESZKO PIKTAK	SANIKT. ADK.
2	Shelly	
3	Joyce Nartok	KIA
4	LEVI .I.	
5	Cameron Qaqqiaq	
6	Alisa Qirngnuq	
7	Dolorosa Nartok	
8	MAKABE NAKTOK	
9	Matthew Kayaak	
10	Madelaine Kakkianiun	
11	Andrew Niptayuk	
12	Stacey Tigvareerk	
13	LOUISA TUNGILIK	
14	Travis Nalungiaq	
15	Jeannie I.	
16	Annie Aleekee	
17	Alice Inuksaq	
18		
19	Mary Ann	
20	Vanessa	

3

Sign-in Sheet

Meeting: KUGAARUK

Date: NOV 22/13

Sabina
GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	[illegible]	
2	Elizabeth Tegumiar	
3	Clifford	
4	Cynthia	
5	Nicole.	
6	Breanne	
7	Nelson	
8	Joanne Ruben	
9	Gloria Ann Qirngnuq	
10	Maureen Subgut	
11	Solomon Subgut	
12	Bonnie Kayaitok	
13	Sheila Tinashlu	
14	Joseph	
15	Jacob Sikkuark	
16	Loretta Uyaraq IVK	
17	Evangeline Hklan	
18	[illegible]	
19	Danny Nalungiaq	
20	Dave Nalungiaq	

Sign-in Sheet

Meeting: KUGAARUK

Date: NOV 22/13

Sabina GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Ronald Inatuinaq.	
2	Brandan Nartok	
3	Jamie Immingark	
4	Dana Uqqarlok	
5	Suzanne Krejunark	
6	Pauline Illaitok	
7	Nippisha Jootiak	
8	Vincent Ningark	
9	Blaine Ittimangnak	
10	Ukee Uqqarlak	
11	Doris Sisguk	
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Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	Monday March 24, 2014 (10:00am)
TYPE OF MEETING	Kugluktuk Community Advisory Group meeting
LOCATION	Hamlet offices – Upstairs boardroom Kugluktuk, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Jason Prno (Sabina) Ryan Nivingalok (CAG member) David Nivingalok (CAG member) Allen Kudlak Jr. (CAG member) Tommy Pigalak (CAG member) Alice Ayalik (CAG member)
COMMENTS	Jason Prno took meeting notes. Mona Tiktalek provided interpretation services.

MEETING NOTES:

Jason Prno and John Kaiyogana provided a Project update and overview of Sabina's DEIS submission. English and Inuinnaqtun DEIS plain language summaries were distributed to those who had not yet received a copy. The purpose of the NIRB community information sessions taking place in Kugluktuk were reviewed, and a discussion pertaining to the nomination of a new CAG Hamlet representative was had. [Note – As a result of recent Hamlet elections, CAG member Ryan Nivingalok is no longer affiliated with the Hamlet of Kugluktuk].

Q – I think Ryan Nivingalok should be allowed to continue on as a member of the CAG until the mine opens, at least. Original CAG members should be allowed to continue being members, even if they no longer represent their original organizations. [Various CAG members agreed with this approach].

Q – Have you seen the report prepared on the effects of development on caribou in the region? It was prepared by Golder and the Kugluktuk HTO. It would be useful for you to review. [Note – A copy of this report was later provided to J. Prno by the Kugluktuk HTO].

Q – Will you be hiring a CLO (Community Liaison Officer) in Kugluktuk? This person could help out with your hiring practices and be someone to drop resumes off with. They could also keep local employees informed of pick-up and drop-off times for their flights.

[General discussion on the possibility of a CAG site visit during the summer of 2014 took place].

Q – In one fish tagging experiment, it was found that fish went from here to Taloyoak.

Q – There have been some tagged fish caught in Bernard Harbour that were originally from the Coppermine River.

Q – Explosions at the mine can be a concern. You need to look after the environment and make sure the land is clean. I'm thankful that you're currently doing this well. Inuit are always concerned about mines, about the environment, about the caribou and other animals and wildlife. We worry that too much water or chemicals will be used. I'm thankful for learning about your project.

Q – Will you be using proven techniques for mine reclamation? I've seen things at other mining projects that worry me. At Diavik, ducks were eating in the areas being reclaimed. There are also shrubs growing on the tailings.

Q – How long will you be required to monitor the mine site after operations stop?

Q – There is a big problem in the south with birds going into tailings ponds.

Q – When will Sabina no longer be liable for the Project? When does your liability end?

Q – Galvanized fencing should not be used at your mine site to keep animals out. Snow fencing should be used instead. Caribou at the diamond mines have become tangled in the galvanized fencing and died.

Q – Caribou can get wrapped up in wire mesh fencing and die when it is used.

Q – It was good to hear an update from you, and to hear that the Project is moving forward.

Meeting adjourned at 11:30am.

Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	Tuesday March 25, 2014 (9:00am)
TYPE OF MEETING	Meeting with the Kugluktuk HTO to discuss proposed Bernard Harbour stream restoration work and TK study.
LOCATION	HTO boardroom Kugluktuk, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Jason Prno (Sabina) Davin Swift (Golder) David Nivingalok (HTO chairperson) Barb Adjun (HTO manager) Kevin Klengenberg (HTO secretary-treasurer) Stanley Carpenter (HTO board member) Catherine Taktogon (HTO board member)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

John Kaiyogana made introductions. Davin Swift provided an overview presentation of past stream restoration work conducted at Bernard Harbour and restoration plans for 2014. Jason Prno discussed Sabina's fish compensation requirements for the Back River Project and desire to partner with the Kugluktuk HTO on the Bernard Harbour stream restoration project. An overview of the proposed Bernard Harbour TK study was also provided

Q – Was the lake [Hingittok Lake] the water source for the DEW line site that is nearby? That could be the cause of the low water levels.

Q – Regarding fish compensation – Does DFO have a formula for determining appropriate compensation?

Q – What will you do with all the fish that are removed from the dewatered lake at the mine? Sending the fish to Kugluktuk would provide food for local residents and help reduce poverty. You should complete your fish-out in the winter or fall, as the fish will stay fresher then. You should fillet them right away.

Q – I would like to see you offer training to local residents during the Bernard Harbour project.

Q – The KIA has already collected Traditional Knowledge on the Bernard Harbour area. This can be found in their NTKP database. The KIA should be the keepers of any TK that is collected.

Q – Mid-June would be a good time for you to conduct your TK interviews. May is when many people in the community are out on the land.

Q – I think one-on-one interviews would be better than focus groups. Or, you could interview both a husband and wife at the same time. The HTO could also help bring down field gear to Bernard Harbour by skidoo, if you like. What happens to the Bernard Harbour project if the CanNor funding doesn't come through?

Q – Mona or Doris would be good local interpreters that you could use for the TK study.

Q – Could you provide us with a description of the types of jobs that will be needed at Bernard Harbour?

Q – It would be good for Sabina to have a local person participate in both the Llama Lake fish-out and Bernard Harbour project, so that they can see how the two projects are linked together.

Meeting adjourned at 11:00am.

Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	Friday March 28, 2014 (10:00am)
TYPE OF MEETING	Cambridge Bay Community Advisory Group meeting
LOCATION	Sabina office Cambridge Bay, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Jason Prno (Sabina) Johnny Lyall Sr. (CAG member) Martina Kapolak (CAG member) Mary Avalak (CAG member) Keith Lear Sr. (CAG member)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

Jason Prno and John Kaiyogana provided a Project update and overview of Sabina's DEIS submission. English and Inuinnaqtun DEIS plain language summaries were distributed to those who had not yet received a copy. The purpose of the NIRB community information sessions that took place in Cambridge Bay were also reviewed.

Q – Am I in a conflict of interest by participating in the CAG and also speaking to NIRB about the Project?

Q – Has the Marine Laydown Area remained in the same spot? There was some confusion earlier about where it would be located.

Q – Has the MLA been built yet?

Q – Will the construction of the winter road wreck the land?

Q – Is it possible, in the future, that you will connect the three properties with permanent roads?

Q – Will you have 12 months of production every year?

Q – Will you ever build a permanent road?

Q – Why do you call it 'George' Camp?

Q – Would you have Twin Otters fly into the MLA?

Q – So, there are 40 people currently at your camp?

Q – Are there areas where gold is concentrated into deposits? Are there different percentages of gold in the rock?

Q – When will the community start benefiting from the Project? What is the timeframe for this?

Q – I have a question about worker payments. I have two brothers-in-law that work at mines. They come home from work with no money, because it is all spent by their spouses before they get home. This isn't fair to them, because they work hard. What can the company do about this? Is there any way you can pay the workers cash when they are done their rotations?

Q – During employee training and employee meetings, employees should be made aware of the financial training and employee assistance programs that are available from Sabina. This will help ensure that people are familiar with these programs and they will be more likely to use them.

Meeting adjourned at 11:00am.

Public Information Meetings Summary Report

for the NIRB's Review of

Sabina Gold & Silver Corp.'s Back River Project

March 24 – April 1, 2014

Nunavut Impact Review Board (12MN036)
August 2014

Full Report Title: Public Information Meetings Summary Report for the NIRB's Review of Sabina Gold & Silver Corp.'s Back River Project, March 24 – April 1, 2014 Nunavut Impact Review Board (12MN036).

Report prepared by: Pamela Gross, Assistant Technical Advisor

Tara Arko, Technical Advisor

Photos by: NIRB Staff

Cover photo: Photo 1: Cambridge Bay, Elder's Palace on March 25, 2014

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APPENDICIES

LIST OF ILLUSTRATIONS

ACKNOWLEDGEMENTS

The Nunavut Impact Review Board (NIRB) would like to thank all those who participated in the recent public information meetings held throughout communities in the Kitikmeot region of Nunavut as part of the NIRB's review of Sabina Gold & Silver Corp.'s Back River project proposal. These meetings were an important component of the NIRB's ongoing public awareness program and served to provide the public with follow-up to the previous scoping meetings held by the NIRB staff in 2013. The meetings were successful owing to the participation and assistance of local organizations, community members, government and non-governmental agencies, and Sabina Gold & Silver Corporation. The NIRB would like to thank the many Elders and community members who actively participated in the public meetings, sharing comments about the proposed Back River project and Inuit Qaujimajatuqangit with the NIRB staff and other meeting participants.

The NIRB would also like to take this opportunity to thank all of the communities for the warm hospitality offered to the NIRB staff during their recent visits.

Sincerely,

Amanda Hanson Main

Director, Technical Services

Nunavut Impact Review Board

1.0 INTRODUCTION

The Nunavut Impact Review Board (NIRB or Board) was established and gets its mandate through Articles 10 and 12 of the Nunavut Land Claims Agreement (NLCA). The Board is mandated to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area with respect to proposed development projects and activities. This is done through the NIRB's environmental impact assessment process and an important part of this process is to inform potentially affected communities about proposed development projects, and to promote public awareness and participation throughout the NIRB's impact assessment processes. The following report summarizes the public information meetings that were held in the communities of the Kitikmeot region from March 24 to April 1, 2014.

1.1 Outline of the Back River Project

The Back River project (the Project) is a proposed gold mining and milling operation located approximately 150 kilometres south of the community of Bathurst Inlet within the Kitikmeot region of Nunavut. The Project includes the proposed use of open pit and underground mining techniques at eight deposits (Locale 1, Locale 2, Lone Cow, GH, Slave, Goose, Umwelt, and Llama). Sabina Gold & Silver Corporation (Sabina) proposes to mill up to 7,000 tonnes of ore per day over a 10-18 year operation period, removing approximately 20-28 million tonnes of ore total, and producing 300,000-400,000 ounces of gold annually. The milling rate would involve up to 2 million tonnes of ore per year, with anticipated total waste rock and tailings production of 350 million tonnes and 25 million tonnes, respectively.

Sabina's proposal indicates that Project construction would take approximately two (2) years, followed by a ten to eighteen (10-18) year mine operation phase, and a five (5) year closure period. Ancillary infrastructure would include a marine access component which would support open-water shipping during the construction phase and annual resupply during operations, with the mine product, dore gold bars, to be flown to market directly from site.

The proposal submitted indicated that the direct employment would be up to 1200 person years during construction (over a two year period), and up to 4442 person years during operations (over the projected 10 year period).

The proposed major project components and associated project activities include:

Goose Property

Activities and Facilities: development of open pit and/or underground mines to access three main deposits identified as Goose, Umwelt, and Llama; potential dewatering of Goose Lake, Llama Lake or other lake near mine pit boundaries or to gain access to the deposit; construction/mobilization of mill; tailings management facility; emulsion mixing plant and wash bay; lined bulk storage area for ammonium nitrate, reagents, and explosives magazines; ore stockpile; core logging facility; assay laboratory; warehousing facility; emergency facilities (fire and ambulance station); general maintenance building (site services); mine maintenance building; light vehicle maintenance workshop; heavy equipment maintenance workshop; diesel power plant; power utility buildings; brine mixing buildings; tailings storage area; waste management building; waste rock storage area; 700-person camp during construction and 350-person camp during operations; modular potable water treatment system; fresh water sourced from Goose Lake and other suitable lakes on property; modular sewage treatment system; fuel tank farm with capacity of 50 million litres for diesel storage; additional bulk fuel storage areas as required at emergency shelters, airstrips, and machine shops (capacity of less than 100,000 litres each); all-weather airstrip and associated navigation equipment including 1900-2500 metres long by 45 metres wide airstrip to accommodate Hercules C-130 aircraft and Boeing 737 Combi jet aircraft and possible helicopter landing facilities.

George Property

Activities and Facilities: development of open pit and/or underground mines to access five main deposits identified as Locale 1, Locale 2, Lone Cow, GH, and Slave; construction/mobilization of lined bulk storage area for ammonium nitrate; emulsion mixing plant and wash bay; explosives magazines; reagent storage; ore stockpile, core logging facility; warehousing facility; emergency facilities (fire and ambulance station); general maintenance building (site services); mine maintenance building; waste management building; waste rock storage area; light vehicle maintenance workshop; heavy equipment maintenance workshop; diesel power plant; power utility buildings; brine mixing buildings; 300-person camp during construction and 150 during operations; modular potable water treatment system; fresh water sourced from George Lake and other suitable lakes on property; modular sewage treatment system; fuel tank farm with capacity of 18 million litres for diesel storage; additional bulk fuel storage areas as required at emergency shelters, airstrips, and machine shops (capacity of less than 100,000 litres each); all-weather airstrip and associated navigation equipment including

1900-2500 metres long by 45 metres wide airstrip to accommodate Hercules C-130 aircraft and Boeing 737 Combi jet aircraft and potential helicopter landing facilities.

Mobilization and Shipping

Activities and Facilities: construction and operation of several all-weather and/or winter roads on and between the marine laydown area, Goose property, and George property used to access infrastructure and truck ore from mine sites to the mill on the Goose property. Marine access, activities, and associated infrastructure including: annual resupply and seasonal transport during the open-water season to move equipment, supplies and fuel to site on 5-10 ships per year (or equivalent via barge) during construction, and 3-5 ships per year (or equivalent via barge) during operations; ships to be routed north of Bathurst Inlet to the Coronation Gulf, and on through existing shipping corridors to the east or west; construction of laydown area situated in the southern portion of Bathurst Inlet; in-water loading and unloading facilities to include a dock, jetty, moorings and buoys; on-land infrastructure to include lined bulk storage area for ammonium nitrate; reagent storage; emergency and spill response facilities (to focus on ocean fuel spills); general maintenance building; waste management building; light vehicle maintenance workshop; additional bulk fuel storage areas of less than 100,000 litres each at emergency shelters, airstrips, and machine shops; fuel tank farm with 70-million litre capacity for diesel storage; 100-person camp during construction and 50-person camp during operations; modular potable water treatment system; modular sewage treatment system; diesel power plant; fresh water sourced from lake close to marine laydown area; a small airstrip and associated navigation equipment capable of supporting Dash 7/8 aircraft. Project areas may be accessed by fixed wing aircraft of varying sizes up to a Boeing 737 Combi (or similar) type aircraft. Flights would be anticipated at 5-10 per week with higher numbers during construction with helicopters continuing to be used for environmental monitoring, on-going exploration and other remote activities.

Abandonment, Decommissioning and Reclamation

Activities and Facilities: removal of nearly all facilities and reclamation of disturbed areas at the end of the mine life excepting roads, airstrips, tailings storage areas, and waste rock areas to be returned to a condition which would be acceptable to regulators and communities.

All information received and pertaining to the Back River project proposal can be accessed from the NIRB's online public registry at the following link:

http://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/12MN036-SABINA-BACK%20RIVER/.

1.2 Brief File History

On July 12, 2012 the NIRB received Sabina's "Back River" project proposal from the Nunavut Water Board (NWB) and proceeded to screen the proposal in accordance with Part 4 of Article 12 of the NLCA. The NIRB issued its decision to the Minister of Aboriginal Affairs and Northern Development (the Minister) on September 25, 2012, recommending that the proposal required a review under Part 5 or 6 of Article 12 of the NLCA. On December 17, 2012, pursuant to Section 12.4.7 (b) of the NLCA, the Minister referred the Project to the NIRB for a public review pursuant to Part 5 of Article 12 of the NLCA and directed the NIRB to address the issues identified in the NIRB's September 25, 2012 Screening Decision Report, especially in consideration of potential cumulative impacts and the potential for transboundary impacts with regard to caribou. The NIRB undertook a series of public scoping meetings throughout the Kitikmeot region from February 2-20, 2013 including additional opportunities for consultation with the residents of Bathurst Inlet and Bay Chimo, as well as a session in Yellowknife, NT. On April 5, 2013 the NIRB released its report summarizing the results of these sessions, followed by the issuance of its Board-approved *Guidelines for the Preparation of an Environmental Impact Statement for Sabina Gold & Silver Corp.'s Back River Project (NIRB File No. 12MN036)* on April 30, 2013.

On January 20, 2014 the NIRB received Sabina's *Draft* EIS (DEIS) submission for the Back River project and initiated an internal review of the DEIS to determine whether or not it conformed to the guidelines issued by the Board on April 30, 2013. On February 11, 2014, the NIRB indicated that the DEIS did conformed to the NIRB's EIS Guidelines and commenced the technical review by inviting interested parties to submit Information Requests (IRs) to the NIRB. On April 7, 2014 the NIRB issued correspondence to Sabina, the Government of Canada, the Government of Nunavut, and the Government of the Northwest Territories regarding those IRs that needed to be addressed prior to moving forward with the technical review period. On July 23, 2014 the NIRB received responses from all parties as required, and after a preliminary completeness check, confirmed that sufficient information had been provided in response to continue with further technical review. On July 31, 2014 the NIRB initiated a 60 day technical review period, and provided parties with notice of a Community Roundtable and Pre-Hearing Conference to be held in Cambridge Bay in November 2014.

1.3 Objectives of NIRB Review Process

Pursuant to Article 12, Part 5 of the NLCA, the NIRB's review process will:

- assess ecosystemic and socio-economic impacts of the proposed Project;
- gauge and define the extent the impacts will have on regions and communities; and
- determine on the basis of its review, whether the project proposal should proceed, and if so, under what terms and conditions, and then report its determination to the Minister.

The first step in the NIRB Review was to scope the project proposal and the potential impacts associated with developing the Back River proposal. An important component of the NIRB's scoping process included the development of a public participation and awareness program to engage Nunavummiut as well as transboundary groups and encourage effective participation throughout the Review. Issues raised at Public Scoping meetings held in February 2013 and comments from parties regarding NIRB's draft scoping list, both contributed to a complete and comprehensive project scope.

Upon completion of the scoping process and in accordance with Section 12.5.2 of the NLCA, the NIRB then issued project specific guidelines to the Proponent for its preparation of an EIS for the Project. It is the responsibility of the Proponent to prepare an EIS in accordance with the guidelines and requirements established by NIRB. The EIS developed in accordance with the guidelines will serve as the basis for the NIRB's Review of the Project, and will enable the Board and interested parties to understand and assess the potential for Project-related ecosystemic and socio-economic effects.

Upon receipt of the DEIS from the Proponent and acceptance by the NIRB, the technical review process was commenced. The technical review is meant to provide a detailed review of the DEIS, with the intent of analyzing the completeness and quality of the information presented by the Proponent. The next step in the NIRB's Review process consists of the development of technical review comments based upon parties' review of the DEIS. It is often requested that submissions include the following or similar considerations:

- Determination of whether Parties agree/disagree with the conclusions in the DEIS regarding the alternatives assessment, environmental impacts, proposed mitigation, significance of impacts, and monitoring measures – and reasons to support the determination;
- Determination of whether or not conclusions in the DEIS are supported by the analysis – and reasons to support the determination;

- Determination of whether appropriate methodology was utilized in the DEIS to develop conclusions – and reasons to support the determination, along with any proposed alternative methodologies which may be more appropriate (if applicable);
- Assessment of the quality and presentation of the information in the DEIS; and
- Any comments regarding additional information which would be useful in assessing impacts – and reasons to support any comments made.

The development of technical review comments may also involve parties' initial formulation of Information Requests (IRs) that are based upon an initial review of the DEIS and the subsequent identification of any gaps or areas of uncertainty which must be addressed.

To ensure ongoing awareness of the NIRB process and to encourage effective participation throughout the Review, NIRB staff host public information meetings in potentially affected communities following the receipt of the DEIS. Through the public information meetings, the NIRB disseminates information about the Proponent's conclusions within its DEIS, and collects additional comments, concerns, and Inuit Qaujimajatuqangit related to the project proposal and assessment conclusions as presented in the DEIS. Comments and ideas are then summarized in a Public Information Meetings Summary Report such as this.

2.0 NIRB PUBLIC INFORMATION MEETINGS

2.1 Overview of Public Information Meetings

The NIRB conducted public information meetings in the Kitikmeot communities of Kugluktuk, Cambridge Bay, Gjoa Haven, Kugaaruk and Taloyoak as well as Yellowknife, NT. Despite the NIRB's planning efforts to avoid sessions coinciding with other community events, some sessions still occurred at the same time as other events. This was also in part due to the NIRB's public notice requirements and the other events being scheduled after notice had been given, or having been moved to the same times as the NIRB sessions. The public information meetings began on March 24, 2014 and concluded on April 1, 2014 with an afternoon and evening session being held in each community per day. The NIRB staff were joined by representatives from the following organizations for various parts of the tour:

- **Aboriginal Affairs and Northern Development Canada:** Erika Marteleira (present at all sessions);

- **Government of Nunavut:** Agnes Simonfalvy (attended Kugluktuk, Cambridge Bay, and Gjoa Haven [2:00-4:00 PM]);
- **Nunavut Water Board:** Karen Kharatyan (attended Cambridge Bay, Gjoa Haven, Kugaaruk and Taloyoak);
- **Sabina Gold & Silver Corporation:** Jason Prno (attended Kugluktuk), John Kaiyogana (attended Kugluktuk and Yellowknife [evening 6:30-9:00 PM]), and Cheryl Wray (attended Yellowknife [6:30-9:00 PM]).

2.2 Setup of the NIRB Public Information Meetings

The information meetings were open to all members of the community and public with bannock, fish, and refreshments provided. Door prizes were drawn for at the evening sessions. All attendees were asked to sign in at each meeting (Appendix A); however, some refused. To facilitate an understanding of the Project and the environmental assessment process, NIRB staff used maps, posters, and a PowerPoint presentation (see 2.3 Meeting Materials) to facilitate the discussion of the NIRB's Review process, a description of the project proposal, and the major conclusions presented by Sabina within its DEIS. The NIRB presentation was delivered in multiple languages with simultaneous interpretation in Inuktitut or Inuinnaqtun as appropriate, and Tlicho in Yellowknife. The public was encouraged to provide comment on the proposed project and the potential environmental impacts. Both written and verbal comments were received at the public information meetings, with verbal comments recorded by the NIRB staff members and the observers from other agencies.

2.3 Meeting Materials

At each public meeting, the following materials were provided for discussion:

- NIRB presentation (see APPENDIX B – The NIRB's PowerPoint Presentation) including translations:
  - English-Inuinnaqtun (Kugluktuk, Cambridge Bay, and Yellowknife), and
  - English-Inuktitut (Gjoa Haven, Kugaaruk and Taloyoak);
- Sabina Gold & Silver Corp.'s Back River Project Draft Environmental Impact Statement (in English, with translated summaries and maps)
- NIRB Final EIS Guidelines for Sabina Gold & Silver Corp.'s Back River project (in English);
- NIRB Guides (in English);
- Nunavut Land Claims Agreement (in English);
- NIRB Environment Assessment Brochure (in English); and
- Comment Forms (in English, Inuinnaqtun, and Inuktitut).

2.4 Agenda and Venues for Public Information Meetings

The NIRB staff consulted with community organizations and considered travel requirements in determining the timing of public information meetings, which were ultimately scheduled as follows:

Community	Date	Times
Kugluktuk	March 24, 2014	2-4 & 6:30 PM
Cambridge Bay	March 25, 2014	2-4 & 6:30 PM
Gjoa Haven	March 26, 2014	2-4 & 6:30 PM
Kugaaruk	March 27, 2014	2-4 & 6:30 PM
Taloyoak	March 28, 2014	2-4 & 6:30 PM
Yellowknife	April 1, 2014	2-4 & 6:30 PM

2.5 Advertisements

Public notification is an essential tool for effectively engaging the public in the NIRB's consultation. The NIRB utilized a number of notification methods to advertise the public information meetings held in the Kitikmeot region. Please refer to APPENDIX C – The NIRB's Public Meeting Notice Materials for a sample of all advertisements distributed by the NIRB.

Radio

Public service announcements in English and either Inuinnaqtun or Inuktitut were provided to each Kitikmeot community radio station on March 5, 2014 with the request to make the announcement two or three times per day, starting one week prior to the NIRB meetings.

Posters/Flyers

Poster advertisements in English and either Inuinnaqtun or Inuktitut were faxed to many businesses in each Kitikmeot community on March 13, 2014 which was 25 days prior to the commencement of the meetings. Local community organizations were requested to assist with placement of flyers as these were faxed and emailed to various service providers and businesses in each community. In order to assist with local advertising of our meeting in Yellowknife, the Mackenzie Valley Environmental Impact Review Board posted a public information session poster to its public registry on March 19, 2014. Posters were also sent to various offices, including the Tlicho government office, Yellowknives Dene First Nations' Dettah Office and Ndilo Office, as well as the North Slave Metis Alliance office.

Newspaper

Newspaper advertisements in English, Inuktitut and Inuinnaqtun were printed in the *Nunavut News* and *Nunatsiaq News* newspapers for two weeks prior to the start of the NIRB meetings (February 27, 2014), as well as appearing on Nunatsiaq News' online webpage.

Cable

Cable advertisements in English and Inuktitut or Inuinnaqtun were aired on March 6, 2014 on the Co-op cable channel in each Kitikmeot community for approximately one week leading up to the NIRB meetings.

Letters of Invitation

The NIRB distributed additional letters to provide notice and clarification as to the intent of the meetings and purpose of the NIRB's visit. The first letter was distributed by the NIRB on February 28, 2014 to interested parties from Nunavut and transboundary agencies. Due to the seasonal nature of families residing in settlements near the proposed development area, on March 17-20, 2014 the NIRB distributed a second round of letters providing invitations to members of families with traditional residency or those who currently take up seasonal residency in Bay Chimo and Bathurst Inlet to attend sessions in either Kugluktuk or Cambridge Bay.

3.0 MEETING NOTES FROM THE NIRB'S PUBLIC INFORMATION MEETINGS

The following is a list of comments that were raised at the information meetings in the Kitikmeot region for Sabina Gold and Silver Corp's proposed gold mine. These comments help to identify items that need to be addressed or considered throughout the environmental assessment of the proposed project.

Please note that all comments from each community have been grouped under general headings that correspond to topics previously discussed during the scoping meetings for this Project.

3.1 Kugluktuk

3.1.1 Meeting Notes

In addition to the NIRB meeting, there were senior men's hockey games that occurred the same night in Kugluktuk on March 24, 2014.

Date	Meeting type	Time	Attendance
March 24, 2014	Open House	2:00-4:00 pm	32
March 24, 2014	Public Information Session	6:30-9:30 pm	55

Photo 2: Kugluktuk Community Recreation Center evening session on March 24, 2014

3.1.2 Comments, Concerns, and Questions

Environment

- Lots of Caribou in Bathurst, Bay Chimo. I went last year and they need to clean it up.
- I go hunting all over here (*points out areas on a map to the east, west, and south around the shores of Bathurst Inlet*). I can tell you, there is so much wildlife there, caribou, muskox up there, wolverine, wolves, foxes, seal, bearded seal, grizzlies, it's all there. And if they tell you they're not, it's not true. They are. I worked at Ekati, I was the compliance officer. I know what's going on. I do caribou surveys for the GN. This area here (*points out areas on a map to areas west of Bay Chimo*), it is very sensitive. We hunt, fish there. It's very sensitive.
- How do you compare these projects around the world - are there any environmental group that would look at the assessment around the world?
- In regards to the laydown area, is there a mitigation area, for spills. I haven't seen any areas for spills. We have some tanker spills all over the world, we don't have the resources. Look at all these big companies down south; they don't have anything. How are we supposed to contain these ships if there is a major catastrophe up here? Have they talked about any way to mitigate that?
- This is the information you got from them? How are they so sure, they won't have impact on all of that?
- It looks like Sabina is going to be very careful if there are impacts to our land, animals and environment and I hope it stays that way.

- I was wondering if you have a computer set up for me to show pictures on the screen. I put together some pictures on the area, mining or other projects we have around the country to help tell stories, and for something to look at. The photos show what will be impacted. The CD that I have has pictures that I've taken from around, but it is good and really helps to tell the story with pictures of how we live, out on the land. The CD I brought are family pictures, of our life and family out on the land, Pellet Lake, how we lived on the land and what we depend on out on the land. I was going to do a little story on all of the impacts mining might, the impacts mining brings to the land. My parents taught me how to live out on the land; I decided that I want to live up there, the way that my parents have taught me. This CD is in honor of all of our Elders, past and present and I'm a young elder now but still have lots of years left. These pictures have lots of fishing, lake trout, grayling, and white fish and other small minnows. Also about plants and air quality which has a lot of impacts on plants and what we have out there (lakes and streams). The air quality really has a lot impacts. Air quality really means a lot to all of us, to the plants that the animals eat. We eat most of these animals that go out on the land. And living on the land, you can see a lot of these things. I've seen just about every mine in the area, just travelling here and there, hunting, just by accident I've ran into all of these little projects around my area, Pellet Lake and Contwoyto Lake. You can see how I'm worried because my camp is situated right in the mine activity field, there are mines everywhere up there now, in every direction I look there are mines popping up. Not only the mines, but other projects are happening and the most impact that I'm really worried about this most is the mining activity that's coming up in my area because I'm right in the middle of it all. We all know that water flows north, along the coast. I'm worried now too about those other mines out of the NWT or Alberta. Most of these rivers all flow north. We see a lot of those changes that are happening over the years out on the land at Pellet Lake. When I do travel, I see these changes happening. Sometimes I run into a place that was recently drilled, and they are not very clean. Some of them still had garbage around, but chemically, I couldn't tell if there was something wrong or not. I'm worried about those little things. Because where I live, I live right on a migration route. Not just Bathurst, but Bluenose, Beverly and Peary Caribou and also the Mountain Caribou. We notice those migrations, as we wonder why they are going in a different direction. Because that caribou is from a different heard. The way they know is because each one of these herds has a gland at the bottom of their feet; they have gland secretion, that's how they know each other's smell, how they

know each other. We have come to know this over the years. The scent gland is what they travel by. Just recently, in the last 20-30 years lots of Musk-ox have come back to the Pellet and Contwoyto Lake area, and we've been noticing they're coming more and more south, which has not been seen for many, many years. Those are some of the animals that are coming back in the area. What I'm really worried about are artifacts. There are lots of artifacts around that area and in the central arctic and these mining companies want to mine near them. It is one of the biggest heritage sites around the Bathurst area we have many, many sites. It's very well-travelled over the years. I go to these areas. The reason is these artifacts may be several inches, or even a foot underground, or maybe more than that. During the summer, and spring, people would go inland to hunt caribou. And we've been finding these artifacts, Stone Age artifacts, ulus made of stone, knives made of out stone. I don't take them home, or touch them; I leave them where they are. But does this mining company know about these artifacts. One of my worries is with the artifacts and heritage sites; will they be worn down, or changed? That's one of my worries too. The area is one of my heritage sites, for thousands of years. I'd really like to have those artifacts contained or at least preserved. Is there any archaeological work being done already?

- Yes we do care for our environment, animals, lands and water. But the growing population. Somewhere along the line we have to find a balance. We need to find a balance between both sides, so we have to find a way to help us grow in the way that we should with our growing population.
- Galvanized fencing is known to have caribou get caught in it. I'd suggest using something more like snow fencing, at least the caribou will have a chance to get out.
- What is their garbage and where is it being dumped?
- Caribou migration, I noticed that hunters have to go long ways inland to hunt caribou. Also the caribou seem to disappear for too long a time now. Not sure about the muskox mainly concerned with the caribou.
- Concerns with: water quality; terrain disturbance; air quality; terrestrial wildlife and their habitat; marine mammals and their habitat; birds and their habitat; fish and their habitat; heritage resources in the area; traditional uses of land; Inuit harvesting activities; community involvement and consultation; local development in the area; human health issues; transboundary effects; archeological disturbances – old camp site disturbances – taluutlu.

Socio-Economic

- How many people will they need for work?
- Who would get preference for hiring?
- Which communities would get hired?
- It's good to have the numbers in these studies. The part I'm most interested in is in the training. I want to see what type of plans they have in place to train Inuit for Inuit employment. A lot of times we have corporation's operating mines, promising lots of employment, then they come back and say I'm sorry you do not have the skills. We have a very young population, and they will be easily trainable. So it's a thing we need to concentrate on our young people on being skilled works, and that means all the people involved in this project, Inuit organizations, constantly training our young people so they can be skilled workers. We do have lots of operations that have built lots of exploration. In the Kitikmeot region, we need at least one or two operating mines in the Kitikmeot region, in order to keep the people working and gain and benefit from employment, so Inuit employment numbers can go up.
- NIRB, you look at all of the stuff. Going to and from work? Are the employee's going to go through Yellowknife? Along the way, we lose them; it's negative for the community, and negative for the mining company. It's negative when the people don't make it home (from Yellowknife).
- As we all know, more employment mean more money per household for the community, unfortunately more alcohol and drugs. Is there a way the company can help with policing? Unfortunately there is going to be more drugs in town.

Project

- Will the exploration start next month?
- If the project is approved does the NIRB monitor the mine?
- Who is involved in the screening process?
- Who makes the ultimate decision on this project?
- What if the community does not have to agree with everything you say, and they want to go against the mine? Does the NIRB step back? Or what happens? Is it up to the minister?
- If the project were to go through; and they were collecting a lot of money or royalties and giving back to the community?
- These mine sites are going to close, but there is no money to clean up. They think that they can just get up and go, and leave us with the mess. I guess the people would like to know, is there money being put aside for clean-up.

Like the DEW lines, we have to clean up. Is there money being put away for the clean-up once the mine is done?
- Who made all of the predictions, because I don't think that they will not all be non-significant effects?

Other
- This kind of meeting is hard.
- Is the NIRB Board here? Will you bring the information to the Board?
- The Back River people, Umingmaktok, are they talked to? With the Land Claims Agreement? There are Back River people now in the Kivalliq, the people from the Hanningayok River.
- We would go by boat from Kugluktuk, when we used to go, with the Elders. Have you had meetings with Natasha? We would have meetings in Bathurst Inlet about tuktu. But now people only go by charter in the summer. Many people still go hunting by skidoo over the bay to Bathurst Inlet.
- A meeting at the Elder's Centre would be better.
- Glad that Nunavut has a NIRB to represent them.

3.2 Cambridge Bay

3.2.1 Meeting Notes

Date	Meeting type	Time	Attendance
March 25, 2014	Open House	2:00-4:00 pm	21
March 25, 2014	Public Information Session	6:30-9:30 pm	9

On the same evening as the NIRB's information session, a community feast was held by Nunavut Tunngavik Inc. (NTI), a senior men's hockey game was underway, and a local dart league tournament were happening in Cambridge Bay.

Photo 3: Cambridge Bay meeting at Elder's Palace on March 25, 2014

3.2.2 Comments, Concerns, and Questions

Environment

- The mining around Bathurst Inlet is affecting the caribou herd.
- What kind of tailings pond? It can break, like happened in Alberta and it spilled into the river. That is what I find disturbing. I work in the mines too. If there is a lot of snow, and it melts, then it could overflow. I've caught fish from over here, they can travel far. They could start near the mines. And the birds can land there, the ducks. I won't work there. I'm concerned for the future. And I worked at Polaris, Ekati, Lupin.
- What is Llama Lake and what is it used for?
- Worried because those lakes have fish in them.
- I went to either George or Goose Lake last fall, two falls ago. I was a community member of Bathurst Inlet and I flew there and we went to look at one of the drilling sites. They were drilling on the side down a hill, on the land. The tarps were so tiny under the drills; they did not have enough space on their tarps and there was mess going everywhere. How do you guys monitor that?

Socio-Economic

- How long would the NIRB take to give Sabina a water licence or permit because there are a lot of people in the Kitikmeot who need a job, with the high cost of living?

- The social problems, that's the biggest thing, I've seen it I've heard it. I've been working in mines since the early 90's. People get trained and work, but they get pushed away because they are teased or bugged and get called names; then they get too shy to tell anyone. I don't like that. I've come across drugs, and booze we have that and fights too. That's crazy, if there's going to be problems like that they have to find some way for these things not to happen. I know they want to do mining and it's a good opportunity for us but if they end up bringing people back and forth, if there are fights happening they have to really watch it. I've seen it before and I've said we have to work safe and healthy, this has to stop. We're here to support our families and I've seen some family split apart from this kind of social problems and it's sad to see. We have to consider the social problems, and what's coming from the south. They have to focus on that, the social problems.
- You can take a little luggage carry on, and you can take anything with you carry on. Especially when it comes to mines, there's no security in Edmonton, Yellowknife, and you can put all your drugs and booze in there.
- I remember when we were working at Hope Bay, every day, and I've seen parts come into camp and they smuggled drugs into parts, parts for their equipment or tool boxes stuff like that. I remember one time, they found a box coming to the community on a twin otter airplane from the mine and it was all drugs. That kind of stuff they really have to focus on.
- About work, is the mine going to start pretty soon?
- There are also people not from the community who are coming from the south to work.
- I mentioned a little bit about drugs before, it just came into mind. Once the mine wants to employ people, they should screen people for drugs. You have to be clean, have a clean mind for 6 months or so. Make sure that it is a clean mine. When they employ people. Too many people that go to work, and the reason they want to work is to make drug money, or for alcohol. One of the reasons they want to work is to get that. A lot of people miss their plane because they are doing that. This is why they should think about screening people.
- When you're getting into a camp, you have an orientation. Once they do that, they give you a consent form to sign, and you sign your name and date it so they know you have a record. Who makes those? Is it the mine or is it the NIRB.
- My family has been in Bathurst Inlet for over 20 years. We've had a lot of mines coming through. There were houses there, 6 families or so. Even

some Dene. And in time, new mining companies that come, and they say that they will hire from those families, so far I've only known 4 or 5 people out of the two communities, of Bay Chimo and Bathurst Inlet who have worked in the mine, and so who gets prioritized for work? It's becoming repetitive. Anyone says anything, there are so many young adults and families who are from there and who would benefit. They wish to work there but they don't get to go and might not know where to bring their résumé.

- 10 years of mining? Just 10 years? 10 years is not long enough, it's just a waste of beautiful land, from the way it is right now, it is just going to be torn apart. It's a good income for 10 years but after that then what? Where am I going to go? Retire? I could understand 15, 25, 30 years. But to me it's just like just one day of breaking the whole land apart.
- What did they say about the royalties from Baffinland? Are they going to get it when it's done? Do they get half of it?
- Employment is a big problem. In the past 10 years there are a lot of people who were taking cooking classes and mining classes. Those people who have taken those classes and those people who graduated. I never see any of those people in the mines. I always see people from the south coming up. It is sad to see someone else from the south taking over when we have qualified people. I use to work at lots of those mines.
- Why do you think they are promised one thing, and they don't get it? I got my basic entry level for cooking, I can cook. I've talked to mining companies, and say look here's what I can do; I'm trying to find another sponsor to do a 4 year program. But they turn their back on me. Why are companies saying one thing that they will sponsor you? You go half way through for example for two years and then they say no. All across Nunavut and Northwest Territories they are sending people from the south to do the jobs that we are trained to do. If I was to ask you guys for a sponsorship and you guys agree would that be totally 100 percent or would they cut it off? Would that happen?
- People need help to understand exactly what is on the contract. We have to help out our fellow people.
- To me 10 years is not long enough because when I first tried with Newmont, I signed all these papers that I was going to be there until I retire, thinking it would be open for a long time. After three years they told me that they were going to go into care and maintenance.
- My biggest worry is if they start this mining, we sign all these documents and papers and are ready to go, and then down the road they say oh we are going to do "care and maintenance", because it's happened to me a few times. They promise things for 10 years, and then will they keep going?

Project

- Is that new from the previous marine laydown area? We never did have any consultation on this new site. It's not the same as what was in the original. See, north of the proposed marine laydown site from this point here where they are proposing to put the marine laydown area, it is really shallow water.
- The winter road should go from the marine laydown area right onto the water, and not cut through the land to the west. The road should go where we want it, where we know best, so it does less damage. On the map it goes in the area where there's shallow water, which may get more cracks because of the tides.
- How will the tailings area be lined?
- How high are the berms around the tailings facility? What is the square footage?
- Will they have all weather roads? Or just winter roads?
- Have they submitted all their wildlife studies?
- Are they still saying to go with year round shipping?
- What are the sizes of the ships?
- Sabina Gold and Silver, do they want the mine for 10 years and that's it?
- Who's going to do the clean-up afterwards?

Other

- I have a concern, not to be negative, but a lot of Elders are unilingual. We need interpreters - I can interpret for you. We have an Elder here who doesn't understand what's going on and she is from the Bathurst Inlet Area. I didn't speak a word of English when I went to school. We just followed, didn't say anything because we didn't know what was going on.
- When the Elders go to meetings, they don't know what to say. They're kind of shy to speak up. We didn't know there was a presentation before, that this was your second time.
- We have an Elder, from Bathurst, who's not so shy to speak up, but she's not feeling so well today.
- Are these in Inuinnaqtun, the maps and documents?
- When is your hearing for this one?
- Lots of time to say no.

3.3 Gjoa Haven

3.3.1 Meeting Notes

Date	Meeting type	Time	Attendance
March 26, 2014	Open House	2:00-4:00 pm	5 (all refused to sign sheet)
March 26, 2014	Public Information Session	6:30-9:00 pm	35

In addition to the NIRB meeting, there was a recreational hockey game occurring at the same time in Gjoa Haven.

3.3.2 Comments, Concerns, and Questions

Environment

- Our animals are not as scared as they were in the past to humans; even polar bear are coming into the community and it is getting hard to scare them out because they seem to be brave. They can even drink from the sewage lagoon as well as plants affected from sewage drainage. Long ago when they smelled human scents they would start running away, including small game, they would run away from noises they were not accustomed to. It could give the animals a disease.
- I have been in one of the communities where there has been caribou roaming around near the sewage lagoon as well as eating plants from the garbage dump area. We as Elders are not able to go out hunting although we are craving country food. When we hear about impacts on the environment, it affects the animals that live on the land.
- As we have heard, there will not be any significant impact to our environment, the water, the land. During Sabina's consultation, it was stated that the work they will be doing will not have any heavy impact on the environment. Perhaps they still need to think about insects where the mining will be.

Photo 4: Gjoa Haven meeting at the Gideon Qitsualik Memorial Center March 26, 2014

Socio-Economic

- When will the mine open?
- What kind of jobs will

there be for women?

- When Sabina was in town a couple of times, we had these meetings and Sabina had to be in the community and we had spoken to them about our concerns and what's on our minds. For employment and training, they are the most important provisions provided by Sabina. There are lots of people who want to go through training, the Arctic College and such. Within the Kitikmeot, jobs are limited and needed. Perhaps with training people would have more understanding about what Sabina's intention is and there would be more jobs available within the Kitikmeot. We have stated at times it is impossible for the future of our young people who have nothing to do and they are usually a concern for the community and because of what they have gone through due to a stumbling block to get a job, due to the criminal record check. And I have stated that all times during the meetings. I strongly support our young people. As well as the water; they have come to the community consultation regarding the impacts of small game as well as water.
- When you are coming from a small community and you go somewhere for a job, it makes you feel so small. It's an impact on people, fear of your surroundings as well as your own words don't count in those workplaces. We need to regulate work places policy as well there are different types of operations such as French and First Nations and Inuit who are in one work place. Inuit need to feel comfortable in their work place. Perhaps there needs to be special regulations and policies in place for all of the employees. Such workplaces have impact on small game as well as large game.
- The mining when they come in they have a community consultation, some of us worked in mines before. In those days you didn't need to have a criminal record check. You didn't even have to fill out a paper or application. For those of us who have experience working in the mines, we are experienced people. I have worked at the mines in the past. Today, there are changes in mining employment even with higher education and we need to provide a criminal record check. If a person has been charged with criminal activities they are not accepted into the work place. Even though we know a lot of things from our own experience.
- What type of criminal record? My concern is that people who are capable of working, who have a criminal record, are not permitted to work. We Inuit are being mistreated because we are poor people, and our own land is being mined. There are people who are born in this environment and not getting any money from it. Even if we asked for it we are not going to get anything out of it. I don't know how many employment opportunities will be provided.

As a people, we live on the land it is not our own land but it is being taken over. The change of the climate can happen and the land and environment does not belong to us even the animals. The people working on the land need to understand the behavior of the animals of the land that live around the place that they are working.

- I've been a long time employee; there have been long term employees of the mines. Lots of people in the communities are very poor and they can't even afford to buy winter clothing, perhaps the clothes that have been worn from mining companies can be given to communities because there are a lot of people in poverty. Give the clothing to people who are in poverty.
- There is a lot of Inuit who are starting to feel difficult situations especially for some people who are capable and skilled. Perhaps Sabina can look for more training purposes for people in the community who have skills. They are looking for very skilled people in the work place. There are capable people who many not have training but they can gain knowledge though experience, especially young men and women who are capable of doing a very good job. It would be nice if they can provide training. Before Nunavut was created, there were a lot of us who didn't speak English and we were capable of gaining knowledge with training in the workplace.
- If Sabina is going to be going ahead, we as Inuit need for those who fill out applications, if they are facing difficulties, there needs to be support in each community. We were given a chance even if we didn't speak English; because every person has capability to work even with lack of training the work skill can be gained.
- I wanted to further express my values of the community, we really lack employment; there are many that can take training there are people that are educated and prefer not to leave home and look for work. I'm still trying to express from the bottom of my heart, that employment and training opportunities will be coming around and we hope that the young adults who are hungry and need jobs, get them. We encourage them to apply to work with the mining companies. And as long as the mining companies have jobs, there are Inuit here in Gjoa Haven, looking for work. Anyone can get a job, even if you have to be a custodian, a cook or cooks helper there are lots of jobs that will put food on the table for people in Gjoa Haven. I value that and hope that Sabina and the NIRB will work together to make this happen.
- I do strongly support our young people even if you can come and make a presentation to the students. I strongly support our young people to complete their education because it can also provide them to think more serious about getting a job in the future. It would be nice for you to come

into the schools and talk to the students because it can support and encourage our young people.

- When we were young children we were born in Nunavut and grew up in Nunavut and we have been taught what types of skills we need to survive because our parents provided food and clothing not only to us as a family but also for the dogs as well. We even, with all of the mines now visible in our territory we're not given a small portion from the products or money that is gained from our land. It is very interesting to hear what can be available in Nunavut for Inuit as well as for our young people. In the work places a person can gain and be aware of what needs to be done and what is dangerous to an individual. Although young people can be holding a good job they are still sitting around in the community. Although we can talk about jobs in our community, there will always be an issue for not getting a job with a criminal record. What is hard for young people is if they have a criminal record. Even with the good news of a mine opening, it is very hard for them to get work because they know they will not be accepted because of their criminal record.

Project

- Bathurst docking is going to take hard work and it's very urgent. Sometimes there are some emergencies due to injuries, as well as they need to have an airstrip provided, during the freeze season. A lot of times it's difficult in an emergency situations to get an air craft into the area so there is a need for an airstrip.
- After the life time, after Sabina ends, perhaps the vehicles can be given to the communities because they can provide service to the community once Sabina closes. Perhaps they can give the vehicles to the Kitikmeot to support the community after the work has been done at Sabina.

3.4 Kugaaruk

3.4.1 Meeting Notes

Date	Meeting type	Time	Attendance
March 27, 2014	Open House	2:00-4:00 pm	3
March 27, 2014	Public Information Session	6:30-9:30 pm	18

During the NIRB's evening information session in Kugaaruk, there was also a hamlet council meeting taking place.

3.4.2 Comments, Concerns, and Questions

Environment

- What happens when the fish from Llama Lake get fished out?
- People with commercial fishing licenses and the HTO should discuss coordination in fishing out lakes so that the community members with these licenses can sell the fish and benefit from the development.
- Will they be working in the marine waters? I'm concerned about the impacts to marine mammals.
- Does Sabina know the areas of the caribou migration? We know that caribou have a very high sensitivity to smell and will move away from areas of dust and road development, railway, or moving on the land. They may not move the same way every year but go where their instinct tells them and when they smell these things, they move from the area.
- I am concerned about the wildlife in the area, both on the land and in the water. We lived in this area when I was young and we moved with the animals. Now there seems to be something in the animals, mostly in the caribou and fish. Even the caribou will go into the camps and they will grab garbage even the plastics and take them.

Socio-Economic

- Will the company be using prospectors from the communities?
- Is there a company taking resume; if so for what kind of jobs?
- If the mine opens and there are jobs available then I will have something to say.

Project

- I hope they do not start the mine there – too many valuable resources there.
- Are they building the runway right away?
- Are any of the airstrips going to be constructed on water?

3.5 Taloyoak

3.5.1 Meeting Notes

Date	Meeting type	Time	Attendance
March 28, 2014	Open House	2:00-4:00 pm	2
March 28, 2014	Public Information Session	6:30-9:30 pm	14

During the NIRB's evening information session held in Taloyoak, there was also a community bingo taking place, and the Bishop was visiting the community and held a service at the church.

3.5.2 Comments, Concerns, and Questions

Environment

- Concerned about wildlife and wildlife habitat mostly.
- The future and wellbeing is important and so is the wildlife.
- Water concerns and question on NWB water licenses – there is some good water in the lakes and rivers.
- I have concerns about the fuel storage and I am not saying that a spill will happen, but what will happen if that much fuel gets into the environment. I'm really concerned for the fish in the area and the food sources. The caribou move through this area, and what if they eat the fuel on the grass and then they move 75 kilometres away? Caribou have to move and they will be tracking this material around. There is a lot of times in the past when developments went ahead without say, and we are very glad that you are here to hear what we have to say.
- It is good to be given the opportunity to have my say. We know that the land was owned by our ancestors. The whole arctic was utilized by our ancestor's, hunting, fishing and travelling on the land. All these Inukshuks on the land, the landscape was utilized by our ancestors and made by our ancestors. Even though we don't always go out on the land where they use to go, we still regard it as our land. We and our ancestors went way inland to go look for caribou and muskox. They devised ways of looking for places that they had been before by looking for Inukshuks. When Sabina starts this mine, all this will be destroyed and this will be a shame. Thinking about it, our ancestors never stopped roaming the land and they went everywhere looking for food. They constructed things, to help them, to guide them. And where they went, it will be a very big change. Everything that they constructed will be torn down because of the mine.

- Thank you for coming here to listen to our concerns. I have two things that I'd like to say. We are the Inuit, we have always been told to leave the land alone, to leave it how it is. All of the artifacts we've always been told to leave alone. Sabina has to make sure if it is disturbed that it has to be cataloged. This is the law. If there were artifacts left by the Thule culture that has to be cataloged and make sure that it is documented.
- Another concern is all of the fuel and tailings have to be contained. We are told there won't be a spill, but if there is a fuel spill the people of Cambridge Bay will be affected because they are the closest who hunt, everything will be affected if it leaks out. If things are contaminated, the caribou is going to be affected. And we also know that even though we have the best of intentions something always goes wrong. There is going to be accidents. Maybe the country food is going to be contaminated; the people affected, or have deformed offspring or deformed animals. Many things will be affected. We also know that there is going to be a lot of trucks, and heavy equipment. We have to make sure whatever oil, or exhaust will not be leaking out. There could be any spills and that is what we are worried about.
- When you look at all the development that is going to happen in the mine, we know that there is going to be wildlife affected. We know that it is going to be a big mine and it makes you wonder. The mining companies always say that they are going to do this and they are going to do that, and that the effect is going to be minimal. But right away we know that this is not all, that up here we know that they never plan for other things that might happen. Because every day we have accidents happen, and we don't plan them to happen. There will always be things that they never thought about. This is right near that Back River area which is connected to our region. The people in Gjoa Haven go south to fish in the Back River area and that's one of their main sources of food. There is char and trout in the area, and lots of caribou there. If anything happened, we always wonder if the companies would pay for people to go hunting somewhere else or give us money to buy food from somewhere else because we won't know if the animals will have a sickness; they won't know and it is going to affect us.

Socio-Economic

- What camps will they have and how many people will they have?

Project

- Has Sabina a spill response plan or review of heavy metal content in their tailings?

3.6 Yellowknife

3.6.1 Meeting Notes

Date	Meeting type	Time	Attendance
April 1, 2014	Open House	2:00-4:00 pm	11
April 1, 2014	Public Information Session	6:30-9:00 pm	10

3.6.2 Comments, Concerns, and Questions

Photo 5: Yellowknife meeting at the Northern United Place on April 1, 2014

Environment

- The Bathurst herd/caving ground are between the two mines, can I look at the detailed map of where the caribou are.
- What is fairly key from a Northwest Territories perspective, is the need for consensus from all of the key parties, Sabina, the Government of the Northwest Territories, and Government of Nunavut, especially about the area being considered is a core or consistent calving area. From that, we can figure out where there is consensus. Then look at project components.
- The major concerns from the LKDFN are caribou and caribou migration. There are a number of processes going on right now with the caribou. It is frustrating to see that Sabina states that there are no significant impacts to the caribou. Ten years might not seem like a long time, but there are also four other mineral deposits being developed close by. The community believes that every little thing that goes on the land affects the caribou and the two properties are not little properties. Noise and impacts, when you are talking about loss and re-productivity, and we are already at a critical stage for serious impacts to the re-productivity. I don't like to read the non-significant determination when we have a lot of problems going on right now trying to populate the herd.
- Regarding significance determination, are all of these the impacts that Sabina is projecting? Is the context of the current significance of the caribou being looked at in the broader context?

- The figure that we are looking at and the area outlined for the current herd, would it be the same area required to sustain the caribou if we can get the population levels back to historical levels?
- I guess going back to consensus in relation to the calving area, the historic calving ground and how it has changed has to be taken into consideration to regain the herd, extend to the First Nations for consensus.
- You talked about Llama Lake being drained; how big is that?
- In terms of the Northwest Territories and the transboundary impacts, has there been any other issues raised other than the caribou and calving?
- We are going to look a little further at the predictions that this government will be taking place. We are going to look at the effects, the primary concern is the caribou and that is going to be in the middle of the calving grounds. It is our livelihood. The caribou migrate back and forth to the Bathurst Inlet.
- There is concern about the terrestrial wildlife and their habitat; transboundary effects including context in terms of significance determinations, for example the situation with Bathurst in 2014.

Project

- Where is the cumulative effects assessment study area in the DEIS?
- When is the technical hearing for this phase?
- You had mentioned the barges, 3 barges. Will they go east or west when they leave the Inlet?
- Where is the ore going?
- What waste deposition would happen at the laydown area?
- Does the NIRB think that there are transboundary impacts?
- Would the technical meeting have teleconference capability for those who cannot attend the meeting in person?
- When do you see some of these steps happening?
- I am wondering how the communities from the NWT would be engaged? I'm talking about the technical people participating in meetings if they don't have the funding/intervener funding?
- Is there only one technical meeting that happens, or is there another one after the submission of the EIS?
- What happens at the pre-hearing conference?
- If the Lutsel Ke' Dene First Nation is not able to attend the technical meeting, it seems that we are behind the ball.
- For the community roundtable, is the NIRB going to come to any communities?

- Have you identified communities for the NWT that would be involved in the community roundtable? So, is it of interest for communities to come forward and say that they will be affected?
- Has there been any indication of funding that could be available to bring people in for the community roundtable?
- Who has been identified as the affected communities in the NWT?
- Does the NIRB have time limits, and are they reflective of a particular stage? Are they consistent with the MVR or the changes that were recently made?
- In the final version of the EIS compared to the Draft version, is there a way that you can see what has changed? Are the changes identified?
- We may accept the premise that Sabina is proposing that there would be no significant effects, but for cumulative effects I don't necessarily agree with Sabina deciding that there are no cumulative effects.
- Does the proponent give notice when the information requests may come in?
- How big is the footprint for Goose, George, and the Marine Laydown area?
- How big is Sabina's claim block?
- We are aware of this project; they did give a presentation to the Tlicho Government working group. We have a working group that looks after that, we report to the chief and executive government. We looked at the claim area. We are aware that this project will be undertaken by this group.
- In November, we had talked to them about this. We wanted to know if this was going to be a review or a full blown review. We weren't too sure which level you were going to be in. Our working group has been considering that the review is being done in Nunavut, how are we going to participate. We are considering how to touch base with our Government of the Northwest Territories counterparts and we are considering doing a joint submission. We are looking at how we are going to proceed and respond to this project. You will be hearing from us one way or another, either jointly, or separately. It will probably be a written response.

Other

- Is the Government of the Northwest Territories fairly active in this process?
- How may staff do you have at the NIRB?
- How many assessments are you working on at the current time?
- Thank you, this is helpful.
- When you make recommendations to government, is it only Canada and Nunavut or can you make recommendations to the Government of the Northwest Territories as well?
- Do you have different levels of review?

4.0 SUMMARY AND CONCLUSION

Community members provided their comments on a variety of topics of concern at the NIRB's public information meetings on Sabina's Draft Environmental Impact Statement for the Back River project proposal. For the most part, these concerns were focused on impacts to caribou, muskox and fish, air and water quality, as well as the availability of jobs and working conditions at site.

Similar to the scoping process undertaken for the NIRB's review of this project proposal, an information session was also conducted in Yellowknife, NT in order to provide members of the community there with the opportunity to voice comments and questions directly to NIRB staff.

All comments raised during the meetings have been included in this report for broader publication, and going forward, may assist the NIRB in identifying items to be addressed through the upcoming technical review process.

APPENDIX A – The NIRB's Public Information Meeting Sign-in Sheets

Kugluktuk

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: Kugluktuk
Time: 2-4pm
Date: Mar 24/14
Page No: 1

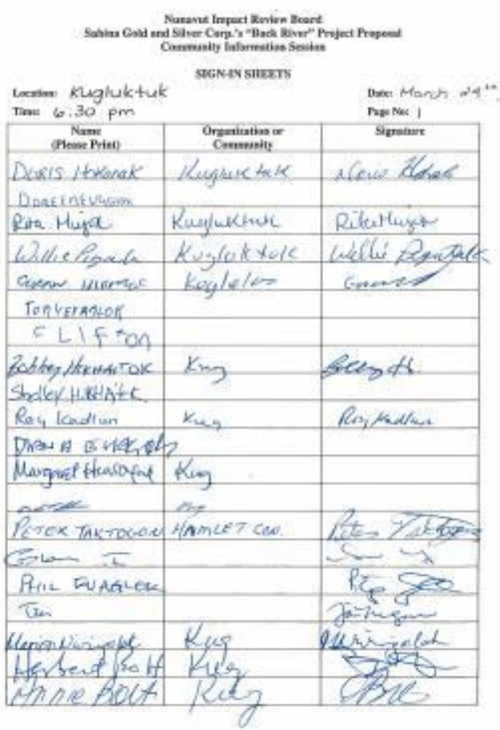
Name (Please Print)	Organization or Community	Signature
[illegible]		
[illegible]		
Oda Mangiojak		
William Patch	CGS	William Patch
David Evaglok		[illegible]
Ron Evaglok		R.E.
Gordon Kokak	Hamlet	[illegible]
Moses Kayoryuk	[illegible]	[illegible]
Crystal Kongyona	Kugluktuk	[illegible]
Tony Eyaglok		
Nancy Kadlun	Kugluktuk	[illegible]
Shirley Kilgik	Kugluktuk	S.K.
Bobby Kaldak	Kugluktuk	[illegible]
Angela Elatiak	Kugluktuk	[illegible]
Cindy Kellogok	Kugluktuk	Cindy Kellogok
[illegible]	Kugluktuk, NU	[illegible]
David Enogaloak	Kugluktuk	[illegible]
Colin Matomiak	Kugluktuk	[illegible]
Sandra Avioganna	" "	S Avioganna
Regis Kokak	" "	[illegible]

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: Kugluktuk
Time: 2-4pm
Date: March 24/14
Page No: 2

Name (Please Print)	Organization or Community	Signature
Rita Angivrana		[illegible]
David Onoplok		
Chris Atatahak	Hamlet of Kugluktuk	[illegible]
Fred Navoktyak	Kugluktuk	[illegible]
Dennis	Kugluktuk	[illegible]
Katie	Kugluktuk	Katie
Patty Alaogana	Kugluktuk	Patty Alaogana
Wesley Hanakyak	Kugluktuk NU	[illegible]
Jean Taipana	Kugluktuk NU	Jean Taipana
Jordan Bolt	Kugluktuk	[illegible]
Leo Kaodloak	" "	[illegible]
Bobby Algona	"	[illegible]



Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: Kugluktuk
Time: 6:30 pm
Date: March 24th, 2014
Page No: 1

Name (Please Print)	Organization or Community	Signature
Doris Hokanak	Kugluktuk	[illegible]
Dorecin Evaglok		
Rita Hupe	Kugluktuk	Rita Hupe
Willie Paptala	Kugluktuk	Willie Paptala
[illegible]	Kugluktuk	[illegible]
Tony Eyaglok		
Clifton		
Bobby Hakatok	Kug	Bobby H.
Shelley Hikhaitok		
Roy Kadlun	Kug	Roy Kadlun
[illegible]		
Margaret Hanaoyak	Kug	
[illegible]	[illegible]	
Peter Taktogon	Hamlet Cao.	Peter Taktogon
[illegible]		[illegible]
Phil Avalak		[illegible]
[illegible]		[illegible]
[illegible]	Kug	[illegible]
Herbert Bolt	Kug	[illegible]
Annie Bolt	Kug	[illegible]

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: Kugluktuk
Time: 6:30
Date: March 24th, 2014
Page No: 2

Name (Please Print)	Organization or Community	Signature
[illegible]		[illegible]
[illegible]		[illegible]
Leeanne		[illegible]
[illegible]		[illegible]
Allen Kaiyogana		[illegible]
[illegible]		[illegible]
Brenda Angohiatok		[illegible]
Sidney Angohiatok		Sidney Angohiatok
Mary H Algona		Mary Algona
Bobby Algona		[illegible]
John Avilingak		[illegible]
[illegible]		
Agnes Kokak		
[illegible]		
[illegible]		Herb [illegible]
[illegible]		[illegible]
David Swift	[illegible] Associates Ltd	[illegible]
David Evaglok		[illegible]
R Evaglok		R.E.
Karen Kangoak		[illegible]

Cambridge Bay

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: Kugluktuk
Date: March 24th, 2014
Time: 6:30 pm
Page No: 3

Name (Please Print)	Organization or Community	Signature
Lucy Maniyogena	Kugluktuk NU	[illegible]
Andrew Evegaloak	Kugluktuk, NU	[illegible]
Robert Ayalagok	Kug. NU.	[illegible]
Jean Mayok	Kug NU	[illegible]
Harold Mayok	Kug NU	Harold Mayok
Ali J. Katiak	" "	[illegible]
Agnes Egotak	" "	[illegible]
[illegible]	"	[illegible]
[illegible]		
[illegible]		
Bessie Kukilukak		
Nellie Kayaoyana		
Laila Uttak	Kugluktuk	Laila Uttak
Robert Alsona	Kugluktuk	[illegible]
Mona Tiktalek	Kugluktuk	Mona Tiktalek (interpreter)

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: Cambridge Bay
Date: 25-MAR-14
Time: 2-4pm
Page No: 1

Name (Please Print)	Organization or Community	Signature
Ella Panioyak	Bay Chimo	
George Okhina	Cam Bay	
Mary Kaniak	Bay Chimo	
Tony Akoluk	" "	
Jean Akoluk	" "	
David Kleongenberg	" "	
Clarence Kleongenberg		Clarence
Emma Kleongenberg		
Linda Kleongenberg		
Hyone Kaminnoak	Kugluktuk	
Annie Ackigoetok	Bay Chimo	
Sam Kuliktana	Cam-Bay	
Ida Kuliktana	" "	
Richard Ekpakohak	" "	
Allen Kanayok	" "	
Betty-Ann Hanikyogina	" "	
Vanessa Kleongenberg	Bay Chimo	[illegible]
Annie Netkak	Cam Bay.	
Nigeowak	Cambridge Bay	
Christa Lee Kaotok	Cam. Bay	

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: Cambridge Bay
Date: 25-MAR-14
Time: 2-4pm
Page No: 2

Name (Please Print)	Organization or Community	Signature
Danny Haank	Cam Bay	
Sam Kuliktana	Cambridge Bay	[illegible]
Ida Kuliktana	Cambridge Bay	

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: Cambridge Bay
Date: March 25, 2014
Time: 6:30
Page No: 1

Name (Please Print)	Organization or Community	Signature
Johnny Anablak	Cambridge Bay	[illegible]
Heather Kiguna	Cambridge Bay	Heather Kiguna
Connie	Bathurst	[illegible]
Allen	"	
Mary Kaniak	Bay Chimo	
David Kleongenberg	Bay Chimo	[illegible]
Annie Haqlayak	Cambridge Bay	[illegible]
[illegible]	" "	
Doris Kaaok	" "	

Gjoa Haven

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: Gjoa Haven Date: March 26
Time: 2-4pm Page No: 1

Name (Please Print)	Organization or Community	Signature
several people stopped by for short times but didn't want to sign		

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: Gjoa Haven Date: March 26/14
Time: 6:30 pm Page No: 1

Name (Please Print)	Organization or Community	Signature
Tone Wang		
Erik Skibi		[illegible]
Cory Zyla	Nunavut Water Board	[illegible]
Carolin Anani[illegible]		
Tommy Siksik		
Joseph Akoak		
Martha Pooyatak		
Simeoni Samok		[illegible]
Helen Tungilik	Kitikmeot Inuit Assoc.	[illegible]
Casimir T		
Aldina Porter		[illegible]
Noah Siutinuar		
Ben Putuguq		
Raymond Quqshuut		[illegible]
Sheila Kamookak		[illegible]
Rebecca Ikualla		[illegible]
Paul Ikuallaq		[illegible]
Lumie Aaluk		Leonie Aaluk
Veronica Aaluk		
Helen Kaloon	Nattilik Heritage Center	Helen Kaloon

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: Gjoa Haven Date: March 26, 2014
Time: 6:30 pm Page No: 2

Name (Please Print)	Organization or Community	Signature
Allen Kitsoon	Hamlet of Gjoa Haven	[illegible]
Jordan Aglukkaq		
Sammy Kogvik	Gjoa Haven	Sam Kogvik
Andrea Carter	KIA / Hamlet Council	[illegible]
Allen Aglukkaq	Education/Mayor	[illegible]
[illegible]		
Mary Porter		
Simon Siqiniq		
Cynthia R. Aaluk	local	[illegible]
Gary Aplana		[illegible]
Mark Ullikataq		
Marvin Atqittuq		[illegible]
Martha Porter		
Frank Pauloosie	Hamlet of Gjoa Haven	[illegible]
Saul Oosuaq		[illegible]

Kugaaruk

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: Kugaaruk
Time: 2-4 pm
Date: March 27, 2014
Page No: 1

Name (Please Print)	Organization or Community	Signature
Nick Jr. Sikkuark	Kugaaruk	
Lucien Siqquaq	Kugaaruk	[illegible]
Bonnie Kayaitok	Kugaaruk.Nu	Bonnie Kayaitok

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: KUGAARUK
Time: 6:30 pm
Date: 27-MAR-14
Page No: 1

Name (Please Print)	Organization or Community	Signature
Len Anaittuq	Kugaaruk	
Dennis Alokanevark	Kugaaruk	
Chad Madisto	ALeXiS	Jaeda
Christopher Amautinuar	E. PelryBay	[illegible]
Sarena Sigguk.		
Lucien Siqquaq	[illegible]	
Sam Inaksajak	Kugaaruk Schools	[illegible]
[illegible]		
Fabiola Ittukkak		Fabiola [illegible]
Carol Inuksaq		Carol Inuksaq
Carla Inuksaq		Carla
Isabella Inuksaq		[illegible]
Colin Inuksaq		[illegible]
TracY JasMin	SylviaC sitting	
Mary Tinashlu		Mary [illegible]
Cynthia	MArtha	
Nicole	Simone [illegible]	
Royden		

Taloyoak

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: TALOYOAK
Time: 2-4 pm
Date: 28-MAR-14
Page No: 1

Name (Please Print)	Organization or Community	Signature
ALiCE QARAYAUT	THLOYOAK	
Nancy Ugyuk	Taloyoak	[illegible]

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: TALOYOAK
Time: 6:30
Date: 28-MAR-14
Page No: 1

Name (Please Print)	Organization or Community	Signature
[illegible]		
[illegible]		E [illegible]
SIMEON OLEEKATALIK		
Simon Qiyngnaq	Taloyoak	[illegible]
RoSS.P.		
	[illegible]	
Brad Pirie	Government of Nunavut	Brad Pirie
[illegible]		
Chrstahyn Nanook		Christahyn Nanook
Jane KriPanik		Jane Kripanik
ALiCE QUAYAUT		
Don [illegible]		
[illegible]		[illegible]

Yellowknife

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

SIGN-IN SHEETS

Location: Yellowknife
Time: 2-4 pm
Date: April 1st, 2014
Page No: 1

Name (Please Print)	Organization or Community	Signature
Peter Redvers	CAALS	
Sarah Robertson	CanNor - NPMO	Sarah Robertson
Mike Tollis	LKDFN	
X	X	X
Simon Toogood	MVEIRB	
Sachi de Souza	MVEIRB	
Chuck Hulford	"	
Adrian Boyd	NPC	
Mark Cliffe-Phillips	MVEIRB	
Lorraine Seale	GNWT	
Georgina Williston	DFO	G Williston

Nunavut Impact Review Board
Sabina Gold and Silver Corp.'s "Back River" Project Proposal
Community Information Session

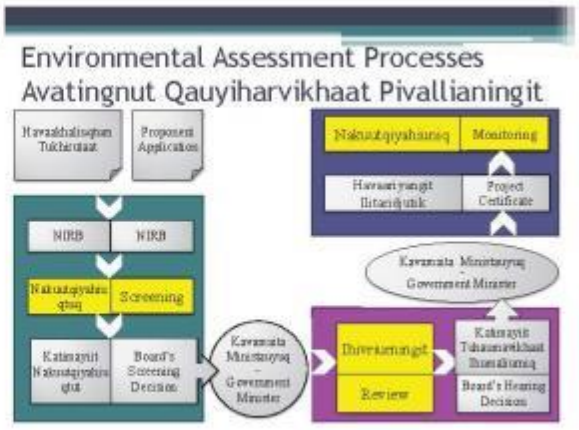
SIGN-IN SHEETS

Location: Yellowknife
Time: 6:30 pm
Date: April 1st, 2014
Page No: 1

Name (Please Print)	Organization or Community	Signature
Matt Hoover	NSMA	
Noel Bishop	Tlicho Gov't	
Lindsay Lake	GNWT	
Sonny Zoe	Tlicho Govt	
Cheryl Wray	Sabina	
Tom Kappaora	Sabina	
Sarah Robertson	CanNor-NPMO	Sarah Robertson
Henry Zoe	Tlicho Govt.	
T Slavik	YKDFN	
William Mantla		

APPENDIX B – The NIRB's PowerPoint Presentation

English-Inuinnaqtun



Hungmat NIRB'kkut hamaniittut ublumi?

- Nutaannguqtiqhimayut uaninngat NIRB'kkut ihivriuqhimayangit haffuminngat Hanningayup Kugaa Havaariyakhaat
- Uqarvigilugu Uuktuqhimayangit Avatingnut Aktumaqattaqtunik Ihivriuqhiniq Kiuviniit turaaqhimayangit Sabina
  - Havaariyakhaat
  - Aktuqtauniq Ihivriuningit
  - Kangiqhiimayait haffuminngat aniakkungit havaariyaanit aktuqtauningit
- Akhuurnahuarlugit kitunuliqaak ilauqatauyut ukuninngat ihivriurningit
- Naalakhimalugit apiqutitit ihumaalutivillu

Why is the NIRB here today?

- Update on the NIRB assessment of the Back River Project
- Discuss the Draft Environmental Impact Statement submitted by Sabina
  - The Project
  - Impact assessment
  - Predictions made on residual project effects
- Encourage public participation in the assessment
- Listen to your questions or concerns

NIRB Review Process Update

NIRB Ihivriuqhimaningit Pivallianingit Nutaannguqtiqhimayut

Una Hanningayum Kugaa Havaariyakhaq Tukhiutauhimayuq Iluani Uuktuqhimayangit EIS

- Havaariyakhat nayugaat:
  - Goose Nayugaat
  - George Nayugaat
  - Kingaop Imaarniattat Talagvikhaat
- Apqutikhaat ukiumi katilviuhimayut nayugaanit; ukiuraalungmi apqutit iluani nayugaanit

Back River Project as Proposed in the Draft EIS

- Project sites:
  - Goose Property
  - George Property
  - Bathurst Inlet Marine Laydown Area
- Winter road connections between sites; all-season roads within each site

Tukhiutihimayangit Goose Nanminiriyangit

- Igluqarvikhaq nayurvikhaallu
- Uyaraqtarviuyut hauhimayut
- Iqqakkuurvikhaat
- Ihivriuqhimayangit kiuviniit
- Hauvikhaat/pivallia yakhait aulattitiyut

Proposed Goose Property

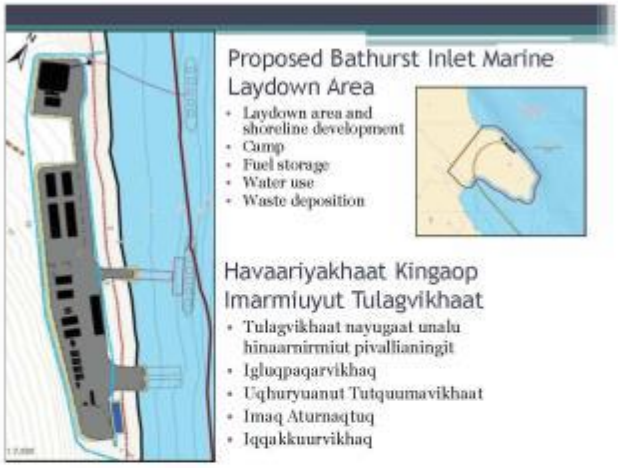
- Camp and layout
- Mine pits
- Waste disposal
- Tailings deposition
- Milling/processing operation

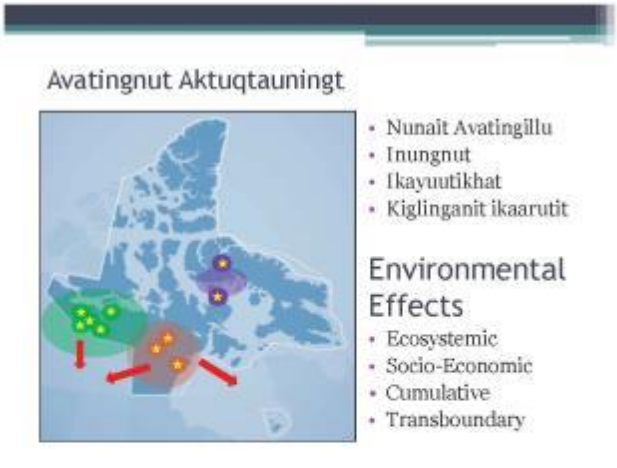
Proposed George Property

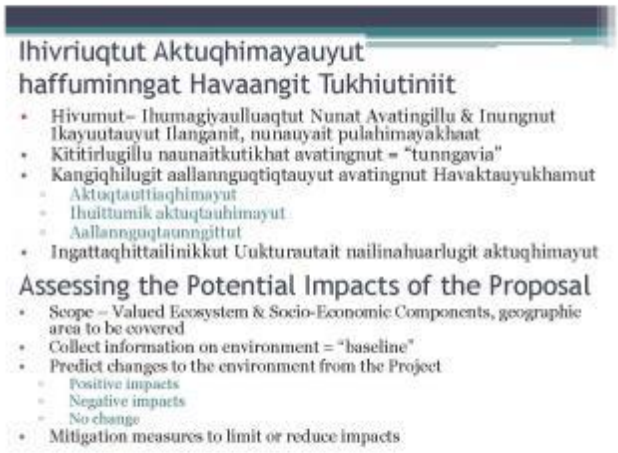
- Camp and layout
- Mine pits
- Waste disposal
- Tailings deposition

Havaariyakhat George Nanminiriyangit

- Igluqarvikhaq nayurvikhaallu
- Uyaraqtarviuyut hauhimayut
- Iqqakkuurvikhaat
- Ihivriuqhimayangit kiuviniit

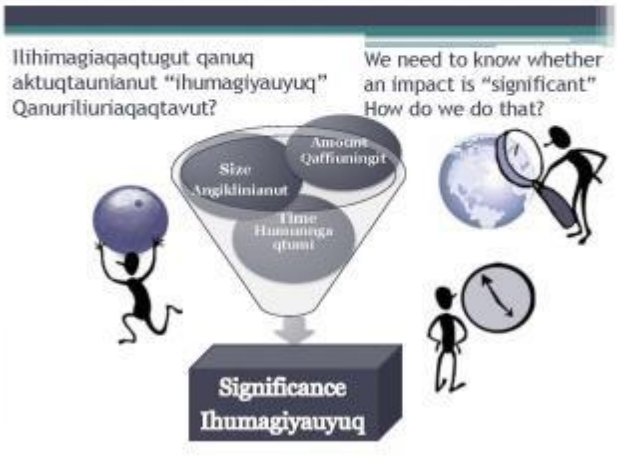

Proposed Bathurst Inlet Marine Laydown Area
• Laydown area and shoreline development
• Camp
• Fuel storage
• Water use
• Waste deposition
Havaariyakhaat Kingaop Imarmiuyut Tulagvikhaat
• Tulagvikhaat nayugaat unalu hinaarnirmiut pivallianingit
• Igluqpaqarvikhaq
• Uqhuryuanut Tutquumavikhaat
• Imaq Aturnaqtuq
• Iqqakkuurvikhaq


Avatingnut Aktuqtauningt
• Nunait Avatingillu
• Inungnut
• Ikayuutikhat
• Kiglinganit ikaarutit
Environmental Effects
• Ecosystemic
• Socio-Economic
• Cumulative
• Transboundary


Ihivriuqtut Aktuqhimayauyut haffuminngat Havaangit Tukhiutiniit
• Hivumut– Ihumagiyaulluaqtut Nunat Avatingillu & Inungnut Ikayuutauyut Ilanganit, nunauyait pulahimayakhaat
• Kititirlugillu naunaitkutikhat avatingnut = "tunngavia"
• Kangiqhilugit aallannguqtiqtauyut avatingnut Havaktauyukhamut
◦ Aktuqtauttiaqhimayut
◦ Ihuittumik aktuqtauhimayut
◦ Aallannguqtaunngittut
• Ingattaqhittailinikkut Uukturautait nailinahuarlugit aktuqhimayut
Assessing the Potential Impacts of the Proposal
• Scope – Valued Ecosystem & Socio-Economic Components, geographic area to be covered
• Collect information on environment = "baseline"
• Predict changes to the environment from the Project
◦ Positive impacts
◦ Negative impacts
◦ No change
• Mitigation measures to limit or reduce impacts


Ecosystem Components
Nunait Avatiillu Ilaliutit
Birds
Tingmiat
Water
Imaq
Anuri
Air quality
Wildlife
Uumayut
Maniraup Naamangningit
Ground stability
Nauhimayut
Vegetation
Imatqiktut Uumayuit
Freshwater life
Taryurmiuttat Inuuhiat
Marine life


Socio-Economic Components
Inungnut-Ikayuutit Ilaliutait
Community infrastructure and public services
Numaqatigiit igluliuqpaktut kitumuliqaak Ikayuutit
Education, Training
Iliharniq, ilihautiniq
Land, Resource Use
Nunavut Avatingillu Aturnaqtut
Archaeology
Ingilraarnitaliqiniq
Employment
Havaatigut
Livelihood
Inuuhirnikkut
Food security
Niqittiarnikkut


Ilihimagiaqaqtugut qanuq aktuqtaunianut "ihumagiyauyuq" Qanuriliuriaqaqtavut?
We need to know whether an impact is "significant" How do we do that?
Size
Angildinianut
Amount
Qaffuningit
Time
Hunnunega qtunni
Significance
Ihumagiyauyuq

Nailiyauhimayut Aktuqtaunianut Qauyihaqhimayut Sabina'p Hanningayum Kugaa Havaariyakhaat

- Havaktauyut aktuqtauttiaqhimayut /aktuqtauhimanngittut / ihuittumik aktuqtauhimayut
- Ihumagiyauyut ilaliutauyuy
- Amiakkut aktuqtauhimayut amiakkuunguyut ingattaqhittailinikkut atuqhimayut

Summary of Impact Assessment for Sabina's Back River Project

- Projected positive impacts / no impacts / negative or residual impacts
- By valued component
- Residual impacts are those left over after mitigation is applied

Valued Component	Residual Impact	Significance
Ihumagiyaulluaqtut Ilaliutait	Amiakkut Aktuqtauyut	Ihumagiyaulluaqtut

Nailiyauhimayut Aktuqtaunianut Qauyihainiit

- Havaktaugialik ihuaqtumik aktuqtauhimayut:
  - Nammiinlingnit Qanurilinganingit
  - Havaktut (tamainnut nakunuyumik nakuumngittumiglu)
  - Ammiaqtailinikkut Nunalingnilu Inuuhittiarnikkut (tamainnut nakuuyumik nakuumngitumiglu)
  - Ilinniaqtunut Ilihautikhanillu
- Havaktaugialik aktuqtauhimaittumik:
  - Imatqiktumik Iqaluit Imarmiuttat Nayuqpauhiat
  - Imarmiuttat Iqaluit Imarmiuttat Nayuqpauhialiu
  - Nattlit
  - Manirarmiuttat Niqit

Summary of Impact Assessment

- Projected to have positive impacts on:
  - Business Opportunities
  - Employment (both positive and negative)
  - Health and Community Wellbeing (both positive and negative)
  - Education and Training
- Projected to have no impact on:
  - Freshwater Fish Aquatic Habitat
  - Marine Fish Aquatic Habitat
  - Seals
  - Country Foods

Anuri & Imaup Naunaitkutaa Air & Water Summary

Ihumagiyauyut Ilaliutait Valued Component	Amiakkut Aktuqtauningit Residual Impact	Ihumagiyauyut Significance
Anurium Mikhaanut - Atmosphere		
Anurium Nakuungninga Air Quality	1. Ihlit angmaumayunit hauhimayut uyaraqtarviuyut - Dust from open pit mining 2. Ihlit agyaqattaqtunit - Dust from transportation	Ihumagiyaunngittut Not significant
Kuinginnarnigut/ Hayungnaqtut Noise/Vibration	1. Aktuqtauhimayut inungnit - Disturbance to humans	Ihumagiyaunngittut Not significant
Imatqiktumik Avataa - Freshwater Environment		
Imarnikkut Hydrology	1. Aallanngeqtauyut kugaa tahium ilanganit - Changes in stream flows & lake volumes	Ihumagiyaunngittut Not significant

Imaup Nalunaitkutaa Water Summary

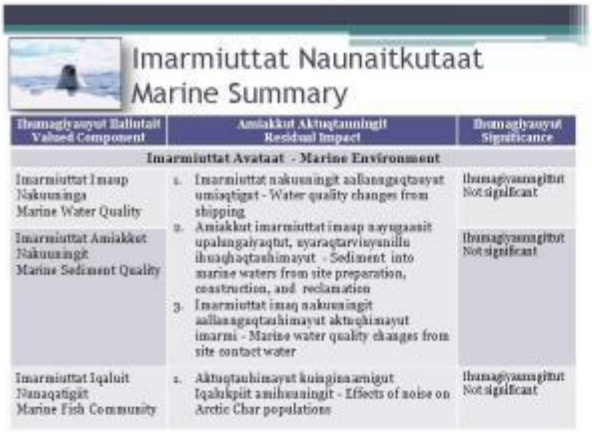
Ihumagiyauyut Ilaliutait Valued Component	Amiakkut Aktuqtauningit Residual Impact	Ihumagiyauyut Significance
Imatqiktumik Avataa (aulayuittuq) - Freshwater Environment (cont'd)		
Imaup Naammaginia Water Quality	1. Amiakkungit iluani imaup qaanganiittut nayugaanit upalungaiyaqtut, havakhimayut ahivaiyaiyulu - Sediment in surface waters from site preparation, construction and decommissioning 2. Imaup nakuumingat aallanngutauyut nayugaanit uyaraqtarvium aktuqhimayaat imaq - Water quality changes due to site and mine contact water	Ihumagiyaunngittut Not significant
Amiakkungit Naammaginia Sediment Quality		Ihumagiyaunngittut Not significant
Imatqiktumik iqaluit Freshwater fish	1. Ikivalliahimayut Ukioqtaqtum Iqaluanit ikivalliahimayut uvani Llama Tahiani uvanilu imaiya-galiayunit - Reduction in Arctic Grayling populations due to loss of Llama Lake and local drainages	Ihumagiyaunngittut Not significant

Manirarmiuttat Naunaitkutaa Terrestrial Summary

Ihumagiyauyut Ilaliutait Valued Component	Amiakkut Aktuqtauningit Residual Impact	Ihumagiyauyut Significance
Manirarmiuttat - Terrestrial		
Tuktut Umingmaillu Caribou & Muskox	1. Nayuqpauhiat ikivalliayut - Habitat loss 2. Aktuqtauhimayut kuinginnamikkut - Disturbance due to noise 3. Ikivalliayut imiutunit uumayait - Decreased reproductive productivity	Ihumagiyaunngittut Not significant
Akhat, Qahvit mitqulingnillu Grizzly Bear, Wolverine & furbearers	1. Nayuqpauhiat ikivalliayut - Habitat loss 2. Aktuqtauhimayut kuinginnamikkut - Disturbance due to noise 3. Ikivalliayut imiutunit uumayait - Decreased reproductive productivity 4. Nayugaat panniriyauyut - Attraction to site	Ihumagiyaunngittut Not significant
Nauhimayut Vegetation	1. Nauhimayut ikivalkayut - Vegetation loss 2. Ilitquhiita nunaup manirauhit ahiruqpalkayut - Special landscape feature loss	Ihumagiyaunngittut Not significant

Tingmiat Nalunaitkutaat Birds Summary

Ihumagiyauyut Ilaliutait Valued Component	Amiakkut Aktuqtauningit Residual Impact	Ihumagiyauyut Significance
Tingmiat - Birds		
Tingmidjat Utiqtaqtut Migratory Birds	1. Nayuqpauhiat ikivalliayut - Habitat loss 2. Aktuqtauhimayut - Disturbance	Ihumagiyaunngittut Not significant
Niviyuktut Raptors	1. Nayuqpauhiat ikivalliayut - Habitat loss 2. Aktuqtauhimayut - Disturbance 3. Ulunanaqtunit aktuqtauyut inunhiqtut - Direct injury and mortality 4. Ikivalliayut imiutunit uumayait - Decreased reproductive productivity 5. Nayugaat panniriyauyut - Attraction to site	Ihumagiyaunngittut Not significant
Taryurmiuttat qupanuat unalu tingmiat Seabirds and sea ducks	1. Aktuqtauhimayut - Disturbance 2. Ikivalliayut imiutunit uumayait - Decreased reproductive productivity	Ihumagiyaunngittut Not significant



Imarmiuttat Naunaitkutaat
Marine Summary

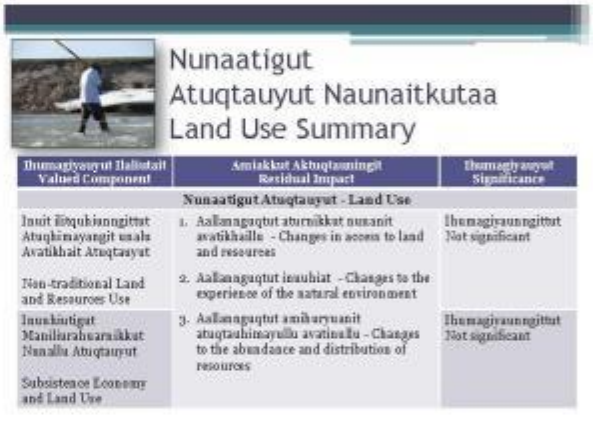
Ihumagiyauyut Ilalitait Valued Component	Amiakkut Aktuqtauningit Residual Impact	Ihumagiyauyut Significance
Imarmiuttat Avataat - Marine Environment		
Imarmiuttat Imaup Nakuusinga Marine Water Quality	1. Imarmiuttat nakuusingit aallangaqtaayut umiaqtigat - Water quality changes from shipping	Ihumagiyaangittut Not significant
Imarmiuttat Amiakkut Nakuusingit Marine Sediment Quality	2. Amiakkut imarmiuttat imaup nayugaanit upalangaiyaqtut, ayaraqtarviuyunillu ihuaqhaqtauhimayut - Sediment into marine waters from site preparation, construction, and reclamation	Ihumagiyaangittut Not significant
	3. Imarmiuttat imaq nakuusingit aallangaqtauhimayut aktuqhimayut imarmi - Marine water quality changes from site contact water	
Imarmiuttat Iqaluit Nanaqtigit Marine Fish Community	1. Aktuqtauhimayut kuinginaarnigut Iqalukpiit amihuuningit - Effects of noise on Arctic Char populations	Ihumagiyaangittut Not significant

Ingilraarnitaliqiniq &
Havaktigut nalunaitkutaa
Archaeology & Employment Summary

Ihumagiyauyut Ilalitait Valued Component	Amiakkut Aktuqtauningit Residual Impact	Ihumagiyauyut Significance
Ingilraarnitaliqiniq - Archaeology		
Nayugaat ittuq iluani 50 miitastigut ungahingnia Havaktauyukhanut Pivallianingit Sites located within 50 metres of Project Developement Areas	1. Aktuqtaulaittut nunamit hulinahuarumik havaktauniarumilluniit - Disturbance from ground altering activity and construction	Ihumagiyaunngittut Not significant

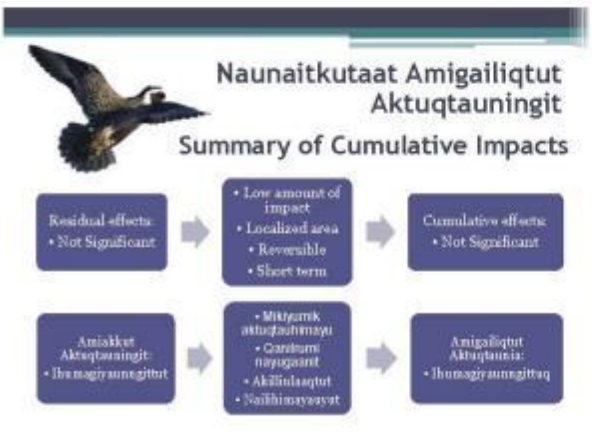
Ingilraarnitaliqiniq &
Havaktigut nalunaitkutaa
Archaeology & Employment Summary

Ihumagiyauyut Ilalitait Valued Component	Amiakkut Aktuqtauningit Residual Impact	Ihumagiyauyut Significance
Havaatigut - Employment		
Qanilrukkut Havaktut Local Labour	1. Angikliyut havaktaugialik qanilrukkut havaktut uvani Kitikmeot nunalingnit - Increase competition for local labour in Kitikmeot communities	Ihumagiyaangittut Not significant
Aanniaqtailinikkut Inuuhirnikkut Nunalingnit Health and Community Well-being	1. Aallannguqtauhuni ilagiikrut hulihakaarniq: maniliugait qanuq atuqhimayauyut - Changes to family spending: income spent unproductively	Ihumagiyaangittut Not significant
	2. Aallannguqtauyut ilagiiktunit tukiliutainit - Changes in family structure	



Nunaatigut
Atuqtauyut Naunaitkutaa
Land Use Summary

Ihumagiyauyut Ilalitait Valued Component	Amiakkut Aktuqtauningit Residual Impact	Ihumagiyauyut Significance
Nunaatigut Atuqtauyut - Land Use		
Inuit ilinqubiannginttut Atuqhimayangit unalu Avatikhait Atuqtauyut Non-traditional Land and Resources Use	1. Aallangugtut aturnikkut nunanit avatikhaillu - Changes in access to land and resources	Ihumagiyaunngittut Not significant
	2. Aallangugtut inuuhiat - Changes to the experience of the natural environment	
Inunkiutigat Maniliurahuarnikkut Nunallu Atuqtauyut Subsistence Economy and Land Use	3. Aallangugtut amiharyuanit atuqtauhimayullu avatinullu - Changes to the abundance and distribution of resources	Ihumagiyaunngittut Not significant



Naunaitkutaat Amigailiqtut Aktuqtauningit
Summary of Cumulative Impacts

Naunaitkutaa Kiglingagut aallannguqtaulaaqtut Aktuqtauningit
Summary of Transboundary Impacts

No Residual Effect **Amiakkungit Aktuqtauyut Nalihimayauyut**	Residual Effects Confined **Qanittumi aviktuqhimayumi qauyihaqhimayut maniraa**	Range extends into NWT **Amihut katihviuvaktut iluanu Nunattiarnut**
Amiakkungit Aktuqannginttuq No transboundary impacts	**Ikaaqtunit kigliqanngittut aktuqhimayunit** Local and regional study areas **Amiakkungit Aktuqannginttuq** No transboundary impacts	**Tukut, akhait, umingmait, amaruit** caribou, grizzly bear, muskox, wolves **Angikliiaaqtut aktuqtauhimayut ihumagiyaunngittut** Cumulative effects not significant

Hivunikhautikhaqqut iluani
NIRB'kkut Ihivriuqtauningit Pivallianingit

- Nalunaittaaqtut Unipkaarunmi katimavlutik
- Piyumayangit ilauhimayut amiqhaiyut qauyiharnikkut ihivriuqhimayangit haffuminngat Sabina'p Uuktuqhimayangit Avatingnut Aktuqtauningit Kiudjuhiit
- Katimavaktut qauyihaqtut ilihimattiaqtunit
- Naalaktaarlutik Katimayut Nunaqatigiiktunillu Katimayruaqtut
- Naalaktaarlutik Katimayut Unipkaarutait aulavikhangillu
- Sabina'p turaaqhimayangit Kingulliqpaami Avatingnut Aktuqtaunianut Kiudjuhiitsubmits
  - Kinguanut inikhautikhaat haffuminngat NIRB'iup Ihivriurningit

Next Steps in the NIRB Review Process

- Summary Report from these meetings
- Interested parties conduct technical review of Sabina's Draft Environmental Impact Statement
- Meeting of technical experts
- Pre-Hearing Conference and Community Roundtable
- Pre-Hearing Conference Report with directions
- Sabina submits Final Environmental Impact Statement
  - Last stage of NIRB's Review

Your opinion matters!
Ihumaliuqtatit naammagiyauyut!

- Qanuq ihumagiyatit hamna Havaariyakhanut?
- Qanuq ihumagiyatit Sabina'm kangiqhidjutingit aktuqtaunianut?
- Qanuq aktuqtaunit haffuminngat Havaariyakhanut ihumaaluutigiyatit?

- What do you think about this Project?
- What do you think of Sabina's predictions for effects?
- What potential impacts of the Project are of concern to you?

Quanaqqutit naalakhimagavit.
Tuharvigiyumayaffi!

Hivayarlutit Akiqanngittukkut	1-866-233-3033	Call toll-free
Kayumiktukkut	867-983-2594	Fax
Qaritauyakkut	info@nirb.ca	Email

Titiraqarvikkut - Mail comments to:

Nunavut Impact Review Board
PO Box 1360, Cambridge Bay, NU
X0B 0C0

Thank you for listening.
We want to hear from you!

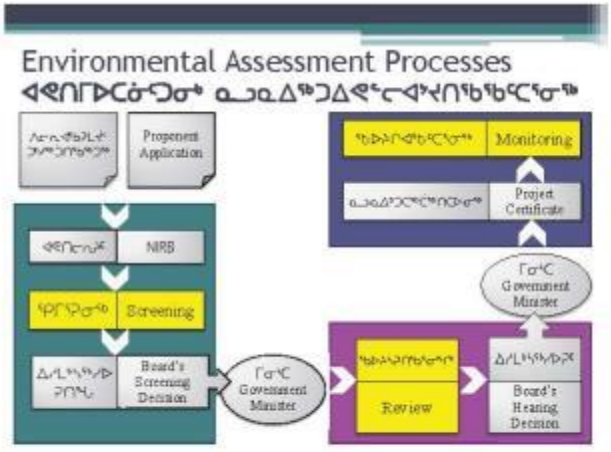

Nunavut Impact Review Board
Community Information Sessions for the
NIRB's Review of the Back River Project
N.I.R.B.


Tonight we will discuss...
• What is the NIRB?
• Why is the NIRB here today?
• The NIRB's environmental assessment of the Back River Project
• Next steps of the NIRB Review Process
N.I.R.B.

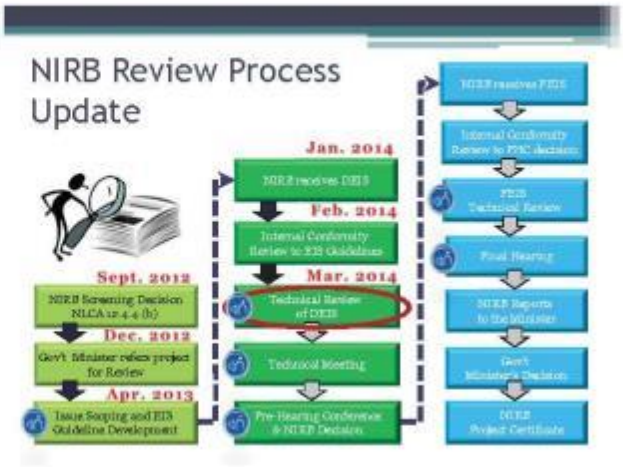

What is the Nunavut Impact Review Board?
Institution of public government Article 12 of the Nunavut Land Claims Agreement
N.I.R.B.

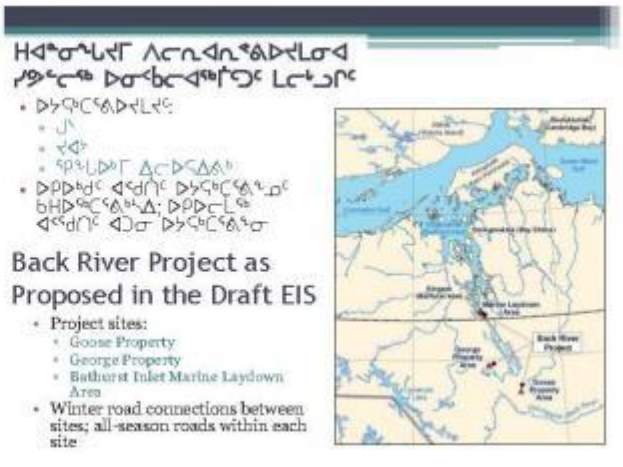

NIRB's Mission
To protect and promote the well-being of the environment and Nunavummiut through the impact assessment process
N.I.R.B.

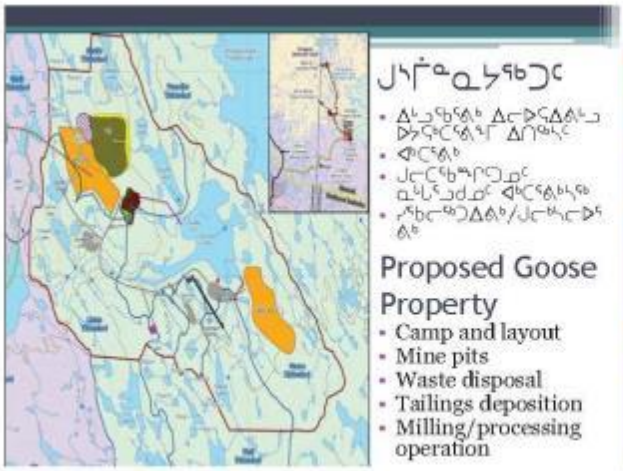

What do we do?
1. Conduct environmental assessment of project proposals in Nunavut
2. Recommend to government if project proposals should proceed
• If yes, recommend steps to minimize potential impacts
3. Monitor projects that have been approved to proceed
N.I.R.B.

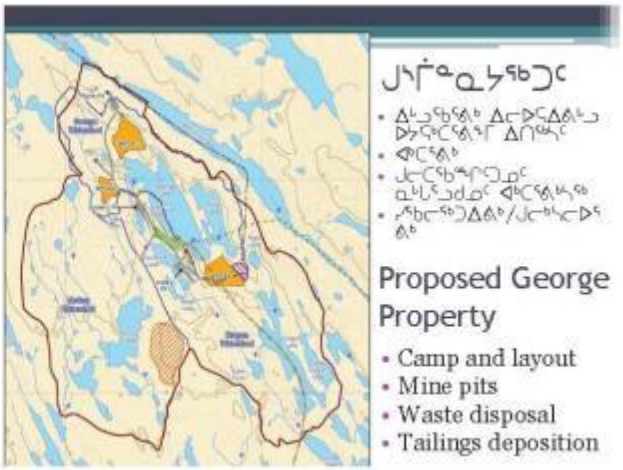

Environmental Assessment Processes
Proponent Application
NIRB
Screening
Board's Screening Decision
Government Minister
Review
Board's Hearing Decision
Government Minister
Monitoring
Project Certificate

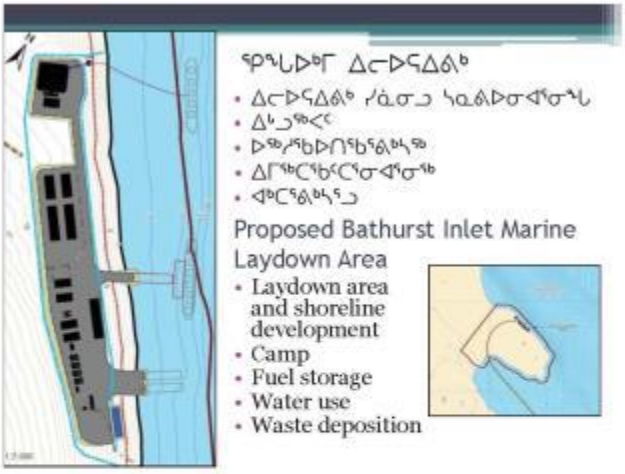

Why is the NIRB here today?
• Update on the NIRB assessment of the Back River Project
• Discuss the Draft Environmental Impact Statement submitted by Sabina
◦ The Project
◦ Impact assessment
◦ Predictions made on residual project effects
• Encourage public participation in the assessment
• Listen to your questions or concerns
N.I.R.B

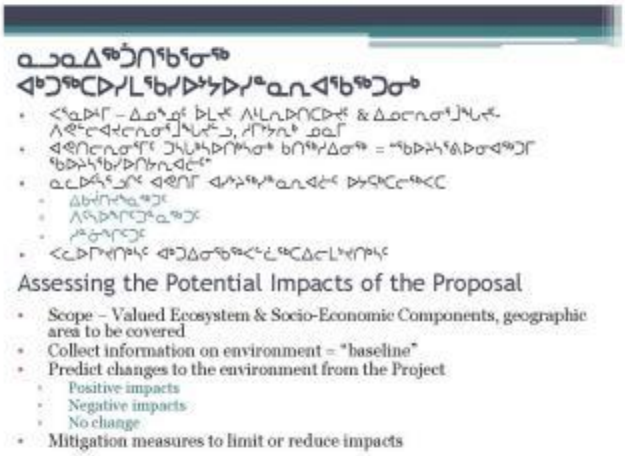

NIRB Review Process Update
Sept. 2012
Dec. 2012
Apr. 2013
Jan. 2014
Feb. 2014
Mar. 2014


Back River Project as Proposed in the Draft EIS
• Project sites:
◦ Goose Property
◦ George Property
◦ Bathurst Inlet Marine Laydown Area
• Winter road connections between sites; all-season roads within each site


Proposed Goose Property
• Camp and layout
• Mine pits
• Waste disposal
• Tailings deposition
• Milling/processing operation


Proposed George Property
• Camp and layout
• Mine pits
• Waste disposal
• Tailings deposition





Assessing the Potential Impacts of the Proposal
- Scope – Valued Ecosystem & Socio-Economic Components, geographic area to be covered
- Collect information on environment = "baseline"
- Predict changes to the environment from the Project
  - Positive impacts
  - Negative impacts
  - No change
- Mitigation measures to limit or reduce impacts

ᑐᓴᐅᒪᔭᖅ ᓇᐃᓕᓕᐊᑎᒃᓯᒪᔨᖅ ᐊᐢᑐᖅᑕᐅᓯᒪᔨᖅᑕᐃᓕᓴᖅᑐᑦ ᓇᓗᐃᔪᖅᑕᐅᑎᓂᐅᑉ ᓴᖅᑭᑐᓴᒪᔨᕐᑎ ᐅᔾᔨᕗᑦᑕᐅᔭᕐᓂᖅ

- ᐊᐅᑐᖅᑲᕐᓂᐊᕐᓂᐊᕐᓯᐅᔾᔨᕐᓂ/ᓯᓚᐅᑦᑐᕐᓂ/ ᐱᔭᕐᓂᕐᒥᓂ/ ᐊᐅᑐᖅᑲᓕᐊᑦᑐᖅᑎᖅ
- ᐱᓱᒪᑎᐅᔨᓂ
- ᐸᓪᐅᒥᔨᐊᕐᑐᖅᑕᐅᖅᑲᓕᐊᑦᑐᖅᑎ ᓴᓗᒍ ᐊᐅᑐᖅᑲᓕᐊᑦᑐᖅᑎᖅᓯᒪᓕᒫᑦ

Summary of Impact Assessment for Sabina's Back River Project

- Projected positive impacts / no impacts / negative or residual impacts
- By valued component
- Residual impacts are those left over after mitigation is applied

Valued Component	Residual Impact	Significance
ᐱᖓᓱᐅᑎᑦ	ᐊᐅᑐᖅᑲᓂᐅᑦ	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ

Summary of Impact Assessment

ᑐᓴᐅᒪᔭᖅ ᓇᐃᓕᓕᐊᑎᒃᓯᒪᔨᖅ ᐊᐅᑐᖅᑕᐅᓯᒪᔨᕐᓂᖅᑐᑦ ᓇᓗᐃᔪᖅᑕᐅᑎᓂᐅᑉ

- ᐊᐅᑐᖅᑲᕐᓂᐊᕐᓂᐊᕐᓯᐅᔾᔨᕐᓂ
  - ᓇᓕᓂᖅᑐᑐᓴᑦ ᑭᓇᐅᔭᕐᑕᐅᔭᕐᓂᖅᑐᑦ
  - ᓴᓇᐅᓱᓂᑦ (ᐃᓚᓐᓇᑭᑎᕐᓂᖅᑐᑦ ᐊᐅᑐᖅᑲᓕᐊᑦᑐᖅᑎᖅ ᑕᒪᓐᓇᓂᖅᑐᑦ)
  - ᐊᐅᑐᖅᑲᕐᓂᑕᓂᑐᖅ ᐃᓕᓴᖅᑭᑦᑐᖅᑎᓂᖅᑐᑦ (ᐃᓚᓐᓇᑭᑎᕐᓂᖅᑐᑦ ᐊᐅᑐᖅᑲᓕᐊᑦᑐᖅᑎᖅ ᑕᒪᓐᓇᓂᖅᑐᑦ)
  - ᐃᓕᓴᖅᑐᓂᒃ ᓴᓇᐅᓱᓂᑦ ᐃᓕᓴᒪᓂᑦ
- ᐊᐅᑐᖅᑲᓕᐊᑦᑐᖅᑎᖅᓯᒪᔨᕐᓂ
  - ᓄᓇ ᐃᒪᓐᕕᖕᓂ ᐱᓕᕆᔨᐊᕐᓯᒪᔨᕐᓂᒃ
  - ᑕᒪᓕᒃ ᐃᖅᓗᓂᑦ ᐱᐊᕐᓕᕐᑕᓕᕐᓂᒃ
  - ᓇᓱᓐᓂ
  - ᐃᓄᖅᓱᓪᓗᑦ ᓂᓕᖅᑭᓕᕐᑕᐃᓂᑦ

- Projected to have positive impacts on:
  - Business Opportunities
  - Employment (both positive and negative)
  - Health and Community Wellbeing (both positive and negative)
  - Education and Training
- Projected to have no impact on:
  - Freshwater Fish Aquatic Habitat
  - Marine Fish Aquatic Habitat
  - Seals
  - Country Foods

ᐊᓂᓂᖅᑲᓇᖅᑐᖅ & ᐃᒪᓕᕆᓂᕐᓗ Air & Water Summary

ᐱᖓᓱᐅᑎᑦ Valued Component	ᐊᐅᑐᖅᑲᓂᐅᑦ Residual Impact	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Significance
ᓄᓇ - Atmosphere		
ᐊᓂᓂᖅᑲᓇᖅᑐᖅ Air Quality	1. ᐳᕆᐃᑦ ᐅᖃᖅᑎᕐᑎᒋᔭᕐᑎᑦ - Dust from open pit mining 2. ᐳᕆᐃᑦ ᐊᐅᖅᑐᐃᑎᒋᔭᕐᑎᑦ - Dust from transportation	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Not significant
ᓂᐱᒋᑦ/ᐃᑲᔪᑎᑐᑦ Noise/Vibration	1. ᐃᓚᐃᑦ - Disturbance to humans	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Not significant
ᓄᓇᒥ ᐃᒪᖅᑕᒃᑦ - Freshwater Environment		
ᐃᒪᓕᕆᓂᖅ Hydrology	1. ᐊᓯᖏᓐᓄᐊᓂᑦ ᐃᒪᖅᑕᓕᒃᑦ ᓂᕆᑎᑦᓂᖅᑦ & ᐃᒪᖅᑐᓂᖅᑦᓴ - Changes in stream flows & lake volumes	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Not significant

ᐃᒪᓕᕆᓂᖅ Water Summary

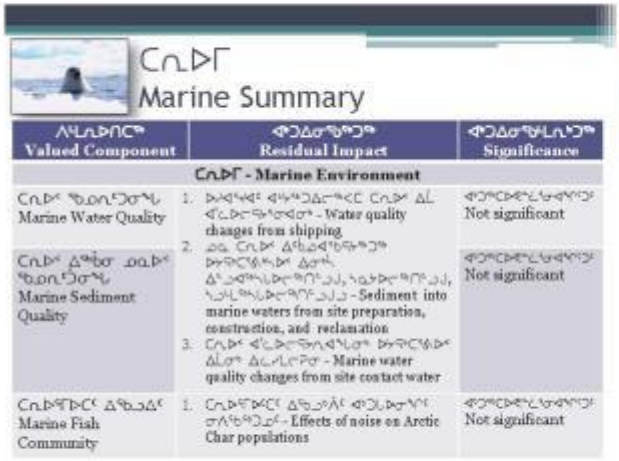
ᐱᖓᓱᐅᑎᑦ Valued Component	ᐊᐅᑐᖅᑲᓂᐅᑦ Residual Impact	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Significance
ᓄᓇᒥ ᐃᒪᓕᕆᓂᖅ (ᓇᑦ) - Freshwater Environment (cont'd)		
ᐃᒪᒃᑐ ᖃᖅᑎᓂ ᖃᓄᐃᓕᓂᖅ Water Quality	1. ᑕᓂᑦ ᖃᖅᑎᓂ ᖃᓄᐃᓕᓂᖅ ᐱᓕᕆᐊᓱᓂᖅ ᐃᓕᓴᕐᓂᕐᒥᓄᑦ, ᓴᓇᓕᖅᑎᑦᓯᓕᑦ ᐃᑎᑎᕆᓕᕐᑎᑦᓯᓕᑦ - Sediment in surface waters from site preparation, construction and decommissioning 2. ᐃᒪᒃᑐ ᖃᓄᐃᓕᓂᖅ ᐊᓪᓚᖅᑎᑦᓯᓕᖅᓂ ᐅᖃᖅᑎᖅᓯᒪᒃᑐᑦ ᐃᓕᓴᕐᓂᕐᒥᓄᑦ - Water quality changes due to site and mine contact water	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Not significant
ᐃᖃᓗᐃᑦ ᓄᓇᒥ ᐃᒪᖅᑕᓕᒃᑦ Freshwater fish	1. ᓴᓗᐸᑕᒃᑎᖃᕐᓴᐊᕐᓇᓂᖅ ᑕᒪᒃ ᓕᐃᑦ ᐃᒪᐃᓂᖅᓱᓂᖅ ᐊᓯᓂᓗ ᐊᓯᓂᖅᑐᑦᓂᖅ ᐅᓪᓗᒥᒃ - Reduction in Arctic Grayling populations due to loss of Llamas Lake and local drainages	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Not significant

ᓄᓇᕗᑦ ᖁᖃᓪᓗᓂᑦ Terrestrial Summary

ᐱᖓᓱᐅᑎᑦ Valued Component	ᐊᐅᑐᖅᑲᓂᐅᑦ Residual Impact	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Significance
ᓄᓇᒥᑦ ᐅᒃᖢᒪᑦ - Terrestrial		
ᑐᓂᑦ & ᐅᓕᖕᒪᑦ Caribou & Muskox	1. ᓇᖏᔪᖅᑲᐃᓐᓇᖅ - Habitat loss 2. ᓂᐱᑕᖅᓂᑦ ᐸᖅᑎᑎᐅᕐᑦ - Disturbance due to noise 3. ᓄᖅᓱᐅᓕᐃᑐᑦ - Decreased reproductive productivity	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Not significant
ᐊᑦᑎᓂᑦ, ᖁᓕᖏᑦ & ᒥᖅᓯᓕᑦ Grizzly Bear, Wolverine & furbearers	1. ᓇᖏᔪᖅᑲᐃᓐᓇᖅ - Habitat loss 2. ᓂᐱᑕᖅᓂᑦ ᐸᖅᑎᑎᐅᕐᑦ - Disturbance due to noise 3. ᓄᖅᓱᐅᓕᐃᑐᑦ - Decreased reproductive productivity 4. ᐅᖃᖅᑕᖏᓐᓄᐅᓕᕐᓗᒍ - Attraction to site	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Not significant
ᐱᓕᕆᔨᖅ Vegetation	1. ᐱᓕᕆᑐᖅᑲᐃᓐᓇᖅᓴ - Vegetation loss 2. ᓄᓇᒥ ᐊᓪᓚᓂ ᐄᑲᖅᐃᓐᓇᖅᑐᓂᑦ - Special landscape feature loss	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Not significant

ᑎᓴᒋᐊᕐᓂᓂᖅ Birds Summary

ᐱᖓᓱᐅᑎᑦ Valued Component	ᐊᐅᑐᖅᑲᓂᐅᑦ Residual Impact	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Significance
ᑎᓯᐊᑦ - Birds		
ᑎᓯᐊᑦ ᑎᑭᑦᑐᖅᑐᑦ Migratory Birds	1. ᓇᖏᔪᖅᑲᐃᓐᓇᖅ - Habitat loss 2. ᓂᐱᑕᖅᓂᑦ ᐸᖅᑎᑎᐅᕐᑦ - Disturbance	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Not significant
ᐅᒪᔨᖅᑕᑦᑐᖅ ᑎᓯᐊᑦ Raptors	1. ᓇᖏᔪᖅᑲᐃᓐᓇᖅ - Habitat loss 2. ᓂᐱᑕᖅᓂᑦ ᐸᖅᑎᑎᐅᕐᑦ - Disturbance 3. ᐊᐅᓚᔨᖅᑐᑦ ᐊᑐᖅᑐᐅᓇᔨᖅᑐᑦ - Direct injury and mortality 4. ᐱᓕᕆᔨᐅᓕᐃᑐᑦ - Decreased reproductive productivity 5. ᐅᖃᖅᑕᖏᓐᓄᐅᓕᕐᓗᒍ - Attraction to site	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Not significant
ᑕᓚᐅᖏᓐᓄᑦᑐᖅᑐᑦ ᑎᓯᐊᑦ Seabirds and sea ducks	1. ᓂᐱᑕᖅᓂᑦ ᐸᖅᑎᑎᐅᕐᑦ - Disturbance 2. ᐱᓕᕆᔨᐅᓕᐃᑐᑦ - Decreased reproductive productivity	ᐊᐅᑐᖅᑲᖓᓱᒪᓂᐅᑦ Not significant



ᑕᓚᐅᒥ
Marine Summary

ᐱᖃᓚᐅᑎᑦ Valued Component	ᐊᐅᐃᓂᖅᓯᖅ Residual Impact	ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅ Significance
ᑕᓚᐅᒥ - Marine Environment		
ᑕᓚᐅᑦ ᖃᓄᓕᔭᐅᓂᖏᓐᓄ Marine Water Quality	1. ᐅᓴᖃᖏᑦ ᐊᖏᔪᔭᐅᓪᓗᓂᑦᑕ ᑕᓚᐅᑦ ᐃᒪ ᐊᒻᓚᐅᓕᖏᓂᐅᓂᑦ - Water quality changes from shipping 2. ᓄᓇ ᑕᓚᐅᑦ ᐃᖏᓚᐊᖏᑐᖏᓐᓄᑦ ᐅᓂᖅᑕᕐᓂᓕᓂᑦ ᐃᓂᓐᓄ ᐃᑦᓚᐊᖏᓚᐅᓕᖏᓂᖅᑎᑦᓯᔭᑦ, ᓴᓚᒥᖏᓚᐅᓕᖏᓂᖅᑎᑦᓯᔭᑦ - Sediment into marine waters from site preparation, construction, and reclamation 3. ᑕᓚᐅᑦ ᐊᒻᓚᐅᓕᖏᓂᐊᓕᓂᑦ ᐅᓂᖅᑕᕐᓂᓕᓂᑦ ᐃᓚᓂᑦ ᐃᓕᓴᕐᓂᖅᑐᓂ - Marine water quality changes from site contact water	ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅ Not significant
ᑕᓚᐅᖅᑎᑦ ᐃᖅᓴᐃᑦ Marine Fish Community	1. ᑕᓚᐅᖅᑐᑦ ᐃᖅᓯᓕᐊᑦ ᐊᐅᓚᐅᓂᖅᑎᑦ ᓂᕆᑦᖅᑐᓯᑦ - Effects of noise on Arctic Char populations	ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅ Not significant

ᐃᓕᓴᕐᓂᑕᓚᓂᖅᓴᖅ & ᓴᓇᐅᒃᑲᓕᓚᓂᕆᓗ
Archaeology & Employment Summary

ᐱᖃᓚᐅᑎᑦ Valued Component	ᐊᐅᐃᓂᖅᓴᖅᓄᑦ Residual Impact	ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅ Significance
ᐃᓕᓴᕐᓂᑕᓚᓂᖅᓴᖅ - Archaeology		
ᐅᖃᖅᑕᐱᓕᐅᖅᓴᐅᓕᓚᑦ ᖁᓂᒋᓂᐅᑦ ᐃᓕᓴᕐᓂᑕᒃᓴᖅᓴᐅᓂᖅ ᐅᖃᓕᐅᓂᐱᖅᓴᐅᓂᖅ	1. ᓄᓇᐅᑦ ᖃᓄᖅᓄᑐᑕᒪᓕᖅᓂᖅ ᐱᓕᓚᐊᒪᓕᐅᖅᓴᐅᓂᖅᓴᓂᑦ ᓴᓇᓕᐅᓂᖅᓴᐅᓂᖅᓴᓂᑦ - Disturbance from ground altering activity and construction	ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅ Not significant

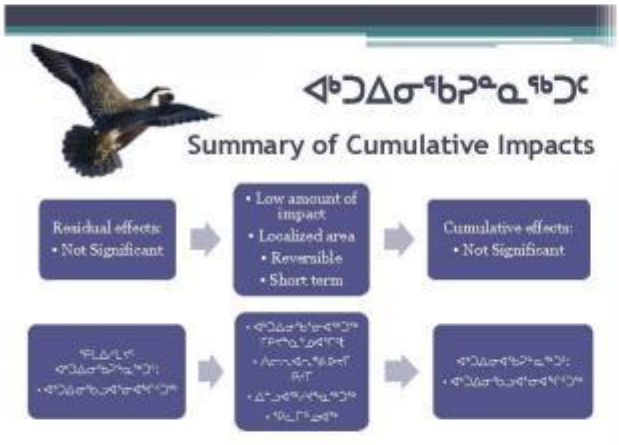
Sites located within 50 metres of Project Development Areas

ᐃᓕᓴᕐᓂᑕᓚᓂᖅᓴᖅ & ᓴᓇᐅᒃᑲᓕᓚᓂᕆᓗ
Archaeology & Employment Summary

ᐱᖃᓚᐅᑎᑦ Valued Component	ᐊᐅᐃᓂᖅᓴᖅᓄᑦ Residual Impact	ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅ Significance
ᓴᓇᐅᒃᑲᓕᓚᓂᖅᓴᖅ - Employment		
ᓴᓇᐅᒃᑲᓕᓚᓂᐊᓂᖅᓴᖅ Local Labour	1. ᓴᓇᐅᒃᑲᓕᓚᓂᑦ ᐅᓐᖑᖅᑕᐅᖃᑦᑕᕐᓂᖅ ᐃᓚᓂᑦ ᐊᒥᓗᓂᑦ ᐅᓐᖑᖅᑕᐅᖃᑦᑕᕐᓂᖅᓴᖅᑕᓚᓂᖅᓴᐅᓂᖅᓴᓂᑦ - Increase competition for local labour in Kitikmeot communities	ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅ Not significant
ᐊᓐᓂᐊᒋᐃᑦᓯᓂᖅ ᐃᐃᓐᓂᐊᕐᓗᒍ Health and Community Well-being	1. ᐃᓕᑭᖅᑐᓂᑦ ᑭᓚᐅᓴᑦ ᐊᑐᖅᑕᐅᖃᑦᑕᕐᓂᖅᑐᓂᑦ: ᐊᑐᖅᑎᓂᑦᓴᖃᑕᖅᓴᐅᓂᖅᑎᑦ - Changes to family spending: income spent unproductively 2. ᐃᓕᑭᑦ ᐊᓂᔪᖅᓱᒪᓕᖅᓴᐅᓂᖅᓴᓂᑦ - Changes in family structure	ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅ Not significant

ᓄᓇᐅᑦ ᐊᑐᖅᑕᐅᓂᖅᓴᓂᑦ
Land Use Summary

ᐱᖃᓚᐅᑎᑦ Valued Component	ᐊᐅᐃᓂᖅᓴᖅᓄᑦ Residual Impact	ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅ Significance
ᓄᓇᐅᑦ ᐊᑐᖅᑕᐅᓂᖅᓴᓂᑦ - Land Use		
ᐊᓂᓚᓚᑦ ᓄᓇᐅᑦ ᓴᓇᓕᐅᓂᖅᓴᓂᑦ ᓴᓇᓕᖅᑕᓚᐅᖅᓴᐅᓂᖅᓴᓂᑦ Non-traditional Land and Resources Use	1. ᓄᓇᐃᑦ ᐅᓐᖑᖅᑕᐅᖃᑦᑕᕐᓂᖅᓴᖅᑕᓚᓂᖅᓴᐅᓂᖅᓴᓂᑦ - Changes in access to land and resources 2. ᓄᓇᒻᓂᐅᖅᓴᖅᑕᕐᓂᑦ ᐊᓂᓚᓂᖅᓴᓂᑦ - Changes to the experience of the natural environment 3. ᓄᓇᒻᓂᑦ ᐊᒥᓂᓂᑦ ᐊᓂᓚᓂᖅᓴᓂᑦ - Changes to the abundance and distribution of resources	ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅ Not significant
ᓄᓇᒥᑦ ᐊᖏᓚᔪᓂᖅ ᐱᓕᕆᓚᐅᖅᓴᐅᓂᖅᓴᓂᑦ Subsistence Economy and Land Use		ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅ Not significant



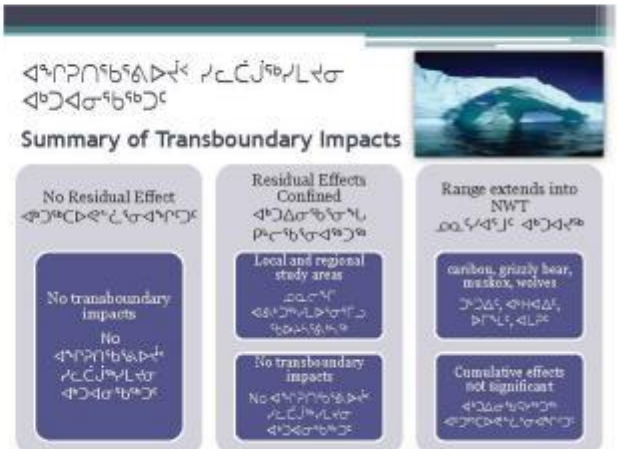
ᐊᐅᐃᓂᖅᐳᑭᓐᓇᖅᑐᑦ
Summary of Cumulative Impacts

Residual effects: • Not Significant → • Low amount of impact • Localized area • Reversible • Short term → Cumulative effects: • Not Significant

ᖃᓄᐃᓕᓴᕐᓂᖅ: • ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅᓴᓂᑦ

• ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅᓴᓂᑦ ᑕᒪᓐᓇᖅᑐᖅ • ᐱᓕᕆᓚᐅᖅᓴᐅᓂᖅᓴᓂᑦ ᐅᓂᖅ • ᐃᓕᓴᕐᓂᑕᓚᓂᖅᓴᐅᓂᖅᓴᓂᑦ • ᖃᓄᐃᓕᓴᕐᓂᖅ

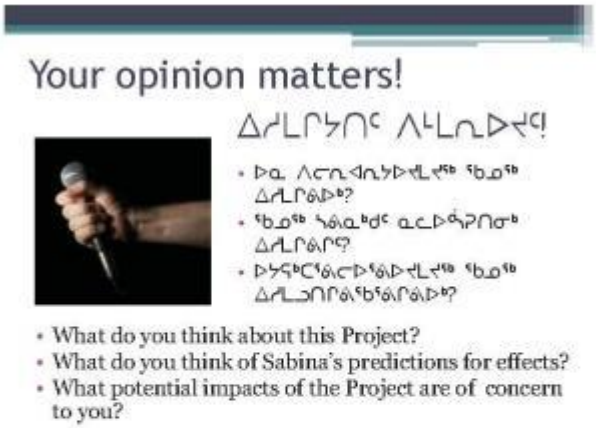
→ ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅᓴᓂᑦ: • ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅᓴᓂᑦ



ᐊᖏᑕᑎᓂᖅᓴᐅᓕᓚᑦ ᓱᓕᑕᒍᖅᓱᒪᓕᔪᓂ
ᐊᐅᐃᓕᓂᖅᓴᖅᑎᑦ
Summary of Transboundary Impacts

No Residual Effect ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅᓴᓂᑦ	Residual Effects Confined ᐊᐅᐃᓂᖅᓴᖅᑐᓂᑲ ᐅᓇᓂᖅᓴᖅᑐᓂᖅᓴᖅ	Range extends into NWT ᓄᓇᕗᒻᒥᑦ ᐊᐅᐃᓕᓂᖅ
No transboundary impacts No ᐊᖏᑎᑎᖅᓴᐅᓕᓚᑦ ᓱᓕᑕᒍᖅᓱᒪᓕᔪᓂ ᐊᐅᐃᓕᓂᖅᓴᖅᑎᑦ	Local and regional study areas ᓄᓇᓕᒻᒥ ᐊᖏᑎᑎᖅᓴᐅᓕᓚᑦᓴᓂᑦ ᖁᓇᓂᖅᓴᖅᑐᓂᖅᓴᖅ No transboundary impacts No ᐊᖏᑎᑎᖅᓴᐅᓕᓚᑦ ᓱᓕᑕᒍᖅᓱᒪᓕᔪᓂ ᐊᐅᐃᓕᓂᖅᓴᖅᑎᑦ	caribou, grizzly bear, muskox, wolves ᑐᓴᐃᑦ, ᐊᒥᐊᐃᑦ, ᐅᒥᓱᒻᒪᑦ, ᐅᑎᓱᒻᒪᑦ Cumulative effects not significant ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅ ᐊᐅᐃᓂᖅᐳᖃᓚᔪᓯᖅᓴᓂᑦ


Next Steps in the NIRB Review Process
• Summary Report from these meetings
• Interested parties conduct technical review of Sabina's Draft Environmental Impact Statement
• Meeting of technical experts
• Pre-Hearing Conference and Community Roundtable
• Pre-Hearing Conference Report with directions
• Sabina submits Final Environmental Impact Statement
◦ Last stage of NIRB's Review


Your opinion matters!
• What do you think about this Project?
• What do you think of Sabina's predictions for effects?
• What potential impacts of the Project are of concern to you?


Thank you for listening.
We want to hear from you!
1-866-233-3033 Call toll-free
867-983-2594 Fax
Email
- Mail comments to:
Nunavut Impact Review Board
PO Box 1360, Cambridge Bay, NU
X0B 0C0

APPENDIX C – The NIRB's Public Meeting Notice Materials

Notification Letter to distribution

March 13, 2014

Re: **Information Sessions for the NIRB's Review of the Back River Project**

The Nunavut Impact Review Board (NIRB) will be holding public information meetings in your community to discuss the environmental assessment of Sabina Gold & Silver Corp.'s proposed "Back River" project. These community meetings will be organized and facilitated by NIRB staff, and will provide an opportunity for community members to:

- Learn more about the NIRB;
- Learn more about the Back River project;
- Learn how to participate in the environmental assessment process; and
- Share thoughts and comments with NIRB about the project.

We are hoping to make these meetings a success and would ask for your help to advertise the meetings to help us encourage members of the public to attend. Attached is a poster (with translated version) – we hope you will help us by placing it on your bulletin board.

If you have any questions, please call me at the NIRB's toll free number: **1-866-233-3033** or send me an email at tarko@nirb.ca

Thank you for your help!

Tara Arko
Technical Advisor, A/Manager Technical Administration

Nunavut Impact Review Board
P.O. Box 1360 (29 Mitik)
Cambridge Bay, NU, X0B 0C0
Phone: 867-983-4611 or toll free: 1-866-233-3033
Fax: 867-983-2594
E-mail: info@nirb.ca
Web: www.nirb.ca

Newspaper Advertisements

Nunavut Impact Review Board
NOTICE OF PUBLIC MEETINGS

The Nunavut Impact Review Board (NIRB) is an Institution of Public Government with responsibilities for the environmental assessment of proposed projects in Nunavut as described in Article 12 of the Nunavut Land Claims Agreement (NLCA).

Back River Project Community Information Meeting

The NIRB is holding Public Meetings to discuss its Review of Sabina Gold & Silver Corp.'s proposed "Back River" project.

The NIRB invites the public to attend these meetings to learn more about:
- Sabina Gold & Silver Corp.'s Draft Environmental Impact Statement for the proposed **Back River** project
- The **NIRB's review** process
- How **YOU can participate** in this public review

This is an opportunity for **YOU** to **ask questions** and provide input into the NIRB's assessment!

Community	Location	Date	Time
Kugluktuk	Community Complex	March 24	2-4 pm & 6:30 pm
Cambridge Bay	Elder's Palace	March 25	2-4 pm & 6:30 pm
Gjoa Haven	Gideon Qitsualik Memorial Center	March 26	2-4 pm & 6:30 pm
Kugaaruk	Community Hall	March 27	2-4 pm & 6:30 pm
Taloyoak	E.W. Lyall Recreation Complex Community Hall	March 28	2-4 pm & 6:30 pm
Yellowknife	Northern United Place	April 1	2-4 pm & 6:30 pm

Meeting times to be announced on local radio stations, cable channels, and posted flyer advertisements

Snacks and refreshments will be served

Simultaneous interpretation will be provided

Contact us!
Nunavut Impact Review Board
P.O. Box 1360, Cambridge Bay, NU X0B 0C0
Phone toll-free: 1-866-233-3033
Email: info@nirb.ca
Fax: 1-867-983-2594

Nunavumi Avatiligiyit Katimayit
TUHAKTIGUTIKHAIT INUIT KATIMAPKAINIAKTUT

Nunavumi Avatiligiyit Katimayit (NIRB) ilauyut havakviit Inuit Kavamaligiyit munagiyut avatiligiyianik ihivgiugutait uktugumayainik hanayakhat Nunavumi, titigakhimayut ilangani 12 Nunavumi Nunataagutit Angigutaanut (NLCA).

Haningayuk Hanayakhat Nunait Tuhakgituitkhainik Katimaniaktut

NIRBkut piniaktut Inuit Katimapkialutik ukagiaganik ihivgiugutikhait Sabina Gold & Silver Corp.'s uktugumayait Hanaingayuk hanayakhat.

NIRBkut kaitkuyut Inunut ilaukataulutik hapkoa katimaniaktut naluhuigiaganik hapkoa:
- Sabina Gold & Silver Corp.'s Titigakhimayait Avatiligiyit Ikpinagutait Ukautaiik uktugumayainik **Haningayuk** hanayakhat
- **NIRBkut ihivgiugutait** atugutikhait
- Kanuk **ilvit ilaulaaktutit** hamani Inuit ihivgiugtainik

Hamna pilaaniaktat **ilvit apigiyaanganik** ovalo **tuniyaanganik ikayugutikhainik** ilanganut NIRBkut ihivgiugutait!

Nunait	Nani	Ublua	Upluhiutaa
Kugluktuk	Nunait Olapkiviani	March 24mi	2-4 pm & 6:30 pm
Ikaluktutiak	Inutkutjat Katimaviani	March 25mi	2-4 pm & 6:30 pm
Ukhuktuuq	Gideon Qitsualik Olapkiviani	March 26mi	2-4 pm & 6:30 pm
Kugaaruk	Kamiunitihaami	March 27mi	2-4 pm & 6:30 pm
Taloyoak	E.W. Lyall Olapkivianil	March 28mi	2-4 pm & 6:30 pm
Yellowknife	Northern United Place	April 1mi	2-4 pm & 6:30 pm

Katimatjutikhait ubluit ovalo ublukhiutait tuhaktitauniaktu nunaini naalautainut, TVkut ovalo taigauktakhainut.

Nigipkainiaktut
Ukaktikaniaktut

Takulutai
Nunavumi Avat iligiyit Katimayit
Titigakvia: P.O. Box 1360, Ikaluktutiak, NU X0B 0C0
Foninga Akiltuk: 1-866-233-3033
Kagitauyakut: info@nirb.ca
Sukatukut: 1-867-983-2594

Nunavut Impact Review Board
NOTICE OF PUBLIC MEETINGS

The Nunavut Impact Review Board (NIRB) is an Institution of Public Government with responsibilities for the environmental assessment of proposed projects in Nunavut as described in Article 12 of the Nunavut Land Claims Agreement (NLCA).

Back River Project Community Information Meeting

The NIRB is holding Public Meetings to discuss its Review of Sabina Gold & Silver Corp.'s proposed "Back River" project.

Yellowknife - Northern United Place –
April 1, 2014 Open House from 2:00-4:00 p.m. &
Presentation at 6:30 p.m.

The NIRB invites the public to attend these meetings to learn more about:

- Sabina Gold & Silver Corp.'s Draft Environmental Impact Statement for the proposed **Back River** project
- The **NIRB's Review** process
- How **YOU can participate** in this public review

This is an opportunity for the **YOU** to **ask questions** and **provide input** into the NIRB's assessment!

Snacks and refreshments will be served

Contact us!
Nunavut Impact Review Board
Phone Toll-Free: 1-866-233-3033
Email: info@nirb.ca
PO Box 1360, Cambridge Bay, NU X0B 0C0
Fax: 1-867-983-2594

Radio Announcement Example

March 7, 2014
Public Radio Announcement

Hello Taloyoak Radio Station Committee,

The Nunavut Impact Review Board (NIRB) will be coming to visit your community and will be holding a Public Information Session for the **Back River Project** on March 28th, 2014 and we would greatly appreciate your assistance in helping to make the meetings a success.

We kindly ask that you make the announcement on the next page during your on-air times in English and Inuktitut. If you could announce it daily from March 14th until our meeting March 28th, it would be greatly appreciated.

If you have any questions, please call Tara Arko at the NIRB, toll free: 1-866-233-3033. We look forward to seeing you soon.

Quana,
Tara Arko
Nunavut Impact Review Board

Public Radio Announcement:

The Nunavut Impact Review Board is holding Public Information Sessions to update communities on the NIRB's Review of Sabina Gold and Silver's proposed Back River Gold Mine Project.

The Nunavut Impact Review Board will be at the E.W. Lyall Recreation Complex on Friday, March 28th for:

- An open house for the public from 2 to 4 p.m. and
- A public meeting starting at 6:30 p.m. with a presentation and a chance for community members to ask questions and share comments about the proposed Back River mine project.

Stop by for coffee or tea, and share your thoughts and comments about the proposed mine development. Door prizes will be given away and the Nunavut Impact Review Board staff will be listening to your questions and comments.

All members of the public are welcome to attend these meetings and interpretation will be available.

ᑐᓴᕆᕋᖅ ᐃᓕᐅᑎᑦᑯᑦ

Hᐊᓗ ᑕᓗᖅᓯᐊᕐᓂ ᐃᓕᐅᔪᓐᓇᓂ ᑲᑎᒪᔨᕆᓭᓐᓂᕐᒥᑦ,

ᓄᓇᕗᒥ ᐊᕐᑎᑕᓐᓇᓂ ᑲᑎᒪᔨᑦ (NIRB) ᓄᓇᕆᔨᓄᖅᑐᐅᔨᒪᓕᖅᑐᑦ ᐃᓄᖅᓂᒃ ᑲᑎᒪᓕᕹᒥᑦᑐᑎᒃ ᓴᓂᓂᒃᑯᑦᑎᓐᓂᒃ ᑭᖑᓂᖓᓕᕆᔨᒃ ᐅᖃᖅᑕᕆᔨᖅᑕᐅᔨᒪᓕᕆᓂᖅᓂᒃ ᐅᖃᐅᔨᖅᓴᕐᓗᖅᑐᑦᑎᓐᓂᒃ ᐃᓐᓇ 28th, 2014 ᐃᑲᔪᖅᑕᐅᔪᓐᓇᕐᓂᔪ ᖃᓄᖅᑕᕆᔨᓄᑦᑐᑦ ᑲᑎᒪᑎᔨᓴᖅᑎᑦᓯᑕ.

ᒪᓴᐱᖏᑦ ᑐᓴᕐᐊᑯᑎᓂᒃ ᐅᖃᐅᔨᓴᖅᑎᑕᐅᓇᕐᓂᐅᒃ ᐃᓄᒃᑎᑦ ᖃᑦᓯᓇᑦᑎᖅᑐᓪᓗ. ᐅᑦᓗ ᑕᒪᓐᓇ ᐅᖃᐅᔨᓴᖅᑎᑕᐅᓇᕐᓂᐅᒃ ᐅᑯᐊ ᐃᓕᓴ 14th ᒥᑦ ᐱᒋᐊᖏᓯᒍ ᑲᑎᒪᓐᓇᖅ ᑎᑭᔨᐊᓴᓇᓯᒍ ᐃᓕᓴ 28th, ᖃᑦᓯᓪᓗᐊᕐᓴᖅᑐᑦ.

ᐊᐱᕆᖅᑯᑎᒃᓴᖅᑭᕐᒪᑦ, ᑎᐅᕆ ᐊᖏᑯ ᑐᓴᓇᐊᖏᔪᓴᖅᑕᑦ ᐊᕐᑎᑕᓐᓇᓵᑯᓐᑕᖅᖢᒥ, ᐊᑭᖅᖠᕐᑕᑐᓵᑯᑦ ᐅᖃᓵᓕᒫᑐᓗ: 1-866-233-3033. ᓂᓇᐅᒋᕐᔪ ᖃᓂᑕᓵᑯᑦ ᑕᑯᖅᑎᑎᒍᒪᓕᖅᐳᒍᑦ.

ᖃᑦᓴᓴᖅᑐᖓᓗᒃ,
ᑎᐅᕆ ᐊᖏᑯ
ᓄᓇᕗᒥ ᐊᕐᑎᑕᓐᓇᓂ ᑲᑎᒪᓗᓵᑦ ᓴᓇᓗ

ᑐᓴᕆᕋᖅ ᐃᓕᐅᑎᑦᑯᑦ:

ᓄᓇᕗᒥ ᐊᕐᑎᑕᓐᓇᓂ ᑲᑎᒪᓗᑕ ᓴᓇᓵᑦ ᐃᓄᖅᓂᒃ ᑲᑎᒪᔨᖅᑕᐃᔨᒪᓕᖅᑐᑦ ᓴᖃᓇᓴ ᔪᓕᓐ ᓯᐅᑦᕗᖅᑯᑦ ᐅᔨᓗᒥᒪᑦ ᐄᓴᐅᓂᕐᒥᑦ ᐅᖃᐅᔨᓴᖅᑎᑕᐅᓇᕐᓂᐅᒃᑐᑦ ᑐᐃᒪᖅᑎᑕᐅᓇᕐᓂᐅᒃᑐᑦ ᑐᐃᓐᓇᖅᑐᑦᑎᓐᓂᒃ ᑐᐃᐅᒪᖅᑐᑦᑎᓐᓂᒃ.

ᓄᓇᕗᒥ ᐊᕐᑎᑕᓐᓇᓂ ᑲᑎᒪᓗᑕ ᓴᓇᓵᑦ ᑐᓂᓯᖃᐃᓕᓴᖅᑐᑦ on ᑕᑦᑕᒪᒥᐅᑦ ᐃᓕᓴ 28 ᐅᑯᐊ ᐱᓯᒪᒋᑦᓴᑦᑕ:
• ᐃᓄᖅᓂᒃ ᑐᖓᓕᓴᓇᓴᒃᑐᒥ ᐊᐱᕆᑯᑎᒃᓴᖅᑭᖅᑕᓄᑦ ᑭᐅᒪᖅᑕᕆᑦᑎᓐᓂᒃ 2-ᒥᒃ 4 ᔪᑦ ᐅᑦᓗᒃᑯᑦ ᔪᓕᓗ
• ᐃᓄᖅᓂᒃ ᑲᑎᒪᑦᑲᐃᔨᖅᑐᑦ 6:30 ᐅᓐᓄᒃᑦ ᑕᕆᓴᐅᑎᒃᑯᓗ ᑲᑎᓴᑦᑲᐃᑎᕆᔨᓴᑎᓐᓄᑦᓗ ᐊᐱᖅᑯᑎᒃᓴᓪᓗ ᐊᐱᖅᔨᒪᖅᑕᕐᓄᑦᓗ ᓴᓇᓵᑦ ᐅᓴᖅᑕᕆᑦᑎᓐᓂᒃᑯᑦ ᐱᓯᒪᓕᖅᑐᖓᓄᑦ ᑭᔪᑦ.

ᑲᐱᑐᐊᕐᓗᑎᑦ ᑯᑐᑐᐊᕐᖅᑐᓗᑎᒃᓴᓐᓂᑦ ᐃᔨᒪᑎᕐᑎᑦ ᐅᓴᖅᑕᕆᑦᑎᓐᓂᒃᑯᑦ ᑲᑎᒪᔨᓗᒥᒃ ᑭᖑᓂᖓᓕᕆᔨᒃᑐᐃᓐᓇᖅᑐᑦ. ᐊᒧᓴᖅᓴᖅᑕᕆᔨᖅᑐᓄᑦ ᓄᓇᕗᒥ ᐊᕐᑎᑕᓐᓇᓂ ᑲᑎᒪᓗᑕ ᓴᓇᓵᑦ ᐃᓕᕆᖅᑕᕆᔨᖅᑐᑦ ᐊᐱᖅᑯᑎᒃᓴᖅᑭᖅᑕᕆᔨᖅᑐᑦᑎᓐᓂᒃ ᐅᖃᖅᑕᕆᔨᖅᑐᑦᑎᓐᓂᒃᑯᑦ.

ᓯᓚᑐᐃᓐᓇᖅᑐᑦ ᐃᓄᖅᓂᒃ ᐅᖃᓕᒫᓂᒃ ᐃᓕᓴᐅᔪᓐᓇᕐᓂᐅᒃ ᑲᑎᒪᔨᓗᒥᒃ ᐅᖃᐅᔨᓴᖅᑎᑕᐅᓇᕐᓂᐅᒃ ᑐᓂᓯᖃᐃᓕᓴᖅᑐᑦ ᐊᐱᖅᑯᑎᒃᓴᖅᑭᖅᑕᕆᔨᖅᑐᑦᑎᓐᓂᒃᑯᑦ.

ᓯᓚᑖᓂᒃ ᑲᑎᒪᔨᖅᑕᐅᓇᕐᓂᐅᒃ ᐃᓄᖅᓂᒃ ᑲᑎᒪᔨᖅᑕᐅᓇᕐᓂᐅᒃ ᑐᓂᓯᖃᐃᓕᓴᖅᑐᑦ.

Public Radio Announcement:

The Nunavut Impact Review Board is holding Public Information Sessions to update communities on the NIRB's Review of Sabina Gold and Silver's proposed Back River Gold Mine Project.

The Nunavut Impact Review Board will be at the Elder's Palace on Tuesday, March 25th for:

- An open house for the public from 2 to 4 p.m. and
- A public meeting starting at 6:30 p.m. with a presentation and a chance for community members to ask questions and share comments about the proposed Back River mine project.

Stop by for coffee or tea, and share your thoughts and comments about the proposed mine development. Door prizes will be given away and the Nunavut Impact Review Board staff will be listening to your questions and comments.

All members of the public are welcome to attend these meetings and interpretation will be available.

Kitunuliqaak Naalautikkut Naunaiyainiq:

Una Nunavut Avatiliriyiit Katimayiit Kitunuliqaak Naunaiyainikhamut Katimapkainiaqtut naunaiyaivlutik nutaannguqhimayangit katimadjutingit pulaarlutik nunalingnut haffuminngat NIRB Ihivriuqhimayangit ukuninngat Sabinaup Kulungit Havigalit tukhiutaanit Hanningayup Kugaa Kulu Uyaraqtarvik Havaariyakhaat.

Una Nunavut Avatiliriyiit Katimayiit katimapkainahuaqtut uvani Inutkutjakakvimi, Qiqailruq 25th, 2014 ukuninngat:

- Tiituquilutik takugakhaqarlutik kitunuliqaak takuyumayut 2 mukpat 4 mit unalu
- Kitunuliqaak katimalutik pilihaarlutik uvani 6 qaangiqqat takupkailutik apirilutiktauq apiqquutikhatigut uqarvigilugillu nunaqatigiiktut haffuminnga tukhiqhimayut Hanningayup Kugaa uyaraqtarik havaariyangit.

Kaapiturahuarlutit tiiturahuarlutilluniit, ihumagiyatit kiuyumayumaguvit haffuminngat tukhiutiniit uyaraqtarvik havaariyangit. Taktakhaqarlutik amuyakhanit tuniyauhunnguyut unalu Nunavut Avatiliriyiit Katimayiit havaktiita naalakhimaniaqtut apiquutit kiuvitillu.

Kitkut ilauqatauhimayut tunngahuktut katimalaaqhutik uqaqtiuyuqarniaqtuq.

Poster/Flyer Example

Cable/TV Advertisement

Nunavut Impact Review Board

is coming to your community for **Public Information Sessions** about the **Back River** project:

Community	Date	Meeting Place	Time
Kugluktuk	March 24	Kugluktuk Community Complex	2-4 p.m. & 6:30 p.m.
Cambridge Bay	March 25	Elder's Palace	2-4 p.m. & 6:30 p.m.
Gjoa Haven	March 26	Gideon Qitsualik Memorial Center	2-4 p.m. & 6:30 p.m.
Kugaaruk	March 27	Community Hall	2-4 p.m. & 6:30 p.m.
Taloyoak	March 28	E.W. Lyall Recreation Complex	2-4 p.m. & 6:30 p.m.
Yellowknife	April 1	Northern United Place	2-4 p.m. & 6:30 p.m.

Share your thoughts on the Back River proposal

Enjoy refreshments and door prizes

For more information contact the NIRB office toll-free 1-866-233-3033 or email info@nirb.ca

Nunavumi Avatiligiyit Katimayit

Kainiaktut nunanut mikhaanut **Inuit Tuhaktigutikhainik Katimapkailutik** hamunga **Haningayuk** hanayakhat:

Nunait	Ublua	Katimaniaktut Hamani	Ublukhiutlanik
Kugluktuk	March 24mi	Kugluktuk Nunait Ulapkiviani	2-4 p.m. & 6:30 p.m.
Ikaluktutiak	March 25mi	Inutkutjakakvimi	2-4 p.m. & 6:30 p.m.
Ukhuktuuq	March 26mi	Gideon Qitsualik Ulapkiviani	2-4 p.m. & 6:30 p.m.
Kugaaruk	March 27mi	Kamiunitihaami	2-4 p.m. & 6:30 p.m.
Taloyoak	March 28mi	E.W. Lyall Olapkiviani	2-4 p.m. & 6:30 p.m.
Yellowknife	April 1mi	Northern United Place	2-4 p.m. & 6:30 p.m.

Tuhaktitlugit mikhaanut Haningayuk uktugumayainik

Aliahuklugit nigipkainiaktut ovalo takhipkainahuaniaktut

Tuhafaagumaguvit takulugit NIRBkut titigakviani

Foninga akituk 1-866-233-3033 ovalunit kagitauyakut hamani: info@nirb.ca

ᓄᓇᕗᒻᒥ ᐊᖏᑎᓕᖅᓯᓂᖅᑯᓗᒃ ᑲᑎᒪᔨᖏᑦ

ᓄᓇᕗᑦᓄᓕᒫᒥᒐᓕᒫᒥᒃᓯᒪᓕᒐ ᑭᖑᓂᕐᒧᑦ ᑐᓴᖏᑎᓂᕐᒧᓐᓇᖅ ᑲᑎᒪᔨᖏᑎᓂᕐᒧᑐᑎᒃ ᐅᖃᐅᓯᖏᓐᓂᒃ ᐸᖅᑲᓇᐅᑉ ᐊᑐᓕᖏᓐᓂᒃ ᑎᑎᕋᐅᓕᖅᑐᑦ.

ᓄᓇᕗᒻᒥ	ᐅᖃᓕᒫ	ᓇᓂ	ᖃᐅᔨᓴ
ᖃᓄᐃᓕᖅᑐᖅ	ᒪᕐᕉ 24	ᖃᓄᐃᓕᖅᑐᒃᑐᒥ ᐱᓕᕆᔨᖃᑦᑕᕐᕕᒃ	2ᒥ 4ᔪ ᖁᕐᒪ 6:30ᒥ
ᐃᓕᓴᕐᑎᑐᖅ	ᒪᕐᕉ 25	ᐃᓕᓐᓇᐃᑦ ᐃᓕᓴᕐᓴᓂᓂ	2ᒥ 4ᔪ ᖁᕐᒪ 6:30ᒥ
ᐅᕙᓪᓕᐊᓂᖅ	ᒪᕐᕉ 26	ᑎᑎᕋᓕ ᖃᑦᓯᐊᓂᓕ ᐃᓕᓴ	2ᒥ 4ᔪ ᖁᕐᒪ 6:30ᒥ
ᑯᐃᒃᓱᓕ	ᒪᕐᕉ 27	ᐱᓕᕆᔨᖃᑦᑕᕐᕕᒃ	2ᒥ 4ᔪ ᖁᕐᒪ 6:30ᒥ
ᑕᓗᒋᐊᖅ	ᒪᕐᕉ 28	E.W. ᓕᐃᐅᑦ ᐱᓕᕆᔨᖃᑦᑕᕐᕕᒃ	2ᒥ 4ᔪ ᖁᕐᒪ 6:30ᒥ
ᓴᓇᓀᐃᖅ	ᐃᓗᓕᖅ 1	ᓄᐊᑕᓐ ᐋᓐᐃᑕᑦ ᐃᓕᓴ	2ᒥ 4ᔪ ᖁᕐᒪ 6:30ᒥ

ᐃᓱᒪᓕᓴᐅ ᑐᓴᖅᑕᐅᑎᓱᐅᒃ ᐅᖃᐅᓱᖃᖅᑎᑕᓪᓗᑕ ᐸᑦ ᓇᐅᔪ ᑐᓴᕋᐅᑎᐅᓱᒪᓕᒃᑎ

ᑕᒪᓗᑎᒃᓴᖅᑕᖃᖅᑐᓂᒃ ᖁᕐᒪ

ᐋᒪᓂᕐᓂᖅᓴᓂᒃ ᐅᖃᐅᓯᖏᓐᓂᒃ ᓄᓇᕗᒻᒥ ᐊᖏᑎᓕᖅᓯᓂᖅᑯᓗᒃ ᑲᑎᒪᔨᖏᑦ

ᑎᑎᕋᐅᓕᖅᑐᑦ ᐊᐅᖅᑭᑦᑐᖅ 1-866-233-3033 ᐅᖃᐅᓯᓂᒃ ᖃᓄᐃᓕᖅᑐᒃ info@nirb.ca

Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	Sunday April 27, 2014 (7:00pm)
TYPE OF MEETING	Radio Call-in Show
LOCATION	Radio Station Cambridge Bay, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Jason Prno (Sabina)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

John Kaiyogana and Jason Prno delivered a Project overview and update on the Cambridge Bay community radio station. The phone lines were then opened for public questions and comments.

No radio listeners called-in.

Radio show adjourned at 7:45pm.

Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	Monday April 28, 2014 (12:00pm)
TYPE OF MEETING	Radio Call-in Show
LOCATION	Radio Station Cambridge Bay, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Jason Prno (Sabina)
COMMENTS	Jason Prno took meeting notes.

MEETING NOTES:

John Kaiyogana and Jason Prno delivered a Project overview and update on the Cambridge Bay community radio station. The phone lines were then opened for public questions and comments.

Q – What percentage of Inuit will you be hiring? You mention you will have a 10 year mine life; how do you know the mine will operate for that long? Other mines have made promises like that and closed down early. Will your mine hurt the caribou populations? How are you going to monitor the caribou?

Q – What contractors do you have on site? You might want to mention that people can apply to those contractors directly for work as well.

Q – To apply for work at Sabina do you have to be a Nunavut beneficiary? Are you hiring right now?

Radio show adjourned at 12:45pm.

MEETING INFORMATION	
DATE	April 29, 2014
TYPE OF MEETING	Meeting to discuss proposed fish offsetting work to be conducted at Bernard Harbour and the associated TK study
LOCATION	Kugluktuk HTO offices Kugluktuk, Nunavut
ATTENDEES	Jason Prno (Sabina) John Kaiyogana (Sabina) Max Brownhill (Sabina; via phone) Kugluktuk HTO representatives
COMMENTS	N/A

MEETING NOTES:

Jason Prno and Max Brownhill discussed the proposed fish offsetting work to be conducted at Bernard Harbour and potential provisions of the Bernard Harbour Restoration Project Agreement to be signed between the Kugluktuk HTO and Sabina. Plans for the associated TK study were also reviewed, as was a tentative schedule for the above-mentioned activities.

Q – We would like one of the objectives of the agreement to be to involve local high school students in the project and to transfer knowledge to them.

Q – When would the project be completely handed over to the HTO?

Q – The HTO hires 4-6 high school summer students each year. Sabina and Golder could make use of these students while at Bernard Harbour.

Q – What is the potential youth involvement in the TK study?

Q – Data obtained during the TK study should be shared amongst Nunavut groups. Should the Nunavut Wildlife Management Board get a copy of the data?

Q – TK study participants should have the option of remaining confidential.

Q – For the Bernard Harbour site visit you mentioned, would you be going by boat or plane? Would you bring youth along? Could Kugluktuk participants come by boat the day before and stay the night?

Q – The HTO would like to learn how to manage the stream restoration work ourselves. The HTO would like a plan developed that outlines how we could do this and we would like to see people become trained to do so.

Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	Tuesday October 28, 2014 (5:30pm)
TYPE OF MEETING	Meeting with Bathurst Inlet and Bay Chimo residents – Project Update
LOCATION	Northwest Passage Room, Arctic Islands Lodge Cambridge Bay, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Jason Prno (Sabina) Various residents of Bathurst Inlet and Bay Chimo (see sign-in sheet)
COMMENTS	John Kaiyogana took meeting notes. Eva Avadluk provided interpretation services.

MEETING NOTES:

Jason Prno delivered a Project update presentation and overview of the upcoming NIRB technical meeting / pre-hearing conference.

Q – How tall will the berm around the tailings facility be? Will it be tall enough to hold all the rain and snow we receive, in addition to the tailings?

Q – What will you do to keep the birds out of the tailings facility?

Q – Will all of the cyanide be destroyed before it enters the tailings facility?

Q – How much cyanide will you be using, in litres?

Q – How many Inuit are you projecting to hire?

Q – What kind of training programs will you be developing for Inuit?

Q – Will training programs be offered through Arctic College?

Q – Will a person with basic skills be able to work at Back River? For example, someone who drives heavy equipment or is a carpenter?

Meeting adjourned at 6:45pm, group dinner followed.

Sign-in Sheet

Meeting: Bathurst Inlet & Bay Chimo Residents (Cambridge Bay)

Date: October 28, 2014

Sabina GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	LENA KAMOAYOK	
2	JESSIE KAPOLAK	
3	Peter Kapolak	
4	Nancy Haniliak	
5	Martin Kapolak	
6	Ella Panegyuk	
7	Lucy HANILIAK	
8	Emma Klengenberg	
9	Chelsea Klengenberg	
10	CLARENCE KLENGENBER	
11	CONNIE KAPOLAK	
12	Johnny Avalak	
13	Heather Kigjugalik	
14	GWEN TIKHAK	
15	Joseph TIKHAK	
16	ALLEN KAPOLAK	
17		
18		
19		
20		

Nunavut Impact Review Board
Pre-hearing Conference Decision
Concerning the Back River Project (NIRB File No. 12MN036)
Proposed by
Sabina Gold & Silver Corporation

Date of Pre-hearing Conference: November 17-19, 2014

Date of Decision: December 19, 2014

Nunavut Impact Review Board (NIRB)

P.O. Box 1360
29 Mitik Street
Cambridge Bay, NU, Canada,
X0B 0C0

Phone: (867) 983-4600
Fax: (867) 983-2594

Email: info@nirb.ca
Online Registry: http://ftp.nirb.ca
Website: www.nirb.ca

Table of Contents

List of Appendices

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List of Acronyms

AANDC - Aboriginal Affairs and Northern Development Canada
ASPPR - Arctic Shipping Pollution Prevention Regulations
AWAR - All Weather Road/All Weather Access Road
DEIS - Draft Environmental Impact Statement
DFO - Fisheries and Oceans Canada
EC - Environment Canada
EIS - Environmental Impact Statement
FEIS - Final Environmental Impact Statement
GN - Government of Nunavut
GNWT - Government of the Northwest Territories
HTO - Hunters and Trappers Organization
IIBA - Inuit Impact Benefit Agreement
IR - Information Request
KIA - Kitikmeot Inuit Association
LKDFN - Lutsel K'e Dene First Nation
NIRB - Nunavut Impact Review Board
NLCA - Nunavut Land Claims Agreement
NPC - Nunavut Planning Commission
NRCan - Natural Resources Canada
NSA - Nunavut Settlement Area
NTI - Nunavut Tunngavik Incorporated
NWB - Nunavut Water Board
OPEP - Oil Pollution Emergency Plan
PHC - Pre-hearing Conference
TC - Transport Canada
VEC - Valued Ecosystem Component
VSEC - Valued Socio-Economic Component
YKDFN - Yellowknives Dene First Nation

Executive Summary

In accordance with the mandate and objectives of the Nunavut Impact Review Board (NIRB or Board) established under Article 12 of the *Nunavut Land Claims Agreement* (NLCA) the NIRB recently concluded the technical review and pre-hearing conference stages of the Board's assessment of the potential ecosystemic and socio-economic effects of the Sabina Gold and Silver Corporation's (Sabina or the Proponent) Back River Project Proposal (NIRB File No. 12MN026) (the Project). This part of the Board's review of the Project involved the following steps (as outlined below and discussed in more detail in the sections that follow):

- The discussion at Technical Meetings held in Cambridge Bay on November 13, 14 and 15, 2014 of technical review comments provided by various intervenors on the *Draft* Environmental Impact Statement (DEIS) filed by the Proponent with the Board on January 20, 2014;
- The further consideration of the DEIS and the Project in general during Community Roundtable Sessions hosted by the Board in Cambridge Bay on November 17 and 18, 2014 with the participation of members of the public and designated community representatives from the communities in the Kitikmeot Region and the Northwest Territories most likely to be affected by the Project; and
- A Pre-hearing Conference held by the Board on November 19, 2014 to discuss the process and procedure leading to the Proponent's submission of a Final Environmental Impact Statement and the Board conducting a Final Hearing for the Project.

Leading up to the Technical Meeting and at the Technical Meeting, the Proponent made close to 400 commitments to address the technical comments, questions and concerns about the *Draft* Environmental Impact Statement and the Project expressed by technical experts and the Board staff. The commitments agreed to by the parties at the Technical Meeting were recorded by the Board staff and are included in Appendices 1 and 2. As summarized by several intervenors at the Pre-hearing Conference, assuming that Sabina fulfills their commitments in a timely manner and complies with the specific direction and intention of the NIRB's Guidelines for the Preparation of the EIS for the Project (EIS Guidelines), many of the technical issues identified by the intervenors during their review of the *Draft* Environmental Impact Statement could be resolved prior to or at the time Sabina submits the Final Environmental Impact Statement. In addition, however, the Board notes that there were also substantive issues identified at the Community Roundtable and during the Pre-hearing Conference that may not be fully addressed in the Proponent's existing commitments. On this basis, the Board encourages Sabina to continue with its co-operative approach to resolving issues to the extent possible in order to address any outstanding issues raised in these contexts as well.

During the Community Roundtable the Board heard that there is a need for employment in the Kitikmeot Region and many Kitikmeot communities would welcome the training, educational,

business, and employment opportunities that the Project could bring. However, participants also indicated that several key areas of concern remain that must be addressed in a thorough and comprehensive way in the Final Environmental Impact Statement and the latter stages of the assessment of the Project, including the following:

- Potential for direct, indirect and cumulative effects to caribou and important caribou habitat;
- The location and method of containment of mine tailings;
- Protection of local water systems and wildlife from exposure to wastes and other contaminants;
- Potential for impacts to the marine environment, including impacts within Bathurst Inlet, as well as upon marine mammals, birds and fish from shipping, including potential fuel spills and emergency response roles, responsibilities and capabilities;
- Support for communities, education and training for youth;
- Navigability of Bathurst Inlet, placement of a dock infrastructure and the alignment of winter roads for the project; and
- Impacts to wildlife and wildlife harvesting from project activities, including caribou, grizzly bears, fish, birds and other animals.

On the basis of the Board's review of the Draft Environmental Impact Statement and reflecting the outstanding issues and concerns expressed by intervenors, community representatives and members of the Public, the Board directs the Proponent to ensure that the Final Environmental Impact Statement is supplemented and improved in respect of the following, as further elaborated within Section 3.3.4 of this report:

- Engagement efforts with communities, residents and organizations in the Kitikmeot Region regarding planned project shipping, including a revised assessment of the marine environment;
- Consideration of project infrastructure in terms of waste management, water management and relevant mitigation and monitoring measures;
- Updates to draft management, mitigation and monitoring plans for the proposed development;
- Further discussion and assessment of potential project impacts to caribou and caribou harvesting, mitigation, adaptive management and monitoring measures;
- Address areas of uncertainty in impact predictions; and
- Provide revisions to its cumulative effects assessment.

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ᒪᓕᒡᓗᒋᒃ ᑐᑭᒧᐊᕈᑎᒃᓴᖓᑦᑎᒍᑦ ᐊᒻᒪᓗ ᐃᓱᒪᒋᔭᒃᑯᑦ ᐱᓇᓱᐊᒐᓇᔭᐅᔪᒪᔪᑎᖏᑦᑎᒍᑦᓗ ᓄᓇᕘᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓂᑦ (NIRB ᐅᕝᕙᓘᓐᓃᑦ ᑲᑎᒪᔩᑦ) ᓴᖅᑭᖅᑎᑕᐅᓯᒪᔪᑦ ᐃᓛᒃᑯᑦ 12 ᓄᓇᕗᒻᒥ ᓄᓇᑖᕐᓂᕐᒧᑦ ᐊᖏᕈᑎᑦ (NLCA) ᓄᓇᕘᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᐅᓂᒃᑳᓕᐊᓅᖓᔪᓂᒃ ᑲᑎᒪᔾᔪᑎᖃᓅᕋᑖᔪᔪᑦ ᐊᒻᒪᓗ ᓯᕗᓪᓕᕐᒥᒃ ᑎᒥᒋᔭᐅᔪᑦ ᐃᓄᐃᑦᑐ ᑲᑎᒪᑎᑦᑐᒋᑦ ᓄᓇᕘᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᖃᐅᔨᓴᕈᑎᕆᓕᖅᑕᖏᓐᓂᑦ ᐊᔭᑎᒥᐅᑕᓃᑦᑐᑦ ᐊᒃᑐᖅᑕᐅᓯᒪᖃᓯᐅᔾᔭᐅᑐᐃᓐᓇᓇᐊᖃᖅᓂᖏᓐᓂᒃ ᐊᒻᒪᓗ ᐃᓄᐃ-ᐱᕙᓪᓕᐊᔾᔪᑕᐅᔪᓐᓇᖅᑐᑦᑐ ᓴᕝᕕᓇ ᒍᓕ ᓯᐅᕐᕗᖅ ᑯᐊᐳᓇᓴᒃᑯᑦ (Sabina ᐅᕝᕙᓘᓐᓃᑦ ᐱᓕᕆᐊᖃᕈᒪᔪᖅ) ᓴᓐᓂᖓᔪᒥ ᑐᒃᓯᕋᐅᑎᒃᑯᑦ ᐱᓕᕆᐊᓇᔪᒪᔭᖓᓄᑦ (NIRB File No. 12MN026)

(ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᖅ). ᑕᒪᓐᓇ ᐃᓚᖓ ᓄᓇᕘᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᒧᑦ ᖃᐅᔨᓴᕈᑎᒋᔭᖓ ᒪᑯᓂᖕᖓ ᐃᓚᖃᓚᐅᖅᑐᑦ (ᑎᑎᕋᐅᑕᐅᓯᒪᔪᑦ ᐊᑖᓂ ᐅᖃᐅᓯᐅᒋᐊᒃᑲᓐᓂᖅᓯᒪᓪᓗᑎᒡᓗ ᐃᓚᖏᓐᓃᑦᑐᑦ ᐅᑯᓇᓂ):

- ᐅᖃᐅᓯᐅᔪᔪᑦ ᐅᓂᒃᑳᓂᐊᓃᑦᑐᓄᑦ ᑲᑎᒪᔾᔪᑎᖃᖅᑎᓪᓗᒋᑦ ᐃᖃᓗᒃᑑᑦᓯᐊᕐᒥ ᓅᕕᒻᒥᕆ 13, 14 ᐊᒻᒪ 15, 2014 ᐅᓂᒃᑳᓕᐊᓃᑦᑐᓄᑦ ᐅᖃᐅᓯᐅᖃᖅᑎᓪᓗᒋᑦ ᐅᖃᐅᓯᐅᔪᕕᓂᕐᓄᑦ ᑎᒦᑦ ᓯᓚᑖᒎᖅᓯᒪᔪᓃᖕᒑᖅᑐᕕᓂᕐᓂᒃ ᒪᓕᒐᓕᕆᓂᕐᒎᓕᖓᔪᓂᒃ ᐅᖃᐅᓯᖃᓚᐅᖅᓯᒪᔪᑦ ᐅᕙᓃᑦᑐᓄᑦ ᓯᕗᓪᓕᕐᒥ ᐊᕙᑎᒥᐅᑕᓂᑦᑐᑦ ᐊᒃᑐᖅᑕᐅᓯᒪᖃᓯᐅᔾᔭᐅᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᓐᓄᑦ ᐅᓂᒃᑳᓕᐊᒥ (ᓯᕗᓪᓖᑦᑐᕐᒥ ᐊᕙᑎᒥᐅᑕᓃᑦᑐᑦ ᐊᒃᑐᖅᑕᐅᓯᒪᖃᓯᐅᔾᔭᐅᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᓐᓄᑦ ᐅᓂᒃᑳᓕᐊᒥ) ᑐᓂᔭᐅᔪᕕᓃᑦ ᐱᓕᕆᐊᖃᕈᒪᔪᒧᑦ ᓄᓇᕘᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ ᔮᓐᓄᐊᕆ 20, 2014ᖑᑎᓪᓗᒍ;
- ᐃᓱᒪᒃᓴᖅᓯᐅᕈᑎᓇᐊᒃᑲᓐᓂᕈᒪᕗᒍᑦ ᓯᕗᓪᓖᑦᑐᕐᒥ ᐊᕙᑎᒥᐅᑕᓃᑦᑐᑦ ᐊᒃᑐᖅᑕᐅᓯᒪᖃᓯᐅᔾᔭᐅᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᓐᓄᑦ ᐅᓂᒃᑳᓕᐊᒥ ᐊᒻᒪᓗ ᖃᓄᖅ ᐃᓄᖕᓄᑦ ᐃᓱᒪᒋᔭᐅᖕᒪᖕᒌᖕᒋᑦᑕᓗ ᐅᖃᐅᓰᑦ ᓇᐃᓪᓕᒋᐊᖅᑕᐅᓯᒪᓪᓗᑎᒃ ᖃᓄᕐᓗ ᑕᒪᐃᓐᓄᑦ ᐃᓱᒪᒋᔭᐅᓚᐅᕐᒪᖕᒌᖕᒋᑦᑕ ᐊᒻᒪᓗ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᖅ ᓄᓇᓕᖕᓃᖕᒌᖅᑐᑦ ᐃᓄᐃᑦ

ᑲᑎᒪᑎᑕᐅᑎᓪᓗᒋᑦ ᓄᓇᕘᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ ᐃᖃᓗᒃᑏᑑᑦᓯᐊᕐᒥ ᓅᕕᒻᒥᕆ 17 ᐊᒻᒪ 18, 2014 ᕿᑎᕐᒥᐅᑕᐃᑦ ᓄᓇᑦᓯᐊᕐᒥᐅᑕᐃᓪᓗ ᑲᑎᒪᖃᑕᐅᑎᓪᓗᒋᑦ ᐊᒃᑐᖅᑕᐅᓯᖃᓯᐅᔾᔭᐅᑐᐃᓐᓇᓇᐊᓖᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᑦ; ᐊᒻᒪ

- ᓯᕗᓪᓕᕐᒥᒃ ᑎᒥᒋᔭᐅᔪᑦ ᐃᓄᐃᓪᓗ ᑲᑎᒪᑎᓪᓗᒋᑦ ᖃᓄᖅᓗ ᓴᕝᕖᓇᒃᑯᑦ ᐋᖅᑭᒃᓱᐃᒋᐊᒃᑲᓐᓂᓛᕐᒪᖔᖕᒋᑦᑕ ᐅᓂᒃᑳᒃᓴᓕᐅᓇᐊᖃᓕᕈᑎᒃ ᑭᖑᓪᓕᕐᒥᑦ ᓱᓇᒃᑲᓐᓂᕐᓂᒡᓗ ᐃᓚᒋᐊᖅᓯᔭᓇᐊᖅᑳᓇᐊᖏᓐᓂᒡᓗ ᑲᑎᒪᑎᑕᐅᑎᓪᓗᒋᑦ ᓄᓇᕘᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ ᓅᕕᒻᒥᕆ 19, 2014.

ᑲᑎᒪᑎᑕᐅᓂᐊᓵᖅᑎᓪᓗᒋᑦ ᐅᓂᒃᑳᓕᐊᓃᑦᑐᑦ ᑲᑎᒪᔾᔪᑕᐅᑎᓪᓗᒋᑦ, ᑖᓐᓇ ᐱᓕᕆᐊᖃᕈᒪᔪᖅ 400-ᓂᒃ ᐱᓕᕆᐊᕆᓂᐊᖅᑐᕆᔭᒥᓂᒃ ᑎᑎᕋᓚᐅᖅᓯᒪᔪᖅ ᐅᖃᐅᓯᕆᓪᓗᓂᒋᓪᓗ ᐅᓂᒃᑳᓕᐊᓃᑦᑐᓄᑦ ᐅᖃᐅᓯᐅᓕᖅᐸᑕ, ᐊᐱᖅᓱᖅᓇᐅᓕᖅᐸᓪᓗ ᐃᓱᒫᓗᑕᐅᔪᓪᓗ ᓯᕗᓪᓕᖅ ᐅᓂᒃᑳᓕᐊᓃᑦᑐᓅᖓᔪᓂᒃ ᐊᒻᒪᓗ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᒎᖓᔪᓪᓗ ᐅᖃᐅᓯᓚᐅᖅᓯᒪᔪᑦ ᖃᐅᔨᒪᔨᓄᑦ ᐊᒻᒪᓗ ᓄᓇᕘᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ ᐃᖅᑲᓇᐃᔭᖅᑎᖏᓐᓄᑦ. ᑎᒥᒋᔭᐅᔪᓄᑦ ᐊᖏᖅᑲᑎᒋᒍᑕᐅᔪᔪᑦ ᐱᓕᕆᐊᕆᔭᐅᓂᐊᖅᑐᕆᔭᐅᔪᑦ ᐅᓂᒃᑳᓕᐊᓃᑦᑐᑦ ᑲᑎᒪᔾᔪᑕᐅᑎᓪᓗᒋᑦ ᑎᑎᕋᖅᑕᐅᓚᐅᖅᓯᒪᔪᑦ ᓄᓇᕘᒥ

NIRB Pre-hearing Conference Decision for the Back River Project

ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖕᒋᑦᑕ ᐃᖅᑲᓇᐃᔭᖅᑎᖕᒋᓐᓄᑦ ᐃᓚᖃᓯᐅᔾᔭᐅᓯᒪᔪᑦ ᐅᓂᒃᑳᓕᐊᕕᓂᐅᑉ ᐃᓱᐊᓄᐊᖅᑕᐅᓯᒪᓪᓗᑎᒃ 1-ᒥ ᐊᒻᒪ 2-ᒧᓪᓗ. ᓇᐃᓈᖅᓱᒍ ᐅᖃᐅᒥᐅᓚᐅᖅᓯᒪᑎᓪᓗᒍ ᐃᓚᖕᒋᓐᓄᑦ ᑎᒦᑦ ᓯᓚᑖᒎᖅᓯᒪᔪᓄᑦ ᓯᕗᓪᓕᕐᒥᒃ ᑎᒥᕆᔭᐅᔪᑦ ᐃᓄᐃᓪᓗ ᑲᑎᒪᑎᓪᓗᒋᑦ, ᐃᓱᒪᒋᓗ ᓴᕝᕕᓴᒃᑯᑦ ᐱᓕᕆᐊᕆᓂᐊᖅᑐᕆᔭᒥᓂᒃ ᐱᓕᕆᐊᖃᕐᓂᐊᕐᓂᕈᑎᓪᓗ ᐱᓕᕆᐊᕆᕝᕕᒃᓴᖕᒐ

ᓇᓪᓕᐅᑎᓯᒪᔅᓯᐊᕐᓂᐊᑐᐊᕈᓂᓗ ᐱᓇᓱᐊᒐᕆᔭᕆᐊᕐᑲᖅᑕᒥᓄᓪᓗ ᒪᓕᖕᓂᐊᑐᑯᐊᕈᑎᒃ ᐊᒻᒪᓗ ᓄᓇᕘᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦᑕ ᐊᑐᐊᒐᕐᑯᑎᖏᓐᓃᑦᑐᓂᒡᓗ ᐸᕐᓇᐅᓯᐅᕈᑕᐅᓂᐊᖅᑐᒧᑦ ᐊᕙᑎᒥᖑᐅᑕᓃᑦᑐᑦ ᐊᒃᑐᖅᑕᐅᓯᒥᒪᕐᑲᓯᐅᔾᔭᐅᑐᐃᓐᓇᕆᐊᕐᑲᖅᑐᑦ ᐅᓂᒃᑳᓕᐊᖑᓂᐊᖅᑐᒧᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᒧᑦ (EIS Guidelines), ᐊᒥᒧᑦ ᐅᓂᒃᑳᓕᐊᒦᑦᑐᒧᑦ ᐅᕐᑲᐅᓯᐅᔪᕕᓂᕐᓄᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᑎᒥᒋᔭᐅᔪᓄᑦ

ᖃᐅᔨᓴᕈᑕᐅᑎᓪᓗᒍ ᓯᕗᓪᓕᖅᒥ ᐅᓂᒃᑳᓕᐊᓃᑦᑐᓅᖕᒐᔪᓂᒃ ᐋᖅᑭᑕᐅᑦᓴᐅᑎᒋᔪᓐᓇᖅᑐᑦ ᓴᙱᓇᒃᑯᑦ ᑭᖑᓪᓕᖅᒥᑦ ᐊᕿᑎᒥᐅᑕᓃᑦᑐᑦ ᐊᒃᑐᖅᑕᐅᓯᒪᖃᓯᐅᔾᔭᐅᑐᐃᓐᓇᕆᐊᖃᕐᓂᖕᒋᓐᓄᑦ ᐅᓂᒃᑳᓕᐅᕐᓂᐋᓵᖅᑎᓪᓗᒋᑦ. ᐃᓚᒋᐊᒃᑲᓐᓂᕐᓗᖕᒍ, ᑭᓯᐊᓂᑦᑕᐅᖅ, ᓄᓇᕘᒥ ᐊᕿᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᑐᓴᐅᒪᖅᑯᔨᖕᒥᔪᑦᑕᐅᖅ ᐊᒥᓗᓂᒃ ᐅᖅᑲᐅᓯᐅᔭᕆᐊᖅᑲᖅᑐᓂᒃ ᐱᑕᖅᑲᐅᖅᓂᖕᒐᓐᓂᒃ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓕᖅᑐᓂᒃ

ᓄᓇᓕᕆᔭᐅᔪᓃᖕᒑᖅᑐᑦ ᑲᑎᒪᑎᑕᐅᑎᓪᓗᒋᑦ ᓴᖅᑭᐊᑎᑕᐅᓯᒪᔪᓂᒃ ᐊᒻᒪᓗ ᓯᕗᓪᓕᖅᒥᒃ ᑎᒥᕆᔭᐅᔪᑦ ᐃᓄᐃᓪᓗ ᑲᑎᒪᑎᓪᓗᒋᑦ ᐅᖅᑲᐅᓯᐅᔅᓯᐊᖅᓯᒪᖖᒋᑐᐃᓐᓇᓇᐊᖅᑲᖅᑐᓂᒃ ᐱᓕᕆᐊᖅᑲᑭᒪᔩᑉ ᐱᓕᕆᐊᕆᓂᓕᐊᖅᑐᕆᔭᖕᒋᓐᓂ ᐃᓗᐊᓂ. ᑕᒪᓐᓇᐅᓂᖕᒐᓂᒃ, ᓄᓇᕘᒥ ᐊᕿᑎᓕᓇᔨᒃᑯᑦ ᑲᑎᒪᔨᖕᒋᑦ ᓴᕝᕕᓇᒃᑯᓐᓂᒃ ᐊᔭᐅᖅᑐᐃᔪᒪᕗᑦ ᐱᓕᕆᐊᖅᑲᖅᑯᔨᓪᓗᑎᒃ ᐱᓕᕆᐊᕆᔭᐅᖅᑯᔭᓂᒃ

ᐱᓕᕆᐊᖃᓪᓚᕆᖕᓂᐊᕐᓗᑎᒃ ᐅᖃᐅᓯᐅᒃᑲᓐᓂᕆᐊᖃᖅᑐᓂᒡᓗ ᐅᖃᐅᓯᖃᒃᑲᓐᓂᕐᓗᑎᒡᓗ ᐅᑯᐊ ᐅᖃᐅᓯᐅᔪᑦ ᒪᓕᒡᓗᒋᑦᓘᒐᓗᐊᖅ.

ᓄᓇᓕᖕᓃᖔᖅᓯᒪᔪᑦ ᑲᑎᒪᑎᑕᐅᑎᑦᓗᒋᑦ ᑖᒃᑯᐊ ᓄᓇᕘᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᑐᓴᖅᑎᑕᐅᔪᕗᑦ ᓴᓇᐅᒐᒃᓴᖅᑕᖃᕆᐊᖓᓐᓂᒃ ᕿᑎᕐᒥᐅᓂ ᐊᒻᒪᓗ ᐃᓕᓐᓂᐊᖅᑎᑦᓯᕐᑯᔨᑦᓗᑎᒡᓗ ᓴᓇᐅᒐᒃᓴᓄᑦ,

ᐃᓕᓐᓂᐊᒐᒃᓴᖅᑕᕐᑲᐅᕐᑯᔨᑦᓗᑎᒃᓗ, ᓇᖕᒥᓂᕆᔭᐅᔪᖅᑕᕐᑲᐅᕐᓂᖅᓴᐅᔭᕆᐊᕐᑲᕐᓂᖕᒐᓂᒃᓗ ᓴᓇᐅᒐᒃᓴᓄᑦᓗ ᐅᒃᑯᐃᖖᒑᖅᑐᕐᑲᐅᕆᐊᕐᑲᕐᓂᖕᒐᓂᒃᓗ ᐱᑕᕐᑲᕈᓐᑦᓇᓕᕋᔭᕐᓂᖕᒐᓂᒃᓗ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᒧᖅ ᑲᔪᓯᑎᑕᐅᓂᐊᕐᓂᖅᐸᑦ. ᑭᓯᐊᓂᑦᑕᐅᖅ, ᐃᓱᒫᓗᑕᐅᔪᑦ ᐃᓚᖏᑦ ᐅᕐᑲᐅᓯᐅᒋᐊᒃᑲᓐᓂᕆᐊᕐᑲᓛᕐᓂᖏᓂᒃᓗ ᑭᖑᓪᓕᕐᒥᑦ ᐊᕙᑎᒥᐅᑕᓃᑦᑐᑦ ᐊᒃᑐᖅᑕᐅᓯᒪᕐᑲᓯᐅᔾᔭᐅᑐᐃᓐᓇᕆᐊᕐᑲᕐᓂᖏᓐᓄᑦ

ᐅᓂᒃᑳᓕᐊᒧᐊᖅᑲᖅᑕᐅᓂᐊᖅᓱᑎᒃᓱ ᖃᐅᔨᓴᕈᑕᐅᔪᖅᓱ ᑭᒡᓕᓕᑉᐸᓪᓕᐊᓂᖓᓂ, ᐅᑯᐊ ᐃᓚᖅᑲᓯᐅᔾᔭᐅᓂᐊᖅᓱᑎᒃᓱ:

- ᑐᒃᑐᐃᑦ ᐊᒃᑐᑦᖅᑕᐅᓯᒪᖅᑲᓯᐅᔾᔭᐅᑐᐃᓐᓇᓇᐊᖅᑲᖅᓂᖏᓐᓂᒃ ᐱᓕᓇᐊᓇᔭᐅᔪᕕᓂᖅᓃᖖᖅᑐᑦ ᐱᓕᓇᐊᓇᔭᐅᓕᖅᑐᑦᓱ ᐱᓕᓇᐊᓇᔭᐅᓖᖅᑐᑦᓱ ᑲᑎᑦᓱᖏᑦ ᐊᒻᒪᓱ ᑕᒪᒃᑯᐊ

ᑐᒃᑐᖅᑲᐅᖅᑲᑦᑕᖅᑐᓪᓗ;

- ᐃᓂᖓ ᐅᔭᕋᒃᑕᒐᐅᔪᕕᓂᖅᓄᑦ ᓯᖅᑲᓕᖅᑐᒐᐅᔪᕕᓂᖅᓄᓪᓗ ᑮᓇᐅᔭᒃᓴᑕᖅᑲᖕᒋᑦᑐᓄᑦ ᐊᒃᑕᖅᕕᐅᖅᑲᑦᑕᕋᔭᖅᑐᖅ;
- ᑕᒪᐃᑕ ᐃᒪᖅᑕᓃᑦ ᓴᐳᒻᒥᔭᐅᓯᒪᑦᓯᐊᓇᐊᖅᑲᖅᓂᖕᒋᓐᓂᒃ ᐆᒪᔪᓪᓗ ᐊᒃᑕᑰᖅᑕᐅᕙᓪᓕᐊᔪᓄᑦ

ᐊᓯᖏᓐᓄᑦᓗ ᓱᑭᖕᓇᖅᑐᓄᑦᓗ;

- ᑕᕆᐅᒦᑦᑐᑦ ᐊᒃᑐᖅᑕᐅᓯᒪᖃᓯᐅᔾᔭᐅᓕᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᓐᓂᒃ, ᐃᓚᖃᓯᐅᑎᓗᒍ ᕿᖓᐅᒃ ᖃᓂᒋᔮᓗ ᐃᓂᖓᓗ, ᐳᐃᔩᑦᓗ, ᑎᖕᒥᐊᑦᓗ, ᐃᖃᓗᐃᑦᓗ ᐅᒥᐊᕐᔪᐊᑦ ᐊᒡᔭᖅᑐᐃᖃᑦᑕᓕᖅᐸᑕ, ᐅᖅᓱᒃᓴᓂᒡᓗ ᑯᕕᔪᖅᑕᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖓᓐᓂᒃ ᐊᒻᒪᓗ

ᑐᐊᕕᕐᓇᖅᑐᖅᓱᐅᑎᑕᖃᕆᐊᖃᕐᓂᖓᓂᒡᓗ, ᐱᓇᓱᐊᒐᕆᔭᐅᔪᓪᓗ ᐱᓕᕆᐊᕆᔭᐅᔭᕆᐊᖃᓕᕋᔭᕐᓂᖏᓐᓂᒃ;

- ᓄᓇᓕᖏᔭᐅᔪᑦ ᐃᑲᔪᖅᓱᖅᑕᐅᔭᕆᐊᖃᕋᔭᕐᓂᖏᓐᓂᒃ, ᒪᒃᑯᒃᑐᓪᓗ ᐃᓕᓐᓂᐊᖃᑕᐅᔭᕿᐊᖃᕐᓂᖏᓐᓂᒃ ᐊᒻᒪᓗ ᓴᓇᐅᒐᒃᓴᓄᑦ ᐃᓕᓐᓂᐊᖅᑎᑕᐅᔭᖅᑲᑦᑕᕆᐊᖃᕋᔭᕐᓂᖏᓐᓂᒡᓗ;
- ᐃᖏᕐᕋᕕᐅᔪᓐᓇᕋᔭᕆᐊᖓᓐᓂᒃ ᐅᒥᐊᕐᔪᐊᓄᑦ ᕿᖓᐅᒃ, ᓇᒧᐊᖅᑕᐅᓇᔭᕆᐊᖓᓐᓂᒃ ᑐᓚᒃᑕᕐᕕᐅᓇᔭᖅᑐᖅ ᐅᑭᐅᒃᑯᓪᓗ ᐊᖅᑯᓯᐅᖅᑕᐅᓇᔭᖅᑐᑦ ᐱᓕᕆᐊᖃᖅᑐᒧᑦ ᐊᑐᖅᑕᐅᖃᑦᑕᕋᔭᖅᑐᖅ; ᐊᒻᒪᓗ
- ᐆᒪᒧᑦ ᐊᒃᑐᖅᑕᐅᓯᒪᖃᓯᐅᔾᔭᐅᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᓐᓂᒃ ᐊᖑᓇᓱᒃᑏᓪᓗ ᐱᓕᕆᐊᕆᔭᐅᔪᖅᑕᖃᓕᖅᑎᓪᓗᖑ, ᐃᓚᖃᓯᐅᑎᓗᒥᑦ ᑐᒃᑐᐃᑦ, ᐊᒃᓚᐃᑦ, ᐃᖃᓗᐃᑦ, ᑎᖕᒥᐊᑦ ᐊᓯᖏᓪᓗ ᐆᒪᔪᑦ.

ᒪᓕᒡᓗᒍ ᓄᓇᕘᒥ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ ᑲᑎᒪᔩᖏᑦᑕ ᖃᐅᔨᓴᕐᑎᕆᔭᕕᓂᖓᑦ ᓯᕗᓪᓕᕐᒥᑦ ᐊᕙᑎᒥᐅᑕᓂᑦᑐᑦ ᐊᒃᑐᖅᑕᐅᓯᒪᖃᓯᐅᔾᔭᐅᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᓐᓂᒃ ᐅᓂᒃᑳᓕᐊᕕᓂᖓ ᐊᒻᒪᓗ ᓴᖅᑮᔭᖅᑎᓪᓗᖏᑦ ᑕᒪᒃᑯᐊ ᐅᖃᐅᓯᐅᒃᑲᓐᓂᕆᐊᓖᑦ ᐃᓱᒫᓗᑕᐅᔪᓪᓗ ᑎᒦᑦ ᓯᓚᑖᒎᖅᓯᒪᔪᓄᑦ, ᓄᓇᓕᖕᓃᖕᒑᖅᓯᒪᔪᓄᓪᓗ ᐃᓄᖕᓄᓪᓗ, ᓄᓇᕘᒥ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ ᑲᑎᒪᔩᖏᑦ ᐅᖃᕈᒪᓚᑦ ᐱᓕᕆᐊᖃᕈᒪᔪᒍᑦ ᓇᓗᓇᐃᖅᓯᓯᒪᔾᔪᐊᕆᐊᖃᖅᑐᖅ ᑭᖑᓪᓕᕐᒥᑦ ᐊᕙᑎᒥᐅᑕᓃᑦᑐᑦ ᐊᒃᑐᖅᑕᐅᓯᒪᖃᓯᐅᔾᔭᐅᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᓐᓄᑦ ᐅᓂᒃᑳᓕᐊᖅᖓᓄᐊᖃᐃᒃᑲᓐᓂᕆᐊᖃᑖᖅᓂᖓᓐᓂᒃ ᐱᐅᓂᖅᓴᐅᔪᓂᒡᓗ ᑎᑎᕋᐅᑎᒋᔾᔪᐊᕐᓗᓂᒋᑦ ᐅᑯᐊᓗ ᐅᖃᐅᓯᕆᓗᐊᖃᓯᐅᑎᕆᐊᖃᑦᑕᖅᑎᑦ, ᐅᖃᐅᓯᕆᐊᖃᕐᓂᓯᐊᖅᓗᓂᕆᑦ ᐅᓇ ᒪᓕᒡᓗᓂᐅᒃ Section 3.3.4 ᐅᕙᓃᑦᑐᖅ ᐅᖃᐅᓯᐅᔪᓂ:

- ᓄᓇᓕᒋᔭᐅᔪᑦ ᐃᓄᖏᓐᓂᒃ ᑐᓴᐅᒪᑎᑦᓯᒃᑲᐃᒋᐊᒃᑲᓐᓂᖃᑦᑕᕆᐊᖃᓂᐊᖅᑐᖅ ᐱᓕᕆᐊᖃᕈᒪᔪᖅ, ᑲᑐᔾᔨᖃᑎᒋᒋᔭᐅᔪᓂᒡᓗ ᕿᑎᕐᒥᐅᓃᑦᑐᓂᒃ ᐱᓕᕆᐊᕆᓂᐊᖅᑕᒥᓄᑦ ᖃᓄᖅ ᐃᒪᒃᑯᑦ ᑕᕆᐅᒃᑯᑦ ᐊᖏᔭᖅᑐᐃᓂᐅᓴᖕᒪᖕᒫᕐᒥᒃ, ᖃᐅᔨᓴᕈᑎᖏᐊᖃᓐᓂᖅᓗᓂᕆᓪᓗ ᑕᕆᐅᒦᑦᑐᑦ;
- ᖃᓄᖅ ᐊᒃᑕᒐᒃᓴᓂᒃ ᑲᒪᖃᑦᑕᓚᕆᐊᒥᓂᒃ, ᐃᒪᕐᒥᓪᓗ ᐊᒻᒪᓗ ᐸᓚᐅᒥᔾᔪᑎᒃᓴᓂᓪᓗ ᐊᒻᒪᓗ ᖃᓄᖅ ᐊᐳᐸᑎᒥᐅᑕᓃᑦᑐᑦ ᐊᒃᑐᖅᑕᐅᓯᒪᖃᓯᐅᔾᔭᓕᖏᒃᑲᓗᐊᕆᐊᖏᓂᒃ ᖃᐅᔨᒋᐊᖃᑦᑕᓚᕆᐊᒥᓂᒋᓪᓗ;
- ᐅᓪᓗᒥᓰᒎᓚᖅᑐᕐᓗᓂᒋᓪᓗ ᓯᕗᓪᓕᕐᒥᑦ ᖃᓄᖅ ᑲᒪᖃᑦᑕᓚᕆᐊᒥᓂᒃ, ᐸᓚᐅᒥᔾᔪᑎᒃᓯᒥᓂᓪᓗ ᖃᐅᔨᒋᐊᖃᑦᑕᓚᕐᓂᕐᓗ ᐸᕐᓇᐅᓯᐊᕕᓂᕐᒥᓂᒃ ᐱᓕᕆᐊᕆᔭᒪᔭᒥᓄᓐᓇᔭᓂᒃ;
- ᐅᖃᐅᓯᕆᐊᖃᖓᓂᕆᐊᖃᖅᑕᖅᒋᑦ ᖃᐅᔨᓴᕈᑎᒋᒋᐊᖃᖓᓂᕆᐊᖃᖅᑕᖅᒋᑦᑐ ᑐᒃᑐᐃᑦ ᑐᒃᓯᑐᓯᐅᕐᓂᕐᒍᓪᓗ ᐊᒃᑐᖅᑕᐅᓯᒪᖃᓯᐅᔾᔭᐅᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᓐᓂᒃ, ᐸᓚᐅᒥᔾᔪᑎᒃᓴᓪᓗ, ᐊᓯᐊᒍᖕᓕᕐᓗ ᑲᒪᖃᑦᑕᕐᓂᐊᕐᓂᕐᒥᑦ ᐊᒻᒪᓗ ᖃᐅᔨᒋᐊᖃᑦᑕᒋᕐᓂᕐᒪᓪᓗ ᐱᓕᕆᐊᓂᖅᑕᖅᓇᔭᖃᑦᑕᖅᑎᑦ;
- ᐅᖃᐅᓯᕆᐊᖃᑦᑕᖅᑎᑦᑕᐅᔪᑦ ᓇᓗᓇᐃᖅᓯᓯᒪᔭᐅᓂᐊᖅᑐᑦ ᐊᒃᑐᖅᑕᐅᓯᒪᖃᓯᐅᔾᔭᐅᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᑦ ᓇᓚᐅᑦᓯᒐᕆᐊᖃᕐᓂᕐᒥᓂᒃ; ᐊᒻᒪ
- ᐊᓯᔾᔨᖅᑐᖅᑕᕕᓂᕐᒥᒃ ᐊᑐᐃᓐᓇᐅᑎᑦᓯᐊᖃᖅᑐᖅ ᑕᐃᑦᓯᒪᓂᑦᑕᕐᓂᑦ, ᐅᓪᓗᒥᒧᑦ ᓯᓯᒍᓂᒃᓴᒧᓪᓗ ᐊᒃᑐᐃᓂᖃᕐᓇᖅᑐᓄᑦ ᖃᐅᔨᓴᕈᑎᕕᓂᕐᒥᓂᒃ.

1. Background

In accordance with the mandate and objectives of the Nunavut Impact Review Board (NIRB or Board) established under Article 12 of the *Nunavut Land Claims Agreement* (NLCA), the NIRB recently concluded the technical review and pre-hearing conference stages of the Board's assessment of the potential ecosystemic and socio-economic effects of Sabina Gold and Silver Corporation's (Sabina or the Proponent) Back River Project Proposal (NIRB File No. 12MN036).

Pursuant to Rule 21.1 of the NIRB's Rules of Procedure, in order to facilitate the hearing process the Board may hold a Pre-hearing Conference (PHC) with the parties either before or after the date of a hearing is set. The PHC may be held in writing or orally, by teleconference or in person, and deal with any of the following matters:

(a) Prepare a clear statement of issues in question;

(b) Confirm the participation of authorizing agencies in the hearing;

(c) Identify and register intervenors;

(d) Determine the positions of the parties;

(e) Determine the witness list;

(f) Determine whether the parties may benefit from a mediation meeting to discuss the issues;

(g) Set a timetable for the exchange of documents and information requests prior to the hearing;

(h) Finalize procedures to be followed in the hearing; and

(i) Decide any other matters that may aid in the simplification of the hearing.

Prior to the PHC, the NIRB hosted a meeting of technical experts in Cambridge Bay from November 13-15, 2014 to facilitate discussions between the Proponent, regulatory authorities and interested parties regarding the issues raised in parties' technical review comments for the Draft Environmental Impact Statement (DEIS) for the Back River Project (the Project). The Technical Meeting was facilitated by the staff of the NIRB with the objective of achieving further clarity and/or resolution on items within the DEIS where the methodology, analysis or conclusions presented by the Proponent are not supported by reviewers.

Through the technical review period for the DEIS and the NIRB's Technical Meeting, the Proponent made close to 400 commitments intended to address the technical comments, questions and concerns raised by interested parties regarding the Project and the information needed for presentation within a Final Environmental Impact Statement (FEIS) submission for

the Project. A list of these commitments was compiled and brought forward for consideration at a PHC held as part of the Review of the Project, to assist the NIRB with identifying those areas where additional direction may be required for the Proponent's preparation of its FEIS submission.

A Community Roundtable and PHC was conducted in Cambridge Bay from November 17-19, 2014 as part of NIRB's Review of the Back River Project. The PHC serves as an important milestone in the NIRB's review process; providing an opportunity for the Board to hear from intervenors, the Proponent and the public regarding issues identified during the technical review of the DEIS, including those which have been adequately addressed and those which remain outstanding. The NIRB conducts a PHC to identify and limit the issues of divergence among parties to the Review, and to promote the efficient use of time at the Final Hearing. The PHC also served as an opportunity to discuss the final phase of the review process, including the anticipated timing of the Proponent's FEIS submission and scheduling of a Final Hearing.

Should the Proponent fulfill its commitments and comply with the specific direction and intention of the NIRB's Guidelines for the Preparation of the EIS for the Project (EIS Guidelines), the NIRB believes that many of the technical issues identified by the parties during their review of the DEIS will be addressed through Sabina's FEIS submission. However, the Board notes that there were also a number of issues identified at the Community Roundtable and PHC that may not be fully addressed through the Proponent's commitments alone. The objective of this PHC decision is to provide further direction that must be addressed by Sabina in its preparation of the FEIS for the Project, such that the final stage of the NIRB's Review of the Back River Project Proposal adequately addresses the potential impacts and public concerns associated with the proposed project and narrows the outstanding issues to be addressed through the final hearing for this Review.

1.1 Procedural History

On June 14, 2012 the NIRB received the Back River project proposal directly from the Proponent, and on July 12, 2012 the NIRB received a referral from the Nunavut Water Board (NWB) requesting that the Board screen the Project. The Back River project is located in the Kitikmeot Region of Nunavut, an area that does not currently have an approved land use plan in place; therefore, a conformity determination from the Nunavut Planning Commission was not required for this file. The NIRB assigned this project proposal file number 12MN036 and commenced its screening pursuant to Article 12, Part 4 of the NLCA.

Public notice of this project proposal and the NIRB's Screening assessment was distributed on August 1, 2012 to the communities of Kugluktuk, Cambridge Bay, Gjoa Haven, Taloyoak, Kugaaruk, and Ulukhaktok (NT) as well as to relevant federal and territorial government agencies, Inuit organizations and potentially interested/affected groups of Nunavut and the

Northwest Territories. The NIRB requested that interested parties review the proposal and provide the Board with any comments or concerns by August 22, 2012; later extended to September 5, 2012 at the request of the Kitikmeot Inuit Association. Due to the additional time required to conduct adequate public consultation of this application, on August 20, 2012 the NIRB requested an extension to the screening deadline from the Minister of Aboriginal Affairs and Northern Development (the Minister). On September 6, 2012 the NIRB received correspondence from the Minister's office granting the extension as requested.

On September 25, 2012 the NIRB issued its screening decision report to the Honourable John Duncan, then-Minister of Aboriginal Affairs and Northern Development, which recommended pursuant to NLCA Section 12.4.4(b) that the Back River Project required a Review under Part 5 or 6 of Article 12 of the NLCA. On December 17, 2012 the Minister referred the Project to the NIRB to conduct a Review to assess the ecosystemic and socio-economic impacts of the proposal pursuant to Article 12, Part 5 of the NLCA. In addition, pursuant to Section 12.5.1 of the NLCA, the Minister also provided the following specific direction with respect to the NIRB's assessment of potential transboundary impacts and cumulative impacts:

> Transboundary Impacts
> *Given the Proposal's close proximity to the Bathurst caribou calving ground, it is essential that the scope of the Board's review also include consideration of transboundary impacts upon affected communities and groups who depend upon this resource. I therefore suggest that the Board pay particular attention to encouraging the participation of these groups in the review so that the potential impacts and proposed mitigation measures can be thoroughly understood.*
>
> Potential Cumulative Effects
> *The Back River Project Proposal is one of many proposed and/or existing mines in the Kitikmeot Region. A thorough cumulative impacts assessment will be very important for the review. However, when assessing these impacts, I urge the Board to consider the Proposal in combination with reasonably foreseeable mine and transportation infrastructure developments.*

On December 17, 2012 the NIRB distributed the Minister's decision and public notice of the Board's commencement of its Review of the Back River Project. In its correspondence the NIRB detailed the specific direction from the Minister as listed above; the Board further noted that while the Minister had indicated that participant funding would not be made available for the Review, he did acknowledge the need for ensuring effective participation through the NIRB's process. On December 21, 2012 the NIRB issued correspondence outlining the initial steps of the Review process further clarifying for parties that, at the request of Sabina, the NIRB's Review would be coordinated with the NWB's water licensing process for the Project (see

Section 4). The correspondence also included a Draft Scope for the assessment of the Back River Project and requested that parties provide comments to the Board based on their area of expertise and/or mandate on or before January 25, 2013.

In determining the scope of the Board's assessment, from February 2-13, 2013 the NIRB undertook a series of public scoping meetings in each community of the Kitikmeot region, with specific invitations and opportunity for residents of Bathurst Inlet and Bay Chimo to participate in meetings scheduled for Cambridge Bay and Kugluktuk. The NIRB also carried out a public scoping session for this Review in Yellowknife, NT on February 20, 2013. On February 8, 2013 the NIRB issued a revised Scope and its Draft EIS Guidelines, requesting that interested parties and responsible authorities review the documents and provide comments to the Board based on their area of expertise and/or mandate on or before March 11, 2013. Following consideration of the input received through written submissions from interested parties as well as oral comments provided during public scoping sessions, on March 18, 2013 the NIRB issued correspondence providing the following:

- The Final Scope for the assessment of the Back River Project;
- The Revised Draft EIS Guidelines for the Project, with a request that parties review the document and provide comments to the Board on or before April 8, 2013; and,
- An opportunity for parties to indicate whether there was sufficient need/interest in scheduling a Guidelines Development Workshop for April 22, 2013.

On April 5, 2013 the NIRB released its *Public Scoping Meetings Summary Report for the NIRB's Review of Sabina Gold & Silver Corp.'s "Back River" project (NIRB file no. 12MN036)* which provided an overview of the comments and questions raised during the community meetings outlined above.

Based on comments received from parties on March 25 and April 8, 2013, the NIRB provided notice to parties on April 9, 2013 that the Board had determined that the scheduling of a Guidelines Development Workshop would be unnecessary as no significant outstanding items which would require further dialogue had been identified by interested parties.

Pursuant to Section 12.5.2 of the NLCA, on April 30, 2013 the NIRB issued its *Guidelines for the preparation of an Environmental Impact Statement for Sabina Gold & Silver Corp.'s Back River Project (NIRB File No. 12MN036)* (i.e. EIS Guidelines) to the Proponent.

On January 20, 2014 the NIRB acknowledged receipt of Sabina's *Draft* EIS (DEIS) submission for the Back River project and initiated an internal review of the submission to determine whether or not it conformed to the EIS Guidelines issued by the Board for the Project. On February 11, 2014 the NIRB provided notice to the Proponent and parties that it had determined the DEIS conformed to the NIRB's EIS Guidelines, and that the Board was inviting interested

parties to submit Information Requests (IRs) related to the DEIS, to the NIRB for consideration on or before March 13, 2014. Following receipt and review of the IR submissions, on April 7, 2014 the NIRB issued correspondence to Sabina, the Government of Canada, the Government of Nunavut, and the Government of the Northwest Territories regarding those IRs that needed to be addressed prior to initiation of the technical review period for the DEIS. On July 23, 2014 the NIRB received IR responses from all parties as required and, after a preliminary completeness check, confirmed that sufficient information had been provided to continue with further technical review.

On July 31, 2014 the NIRB initiated a 60 day technical review period to allow for a detailed review of the DEIS with the intent of analyzing the completeness and quality of the information presented by the Proponent in support of the project proposal. The NIRB requested that responsible authorities, interested parties and those with specialist advice provide their technical review comments to the NIRB on or before September 29, 2014.

All documentation cited above and associated with the NIRB's Review of the Back River Project can be accessed online from the Board's public registry at the following address:

http://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/12MN036-SABINA-BACK%20RIVER/.

1.2 Project Description Overview

The following is a summary overview of the project description for the Back River Project as filed with the NIRB; the complete project description can be accessed online from the Board's public registry at the following address:

http://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/12MN036-SABINA-BACK%20RIVER/02-REVIEW/05-DRAFT%20EIS%20&%20CONFORMITY%20REVIEW/02-DEIS%20JAN%202014/.

The Back River Project is a proposed gold mining and milling operation located approximately 150 kilometres (km) south of Bathurst Inlet, 250 km southwest of Bay Chimo, 300 km northeast of Cambridge Bay, and 375 km northwest of Kugluktuk. The Project would involve mining operations at two separate areas, the Goose Property and the George Property, as well as a Marine Laydown Area at Bathurst Inlet, with winter roads connecting the sites. The Project as proposed would use a combination of open pit and underground mining techniques to access six deposits to remove approximately 20-28 million tonnes total ore, mill up to 7,000 tonnes of ore per day, and produce 300,000-400,000 ounces of gold annually as gold dore bars which would be flown to markets direct from site. Construction of the Project would take approximately two years, mine operations would last ten to eighteen years, with a five year closure period, and post closure monitoring to follow.

During the Technical Meeting and Pre-hearing Conference, Sabina indicated that it no longer intends to utilize the Tibbit-Contwoyto Winter Road connection that was referenced within the DEIS[1].

1.1.1 Goose Property

Proposed activities and facilities at the Goose Property include the development of three open pits: Goose Main, Umwelt, and Llama. An underground operation is also proposed to extract ore from below the bottom of the Umwelt open pit. All ore generated at both properties would be processed at a mill located at the Goose Property. Tailings would be stored in a tailings storage facility next to the processing plant. Other proposed facilities at the Goose Property would include a camp with capacity to house 700 people during construction and 350 during operations, an airstrip, maintenance, warehouse, shops and a fuel storage tank farm.

1.1.2 George Property

Activities and facilities proposed at the George Property include the development of three open pits: Lone Cow Pond North, Locale 1 and Locale 2 with all ore mined at the George Property to be stockpiled during the summer and transported over a winter road to the mill at the Goose property for processing. Other proposed facilities at the Goose Property include a camp with capacity to house 300 people during construction and 150 during operations, an airstrip, maintenance, warehouse, shops and a fuel storage tank farm.

1.1.3 Marine Laydown Area

Proposed activities and facilities at the marine laydown area include the construction and operation of several all-weather and/or winter roads connecting the marine laydown area with the Goose and George properties. These roads would be used to transport supplies and equipment, to access various project infrastructure, and to transport ore from mine sites to the mill on the Goose Property which is located approximately 130 km south-east of the laydown area. Marine access, activities, and associated infrastructure would be used for annual resupply and seasonal transport during the open-water season to move equipment, supplies and fuel to site via 5-10 ships per year (or equivalent via barge) during construction, and 3-5 ships per year (or equivalent via barge) during operations with ships to be routed north of Bathurst Inlet to the Coronation Gulf, and on through existing shipping corridors to the east or west. Infrastructure associated with the proposed marine laydown area would include: a barge ramp for two barges, a temporary dock installed seasonally and a laydown and storage and maintenance facilities, explosives storage, camp facilities capable of housing 100 people during construction and 50 during operations, and a fuel tank farm.

[1] Back River DEIS (January 2014), Volume 1 p.xi, p.lxiii, p.lxxiv, Section 3.3.1.4 p.3-17, Section 9.1 p.9-2; Volume 2, p.iii, Section 4.2.2 p.4-3, Section 4.2.2.3 p.4-5, Section 6.2 p.6-1, Section 8.1 p.8-2.

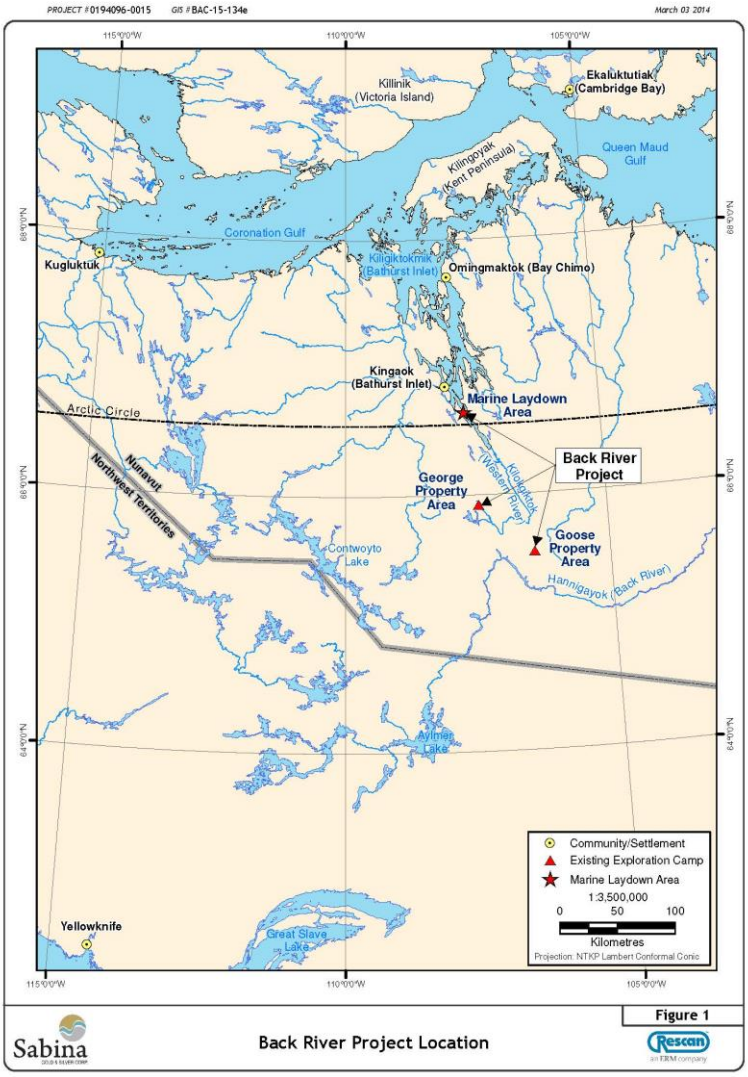

Figure 1 - location of the proposed Back River Gold Mine site

2. Summary of Submissions from Parties

On August 14, 2014 the NIRB provided confirmation to parties of the dates for its Pre-hearing Conference. Following the submission of technical review comments from parties on October 10 and 14, 2014 and responses from Sabina on October 24 and 30, 2014, on October 31, 2014 the NIRB provided the Back River distribution list with an agenda for the Pre-hearing Conference, as well as direction regarding presentation format and length for agencies and organizations planning to attend the meeting.

2.1 Kitikmeot Inuit Association (KIA)

The KIA is a Designated Inuit Organization under the NLCA, with jurisdiction as the owner and administrator of the Inuit Owned Lands on which the majority of the proposed project development area is situated. The KIA has participated in the Board's assessment of the proposed Project since the initiation of this Review, providing comments, concerns and advice to the NIRB for consideration regarding the scope of the project and assessment, the EIS Guidelines issued by the NIRB to the Proponent, and most recently, throughout the information request and technical review commenting period. During the review of the DEIS for the Project, the KIA submitted 140 Information Requests directed to Sabina, as well as 53 detailed technical review comments. The KIA attended the NIRB's Technical Meeting and Pre-hearing Conference with five participants at the Technical Meeting and three at the Pre-hearing Conference.

The KIA noted during the PHC that all but two of the issues it raised during the technical review period had been addressed through commitments made by Sabina. The KIA's outstanding concerns included a desire for a realignment of the proposed winter road near Bathurst Inlet to avoid the high quality habitat north of Tahikafalok Lake (Bathurst Lake), and a concern regarding the potential effectiveness of the proposed tailings storage facility given the ruggedness of the development area.

The KIA noted that the following outstanding concerns had not been addressed through commitments by Sabina:

- Snow pack sampling to be undertaken to monitor for pollutants entering water from dustfall and quickly identify the source of the pollutant; and
- Monitoring changes in speciation of arsenic, noting that there may be other water monitoring efforts undertaken by Sabina that could address this concern.

As most of the Back River Project is proposed on Inuit Owned Land, during the Community Roundtable portion of the meetings the KIA provided additional detail and responses to some of the community members concerns about the Project, specifically with respect to monitoring

responsibilities, requirement for financial securities, and potential benefits to the communities including through the Inuit Impact and Benefit Agreement (IIBA) that would have to be negotiated for the Project. The KIA noted that it would work with the Government of the Northwest Territories, AANDC, and the NWB where these parties had issues or concerns similar to those of the KIA.

2.2 Government of Nunavut (GN)

While the federal government currently has authority over the management of mineral resources on Crown Land in Nunavut, the GN has retained jurisdictional responsibility and permitting authority over activities that affect wildlife and wildlife habitat, Commissioner's Lands, municipalities, education, health, social services, public safety, culture, community development, property rights, and the administration of the laws of Nunavut. The legislative base governing the GN's jurisdiction for the Back River project proposal includes the *Apprenticeship, Trade and Occupations Certification Act*, *Environmental Protection Act*, *Income Tax Act*, Nunavut Archaeological and Palaeontological Sites Regulations, *Nunavut Housing Corporation Act*, *Official Languages Act*, *Petroleum Products Tax Act*, *Public Highways Act*, *Public Health Act*, *Scientists Act*, and the *Wildlife Act*.

As indicated in its Parnautit policy[2], it is the GN's objective to ensure that mineral resource projects in Nunavut are developed in a manner that respects, protects and cares for the land, animals and the environment, while ensuring that a given project will create positive effects on the socio-economic conditions of the territory by providing opportunities for employment, education and training to Nunavummiut.

The GN has participated since the initiation of this Review, providing comments, concerns and advice to the NIRB for consideration regarding the scope of the Project and assessment, the EIS Guidelines issued by the NIRB to the Proponent, and most recently, throughout the information request and technical review commenting period. During the review of the DEIS for the Project, the GN submitted 42 Information Requests directed to Sabina, as well as providing 37 technical review comments. The GN participated in the NIRB's Technical Meeting and Pre-hearing Conference, with four participants at the Technical Meeting and three participants at the Pre-hearing Conference.

Of its 37 technical review comments submitted to the NIRB for consideration, the GN noted during the Pre-hearing Conference that it had reached agreement with the Proponent on 18 of these items, with partial agreement on 17 more items and 2 items where no agreement had been reached and which remained outstanding. During the Technical Meeting, the GN confirmed that

[2] Government of Nunavut, Department of Economic Development and Transportation, 2013. "Parnautit: A foundation for the future—Government of Nunavut Mineral Exploration and Mining Strategy". Iqaluit: GN Dept. of ED and T.

all of its outstanding socio-economic issues had been resolved through side meetings between it and the Proponent; Sabina confirmed wording for commitments to address these items within its FEIS submission. The GN also confirmed that Sabina had made commitments regarding muskox, wolverine and furbearers, and raptors, and that partial agreement was made regarding issues pertaining to vegetation. GN noted that 9 outstanding items remained where Sabina provided responses that resulted in only partial agreement. Concerns noted by the GN during the Community Roundtable and Pre-hearing Conference covered environmental and human health topics such as:

- Wildlife (GN-20, 21, 22) – the GN noted that it had outstanding concerns relating to noise disturbance, and recognized Sabina's commitment to work with the GN on wildlife monitoring.
- Cumulative Effects (GN-23) – the GN noted outstanding concerns with respect to cumulative effects to wildlife.
- Caribou (GN-24) – the GN recognized Sabina's agreeing to update monitoring and mitigation measures for caribou, however, noted concerns regarding potential impacts and cumulative effects to caribou.
- Polar bears (GN-25, 26) – the GN noted that with regard to its recommendation that Sabina assess the effects to polar bears along the shipping route and provide mitigation measures, the Proponent had partially agreed. The GN noted remaining concerns regarding the level of detail Sabina would provide to effectively assess potential impacts.
- Grizzly Bears (GN-27, 28, 29) – the GN acknowledged Sabina's agreement to providing a bear safety and response plan and further detail for mitigation measures; however, the GN noted concerns with Sabina's proposed approach to regional monitoring and the ability to detect potential impacts to the grizzly bear population.
- Vegetation (GN-33) – the GN acknowledged Sabina's agreeing to monitor dustfall, however, noted concern with regard to its lack of proposed vegetation contaminant monitoring.

2.3 Aboriginal Affairs and Northern Development Canada (AANDC)

AANDC is the federal government department responsible for meeting the government's obligations and commitments to First Nations, Inuit and Métis, and fulfilling the federal government's constitutional responsibilities in the Canadian North. AANDC has participated since the initiation of this Review, providing comments, concerns and advice to the NIRB for consideration regarding the scope of the project and assessment, the EIS Guidelines issued by the NIRB to the Proponent, and most recently, throughout the information request and technical review commenting period. During the review of the DEIS for the Project, AANDC submitted 74 Information Requests directed to Sabina, as well as submitting 36 technical review comments.

AANDC participated at the NIRB's Technical Meeting and Pre-hearing Conference with four participants in attendance at each event.

Within its technical review comment submission to the NIRB, AANDC indicated that generally, the DEIS was lacking a significant amount of information to support the conclusions presented. Due to the number of commitments made by Sabina referencing information that would be deferred to the FEIS, AANDC summarized that its recommendations during this stage of the NIRB's Review focused on identifying the information necessary to fully understand the conclusions and mitigation presented in the EIS, as opposed to being in agreement or disagreement with Sabina's conclusions as presented within its DEIS.

AANDC noted that additional information would be required within the FEIS as relating to: mine closure, site water management, permafrost and groundwater conditions, stability of mine structures, the consideration of alternatives, the potential requirements for contingency measures, public engagement methods and findings, and human resources planning.

2.4 Environment Canada (EC)

EC's mandate covers the preservation and enhancement of the quality of the natural environment, including water, air, soil, flora and fauna, as well as species at risk and migratory birds. EC also provides meteorological data. In fulfilling its mandate, EC is guided by the following legislation: *Department of the Environment Act*, *Canadian Environmental Protection Act* (air quality, spill contingency planning and waste management), *Fisheries Act* (pollution prevention, water quality, metal mining effluent regulations), *Migratory Birds Convention Act*, and the *Species At Risk Act*.

EC has participated since the initiation of the NIRB's Review of the proposed Back River project, providing comments, concerns and advice to the NIRB for consideration regarding the scope of the project and assessment, the EIS Guidelines issued by the NIRB to the Proponent, and most recently, throughout the information request and technical review commenting period. During the review of the DEIS for the Project, EC submitted 42 Information Requests directed to Sabina, and also provided 46 technical review comments. EC participated at the NIRB's Technical Meeting and Pre-hearing Conference with two representatives present at each of these meetings.

The majority of technical issues raised by EC during the Pre-hearing Conference focused on wildlife, migratory birds, species at risk, waste management, environmental emergency preparedness and response, project design, water quality monitoring, and metal leaching and acid rock drainage. In EC's technical review of the DEIS, it found that the conclusions drawn in the document were generally supported by the analysis, and its recommendations were provided to strengthen the Project and mitigate negative effects related to EC's mandate. It was noted during

the PHC that Sabina had yet to submit appropriate management plans for the operation of landfarms, the management of wastewater at proposed treatment facilities, the assessment of stability characteristics of areas proposed for terrestrial discharge, and a comprehensive cyanide management plan to prevent the release of cyanide to the environment. EC recommended that Sabina provide further details on components of the proposed project such as the proposed landfill, specifically a description of site's physical, surface, and subsurface characteristics, geotechnical characteristics, and an estimation of the volume and mass of wastes to be produced for the site.

EC acknowledged that Sabina committed to addressing its concerns by conducting additional environmental assessment to ensure that the Project does not adversely affect the study area. EC further encouraged Sabina to contact Environment Canada promptly should the results of Sabina's feasibility study indicate that Schedule 2 of the Metal Mining Effluent Regulations applies to the proposed project.

2.5 Fisheries and Oceans Canada (DFO)

The federal government exercises authority over marine and freshwater fisheries within Canada's territorial boundaries. DFO's primary focus in reviewing proposed developments in and around Canadian fisheries' waters as defined under the *Fisheries Act* is to ensure that the works and undertakings do not result in the release of substances deleterious to fish or cause "serious harm" to fish (which includes marine mammals) or fish habitat under the applicable provisions of the *Fisheries Act*.

DFO has participated since the initiation of this Review, providing comments, concerns and advice to the NIRB for consideration regarding the scope of the project and assessment, the EIS Guidelines issued by the NIRB to the Proponent, and most recently, throughout the information request and technical review commenting period. During the review of the DEIS for the Project, DFO submitted 8 Information Requests directed to Sabina, and 15 technical review comments. DFO participated in the NIRB's Technical Meeting and Pre-hearing Conference with one representative in attendance at each meeting.

During the Pre-hearing Conference DFO indicated that all issues raised in its 15 technical review comments had been addressed through commitments made by Sabina; DFO noted that it looked forward to reviewing the FEIS for responses to its various technical comments.

2.6 Natural Resources Canada (NRCan)

NRCan's mandate includes the development, implementation and delivery of policies, programs, science and technology for the sustainable development and responsible use of Canada's mineral, energy and forestry resources. NRCan also serves as a responsible authority for the

proposed project through the application of the *Explosives Act*; the department also has specialist knowledge of areas pertaining to earth sciences.

NRCan has participated since the initiation of the NIRB's Review of the Back River project proposal, providing comments, concerns and advice to the NIRB for consideration regarding the scope of the project and assessment, the EIS Guidelines issued by the NIRB to the Proponent, and most recently, throughout the information request and technical review commenting period. During the review of the DEIS for the Project, NRCan submitted 22 Information Requests directed to Sabina, and 37 technical review comments. NRCan participated at the NIRB's Technical Meeting and Pre-hearing Conference with one representative in attendance at each of the meetings.

Included within its submission to the NIRB was a request from NRCan for Sabina to provide more information on permafrost and terrain stability, hydrogeology, acid generation and metal leaching from mine materials. While it was indicated that the DEIS was lacking in additional geotechnical information required for substantiating the overall impact of Project infrastructure, NRCan recommended that Sabina's FEIS should specifically incorporate supporting information on the thermal conditions of the tailings impoundment area, cover thickness of tailings impoundment and waste rock storage areas, as well as climate change effects on management strategies for mine wastes.

NRCan indicated during the Pre-hearing Conference that, as a result of discussions during the Technical Meeting, it was generally satisfied with the responses Sabina provided to its recommendations, and that while it did not have any outstanding issues, it would likely have additional comments on the FEIS due to the amount of material outstanding from the DEIS. NRCan noted that its technical experts would continue to work with the Proponent to resolve technical issues prior to the submission of the FEIS.

2.7 Transport Canada (TC)

TC's mandate involves promoting and supporting the development of an integrated transportation system that is safe, secure, efficient, and environmentally responsible. TC administers transportation regulations, policies and programs designed to enhance the safe operation of aircraft, trains, ships and barges. TC's jurisdiction over the proposed Back River Project is supported by various pieces of legislation including, but not limited to: the *Canada Shipping Act, 2001*, the *Arctic Waters Pollution Prevention Act*, the *Marine Liability Act*, the *Coasting Trade Act*, the *Marine Transportation Security Act*, the *Navigation Protection Act*, the *Transportation of Dangerous Goods Act, 1992*, as well as relevant regulations which may apply.

TC has participated since the initiation of this Review, providing comments, concerns and advice to the NIRB for consideration regarding the scope of the project and assessment, the EIS

Guidelines issued by the NIRB to the Proponent, and most recently, throughout the information request and technical review commenting period. During the review of the DEIS for the Project, TC submitted 17 Information Requests directed to Sabina, and 3 technical review comments. TC participated at the NIRB's Technical Meeting, with one representative in attendance, and at the Pre-hearing Conference with two representatives.

TC indicated that requirements under the Arctic Shipping Pollution Prevention Regulations (ASPPR) currently set the standards for how vessels operate in Arctic waters, and that Sabina's safety and emergency plans have yet to fully consider requirements under existing legislation to minimize impacts from proposed shipping activities. It was noted that Sabina is required to amend the legislative requirement section of its Oil Pollution Emergency Plan (OPEP) to comply with section 168 (1) (b) (iii) of the *Canada Shipping Act*, which requires the Proponent to identify every person authorized to implement the OPEP and their contact information on the oil handling facility declaration. During the Technical Meeting, Sabina committed to addressing all of the concerns raised by TC and to provide information where requested including engaging TC's regulatory process to ensure that proposed shipping activities do not adversely affect the environment.

Discussions at the PHC clarified that Sabina has not yet determined what size of vessels would be used for the proposed shipping of fuel and supplies for the Project. Sabina noted that as it is currently assessing shipping vessel and barge requirements and the size of vessels or barges to be used as part of the feasibility study, once the study is complete, it would be able to provide additional detail into the shipping plans as well as the operational considerations.

As a result of the amount of outstanding information identified through the meetings, TC recommend in its summary of concerns that Sabina review the shipping routes and review proposed project works that could be subject to the *Navigation Protection Act*. Once Sabina has determined the size of vessels being considered to undertake project related shipping, TC recommended that it check that the appropriate bathymetric information, including depth of the inlet and/or dredging requirements, if necessary, are provided within the FEIS. TC stated in their concluding remarks that Canadian Coast Guard spill response equipment should not be relied upon in Sabina's plans related to spill response, and that Sabina ensure it has proper and independent response capabilities in place.

2.8 Government of the Northwest Territories (GNWT)

The Government of the Northwest Territories department of Environment and Natural Resources' (GNWT) policy outlines the department's mandate to promote the sustainable use and development of natural resources to protect, conserve and enhance the Northwest Territories' environment for the social and economic benefit of all residents. This mandate is supported more broadly by the GNWT-wide Sustainable Development policy which identifies

cooperation with other jurisdictions as important in addressing transboundary concerns related to resource management and the maintenance of environmental quality. The GNWT noted that a memorandum of understanding with the Government of Nunavut is currently being formalized with regard to several aspects of the shared management of caribou herds.

The GNWT has participated since the initiation of the NIRB's Review, providing comments, concerns and advice to the NIRB for consideration regarding the scope of the project and assessment, the EIS Guidelines issued by the NIRB to the Proponent, and most recently, throughout the information request and technical review commenting period. During the review of the DEIS for the Project, the GNWT submitted 13 Information Requests directed to Sabina, 1 directed to the Government of Nunavut and Sabina, as well as 9 technical review comments. GNWT also participated at the NIRB's Technical Meeting and Pre-hearing Conference with two representatives present at each meeting.

The focus of the GNWT's technical review was potential impacts and cumulative effects that the Project may have on grizzly bears and wolverines, as well as on caribou, especially owing to the Bathurst caribou herd currently experiencing a severe population low which increases their vulnerability to further decline or impacts that may cause a delay of population recovery. The GNWT generally noted that it did not accept Sabina's conclusions in the DEIS that the Project's specific or cumulative effects on wildlife would be "not significant". More specifically, the GNWT noted that the DEIS did not provide enough information to evaluate impacts to caribou in the context of population status of the herds; the GNWT found that Sabina did not provide a sufficient analytical basis or line of evidence, quantitative or qualitative, to examine changes in reproductive productivity for any species, particularly caribou; and the assessment of impacts due to disturbance was limited to noise and therefore incomplete for assessing potential costs of indirect habitat loss to caribou.

The GNWT noted that it also disagreed with Sabina's statement that the degree of Project overlap with sensitive habitats is minimal, noting the possible repercussion in underestimating Project impacts to caribou during sensitive life stages, as well as disagreeing with Sabina's statement that the proposed mitigation measures adequately minimize impacts to caribou during sensitive periods including spring migration, calving and post-calving. Finally, the GNWT noted that Sabina's approach to the cumulative effects assessment was insufficient to support conclusions on potential range-scale impacts to caribou and that the proposed monitoring for grizzly bear and wolverine was insufficient to adequately address impact predictions.

As a result of its participation in the Technical Meeting, the GNWT noted that it considered Sabina's commitments as providing:

- Predictions for caribou to be considered in context of herd status and recovery potential.
- Use of timelines relevant to communities that depend on caribou in significance ratings.

- More information on annual variation in herd movement and historic calving (and post-calving) ranges to be included.
- Willingness to contribute to cumulative effects monitoring, assessment and management initiatives for Bathurst herd.
- Need for work suspension protocols for caribou.
- More detailed monitoring plans that to test impact predictions and that link back to the species.
- Analysis using 14 km zone of disturbance.

The GNWT noted two outstanding issues including:

- More comprehensive assessment of impacts to reproductive productivity and cumulative effects to caribou required, and
- Uncertainty should be addressed more explicitly.

2.9 Communities of Bathurst Inlet, Bay Chimo, Cambridge Bay, Gjoa Haven, Kugluktuk, Kugaaruk, Taloyoak and Gameti, Lutselk'e, Whati, and Wekweeti

To facilitate its Community Roundtable portion of the PHC, the NIRB invited representatives from the Kitikmeot communities of Bathurst Inlet, Bay Chimo, Cambridge Bay, Kugluktuk, Gjoa Haven, Taloyoak, and Kugaaruk, as well as representatives of potentially affected communities of the Northwest Territories including Bechoko, Dettah, Gameti, Lutselk'e, Wekweeti, Whati, and Yellowknife-Ndilo. The NIRB invited 3 representatives from each of the Nunavut communities: one from each of the local Hamlets, Hunters and Trappers Organizations and the Kitikmeot Inuit Association's Community Liaison Officers; and invited 1 representative from each of the Northwest Territories communities, with invitations sent to the band councils or local governments. Representatives from each of the Nunavut communities were present during the Pre-hearing Conference and Community Roundtable, as well as representatives from Northwest Territories including the communities of Lutselk'e, Dettah, Wekweeti, and Bechoko on behalf of the T'licho Government.

The majority of environmental issues raised by community representatives during the Community Roundtable focused on the potential impacts (including cumulative and transboundary effects) associated with the proposed mine and road infrastructure on the air, land, water and wildlife, with a particular focus on effects on caribou populations. The potential for impacts from shipping activities and accidents along the shipping route on the marine environment, marine mammals and harvesting marine wildlife was also identified as a key area of concern. Table 1.0 outlines a summary of the key issues raised during the Community Roundtable.

Table 1.0: Summary of Key Issues Raised During Community Roundtable

Topic	Issues/Concerns/Comments
Air Emissions	How does the Proponent intend to reduce emissions from machinery and vehicles on-site?
	What is SO_2 and why is it assessed in the DEIS?
	The Proponent should remember that this is a pristine environment and so dust and smoke from an industrial site are very visible from a long way away
	The Proponent should consider incorporating Inuit traditional knowledge into their management measures; Inuit do not idle vehicles more than needed, to limit pollution
Aircraft	Concerns expressed about the potential for effects of air travel (up to 10 flights a day during construction) and helicopter flights on birds and caribou, noting experience with mineral exploration-related helicopter movements having scared caribou away from a particular area, and that once helicopters are gone from the area, caribou started to return.
	Will equipment be moved by air or mostly by ship?
	Where will people be flying out of (Yellowknife, Cambridge Bay, Kugluktuk or elsewhere)?
All Weather Roads (AWAR)	What materials will be used to construct the AWAR used on-site (boulders, gravel, berms, etc.)?
Blasting/Explosives	For the explosives, is there a storage facility on-site and if so, how will the Proponent make sure explosives are stored properly?
Caribou	The Dolphin and Union caribou herd when they are migrating from their summer grounds to their wintering grounds may pass across the newly forming ice, so any interference with the formation of the sea ice at early stages can affect that migration.
	The population of the Bathurst caribou have declined significantly—we are not here to blame anyone but we want to ensure that these impacts are minimized and that land be reclaimed so that further impacts do not affect the population in the long term.
	Any embankments around mine roads should be minimized to ensure that they do not pose a barrier to caribou passage or cause caribou to be injured.

Topic	Issues/Concerns/Comments
	How will Sabina change its plans to reflect changes to migration routes for caribou that may result in more caribou being present in the project area for longer periods?
	More detail about the Proponent's mitigation plans associated with impacts to caribou is necessary to establish thresholds that identify how many caribou must be near the mine site to trigger particular types of mitigation measures
	The caribou population may change (there may be more or there may be less) and how they use their range could change dramatically and the Proponent needs to be able to change their plans to reflect the numbers of caribou that use the site and the types of use of the site (especially calving and post-calving use).
	Can the Governments of Nunavut and Northwest Territories co-ordinate their monitoring of the herds?
	When a caribou survey is conducted how do you ensure that it is accurate?
	Do models of caribou populations include predation by wolves (this is becoming a big issue for certain caribou populations)?
	If we don't manage caribou well, we will not survive and the caribou are not going to respect a plan that stops at the territorial border or project area surrounding the mine site.
	Communities also need to take responsibility for teaching young people about how to hunt and use all of the caribou and should be educated on these things, not just training for working in an office or a mine. Inuit need to have an active role in conservation and best use of caribou.
Climate Change	How has the Proponent included considerations of climate change in the project (e.g. impacts such as less permafrost)?
Consultations	Hunters and Trappers Organizations (HTOs) would like to be more consulted on wildlife and harvesting issues (not just running comments through the NTI and KIA).
	When the Proponent finishes the NIRB assessment and gets the go ahead, will it have to continue to consult and meet with communities or will that be the last that the communities would see of the Proponent?
Cultural Resources	How are archaeological sites identified and preserved? How is harm to these sites prevented from taking place during project development?

Topic	Issues/Concerns/Comments
	Are there any grave sites in the project area that could be affected by mine development?
Cumulative Effects	In the NWT the communities are surrounded by the diamond mines and with the addition of this gold mine in the area there will potentially be further effects on the wildlife around us, mammals, migratory birds, caribou—how is this Proponent going to be required to take these additional effects on areas across the Nunavut border into account?
Dust control/dust suppression	How will the Proponent prevent dust from being released from the mine site and the machinery at the site?
	How will the Proponent control dust coming from roads during the summer time and winter time?
Fish	How till the Proponent limit the effects of noise on fish (they are very sensitive to noise)?
	Will there be a need to do a fish out of any dewatered lakes/water bodies?
	What will the Proponent do if there are effects on the country food (wildlife and fish) we can harvest in the area?
Fuel Transportation, Use and Storage	Does the Proponent have measures in place to respond to a spill of fuel during marine transportation?
	Does the Proponent have measures in place to respond to a spill of fuel into the marine environment when transferring the fuel from the vessel to the shore?
	Does the Proponent have measures in place to respond to a spill of fuel onto the land from the fuel storage area or during fuel transfer?
Marine Laydown Area	Why is the marine laydown area for this project located closer to the community than the BIPR location?
	It is very important to the people in that area that the Proponent re-aligns the road from Tahikafalok (Bathurst Lake) to the marine laydown area to avoid the riparian and sensitive areas as these areas are very important for wildlife.
	What will the dock structures look like for the project (how big and how far into the water?)
	Will the dock structures be seasonal or permanent?

Topic	Issues/Concerns/Comments
Marine Shipping	The Proponent needs to understand that Bathurst Inlet freezes earlier because there are four freshwater sources feeding into the inlet and therefore the residents of Bathurst Inlet are concerned that any marine shipping cannot be extended beyond September without affecting the ice cover which affects residents' and animals' ability to travel in the area when early ice formation is affected.
	Glad to see confirmation that shipping is only going to take place during "open water" season, but the shippers need to understand that ice may form earlier than predicted and if it does, shipping that breaks up the ice when it starts to form can affect the caribou migrating east to west. Shipping needs to be stopped as soon as the ocean starts to freeze to prevent effects on that migration.
	Does the Proponent have anything set up to deal with the potential for an oil spill during project shipping in the marine environment?
	Bathurst Inlet is a difficult water body to navigate safely even for small recreational vessels; residents have seen people without experience damaging their boats because they don't have sufficient personal experience with the area which is very important to successful navigation of the Inlet.
	When the ships travel through this route if there is a spill it will be a serious problem in the north—sea mammals, polar bear and fish could be very affected—are the Proponent, communities or others prepared to handle a clean-up?
	Concerns that oil/fuel spills near the Boothia Peninsula during project shipping, could affect already limited polar bear hunting.
	How many ships will be used at a time?
	Sometimes in different years there can be ice bergs and ice formation in the summer time that will require the shippers to be very careful and they must be prepared to avoid these ice bergs and ice.
	Are all the parties (including the Proponent, the Coast Guard and other federal government agencies, the Government of Nunavut and the communities) really prepared to handle a spill anywhere along the shipping route? The communities are really concerned that a spill could damage our food and livelihood.
	Do shippers get invited to these meetings?
	What months will project shipping take place?
	How big will the vessels be that do project shipping?
	How many ships will be along the shipping route at any one time?

Topic	Issues/Concerns/Comments
Marine Shipping (cont'd)	How will the shippers prevent contaminants being brought into the dock area from the areas where the ships originate?
	Where will the ships come from (all Canadian vessels or could there be foreign-flagged vessels)?
	How will the shippers ensure that they have the most recent routing, charts and up to date maps so that they do not have accidents along the way?
Mill	How will the mill process work and how long would it be operating—will there be cyanide; and then where does the wastewater from the mill go?
Monitoring	Will there be any wildlife monitors employed on-site?
	Will the KIA have a role in air and water testing at the site?
	Once the mine closes will there be obligations on the Proponent to conduct post-closure monitoring; or will the Proponent be long gone and then the Government will be required to do it?
Permafrost	How will the Proponent manage changes to the project that will happen if the permafrost is lost (things like changes to how the tailings storage facility operates) that are based on predictions that permafrost will be in place?
	Permafrost is melting—we have seen it already—so the Proponent should be prepared to address the situation of melting permafrost.
Place Names	There is confusion with some of the place names, as residents near Gjoa Haven think of a different area that is not actually within this project area when they hear "Back River" – the Proponent and other parties should consider using place names that make it clearer exactly where the proposed Project will be located but also where it is not.
Reclamation and Security	How can mine sites continue to be authorized/licensed when there are such large liabilities associated with gold mine clean ups like the Giant mine (how do regulators calculate the security for these projects now and have they improved the way that they do this to make sure that Nunavummiut are not stuck with the bill)?
Sewage Wastes	How will sewage wastes be dealt with?
	Will there be a sewage lagoon, and if so, how will the Proponent prevent wildlife and birds in particular from accessing this area?
Socio-Economics	The experience of Bay Chimo and Bathurst Inlet with mining in the area is that the benefits didn't accrue to these communities; so how is this project going to be different?

Topic	Issues/Concerns/Comments
	Will the Proponent commit to providing training (such as on-the-job training for heavy equipment operators), especially for youth in the Kitikmeot Region?
	About how many jobs will actually be available for the residents of the Kitikmeot Region?
	Is the Proponent working together with the Government of Nunavut to co-ordinate education and training opportunities to make sure that their training initiatives reflect the work force that Sabina is going to need?
	Does the Proponent have a memorandum of understanding or other form of project development agreement in place with the Government of Nunavut?
	The importance of negotiating an impacts and benefits agreement was emphasized and questions were raised regarding the extent to which a party purchasing Sabina or Sabina's assets could be bound to fulfill the Proponent's commitments under the Impact Benefit Agreement applicable to the Project.
	Will there be any jobs or economic opportunities for people in the NWT close by?
	Does Sabina conduct security checks for drugs and alcohol at the site right now and if so, do you intend to maintain those checks when the mine is operating?
Socio-Economics (cont'd)	How will Sabina ensure that it has all the personnel it needs to staff the project from Nunavut (we have a lot of territory but not a lot of people)—how will all levels of Government and the Proponent ensure our education system is improved to address this problem (e.g. is there any thought of offering training to students over the summer holidays)?
	How will the benefits of the mine be distributed locally or will these benefits be distributed widely outside the local area affected by the mine?
	Will the budgets for high schools in the communities affected by the mine increase?
	Will the schools incorporate training for heavy equipment operators into the school curriculum when this project begins hiring?
Tailings Storage Facility	Is there something covering the tailings pond to prevent migratory birds from getting into the tailings and being harmed as a result?

Topic	Issues/Concerns/Comments
	How with the Proponent prevent animals from getting into the tailings storage facility? Has the Proponent thought about using an electric fence to prevent wildlife access to the tailings storage facility?
	How can the Proponent and regulators assure us that the tailings management facility will not fail and release tailings into the water and onto the land like the mine in B.C.?
	Are the tailings storage facilities going to be lined so that there won't be seepage onto the lands?
	How will the location for the tailings facility be chosen? It needs to be designed for the long term, not just during operation of the mine but it will also be on the land for a very long time—long after the mine stops operating.
	The Proponent should consult further with locals who know the area to determine a location for its tailings storage facility because they know best where to locate something like that.
	How will the tailings storage facility be reclaimed—will the tailings be removed and disposed of elsewhere or will the Proponent leave it all behind in the tailings storage facility?
Waste Management	How will wastes generated on-site be dealt with (for example will the Proponent use an incinerator?)
	How will hazardous wastes (batteries, oily wastes, etc.) be disposed of?
	How will food/kitchen wastes be dealt with?
	How will you prevent the landfill from attracting wildlife, particularly birds?
Water Use	How will you access water for use on site (use a reservoir or water pipeline—if a pipeline will be used it needs to be protected so that it doesn't leak)?
	Where will the freshwater come from to support the marine laydown area as there is no freshwater source there?
Wildlife	What will the Proponent do if there are effects on the country food (wildlife and fish) we can harvest in the area?
	When the wildlife see changes in the environment they will go somewhere else—this will affect migration routes for caribou and birds as well (they are particularly sensitive during certain times in their lives--breeding, calving, nesting).
	How do the remote wildlife cameras work and how close does the wildlife need to be to trigger the cameras?

Topic	Issues/Concerns/Comments
	Will the Proponent work with HTOs on management initiatives with respect to responding to and dealing with increases to grizzly bear and wolf populations in the area?
	How often are the remote wildlife cameras damaged by the weather, wildlife, etc.?
	How long have you been studying the wildlife in area?
Winter Roads	When is Sabina planning to use the winter road?
	How will Sabina accommodate late freeze up and early break up without damaging the small ponds and lands underneath the winter road?
	There must be monitoring for effects along the winter road especially for contaminants and effects on wildlife.

2.10 Submissions by Other Parties

On November 18, 2014 while the Community Roundtable and Pre-hearing Conference sessions were underway, a written comment submission was received by the Board from the Yellowknives Dene First Nation (YKDFN) for the Board's consideration during the Pre-hearing Conference.

The submission indicated that based on the results from the recent June 2014 survey of Bathurst caribou calving grounds, the GNWT has estimated that there are fewer than 4,000 breeding females in the Bathurst herd which is a significant decline from the estimate of 14,000 breeding females in 2012. On this basis, the submission identified that the short-term action plan developed by the GNWT and Aboriginal Governments in the immediate response to the survey results focused on limiting cumulative impacts on caribou stemming from harvesting, climate change and industrial development. The Yellowknives Dene First Nation also identified that beginning in 2010, the YKDFN has implemented voluntary harvest restrictions to support conservation of the Bathurst herd. However, despite these measures, the YKDFN noted that the population continues to decline.

The YKDFN expressed concern that disturbance of the Bathurst caribou in their calving grounds may not only be the "final straw" for the Bathurst herd, but could also result in increased harvesting pressures on adjacent herds such as the Beverly and Ahiak caribou. Noting the significant sacrifices of Aboriginal people in the NWT to limit further losses to the herd, the YKDFN submission sought: "…a moratorium on all new development in the calving and post-calving grounds, on both sides of the border."[3]

[3] Letter from Chief E. Sangris, YKDFN and Chief E. Betsina to A. Hanson, Director of Technical Services (NIRB), dated November 17, 2014 and received by the Board on November 18, 2014, at p. 2.

In keeping with the Board's normal practice, the Board posted this submission on its on-line registry.[4] Recognizing that many in attendees at the PHC, including Sabina and the intervenors, may have limited access to the internet, and for the convenience of the parties, the Board printed and circulated copies of the submission for these attendees. The Board also gave the participants wishing to respond to the content of the YKDFN's submission an opportunity to include any comments in their closing remarks on November 19, 2014.

On November 19, 2014 following the close of the Pre-hearing Conference, the Board also received a written submission from the Lutsel K'e Dene First Nation[5] (LKDFN) that echoed the submissions of the YKDFN, also seeking a moratorium on all development in the calving and post-calving grounds of the Bathurst herd on both sides of the border.

None of the parties present at the Pre-hearing Conference expressly addressed the YKDFN's submission in their closing remarks.

2.11 Summary of Proponent's Response

In advance of the Technical Meeting, Sabina provided the NIRB with 392 commitments that had been made during the technical review period, to address the information requests and technical issues raised by parties during the technical review period, which Sabina indicated it would track leading up to the submission of its FEIS for the Back River Project. Sabina confirmed that in all cases where parties had suggested that wording be updated in the commitment list circulated as a result of the Technical Meetings, the updated wording was acceptable to Sabina and it would continue to undertake discussions with parties to resolve any further issues.

With respect to the two issues noted as outstanding by the KIA, the request for snowpack monitoring and company commissioned research on the speciation of arsenic in the environment, Sabina provided details during the Technical Meetings and PHC on why it may not be practicable to address these issues to KIA's expectations. Sabina noted that snowpack monitoring would duplicate the monitoring practices already proposed within the Conceptual Aquatic Effects Monitoring Plan and the Air Quality Monitoring and Management Plan, which were designed to identify any changes to the environment, and trigger management practices track and address the issue. Sabina concluded that it did not see benefit to the extra cost of the

[4] Available from the NIRB's online public registry at the following address: http://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/12MN036-SABINA-BACK%20RIVER/02-REVIEW/08-TECHNICAL%20MEETING%20%26%20PHC/02-PREHEARING%20CONFERENCE/03-PHC%20PRESENTATIONS%20%26%20SUBMISSIONS/.

[5] Letter from Chief F. Lockhart, Lutsel K'e Dene First Nation to A. Hanson, Director of Technical Services (NIRB), dated November 18 and received by the Board on November 19. Available from the NIRB's online public registry at the following address: http://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/12MN036-SABINA-BACK%20RIVER/02-REVIEW/08-TECHNICAL%20MEETING%20%26%20PHC/02-PREHEARING%20CONFERENCE/03-PHC%20PRESENTATIONS%20%26%20SUBMISSIONS/.

snowpack monitoring, and felt that the plans proposed in the DEIS included the required components to track down potential sources of contamination in the event that a threshold for mitigation measures was triggered.

In regards to the request for additional environmental studies regarding arsenic speciation, Sabina indicated that the priority of monitoring is to detect and mitigate project-specific impacts, and that in this case the cost of this proposed research may not be warranted due to the already high, naturally occurring arsenic in the area. Sabina noted that it had already proposed arsenic monitoring and mitigation practices in the Mine Waste Rock and Tailings Management Plan, and that the treatment of tailings water would be conducted to Metal Mining Effluent Regulations standards and within the water licence release standards.

Sabina further noted that numerous information items requested in the NIRB EIS Guidelines and through the technical review period for the DEIS were currently being assessed as part of the feasibility study being undertaken by Sabina and that the study would be completed prior to the submission of its FEIS.

2.12 Parties' Submissions on Procedural Issues

At the Pre-hearing Conference, the Proponent, intervenors, community representatives and members of the public were given an opportunity to provide their input regarding the following procedural issues:

1. Anticipated date for submission of the Final Environmental Impact Statement.
2. Date, time and location of the Final Hearing.
3. Timetable for the exchange of documents and information requests prior to the hearing.
4. Formulation of issues for the hearing.
5. Procedures to be followed in the hearing.
6. Equipment, language, interpretation, translation and transcript requirements.
7. Other matters that may aid in the simplification of the hearing (including the parties' views with respect to a site visit for the Board prior to, or during the Final Hearing).

Sabina advised the Board that it anticipates filing the Final Environmental Impact Statement by July 2015.

With respect to the date and time of the Final Hearing, Sabina indicated that it had no specific preferences, other than noting that it would expect the Final Hearing to be scheduled in a timely manner following the submission of the FEIS. With respect to these issues, the Kitikmeot Inuit Association (KIA) advised that if the submission of the FEIS occurs in July 2015 as projected by

Sabina, November or December 2015 would be preferable to hold the Final Hearing, depending on the time that the caribou moved through the area. The Government of Nunavut (GN), Aboriginal Affairs and Northern Development Canada (AANDC) and the Government of the Northwest Territories all noted that the Final Hearing dates should avoid hunting times to ensure full public participation. Members of the public also indicated that dates in the late spring, summer and early fall should be avoided if possible to avoid conflicting with seasonal harvesting activities. Natural Resources Canada (NRCan) also indicated that its experts tend to be less available during the summer and fall months when they are conducting field work/research, and although NRCan would work to accommodate the timing established by the Board, as these limits coincide with the submissions of other parties NRCan's preference would also be to avoid Final Hearing dates in the summer and early fall as well. Fisheries and Oceans Canada (DFO), Environment Canada (EC) and Transport Canada (TC) indicated they could accommodate whatever dates are chosen by the Board for the Public Hearing.

With respect to the location of the Final Hearing, as noted above Sabina expressed no preferences. The KIA noted that although all of the Kitikmeot communities might be impacted, Cambridge Bay and Kugluktuk are the closest to the proposed development areas and as such, the KIA suggested that the Final Hearing be held in either of those communities. AANDC and DFO recommended that the location for the Final Hearing be Cambridge Bay and the community representatives indicated that the location was not important as long as the NIRB supports the attendance of representatives from the potentially affected Kitikmeot communities.

With respect to the timetable for the exchange of information prior to the Final Hearing, the Nunavut Water Board (NWB) indicated that, reflecting that the Back River Project is subject to a co-ordinated process between the NWB and the NIRB, an Information Request (IR) stage associated with the final Type "A" Water Licence Application that Sabina will be attaching to the FEIS would be beneficial. In addition, AANDC, noting its role in the water licensing process also indicated that an IR stage would be helpful, not only for the water licence application attached to the FEIS, but also in advance of the general technical review of the FEIS, as the parties should expect the FEIS to contain a large amount of new information that may warrant IRs prior to parties being able to complete the additional technical review. The KIA also indicated that an IR stage may be useful, or alternatively that the technical review period be extended by 30 additional days to ensure that all parties have an opportunity for comprehensive technical review before the final written submissions must be filed. NRCan indicated that an IR stage may be beneficial or alternatively an extension of the normal technical review comment period could assist parties' review of the additional information to be provided in the FEIS. NRCan also indicated that additional time may not be required if the parties are kept informed by Sabina and are consulted on an on-going basis with respect to outstanding issues prior to the submission of the FEIS. Sabina indicated that with respect to the incorporation of an IR stage in advance of the technical review, that Sabina did not object to this addition, however, wanted to

emphasize to the Board and parties that whatever process is chosen by the Board that the NIRB should ensure timelines are clearly communicated and maintained so that the process does not get bogged down with repeated extension requests and unforeseen delays.

With respect to the issues that remain to be discussed at the Final Hearing, the parties indicated that if Sabina meets the commitments outlined in their response to the parties and as provided at the Technical Meeting (attached to this Decision as Appendix 1) there were no issues that would prevent the Back River Project from proceeding to the next steps in the Review (Sabina's preparation of the FEIS, technical review of the FEIS and a Final Hearing). However, although the parties indicated that the Board's Review could continue to the next stages, many parties at the PHC identified the following issues in addition to those referenced in sections 2.1 – 2.10 of this report which may warrant further discussion during the final phase of this Review, including at a Final Hearing for the Project:

- The NWB identified that depending on the level of information supplied in the Type "A" Water Licence Application appended to the FEIS, the NWB may consider scheduling a Preliminary Technical Meeting in relation to the water licence application immediately following the Final Hearing;
- The KIA identified that further discussion of the need for arsenic speciation and further discussions of Sabina's position with respect to KIA's request for snow pack monitoring would be helpful;
- EC identified that it may be helpful if Sabina and EC provide additional details regarding Sabina's *Metal Mining Effluent Regulations* Schedule 2 Amendment Application;
- TC identified that it expected further detail would be supplied regarding overwintering of barges and that this topic should be discussed between Sabina and TC before submission of the FEIS. TC also indicated that it expected more discussion on navigable water issues during the technical review of the FEIS; and
- Community Representatives indicated that additional information regarding the ranges and potential for the project to impact the Dolphin and Union caribou herds would be beneficial.

With respect to procedures to be followed at the Final Hearing, the parties agreed that Board's Rules of Procedure (effective September 3, 2009) should govern the proceedings for the Final Hearing for the Project. The DFO and NRCan requested direction from the NIRB regarding whether the parties can continue meeting with Sabina outside the NIRB formal processes to assess materials proposed for inclusion in the FEIS, to discuss additional technical issues related to the Project and to work co-operatively to resolve outstanding issues. In response, the NIRB indicated that the Board encourages on-going engagement, but that the parties are expected to provide details of discussions and significant issues that were identified through these types of meetings and discussion of agreements reached or resolution of issues. Further the NIRB

advised that details in respect of discussions relating to the resolution of issues addressed in the FEIS should be provided by the parties or Sabina for inclusion on the public record where reasonable and pertinent to the public nature of the Review, and that Sabina should also consider reporting these details and in particular the results of discussions within the FEIS if possible.

Sabina also indicated that the FEIS submission would be structured as a complete document with a stand-alone Type "A" Water Licence Application being provided as an Appendix. In addition, Sabina noted that providing smaller presentations at the beginning of each discussion on a subject matter had been a positive experience during the technical meetings, and Sabina requested that the NIRB consider the same format for the Final Hearing. NRCan shared Sabina's view that shorter, more focused presentations, followed by questions makes it easier for intervenors to ask more directed questions, ensure that they have the required technical experts available to provide questions and comment and more easily cross-reference presentations to technical review comments. EC also noted the importance of timely provision of an agenda for the Final Hearing as well as confirming participants, presentations and logistical arrangements as soon as possible when the dates for the Final Hearing are confirmed.

With respect to equipment, language, interpretation, translation and transcript requirements, in addition to the Board's normal requirements, the attendees from the Northwest Territories indicated that additional interpreters for the T'licho would be required (only one interpreter was available for the Community Roundtables and PHC). All participants noted that due to the very technical nature of the information being presented that the Board should be mindful of retaining specialized interpreters if possible. The GNWT also noted that meeting the Board's translation requirements in terms of timing and access to specialized translators is a challenge. Consequently, clear direction from the Board regarding these requirements as far in advance as possible is very important.

With respect to other matters that may aid in the simplification of the Final Hearing, the Board polled all the parties regarding whether they would have objections to the Board conducting a site visit in advance of, or as part of, the Final Hearing. No parties had objections to the Board conducting a site visit and the KIA emphasized the importance of a site visit to the NIRB and the Nunavut Water Board gaining a sufficient understanding of key features of the project development area, such as the rugged terrain in the area proposed to be used as the tailings impoundment facilities. Sabina indicated that it would welcome a site visit and agreed with the recommendations from the KIA, AANDC, and DFO that the timing of the site visit should be during the summer months when there was no snow cover and no ice on adjacent water bodies. Sabina advised the Board that a site visit would likely require Sabina to partially open the Goose camp, which Sabina is willing to do with sufficient notice. Several intervenors indicated they would welcome the opportunity to attend the site visit, although the NIRB noted that, depending on site visit logistics, the site visit may not be available to all participants at the Final Hearing,

and may be limited to only the Board and staff or the Board and staff and only a limited number of representatives from the parties and communities.

3. Nunavut Impact Review Board Analysis & Decision

3.1 Issues to be decided

Parties were directed to address the following seven issues:

1. Anticipated date for submission of the Final Environmental Impact Statement
2. Date, time and location of the Final Hearing
3. Timetable for the exchange of documents and information requests prior to the hearing
4. Formulation of issues for the hearing
5. Procedures to be followed in the hearing
6. Equipment, language, interpretation, translation and transcript requirements
7. Other matters that may aid in the simplification of the hearing

3.2 Jurisdiction of the Board

The NIRB conducted the Pre-hearing Conference (PHC) for the Back River Project on November 19, 2014 under the authority of Article 12, Part 5 of the NLCA[6] and the NIRB Rules of Procedure, dated September 3, 2009, Section 21. The NIRB generally conducts a PHC in order to identify and limit the issues of divergence among parties prior to the Final Hearing, to identify any outstanding issues that could prevent the Board's review of the project proposal from proceeding to the next stages of the review, to solicit the views of the parties regarding various procedural issues leading to and at the Final Hearing and to promote the efficient use of time at the Final Hearing.

3.3 Issues

Taking into account parties' submissions and comments from the public at the Community Roundtables and the PHC, the Board's decision on the seven issues is as follows:

[6] Section 12.5.3 states "NIRB may conduct its review by means of correspondence, public hearings or such other procedures as it deems appropriate to the nature of the project and the range of impacts."

3.3.1 Anticipated date for submission of the Final Environmental Impact Statement

Sabina advised the Board that it anticipates filing the FEIS by July 2015.

The Board emphasizes to Sabina that the quality and completeness of the FEIS is the foundation for a timely, effective and thorough assessment and minimizes additional information requests and facilitates ease of review for all parties. The decision as to when Sabina has determined that its FEIS is in all respects complete and complies with the requirements set by the NIRB remains with Sabina. However, if the anticipated timing of the FEIS submission should change the Board requires Sabina to provide the NIRB with an update regarding its revised submission timeline as soon as possible. As all parties can appreciate, and as requested during the PHC, advance notice regarding deviations from the timelines, practice and procedure normally associated with a NIRB Review is appreciated and necessary so that changes can be accommodated in the communities affected by the project, as well as the Board's schedule and those of all participants.

The NIRB notes that the FEIS is expected to include a table which illustrates its concordance with the EIS Guidelines and compliance with the PHC Decision. The Board requests that Sabina provide a similar table which cross-references the commitment listings in Appendices 1 and 2 with sections of the FEIS where corresponding information can be located.

3.3.2 Date, time and location of the Final Hearing

Until the Board has received the FEIS submission, reviewed the submission and considered whether a further opportunity for an Information Request stage is necessary before the technical comment period commences, the Board is unable to confirm the specific dates for the Final Hearing. However, for the benefit of all the parties, assuming Sabina meets the commitments in its submissions and in Appendices 1 and 2 of this report as well as submitting an FEIS that complies with the direction in this PHC Decision and the EIS Guidelines in July, 2015, the Board expects that a Final Hearing could be scheduled in November or December 2015.

The NIRB notes the request from several parties for sufficient advance notice of the date of the Final Hearing and the confirmation of the Final Hearing date will be provided as soon as possible following the NIRB's receipt and compliance review of the FEIS and upon initiation of the technical review period. At that time the Board will also consider the Board's schedule of other ongoing assessments.

The Board further notes that as indicated by several intervenors and Community Representatives, a late Spring/Summer date for the Final Hearing could make it more difficult for potentially affected communities to fully participate, as many community members may be on the land and engaged in traditional activities. Prior to confirming the dates for the Final Hearing, the Board

will consult with the affected communities to identify any timing conflicts with significant community events or other seasonal restrictions.

When determining the Final Hearing date the Board is also required to take into consideration Section 12.2.27 of the NLCA which states:

> *All necessary steps shall be taken by way of notice, dissemination of information, and scheduling and location of hearings to provide and promote public awareness of and participation at hearings.*

The NIRB Rules of Procedure (September 2009) Part III, section 20 also prescribe that at least 60 days' notice of the Final Hearing must be provided.

As indicated by several parties at the PHC, the Board has decided that Cambridge Bay is the most appropriate venue for the Final Hearing. As was done for the Community Roundtable and PHC, the Board will support the travel and participation of Community Representatives from the other Kitikmeot communities of Bathurst Inlet, Bay Chimo, Cambridge Bay, Kugluktuk, Gjoa Haven, Taloyoak, and Kugaaruk potentially affected by the Back River Project so that they are able to participate in the Final Hearing in Cambridge Bay. In addition, the Board will work with representatives of potentially affected communities of the Northwest Territories including Bechoko, Dettah, Gameti, Lutselk'e, Wekweeti, Whati, and Yellowknife-Ndilo to support, to the extent possible, their on-going participation at the Final Hearing.

3.3.3 Timetable for the exchange of documents and information requests prior to the hearing

Once accepted by the NIRB, the FEIS will be subject to a minimum 90 day technical review period. An Information Request (IR) period will run concurrently with the initial 30 days of the technical review period, allowing parties to submit IRs for response where necessary. The Proponent will be required to respond to IRs within 30 days of receipt or less, depending on the breadth, scope and total number of IRs received. The NIRB notes its expectation that the Proponent's FEIS submission will be fully developed to address the specific requirements and general objective of the detailed listing of commitments in Appendices 1 and 2, such that the need for submission of IRs by parties should be very limited. The NIRB reserves the right to extend the technical review period if the Board finds that additional time is necessary to deal with issues arising from the quality of the FEIS submission.

Following the Board's compliance review, the NIRB will establish a process for the submission of IRs and may schedule another meeting of technical experts (i.e. a technical meeting) and/or a PHC. Having noted the parties' request for sufficient advance notice of meetings requiring

technical experts, if the Board determines that a Technical Meeting and or PHC are warranted, the Board will ensure sufficient advance notice is provided.

3.3.4 Formulation of issues for the hearing

The Board also believes that the commitments set out in Appendix 1 will address many of the concerns raised by the community representatives. For example, further discussions and improvements to spill response planning, as well as improvements on impact predictions for caribou, are expected in the FEIS. A number of commitments have been made to improve the discussion on the assessment of winter road routing, and shipping. The Board expects that when fulfilling its commitments, Sabina will take into consideration the issues highlighted at the Community Roundtables.

Based on the NIRB's consultation with parties and potentially affected communities, and in addition to Sabina's commitments set out in Appendix 1, the Board requires Sabina to address the following in its development of the FEIS, or to include the following information within its FEIS submission:

1. Sabina shall include within the FEIS further details on engagement, both planned and completed, with Transport Canada and with communities, residents and organizations in the Kitikmeot Region regarding the following points associated with planned project shipping:
    a. Anticipated shipping vessel sizes, types and experience of operators;
    b. Documentation of bathymetry, approaches, natural hazards, and areas sensitive to disturbance for Bathurst Inlet;
    c. Measures to ensure adequate spill response planning and equipment is in place for project vessels and the Proponent's proposed oil handling facilities;
    d. Communication plan for providing regular updates to local communities and organizations regarding Project shipping schedules; and
    e. Determining the annual open water season for Bathurst Inlet and the Project shipping routes in the Nunavut Settlement Area, including contingency planning should shipping schedules required adjustment (i.e. barge overwintering areas, cat train/ice trail transport plans) owing to earlier than anticipated freeze-up.
2. Within its FEIS, Sabina shall update its discussion of groundwater to include a consideration of permafrost structures within the proposed development area which may contain high-salinity water. Where such structures are identified, it shall include discussion of the potential for high-salinity water within permafrost to be released as a result of Project activities, and include relevant mitigation measures.

3. Sabina shall include within the FEIS, updated draft management plans for the proposed development, including but not limited to: operation of landfarms; the management of wastewater at proposed treatment facilities; the stability and integrity of the tailings impoundment area; the assessment of stability characteristics of terrestrial areas proposed for water discharge; and, the use of cyanide.
4. Sabina shall, within its FEIS, highlight updates or changes made to its adaptive management and/or monitoring plans for caribou and shall discuss how these changes were achieved in consultation with the governments of Nunavut and the Northwest Territories. The discussion shall also clearly identify thresholds for adaptive management (i.e. work stoppages).
5. Sabina shall, where possible and in consultation with the Government of the Northwest Territories, provide additional analysis (quantitative or qualitative) in the FEIS of project impacts to caribou reproductive productivity with the objective of increasing confidence in the conclusions of Sabina's effects assessment.
6. Sabina shall include within the FEIS additional discussion on project impacts to caribou in the context of the Bathurst herd's current low population levels. Sabina's assessment shall include recognition of the low population levels and include a discussion of potential project effects on population recovery. Sabina shall also describe how its mitigation measures may contribute to improved rates of recovery, and shall discuss how it may contribute to any initiatives or efforts to improve rates of recovery.
7. Sabina shall demonstrate within the FEIS how the timing of its project activities may interact with harvesting by communities.
8. Sabina shall include within the FEIS additional information on historic annual variation in Bathurst caribou herd movement and utilization of calving and post-calving areas.
9. Within its FEIS, Sabina shall demonstrate a consideration of the need for, and potential incorporation of, work suspension protocols and other adaptive management measures for caribou. This shall include consideration of triggers for the implementation of such measures within relevant management plans.
10. Sabina shall clearly demonstrate within its FEIS how monitoring programs will be designed to verify impact predictions made in the FEIS and describe how it plans to update monitoring programs and impact predictions during the life of the Project.
11. Sabina shall include within its FEIS, a clear rationale and discussion for its preferred zone of disturbance chosen for the assessment of impacts to caribou.
12. Sabina shall include within its FEIS, updated information to clarify how and where areas of uncertainty in impact predictions have been identified, and shall identify where a precautionary approach to adaptive management and/or monitoring has been undertaken.

13. Sabina shall include within its FEIS a revised assessment of the marine environment and impacts from proposed shipping activities to include the marine shipping route within the Nunavut Settlement Area. The assessment shall demonstrate consideration for potential impacts to VECs and VSECs specific to shipping activities, cumulative effects of shipping in relation to other proposed and reasonably foreseeable projects are considered, and shall include appropriate mitigation and monitoring measures.
14. Within its FEIS, Sabina is expected to revise its cumulative effects assessment to address the following:
    a. Inclusion of all presently approved and reasonably foreseeable (i.e. within the NIRB's Review process) industrial developments within the Kitikmeot region within its consideration of cumulative effects to VECs and VSECs, including the marine shipping components of each approved or potential development.
    b. Provide clarification or justification for its use of the 95^{th} percentile distribution range for its winter cumulative effects assessment boundary, while employing a 50^{th} percentile distribution range for the summer range. Given noted variability in caribou ranges, Sabina shall, where possible, demonstrate consideration for the use of a 95^{th} percentile for both summer and winter ranges, and, where note possible or feasible to do so, shall provide justification.
15. Sabina shall include within its FEIS, confirmation of the removal of the Tibbit-Contwoyto road and potential connections from the scope of the Project proposal. Should Sabina wish to have this road connection remain under consideration for the assessment, it must include this component within the LSA, RSA, and include it for consideration as part of the assessments of all VECs and VSECs, including cumulative and transboundary impacts.
16. Sabina shall include within its FEIS, clearly defined periods for proposed post-closure monitoring with justification for the chosen period(s) for each project component and/or VEC/VSEC, as applicable.
17. Sabina shall within its FEIS, highlight areas where significance determinations have been further updated to take into consideration the concerns raised by reviewers.
18. Sabina shall include within the FEIS, updated maps or illustrations which clarify the direction of migration of animals.
19. Sabina shall provide within its FEIS, its statistical analyses methods and results in tabulated form where possible, and shall provide clear justification for all impact analyses and rationale for choosing the RSA, LSA, and other parameters in order to assist the reader in verifying the reasonability and reproducibility of said analyses as consistent with the NIRB's EIS Guidelines, section 7.7.

Given the issues raised to date in this Review, the NIRB believes it will be necessary for government departments and agencies to be prepared to address the following key issues within their technical review of the Proponent's FEIS submission, including their final written submissions to the Board and during participation at the Final Hearing for the Project:

- Kitikmeot Inuit Association: Discussion of the status of the Inuit Impact and Benefits Agreement negotiations, with a focus on non-confidential details and any progress made with addressing concerns of the residents of local communities related to potential project effects.
- Government of Nunavut: Discussion of how lessons learned from approved mining developments such as the Meadowbank Gold Mine and the Mary River Iron Mine may have impacted the cost, timing, and delivery of public services and programs under the responsibility of the Government of Nunavut (e.g. daycare, education, policing, health care, etc.).
- Government of Nunavut & Government of the Northwest Territories: Population health of caribou herds in proximity to the proposed development area, particularly the Bathurst caribou herd. A discussion of ongoing and/or planned harvesting restrictions and other conservation measures in Nunavut and the Northwest Territories, as well as a review of the Proponent's impact assessment conclusions and proposed adaptive management plans for caribou and caribou habitat.
- Aboriginal Affairs and Northern Development Canada: Adequacy of proposed security and reclamation estimates provided by the Proponent within its FEIS.
- Aboriginal Affairs and Northern Development Canada & Natural Resources Canada: Structure and suitability of the engineering and design of structures associated with the proposed tailings impoundment area, with emphasis on any considerations described in the FEIS for permafrost, climate change and contingencies for possible structural failure.
- Environment Canada: Information from Canadian Ice Services, including changes to ice regime specific to the Nunavut Settlement Area that may affect Project related shipping, including specifically, the timing of freeze-up in Bathurst Inlet and observed or anticipated changes to ice formation in this and other areas relevant to the shipping route(s) as proposed for the Back River Project.
- Transport Canada & Canadian Coast Guard: Navigability of proposed shipping routes, particularly Bathurst Inlet, for the proposed vessel types, timing of shipping and specific approaches described by the Proponent.

Following the review of the FEIS, the Board will further formulate the issues for the Final Hearing.

3.3.5 Procedures to be followed for the hearing

As agreed to by the parties at the PHC, the Final Hearing will proceed in accordance with the NIRB Rules of Procedure, dated September 3, 2009.

Formal technical presentations will be scheduled to take place first and will be organized by subject. As noted by Sabina and some intervenors, shorter, issue-focused technical presentations will be expected for this part of the Final Hearing. The technical sessions will be followed by less formal community roundtable sessions, where short, focused presentations by Sabina and the intervenors will be followed by rounds of questions and comments from community representatives. All parties are required to ensure sufficient technical expertise is available for both the technical sessions and the community roundtable components of the Final Hearing.

For anyone wishing to participate in the Final Hearing but who is not automatically considered to be an "Intervenor" under the NIRB's Rules of Procedure, the Notice of Final Hearing will contain additional details and specific timelines as to how to bring an application to become a formal Intervenor at the Final Hearing.

3.3.6 Equipment, language, interpretation, translation and transcript requirements

As identified by the community representatives from the T'licho, to ensure that sufficient capacity is available for simultaneous interpretation throughout the proceedings, more than one T'licho interpreter will be required at the Final Hearing. In addition, the Board expects to implement normal requirements associated with the Board's Final Hearings with respect to the equipment, language, interpretation, translation and transcript. The Board will issue specific direction regarding these requirements closer to the Final Hearing date.

3.3.7 Other matters that aid in the simplification of the hearing

As established in Rule 27.1 of the NIRB's Rules of Procedure, the Board has determined that scheduling a site visit either in advance of, or as part of the Final Hearing would be beneficial. When the timing of the Final Hearing is confirmed by the Board, further details regarding the schedule and logistics for the site visit will be provided. As noted at the PHC, depending on the logistical limitations at the site visit, the Board may not be able to ensure that other Final Hearing participants are able to accompany the Board for the site visit. However, the agenda, activities and stops while at the site will all be agreed to in advance with the Proponent, parties and the Board. Further, a public summary of the site visit will be attached as an Appendix to the Final Hearing Report.

4. Coordinated Process

4.1 Nunavut Water Board

On February 24, 2009 the NIRB and the NWB released a Detailed Coordinated Process Framework to demonstrate how the NIRB and the NWB would coordinate their efforts to avoid unnecessary duplication in the review and processing of Type "A" water licence applications for projects undergoing a NIRB Review, pursuant to Sections 13.5.2 and 13.6.1 of the NLCA. In response to comments, on September 4, 2009 the NIRB and the NWB issued a revised Detailed Coordinated Process Framework describing the planned coordination between the NIRB and the NWB.

In its original June 26, 2012 application to the NIRB, Sabina requested that should the project be referred to a Review under Part 5 or 6 of the NLCA, it proceed as a NIRB-NWB coordinated process. To date, the NWB has participated in the NIRB's Review as follows:

- Scoping meetings and development of the *Final Scope List for the NIRB's Assessment of the Back River Project (March 18, 2013)*;
- Development of Section 1.4 and *Appendix C: Nunavut Water Board Information Requirements for Type A Water Licence Application* in the *Guidelines for Preparation of an Environmental Impact Statement (April 30, 2013)* which defined the information requirements related to water licensing; and,
- Provision of technical advice at the November 2014 Technical Meeting and Pre-hearing Conference.

The NWB's technical advice on the DEIS noted that due to the amount of information outstanding in the document, additional time and requests specific to the water licence application may be required during the next phase of the NIRB's Review. The NWB would consider holding a preliminary technical meeting on the Type "A" Water Licence Application for the Back River project following the NIRB's Final Hearing, contingent on the completeness of the Draft Water Licence application contained within the FEIS. Additional information from the NWB's technical review of the draft water licence is included as Appendix 3.

5. Conclusions of the Board

The NIRB believes that Sabina will resolve many of the technical issues raised by parties if it endeavours to comply with the specific direction and implied intention of the NIRB's EIS Guidelines and by fully meeting its commitments made during the technical meeting as set out in Appendix 2 of this Decision, and those commitments made by Sabina as a result of parties' technical review of the DEIS as set out in Appendix 1. The Board accepts the Commitment Lists

as set out in Appendix 1 and 2, and notes that the fulfilment of these is a key part of the FEIS requirements. The Board encourages Sabina to continue to work with parties to resolve the balance of the issues identified at the Community Roundtables and PHC.

The Board expects Sabina and the intervenors to consider the comments received in the public review of the DEIS and to respond to the issues raised in the comment submissions as each party considers appropriate. The Board also encourages the parties to engage in discussions with those providing comment submissions with a view to resolving outstanding issues, to the extent possible, prior to the Final Hearing to be held as part of the Board's Review.

Once completed, Sabina should direct its FEIS submission to the NIRB at the following address:

Nunavut Impact Review Board
29 Mitik Street
P.O. Box 1360
Cambridge Bay, NU X0B 0C0

Upon receipt of the FEIS submission, the Board will make its findings regarding acceptance of the FEIS public after an internal 15 day review. In preparing its FEIS for submission, the Proponent should be aware of the need to include a concordance table that demonstrates where the EIS Guidelines have been met, the various commitments outlined in Appendices 1 and 2 of this report have been met, and finally, where the specific direction provided within this report has addressed. Furthermore, the Board expects that Sabina will include within its submission, a table which lists and describes any items that were required by the NIRB Guidelines and which Sabina noted within the DEIS as being deferred to the FEIS. In keeping with the format for a concordance table within the FEIS, it should provide necessary reference locations to enable reviewers to easily locate and review the relevant material.

The NIRB will provide further details and direction on process for the final phase of the Review, consistent with the items noted in the sections above, and will take steps necessary to ensure effective public engagement and participation in the steps to follow once the FEIS has been accepted.

The Board appreciates the efforts by all those involved with its Review thus far, and looks forward to working with all parties in the final phase of its Review of the Back River Project.

Signed this 19th day of December, 2014.

Elizabeth Copland
Chairperson
Nunavut Impact Review Board

Appendix 1: Commitments from Technical Meeting and Pre-hearing Conference

1) Please note that any commitments requiring submission of materials prior to the Final Environmental Impact Statement (FEIS) are also to be included within the FEIS where applicable.

2) Where it is requested that data be provided, it is expected a related discussion will also be included within the FEIS.

3) Where no timelines are indicated, Sabina Gold & Silver Corp. (Sabina) is to provide as per requests of the party putting the commitment forth.

Commit-ment #	Party	Reference (relevant IR or TRC)	Commitment	Comments
DAY 1				
DEIS Organization, Conclusions and Methodologies				
Alternative Assessment including Geology, Geotechnical Information and Waste Management				
1	AANDC	AANDC TRC 1	Sabina commits to show within the FEIS how alternatives were analyzed and to explain when options are dropped off, identify rationale for the selection, and clarify which alternative options remains a possibility. This should include how environmental and socio-economic factors have been applied to the selection of alternatives.	
2	NRCan	NRCan 7	Sabina commits to provide any additional site specific investigations (e.g. geotechnical, geophysical) of the foundational materials for proposed alignments for dykes and embankments, that are undertaken in the next six months, in the FEIS.	
3	KIA	KIA IR 9, 10, 12	Sabina commits to providing information on ground ice based on results of geotechnical site investigations conducted between the release of its feasibility study and submission of the FEIS.	
4	KIA	IR 15	Sabina commits to presenting the seepage data for the airstrip as soon as practical and to assessing the results in the context of an adaptive management framework within the waste rock management plan to be submitted as a part of the FEIS.	
5	KIA	n/a	Sabina commits to demonstrating consideration of realignment of the winter road north of Tahikafalok Lake (Bathurst Lake) to the marine laydown area in order to address potential impacts to identified riparian zones. This reconsideration may include a site visit conducted in coordination with the KIA, discussion of which shall be included within the FEIS.	
6	NWB	n/a	Sabina commits to providing a discussion of potential tailings slurry density, taking into account other projects in the north, specifically Meadowbank. This information wil be included wtihin the FEIS.	
7	NRCan	NRCan 36/37	Sabina commits to further consult and engage with NRCan regarding its response to technical review comments 36 and 37 prior to submission of the FEIS.	
8	GN	IR 12	Sabina commits to removing reference to a hard-surface airstrip in the FEIS.	commitment 24 from GN submission
9	GN	CR 20	For the FEIS, Sabina commits to detailing whether bulk fuel storage will include overwintering of fuel vessels in sea ice.	commitment 25 from GN submission
Atmospheric Environment including Climate, Air Quality, Noise and Vibration				
10	NWB		Sabina commits to demonstrating in the FEIS that it has considered the experience gained at Meadowbank with respect to dust suppression as well as its related effects assessment, and water consumption rates.	
11	KIA	CR 14	Sabina commits to come up with a methodology for modelling climate change and to discuss it with the KIA and other interested parties prior to the submission of the FEIS.	
12	KIA	KIA IR 18	Sabina commits to providing more detail on the operation of the incinerator and management of emissions in the FEIS. Details will include: the make and model of the incinerator including a letter from the manufacturer stating that it is designed to incinerate sewage sludge, adheres to EC's guidance document on batch incineration, and is a dual-chamber incinerator. Details will be provided for adapative management if elevated metals, dioxans, furans, and/or ammonia are detected through the dustfall monitoring program.	

13	GN	IR 18	At this time the Goose Property Airstrip will not be designed to accommodate aircrafts as large as a Boeing 767. If larger aircraft are selected as a viable option, Sabina commits to updating the air quality and noise models and conduct an effects assessment to address the potential effects of this larger class of aircraft. This would be included in the FEIS.	commitment 48 from GN submission
14	GN	TRC 35	Dustfall sampling locations will be chosen to ensure that all large sources of emissions are monitored. Sabina will consult with the GN on the number and location of sampling sites prior to finalizing the Air Quality Monitoring Plan for the FEIS.	commitment 49 from GN submission
Aquatic Environment including Water Management, Freshwater Environment, Hydrology, Hydrogeology and Mine Rock Characterization				
15	NWB		Sabina commits to include the conceptual design of all water management structures within the water licence application filed as part of the FEIS.	
16	KIA	IR 22, 23, 25, 26	Sabina commits to develop site specific water quality objectives where relevant for parameters that naturally exceed CCME protection of aquatic life levels. This pertains to each of the project locations including Goose, George and the Marine Laydown Area.	
17	AANDC	AANDC 13	Sabina commits to reviewing table 4.8-1 for the FEIS to ensure clarity with the text that water will not be discharged to the aquatic receiving environment prior to meeting site water quality objectives.	
18	AANDC	AANDC 15	Sabina commits to providing more details in the FEIS on the waste water management strategy including sewage effluent. This will include discharge locations and the characteristics of those locations as well as impacts on the receiving environment, attenuation capacity, end of pipe locations, seasonal considerations, alternatives, and design or engineering contingencies.	
DAY 2				
19	AANDC	AANDC-22	Sabina commits to reviewing the need for contingency measures in relation to all potentially contaminated discharge (of particular concern and interest to AANDC are potential discharges from the waste rock storage areas, tailings impoundment area, and the pit lakes at closure). Where it is deemed that contingency measures would significantly reduce the risk to the environment, those measures will be presented in the FEIS. Where contingency measures are not provided, a rationale will be provided as to why they are not necessary.	
20	EC	EC-26	Sabina commits to including sensitivity analysis for approach of zero-discharge volumes within the detailed site wide water and load balance presented in the FEIS to address higher than predicted water volumes.	
21	EC	EC-28	Sabina will provide detailed effluent quality predictions, an assessment of the receiving environment concentrations, and identification of water quality objectives within the FEIS.	
22	DFO	3.1.1	As part of the Site Preparation Application and in the FEIS, Sabina commits to provide DFO and other parties with supplemental information on how the Rascal stream realignment may affect the following: existing channel stability and erosion potential; the potential for re-suspension of sediments in ponds; and areas with undefined channels.	
23	DFO	3.1.1 (DFO 2)	As part of the Site Preparation Application and in the FEIS, Sabina commits to provide DFO and other parties with supplemental information on whether Arctic grayling spawning and rearing habitat is limiting within the watershed for the population using the stream.	
24	DFO		As part of the Site Preparation Application and in the FEIS, Sabina commits to provide DFO and other parties with supplemental information on how the Rascal stream realignment may result in Arctic grayling spawning and egg stranding in the deactivated reaches of Rascal Stream East.	
25	KIA	IR-29	Sabina commits to provide a discussion of the expected seepage volume from the tailings storage facility in the perimeter ditches and a threshold for a maximum acceptable flow to be included in the FEIS. Sabina also commits to provide further discussion of mitigation within the FEIS and specific adaptive management protocols that would be triggered should the proposed thresholds be breached.	

26	KIA	IR-30	Sabina commits to ensuring that all mine phases are addressed within plans listed in the FEIS (as presented in the DEIS table 13.1), including: the Mine Waste Rock and Tailings Management Plan (addition of construction and closure phases), the Site Water Monitoring and Management Plan (addition of temporary and final closure phases), and the Fish Offsetting Plan (addition of final closure phase).	
27	KIA	n/a	Sabina commits to working with the KIA, EC, and DFO on the components of the final AEMP prior to submission of the FEIS.	
28	KIA	IR-16	Sabina commits to providing the appropriate justification for design criteria adopted for any water management structures at Lytle and Occurrence Lakes and to demonstrate a consideration for whether or not contingency plans are warranted within the FEIS.	
29	AANDC	AANDC-23	Sabina commits to providing within the FEIS, an estimate of water quantity and quality produced throughout the project, parameters to form the basis for design of water management structures, monitoring that will be required at each of the sites and how this monitoring will be effective, and associated treatment options.	
30	AANDC	AANDC-26	Sabina commits to providing in the FEIS an updated preliminary closure plan which includes definitions of temporary closure and care and maintenance including outlining what activities and monitoring may continue at the project subject to the phase within which care and maintenance is implemented.	
31	EC	EC-24, EC-36	Sabina commits to include the marine laydown area within water management plans as presented in the FEIS.	
32	EC	EC-27	Sabina commits to incorporate contributions from blasting reagent residues in the water balance and load estimates submitted within the FEIS.	
33	EC	EC-31	Sabina commits to identify appropriate surrogates for total suspended sediment (TSS) assessment and to continue to calibrate this with build data.	
34	TC		Sabina commits to providing sufficient detail in the FEIS that would clarify any alternative to relocate or adjust the spatial location of a tailings impoundment area with respect to any involved or surrounding waterbodies as such relate to navigability.	
35	KIA		Sabina commits to giving consideration to high salinity within its groundwater model and subsequent data presented within the FEIS.	
36	KIA	KIA CR-10	Sabina commits to further sampling and analysis during operations where required to support waste rock management activities. It is anticipated that there will be two components to this work, including collection and analysis to classify waste rock during the mining process, and sampling and anaysis to verify the effectiveness of the management plans. Details on these plans will be provided in the waste rock management plan submitted as part of the FEIS.	
37	NRCan	NRCan-23 24	Sabina commits to addressing these considerations and to further investigating the methods for predicting and managing groundwater inflows (such as those suggested in Appendix O of the DEIS) in the site water and monitoring management plan in the FEIS.	
Socio-Economic Environment and Assessment including Heritage Resources				
38	GN	GN-1	The Proponent commits to include project-specific data concerning employee community of residence and number of employees that relocated from the year prior (to and from, for Cambridge Bay, Kugluktuk, Taloyoak, Gjoa Haven, and Kugaaruk) in their Socio-Economic Monitoring Program within the FEIS and subsequent annual reports. The details of this process will be captured in the Terms of Reference for the project-specific Back River Socio-Economic Monitoring Committee.	
39		GN-3	Sabina commits to provide a summary of initiatives it supports through its Donations Policy pertaining to "youth and education" and "community wellness and traditional lifestyle" in the FEIS and to provide details of a potential summer student program directed at post-secondary.	

40		GN-4	Sabina commits to provide full National Occupational Coding in its workforce schedule, and to identify and register with the appropriate GN department, all trades persons and apprentices working within the Project operations. Sabina will consult with the GN's Department of Family Services Career Development Division to identify current apprentice students for training and employment.	
41		GN-17, GN-18	Sabina commits to work with the GN's Territorial Archaeologist to provide the maps and site status reports in a manner and timeline that is agreeable to both parties and to be determined at a later date. Timing will be included within the FEIS.	
42		AANDC-35	Sabina commits to working with the GN, AANDC and other interested parties to develop a draft Terms of Reference for a Back River Socio-Economic Monitoring working group; a summary of the draft Terms of Reference will be provided in the FEIS.	
Public Engagement and Incorporation of Inuit Qaujimajatuqangit				
Terrestrial Environment including Wildlife, Migratory Birds, Species at Risk and Vegetation				
43	KIA	KIA IR-1, 2, 4	Sabina commits to providing within the FEIS, more detail specifying site-specific monitoring plans, specific thresholds and triggers and adaptive management responses with regard to wildlife.	
44	KIA	KIA IR-1, 2, 4	Sabina commits to providing additional clarity on project specific monitoring associated with wildlife VECs in question within the FEIS (noting that these would not be at the population level, and would be focused on project effects).	
45	KIA	KIA CR-1, 2, 3, 4	Sabina commits to provide within the wildlife and cumulative effects assessments, a better explanation or justification for the magnitude rating cut off points including the divisions between nil, low, and moderate. If there is not sufficient data to justify these divisions as suggested above, Sabina commits to remove the restriction from the methodology chapter that the EIA practitioner must conclude that an effect is not significant if they select low.	
46	KIA	KIA CR-1, 2, 3, 4	Within the wildlife and cumulative effects assessments, Sabina commits to include species specific duration categories with justification for each, or if not sufficient data to justify species specific duration categories, as suggested above, Sabina removes restriction that the EIA practitioner must conclude that an effect is not significant if they select short term as their duration value.	
47	EC	EC-10; 6.1.10	Sabina commits to reduce disturbance to known colonies of nesting, feeding, or moulting birds by imposing flight restrictions to maintain a distance of 3000 metres from colonies of birds.	
48	EC	EC-9; 6.1.9	Sabina commits to demonstrating consideration for inclusion of EC's recommended setback distances within the FEIS.	
DAY 3				
Terrestrial Environment including Wildlife, Migratory Birds, Species at Risk and Vegetation - *continued*				
49	GN	IR 14	Sabina commits to updating Table 5.6-2 (Cumulative Habitat Loss in the Bathurst Caribou CEA Boundary) in the FEIS. For closed or past developments it was assumed that dust no longer contributes as habitat alteration and wildlife are anticipated to re-inhabit these areas, thus blank cells should read NA.	commitment 94 from GN submission
50	GN	CR 15	For the FEIS, Sabina commits that updates will be provided to include the most recent 2012 data in Volume 5, Table 5.1-2 (Bathurst Caribou Herd Population Numbers and Breeding Females from 1986 to 2009).	commitment 95 from GN submission
51	GN	IR 19	Sabina commits to include the Nunavut Wildlife Act in the List of Permits, Licenses, and Authorizations Required for the Project in the FEIS.	commitment 96 from GN submission
52	GN	GN-20	Sabina commits to including text in the FEIS referencing Project-related effects in the context of Nunavut wildlife management populations.	commitment 97 from GN submission
53	GN	TRC 20	Sabina has assessed areas where wildlife may be disturbed by noise as indirect habitat loss. Sabina commits to providing additional information (which may include literature) within the FEIS to describe potential effects to wildlife that may continue to use this area, including energy expenditure, stress and population health.	

54	GN	TRC 21	Sabina commits to include in the WMMP as part of the FEIS, a plan to collaborate in programs led by the GN in future population level monitoring of grizzly bear, wolverine, muskox, and caribou, if and when such monitoring is undertaken.	
55	GN	TRC 21	Sabina commits to demonstrate in the FEIS how the remote camera study (if this is the program used) design will meet species-specific monitoring objectives taking into account the differences in sampling requirements amongst program objectives as well as differences in the expected densities and distribution amongst the species being monitored. Clarify how remote cameras will be effective at detecting change in low density species.	commitment 344 from GN submission
56	GN	TRC 21	Sabina has made the commitment to participate in regional monitoring plans, lead by government, for several wildlife VECs, including caribou, muskox, grizzly bear and wolverine if and when they exist. At that time, these regional, government-led programs will replace the proposed regional monitoring plans in the DEIS WMMP. An update on this commitment is to be provided within the FEIS.	
57	GN	TRC 21	Sabina commits to verifying model results that determined areas of indirect habitat loss for wildlife using actual field noise monitoring results and to present this information within the FEIS.	
58	GN	TRC 21	Sabina commits to include in the WMMP as presented in the FEIS, additional details on the design of focal species monitoring programs including the metrics being measured, sampling design and intensity, threshold values for acceptable impacts and expected sample size and ability to detect when thresholds have been exceeded.	
59	GN	TRC 22	Sabina commits to include within the FEIS, additional details for mitigation measures and the associated implementation protocols, specifically: (a) Human-wildlife conflict management, including the establishment of i) Project-related wildlife mortality thresholds above which mitigation measures would be revised and adapted ii) communication protocols with regulatory agencies and co-management organizations on the use of deterrents, translocations or destruction of wildlife especially bears and furbearers. (b) Nest management plans (c) Den site management plans.	
60	GN	TRC 22	Sabina commits to update within the FEIS, mitigation measures and associated implementation protocols to include detailed staged reduction in Project activities in response to approaching wildlife, including the different stages of work reduction and how they would be triggered.	
61	GN	TRC 22	Sabina commits to, within the FEIS, clarifying inconsistencies regarding proposed mitigation measures relating to staged reduction in Project activities in response to approaching wildlife, including considerations of wildlife group size and composition, season, sensitive periods, and distance to Project.	
62	GN	TRC 22	Sabina commits to the development of a mitigation response decision tree for approaching caribou. This would consider multiple variables such as species, group size and composition, season, sensitive periods, and distance to Project in determining the appropriate mitigation response. This will be included within the FEIS.	
63	GN	TRC 22	Sabina commits to enhance monitoring mechanisms for detecting wildlife approaching the Project as triggers for mitigation actions such as blasting management, traffic management and staged work reductions. These should take into consideration the required time for implementation of mitigation measures following detection of approaching wildlife. This detection capacity can be enhanced by giving consideration to measures such as the use of dedicated wildlife monitors stationed at key points around the site and at distances up to 4km from the site during sensitive caribou periods, use of spotting scopes for distant scanning, height of land surveys and potentially the use of elevated observation platforms around the project site.	
64	GN	TRC 28	Sabina commits to including potential effects on hunting allocations due to potential Project related direct mortalities of grizzly bears within the FEIS.	
65	GN	TRC 27	Sabina commits to update the FEIS to include the final results of the grizzly DNA study conducted in 2012 and 2013 including additional details on methodology and analytical approach as requested by the GN.	

66	GN	TRC 27	Sabina commits to develop adaptive management measures to mitigate potential impacts to grizzly bears from defense kills should set thresholds be exceeded and to include this information within the FEIS. Adaptive management measures may include undertaking DNA mark-recapture studies for grizzly bears similar to those conducted in baseline studies to assess the significance of potential impacts.	
67	GN	TRC 24	Sabina will include more detail on the definition of “population and subpopulation health” and “acceptable risk thresholds” in definition of Significance Ratings in the FEIS.	commitment 98 from GN submission
68	GN	TRC 24	Sabina commits to develop adaptive management measures to mitigate impacts to caribou should any of the 4 herds were to dramatically shift ranges or migration routes into the Project area during the life of the Project and to include this within the FEIS.	
69	GN	TRC 29	Sabina commits to develop a stand-alone Bear Safety and Response Plan that pulls together relevant information provided in the DEIS and to include thresholds for acceptable impacts associated with human-bear conflicts (e.g. number of problem bear encounters per year, number of translocations required, number of direct mortalities resulting) and proposed actions to be taken if these thresholds are exceeded. This plan should also include information on coordinating with government agencies and co-management partners and will be included within the FEIS.	
70	GN	TRC 30	Sabina commits to revise the FEIS to validate the Habitat Suitability Index (HSI) that was used in the impact assessment for muskox.	
71	GN	TRC 31	Sabina will update and expand the management and monitoring sections of the WMMP that deal with attraction of predators (including wolverine) to camps and managing problem wildlife (including wolverine). This information will appear in the FEIS.	commitment 349 from GN submission
72	GN	TRC 31	A discussion surrounding wolf, wolverine, and grizzly bear predation of ungulates will be added to the ungulate sections of the FEIS.	commitment 102 from GN submission
73	GN	TRC 32	Additional information on the proposed raptor monitoring protocols will be added to the wildlife mitigation and management plan (WMMP) for the FEIS following guidance on measuring and analyzing a zone of influence (ZOI) on nest success by the Canadian Wildlife Service. This information will appear in the FEIS.	commitment 350 from GN submission
74	GN	TRC 32	Sabina commits to update the WMMP to include an example of a nest specific management plan for a nest located with the PDA to illustrate the range of mitigation and monitoring actions that would be undertaken.	
75	GN	TRC 32	Sabina commits to include in the WMMP for the FEIS, a protocol for working with the GN and other co-management partners to mitigate impacts on nests located within the PDA, including the requirement for seeking regulatory approval prior to any action that could potentially damage/destroy or disturb these nests.	
76	GN	TRC 32	Sabina commits to provide additional detail to the raptor chapter of the FEIS (Volume 5, Chapter 10) to provide relevant citations to support mitigation activities.	commitment 103 from GN submission
77	GN	TRC 36	Sabina acknowledges the requirements of the Scientists Act and commits to ensuring that legislated reporting requirement under the Scientists Act are reflected in the FEIS.	commitment 104 from GN submission
78	GN	TRC 37	Sabina commits to update the table on Permits and Approvals for Mine Development in the FEIS to include all relevant authorizations required for the life of the Project.	commitment 105 from GN submission
Marine Environment and Marine Transportation				
79	EC	EC 2 / 6.1.2	Sabina commits to recommending that shippers adhere to the 30 km setback from Prince Leopold Island as proposed by EC and assuming ship safety. This information will be included within the FEIS.	
80	EC	EC 5 / 6.1.5	Sabina commits to identifying and considering known colonies of migratory birds along the shipping route and to ensure that information is considered for project shipping. This information will be included within the FEIS.	

81	EC	EC 25	Sabina commits to characterization of the brine effluent and review of alternative discharge strategies and to a further review in the FEIS of monitoring requirements of discharged brine for compliance with subsection 36(3) of the Fisheries Act prior to release to the marine environment.	
82	KIA	n/a	Sabina commits to update within its FEIS, a discussion on community level capacity in spill planning and response.	
83	NIRB	n/a	Sabina commits to including additional information within the FEIS as related to the potential for cumulative impacts from shipping activities associated with other proposed and approved development projects within the Kitikmeot Region, including Doris North, Phase 2 Hope Bay Belt, Hackett River, and Izok Corridor.	
84	GN	GN-25	Sabina will review the references related to occurrence of polar bears in the marine environment in particular known summer time concentrations along the shipping route and update the information within FEIS as needed.	commitment 99 from GN submission
85	GN	GN-26	Sabina commits to working within the existing regulatory framework defined by Transport Canada. An approved SOPEP will be in place by the shipping provider prior to the commencement of any shipment.	commitment 100 from GN submission
86	GN	GN-26	Sabina will work with the GN and other agencies to acquire appropriate public data related to polar bear distribution and density. To the extent possible, this information will be used to assess worst case and best case scenarios should a fuel release or spill event occur in the marine environment along the shipping route. Using the available data where applicable, Sabina will for the FEIS: 1) highlight rough densities of polar bears along the shipping routes; 2) provide further rationale on the risk of potential spills and provide rationale around the parameters of magnitude (i.e., location of spill, volume of spill, area of dispersion, type of spill, response time); 3) identify worst case scenario (i.e., highest density of polar bears, high volume, worst type of liquid) and best case scenario (i.e., lowest density of polar bears, low volume, lightest type of liquid).	commitment 101 from GN submission
87	GN	GN-26	Sabina commits to participate in relevant research and management initiatives and increasing understanding and mitigation of potential cumulative effects associated with the Project's shipping activities.	
88	GN	n/a	Sabina commits to limit their shipping period to the open water season and to not ship within the Nunavut Settlement Area after October 15 each year (except under unforeseen and exceptional events including consideration for vessel safety). All vessels utilized will be appropriate as defined by Transport Canada's Zone Date System. This will be included in the FEIS.	
Human Health and Risk Assessment				
89	KIA	n/a	Sabina commits to review table 6.4.4 (volume 8, ch 6) against figure 6.4-8 and to ensure all pathways identified in figure 6.4-8 are included in tables of the FEIS. Sabina shall also ensure that all inputs (including incinerator) are included in the risk assessment model as per figure 6.4-8.	
90	KIA	IR 3	Sabina commits to update the human health risk assessment and terrestrial and aquatic wildlife risk assessments with more realistic forage and consumption numbers.	
Cumulative Effects Assessment				
91	KIA	KIA CR 3	Sabina commits to, within the wildlife total effects section, and within the effects assessment and cumulative effects assessment, include additional references from applicable studies with high statistical power on total effects and for other studies report a lack of power analysis or low power if applicable and revise discussion accordingly within the FEIS.	
Accidents and Malfunctions				
92	AANDC	AANDC 16	Sabina commits to include in the FEIS, plans or design contingencies where appropriate, that are in place to prevent and manage reasonably foreseeable worst case scenarios as they relate to accidents and malfunctions.	
93	AANDC	AANDC 16	Sabina commits to extending the accidents and malfunctions assessment into the closure and post closure periods, within the FEIS.	

94	NRCan	n/a	Sabina commits to update and clarify to the extent possible, Project components and activities related to explosives manufacture and storage within the FEIS.	
95	NRCan	n/a	Sabina commits to provide an updated Explosives Management Plan within the FEIS and to ensure that the plan accurately describes explosives manufacturing and storage and which clarifies whether Sabina anticipates storing explosives components at the marine laydown area.	
96	NRCan	n/a	Sabina commits to carrying forward updated project components and activities associated with explosives manufacturing and storage in its assessment of accidents and malfunctions (including the marine laydown area if applicable) within the FEIS.	
97	GN	GN-26	Sabina commits to provide information specific to mitigation measures for polar bears for consideration in the shipping carrier's marine spill response plan. This will be included in the FEIS.	

Appendix 2: Sabina's Commitment List based on Technical Review Comments [November 2, 2014]

Sabina Gold Silver Corporation Commitment List for the Back River Project

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
1	2	Project Description & Alternatives	~	~	AANDC-1	Sabina commits to updating the alternatives assessment to include a more explicit analysis of alternatives and evaluation criteria in the FEIS.
2	2	Project Description & Alternatives	AANDC-8	~	~	Sabina commits to clarify the elevation and location of underground access, and any potential risk of flooding shall be addressed in the FEIS.
3	2	Project Description & Alternatives	AANDC-10	~	~	Sabina commits to providing details of dust suppressants and dust suppression methods for underground and aboveground facilities in the FEIS.
4	2	Project Description & Alternatives	AANDC-11	~	~	For the FEIS, Sabina commits to providing details on any potential design changes resulting from additional years of available earthquake data.
5	2	Project Description & Alternatives	AANDC-12	~	~	For the FEIS, Sabina commits to providing details on schedules and volumes of materials and updated information resulting from the optimization of facility and infrastructure configuration.
6	2	Project Description & Alternatives	~	~	AANDC-15	Sabina commits to providing more details on the sewage effluent management strategy in the FEIS.
7	2	Project Description & Alternatives	~	~	AANDC-20	Sabina commits to providing additional information on the TIA freeboard and the potential for overtopping the tailings storage embankment during operations. This work, which will be done in accordance with the Canadian Dam Association Guidelines will be presented in the FEIS.
8	2	Project Description & Alternatives	AANDC-48	~	~	Sabina commits to providing a more detailed estimation of waste generation quantities and facilities design in the FEIS.
9	2	Project Description & Alternatives	AANDC-49	~	~	Sabina commits to providing a more detailed estimation of waste generation quantities and facilities design in the FEIS.
10	2	Project Description & Alternatives	AANDC-50	~	~	Sabina commits to providing a list of expected hazardous materials in the FEIS.
11	2	Project Description & Alternatives	~	AANDC-61	~	New information obtained through ongoing community consultations will be integrated for the final alternatives assessment presented in Sabina's FEIS.
12	2	Project Description & Alternatives	~	AANDC-61	~	Sabina commits to providing minutes from post-DEIS submission meetings and information from the final TK Workshop Report into the FEIS.
13	2	Project Description & Alternatives	EC-2	~	~	Sabina commits to providing incinerator vendor specifications in the FEIS.
14	2	Project Description & Alternatives	~	~	EC-15	Sabina commits to providing details on landfill design and seepage management in the FEIS.
15	2	Project Description & Alternatives	~	~	EC-17	Sabina commits to discussing the requirements for the management of landfarms and wastewater treatment in the FEIS.

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
16	2	Project Description & Alternatives	~	EC-18	~	Sabina commits to revise the Volume 2 section titled "Design of Impoundment / Retention Structures for Seepage and Runoff Control" to further include design details for water management structures used for seepage and runoff control from the open pits.
17	2	Project Description & Alternatives	EC-19	~	~	As engineering design progresses and ongoing characterization information is available, the balance of suitable quarry material and required volumes will be assessed. Sabina commits to providing these estimates in the FEIS.
18	2	Project Description & Alternatives	~	~	EC-20	Sabina commits to providing details on stockpile design, foundation requirements and runoff management with the FEIS.
19	2	Project Description & Alternatives	EC-21	~	~	The method for assessing alternatives within the Project has included consideration of technical feasibility, cost implications, potential environmental impacts, and amenability to reclamation. Community acceptability or preference and socio-economic effects were not provided. Sabina commits to including additional information on these aspects in the FEIS alternatives assessment.
20	2	Project Description & Alternatives	~	~	EC-22	Sabina commits to providing clarification on the transition of the TIA from operations to closure in the FEIS.
21	2	Project Description & Alternatives	~	~	EC-23	Sabina commits to providing the rationale and design criteria for the TIA including ice entrainment. This information will be provided in the FEIS.
22	2	Project Description & Alternatives	EC-26	~	~	Sabina commits to investigate and provide adequate details on potential seepage rates from the TIA. Further Sabina will provide design information on any required seepage collection system in the FEIS.
23	2	Project Description & Alternatives	~	~	EC-34	In the FEIS, Sabina commits to including anticipated locations and volumes for the: TIA, WMF, treated sewage, collection ponds, on-land discharges, and any other potential discharges. Plans will be made to minimize the number of discharge locations on site.
24	2	Project Description & Alternatives	GN-12	~	~	Sabina commits to removing reference to a hard-surface airstrip in the FEIS.
25	2	Project Description & Alternatives	~	GN-20	~	For the FEIS, Sabina commits to detailing whether bulk fuel storage will include overwintering of fuel vessels in sea ice.
26	2	Project Description & Alternatives	~	~	KIA-CR-7	Sabina commits to optimizing the location and design of the TIA based on an alternatives assessment founded on environmental, technical, and economic reasons. In addition Sabina commits to providing a detailed summary of the overburden and permafrost conditions for the TIA foundation with sufficient detail to justify and support the design. This information will be provided in the FEIS.
27	2	Project Description & Alternatives	KIA-62	~	~	As engineering design progresses and ongoing characterization information is available, the balance of suitable quarry material and required volumes will be assessed. Sabina commits to providing this updated information in the FEIS.
28	2	Project Description & Alternatives	KIA-63	~	~	Winter road design, construction, and operation will be informed by extensive expertise from other winter roads in the area, specifically the Tibbitt-Contwoyto Winter Road. Sabina commits to provide details in the FEIS.
29	2	Project Description & Alternatives	~	KIA-77	~	Sabina commits to assessing options for subaqueous storage of PAG/ML waste rock for the FS. Results will be captured in the FEIS.

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
30	2	Project Description & Alternatives	~	KIA-92	~	Sabina commits to including design criteria for all water management facilities in the FEIS.
31	2	Project Description & Alternatives	KIA-103	~	~	Sabina commits to update Volume 2, Table 6.4-3 (Proposed Bulk Fuel Storage Pooling Water Discharge Criteria) to provide the correct value for lead discharge (0.2 mg/L).
32	2	Project Description & Alternatives	KIA-106	~	~	Sabina commits to update Volume 2, Table 6.6-7 (Proposed Landfarm Pooling Water Quality Discharge Criteria) and Table 6.7-6 (Proposed Landfarm Pooling Water Quality Discharge Criteria) to reflect the incorrectly transcribed values for lead and ethylbenzene. This will be addressed in the FEIS.
33	2	Project Description & Alternatives	NRCan-3	~	~	In the FEIS, Sabina commits to revising the statement found in Volume 2, Section 7 to read as follows: “Overburden includes a number of glacial deposits consisting predominantly of till. Occasional esker deposits of sand and gravel form long ridges of stratified sand and gravel that can reach hundreds of kilometres in length.”
34	2	Project Description & Alternatives	~	TC-10	~	Sabina commits to amend the text in Volume 2, Section 6.3.3.2 "Shipping" to include the Transportation of Dangerous Goods Act, 1992.
35	3	Public Consultation, Government Engagement & TK	~	~	AANDC-14	Sabina commits to including the findings of the TK workshop report in the FEIS, including any information available on drinking water sources. Sabina also commits to including this additional information in our assessment for the project.
36	3	Public Consultation, Government Engagement & TK	~	AANDC-25	~	For the FEIS, Sabina commits to provide updated information on drinking water sources in the Project area derived from the 2014 TK report prepared by the KIA.
37	3	Public Consultation, Government Engagement & TK	~	~	AANDC-28	Sabina commits to providing access to all primary documents used during public consultation in the FEIS.
38	3	Public Consultation, Government Engagement & TK	~	~	AANDC-30	The results of the TK workshop report will also be integrated into Sabina’s FEIS submission.
39	3	Public Consultation, Government Engagement & TK	~	AANDC-62	~	Sabina commits to providing minutes from post-DEIS submission meetings and information from a final TK workshop report into the FEIS.
40	3	Public Consultation, Government Engagement & TK	~	~	KIA-CR-13	Sabina commits to revising the TK section of Volume 6, Chapter 4 in the FEIS to more accurately reflect the application of TK.
41	3	Public Consultation, Government Engagement & TK	~	KIA-110	~	On the topic of traditional drinking water sources, Sabina commits that the statement about direct incorporation of TK into the existing environment and baseline information (Volume 6, Chapter 4, Sect. 4.2.4) will be removed from the FEIS unless direct information becomes available from the KIA's Phase 2 TK Report.

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
42	3	Public Consultation, Government Engagement & TK	~	KIA-139	~	In the FEIS, Sabina commits to providing an additional report on the site specific aspects of the Naonaiyaotit Traditional Knowledge Project database in Volume 3, App V3-3A.
43	3	Public Consultation, Government Engagement & TK	YKDFN- 4-4	~	~	Sabina commits to integrate the findings of the document 'Existing and Publically Available Traditional Knowledge from Selected Aboriginal Groups in the Northwest Territories' into the FEIS (Appendix V3-3B).
44	4	Atmospheric Environment	~	EC-3	~	Sabina commits to completing an assessment of MLA air emissions that includes emissions from on land sources and ship emissions during "hoteling" and during transport. This will be provided in the FEIS.
45	4	Atmospheric Environment	EC-5	~	~	For the FEIS, Sabina commits to adding a footnote (Table 2.5-3 in Volume 4) that includes descriptions from the modelling report for: night-time noise level for assessing wildlife habitat loss, threshold 45 dBA; and sound exposure level for assessing wildlife sensitivity to helicopter noise (ringed seal and marine birds), threshold 70 dBA; sound exposure level for assessing wildlife sensitivity to helicopter noise (all other wildlife), threshold 80 dBA; peak sound pressure level for assessing wildlife sensitivity to impulsive blasting noise (disturbed habitat), threshold 108 dB; peak sound pressure level for assessing wildlife sensitivity to impulsive blasting noise (functional habitat loss), threshold 120 dB.
46	4	Atmospheric Environment	~	~	EC-13	Sabina will commit, as part of the water licensing process, to providing vendor specifications stating that the incinerator is designed to incinerate sewage sludge.
47	4	Atmospheric Environment	~	~	EC-13	Stack testing for all incinerators will be completed as part of the commissioning process to ensure achievement of the Canada-wide Standards for emissions.
48	4	Atmospheric Environment	GN-18	~	~	At this time the Goose Property Airstrip will not be designed to accommodate aircrafts as large as a Boeing 767. If larger aircraft are selected as a viable option, Sabina commits to updating the air quality and noise models and conduct an effects assessment to address the potential effects of this larger class of aircraft. This would be included in the FEIS.
49	4	Atmospheric Environment	~	~	GN-35	Dustfall sampling locations will be chosen to ensure that all large sources of emissions are monitored. Sabina will consult with the GN on the number and location of sampling sites prior to finalizing the Air Quality Monitoring Plan for the FEIS.
50	4	Atmospheric Environment	~	KIA-49	~	Sabina commits to monitoring of various particulate fractions (TSP, PM10 and PM2.5) at multiple locations onsite during the construction and operation phases of the Project. Sabina commits to working with the appropriate regulators to finalize monitoring plans prior to submission of the FEIS.
51	4	Atmospheric Environment	~	KIA-54	~	For the FEIS, Sabina commits to further investigating mitigation measures required to reduce dust emissions and the likelihood of any potential health effect.
52	4	Atmospheric Environment	KIA-56	~	~	Sabina commits to comply with Environment Canada Sulphur in Diesel Fuel Regulations (updated in 2012).
53	4	Atmospheric Environment	~	KIA-60	~	Sabina commits to providing a design memorandum in the FEIS indicating how climate change considerations have been integrated into design and incorporate the most current and relevant peer-reviewed climate data.
54	4	Atmospheric Environment	KIA-72	~	~	Sabina commits to include community acceptability and socio-economic effects in the full alternatives assessment for the FEIS. Community acceptability or preference and socio-economic effects were not been formally considered as there was very little concern expressed during our consultation efforts.
55	4	Atmospheric Environment	~	KIA-122	~	Sabina commits to establishing annual targets and BMPs for GHG emissions and potential reductions throughout operations. This will be stated in the FEIS.
56	4	Atmospheric Environment	~	~	NRCAN-2	Sabina commits to substantiating the TIA closure design criteria and completing a thermal analysis, inclusive of climate change considerations, to demonstrate the viability of the plan. This information will be presented in the FEIS.

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
57	4	Atmospheric Environment	~	~	NRCAN-3	Sabina commits to providing justification for selection of the design freezing point in the thermal analysis for the TIA. This information will be presented in the FEIS.
58	4	Atmospheric Environment	~	~	NRCAN-4	Sabina commits to completing and presenting all appropriate geotechnical analysis of the TIA structure including its foundation in the FEIS.
59	4	Atmospheric Environment	~	~	NRCAN-33	Sabina commits to further substantiating the waste rock and TIA closure design criteria and completing a thermal analysis, inclusive of climate change considerations, to demonstrate the viability of the plan. This information will be presented in the FEIS.
60	4	Atmospheric Environment	~	~	NRCAN-34	Sabina commits to further substantiating the waste rock and TIA closure design criteria and completing a thermal analysis, inclusive of climate change considerations, to demonstrate the viability of the plan. This information will be presented in the FEIS.
61	4	Atmospheric Environment	~	~	NRCAN-35	Sabina commits to further substantiating the waste rock and TIA closure design criteria and completing a thermal analysis, inclusive of climate change considerations, to demonstrate the viability of the plan. This information will be presented in the FEIS.
62	5	Terrestrial Environment	~	~	AANDC-2	Sabina commits to incorporating all up to date information relating to geomechanical and topographical field and laboratory data in an updated assessment of mine stability and provide further detail on the underground mining method, layout, and design in the FEIS.
63	5	Terrestrial Environment	~	~	AANDC-3	Sabina commits to providing an updated presentation, analysis, and interpretation of geological faults and structures in the FEIS.
64	5	Terrestrial Environment	~	~	AANDC-4	Sabina commits to providing an updated analysis of permafrost distribution at depth through thermal modelling, updated data analysis, and any other means required to depict any groundwater connections with the mine openings. This analysis will provide an updated account of the potential formation/decline of taliks, including any potential through-taliks. Requested information will be presented in the FEIS.
65	5	Terrestrial Environment	~	~	AANDC-5-1	Sabina commits to providing additional details related to how the hydrogeological system and permafrost thermodynamics may be affected by the proposed open-pit and underground mining operations. Requested information will be presented in the FEIS.
66	5	Terrestrial Environment	~	~	AANDC-5-2	Sabina commits to providing a detailed summary in the FEIS of overburden and permafrost conditions for the property with sufficient detail to demonstrate how planned surface infrastructure will interact with this system.
67	5	Terrestrial Environment	~	~	AANDC-6	Sabina commits to further substantiating the waste rock and TIA closure design criteria and completing a thermal analysis, inclusive of climate change. This information will be presented in the FEIS.
68	5	Terrestrial Environment	~	~	AANDC-17	Sabina commits to further work to understand the variability in ARD and arsenic levels, and will present this information in the FEIS.
69	5	Terrestrial Environment	~	~	AANDC-18	Sabina commits to providing additional clarity in the FEIS on the mitigation and monitoring that will be required to address the predicted concentrations of arsenic, copper, and cyanide concentrations exceeding MMER discharge limits.
70	5	Terrestrial Environment	~	~	AANDC-19	Sabina commits to including additional details on the TIA constructability and assessing the associated risks. This information will be presented in the FEIS.
71	5	Terrestrial Environment	AANDC-20	~	~	Sabina commits to thermal modelling as part of the FS to validate the practicability, constructability and prevention of adverse environmental impacts of the proposed TIA closure measure of a 2m non-PAG rock cap.
72	5	Terrestrial Environment	AANDC-21	~	~	Sabina commits to providing thermal modelling to support the adequacy of waste rock cover depth to protect permafrost in the FS.
73	5	Terrestrial Environment	~	AANDC-23	~	Sabina commits that thermal modelling to support the design criteria will be conducted as part of the FS and the predictions provided in the FEIS. The assumptions used for thermal modelling will be informed by observations obtained from similar northern mining operations.
74	5	Terrestrial Environment	~	AANDC-31	~	Sabina commits to providing dyke designs and seepage calculations into the pits. This will be presented in the FEIS water balance.

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
75	5	Terrestrial Environment	~	AANDC-39	~	Sabina commits that geothermal modelling calibrated to temperature measurements and incorporating project components, will be conducted in the FS and provided in the FEIS.
76	5	Terrestrial Environment	~	AANDC-40	~	Sabina commits that geothermal analyses incorporating a more detailed evaluation of the influence of climate change on permafrost degradation will be provided in the FEIS.
77	5	Terrestrial Environment	~	AANDC-47	~	Sabina commits to providing the required background information pertaining to the design and effectiveness of landfills and otherwise managing waste in relation to the context of the project into the FEIS and final NWB water licencing process.
78	5	Terrestrial Environment	AANDC-57	~	~	As part of the FEIS, Sabina commits to providing additional information regarding closure and reclamation resulting from the mine design being optimized in the FS.
79	5	Terrestrial Environment	AANDC-58	~	~	Sabina commits to providing more information on the potential interactions between sub-permafrost groundwater and closure scenarios for the Umwelt underground within the FEIS.
80	5	Terrestrial Environment	~	~	EC-9	Sabina commits to using habitat data to predict the likelihood of birds nesting in various habitats. This information will appear in the FEIS.
81	5	Terrestrial Environment	~	~	EC-9	Sabina commits to using methods that are as non-intrusive as possible for pre-clearing surveys. This information will appear in the FEIS.
82	5	Terrestrial Environment	~	~	EC-9	Sabina commits to updating Table 6.2-1 (Wildlife Sensitive Periods Applicable to the Project) to include Mid-May to Mid-August from June 1 to July 31. This information will appear in the FEIS.
83	5	Terrestrial Environment	~	EC-22	~	Sabina commits that the results of feasibility study analyses for potential seepage from the TIA will be provided in the FEIS.
84	5	Terrestrial Environment	EC-24	~	~	Confirmation of the thickness of cover material based on thermal modelling and the confirmation of grain size will be studied in more detail as part of the FS and presented in the FEIS.
85	5	Terrestrial Environment	~	~	EC-26	Sabina commits to conducting additional site characterization of the TIA foundation to support detailed design after receipt of the water licence.
86	5	Terrestrial Environment	~	EC-27	~	For the FEIS, Sabina commits that assessment of the applicable screening criteria for both waste rock and tailings will be revisited as part of ongoing geochemical characterization work. During the FS, kinetic test results will be reinterpreted to determine a site specific NP:AP ratio for both tailings and waste rock.
87	5	Terrestrial Environment	EC-29	~	~	For the FEIS, Sabina commits to revising Figures 3.2-4, 3.2-5, 3.2-6 (Appendix V11-4A). The legend should be revised so the dark dot is labelled “sampled” (not “deposit”).
88	5	Terrestrial Environment	EC-31	~	~	Sabina commits to incorporating updated results from the ongoing kinetic tests into the FEIS.
89	5	Terrestrial Environment	~	~	EC-41	For the FEIS, Sabina commits to correcting the reference to Price 2009, which is a MEND guideline, not (as stated previously) a federal guideline.
90	5	Terrestrial Environment	~	~	EC-42	Sabina commits to a further review of correlations between solid phase concentrations and leachate concentrations for parameters of interest, and will further assess whether appropriate samples were used. Data interpretation will include a review of all of the potential factors controlling trace element release.
91	5	Terrestrial Environment	~	~	EC-43	For the FEIS, Sabina commits to providing further information on the mine plan to clarify the length of time that ore and low grade ore will be stockpiled prior to processing. Additionally, further interpretation of the kinetic test data will be completed to assess the potential lag times to the onset of ARD in these material and in waste rock.
92	5	Terrestrial Environment	~	~	EC-44	Sabina commits to further substantiating the waste rock and TIA closure design criteria and completing a thermal analysis, inclusive of climate change considerations to demonstrate the viability of the plan. This information will be presented in the FEIS.
93	5	Terrestrial Environment	~	~	EC-45	For the FEIS, Sabina commits to reassessing the proposed frequency of monitoring summarized in Table 7-1 (Summary of ML/ARD Monitoring Program), and will determine the frequency as a number of samples per volume of rock as suggested by EC.

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
94	5	Terrestrial Environment	GN-14	~	~	Sabina commits to updating Table 5.6-2 (Cumulative Habitat Loss in the Bathurst Caribou CEA Boundary) in the FEIS. For closed or past developments it was assumed that dust no longer contributes as habitat alteration and wildlife are anticipated to reinhabit these areas, thus blank cells should read NA.
95	5	Terrestrial Environment	~	GN-15	~	For the FEIS, Sabina commits that updates will be provided to include the most recent 2012 data in Volume 5, Table 5.1-2 (Bathurst Caribou Herd Population Numbers and Breeding Females from 1986 to 2009).
96	5	Terrestrial Environment	GN-19	~	~	Sabina commits to include the Nunavut Wildlife Act in the List of Permits, Licenses, and Authorizations Required for the Project in the FEIS.
97	5	Terrestrial Environment	~	~	GN-20	Sabina commits to including text in the FEIS referencing Project-related effects in the context of Nunavut wildlife management units.
98	5	Terrestrial Environment	~	~	GN-24	Sabina will include more detail on the definition of “population and subpopulation health” and “acceptable risk thresholds” in definition of Significance Ratings in the FEIS.
99	5	Terrestrial Environment	~	~	GN-25	Sabina will provide publically available information in the FEIS detailing areas frequented by polar bears along the shipping route.
100	5	Terrestrial Environment	~	~	GN-26	Sabina commits to working within the existing regulatory framework defined by Transport Canada. An approved SOPEP will be in place by the shipping provider prior to the commencement of any shipment.
101	5	Terrestrial Environment	~	~	GN-26	Sabina will provide publically available information in the FEIS detailing areas frequented by polar bears along the shipping route.
102	5	Terrestrial Environment	~	~	GN-31	A discussion surrounding wolf and wolverine predation of ungulates will be added to the ungulate sections of the FEIS.
103	5	Terrestrial Environment	~	~	GN-32	Additional detail can be added to the raptor chapter of the FEIS (Volume 5, Chapter 10) to provide citations to support these mitigation activities.
104	5	Terrestrial Environment	~	~	GN-36	Sabina acknowledges the requirements of the Scientists Act and commits to ensuring that legislated reporting requirement under the Scientists Act are reflected in the FEIS.
105	5	Terrestrial Environment	~	~	GN-37	Sabina commits to update the table on Permits and Approvals for Mine Development in the FEIS to include all relevant authorizations required for the life of the Project.
106	5	Terrestrial Environment	~	~	GNWT-1	In the FEIS, Sabina commits to updating Sections 5.1.1 and 5.1.2.3 of the caribou assessment (Volume 5, Chapter 5), using information from 2014 discussing status of the Bathurst herd.
107	5	Terrestrial Environment	~	~	GNWT-1	Sabina commits to further clarifying how the determination of significance might change in the context of recovery. This will include a clarification on "the predicted effects on post-calving and summer areas.” This information will appear in the FEIS.
108	5	Terrestrial Environment	~	~	GNWT-1	In the FEIS, Sabina commits to discussing Significance Ratings for Residual Effects on caribou (Table 5.5-3, Volume 5, Chapter 5) in the context of time horizons that are relevant to communities that depend on caribou.
109	5	Terrestrial Environment	~	~	GNWT-1	In the FEIS, Sabina commits to incorporating a discussion of how predicted impacts would be expected to change depending upon whether the herd is at a high or low population level and/or in an increasing or decreasing phase.
110	5	Terrestrial Environment	~	~	GNWT-3	For the FEIS, references to the caribou cumulative effects assessment (Section 5.6.2.2) will be added to the effects assessment section.
111	5	Terrestrial Environment	~	~	GNWT-4	Sabina commits to review the location of the NICO and Nechalacho Projects and include them in the cumulative effects analysis of the FEIS should they fall within the defined 95% kernel home range of the herd.
112	5	Terrestrial Environment	~	GNWT-5	~	Sabina commits to providing more information in the FEIS on caribou monitoring programs. This will include details on Sabina participation in a collaborative regional (i.e., herd level) research and monitoring program for caribou, where involvement is capped at an agreed financial value; and a local-scale monitoring program to document caribou activity in areas surrounding the mine.
113	5	Terrestrial Environment	~	~	GNWT-5	Sabina commits to including additional information and analysis on annual variation in herd movement and historic calving ranges in the FEIS.

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
114	5	Terrestrial Environment	GNWT-7	~	~	Sabina readily commits to participating in GNWT led meetings that formally include the GN and relevant aboriginal groups when the content of these meetings include issues that are related to potential project interactions. Sabina is also willing to discuss options related to grizzly bear and wolverine monitoring initiatives as they relate directly to monitoring requirements for the Back River Project and where they tie in to a formalized agreement with the GN and relevant aboriginal groups for the management of these animals.
115	5	Terrestrial Environment	~	~	GNWT-7	The FEIS will be updated with reported harvest data provided by Malik (2012), that suggests a total removal of a maximum of 15 bears per year should be sustainable for the region.
116	5	Terrestrial Environment	~	~	GNWT-7	Additional text will be added to the FEIS to discuss potential Project and cumulative effects on bears within the context of regional harvest opportunities.
117	5	Terrestrial Environment	GNWT-8	~	~	Sabina commits to compling with the Shipping Zone Date System which defines when certain vessel classes can enter certain waters to ensure safe operation in Arctic waters.
118	5	Terrestrial Environment	GNWT-9	~	~	If the TCWR connector becomes a feasible option for the Project, Sabina commits to explore timing and methodologies available for conducting fall/winter pre-clearing surveys to be conducted prior to yearly construction of the road.
119	5	Terrestrial Environment	GNWT-10	~	~	If the combined decrease to grizzly bear or wolverine reproductive productivity was anticipated to be greater than natural variability in reproductive productivity in the population alone, then the magnitude was increased from 'negligible' or 'low' to 'moderate'. Sabina commits to provide this text in the FEIS.
120	5	Terrestrial Environment	~	~	KIA-CR-1	Sabina commits to adding a totals column to Table 5.6-4 in the FEIS that sums direct habitat loss in the mine footprint and indirect habitat loss in a zone of influence surrounding the mine footprint.
121	5	Terrestrial Environment	KIA-4	~	~	Sabina commits to providing the data from the 2013 Wildlife Baseline Report into the FEIS.
122	5	Terrestrial Environment	~	~	KIA-IR-5	Sabina commits to including a brief discussion on why the dietary modelling found that mercury will not threaten the health of grizzly bears in the FEIS.
123	5	Terrestrial Environment	~	~	KIA-CR-8	Sabina commits to completing and presenting all appropriate geotechnical and hydrotechnical analysis of the TIA structure, including its foundation in the FEIS.
124	5	Terrestrial Environment	~	~	KIA-IR-8	Sabina will continue to optimize the extraction of the resources located at the George Property including accounting for engineering costs and environmental liability. Additional information on this topic will be presented in the publically available Feasibility Study Report.
125	5	Terrestrial Environment	KIA-8	~	~	In consultation (as appropriate) with the GN and KIA, Sabina commits to formalizing the details of the Wildlife Effects Monitoring Program prior to construction of the Project.
126	5	Terrestrial Environment	~	~	KIA-CR-9	Sabina commits to further substantiating the waste rock closure design criteria and completing a thermal analysis, inclusive of climate change considerations to demonstrate the viability of the plan. This information will be presented in the FEIS.
127	5	Terrestrial Environment	~	~	KIA-IR-9	In the FEIS, Sabina commits to providing a detailed summary of overburden and permafrost conditions with sufficient detail to demonstrate how planned surface infrastructure such as the WRSA's will interact with this system.
128	5	Terrestrial Environment	~	~	KIA-CR-10	Results and interpretation of additional sampling and testing work for potentially acid generating samples will be included in the FEIS.
129	5	Terrestrial Environment	~	~	KIA-IR-10	Sabina commits to further substantiating the waste rock closure design criteria and completing a thermal analysis, inclusive of climate change considerations to demonstrate the viability of the plan. This information will be presented in the FEIS. Sabina does not believe a contingency plan is warranted at this stage.
130	5	Terrestrial Environment	~	~	KIA-IR-11	Sabina commits to optimizing the location and design of the TIA based on an alternatives assessment founded on environmental, technical, and economic reasons. In addition Sabina commits to providing a detailed summary of the overburden and permafrost conditions for the TIA foundation with sufficient detail to justify and support the design. This information will be provided in the FEIS.

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
131	5	Terrestrial Environment	~	~	KIA-CR-12	In the FEIS, Sabina commits to identifying and quantifying geochemically suitable material that will be available for construction. Details for specific locations, extraction and sorting methods will be provided as part of water licensing process.
132	5	Terrestrial Environment	~	~	KIA-IR-12	Sabina commits to further substantiating the waste rock closure design criteria and completing a thermal analysis, inclusive of climate change considerations to demonstrate the viability of the plan. This information will be presented in the FEIS.
133	5	Terrestrial Environment	~	~	KIA-IR-13	For the FEIS, Sabina commits to providing a detailed summary of overburden and permafrost conditions for the property with sufficient detail to demonstrate how planned surface infrastructure such as the fuel storage areas will interact with this system.
134	5	Terrestrial Environment	~	~	KIA-CR-14	Sabina commits to further substantiating the waste rock and TIA closure design criteria and completing a thermal analysis, inclusive of climate change considerations to demonstrate the viability of the plan. This information will be presented in the FEIS.
135	5	Terrestrial Environment	~	~	KIA-IR-14	Sabina commits to providing additional discussion of the carbonate mineralogy in the FEIS.
136	5	Terrestrial Environment	~	~	KIA-IR-15	For the FEIS, Sabina commits to describing all of the assumptions made in the scaling calculations and the level of uncertainty and conservatism that is built into those calculations.
137	5	Terrestrial Environment	~	~	KIA-IR-16	Sabina commits to providing the appropriate justification for design criteria adopted for any water management structures at Lytle and Occurrence Lakes in the FEIS.
138	5	Terrestrial Environment	KIA-18	~	~	For the FEIS, Sabina commits to reviewing Vol. 5, Section 5.6.3 and editing text where appropriate. This includes replacing the word 'grizzly bear' with 'caribou'.
139	5	Terrestrial Environment	~	KIA-28	~	In the FEIS, Sabina commits to avoid, where possible, the usage of contrasting colours so shading can be visually discerned.
140	5	Terrestrial Environment	KIA-30	~	~	Sabina commits to delineating lake locations with high caribou abundance into Volume 5, Figures 5.1-2, 5.1-3, 5.1-5 and 5.1-6.
141	5	Terrestrial Environment	~	KIA-32	~	In the FEIS, Sabina commits to correcting the typo on page 5-17 (Vol. 5, Section 5.1.2.3): "Boulanger et al. (2011) proposed that the population has likely declined due to decreasing calf survival, and concomitant reductions in female fecundity, and hunting."
142	5	Terrestrial Environment	~	KIA-59	~	Sabina commits to collecting any additional geotechnical information characterizing shallow permafrost conditions, as required, for the FEIS.
143	5	Terrestrial Environment	~	KIA-70	~	Sabina commits to reviewing and advancing the design of the TIA during the FS. Updated information on the TIA design will be included in the FEIS.
144	5	Terrestrial Environment	KIA-73	~	~	Designs for tailings and waste rock disposal are being re-assessed in their entirety during the FS. Impacts on and from permafrost will be given due consideration through thermal modeling, baseline and predictive inputs. Sabina commits to providing this additional information in the FEIS.
145	5	Terrestrial Environment	~	KIA-74	~	Sabina commits to reviewing and advancing the design of the TIA during the FS. Updated information on the TIA design will be included in the FEIS.
146	5	Terrestrial Environment	~	KIA-75	~	Sabina commits to providing details on shallow geotechnical conditions at the various fuel storage facilities for the FEIS and again for the water licence application process.
147	5	Terrestrial Environment	KIA-76	~	~	Geotechnical assessments were conducted as part of the PFS but the results of these assessments were not available at the time of preparation of the DEIS. Sabina commits to providing these data, their interpretation, and implications in the FEIS.
148	5	Terrestrial Environment	~	KIA-78	~	Sabina commits to using available kinetic data to develop site specific criteria as well as assessing the screening criteria used at other similar operations in Nunavut to help characterize our definition of PAG material. This will be presented within the FEIS.

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149	5	Terrestrial Environment	KIA-79	~	~	Sabina commits that further interpretation of the forms and reactivity of NP will be made as part of detailed interpretation of the humidity cell test results. This will be completed as part of the FEIS. Consideration will be given to different lithologies and/or zones within the deposit area that may have different proportions of unreactive NP.
150	5	Terrestrial Environment	KIA-85	~	~	For Volume 11 (App1A to App4A), Sabina commits to rectify the classification of Barrel 6 as the material in the barrel has a sulphide net potential ratio of 2.95 and is therefore classified as uPAG, this will be rectified in the FEIS.
151	5	Terrestrial Environment	~	KIA-89	~	As part of the FEIS, Sabina commits to detailing thermal analyses to determine the extent and timing of open taliks developing for all of the open and underground pits. The existing groundwater understanding will subsequently be expanded to include these new open taliks.
152	5	Terrestrial Environment	KIA-100	~	~	Sabina is committed to using only geochemically suitable material for construction and closure and will continue characterization studies to further assess the ML/ARD potential and to develop an appropriate strategy in the FEIS for identifying and classifying this material at the time of the works to ensure appropriate use for construction.
153	5	Terrestrial Environment	KIA-116	~	~	Sabina commits that WRSA and TIA design criteria will be assessed during the FS as thermal modelling analyses are conducted and the designs optimized. Updates will be provided in the FEIS.
154	5	Terrestrial Environment	NRCan-1	~	~	Prescreening of material will be completed prior to its removal and if substantial metal leaching and acid rock drainage potential is identified, the material will be managed accordingly. Sabina commits to reporting further details on these mitigation plans in the FEIS following development in the FS.
155	5	Terrestrial Environment	~	~	NRCAN-1	Sabina commits prior to commencement of works, but not necessarily prior to FEIS submission, to assess the geomechnical properties of the borrow material, its geochemistry and ARD/ML potential, the available volume of material, proximity to infrastructure, and to consider avoidance of environmentally sensitive (e.g. fish and fish habitat) and culturally sensitive (e.g. archaeological) areas.
156	5	Terrestrial Environment	NRCan-3	~	~	Sabina commits to updating the terrain maps for Figure 4.2-1 (Appendix V5-3A) to illustrate the predominant direction of esker makers being northward.
157	5	Terrestrial Environment	NRCan-3	~	~	Sabina commits to updating the legend for terrain maps in (Appendix V5-3B) the FEIS to indicate which map sources were used.
158	5	Terrestrial Environment	~	~	NRCAN-5	Sabina commits to substantiating the TIA closure design criteria and completing a thermal analysis, inclusive of climate change considerations, to demonstrate the viability of the plan. This information will be presented in the FEIS.
159	5	Terrestrial Environment	~	~	NRCAN-7	Sabina commits to conducting additional site characterization of foundation materials for proposed alignments of dykes and embankments for water retention structures associated with the TIA and dewatering of lakes to support detailed design after receipt of the water licence. This information will appear in the FEIS.
160	5	Terrestrial Environment	~	~	NRCAN-8	For the FEIS, Sabina commits to completing and presenting all appropriate geotechnical analysis of the TIA structure, including its foundation.
161	5	Terrestrial Environment	NRCan-9	~	~	Sabina commits to providing further information on closure of the underground workings in the FEIS.
162	5	Terrestrial Environment	~	~	NRCAN-9	Sabina commits to considering the potential for through-taliks beneath flooded open pits in assessing the long-term effects on water quality and quantity. Information will be presented in the FEIS.
163	5	Terrestrial Environment	~	~	NRCAN-10	Sabina commits to providing an updated analysis of permafrost distribution at depth through thermal modelling, updated data analysis, and any other means required to depict any groundwater connections with the mine openings. This analysis will provide an updated account of the potential formation/decline of taliks, including any potential through-taliks. Requested information will be presented in the FEIS.
164	5	Terrestrial Environment	NRCan-13	~	~	Sabina commits to undertake thermal modelling of both WRSA's and the TIA to validate cover design criteria. This will be provided in the FEIS.
165	5	Terrestrial Environment	~	~	NRCAN-13	Sabina commits to providing the appropriate design criteria and justification for any mitigation measures adopted for the project. This information will be presented in the FEIS.

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
166	5	Terrestrial Environment	NRCan-14	~	~	Sabina commits to further geotechnical studies, basic design, stability analysis, and any thermal analyses that are required to advance the design of tailings managment for the purpose of water licencing. This work will be presented in the FEIS. Potential settlement from freeboard calculations will be further clarified in the FEIS.
167	5	Terrestrial Environment	~	~	NRCAN-14	Sabina commits to presenting the scope and details of the thermal modelling completed. Requested information will be presented in the FEIS.
168	5	Terrestrial Environment	NRCan-15	~	~	For the FEIS, Sabina commits to estimate seepage quality and quantity to further advance the water management plans.
169	5	Terrestrial Environment	~	~	NRCAN-15	Sabina commits to clarifying the extent of the Llama Lake talik to be used for assessment of project effects. This will be presented in the FEIS.
170	5	Terrestrial Environment	NRCan-16	~	~	For the FEIS, Sabina commits to provide more specific climate change predictions. These may be calculated from thermal models to help refine the final engineering design.
171	5	Terrestrial Environment	~	~	NRCAN-16	Sabina commits to substantiating the closure design criteria for the open pits and completing a thermal and/or hydrogeological analysis, inclusive of climate change considerations, to demonstrate the viability of the plan. This information will be presented in the FEIS.
172	5	Terrestrial Environment	NRCan-17	~	~	Sabina commits that additional analysis on the long-term effectiveness of permafrost encapsulation will be completed as part of the FS, and will be reported in the FEIS. The analysis will consider the sensitivity to climate change and the rate of freezing for the WRSA and TIA.
173	5	Terrestrial Environment	NRCan-19	~	~	Sabina commits to continue geochemical characterization of pit wall materials, including a kinetic testing program. Water quality predictions for the pit lakes will be developed based on this characterization work and will be provided in the FEIS. A conceptual plan for treatment of the water from the filled pits will be developed once water quality predictions are available.
174	5	Terrestrial Environment	NRCan-22	~	~	Sabina commits to providing additional geochemical characterization work, including results from the ongoing kinetic testing program. The updated water quality predictions will be provided in the FEIS.
175	5	Terrestrial Environment	~	~	NRCAN-30	Sabina commits to further substantiating the TIA closure design criteria and completing a thermal analysis, inclusive of climate change considerations, to demonstrate the viability of the plan. This information will be presented in the FEIS.
176	5	Terrestrial Environment	~	~	NRCAN-32	Sabina commits to further substantiating the waste rock and TIA closure design criteria and completing a thermal analysis, inclusive of climate change considerations, to demonstrate the viability of the plan. This information will be presented in the FEIS.
177	6	Freshwater Environment	~	~	AANDC-9	Sabina commits to including underground mine inflow in the site water and load balance model and account for the effect of the PAG backfill on the quality of that water and ultimately in the TIA. Further, Sabina will provide quality estimates of the underground mine water at closure, including the effect of the PAG backfill, if such mine water is expected to be released to the natural environment. Requested information will be presented in the FEIS.
178	6	Freshwater Environment	~	~	AANDC-10	Sabina commits to including a rationale for excluding the 2006 phosphorus data
179	6	Freshwater Environment	~	~	AANDC-10	Sabina commits to presenting phosphorus data from 1994 onwards in the FEIS.
180	6	Freshwater Environment	~	~	AANDC-10	Sabina commits to presenting tabulated pH data that distinguishes between field and laboratory data. Clarification of the specific methodologies used to measure pH in the baseline program will be included in the FEIS.
181	6	Freshwater Environment	~	~	AANDC-10	Sabina commits to including the requested information in the FEIS as described in the detailed response part of the technical response package (AANDC-10).
182	6	Freshwater Environment	AANDC-15	~	~	The water balance for the Project is under review and will be updated for the FEIS. Sabina commits to further describing the viability of "zero discharge" and the implications on TIA design.
183	6	Freshwater Environment	AANDC-29	~	~	For the FEIS, Sabina commits to providing an estimate of water volume change, water volume remaining, and water level for each lake and surface mine (by year) throughout the Project.

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
184	6	Freshwater Environment	~	AANDC-30	~	Sabina commits to provide an operational plan and water balance to document how the minimum water levels within Goose and Propeller Lakes will be maintained. The FEIS will provide additional detail by incorporating the latest engineering inputs derived from the FS.
185	6	Freshwater Environment	AANDC-33	~	~	For the FEIS, Sabina commits to including Appendix A and Appendix B with the geotechnical and hydrogeological drilling program report written by SRK (Nov, 2012).
186	6	Freshwater Environment	AANDC-34	~	~	The appendices for the Knight Piesold report in Vol 5, App.2D will be included in the FEIS.
187	6	Freshwater Environment	~	~	DFO-3	Sabina commits to including additional details on the Umwelt Lake outflow in the FEIS.
188	6	Freshwater Environment	~	~	DFO-4	Sabina commits to providing additional rationale for selection of design criteria for sizing of culverts in the FEIS.
189	6	Freshwater Environment	~	~	DFO-5	Sabina commits to conducting a fish passage flow assessment as part of the culvert design process. This information will appear in the FEIS.
190	6	Freshwater Environment	~	~	DFO-15	Sabina commits to updating relevant references to current DFO policies and guidance documents found on the agency website. These updates will be completed within the FEIS.
191	6	Freshwater Environment	EC-14	~	~	For the FEIS, Sabina commits to providing details on the total volume of water requiring treatment at the George Property. These values will support the final sizing and design of the collection ponds.
192	6	Freshwater Environment	~	~	EC-19	Wherever reasonable Sabina prefers the use of passive culverts instead of active pumping. Sabina commits to properly installing culverts where they are necessary. This information will appear in the FEIS.
193	6	Freshwater Environment	~	EC-25	~	Sabina commits to satisfy all regulations, including MMER, and water quality targets will be progressed further during the water licencing process.
194	6	Freshwater Environment	~	~	EC-26	Sabina commits to providing a detailed site-wide water and load balance. This information will be presented in the FEIS.
195	6	Freshwater Environment	~	~	EC-30	Sabina commits to adding xylene in the FEIS as a measured parameter for these discharge criteria.
196	6	Freshwater Environment	~	~	EC-33	Sabina commits to addressing seepage capture and pump-back requirements for dyke structures at the George site. Requested information will be presented in the FEIS.
197	6	Freshwater Environment	GN-8	~	~	The effects of evapotranspiration were discussed in the Volume 6, Chapter 1 (Sections 1.1.1.3, 1.1.3.2, and 1.1.3.4) but were not addressed in Volume 9, Chapter 2, "The Effects of the Environment on the Project". Sabina commits to providing this interaction in the FEIS risk matrix.
198	6	Freshwater Environment	GN-9	~	~	Sabina plans to develop Standard Operating Procedures that include the use of chlorination to ensure potability of water. Regular testwork of water quality will be conducted to ensure potable water meets Canadian drinking water standards. Sabina commits to meet all regulatory requirements around the management of potable water and additional details will be provided in the FEIS.
199	6	Freshwater Environment	~	~	KIA-CR-11	Sabina commits to providing additional justification for design criteria adopted for any water management structures. Furthermore, Sabina commits to completing and presenting all appropriate geotechnical and hydrotechnical analysis of water management structure in the FEIS.
200	6	Freshwater Environment	~	~	KIA-CR-16	Sabina commits to monitoring TIA water quality until the WQO's are met.
201	6	Freshwater Environment	~	~	KIA-CR-17	The updated water balance will be used to provide additional details on the Umwelt Lake and outflow system in the FEIS. If an updated effects assessment indicates residual effects, then mitigation measures such as offsetting will be considered in collaboration with DFO and the KIA.
202	6	Freshwater Environment	~	~	KIA-IR-17	Sabina commits to provide further rationale and methodology for criteria selection during the water licensing process. Further, Sabina commits to provide specific tundra discharge locations for treated sewage, along with supporting rationale, in the FEIS.

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
203	6	Freshwater Environment	~	~	KIA-CR-18	Sabina commits to conducting a second year of baseline fish sampling in Giraffe Lake if this lake remains a potential receiving environment. Sabina will make this information available in the FEIS or prior to the final technical review.
204	6	Freshwater Environment	~	~	KIA-IR-19	Sabina commits to provide further rationale and methodology for criteria selection during the water licensing process. Further, Sabina commits to provide specific tundra discharge locations for treated sewage, along with supporting rationale, in the FEIS.
205	6	Freshwater Environment	~	~	KIA-IR-20	Sabina commits to provide further rationale and methodology for criteria selection during the water licensing process. Further, Sabina commits to provide specific tundra discharge locations for treated sewage, along with supporting rationale, in the FEIS.
206	6	Freshwater Environment	~	~	KIA-IR-21	Sabina commits to provide specific tundra discharge locations for treated sewage, along with supporting rationale, in the FEIS.
207	6	Freshwater Environment	~	~	KIA-IR-22	Sabina commits to provide further rationale and methodology for criteria selection during the water licensing process. This information will appear in the FEIS.
208	6	Freshwater Environment	~	~	KIA-IR-23	Sabina commits to provide further rationale and methodology for criteria selection during the water licensing process. This information will appear in the FEIS.
209	6	Freshwater Environment	~	~	KIA-IR-25	Sabina commits to provide further rationale and methodology for criteria selection during the water licensing process. This information will appear in the FEIS.
210	6	Freshwater Environment	~	~	KIA-IR-26	Sabina commits to provide further rationale and methodology for criteria selection during the water licensing process. This information will appear in the FEIS.
211	6	Freshwater Environment	~	~	KIA-IR-27	Sabina commits to developing a water and load balance that will be used to develop water management plans for all stages of the project including construction, operation, closure and post-closure. This will be used to demonstrate that any discharge that runoff will comply with appropriate WQOs once it reaches the closest waterbody or watercourse. Locations for discharges to the tundra along with rationale for their selection will be provided. This information will be provided as part of the FEIS.
212	6	Freshwater Environment	~	~	KIA-IR-28	In the FEIS, Sabina commits to clarifying the TSS thresholds and mitigation measures to meet those limits as well as describing the fate of water removed from Llama Lake, Lytle Lake and Occurrence Lake as part of the site-wide water and load balance.
213	6	Freshwater Environment	~	~	KIA-IR-29	Sabina commits to including seepage from the TIA as a pathway for the freshwater water quality assessment chapter for the FEIS.
214	6	Freshwater Environment	~	~	KIA-IR-33	Sabina commits to use figures illustrating creek cross sections under baseline and projected scenarios for a range of wet and dry years in the FEIS.
215	6	Freshwater Environment	KIA-88	~	~	The preliminary designs for the impermeable dykes will be an output from the FS. Further geotechnical investigation will address the dyke design, the foundation conditions and the potential for the development of a talik. The potential for seepage from Lytle and Occurrence Lake to the Locale 1 and Locale 2 pits will be considered. Estimated seepage rates and management of the potential seepage will also be completed. Sabina commits that this information will be included in the FEIS.
216	6	Freshwater Environment	~	KIA-128	~	Sabina commits to providing design criteria in the FEIS and NWB applications to quantify the wetted habitat loss in all impacted water.
217	6	Freshwater Environment	NRCan-4	~	~	Further geothermal analysis is being conducted as part of ongoing preparation for the FS and Sabina commits that this information will be included in the FEIS.
218	6	Freshwater Environment	NRCan-5	~	~	Saline water management has been considered through the operational stipulation to transport the saline water to the TIA. Sabina commits to include saline groundwater contributions to the TIA and confirm the final quality of the tailings supernatant at closure in the FEIS water balance .
219	6	Freshwater Environment	NRCan-8	~	~	For the FEIS, Sabina commits to developing a thermal model to confirm permafrost predictions beneath the TIA.

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
220	6	Freshwater Environment	~	~	NRCAN-11	Sabina commits to depicting any groundwater connections with mine openings. Where discharges to the environment are predicted based on the site wide water and load balance, appropriate mitigation measures will be presented in the FEIS.
221	6	Freshwater Environment	~	~	NRCAN-17	Sabina commits to presenting the scope and details of the hydrogeological modelling completed. Requested information will be presented in the FEIS.
222	6	Freshwater Environment	~	~	NRCAN-18	Sabina commits to providing details on the Llama Lake talik zone through all phases of mining and closure. Details will be presented in the FEIS.
223	6	Freshwater Environment	~	~	NRCAN-19	Sabina commits to providing an updated analysis of permafrost distribution at depth through thermal modelling, updated data analysis, and any other means required to depict any groundwater connections with the mine openings. This analysis will provide an updated account of the potential formation/decline of taliks, including any potential through-taliks. Requested information will be presented in the FEIS.
224	6	Freshwater Environment	~	~	NRCAN-22	Sabina commits to providing justification for not obtaining more information on the fault zones as it relates to groundwater flows in talik regions. This information will be provided in the FEIS.
225	6	Freshwater Environment	~	~	NRCAN-24	Sabina will develop and operate a safe mine including appropriate underground water management. These elements will be addressed as part of the standard mine operational procedures to be approved by the Mines Inspector.
226	6	Freshwater Environment	~	~	NRCAN-27	Sabina commits to providing results of any groundwater modelling completed for Llama pit. These details will be presented in the FEIS.
227	6	Freshwater Environment	~	~	NRCAN-29	Sabina commits to providing an updated analysis of permafrost distribution at depth through thermal modelling, updated data analysis, and any other means required to depict any groundwater connections with the mine openings. This analysis will provide an updated account of the potential formation/decline of taliks, including any potential through-taliks. Requested information will be presented in the FEIS.
228	7	Marine Environment	DFO-6	~	~	Sabina commits to develop marine mammal observation procedures in-line with federal and government of Nunavut shipping management protocols. Further details will be provided in the FEIS.
229	7	Marine Environment	~	~	DFO-6	For the FEIS, Sabina will include potential impacts along the shipping route, including ship noise and ship strikes. This will be conducted utilizing publically available information.
230	7	Marine Environment	~	~	EC-2	Sabina will provide additional detail in the FEIS and further consider realistic 'no disturbance' setbacks.
231	7	Marine Environment	~	~	EC-2	Sabina will provide an annual log and map of ship tracks in annual monitoring reports.
232	7	Marine Environment	~	~	EC-3	To the extent that the information is made available from the Canadian Coast Guard, Sabina commits to providing data on the percentage increase in shipping traffic in the FEIS.
233	7	Marine Environment	~	~	EC-5	Sabina commits to working within the existing regulatory framework defined by Transport Canada. An approved SOPEP will be in place by the shipping provider prior to the commencement of any shipment.
234	7	Marine Environment	EC-6	~	~	Sabina commits to develop seabird observation procedures in-line with federal and government of Nunavut shipping management protocols. These details will be provided in the FEIS.
235	7	Marine Environment	~	~	EC-8	Sabina commits to working within the existing regulatory framework defined by Transport Canada. Sabina will consider additional clarity on the reporting of bird strikes in the Incidental Observation Procedure included in the FEIS. If the frequency of strikes is significant, Sabina will implement adaptive management procedures to address this concern.
236	7	Marine Environment	~	EC-9	~	Sabina commits to complying with standard shipping guidance, and implementing a series of management plans, which will be in effect within the marine Local Study Area and/or the marine Regional Study Area in Bathurst Inlet. Implemented together, these plans will limit effects on marine birds in the common shipping route.
237	7	Marine Environment	~	~	EC-25	Sabina commits to a further review in the FEIS of monitoring requirements of discharged brine for compliance with subsection 36(3) of the Fisheries Act prior to release to the marine environment.

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238	7	Marine Environment	~	~	TC-2	For the FEIS, Sabina will provide details on any accommodation barge or overwintering fuel vessel proposed for use. This will address compliance with regulatory requirements and include information on the type of vessels involved, operations plan, and risk assessment.
239	7	Marine Environment	~	TC-3	~	Sabina commits to reference the AWPPA in the Shipping Management Plan section related to pollution prevention as the vessels transiting to/from and employed within the MLA are required to comply with the Act in addition to the Canada Shipping Act (2001).
240	7	Marine Environment	~	~	TC-3	Sabina commits to reviewing, for the FEIS, the stated regulatory requirements specific to choice of route and vessels.
241	7	Marine Environment	~	TC-4	~	Sabina commits to request a meeting with Canadian Hydrographic Services officials to ensure their engagement on a potential bathymetric survey of the MLA area.
242	8	Human Environment	~	~	AANDC-31	Sabina commits to further consider the potential of the Project to result in out-migration of skilled workers, as well as out-migration of former employees upon various closure phases of the mine. This information will be included in the FEIS.
243	8	Human Environment	~	~	AANDC-32	For the FEIS, Sabina will provide training plans derived from the completed job descriptions for the Back River site positions.
244	8	Human Environment	~	~	AANDC-34	Sabina will govern gender equality through the CHRC - Human Rights Maturity Model where current and future polices and practices follow: 1) Leadership and accountability; 2) Capacity building and resources; 3) Alignment of policies and processes; 4) Communication and consultation; and 5) Evaluation for continuous improvement. This commitment will appear in the FEIS.
245	8	Human Environment	~	~	AANDC-34	Sabina will work with relevant Community groups to promote and encourage the candidacy of women for employment vacancies. This commitment will appear in the FEIS.
246	8	Human Environment	AANDC-60	~	~	Sabina commits to providing an FEIS update to the Mince Closure Reclamation Plan that summarizes the post-reclamation risks to humans and the environment. This will bebsed on more detailed evaluations provided in Volume 8, Chapter 6 and applicable Volume 8 appendices. Sabina will also present a closure cost estimate.
247	8	Human Environment	AANDC-67	~	~	Sabina commits to provide additional details on workforce requirements as part of the FEIS submission.
248	8	Human Environment	~	AANDC-69	~	Sabina commits to update the FEIS to include more recent socio-economic baseline data than the information referenced in the Volume 8, Chapter 3.
249	8	Human Environment	AANDC-70	~	~	Sabina commits to providing appropriate training to ensure Inuit and Nunavummiut have employment opportunities.
250	8	Human Environment	AANDC-73	~	~	Sabina commits to providing appropriate notice periods for lay-offs from Back River operations as mandated by the statutes of the Labour Standards Act of Nunavut.
251	8	Human Environment	~	~	GN-1	The Kitikmeot Region SEMC is actively engaged in the monitoring of conditions in communities, including aspects of Population Demographics and Community Infrastructure and Public Services. Sabina will continue to participate in this ongoing initiative.
252	8	Human Environment	~	~	GN-3	Sabina commits to ongoing community engagement so that members of the communities, including youth and education service providers, are aware of the career opportunities with the Project and can make informed decisions regarding education and skills development. This information will appear in the FEIS.
253	8	Human Environment	~	~	GN-3	Sabina commits to actions to promote youth being able to make informed choices regarding their career direction, including encouraging youth to stay in school to take advantage of the employment opportunities made available by the Project. This information will appear in the FEIS.
254	8	Human Environment	~	~	GN-3	Updated information will be included in the FEIS. This will include more specific information on the number of jobs that will be available with the Project and the general education/training requirements for these jobs.

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255	8	Human Environment	~	~	GN-4	Further details regarding the workforce schedule, including number of positions and general skill and experience requirements, will be provided in the FEIS based on what is known at the time with the advancement of engineering design.
256	8	Human Environment	~	~	GN-4	Sabina will work closely with GN Family Services and the Apprenticeship program in Nunavut to align mine site program planning. This information will appear in the FEIS.
257	8	Human Environment	~	~	GN-5	Sabina commits to updating the baseline information provided in Volume 8, Chapter 3 (Socio-economics), Section 3.1.2.2 (Employment) and Section 3.1.2.3 (Education and Training) with the most current and applicable National Household Survey and Labour Force Survey data. Additional analysis and more detail will be provided in the FEIS for potential in-migration due to Project-related indirect (supplier) and induced employment in Kitikmeot communities and the consequences/needs of immigrant workers,
258	8	Human Environment	~	~	GN-6	Sabina commits to including additional information in the FEIS concerning: 1. Training approaches and methods specific to Nunavummiut and Inuit 2. Incorporation of Inuit Qaujimajatuqangit into Community Based Monitoring initiatives.
259	8	Human Environment	~	~	GN-7	Sabina will continue to support childcare in the communities through our donations policy and informal visits to assess potential areas of need. Also, Sabina employees will be encouraged to support childcare through volunteering and participation on the associated non-profit boards responsible in each community for the delivery of childcare programming. This information will appear in the FEIS.
260	8	Human Environment	~	~	GN-8	Sabina will continue to support childcare in the communities through our donations policy and informal visits to assess potential areas of need. Also, Sabina employees will be encouraged to support childcare through volunteering and participation on the associated non-profit boards responsible in each community for the delivery of childcare programming. This information will appear in the FEIS.
261	8	Human Environment	~	~	GN-9	Sabina commits to providing in the FEIS further analysis and more detail regarding the potential for migration into Cambridge Bay and Kugluktuk due to Project-related indirect and induced employment. As recommended by the Nunavut Housing Corporation (NHC), a sensitivity analysis that incorporates a number of scenarios will be included as part of the analysis given the uncertainties involved.
262	8	Human Environment	~	~	GN-10	Sabina commits to reviewing relevant statements concerning annual housing construction in Nunavut and, in the FEIS, will provide a regional breakdown of where new public and private housing units have been constructed where the information is available.
263	8	Human Environment	~	~	GN-11	For the FEIS, Sabina will provide information regarding sexual health as part of our general Wellness information program to be delivered at site. The company commits to providing on-site access to condoms in an effort to mitigate the spread of STI's. The program information will be delivered by qualified health practitioners.
264	8	Human Environment	~	~	GN-12	Sabina will review the subject of "up-to-date" immunization for employees and provide additional details in the FEIS. Sabina will be offering annual influenza vaccinations to all employees and providing education on proper personal hygiene to limit the spread of influenza. All medical incidents or occurrences, including those tied to a rabid animal, will be addressed through the company HS&E policy, where a qualified on-site Nurse/Medic will assess the situation and where necessary consult with our Medical Doctor. All regulatory reporting will be adhered to for compliance.
265	8	Human Environment	~	~	GN-13	In the event that pre-employment medicals are required, Sabina will commit to a service fee payable to the Community Health services based on a negotiated fee schedule. Sabina will develop any pre-employment medical screening program in discussion with Nunavut Health Services. This commitment will be added to the FEIS.
266	8	Human Environment	~	~	GN-14	Sabina commits to providing a descriptions of all employee support programs and training undertaken including: a qualitative description of the structure and goals of each program; the number of times it was provided to employees and; the percentage of employees (at every level) who have successfully completed the program. This will be provided annually via a relevant annual report mechanism.

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267	8	Human Environment	~	~	GN-14	Sabina commits to providing a description of the manager's, councilors, or HR representative's duties in relation to employee support, their on-site availability and a general assessment of whether the position is achieving the desired goals. This will be provided annually via a relevant annual report mechanism.
268	8	Human Environment	~	~	GN-15	Sabina commits to integrating Table GN-CH-37 (Regional Study Area Archaeology Site Types) into the appropriate sections of FEIS.
269	8	Human Environment	~	~	GN-16	Sabina commits to integrating Table GN-CH-41-1 (Archaeological Site Cultural Affiliations) and Table GN-CH-41-2 (Archaeological Artifacts by Site) into the appropriate sections of the FEIS.
270	8	Human Environment	~	~	GN-17	Sabina commits to providing a set of maps to the Department of Culture and Heritage on March 31st of each year illustrating changes in the Project footprint are occurring or an archaeological permit is obtained.
271	8	Human Environment	~	~	GN-18	Sabina commits to providing summaries of the current status of all known archeology sites within 80 meters of the Project Infrastructure by March 31 of each year.
272	8	Human Environment	~	GN-23	~	For the FEIS, Sabina commits to updating data for 'GDP contributions of the Back River Project for Operation' (Volume 8, Table 3.5-8)
273	8	Human Environment	~	GN-24	~	Sabina commits to providing more recently released information from the 2011 National Household Survey in the FEIS.
274	8	Human Environment	GN-28	~	~	Sabina commits to working in partnership with the KIA and other stakeholders such as MiHR, Northern Arctic College to identify skills gaps for work readiness training.
275	8	Human Environment	~	GN-29	~	Sabina commits to ensuring appropriate policies are included in the FEIS to protect the workforce from sexual harassment or abuse.
276	8	Human Environment	GN-31	~	~	Sabina commits to providing an EAP which is appropriate to our workforce. That may include access to counselors onsite or referrals to additional facilities should the need arise. Sabina remains committed to allowing for employment opportunities onsite for Inuinnaqtun and/or Inuktitut speaking staff.
277	8	Human Environment	GN-32	~	~	Currently there are no formalized plans for community contributions related to community health and wellbeing. Over the past five years, Sabina has committed funds and resources towards community initiatives including daycares, food banks, suicide prevention, traditional pursuits, cultural events, and education initiatives. As the Project advances Sabina remains committed to working with the Kitikmeot Inuit Association, Government of Nunavut, the Kitikmeot communities and associated community groups to ensure reasonable community benefits are established. This will be stated in the FEIS.
278	8	Human Environment	GN-33	~	~	Sabina has obtained information on the new Rent Scale System and will include this information, where relevant, in the FEIS. Going forward, Sabina commits to working with the NHC, as appropriate, to help ensure that accurate information is provided to workers.
279	8	Human Environment	~	GN-34	~	Sabina commits to making a formal request to the Nunavut Housing Corporation for detailed information on the number of new housing units by community. This will be provided in the FEIS.
280	8	Human Environment	~	GN-36	~	In the FEIS, Sabina commits to providing updated information on the Nunavut Housing Corporation's annual budget, as made available by the NHC.
281	8	Human Environment	~	GN-36	~	Sabina commits to correcting the numbers presented in the DEIS for archaeological sites such that values are consistent throughout the FEIS for each project management area.
282	8	Human Environment	~	GN-39	~	In the FEIS, Sabina commits to providing more detail on the criteria used to assign archaeological significance in the main body of the EIS (Volume 8, Section 1.5.2.4).
283	8	Human Environment	GNWT-13	~	~	Sabina commits to present a final determination of flight routes and schedules in the FEIS. It is anticipated that some Southern employees may travel through Yellowknife in order to access site during the Project life.
284	8	Human Environment	GNWT-14	~	~	Sabina commits to responsibility for financing any potential evacuations of all project personnel. This will be stated in the FEIS.
285	8	Human Environment	KIA-44	~	~	For the FEIS, Sabina commits to include a more robust consideration of the broader RSA effects that were considered and included in the assessment (Vol 8, Employment - Cumulative Residual Effects).

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286	9	Methodology & Effects of Environment on the Project	AANDC-3	~	~	Sabina commits to clarifying in the FEIS, the approach used to determine spatial effects including consideration for the extent of potential project effects.
287	9	Methodology & Effects of Environment on the Project	~	~	AANDC-16	Sabina commits to review and update, as appropriate, the chapter for accidents and malfunctions in the FEIS.
288	9	Methodology & Effects of Environment on the Project	~	AANDC-55	~	Sabina commits to providing additional information on oil spill response procedures, and expected conditions outside the MLA, for non-navigable rivers, creeks and other waterways. This will be provided for the FEIS.
289	9	Methodology & Effects of Environment on the Project	EC-Followup-1	~	~	Sabina commits to including the missing appendices from the Oil Pollution Emergency Plan in the FEIS.
290	9	Methodology & Effects of Environment on the Project	EC-Followup-3	~	~	For the FEIS, Sabina commits to providing response details in an updated version of the Spill Contingency Plan for a potential ammonium nitrate spill to water.
291	9	Methodology & Effects of Environment on the Project	EC-Followup-4	~	~	Sabina commits to replacing the references from (Section 7.2.2 Regional Environmental Emergencies Team of the Oil Pollution Emergency Plan; and Section 2.1.6, Spill Response Procedures, of the Shipping Management Plan) with the Environmental Emergencies Science Table information provided by Environment Canada.
292	9	Methodology & Effects of Environment on the Project	~	~	TC-1	Sabina commits to amending the legislative requirement section of the OPEP to comply with section 168 (1) (b) (iii) of the CSA, 2001. Sabina will include a list of all employees authorized to implement the OPEP and their contact information, on the Oil Handling Facility Declaration. It should be noted that any list of authorized employees would be initial in detail as Sabina will not have all relevant positions hired. All requested information will be included in the FEIS.
293	10	Management Plans	~	~	AANDC-7	Sabina commits to determining potential groundwater flow pathways (where possible) and including those in the site wide water and load balance. This water and load balance will be used to determine the appropriate water management plans for all the project phases including construction, operation, closure and post closure. This information will be presented in the FEIS.
294	10	Management Plans	~	~	AANDC-8	Sabina commits to determining the groundwater flow pathways and including those in the site wide water and load balance. This water and load balance will be used to determine the appropriate water management plans for all the project phases including construction, operation, closure and post closure. This information will be presented in the FEIS.
295	10	Management Plans	AANDC-13	~	~	Sabina commits to providing additional design details deemed necessary for any planned raw water intakes in a future update to the Site Water Monitoring and Management Plan in the FEIS.
296	10	Management Plans	AANDC-18	~	~	Sabina commits to providing details regarding the management of potential overflow prior to pit water quality meeting limits. This will include predictions for pit filling times in the FEIS.
297	10	Management Plans	~	~	AANDC-21	Sabina commits to providing additional rationalization of the temporal boundaries used to determine pit water quality with consideration for predicting the ultimate residual effects to water quality in the long term. A suitable water management plan will be presented in the FEIS.

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298	10	Management Plans	~	~	AANDC-22	Sabina commits to providing a detailed site wide water and load balance for the project. This will be used to develop detailed water management plans for the different phases of the project including construction, operation, closure and post-closure. This information will be presented in the FEIS.
299	10	Management Plans	~	~	AANDC-23	Sabina commits to providing a detailed site wide water and load balance for the property. This will be used to develop detailed water management plans for the different phases of the project including construction, operation, closure and post-closure. This information will be presented in the FEIS.
300	10	Management Plans	~	~	AANDC-24	Sabina commits to providing an updated Mine Closure Reclamation Plan and closure costs in the FEIS.
301	10	Management Plans	~	~	AANDC-25	Sabina commits to re-evaluating and providing additional justification on the duration of post-closure monitoring that will be required based on the new Mine Closure Reclamation Plan submitted as part of the FEIS.
302	10	Management Plans	~	~	AANDC-27	Sabina commits to including the potential for re-vegetation research in the Preliminary MCRP in the FEIS.
303	10	Management Plans	~	~	AANDC-33	Sabina commits to providing additional details on how Sabina will support development of a workforce that is career oriented, particularly in relation to the Continuous Development and Training Program. This information will be presented in the FEIS.
304	10	Management Plans	AANDC-35	~	~	For the FEIS, Sabina commits to providing an updated water balance into the management plans and water licence application material. This will specific include inputs from any saline groundwater inflow.
305	10	Management Plans	~	AANDC-44	~	Sabina commits that the AEMP analyses will explicitly consider statistical power and will be refined and developed throughout the program. For example, time-series regression analyses may be introduced to the analysis later in the AEMP to provide independent validation and verification of results.
306	10	Management Plans	AANDC-52	~	~	As part of the FEIS and water licencing process, Sabina commits to update and build on the Adaptive Management framework described in the EMP (Volume 10, Chapter 1).
307	10	Management Plans	DFO-5	~	~	Potential impacts due to physical works associated with the desalination plant at the MLA will be addressed as part of the overall Fisheries Offsetting Plan provided in the FEIS.
308	10	Management Plans	~	~	DFO-7	For the FEIS, Sabina will produce appropriate protocols, based on the DFO protocols, but adapted for incidental marine mammal observations by ship's personnel.
309	10	Management Plans	~	~	DFO-8	Sabina commits to designing the desalinization plant intake and outfall structures in accordance with DFO Operational Standards and any other guidelines. Details will be presented in the FEIS.
310	10	Management Plans	~	~	DFO-9	Sabina commits to continuing to explore offsetting options and consultation with the affected communities through the permitting process. Offset engagement has and will continue to be primarily those communities in close proximity to the Project.
311	10	Management Plans	~	~	DFO-10	Sabina commits to continue working with the DFO in the development of the offsetting plan and the quantification of Serious Harm.
312	10	Management Plans	~	~	DFO-11	If any other lakes are proposed as water source lakes for closure, then Sabina commits to providing details specific to those lakes in the FEIS.
313	10	Management Plans	~	~	DFO-13	Sabina commits to producing monitoring and adaptive management SOPs for seal lairs during the construction of the winter road to the MLA and aircraft strip.
314	10	Management Plans	~	~	DFO-14	For the FEIS, Sabina commits to updating the general triage number and email address from the DEIS to the current DFO information provided.
315	10	Management Plans	~	~	EC-1	Sabina commits to recording data on incidental seabird observations along the shipping route. Proposed methods for observations and data handling to ensure compatibility with existing databases will be included in the FEIS Wildlife Mitigation and Monitoring Plan.

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316	10	Management Plans	~	~	EC-4	In order to monitor potential effects on waterfowl in on-site ponds, Sabina commits to: 1) monitoring water quality in Project ponds, 2) monitoring whether migratory waterfowl use these ponds for staging and breeding, 3) if the water quality in a pond is poor and waterfowl are using the waterbody for a sufficient period to cause the potential for harm (a combination of evaluating the water quality and the time spent using the on-site ponds), then Sabina will conduct adaptive management activities to exclude waterfowl from ponds. This information will appear in the FEIS.
317	10	Management Plans	EC-Followup-5	~	~	For the FEIS, Sabina commits to updating the Key Government Contacts sections (Table 2-4 of the Risk Management and Emergency Response Plan and Table 5.10-4 of the Spill Contingency Plan) to remove "Wade Romanko, Env. Emerg. Officer". All Environment Canada spill information is now facilitated via the NWT/NU 24hour Spill Report Line.
318	10	Management Plans	~	~	EC-7	For all pertinent management plans in the FEIS, Sabina commits to the monitoring of spills in marine environments and reporting to the NT-NU Spill Line the presence of oily sheens on the water near vessels at the port site.
319	10	Management Plans	~	~	EC-9	The buffers listed in Table 1 of the EC comment Section 6.1.9 will be used as guidance, taking into account site-specific and project-related restrictions for operability. Mitigation actions and their success will be reported in the WMMP report. This information will appear in the FEIS.
320	10	Management Plans	~	~	EC-11	Sabina commits to consulting the document titled “Preventing Wildlife Attraction to Northern Industrial Sites” (Canadian Wildlife Service 2007) while preparing procedures for waste and wildlife attractant management. This information will appear in the FEIS.
321	10	Management Plans	~	~	EC-12	The fish-out program for Llama Lake will follow the DFO protocols for such programs in Nunavut and the NWT. Suggested avoidance measures will be considered and can be included in the fish out plan in the FEIS.
322	10	Management Plans	~	EC-13	~	For the FEIS, Sabina commits that the potential impacts of climate change will be further considered in the Project design as a result of FS optimization. This will apply to the TIA design basis.
323	10	Management Plans	~	~	EC-14	In the FEIS, Sabina will add a commitment to the Site Water Monitoring and Management Plan that terrestrial discharge sites will be assessed for stability and thaw-susceptibility during detailed design and/or on-site during construction, as appropriate.
324	10	Management Plans	~	~	EC-16	Sabina commits to providing details of landfill design including locations, waste quantifications, and management of contact water. Consideration will be given to the Guidelines for Developing a Waste Management Plan (MVLWB, 2011). This information will appear in the FEIS.
325	10	Management Plans	~	~	EC-18b	The 2013 Bathurst Inlet Marine Diesel Fuel Spill Modelling Report presented in Appendix V9-3A will be updated to show sensitive marine mammal areas and fishing areas important to Inuit, and evaluate potential effects of a spill on these figures in addition to coastal birds.
326	10	Management Plans	~	~	EC-18c	For the FEIS, Sabina will prepare a tactical response plan showing fuel spill dispersion modelling results relative to local sensitivities (i.e., marine birds, fishing areas, marine mammal areas), that also identifies the location of strategic booming, if any is recommended.
327	10	Management Plans	~	~	EC-18d	The FEIS Hazardous Waste Management Plan will be updated to include applicable cyanide mitigation and management measures, principles and standards.
328	10	Management Plans	~	~	EC-24	Sabina commits to including a reference on already established Marine VECs into the FEIS Site Water Management Plan.
329	10	Management Plans	~	~	EC-27	Sabina commits to including detailed mitigation measures to minimize loss/spillage; and BMPs during use, storage, transport and handling of explosives in the FEIS Explosives Management Plan.
330	10	Management Plans	~	~	EC-28	Sabina commits to providing a detailed site wide water and load balance for the property. This will be used to develop detailed water management plans for the different phases of the project including construction, operation, closure and post-closure. This information will be presented in the FEIS.
331	10	Management Plans	~	~	EC-32	Sabina commits to monitoring for erosion at the western outlet of Rascal Lake with additional details to be included in the FEIS Site Water Monitoring and Management Plan.

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332	10	Management Plans	~	~	EC-35	Sabina commits to keeping information on harmonization of EEM in the FEIS AEMP and working with EC and other agencies to finalize the AEMP during the water licence process.
333	10	Management Plans	~	~	EC-36	Sabina commits to working with EC and other agencies to finalize sampling sites for the AEMP and Site Surveillance Monitoring as part of the water licence process.
334	10	Management Plans	~	~	EC-37	In the FEIS AEMP, Sabina commits to providing the proposed locations of sampling and the number of samples within each waterbody. This will be developed as part of the water licence process.
335	10	Management Plans	~	~	EC-39	As part of the AEMP for water licencing, Sabina commits to working with EC and other agencies to define “significant change” as used for the water quality and sediment quality indicators.
336	10	Management Plans	~	~	EC-40	Sabina commits to working with EC and other agencies to summarize and clearly present baseline data for the AEMP as well as outline all sampling procedures for previous sample collection.
337	10	Management Plans	~	~	GN-2	Through the Back River Project Socio-Economic Monitoring Program (SEMP) and annual reporting to NIRB, Sabina commits to socio-economic monitoring throughout all phases of the Project as long as there is a reasonable expectation of Project-related impacts to the socio-economic environment. This will include temporary closure and care and maintenance phases of the Project. This commitment will be included in the FEIS and finalized in the Terms of Reference.
338	10	Management Plans	~	GN-5	~	For the FEIS, Sabina commits to further refining management plans, including the overall Environmental Management Plan to include all required monitoring programs, and detail how the overall approach to resource allocation, adaptive management, and integration of TK throughout the life of the Project will be implemented. The EMP will also identify the approach to Inuit engagement and monitoring.
339	10	Management Plans	~	~	GN-19	Sabina commits to inserting a reference, in the FEIS, to Appendix B of the Cultural and Heritage Resources Protection Plan for the definition of Chance Find Procedure as well as include relevant educational material in a training program that would be provided to on-site workers.
340	10	Management Plans	~	GN-21	~	Sabina commits to providing additional clarity on proposed measures to mitigate impacts on grizzly bears as well as provide additional information related to Bear-Human Deterrent and Bear Safety within the FEIS.
341	10	Management Plans	~	~	GN-21	More information will be added to the monitoring section of the WMMP for the FEIS that includes detail on proposed methods, threshold values, and their rational for monitoring activities.
342	10	Management Plans	~	~	GN-22	Per the detailed response to GN-22, Sabina commits to including more information in the management sections of the WMMP for the FEIS.
343	10	Management Plans	~	~	GN-24	Sabina commits to provide more detail on the likely framework for contributions to government-led initiatives for monitoring caribou, and a backup plan should these government-led programs not come to fruition in time for the construction of the Project. This information will appear in the FEIS.
344	10	Management Plans	~	~	GN-24	The Wildlife Mitigation and Monitoring Plan for the FEIS will include more information on the proposed analysis of the remote camera data used for monitoring certain wildlife VECs.
345	10	Management Plans	~	~	GN-27	Sabina will include more information in the grizzly bear monitoring and management component of the WMMP. This information will appear in the FEIS.
346	10	Management Plans	~	~	GN-28	Sabina will include more information in the grizzly bear monitoring and management component of the WMMP. This information will appear in the FEIS.
347	10	Management Plans	~	~	GN-29	Sabina commits to adding more information to the extensive list of sections provided in our response to GN-29. This will produce a unified response plan, including information on coordinating with government agencies and HTOs. This information will appear in the FEIS.
348	10	Management Plans	~	~	GN-30	Sabina commits to expanding the description of the analysis used to evaluate the camera techniques listed in Section 7.3.3 of the WMMP (Volume 10, Chapter 20).
349	10	Management Plans	~	~	GN-31	Sabina will update and expand the management and monitoring sections of the WMMP that deal with attraction of predators (including wolverine) to camps and managing problem wildlife (including wolverine). This information will appear in the FEIS.

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350	10	Management Plans	~	~	GN-32	Additional information on the proposed raptor monitoring protocols will be added to the wildlife mitigation and management plan (WMMP) for the FEIS following guidance on measuring and analyzing a zone of influence (ZOI) on nest success by the Canadian Wildlife Service. This information will appear in the FEIS.
351	10	Management Plans	GNWT-1	~	~	As requested by the GN DOE and a stated objective of the GNWT-ENR, Sabina commits to contributing to regional caribou monitoring efforts focused on herd-level effects. This effort will be conducted in collaboration with the GN.
352	10	Management Plans	~	~	GNWT-6	Sabina commits to adding a section to the WMMP which describes the framework by which these various mitigation and monitoring activities for caribou are integrated together. This plan will describe the various stages of work alteration based on the number and distance of caribou to the Project site.
353	10	Management Plans	~	~	GNWT-8	Sabina will conduct grizzly bear den surveys along the winter road. Details of these surveys will be provided in the updated WMMP Plan that will be included in the FEIS.
354	10	Management Plans	~	~	KIA-IR-1	Sabina commits to including more information in the WMMP plan of the FEIS on the proposed monitoring for wildlife, with emphasis on a framework for working with government to monitor caribou in the area.
355	10	Management Plans	~	~	KIA-CR-2	Sabina commits to adding more detail to each section of the WMMP that deal with limiting the attractiveness of the camp to carnivores and managing problem wildlife on site. This FEIS update to the WMMP will include more detail on monitoring measures and triggers for mitigation actions.
356	10	Management Plans	~	~	KIA-IR-2	Sabina commits to including more information in the WMMP plan of the FEIS on the proposed monitoring for wildlife, with emphasis on a framework for an alternate monitoring plan for caribou, should the government-led plan not be in place by the point where construction is conducted.
357	10	Management Plans	~	~	KIA-IR-4	Sabina commits to including more information in the WMMP plan of the FEIS on the proposed monitoring for wildlife, with emphasis on focal species monitoring for other wildlife VECs which include a discussion surrounding power and experimental design.
358	10	Management Plans	~	~	KIA-IR-4	Sabina commits to including more information in the WMMP plan of the FEIS on the proposed monitoring for wildlife, with emphasis for on-site monitoring for grizzly bear interactions with camp and monitoring of the waste management processes and facilities as attractants.
359	10	Management Plans	~	~	KIA-CR-5	Sabina commits to adding additional references to monitoring programs from other, similar, operating projects in similar habitats to the discussion of effects in the FEIS, where additional information is available.
360	10	Management Plans	~	~	KIA-CR-6	Sabina commits to providing a conceptual design for the closure of the project that can be used in the environmental assessment. The potential impacts of Closure effects will be identified and assessed within the FEIS.
361	10	Management Plans	~	~	KIA-IR-30	In the FEIS, Sabina commits to updating Table 13.1 in the EMP to better reconcile management plan applicability to each project phase.
362	10	Management Plans	KIA-68	~	~	Monitoring of temperatures in stockpiles will be carried out as identified in the monitoring section of the Waste Rock and Tailings Management Plan (Volume 10, Chapter 9). Sabina commits to progress the design criteria during the feasibility study. It will be provided in the FEIS.
363	10	Management Plans	KIA-93	~	~	Sabina commits to present more information on the design of the Umwelt underground plug as part of the FEIS Mine Reclamation and Closure Plan.
364	10	Management Plans	KIA-113	~	~	Sabina commits to review Table 13.1 in Volume 10 Chapter 1 "Applications of Current EMP's to Phases of the Project" and make necessary changes. These changes will be reflected in the FEIS.
365	10	Management Plans	KIA-114	~	~	Sabina commits that the Site Water Monitoring and Management and the Mine Closure and Reclamation plans will continue to be refined for the FEIS. This will include discharge locations for mine contact water and expected potential volumes.
366	10	Management Plans	KIA-115	~	~	Sabina commits to updating the Explosives Management Plan to incorporate environment design criteria from the FS for the transport, storage and handling of explosives. These requirements will include secondary containment and procedures for spill prevention and response.

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
367	10	Management Plans	~	KIA-127	~	Sabina commits to providing an updated Fish Offsetting Plan in the FEIS with detail to be included in an application for a DFO authorization as follows: the number of structures being placed in aquatic habitats; structure locations and size of footprints; the type of habitat, including the importance of the habitat to fish; the magnitude of impact; and an evaluation of the ability for fish to pass at water crossings at all flow levels.
368	10	Management Plans	NRCan-2	~	~	In the FEIS, Sabina commits to incorporating additional results, updated screening criteria, and updated geochemical interpretation into the Borrow Pits and Quarry Management Plan.
369	10	Management Plans	~	~	NRCAN-6	Sabina commits to addressing these considerations in the Mine Waste Rock and Tailings Management Plan. Requested information will be presented in the FEIS.
370	10	Management Plans	NRCan-7	~	~	Underground mine inflows will be sampled during operations to verify water quality predictions and inform storage and treatment requirements, as described in the Site Water Monitoring and Management Plan. Sabina commits to provide further results in the FEIS.
371	10	Management Plans	~	~	NRCAN-12	Sabina commits to justifying the duration of any post-closure monitoring that will be required based on the new Mine Closure Reclamation Plan that will be submitted as part of the FEIS.
372	10	Management Plans	NRCan-20	~	~	Sabina commits to address disposal of effluent treatment sludge in the FEIS Mine Closure and Reclamation Plan. The most likely disposal location would be within the TIA, prior to installation of the closure cover.
373	10	Management Plans	~	~	NRCAN-20	Sabina commits to determining the groundwater flow pathways and including those in the site wide water and load balance. This water and load balance will be used to determine the appropriate water management plans for all the project phases including construction, operation, closure and post closure. This information will be presented in the FEIS.
374	10	Management Plans	~	~	NRCAN-21	Sabina commits to determining the groundwater flow pathways and including those in the site wide water and load balance. This water and load balance will be used to determine the appropriate water management plans for all the project phases including construction, operation, closure and post closure. This information will be presented in the FEIS.
375	10	Management Plans	~	~	NRCAN-25	Sabina commits to providing a detailed site wide water and load balance for the property. This will be used to develop detailed water management plans for the different phases of the project including construction, operation, closure and post-closure. This information will be presented in the FEIS.
376	10	Management Plans	~	~	NRCAN-26	Sabina commits to providing a detailed site wide water and load balance for the Project which includes sensitivity analysis as appropriate. This will be used to develop detailed water management plans for the different phases of the project including construction, operation, closure and post-closure. This information will be presented in the FEIS.
377	10	Management Plans	~	~	NRCAN-28	Sabina commits to providing a detailed site wide water and load balance for the property. This will be used to develop detailed water management plans for the different phases of the project including construction, operation, closure and post-closure. This information will be presented in the FEIS.
378	10	Management Plans	~	~	NRCAN-31	Sabina commits to providing monitoring plans of TIA water quality and quantity in the Site Water Monitoring and Management Plan. Information will be presented in the FEIS.
379	10	Management Plans	TC-2	~	~	In the FEIS Shipping Management Plan, Sabina will confirm whether all equipment, supplies, fuel etc. will be transported to site directly from domestic locations in Canada. Shipment manifests and routing may be provided for each shipment.
380	10	Management Plans	~	TC-5	~	For the FEIS, Sabina commits to providing the missing appendices from the Volume 10 Oil Pollution Emergency Plan.
381	10	Management Plans	~	TC-9	~	For the FEIS, Sabina commits to renaming "Aviation Audits" (Volume 10, Chapter 3, Section 5.4) to "Surveillance Procedures" as Transport Canada does not conduct aviation audits.
382	10	Management Plans	~	TC-11	~	For the FEIS, Sabina commits to amend Volume 10, Fuel Management Plan Table 4-1, to include the Transportation of Dangerous Goods Regulations.
383	10	Management Plans	~	TC-12	~	For the FEIS, Sabina commits to amend Volume 10, Fuel Management Plan Table 7.3-1, to include the Transportation of Dangerous Goods Regulations.

Commitment #	Volume	EIS Reference	IR REF	CR REF	TC REF	Commitment
384	10	Management Plans	~	TC-13	~	For the FEIS, Sabina commits to amend the Shipping Management Plan, 4.2.3 Explosives and Hazardous Materials, to add the Transportation of Dangerous Goods Act, 1992.
385	10	Management Plans	TC-14	~	~	For the FEIS, Sabina will commit to amending the Explosives Management Plan (Training and Certification Requirements) to include the Transportation of Dangerous Goods Regulations.
386	10	Management Plans	TC-15	~	~	For the FEIS, Sabina commits to detailing steps in the application process for an "Emergency Response Assistance Plan" approval. The Explosives Management Plan will detail how the transportation of explosives will be conducted at all project storage sites.
387	10	Management Plans	TC-16	~	~	For the FEIS, Sabina commits to amending the Spill Contingency Plan (Section 6.1.8) to include (the Transportation of Dangerous Goods Regulations Part 8) 30 day spill reporting requirement.
388	10	Management Plans	TC-17	~	~	For the FEIS, Sabina will commit to indicating whether an Emergency Response Assistance Plan approval is required for the transportation of any of the reagents required by the project.
389	10	Management Plans	YKDFN- 1-2	~	~	Sabina commits to consult with Environment Canada on how monitoring criteria will be further defined in subsequent revisions of the Incineration Management Plan. This will be provided in the FEIS and the ensuing application for a Type A Water License with the NWB.
390	11	Type A Water Licence Application	AANDC-46	~	~	For the FEIS, Sabina will remove the reference to Appendix G (from Vol 11, Appendix 4C, Section 5.9).
391	11	Type A Water Licence Application	EC-12	~	~	For the FEIS and draft water licence application, Sabina commits to providing design information for water management structures. Design criteria will be presented along with an account of how climate change predictions have been considered in the selection of design criteria. Contingency measures will be identified as an intergral part of design.
392	11	Type A Water Licence Application	~	KIA-61	~	In the FEIS, Sabina commits to including additional information on identified quarry sites, with drawings to support regulatory applications presented in Volumes 11 and 12. Estimates on the vertical alignments, the fill requirements for access roads, site roads, and airstrips will be provided along with drawings to support regulatory applications.

Appendix 3: Nunavut Water Board Technical Review Submission regarding Sabina's Draft Environmental Impact Statement

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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

NIRB File No.: 12MN036
NWB File No.: 2AM-BRP----

December 18, 2014

Ryan Barry, Executive Director
Nunavut Impact Review Board
P.O. Box 1360 Cambridge Bay
Nunavut, X0B 0C0

RE: ***NIRB File No. 12MN036 – Nunavut Water Board's Technical Review Submission to the Nunavut Impact Review Board regarding Sabina Gold & Silver Corp.'s Back River Project Draft Environmental Impact Statement***

Dear Mr. Barry:

Please find attached, the Nunavut Water Board's (NWB or Board) technical review comments and recommendations relevant to Sabina Gold & Silver Corp.'s (Sabina) Back River Project's Draft Environmental Impact Statement (DEIS). The submission is in response to the Nunavut Impact Review Board's (NIRB) correspondences dated July 31 and August 14, 2014, in which interveners were invited to review and provide submissions regarding the DEIS by September 29, 2014. The NIRB subsequently extended the deadline for submissions to October 10, 2014, in response to a request from Natural Resources Canada (NRCan).

In its review, the NWB placed particular emphasis on aspects of the DEIS aimed at fulfilling the Type-A water licensing requirements including the draft water licence applications, environmental management plans and sections pertaining to water use and waste disposal activities. Comments and/or recommendations have been provided for sections of the DEIS that have relevance to the NWB's mandate.

The NWB is appreciative of this opportunity to comment on the contents of the DEIS at this stage in the coordinated review process. The Board trusts that recommendations provided will assist in preparing the information required for the Type-A water licence application(s) that will accompany the Final Environmental Impact Statement (FEIS).

If you have any comments and or questions regarding the NWB's submission, please contact the undersigned at (867) 360-6338 or at karen.kharatyan@nwb-oen.ca or David Hohnstein, Director Technical Services at (780) 443-4406 or at dts@nwb-oen.ca.

Regards,

Karén Kharatyan
Technical Advisor

Attachment: NWB Technical Review Submission

Nunavut Water Board

Nunavut Water Board's Technical Review Submission

to the

Nunavut Impact Review Board

Pertaining to

Sabina Gold & Silver Corp.'s
Draft Environmental Impact Statement for the proposed
Back River Project

December 18, 2014

Summary English

On January 20, 2014, Sabina Gold & Silver Corporation (Sabina or Proponent) submitted to the Nunavut Impact Review Board (NIRB) a Draft Environmental Impact Statement (DEIS) containing a detailed project description and supporting information for various components and activities associated with the proposed Back River Project, located at approximately 300 km southwest of Cambridge Bay within the Kitikmeot Region of Nunavut. The DEIS is aimed at satisfying the information required under the Project's Guidelines[1] issued by the NIRB. Section 1.4.1 of the Guidelines, identifies the condition under which the NIRB and the Nunavut Water Board (NWB) can coordinate the NIRB review process and the NWB water licensing process in accordance with the *NIRB and NWB Detailed Coordinated Process Framework* (DCPF)[2].

The DCPF allows for the Proponent to include in the DEIS specific information required for either the NIRB process and/or the NWB process. It also provides an opportunity for the proponent to satisfy, where possible, information requirements of both the NIRB and NWB's processes, simultaneously, by submitting the information to the NIRB at the initial stage(s) of the process. In addition, it provides directions to the NIRB and NWB concerning the approach that can be taken when conducting a joint review of a DEIS.

The NIRB distributed the DEIS to interested parties including the NWB for completeness check then for a full technical review and comments on July 31, 2014. The NWB has reviewed the sections of the DEIS and relevant addendums and has provided comments specifically on items in volumes 10, 11 and 12. Particular emphasis was placed on the concordance table associated with the draft Type-"A" Water Licence Applications, environmental management plans, and studies, reports, and research related to water use and waste deposit activities. Comments and recommendations are organized sequentially by volume number, except where they apply to more than one volumes/sections of the DEIS. In such cases, the comments and/or recommendations are listed under the general comments section. The following is a summary of general items identified during the review:

- Lack of and/or insufficient information included in some sections of the water licence applications and/or over- reliance on information contained in other sections of the DEIS to satisfy information requirements that could be easily included on the application.
- Inconsistency in the scope of activities covered under some of the Environmental Management Plans and concerns surrounding functionality of some Plans.
- Duplication of information contained in some EMPs.

[1] Guidelines for the Preparation of an Environmental Impact Statement for Sabina Gold & Silver Corp's Back River Project (NIRB File No. 12MN036), April 2013.
[2] Nunavut Impact Review Board (NIRB) and Nunavut Water Board (NWB) Detailed Coordinated Process Framework for NIRB Part 5 Review and NWB Licensing, September 2009.

- EMPs are mostly preliminary and conceptual in form and need to be updated to satisfy the NWB licence application requirements.
- Monitoring plans and sampling procedures are very conceptual and limited.
- Design drawings are preliminary and not generally stamped by an Engineer and would not necessarily satisfy NWB licence application requirements.

For the sections of the DEIS identified as lacking or containing insufficient information, recommendations have been provided concerning the information that should be included in the revision of the appropriate sections of the FEIS. Recommendations have also been made with respect to the extent to which the scope of some plans should be expanded, as well as ways to consolidate and streamline management plans so as to increase functionality and reduce redundancies. It is believed that the comments and recommendations provided will assist in many ways in preparing the Type "A" Water Licence Application(s) that will accompany the Final Environmental Impact Statement (FEIS).

Summary Inuktitut

ᔮᓄᐊᕆ 20, 2014-ᒥ, ᓴᐱᓇ ᒨᓕᑦ ᓯᓪᕗᕐᓗ ᑯᐊᐳᓈᓴᓐ (ᓴᐱᓇᑯᑦ ᐅᕙᓗᓃᑦ ᐆᒃᑐᕈᑎᖃᕐᑐᖅ) ᑐᓂᓯᔪᖅ ᑖᑉᑯᓄᖓ ᓄᓇᕗᑦ ᐊᕙᑎᓕᕆᔨᑦ ᑲᑎᒪᔨᓄᑦ (ᐊᕙᑎᔨᕆᔩᒃᑯᑦ) ᐆᒃᑐᕈᑎᑦ ᐊᕙᑎᓕᕐᑯᑎᓄᑦ ᐊᒃᑐᐊᓂᖏ ᐅᖃᐅᓰᑦ (ᐊᕙᑎᓕᕐᑯᑎᒃᓴᐃᑦ) ᐱᑕᖃᖅᑎᑦᓗᒋᑦ ᐅᓂᑲᑦᑎᐊᖅᓯᒪᔪᑦ ᐱᓕᕆᐊᖑᔪᒧᑦ ᐅᓂᑲᐅᓯᖏ ᐊᒻᒪᓗ ᐃᓚᒋᐊᕈᑎᖏ ᑐᓴᒃᓴᐃᑦ ᐊᓪᓚᕿᓄᑦ ᐃᓚᒋᔭᖏᑦ ᐊᒻᒪᓗ ᐱᓕᕆᐊᖑᔪᑦ ᑖᑉᓯᒧᖓ ᐆᒃᑐᕈᑕᐅᔪᒧᑦ ᓴᓐᓂᖓᔪᖅ ᑰᒐᖅ ᐱᓕᕆᐊᖓ, ᐃᓂᖃᕐᑐᖅ ᒥᒃᓴᓂ 300 ᑭᓖᒥᑕᑦ ᑲᓇᖕᓇᖓᑕ ᓂᒥᖓᓂ ᐃᖃᓗᒃᑑᑎᐊᖅ ᑕᓖᓂ ᕿᑎᖅᒥᐅᓂ ᓄᓇᕗᒥ. ᑖᑉᑯᐊᑦ ᐊᕙᑎᓕᕐᑯᑎᒃᓴᐃᑦ ᑐᕋᖓᔪᑦ ᓈᒪᒃᓯᓯᒪᓂᖏᓄᑦ ᑐᓴᒃᑕᑦ ᐱᓕᕆᐊᖃᖅᓂᖏ ᒪᓕᒃᓗᒋᑦ ᑖᑉᑯᐊᑦ ᐱᓕᕆᐊᖑᔪᒧᑦ ᓯᕗᓕᕈᑎᖏ[3] ᑐᓂᔭᐅᔪᑦ ᑖᑉᑯᓇᖓ ᐊᕙᑎᓕᕆᔩᒃᑯᑦᓂᑦ. ᐃᓚᖓᓂ 1.4.1 ᑖᑉᑯᓇᓂ ᓯᕗᓕᕈᑎᓂ ᓇᓗᓇᐃᖅᑕᖏ ᑕᒪᑯᐊᑦ ᐊᑐᕆᐊᖃᖅᓂᖏᑦ ᑖᑉᑯᐊᑦ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ ᐊᒻᒪᓗ ᑖᑉᑯᐊᑦ ᓄᓇᕗᑦ ᐃᒪᓕᕆᔨᑦ ᑲᑎᒪᔨᑦ (ᐃᒪᓕᕆᔩᒃᑯᑦ) ᐃᑲᔪᖅᑎᒋᒃᓗᑎᒃ ᐱᓕᕆᔪᓐᓇᖅᑕᖏ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ ᕿᒥᕈᖅᓂᖏᓄᑦ ᐱᓕᕆᑦᔪᑎᑦ ᐊᒻᒪᓗ ᑖᑉᑯᐊᑦ ᐃᒪᓕᕆᔨᑦ ᐃᒪᖅᒧᑦ ᓚᐃᓴᓕᕆᓂᖅᒧᑦ ᐱᑦᔪᓯᖏ ᒪᓕᒃᓗᒋᑦ ᑖᑉᑯᐊᑦ *ᐊᕙᑎᓕᕆᔩᒃᑯᑦ ᐊᒻᒪᓗ ᐃᒪᓕᕆᔨᑦ ᐅᓂᑲᑦᑎᐊᖅᓯᒪᔪᑦ ᐃᑲᔪᖅᑎᒋᒃᓂᖏᓄᑦ ᐱᓕᕆᑦᔪᓰᑦ ᐱᓕᕆᑦᔪᑎᑦ* (ᐱᓕᕆᖃᑎᒌᒍᑎᑦ)[4].

ᑖᑉᑯᐊᑦ ᐱᓕᕆᖃᑎᒌᒍᑎᑦ ᐱᔪᓐᓇᐅᑎᑦ ᑖᑉᑯᐊᑦ ᐆᒃᑐᕈᑎᓖᑦ ᐃᓚᓕᐅᑎᓂᖏᓄᑦ ᑖᑉᑯᓇᓂ ᐊᕙᑎᓕᕐᑯᑎᒃᓴᓄᑦ ᑕᐃᓯᒪᔪᑦ ᑐᓴᒃᓴᑦ ᐱᔭᕆᐊᖃᖅᑎᑦᓂᖏ ᓇᓕᐊᒃᓄᑦ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ ᐱᓕᕆᑦᔪᓯᖏ ᐊᒻᒪᓗ/ᐅᕙᓗᓃᑦ ᐃᒪᓕᕆᔨᑦ ᐱᓕᕆᑦᔪᓯᖏ. ᐱᖃᖅᑎᑦᑎᒥᑉᓗᓂ ᐱᓕᕆᕕᒃᓴᖏᓂᒃ ᑖᑉᑯᐊᑦ ᐆᒃᑐᕈᑎᓖᑦ ᓈᒪᒃᓴᖅᑎᑦᓂᖏᓄᑦ, ᓇᒥ ᐱᔭᕆᐊᖃᖅᑐᓄᑦ, ᑐᓴᒃᓴᑦ ᐱᔭᕆᐊᖃᖅᓂᖏ ᑕᒪᑦᑭᒃᓄᑦ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ ᐊᒻᒪᓗ ᐃᒪᓕᕆᔨᑦ ᐱᓕᕆᑦᔪᓯᖏᓄᑦ, ᐊᑕᐅᑦᑎᒃᑯᖅᑎᑦᓗᒋᑦ, ᑐᓂᔭᐅᓂᖏ ᑐᓴᒃᓴᑦ ᑖᑉᑯᓄᖓ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ ᓯᕗᓪᓕᖅᐹᒥᒃ ᐱᓕᕆᔭᐅᓂᖏᓄᑦ. ᐃᓚᐅᑎᑦᓗᒋᑦ, ᐱᖃᖅᑎᑦᓂᖏ ᑎᓕᐅᕈᑎᑦ ᑖᑉᑯᓄᖓ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ ᐊᒻᒪᓗ ᐃᒪᓕᕆᔨᑦ ᐱᑉᓗᒋᑦ ᐱᑦᔪᓯᖏ ᐱᓕᕆᐊᖑᔪᓐᓇᖅᓂᖏ ᑲᑐᑦᔨᖃᑎᒌᒃᓗᑎᒃ ᕿᒥᕈᕆᓂᖏ ᑖᑉᑯᓂᖓ ᐊᕙᑎᓕᕐᑯᑎᒃᓴᓄᑦ.

ᑖᑉᑯᐊᑦ ᐊᕙᑎᔨᕆᔩᒃᑯᑦ ᓇᒃᓯᐅᑎᔭᖏ ᑐᓴᐅᒪᖃᑕᐅᔪᒪᔪᓄᑦ ᐱᖃᑕᐅᔪᓄᑦ ᐃᓚᐅᑎᑦᓗᒋᑦ ᐃᒪᓕᕆᔨᑦ ᐱᐊᓂᒃᓯᒪᒃᒪᖓᖏᓄᑦ ᖃᐅᔨᒋᐊᖅᓂᖏ ᑕᒪᐃᑦᓄᑦ ᐱᖁᓯᒃᓴᖏᓄᑦ ᕿᒥᕈᖅᓂᖏ ᐊᒻᒪᓗ ᐅᖃᐅᓯᐅᔪᑦ ᑕᒻᕙᓂ ᔪᓚᐃ 31, 2014. ᑖᑉᑯᐊᑦ ᐃᒪᓕᕆᔨᑦ ᕿᒥᕈᖅᑕᖏ ᐃᓚᖏᑦ ᑖᑉᑯᐊᖅ ᐊᕙᑎᔨᕐᑯᑎᒃᓴᐃᑦ ᐊᒻᒪᓗ ᐊᑐᖅᓂᓖᑦ ᐃᓚᒋᐊᕈᑎᑦ ᐱᖃᖅᑎᑦᑎᑉᓗᑎᒃᓗ ᐅᖃᐅᓯᖅᓂᒃ ᐱᓗᐊᖅᑐᓄᑦ ᐱᑦᔪᑎᑦ ᐅᖃᓕᒫᒐᖅᓄᑦ 10, 11 ᐊᒻᒪᓗ 12. ᐱᓗᐊᖅᑐᒥᒃ ᐊᒃᓱᕈᖅᔪᒥᓂᖏ ᐱᔭᐅᔪᑦ ᒪᓕᒃᓴᖅᓂᖏᓄᑦ ᑎᑎᖅᑲᑦ ᐱᖃᑕᐃ ᑖᑉᑯᐊᑦ ᐆᒃᑐᕈᑎᑦ ᖃᓄᕆᑦᑑᓂᖓ -“A” ᐃᒪᖅᒧᑦ ᓚᐃᓴᓐᓗ ᑐᒃᓯᕋᐅᑎᑦ, ᐊᕙᑎᓕᕐᑯᑎᓄᑦ ᐊᐅᓚᑕᐅᓂᖏᓄᑦ ᐸᖅᓇᖑᑎᑦ, ᐊᒻᒪᓗ ᖃᐅᔨᓴᐃᑦᔪᑎᑦ, ᑐᓴᒃᓴᓕᐊᑦ, ᐊᒻᒪᓗ ᓇᓗᓇᐃᖅᑑᑎᑦ ᑐᕋᖓᔪᑦ ᐃᒪᖅ ᐊᑐᖅᓂᖓᓄᑦ ᐊᒻᒪᓗ ᐊᒃᑕᑯᑦ ᐊᒃᑕᖅᓂᖏᓄᑦ ᐱᓕᕆᐊᖑᔪᑦ. ᐅᖃᐅᓰᑦ ᐊᒻᒪᓗ ᐊᑐᖁᓯᐊᖁᔭᐅᔪᑦ ᐋᕿᒃᓯᒐᐅᔪᑦ ᑐᒃᓕᕆᒃᑎᑦᓗᒋᑦ ᐅᖃᓕᒫᒐᒃᓴᑦ ᓈᓴᐅᑎᖏᑎᒍᑦ, ᑭᓯᒥᐅᔪᖅ ᑖᑉᑯᓇᓂ ᐊᑐᖅᓂᓕᒃᓄᑦ ᐊᒥᕋᖅᕿᔭᓄᑦ ᐅᖃᓕᒫᒐᒃᓴᓂ/ᐃᓚᖏᓂ ᑖᑉᑯᓇᓂ ᐊᕙᑎᓕᕐᑯᑎᒃᓴᐃᑦ. ᑕᒪᑯᓇᓂ, ᑖᑉᑯᐊᑦ ᐅᖃᐅᓰᑦ ᐊᒻᒪᓗ/ᐅᕙᓗᓃᑦ ᐊᑐᖁᓯᐊᖁᓂᖏ ᑎᑎᖅᑲᑦ ᐊᑐᖅᓂᖏ ᑖᑉᑯᐊᑦ ᑕᒪᐃᑦᓄᑦ ᐅᖃᐅᓰᑦ ᐃᓚᖏᓂ. ᑕᒪᑯᐊᑦ ᓯᕕᑭᓇᖅᓯᒪᔪᑦ ᑕᒪᐃᑦᓄᑦ ᐱᑦᔪᑎᑦ ᓇᓗᓇᐃᑦᑕᐅᔪᑦ ᕿᒥᕈᖅᑕᐅᑎᑦᓗᒋᑦ:

- ᐱᓯᒪᖕᒋᑦᓂᖏ ᑖᑉᑯᐊᑦ ᐊᒻᒪᓗ/ᐅᕙᓗᓃᑦ ᑕᒪᑭᐅᒪᖕᒋᑦᓂᖏ ᑐᓴᒃᓴᑦ ᐃᓚᓕᐅᑎᓂᖏ ᐃᓚᐃᑦᓂ ᐃᓚᖓᓂ ᑖᑉᑯᐊᑦ ᐃᒪᖅᒧᑦ ᓚᐃᓴᓐᓗᓄᑦ ᑐᒃᓯᕋᐅᑎᑦ ᐊᒻᒪᓗ/ᐅᕙᓗᓃᑦ ᐱᓯᒪᓗᐊᖅᓂᖏᓄᑦ ᑐᓴᒃᓴᓄᑦ ᐱᑕᖃᖅᓂᖏᑦ ᐊᓯᖏᓂ ᐃᓚᖓᓂ ᑖᑉᑯᐊᑦ ᐊᕙᑎᓕᐅᑎᒃᓴᐃᑦ ᓈᒪᒃᓯᒥᐊᖅᓂᖏᓄᑦ ᑐᓴᒃᓴᑦ ᐱᔭᕆᐊᖃᖅᑎᑦᓂᖏ ᐃᓚᓕᐅᑎᑐᐃᓇᕆᐊᓖᑦ ᑖᑉᑯᓄᖓ ᑐᒃᓯᕋᐅᑎᓄᑦ.

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[3] ᓯᕗᓕᕈᑎᑦ ᐸᖅᓇᒃᓯᓂᖅᒧᑦ ᐊᕙᑎᓕᕐᑯᑎᑦ ᐊᒃᑐᐊᓃᑦ ᐅᖃᐅᓰᑦ ᑖᑉᑯᓄᖓ ᓴᐱᓇ ᒨᓕᑦ ᓯᓪᕗᓗ ᑯᐊᐳᓈᓴᓐᑯᑦ ᓴᓐᓂᖓᔪᖅ ᑰᒐᖅ ᐱᓕᕆᐊᖓ (NIRB File No. 12MN036), April 2013.

[4] ᓄᓇᕗᑦ ᐊᕙᑎᓕᕆᔨᑦ ᑲᑎᒪᔨᑦ (ᐊᕙᑎᓕᕆᔩᒃᑯᑦ) ᐊᒻᒪᓗ ᓄᓇᕗᑦ ᐃᒪᓕᕆᔨᑦ ᑲᑎᒪᔨᑦ (ᐃᒪᔨᕆᔨᑦ) ᐅᓂᑲᑦᑎᐊᖅᓯᒪᔪᑦ ᐃᑲᔪᖅᑎᒋᑦᓗᑎᒃ ᐱᓕᕆᑦᔪᓰᑦ ᑖᑉᑯᓄᖓ ᐊᕙᑎᓕᕆᔨᑦ ᐃᓚᖓ 5 ᕿᒥᕈᖅᓂᖏ ᐊᒻᒪᓗ ᐃᒪᔨᕆᔨᑦ ᓚᐃᓴᓕᕐᑯᑎᓄᑦ, ᓯᑎᐱᕆ 2009.

- ᒪᓕᒃᓴᖃᑎᒋᖏᑦᓂᖏ ᐃᓱᒪᒋᔭᐅᓂᖏᓄᑦ ᐱᓕᕆᐊᒃᓴᑦ ᐱᓯᒪᓂᖏ ᐃᓚᖏᓂ ᑖᑉᑯᐊᑦ ᐊᕙᑎᓕᕐᑯᑎᓄᑦ ᐊᐅᓚᑕᐅᓂᖏᑦ ᐸᖅᓇᖑᑎᑦ ᐊᒻᒪᓗ ᐃᓱᒫᓗᑎᑦ ᐱᑉᓗᒋᑦ ᐊᑐᑦᑎᐊᖅᓂᖏ ᐃᓚᖏ ᐸᖅᓇᖑᑎᑦ.
- ᐊᔨᒋᒃᑎᑕᖅᓂᖏ ᑐᓴᒐᒃᓴᑦ ᐱᑕᖃᖅᓂᖏ ᐃᓚᐃᑦᓂ ᐊᕙᑎᓕᕐᑯᑎᓄᑦ ᐊᐅᓚᑕᐅᓂᖏ ᐸᖅᓇᖑᑎᑦ.
- ᐊᕙᑎᓕᕐᑯᑎᓄᑦ ᐊᐅᓚᑕᐅᓂᖏ ᐸᖅᓇᖑᑎᑦ ᐊᒥᓲᓂᖅᓴᓄᑦ ᐱᒋᐊᕈᑕᐅᓕᓵᑦ ᐊᒻᒪᓗ ᐃᓱᒪᒋᔭᐅᑐᐃᓇᖅᑐᑦ ᐱᔭᐅᓂᖏ ᐊᒻᒪᓗ ᐱᔭᕆᐊᖃᖅᓂᖏ ᓄᑖᖑᖅᑕᐅᔪᒃᓴᑦ ᓈᒪᒃᓯᓯᒪᓂᖏᓄᑦ ᐃᒪᓕᕆᔨᑦ ᓚᐃᓴᐅᔪᒧᑦ ᑐᒃᓯᕋᐅᑎᑦ ᐱᔭᕆᐊᖃᖅᑎᑦᓂᖏᓄᑦ.
- ᒥᐊᓂᕆᓂᖏᓄᑦ ᐸᖅᓇᖑᑎᑦ ᐊᒻᒪᓗ ᖃᐅᔨᒋᐊᕈᑎᑦ ᐱᓕᕆᐊᑦᔪᓯᖏ ᐃᓱᒪᓕᐅᕈᑕᐅᓚᕆᒃᓴᑕ ᑕᒪᑦᑭᐅᒪᖏᑦᓗᑎᒃᓗ.
- ᓴᓇᑦᔪᓯᒃᓴᑦ ᑎᑎᕋᐅᔭᖅᓂᖏ ᓯᕗᓪᓕᖅᐸᖅᓯᐅᑎᑐᐃᓇᐃᑦ ᓇᕿᑕᐅᓯᒪᖏᑦᓗᑎᒃᓗ ᖃᐅᔨᒪᔭᐅᕙᓂᑦ ᐊᒻᒪᓗ ᓈᒪᒋᒐᔭᖏᑕᖏ ᐃᒪᓕᕆᔨᑦ ᓚᐃᓴᓕᕐᑯᑎᓄᑦ ᑐᒃᓯᕋᐅᑎᑦ ᐱᔭᕆᐊᖃᖅᑎᑦᓂᖏᓄᑦ.

ᑖᑉᑯᓄᖓ ᐃᓚᖏᓄᑦ ᑖᑉᑯᐊᑦ ᐅᕙᑎᕐᑯᑎᒃᓴᐃᑦ ᓇᓗᓇᐃᖅᑕᖏ ᐱᑕᖃᓗᐊᖏᑦᓂᖏᓄᑦ ᐱᑕᖃᖏᑦᓂᖏᓗᓃᑦ ᓈᒪᒃᓴᖅᑐᓂᒃ ᑐᓴᒐᒃᓴᓂᒃ, ᐊᑐᕋᓱᐊᕐᑯᔭᐅᓂᖏ ᐱᑕᖃᖅᑎᑕᐅᔪᑦ ᐱᑉᓗᒋᑦ ᑖᑉᑯᐊᑦ ᑐᓴᒐᒃᓴᑦ ᐃᓚᓕᐅᑎᔪᒃᓴᑦ ᓄᑖᖑᖅᑎᑕᐅᔪᓄᑦ ᑕᒪᑯᐊᑦ ᐊᑐᖅᓂᓖᑦ ᐃᓚᒋᔭᖏ ᑭᖑᓪᓕᖅᐸᖅᓯᐅᑎᑦ ᐊᕙᑎᓕᕐᑯᑎᒃᓴᐃᑦ. ᐊᑐᕋᓱᐊᕐᑯᓂᖏ ᐱᔭᐅᓯᒪᒋᑉᓗᑎᒃ ᐱᑉᓗᒋᑦ ᑕᒪᑯᐊᑦ ᐃᓱᒪᒋᔭᐅᓂᖏᑦ ᐃᓚᖏ ᐸᖅᓇᖑᑎᑦ ᐃᓚᒋᐊᖅᑕᐅᓂᒃᓴᖏᓄᑦ, ᐊᒻᒪᓗᑦᑕᐅᖅ ᐊᑕᐅᑦᑎᒧᐊᖅᓂᖏ ᐊᒻᒪᓗ ᐋᕿᒋᐊᖅᔪᒥᓂᖏ ᐊᐅᓚᑦᔪᑎᖏᑦ ᐸᖅᓇᖑᑎᑦ ᐅᖃᐅᕉᑦ ᐊᒻᒪᓗ ᐊᑐᕋᓱᐊᕐᑯᔭᐅᓂᖏ ᐱᑕᖃᕈᑕᐅᓂᐊᑦ ᐃᑲᔪᖅᓯᐅᑎᓂᖏᓄᑦ ᐊᒥᓱᓄᑦ ᐱᑉᓗᒋᑦ ᐸᖅᓇᒃᓯᓂᖅᒧᑦ ᑖᑉᑯᓂᖓ ᖃᓄᓇᑦᑑᓂᖓ “A” ᐃᒪᖅᒧᑦ ᓚᐃᓴᐅᔪᖅ ᑐᒃᓯᕋᐅᑎᑦ ᐱᖃᑕᐅᓂᐊᖅᓂᖏ ᑖᑉᑯᓄᖓ ᑭᖑᓪᓕᖅᐸᖅᓯᐅᑎᑦ ᐊᕙᑎᓕᕐᑯᑎᓄᑦ ᐅᖃᐅᕉᑦ (ᑭᖑᓪᓕᖅᐸᖅᓯᐅᑎᑦ ᐊᕙᑎᓕᕐᑯᑎᑦ).

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Introduction

On February 11, 2014 the Nunavut Impact Review Board (NIRB or Board) initiated the public technical review period for the Draft Environmental Impact Statement (DEIS) submitted by Sabina Gold & Silver Corporation (Sabina or the Proponent) for the Back River Project proposal received on January 20, 2014. Following the receipt of Sabina's response to initial Information Requests (IR) received from parties, on July 31, 2014 the NIRB invited interested parties to provide the Board with their technical review comments regarding the DEIS for the Back River Project by September 29, 2014. This deadline was later extended to October 10, 2014 at the request of Natural Resources Canada (NRCan).

The Back River Project (the Project) is a proposed gold mine project to be undertaken within the West Kitikmeot Region of Nunavut. The Project, which is owned by Sabina Gold & Silver Corp. (Sabina), is composed of three main areas with interconnecting winter roads: the Goose Property, the George Property, and the Marine Laydown Area (MLA) situated along the eastern shore of southern Bathurst Inlet.

The Project involves the construction, operation, closure and reclamation, and post-closure monitoring of open pits and underground gold mine, with a total ore production of 15-20 million tonnes to be processed at the single mill at the Goose property. The Project shall include several mineral targets to be mined through Umwelt, Llama and Main open pits and Umwelt underground mine at Goose Property and Lone Cow Pond North (LCP North), Locale 1, and Locale 2 open pits at George Property. Annual resupply will be completed using the MLA, located in Bathurst Inlet, and winter ice roads will be utilized to interconnect these sites.
The entire lifespan of the proposed project, from construction to reclamation and post-closure monitoring of the mine, is estimated at twenty-nine (29) years.

In its request for submissions, the NIRB indicated that Sabina had requested a joint review for the project proposal in accordance with the *NIRB and NWB Detailed Coordinated Process Framework* (DCPF), and the NIRB and NWB have agreed to coordinate their review processes to the extent possible. The DCPF allows the Proponent to include in the DEIS specific information required for either the NIRB process or the NWB process. It also provides an opportunity for the proponent to satisfy, where possible, information requirements of both the NIRB and NWB review processes, simultaneously, by submitting the information to the NIRB at the initial stage(s) of the process. In addition, it provides directions to the NIRB and NWB concerning the approach that can be taken when conducting a joint review of any DEIS.

The information provided in the DEIS associated with the water licensing process can be found within several volumes of the DEIS; however, the draft Type "A" Water Licence Applications

within Supplemental Information Guidelines (SIG) requirement tables and associated information are contained within Volumes 11 and 12 of the DEIS. The Environmental Management Plans (EMPs) are included within the Volume 10 of the DEIS.

Although the NWB has reviewed all 12 Volumes of the DEIS to varying extent, the NWB recognizes that additional information submitted by Sabina since the submission of the DEIS and the commitments made during the NIRB technical meeting capture generally the NWB questions and comments related to the Project areas' general environmental and socio/economic description and methodologies used for project study and description contained in the Volumes 1-9 of the DEIS.

Given the fact that the NWB's general mandate is the management of fresh-water through the regulation of water use and waste deposit activities, the NWB has reviewed thoroughly the relevant sections of the DEIS and more specifically the Volumes 10-12, and compiled below a list of comments and/or recommendations arranged sequentially by volume and sectors, in order to assist Sabina in the preparation of a complete final Type "A" Water Licence Application package(s) within the Final Environmental Impact Statement.

Comments and/or recommendations that apply to more than one Volume are listed under the general comments section.

1.0 General Comments

a. Minimum set-back distance above the ordinary high water mark of freshwater bodies for situating proposed project infrastructure is being listed as thirty (30) metres instead of thirty-one (31) metres in some of the plans and sections of the DEIS. It is recommended that the set-back distance in all plans and relevant sections of the DEIS be revised to thirty-one (31) metres, except in cases where authorized to allow for consistency with that of Indian and Northern Affairs Canada's (INAC or AANDC) Land Use guidelines and the NWB general licensing conditions.

b. Where applicable, some of the Environmental Management Plans (EMPs or Plans) should be streamlined so as to reduce redundancies and increase the fluidity and ability for reviewers to easily locate appropriate information when required.

c. Some Plans rely solely or excessively on information contained in related Plans that should have been included in the particular Plans. To ensure that the reviewers and users of those plans are able to access the information as readily as possible, it is recommended that attempts be made to decrease referencing or excessive reliance on related Plans for information that should and could be easily included in a particular plan. ‘

d. General Monitoring requirements are discussed in a limited way in the DEIS. It is recommended that a comprehensive, stand-alone monitoring plan be submitted with the FEIS to address monitoring requirements specific to water use and waste disposal activities. Further, it is recommended that the Quality Assurance and Quality Control Plans (QA/QC) also be provided for addressing both field sampling and laboratory analyses procedures.

e. EMPs contain management and monitoring strategies provided for different phases of the project (construction, operation, closure and post-closure). However, it is often difficult to clearly differentiate which phase(s) of the project that the information in the management plans are addressing. Management and monitoring strategies during the mine care and maintenance are minimally discussed in EMPs. It is recommended that the strategies and management plan clearly identify the phase(s) that they are addressing.

f. It is indicated that 5 years for Post-Closure Monitoring will be needed. Based on outcomes related to northern mines currently undergoing reclamation and post-closure monitoring (Nanisivik, Polaris) phases, the lifespan for Post-Closure Monitoring could be longer than 5 years; as such, it is recommended that contingencies be included to allow for an extended period of post-closure monitoring, if necessary, to achieve complete stability of project sites.

g. No studies have been provided detailing the water quality of lakes that will be used to support the construction and maintenance of the winter road corridor (i.e. Lakes A –

Lakes O; Bathurst Inlet to Goose and George Properties. It is recommended that this information be included in the FEIS.

h. It is stated that *a third 220-km-long winter road, connecting the Project to the Tibbitt to Contwoyto Winter Road is under consideration.* Based on the information provided by Sabina during DEIS Technical Meeting (TM), this winter road is no longer under consideration and should therefore not be included in the FEIS.

2.0 Draft Type "A" Water Licence Applications – Mine Sites and Access

The Cover Letter accompanying the draft Water Licence Applications stated that the *NIRB review process is considering all components and activities of the Back River Project under file NIRB No. 12MN036; however, for permitting, Sabina is applying for two Type "A" water licences:*

- ***Back River Project - Mine Sites Type "A" Water Licence Application**, which includes mine site development and operation at the Goose and George Properties; and*
- ***Back River Project - Access Type "A" Water Licence Application**, which includes the Marine Laydown Area and the winter road corridors.*

Volumes 11 and 12 and respective Appendices V11-1A to V11-9 and V12-1A to V12-2J, and associated documents of the DEIS were reviewed for completeness and consistency with the NWB Guide 4[5]. The review determined that the following items should be addressed:

Water Licence Application Form - Mine Site

a. **Block #4 (Location of Undertaking)**

Based on information provided in this section of the application, Project components such as the George Camp and the George Connecting Road Junction are outside the provided 'Project Extents'.

The coordinates provided in the water licence application places the George Camp in the Back Watershed, Upper Back Sub-watershed (WMA 31), which is trans-boundary with the North West Territories. The maps in the DEIS place the George Camp in the Queen Maud Gulf Watershed, Bathurst Inlet–Burnside Sub-watershed (WMA-30).

The project coordinates provided on the water application (Mine Sites) do not match the spatial distribution provided on maps in the DEIS, specifically:

It is recommended that confirmation of the above-mentioned project extents as well as that of the George Property and Camp coordinates be provided in the FEIS.

b. **Block #5 (Maps)**

To address the requirement in this section, NTS Map Sheets No: 76G (Beechey Lake) and 76J (Tinney Hills), referenced respectively, were provided to a scale other than that

[5] Guide 4, Completing and Submitting a Water Licence Application for a New Licence, April 2010

specified by NWB in Guide 4, 1:50,000. The NWB has noticed that some of the maps are of appropriate scales in the Project. It is recommended that appropriately scaled maps be provided within Water Licence Application(s) / referenced to satisfy the requirement of Guide 4.

c. **Block #13 (Quantity and Quality of Water Involved)**
Information contained in this section of the form states that 70 m^3 of water per day will be used for Industrial (miscellaneous) purposes at both of Goose and George Properties. The water use required should be re-assessed and confirmed, taking into consideration of all potential miscellaneous uses including dust suppression and machinery washing at sites as water use for Industrial (miscellaneous) purposes of Meadowbank Gold Mine is much higher.

d. **Block #13 (Quantity and Quality of Water Involved)**
The information provided in this section of the form indicates that Goose and Propeller Lakes will serve as sources for Industrial (miscellaneous) and Industrial (mill) use, respectively, at Goose Property; and George and Fold Lakes as sources for Domestic and Industrial (miscellaneous) use at George Property. However, the anticipated quantities of water to be used from each source are not provided. It is recommended that the table should include details on quantities of water required from each source.

Water Licence Application Form - Access

e. **Block #13 (Quantity and Quality of Water Involved)**
Details contained in the application indicates that 20 m^3 of water per day will be used for Industrial purposes at MLA. The water use amount should be re-assessed and confirmed taking into consideration all potential miscellaneous uses including dust suppression and machinery washing at MLA.

f. **Block #13 (Quantity and Quality of Water Involved)**
Information contained in the application indicates that 21 Potential Fresh Water Sources will be used to supply up to 121,500 m^3 of water annually for the construction and maintenance of winter roads. However, anticipated quantities of water to be used from each water source are not provided. It is recommended that water quantity information for each water source be provided.

Water Licence Application Form – Mine Site and Access

g. **Block #21 (Security Information)**
This block requires that an estimate of the total financial cost for final reclamation be provided. The conceptual Closure and Reclamation Plan DEIS Volume 10 Chapter 29 is referenced as containing the required information. However, the conceptual Closure and Reclamation Plan does not provide the reclamation cost estimate. It is recommended that this information be included in the FEIS. Further, the most recent version of the RECLAIM model should be used to assess the reclamation cost.

h. **Block #23 (Studies Undertaken to Date)**

In response to this item, it is stated that comprehensive baseline studies have been initiated at the Project and that results from this ongoing work will be presented in baseline reports and used in ongoing feasibility studies. It is recommended that a list of studies relevant to the application be included on the application form in addition to appropriate referencing to the FEIS.

i. **Miscellaneous Items**

As required by the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Nunavut Waters Regulations* (Regulations), a complete application shall include subsection 12(7) (b) of the Regulations.

To calculate fees for the project, Aboriginal Affairs and Northern Development Canada (AANDC), Land and Water Management, NCR, Water Use Fee Calculator, (Ver. 1.4) shall be used.

3.0 Back River Project Description

The information in this section appears to be mostly complete. In certain sections of the DEIS, there were few or no details with respect to the locations of receiving water bodies and drainage pathways (i.e. for landfills, details in the DEIS are limited to the following "*Drainage pathways from the landfills will be sampled and monitored in conformance with Water Licence requirements*). Mitigation measures are noted throughout the document that concern drainage pathways (e.g. "*prevent oil from reaching natural drainage paths leading to the ocean*"), but their locations are not specified.

a. Section 4.2.a, Pg. 4-10, Raw Water Intake, should provide water intake design information. V.10-7, Site Water Monitoring and Management Plan (SWMMP), should be updated to include water intake, and generally all water infrastructures design details.
b. Section 4.2.b, Pg.4-11, Water Storage and Treatment, should indicate the Propeller and Lower Long Lake supplemental water sources to be used.
c. Section 4.2.d, Pg. 4-11, Location of Proposed Receiving Waterways, states *it has been assumed that Goose Property would operate as "zero-discharge."* Mitigation measures should be provided should discharge be required during mine operation. V.10-7 SWMMP should include these contingency measures.
   Further: *It has been assumed that George Property also would operate as "zero-discharge." However, a*ccording to Volume 10-7 SWMMP" *treated sewage effluent will be land discharged at a location south of the Locale 2 Waste Rock Storage Area (WRSA) as shown on Figure 3.2-2. The effluent will ultimately report to the stream downstream of Sleigh Lake and upstream of Esker Pond"*. This should be clarified.
d. Section 4.2.h, Pg. 4-13, Sewage Treatment Facilities and Discharge, states that "*for the Operation phase, the sewage treatment plant will be decommissioned and raw sewage will be pumped to the Tailings Impoundment Area (TIA) (zero discharge facility)*". As per AANDC request, Sabina clarified that sewage will be treated before being pumped to TIA. This should be made clear in future submission.

e. Section 4.2.i.2, Pg. 4-14, Oily Water Treatment Methods, states that *"during construction the excess water will be released to the receiving environment. During operation, these discharges will be routed to the Tailing Impoundment Area"*.
It should be indicated the mean and frequency of excess water being routed to TIA from George Site.
The NWB acknowledges that Sabina committed to providing more details in the FEIS on the waste water management strategy including sewage effluent discharges. This will include discharge locations and the characteristics of those locations as well as impacts on the receiving environment, attenuation capacity, end of pipe locations, seasonal considerations, alternatives, and design or engineering contingencies.

f. Section 4.2.1, Pg. 4-15, Landfills and Landfarms, states that *"non-combustible non-hazardous materials will be at the Goose Property landfill"*. According to Figure 4.1-2, Project Development Area and Infrastructure Areas – George Property *"a landfill will be operating at George Site as well"*. According to Volume 10-7, Site Water Monitoring and Management Plan, Section 3.4.5, *"Landfills will be constructed and operated at each of the Project properties"*.
Inconsistencies with respect to future landfills and their potential locations should be addressed in the FEIS.

4.0 Baseline Information

Environmental Setting

The information in this section appears to be mostly complete, although it was not entirely provided in the locations referenced in the SIG. Two potential incomplete areas include the following:

a. The history of the property development, including current status maps of the project properties would be helpful; and
b. The data source for local watersheds is not provided in the DEIS (e.g. Big Watershed, Swan Watershed, Moby Watershed). Details should be provided on whether these boundaries were delineated by Consultants or are the official boundaries determined by an appropriate agency (e.g. Water Survey of Canada).

5.0 Appendices V11-1A and V12-1A: SIG Concordance

The review of the information contained in the SIG Concordance Table accompanying the water licence applications has determined that the referencing to the DEIS provided are mostly valid. There appears to be sufficient information in most areas; however, the references provided were for entire volumes (i.e. Volume 1 to Volume 12 and Volume 10-1.0 to 10-29). It is recommended that more specific references and examples be provided in the FEIS.

There are some instances, however, where no referencing is provided because the information was apparently not available for inclusion during the draft of the DEIS. In order to ensure that the information related to the water licence application is consistent and readily accessible for

consideration during the next stage of the review process, it is recommended that the Concordance Table be updated accordingly in the FEIS.

The SIG Concordance Table indicates that the following information will be provided in the FEIS:

5.1 Water Licence Application Form Information Requirement

a. Section 3.16: Timetable for filing the appropriate plans and procedures required by other authorities. Description of how those authorizations may affect the NWB's water licensing process.
b. Section 3.19: Inuit water Rights: Compensation agreements or status.
c. Section 3.20: Results of Consultations: A Consultation List is provided in Appendix V3-2A that details various meetings with government agencies that may be of concern to the NWB (e.g. DFO consultations); however, the outcomes/results of those consultation sessions is not provided (e.g. no action items, track-record of issues raised, etc.).
d. Section 3.21, Security: Financial security assessment that is prepared in a manner consistent with principles respecting mine site reclamation and implementation found in the *Mine Site Reclamation Policy for Nunavut*, Indian and Northern Affairs Canada, 2002.
e. Section 3.26, Annual Reporting: Detailed information regarding the content of annual reports and a proposed outline or template of the annual report.

5.2 Baseline Information Requirements

a. Section 5.1, Environmental Setting: Description of streambed material, stream-bank material, and stream-bank vegetation for any streams affected by the application;
The slope of the banks of any water course and the description of the meander pattern for any channel affected by the application;

5.3 Water Use Information Requirements

a. Section 6.2a, Water Use: Quality and Quantity, Water Intake: Description of the water intake method(s) including the intake facility, the operating capacity of the pump used, the details of any screening to exclude fish, and the distance the pump will be placed from the ordinary high water mark.
   - Description of the general condition of any existing water intake facility; water withdrawal regime; amount of water returned to the source.
   - Description of any hydrostatic testing programs, including water sources of the watercourse.

b. Section 6.2b Water Storage: Plan showing representative cross-sections of the reservoir.
Most of Water Storage information regarding the Access Type "A" Licence Application.
c. Section 6.2d Water Crossings: Plan of any watercourse crossing showing cross section and elevations.

d. Section 6.2h Alterations in flow: If alteration involves a dam, a plan showing the length, height, cross section and elevations of the dam and the location and preliminary designs of spillways, canals, sluice pipes, and any other outlet work.
e. Section 6.2k Modifications: Whether any changes are planned for the water intake.
f. Section 6.2l Proposed Water Works.
g. Section 6.3, Predicted Environmental Effects and Proposed Mitigation Measures: If the cross-section of any watercourse is changed, a description of the change and its effect on the flow capacity of the channel.
If the course of any channel is changed a description of measures to maintain stream bed and bank stability.
h. Section 6.4 Studies: Construction plan and construction schedule for water works;
Implementation schedule for construction of works.
Construction quality assurance and quality control plans regarding the Access Type "A" Licence Application.

5.4 Waste Disposal Information Requirements

a. Section 7.2b Modifications: Whether any changes are planned for the wastewater, solid waste, or any other waste facilities
b. Section 7.2c, Proposed Waste Facilities.
c. Section 7.3, Predicted Environmental Effects and Proposed Mitigation Measures: Detailed treatment plans for discharges from any tailings containment area, attenuation pond, reclaim pond, sewage disposal area, sumps or dewatered area; description of the sub-surface soil compositions and provide information on groundwater elevations for the project area. The proximity between the proposed waste disposal system and the groundwater elevation;
Discussion of the consequences of long-term stratification in any pit lakes and associated contingency plans;
d. Section 7.3a, Operations and Maintenance: Stand-alone Operations and Maintenance Manual for sewage and/or solid waste disposal facilities in accordance with the "Guidelines for the Preparation of an Operations and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories, 1996" as well as the "Guidelines for the Planning, Design, Operations and Maintenance of Modified Solid Waste Sites in the Northwest Territories, 2003".
e. Section 7.3c, Emergency Response and Spill Contingency: Designs for the fuel tank farm facilities including a description of the nearest water bodies. An evaluation of impacts and mitigation measures in case of a fuel spill.
Explanation of how the applicant will ensure project contractors meet the applicant's due diligence standards with respect to oil and hazardous material spill prevention, preparedness, response, and restoration.
f. Section 7.4 Studies: Inspection plan;
Geotechnical and structural monitoring;
Human health and ecological risk assessment for establishment of remediation objectives for closure;
Construction plan and construction schedule for waste management infrastructure;
Implementation schedule for construction works, submission of studies and mitigation plans for operations regarding the Access Type "A" Licence Application;

5.5 Monitoring Information Requirements

a. Section 8.1 Monitoring Plan.
b. Section 8.1a Inspection Plan: Inspection Plan including a description of the methods, procedures, standards, and schedules proposed. Inspections may be required for engineered facilities related to the management of water and waste as well as spills. The Inspection Plan must consider the life of the project, temporary closure and permanent closure.
c. Section 8.1b QA/QC Plan: Quality Assurance/ Quality Control (QA/QC) Plan that addresses both field sampling and laboratory analyses.

6.0 Appendix V11-4A: Geochemical Characterization and ML/ARD Potential Report

a. Sections 3.2.1.2 and 3.2.1.3, Pg. 3-7, it is stated that no overburden samples have been collected from the George Property and MLA, respectively, for the geochemical characterization. Samplings are to occur.
b. Sections 3.2.2.2 and 3.2.2.3, Pg. 3-8, it is stated that no proposed quarries have been sampled at the George Property and MLA, respectively, for the geochemical characterization. Samplings will occur as the characterization program progresses and quarries are identified.
c. Mine Workings and Waste Rock Section 4.3.2.1, Pg. 4-36, Mineralogy states that R-XRD (X-ray diffraction) analyses were completed on George Property in the fall 2013. No results available yet.
d. Mine Workings and Waste Rock Section 4.3.2.2, Pg. 4-44, Leachate states that leachate tests were completed on George Property in the fall of 2013. No results available.
e. Ore and Low Grade Ore Section 4.4.2.2, Pg. 4-49, states that to date no SFEs (Shake flask extraction leachate test) have been performed on George Property samples.

7.0 Appendix V11-4C: Waste and Water Management Report for Draft Environmental Impact Statement

a. Tailings Impoundment Area, Table 3-1 Design Basis Summary indicates 49% solids of tailings from mill process as TIA design criteria. Contingency measures should be provided in the case if tailing slurry density is to be changed as in the beginning of another northern project, Meadowbank Gold Mine operation with close design criteria (51% solids) pipe sanding issue occurred in winter. With less percentage of solids content additional water use may be required.
b. Knight Piésold (KP) Appendix D VA13-01716 – Groundwater Mine Inflows Memorandum, Pg. 6, it is stated that *groundwater inflows up to about 10 L/s are expected to be encountered as a result of structures such as faults.* It is also suggested that *based on professional experience and information in the literature (Freeze and Cherry 1979), higher inflows as a result of the mine working intersecting a permeable fault would likely decrease relatively quickly with time.* The "decrease relatively

quickly" should be quantitatively assessed to plan for the management of "short-term" higher inflows.

8.0 Appendix V11-4D: Goose Property Water Quality Prediction Report

a. Goose Property Water Quality Model Section 3.11, Pg. 3-20, Process Plant Discharge indicates that *the tailings production rate will be 5,000 tpd, piped out to the TIA as slurry comprising 65% solids*. However, throughout the DEIS documents the tailing slurry density is stated as 49% solids.
b. As stated also in Appendix 3A KP Consulting Water Balance Memo the base water balance model *does not include downstream compliance points, which may be necessary for the EIS*.
c. Appendix 3C KP Consulting 2013 Groundwater Mine Inflow Estimates indicates that analysis for Feasibility level design purposes would be improved *by incorporation of advancements to the structural model being developed by Sabina for the Goose and George Properties, specifically with respect to the mine development, to improve the identification and characteristics of potential structures which may contribute to higher inflows during mine development*. The NWB concurs with this conclusion.

9.0 Volume 10: Management Plans

9.1 Water Management

Volume 10-7 Site Water Monitoring and Management Plan (SWMMP or Plan) outlines Sabina's strategies for managing water at the Back River Project. The Plan will likely be revised for the FEIS. The Plan shall at a minimum include the followings additional information:

a. Section 3.2.2, Pg. 4, Estimated Water Consumption, Table 3.2-1 provide Water Supply Locations and Volumes by Project Phases. However, does not provide a breakdown for Goose Lake and Propeller and other lakes, and for George Lake and Lower Long Lake and other lakes. The updated Plan shall provide these estimations.

b. Section 3.2.3, Pg. 4, Winter Road should provide water supply locations for the winter roads preparation with respective anticipated consumption from each water source.

c. Section 3.3.2, Pg. 9, Goose Property Sewage Treatment and Disposal should provide the treated sewage discharge on land location details before the TIA's construction and after its decommissioning in the Goose Property.

d. Section 3.4.3, Pg. 13, states that there is the requirement for a thirty (30) metre set-back from water-bodies for treated oily water discharge on land. It is recommended that the set-back distance be changed to thirty-one (31) metres so as to be consistent with NWB general licensing conditions.

e. Section 3.4, Pg. 12-14, Water Management – General Site Runoff, Tables 3.4-1, 3.4-3, 3.4-4, 3.4-5 and 3.4-6 proposes Water Discharge and Quality Criteria.
The updated Plan should indicate what respective Guidelines are being used for the proposed Criteria. Discharged water quantities and qualities should be estimated at all Project sites (i.e. waste rock contact water, treated sewage, collection ponds, fuel containments, on-land discharges etc.), and anticipated discharge locations should be provided.

f. Section 3.4.2, Pg. 12, Soil Landfarms should provide details on landfarm designs and management or reference the document providing this information.
The NWB recommends including a Landfarm Management Plan within the FEIS.

g. Section 3.4.4, Pg. 13, Quarries and Borrow Areas states that *"runoff will be collected within the work area and will only be discharged to land if meeting the water quality criteria in Table 3.4-5"*.
Details on runoff containment should be provided.

h. Section 3.4.5, Pg. 14, Landfills states *"Landfills will be constructed and operated at each of the Project properties"* and provides landfill seepage criteria for MLA, Goose and George Sites landfills without providing details on landfills designs and management or reference the document providing this information.
The NWB acknowledges that the Landfill and Waste Management Plan is also conceptual and does not provide at this stage landfills design details. Besides that, according to the Volume 11, Section 4.2.1, Pg. 4-15, Landfills and Landfarms, "*non-combustible non-hazardous materials will be at the Goose Property landfill*". This should be clarified.

i. Section 3.5.2, Pg. 15, Water Intakes should provide location, depth and design details on all water intakes for every water sources (Goose Lake, George Lake) including the one on Bathurst Bay for the Marine Laydown Area (MLA) water supply.

j. Section 3.5.5, Pg. 16, Water Supplementation Pipeline from Propeller to Goose Lake states that "the Project includes the construction of a pump house and pipeline to potentially supplement the water demand of the milling operation from Propeller Lake, and to support active pit filling during closure"
Designs details on pump-house and pipeline should be included within the updated Plan.

k. Section 3.6.2, Pg. 17, Site Water Balances states that "the contact water will be stored in collection ponds prior to treatment at the water treatment plants to regulate inflows".
The future updated Plan should provide contact water treatment details, design and management of collection ponds at George Property.

l. Section 3.6.3, Pg. 23, Open Pits should also provide the extent of Llama Lake talik zone and assess project impacts on the Llama Lake talik zone through all phases of mining activities and closure.

m. Section 3.6.4, Pg. 24, Umwelt Underground Mine states that "the Umwelt underground development is planned to a depth of approximately 660 m below ground surface (mbgs). At this depth, the planned workings will be approximately 260 m below the permafrost". Although it is stated that "average groundwater inflows have been estimated at between 1 and 2 L/s (Knight Piésold, 2013b)."
Groundwater and potential saline water inflow estimation should be re-assessed as well as details on management and monitoring of saline inflows throughout the Project development should be detailed in the updated Plan.

n. Section 3.7.3, Pg. 26, Waste Rock Stockpiles states that "at the Goose Property, runoff from the WRSAs will be collected in the operation phase".
The management of runoff from the Waste Rock Storage Areas (WRSA's) at George Site during operations should also be clarified.

It is also stated that "at closure, Potentially Acid Generating (PAG) waste rock stockpiles will be covered with a 4m cap of not PAG (nPAG) waste rock to promote the aggregation of permafrost in the piles so that the PAG rock remains permanently frozen". Figure 3.7-1 indicates 2m nPAG Cover for TIA. The rational should be provided on why 4m nPAG covering cap is planned for WRSA and 2m nPAG cap for TIA.

o. It is not clear whether the underground mine inflow is included within the site water balance model (it seems no). A Water Balance shall also include annual estimates for each lake, water volume change, volume remaining and water level throughout the Project multi-phased development.

p. Monitoring details for each of Project sites should be included with an explanation on how this level of monitoring will be effective.

q. Water treatment options for each of Project sites should be included with treatment details for potential contaminants.

r. According to V. 2 Project Description, Section 6.4.12 "*as part of the Site Water Monitoring and Management Plan, a drainage plan has been developed for the Marine Laydown Area"*.
This drainage plan for MLA wasn't found within SWMMP. A drainage Plan for MLA should be included within the Plan.

s. The Plan provides just preliminary information regarding the Groundwater.
The NWB has acknowledged that Sabina committed to detail the management of groundwater for each phase of mine activities. The extent and potential formation/decline of taliks, including potential through-taliks, anticipated groundwater and saline water inflows and pathways estimations including through fault zones, effects on being re-flooded open pits water quality and quantity and other aspects of groundwater shall be detailed.
The NWB also acknowledged that Sabina committed to provide results of any groundwater modelling completed for Llama pit.

t. The Plan should detail water management (including groundwater) for different phases of the project including construction, operation, closure and post-closure. A water management strategy for care and maintenance phase should also be developed.

u. Lake Dewatering and Pit Re-flooding Plans shall be included within the SWMMP.

v. Design criteria and drawings for all water management infrastructures (pump-house, intake, retention dikes, diversion ditches, run-off management, water crossings and works, and seepage and groundwater inflow collection structures and ponds) should be provided within the final Application.

9.2 Waste Management

9.2.1 Solid Waste

Inconsistencies noted with respect to the potential construction of landfill in George Property and MLA. According to Volume 11 Section 2 Minimum Application Requirements and Section 4 Back River Project Description landfilling is planned at Goose Property only. However, throughout the DEIS documents and figures landfills construction/operation is likely planned in George Site and MLA as well. These inconsistencies should be addressed.

Although the ***Volume 10-10 Landfill and Waste Management Plan*** (LWMP or Plan) is conceptual at this stage, the NWB has reviewed it and identified the following additional items, which should be addressed at a minimum within the updated Plan that shall likely accompany the FEIS.

a. Waste management strategies and plans shall be elaborated with respect to each phase of mining: construction, operation, closure and post-closure.
b. Waste management recycling/reusing initiatives, operating procedures at the mine shall be developed in detail with respect to each phase of mining: construction, operation, closure and post-closure.
c. Estimated volume and types of waste generated during each phase of mine activities should be provided.
d. Landfill design and management details should be provided. Expected changes to landfills operations and maintenance during each phase of mine should be described.
e. Details on water potential run-off structures or measures and run-off management should be provided.
f. Details on environmental monitoring during each phases of mine activities should be provided.

9.2.2 Hazardous Waste

Volume 10-12 Hazardous Materials Management Plan (HMMP or Plan) is conceptual and shall be updated for the FEIS. The following additional information shall be provided at a minimum within the next version of the Plan:

a. Hazardous materials anticipated quantities and inventory list with types, anticipated quantities, and sources of generation and description for each phases of mine activities.
b. Details on environmental protection measures to be implemented to ensure Hazardous substances efficient and environmentally compliant collection, storage, transportation and disposal.
c. Details on collection and temporary storage sites within the George and Goose Properties and main storage facility at the Marine Laydown Area. Details on types and estimated numbers of containers that will be on-site throughout the project development.
d. Details on Hazardous materials transportation from temporary storage sites to the main storage facility at the Marine Laydown Area.

e. Spill response considerations, procedures and reporting for all Hazardous substances applicable to each mine phase. Spill kits/emergency response equipment quantities and types, and available on-site locations.
f. Temporary storage and main storage facilities design and management details. Expected changes to facilities operations and maintenance during each phases of mine.
g. Map of appropriate scale with Hazardous materials storage facilities, and spill kits location, at a minimum.
h. Details on potential run-off water structures or measures and run-off management.
i. Details on employees training requirements and programs.
j. Details on associated Monitoring programs.
k. Details on internal/external inspections and audits.
l. Design details (drawings) are to be included.

9.2.3 Ore, Mine Waste Rock and Tailings

The ***Volume 10-8 Ore Storage Management Plan*** (OSMP or Plan) is designed to cover operational procedures, the implementation of environmental protection measures, and monitoring the effectiveness of any mitigation strategies when managing stockpiles ore. The next update of the Plan should include, at a minimum the followings:

a. Section 3.3, Pg. 6, Production Overview indicates that "*the size of the stockpile at the George Site will vary between 80 and 430 kt*", and the Section 3.5, Pg. 7, George Site Ore Stockpile Methods and Procedures state that for George Pits "*storage design requirement for the pit is approximately 500 kt*".
The NWB believes that those inconsistencies would be eliminated with design details.
b. Section 6.1, Pg. 8, Runoff Management states that "*the collection ponds constructed for the ore stockpiles will apply the same design criteria as has been developed for the WSRAs, in terms of managing extreme flows*".
The next version of Plan should provide run-off management infrastructures' (ditches and ponds) details including design criteria.
c. Section 7, Pg. 9, Monitoring Program should be detailed to include also inspection/monitoring frequency and phased monitoring requirements (i.e. Operations, Temporary Closure or Care and Maintenance, Post-closure).
d. Design details (stockpile design, foundation requirements and runoff management etc.).

9.2.4 Waste Rock and Tailings

The ***Volume 10–9 Mine Waste Rock and Tailing Management Plan*** (MWRTMP or Plan) applies to the construction and operation phases of the Project during which time both waste rock and tailings will be produced, as well as the closure/post-closure phases of the Project while waste rock and tailings will be permanently stored at the site. The Plan is more or less conceptual and, as such, it includes in some cases more than one proposed or alternative options for addressing components like Waste Rock Disposal and Management Alternatives, or runoff water management. Once details become available, more definite options should be presented.

The SIG requirement to "*provide an assessment of alternatives for any proposed tailings containment facility*" was acknowledged as not applicable by the proponent. A very brief discussion of a management alternative is provided in *Mine Waste Rock and Tailing Management Plan* (Section 3.2.9), but there is a potential need for a more elaborate discussion of how the proposed Tailings Impoundment Area (TIA) site was selected.

a. Inconsistencies on numbers of total Waste Rock volumes that will be produced over the life-of mine in Waste Rock and Tailings Management, Pg. iv, and throughout the Plan.
b. Section 3.1.3, Pg. 3, Waste Rock Stockpile Areas states that "*waste rock generated by the Project will be contained in Waste Rock Stockpile Areas (WRSAs) located near to the open pits"*.
   Other that stating that "*each of the WRSAs has separate PAG and nPAG piles that will share a common water management system"* there is insufficient information pertaining to the associated drainage areas or water management systems.
c. Section 3.1.7, Pg. 9, Waste Rock Thermal Modeling states that "*strategy of incorporating the PAG waste into the permafrost was developed based on computed depths of freeze and thaw"*.
d. Provided estimates should be refined with available data. It should be clarified whether or not this thermal modeling would be applicable to TIA as well.
e. Sections 3.1.8, Pg. 9, Waste Rock Management Alternatives shall detail all management alternatives with rationale on selected option.
f. Section 3.2.1, Pg. 9, Tailings Physical Characteristics suggests 49% for Slurry Percent Solids.
g. How those properties were determined? Whether or not other northern mining experiences (i.e. Meadowbank Mine) were taken into account for the determination of Tailings Slurry density?
h. Section 3.2.3, Pg. 10, TIA Design Basis will take into account 16,3Mt of Total Ore milled as a Design Criteria. It is also stated that "*should additional mineral resources be identified for mining and processing, additional raises to the TIA embankment will be necessary and should be possible"*.
i. The TIA Design Criteria should assess additional possible raises to the TIA embankment for potential additional Ore. The TIA Design Criteria should also take into account that more freshwater than projected may be used (i.e. as a result of slurry density change etc.) that will increase the amount of waste water to be discharged into TIA.
j. Section 3.2.9, Pg. 16, Tailings Management Alternatives states that *"a potential alternative for tailings disposal is to deposit the tailings into one (1) or more of the open pits when mining at a pit has ceased, and that this alternative for tailings disposal will be considered in the feasibility study"*.
k. The potential alternative shall be detailed and rational on selected option provided within the updated Plan.
l. Limited information pertaining to the monitoring is provided in the *Plan*.
m. The Monitoring Plan must consider the entire life span of the project and include also provisions for care and maintenance or temporary closure, and permanent closure. The Monitoring Plan should further include a description of the proposed methods,

procedures, standards, and schedules, while acknowledging that further conditions may be established in the Water Licence.

9.2.5 Metal Leaching & Acid Rock Drainage

The ***Volume 10-22 Metal Leaching and Acid Rock Drainage Management Plan*** (MLARDMP or Plan) is designed to ensure that the ML/ARD potential of geologic materials disturbed by Project activities is identified and the potential for generation of ARD and ML is minimized to ultimately protect aquatic environment, particularly minimizing effects to water quality.

a. Section 6.1.2, Pg. 5, Mine Workings and Waste Rock ML/ARD Prediction Program Table 6.1-1 provides ARD of Waste Rock and indicates that "*George Property proportions are not differentiated by deposit*".
No explanation is provided with respect to the reasons of not defining ARD of Waste Rock for George Property's deposits. And it is also unclear how (or based on which waste rocks?) the ARD was calculated for George Property?

9.2.6 Road, Borrow Pits and Quarries

The ***Volume 10-14 Road Management Plan*** (RMP or Plan) outlines construction, operation and management of access and transportation for the Back River Project including construction, operation and closure of an all-weather airstrip, connecting winter roads and associated rock quarries. In the reviewing of the Plan, the NWB has identified items that, at a minimum should be addressed within the next version of Plan:

a. Section 4.2, Pg. 11, All-Weather Road Infrastructures states that the *"Goose and George sites will require all-season roads in order to operate year-round. The roads will be constructed in a permafrost environment"*.
b. Measures to protect the permafrost regime, to minimize the potential erosion, ponding of water etc. are to be detailed.
c. Section 4.2.4 Pg. 13, Construction of All-weather Roads states that "*Efforts shall be made to minimize the duration of any in-stream works and minimize disturbance at stream crossings*".
d. The Plan should clearly indicate that all in-stream works for water-bodies frequented by fish shall be completed in accordance with DFO relevant Guidelines.
e. Section 7.3, Pg. 18, states that winter roads will be *inspected and maintained in accordance with the Field Guide for Ice Construction Safety (Depart. Of Transportation, NWT(1), refer to section 3 of the field guide, "Ice Capacity and Testing").*
f. It is recommended that inspection and maintenance details including the frequency and type of inspections be included within the Plan.
g. Design details (drawings) are to be included.

The ***Volume 10-16 Borrow Pits and Quarry Management Plan*** (BPQMP or Plan) outlines development, operation and closure of approved borrow and rock quarry areas within the Back River Project including the Goose and George Properties, and the MLA. The Plan is designed to

minimize adverse effects to downstream water quality and quantity due to quarry operations and the MLA. The next update to the Plan should at a minimum include the followings:

a. Section 3.5.1, Pg. 7, Development Plans – Rock Quarries states that "A detailed procedure will be prepared before the start of development for each rock quarry. Site development plans will augment this management plan with specific details".
   It is suggested that these site development plans be subsequently incorporated into the Plan.
b. Section 7.1, Pg. 13, Monitoring Water Quality indicates that "*During high runoff periods, water may drain from borrow and rock quarry areas. Should noticeable flows occur, the water will be tested to ensure it meets permitted criteria.*"
   If needed, run-off containment measures/structures (ponds) should be included within water management infrastructures. Structures' capacity should be enough to contain the high run-off during freshet.

Although the ***Volume 10-13 Explosives Management Plan*** (EMP or Plan) is generally conceptual at this stage, the NWB has reviewed it and identified the following items, which should be addressed:

a. It is stated that "*at the George site, there will be a laydown and storage area for up to 100 tonnes of inert AN"*. However, Volume 2, Project Description Section 6.7.7.1 and V.11, Type "A" Licence Application, Section 4.2.u.1 indicate that "*up to 500 tonnes of ammonium nitrate will be stored at the George Property"*. Inconsistencies are noted on Explosive storage capacities in Marine Laydown Area and Goose Property in Project Infrastructure, Pg. iii-iv, and throughout the Plan. Explosive storage capacities should be confirmed to eliminate discrepancies between different documents.
b. Details on management of potential run-off water associated with ammonium nitrate storage shall be provided. Information should be provided on where/how the run-off water will be disposed of / treated and what steps will be taken to ensure that it meets discharge criteria before being released.
c. According to Figure 6-3 Goose Property General Arrangement the Explosive Storage is located on the water body?
d. Although Figures 6-1 to 6-3 provide Explosive Management facilities anticipated locations in Marine Laydown Area, George and Goose Properties, however no design details (drawings) are included within the Plan at this stage.
e. A Site-specific Ammonia Monitoring and Management Strategies shall be developed to identify potential sources of ammonia; estimate ammonia loading and identify the need for additional controls if warranted; and include procedures to assist in mitigating ammonia contributions from blasting agent spillage or other losses.

9.2.7 Emergency Response and Spill Contingency

The SIG requirement to address phases of the project including construction, operation, closure and post-closure as well as procedures during care and maintenance is not generally reflected in the series of Environmental Protection Plans (EPPs) that have been prepared for the Project DEIS (i.e. phased approach not present). At this stage, certain aspects of Plans remain

conceptual, and the next updates will likely accompany the FEIS. This includes the following documents:

The ***Volume 10-3 Risk Management and Emergency Response Plan*** (RMERP or Plan) is to ensure that an adequate level of emergency preparedness is available for the construction and operation of the Project. The scope of this plan includes the Marine Laydown Area in southern Bathurst Inlet, and both the Goose and George Properties. The Plan will be further updated based on detailed engineering designs prior to the start of construction. The following aspects of Plan also need to be more detailed:

a. Section 4.2, Pg. 14 Natural Hazards states that *"an assessment of risk and identification of mitigation measures associated with effects of the environment on the Project can be found in Volume 9, Chapter 3 of the DEIS"*.
   Instead of referring to another Volume of DEIS the final RMERP should provide all risks related to potential natural hazards and identify mitigation measures during each phase of mine activities: construction, operation, closure and post-closure.
b. Section 4.3. Pg. 14 Accident and Malfunctions states that "*specific risk assessments, root cause, consequences, and mitigation processes are itemized in Volume 9 of the DEIS"*.
   The updated RMERP should assess all accident and malfunctions related risks and consequences and identify mitigation measures during each phase of mine activities.
c. Section 5.5, Pg. 16 discusses Emergency Response Procedures that may generally be related to the accident and malfunctions.
   The updated RMERP should also provide Emergency Response Procedures that could be related to the natural hazards (storms, extreme rainfall or snowfall, extreme low temperatures) and geo-hazards (seismicity, ground and slope instabilities).
d. Section 5.5.2 Fire/Explosion does not detail the procedures for such fires when fighting them with extinguishers is not or not anymore practically possible.
   No emergency procedures associated with explosives are provided.
e. Emergency Response Procedures should also detail as to how multiple emergency events will be handled.
f. Site map(s) that is (are) specifically designed to emphasize emergency response element should be provided.
   The map(s) should depict emergency response equipment, fuel caches, nearby water bodies, camp infrastructures, and other relevant information.

Volume 10-5 Spill Contingency Plan (SCP or Plan) is to respond to hydrocarbon or other contaminant spill incidents that may occur at the Project including MLA in southern Bathurst Inlet, and both the Goose and George Property, during construction and operation of the proposed mine.

The Plan is generally conceptual and qualitative as no quantitative information is provided with respect to the material and number/type of containments to be stored on sites during different

phases of mine. NWB review of the plan has identified the following items that should also be addressed:

a. Section 2, Pg. 6, Table 2-1. Contains External Reporting Volumes for the list Contaminants. It is noticed that unanticipated seepages from TIA, WRSA, landfills, containment ponds etc. have not been considered spills under the Plan.
   These seepages should be considered "spills" as they have unintentionally or accidently been allowed to breach their intended containment and may have an adverse impact on the environment.
b. Section 7, Pg. 15, Spill Response Equipment states "*that a vehicle outfitted with a self-contained collection of spill response materials for rapid deployment to spill sites will be utilized. Table 7-2 lists the typical content of mobile environmental emergency trailer that will be located on site at each of the Back River Project properties"*. However, besides the mobile environmental emergency trailer, spill kits shall permanently be located at various sites of each property as multiple spills events may occur simultaneously at different locations.
   It is recommended that an explanation be provided as to how multiple events will be handled simultaneously.
c. Section 8.3.2, Pg. 20, Domestic Sewage, Solid Waste and Contact Water states that "*any problems with the sewage treatment system, incinerator or other waste disposal systems will be promptly reported to the Site Superintendent"* without providing details regarding spill responses related to these types of materiel spilled.
   It is suggested that each camp be listed along with sewage storage facilities and/or treatment facilities and the amount of sewage generated. In addition, this section should include spill response procedures for addressing broken/dislodged sewer lines.
d. Section 8.4, Pg. 21, Response to Fire refers to relevant site firefighting procedures without providing at a minimum the water use related information.
e. Procedures for responding to spills involving fuel transport trucks should be included in the Plan.
f. Appendix A lists the Hazardous Materials Transported, Stored and Used On-site with their descriptions and potential management and pollution prevention strategies.
g. This table should also contain an estimated inventory and containment types of Hazardous Materials stored on-site at any given time. Responses to Ammonium Nitrate potential spill to water shall also be included within the list.
h. Site map(s) that is (are) specifically designed to emphasize spill response elements should be provided. The map(s) should depict spill response equipment, fuel caches, nearby water bodies, camp infrastructures, and other relevant information.
i. Actual copies of the MSDS for all hazardous substances stored on site should be included within the Plan.

Although the ***Volume 10-6 Marine Laydown Area, Oil Handling Facility*** (MLA-OHF), ***Oil Pollution Emergency Plan*** (OPEP) was developed to specifically assist in implementing measures to protect the marine environment and minimize impacts from potential spill events. Nevertheless, there are aspects of the Plan that are geared to addressing spills on land. The MLA-OHF OPEP has been designed specifically to compliment the Back River Project, SCP document. It is stated that the plan is not to be construed as to supersede existing emergency

response plans, rather it is conceived to address the specifics of the fuel storage facility, the bulk incoming transfer of fuel and spill scenarios directly relating to this operation.

The NWB reviewed the sections related to potential spills on land and identified the following items, which should be addressed:

a. Section 2.2.3, Pg. 3, Dedicated Facility Spill Response Equipment, states that "*a list of the equipment can be found in Appendix 4*". However, no Appendix 4 appears to be included within the Plan and generally no Appendixes are included within the Volume 10 EMP's.
b. Section 3.2, Pg. 4, Oil Handling Facility and Infrastructure states that "A preliminary site plan of the projected MLA-OHF configuration is provided in Appendix 2". No Appendix 2 is included in the Plan. No detailed information is provided related to all proposed fuel storage facilities (permanent and temporary facilities) associated with the site.
c. Section, 3.3.5, Pg. 6, Ice Conditions should describe emergency procedures if ice conditions happen suddenly and earlier than expected with a ship being on the Bay for fuel deliveries.
d. Section 4.1, Pg. 9, Bulk Oil Transfer, Ship to Shore states that "*the bulk fuel transfer procedures are fully detailed in the standard operating procedure in Appendix 5*". However, no Appendix 5 is included within the Plan.
e. Section 5.4, Pg. 11, Equipment and Personal Protection states that "*Spill kits are strategically placed primarily in areas of fuel handling to facilitate immediate first response in the event of a hydrocarbon release to land. A complete list of spill response equipment is found in Appendix 4 of this plan*". However, no Appendix 4 appears to be included within the Plan and generally no Appendixes are included within the Volume 10 EMP's.

   It is recommended that the MLA-OHF site layout map be included within the Plan to provide, at a minimum all oil handling and storage infrastructures and spill response equipment kits locations.
f. Section 7, Pg. 17, states that "*full details of the properties and hazards associated with potential spills of all products are found on the Material Safety Data Sheets (MSDS) in Appendix 8 of this plan*". However, no Appendix 8 appears to be included within the Plan.
g. Section 8.1, Pg. 26, Response Strategies – Larger Spills states that spills less than $3.5m^3$ will be handled by handled by MLA-OHF response operations. For spills larger than $3.5m^3$, it is stated that the Emergency Response Coordinator shall determine if it is necessary to increase the response capability by requesting third party without actually specifying procedures. It is recommended that any revision of the Plan should include actual procedures for dealing with large spills.
h. No procedures and/or information are provided related to the hydrostatic testing for the proposed fuel storage facilities.

General Comment with respect to the series of Environmental Protection Plans:

Some ambiguities seem to exist concerning where the Risk Management and Emergency Response, Spill Contingency and Oil Pollution Emergency Plans start and end. This ambiguity

and confusion could potentially decrease the functionality of these Plans. Establishing more precise separation related to the usage of plans may help to address overlapping issues. Or If the Guidelines for EIS allow, it is suggested, that for on-land activities Goose, George Sites and Marine Laydown Area the Risk Management and Emergency Response, Spill Contingency and Oil Pollution Emergencies Plans be consolidated in one Plan as one consolidated Plan may increase effectiveness and functionality of the Plan.

10.0 Monitoring

At this time, most of the overall monitoring plan details are scheduled to be provided in the FEIS. Only general details for the monitoring programs are provided.

The ***Volume 10-19 Conceptual Aquatic Effects Management Plan*** (AEMP or Plan) has been conceptually designed to minimize or eliminate potential adverse effects on the freshwater and marine environments that could result from their interaction with project components over the life of the Project. The Plan was reviewed, and the following items at a minimum are to be addressed within the updated Plan:

a. Section 6.1.1, Pg. 4, Site Water Management states "*that in the Goose Property Area, site contact water (including runoff from waste rock storage areas (WRSA) and mine water) and treated sewage effluent will be directed to the Tailings Impoundment Area (TIA) and discharged if necessary during the Reclamation and Closure Phase to an approved site and will meet applicable water licence criteria*. *The water management plan (Figure 6.1-2) for the George Property Area is very similar, with site contact water and treated sewage effluent being directed to the Water Management Facility (WMF)*". No details are provided with respect to potential discharge locations and volumes for the TIA, WMF, treated sewage, collection ponds, on-land discharges, and any other potential discharges. No information is provided regarding the prevention of water ponding or erosion at discharge locations.

b. Table 7.2-1, Pg. 16, provides AEMP Sampling Locations, Descriptions and Purposes. Table 7.2-2, Pg. 26, provides AEMP Monitoring Schedule. Table 7.2-3, Pg. 27, provides Physical, Chemical, and Biological Parameters in AEMP Sampling Program. It would be useful to create an additional Table with combining information from tables stated above. The exact locations of sampling points shall also be provided within given water-bodies.

c. Table 7.2-2, Pg. 26, AEMP Monitoring Schedule, Back River Project provides schedules for Temporary Closure and Care and Maintenance Phases. The NWB notices that Temporary Closure and/or Care and Maintenance Phases are not clearly stated and defined in any of EMP's including in the Mine Closure and Reclamation Plan.

d. Section 7.2.6, Pg. 30 AEMP Sampling Details Table 7.2-5 indicates that that CCME Guidelines for the Protection of Freshwater or Marine Aquatic Life and MMER Criteria (if/when triggered) used for water/sediment quality parameters.
EC noted that "*CCME guidelines are not available for a number of freshwater, marine, and sediment parameters, and recommended that site-specific guidelines be developed for parameters of concern for which there are no CCME guidelines, or for parameters*

(not identified) that are naturally greater than CCME". NWB concurs with this recommendation.

11.0 Closure and Reclamation

The ***Volume 10-29 Mine Closure and Reclamation Plan*** is still preliminary and conceptual. The FEIS shall include a detailed Interim Mine Closure and Reclamation Plan. The followings items should be clarified at a minimum:

a. Section 2 Care and Maintenance Plan for Temporary Mine Closure define the "Temporary Closure as the cessation of mining and processing operations for a finite period of time with the intention of resuming operations upon resolution of the cause of the cessation (AADNC, 2007). It is also stated that Temporary closure could last for several weeks or as long as several years depending on the nature of the contributing factor(s)".

As the Water Licence generally defines the Care and Maintenance Phase the updated MCRP should provide definitions of temporary closure and care and maintenance including outlining what activities and monitoring may continue at the project, subject to the phase within which care and maintenance is implemented. This recommendation is valid for all EMPs that should include management strategies and monitoring during Care and Maintenance Phase.

b. Section 4.4, Pg. 20, Umwelt Underground Mine Workings should be detailed and should take into account designs of all declines and raises, detailed hydrogeological conditions assessment and thermal modeling.
c. Section 4.6, Pg. 24, Tailings Impoundment Area states the TIA "will be closed out by draining off and treating tailings supernatant, constructing a closure spillway and capping the TIA with a 2 m cover of nPAG waste rock".

   It is noticed that WRSAs will be covered by 4m nPAG (S. 4.3 Open Pits).

Section 3.1.7 of Mine Waste Rock and Tailings Management Plan states that "average freeze/thaw depths were calculated using a number of simplified closed-form mathematical solutions including the Neumann and the Modified Berggren equations (Knight Piésold, 2013b). Based on these computations, the freezing depth over an average winter is estimated to be approximately 6 m and the thawing depth over an average summer is estimated to be approximately 3 m".

A rational should be provided on differences of cover thickness for WRSA and TIA. A thermal modelling should validate whether or not 2m cover depth is reasonable to facilitate aggradation and encapsulation in permafrost at TIA.

d. Section 5 Monitoring states that "Post-closure monitoring is expected to be required for five (5) years after completion of active closure activities in Closure Year 10. This is in line with mine reclamation at other northern sites and is believed to be a reasonable

monitoring period given the amount of post-closure verification monitoring that can be carried out during the closure phase".

Given the fact that the post-closure monitoring of other northern reclaimed mines (Nanisivik, Polaris Mines) is being generally longer (up to 25 years), the 5 years duration would not probably be enough to evaluate the mine structures stability. The Post-closure monitoring duration should be re-evaluated

Monitoring Program Stations locations shall also be included within the Project Development and Infrastructure Area maps during Care and Maintenance for Temporary Closure and Permanent Closure and Reclamation.

Section 6, Estimated Closure and Reclamation Costs does not provide the Closure Cost Estimate.

e. A Closure Cost Estimation shall be provided within the updated Plan to reflect the total financial Security for Mine final Closure and Reclamation.

12.0 Project Designs and Drawings

Few drawings or designs have been provided as part of the DEIS. General Arrangement Drawings and Site Layout Drawings have been provided for the Goose Property, George Property, and the Marine Laydown Area. Also, design drawings have been provided for the Tailings Impoundment Area (TIA) (i.e. not for construction).

The proponent noted that these designs will be progressed under the FEIS and that design criteria will be based on the approach successfully used at the Ekati Diamond Mine, NWT (i.e. permafrost was used to minimize water leaching into the subsoil; the Back River Project site is located in a region of continuous permafrost).

13.0 Additional Environmental Management Plans to Consider

In addition to the mostly conceptual management plans presented in DEIS Volume 10 that should be updated, the following management plans should also be developed and submitted within the FEIS:

a. Lake Dewatering Plan (could be included within SWMMP);
b. Pits Re-flooding Plan (could be included within SWMMP)
c. Wastewater Treatment Facilities Management Plan;
d. Landfarm Management Plan;
e. Ammonia Management Plan;
f. Site Surveillance Network Monitoring Program

14.0 Type "B" Application for the Back River Project Pre-development Activities

The NWB acknowledges that as the Project development is approached in a phased manner with site preparation activities occurring first, Sabina has reiterated the following pre-development activities from the Type "A" Water Licence Application – Access and submitted to the NWB on October 20, 2014, as a Type "B" Water Licence Application:

a. Construction and use of an all-weather road, and associated water crossings, from Goose Camp to the existing airstrip and quarry
b. Expansion of the existing all-weather airstrip and associated realignment of Rascal Stream
c. Expansion of the existing Goose quarry and development of the proposed Umwelt quarry
d. Development of an ice-road for access to the quarries during the winter season before the all-weather road is completed
e. Staging of a temporary laydown area at the Marine Laydown Area to store equipment, materials and fuel for 2016 construction activities (note: 2016 activities are not included in the scope of application).

The remaining major activities proposed under ***Back River Project - Access Type "A" Water Licence Application*** are the followings:

a. Construction and operation of the Marine Laydown Area
b. Construction and maintenance of winter roads
c. Construction of infrastructure such as all-weather site roads, laydowns areas, increasing existing camp capacity, and fuel storage at the George Property

Based on recent discussions with Sabina the NWB is of an opinion that the 2 proposed Type "A" Water Licence Applications':
Back River Project - Mine Sites Type "A" Water Licence Application Scope and
Back River Project - Access Type "A" Water Licence Application's remaining Scope, may potentially be merged and only one consolidated Type "A" Water Licence Application could be included within FEIS.

15.0 List of Acronyms

AANDC or INAC	Aboriginal Affairs and Northern Development Canada
AEMP	Conceptual Aquatic Effects Management Plan
BPQMP	Borrow Pits and Quarry Management Plan
CCME	Canadian Council of Ministers of the Environment
DCPF	NIRB and NWB Detailed Coordinated Process Framework
DEIS	Draft Environmental Impact Statement
DFO	Fisheries and Oceans Canada
EC	Environment Canada
EIS	Environmental Impact Statement
EMPs	Explosives Management Plan
EMPs	Environmental Management Plans
EPP	Environmental Protection Plan
FEIS	Final Environmental Impact Statement
GN	Government of Nunavut
HMMP	Hazardous Materials Management Plan
IRs	Information Requests
KP	Knight Piésold
LWMP	Landfill and Waste Management Plan
MCRP	Mine Closure and Reclamation Plan
MLA	Marine Laydown Area
MLA/OHF	Marine Laydown Area, Oil Handling Facility
ML/ARD	Metal Leaching / Acid Rock Drainage
MLARDMP	Metal Leaching and Acid Rock Drainage Management Plan
MMER	Metal Mining Effluent Regulations
MWRTMP	Mine Waste Rock and Tailing Management Plan
NIRB	Nunavut Impact Review Board
NLCA	Nunavut Land Claims Agreement
NWB	Nunavut Water Board
nPAG	Not Potentially Acid Generating
NRCan	Natural Recourses Canada
OPEP	Oil Pollution Emergency Plan
OSMP	Ore Storage Management Plan
PAG	Potentially Acid Generating
PHC	Pre Hearing Conference
QA/QC	Quality Assurance / Quality Control
RMERP	Risk Management and Emergency Response Plan
RMP	Road Management Plan
SCP	Spill Contingency Plan
SFE	Shake flask extraction leachate test

SIG	Supplemental Information Guidelines
SWMMP	Site Water Monitoring and Management Plan
TDS	Total Dissolved Solids
TIA	Tailings Impoundment Area
TM	Technical Meeting
WMA	Water Management Area
WRSA	Waste Rock Storage Area
WMF	Water Management Facility
XRD	X-ray diffraction

Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	February 12, 2015 (10:00am – 11:00am)
TYPE OF MEETING	Kugluktuk Community Advisory Group
LOCATION	Hamlet Offices Kugluktuk, Nunavut
ATTENDEES	John Kaiyogana (Sabina) Jason Prno (Sabina) Alice Ayalik (CAG) Tommy Pigalak (CAG) David Nivingalok (CAG) Ryan Nivingalok (CAG)
COMMENTS	Jason Prno took meeting notes. Mona Tiktalek provided interpretation services.

MEETING NOTES:

John Kaiyogana and Jason Prno provided a Project update.

Q – Where does the Northwest Territories now stand regarding the Project? Didn't they issue a press release saying they were against the Project recently?

Q – Who is your environmental consultant working on the Project? Do they hire local residents?

Q – Will you be fishing-out a lake?

Q – What is the status of your Inuit hires? Previously you had a large number of hires from the eastern Kitikmeot communities. Will you be changing this and hiring more from the western communities?

Q – It's always good for us to get together and talk. I'm glad to hear Sabina will shut down when the caribou are migrating through. [Jason Prno later clarified the caribou mitigation measures Sabina intends to put in place].

Q – There has been too much exploration. There is less caribou around now.

Q – This is the first time in years that we are catching Bathurst caribou around Kugluktuk.

Q – There have been lots of wolves around recently.

Q – I'm worried about blasting. Caribou get sick from the dust.

Q – Is Sabina involved in Kugluktuk's Community Readiness Initiative?

Q – It has been a long time since we met. It is good to see you again and thanks for the Project update.

[A discussion on the CAG's Hamlet representative was held. The group agreed that Ryan Nivingalok should return to being the CAG's Hamlet representative. Ryan was originally the CAG's Hamlet representative, but was then no longer associated with the Hamlet for a short period of time. As Ryan has recently been elected as Mayor of Kugluktuk, it was felt he should return to being the CAG Hamlet representative. Ryan noted he would inform Hamlet Council about this.]

Q – I'm glad to hear your Project is moving forward.

Q – I'm thankful for you getting together with us and sharing information on the Project.

Meeting adjourned at 11:00am. CAG members participated in a voluntary country foods consumption questionnaire following the meeting.

Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	June 15, 2015 (5:30pm – 8:00pm)
TYPE OF MEETING	Meeting and Dinner with Residents of Bathurst Inlet and Bay Chimo
LOCATION	Arctic Islands Lodge, Northwest Passage Room Cambridge Bay, Nunavut
ATTENDEES	Jason Prno (Sabina) John Kaiyogana (Sabina) Various residents of Bathurst Inlet and Bay Chimo (see sign-in sheet)
COMMENTS	Jason Prno provided a Project update presentation. Jason Prno took meeting notes. Connie Kapolak provided interpretation services.

MEETING NOTES:

Q – How much is an ounce of gold? What commonly used item could we compare it to? How many ounces are there in a pound of butter?

Q – How far and deep into the water will the dock at the MLA be? It is pretty shallow along the coast there.

Q – How deep will the open pit mines be?

Q – How wide will the open pit mines be?

Q – Will any of the open pit mines require lakes to be drained and fished out?

Q – What will you do with the fish from the dewatered lakes?

Q – On the Goose Property map, what are the different colours on the Tailings Storage Facility?

Q – How do you separate your solid tailings from your tailings water? Wind and wave action can stir your tailings back up into the water.

Q – How tall will the Tailings Storage Facility be?

Q – Caribou migrating across the land don't stop walking. They will continue to move and follow each other and will follow their leader. I don't want you to stop them and cut their migration off with your roads. Female caribou won't let their claves walk very much after they are born. I don't want to see the mining company stop caribou from walking in the direction they are going. The elders say that when hunting we shouldn't shoot the first caribou that passes, as the rest of the caribou will follow the leader. You can shoot the caribou that come after the first one that passes. If you shoot the first caribou that passes, the rest of the caribou won't follow the same migration route.

Q – A lot of the people here from Bathurst Inlet and Bay Chimo haven't been down to visit the mine site. We would like to go. Is this possible?

Meeting finished at 7:00pm. Dinner completed at 8:00pm.

Sign-in Sheet

Meeting: BC/Bi Meeting (Cambridge Bay)

Date: 2nd 15/15

Sabina GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	JESSIE KAPOLAK	
2	Martina Kapolak	
3	Peter Kapolak	
4	Lena Komoayok	
5	Nancy Hanilak	
6	KAVYIAK	
7	Akapolak	
8	Allen Kapolak	
9	Myste Kamingoak	
10	William Kamingoak	
11	Tony Akoluk	
12	Lance Akoluk	
13	Joanne Kumingoak	
14	Lucy HANILIAK	
15	Samuel Haniliak	
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Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	June 15, 2015 (1:30pm – 2:40pm)
TYPE OF MEETING	Cambridge Bay Community Advisory Group
LOCATION	Sabina Office Cambridge Bay, Nunavut
ATTENDEES	Jason Prno (Sabina) John Kaiyogana (Sabina) Martina Kapolak (CAG member) Connie Kapolak (CAG member) Keith Lear Sr. (CAG member) Johnny Lyall Sr. (CAG member) Mary Avalak (CAG member) Hovak Laube-Koaha (CAG member)
COMMENTS	Jason Prno provided a Project update presentation. John Kaiyogana and Jason Prno took meeting notes.

MEETING NOTES:

Q – How far away did you move the Tailings Storage Facility when you moved it off of Inuit Owned Land? Were there any extra costs associated with doing that for the company?

Q – You mentioned that you will recover 93.3% of the gold. That seems really high. Will you really recover that much gold? How do you know you will recover that much gold?

Q – Have you looked at the implications of climate change on the entire length of the winter road? And over its entire lifespan? Will the road still be useable?

Q – How far will the Tailings Storage Facility be from the processing plant? How will your tailings be transported to the Tailings Storage Facility? By pipeline or truck?

Q – Some communities are still confused about the location of the Back River Project. The people in Gjoa Haven think the Project is closer to their community because the Back River is close to their community. We know now about the true location of the Project, however.

Q – What will happen with regards to recycling and the shipping out of waste? How will it be stored and dealt with? Will it stay at the camp until the full Project is built?

Q – I wasn't informed about the NIRB meetings held here in Cambridge Bay [in November 2014]. I would have went to them if I knew.

Q – What about the ships from Japan? I know this was a concern for Gjoa Haven. [JP and JK clarified this question was related to another project in the Kitikmeot (i.e. MMG's Izok/High Lake Project)].

Q – I'm no longer on the HTO. Should I still participate in the CAG meetings?

Meeting finished at 2:40pm.

Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	June 15, 2015 (7:00pm – 8:45pm)
TYPE OF MEETING	Yellowknife Public Meeting
LOCATION	Explorer Hotel, Janvier Room Yellowknife, Northwest Territories
ATTENDEES	Matthew Pickard (Sabina) Nicole Hoeller (Sabina) John Laitin (Sabina) 4 members of the public
COMMENTS	Matthew Pickard delivered a Project update presentation. John Laitin took meeting notes.

MEETING NOTES:

Q – Will your winter road spur connect with the Tibbitt to Contwoyto Winter Road?

Q – What items would travel on the winter roads?

Q – Regarding your long lead time item costs and leaving materials sitting at the MLA – Will your lenders be accepting of this?

Q – When does your annual shipping season close?

Q – Why are you restricting your operations to only using Canadian vessels for shipping? Why not Norwegian or Scandinavian vessels?

Q – You will need to add the peregrine falcon to your species watch list.

Q – What is the length of the proposed all weather airstrip?

Q – When did the feasibility study come out?

Q – Are there additional royalties owing from the Project and if so what are they? What is their valuation to the project?

Meeting finished at 8:45pm.

Sign-in Sheet

Sabina
GOLD & SILVER CORP

Meeting:

Date:

	NAME	ORGANIZATION
1	Sjoerd Vander Wielen	Tlicho Government
2	CARRIE VANDERLINDE	KBL ENVIRONMENTAL
3	DAVE NICKERSON	NONE
4	Dean Cluff	GNWT-ENR
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Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	June 16, 2015 (7:00pm – 9:00pm)
TYPE OF MEETING	Cambridge Bay Public Meeting
LOCATION	Community Hall Cambridge Bay, Nunavut
ATTENDEES	Jason Prno (Sabina) Nicole Hoeller (Sabina) Various members of the public (see sign-in sheet)
COMMENTS	Nicole Hoeller and Jason Prno provided a Project update presentation. Nicole Hoeller and Jason Prno took meeting notes. Johnny Lyall provided interpretation services.

MEETING NOTES:

Q – How much does an ounce of gold cost? Is that in American dollars?

Q – How much does an ounce of silver cost?

Q – You reference having 7 million ounces of gold available, but then you say you will be producing 300,000 ounces per year for 10 years. That doesn't add up correctly.

Q – What is the average grade of gold per tonne at Back River?

Q – How far away from the camp will your explosives be stored?

Q – Shouldn't your explosives be located further away from camp? One mine I worked at stored their explosives 8km away from their camp.

Q – What's going to happen with the fish you remove from Llama Lake?

Q – How long will the mine life be? Could it be expanded?

Q – How long will it be until you start production?

Q – When will your training programs begin to be implemented? Four years of construction doesn't leave a lot of time to get people trained.

Q – What about the social aspects of your Project? There can be social impacts associated with mining. For example, what are you doing about employee financial management? Not all employees will know how to manage their money properly. There can also be family stress associated with a 2 week in/2 week out rotation. This happens because the worker is away from home for 2 weeks at a time.

Q – How much money do you have available to build the mine?

Q – What about fluctuating stock prices? How would those fluctuations affect your mine development plans?

Q – What are the financial returns to the government, adding in all the taxes and royalties, from the Project?

Q –You said that you can produce an ounce of gold for $800.00 [note – this was actually stated as $850.00]. How many variables are at play in that number? What sort of things could affect that number? Could changing fuel prices affect that number?

Q – Your cost to produce is $850.00/ounce. Is that an all-inclusive cost? Does that include the cost to build the mine?

Q – Will you fly all of your local employees directly to the mine and back? When employees are flown through Yellowknife they often spend all of their money in Yellowknife and come home with no money.

Q – Is there anyone else working around the Project area that could help you split the cost of the port site? Is there a government subsidy that you can obtain?

Q – What is the Hackett River silver royalty worth?

Q – When the building supplies for CHARS came up on the sealift last year, they were given priority by NTCL and the community did not get all of their supplies due to shipping delays. Some community supplies did not make it to the community as a result of this. What will happen at Back River with regards to shipping? Would something like this occur again?

Q – How thick is the tailings liner going to be?

Q – Will you be moving the tailings? How?

Meeting finished at 9:00pm.

Sign-in Sheet

Sabina GOLD & SILVER CORP.

Meeting: Cambridge Bay Public Meeting

Date: June 16/15

	NAME	ORGANIZATION
1	Annie Paniayak	Wellness Centre
2	Thomas Kadnina	Wellness centre
3	[illegible]	
4	CHRIS CHISHOLM	RESIDENT
5	Nancy Haniliak	
6	Yvonne Mikok	
7	AARON SIMARD	
8	Martine Kapolak	
9		
10	EMMA Klengenberg	
11	Ida Kuliktana	
12	Sam Kuliktana Sr.	
13	Johnny Avalak	Resident
14	Heather Kiguira	Resident
15	SVETLANA ERICKSON	
16	NORMAN EVALIK	RESIDENT.
17	Pam Langan	KHS.
18	Richard Ekpakohak	KC
19	Kakolak Avaglik	Halqvama
20	Agnes Olawoko	Resident

Sign-in Sheet

Sabina
GOLD & SILVER CORP.

Meeting: Cambridge Bay Public Meeting

Date: June 16/15

	NAME	ORGANIZATION
1	BettyAnn Maniuogena	Resident
2	Elvin Kanayok	
3	[illegible] Navalik T.	
4	Kristina Benoit	NIRB
5	Andre Otokiak	QEC
6	Isabel Aitaluk	Hamlet of YCB
7	Keith Lear Sr.	CAG
8	Madeline Kaotuq	Resident
9	Harry Maksagak	M&PR
10	Sam Kuliktana	
11	George Hanaksiut	
12	M.A. Okhina	
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Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	June 16, 2015 (7:20pm – 9:00pm)
TYPE OF MEETING	Kugaaruk public meeting
LOCATION	Community Hall Kugaaruk, Nunavut
ATTENDEES	Matthew Pickard (Sabina) John Laitin (Sabina) John Kaiyogana (Sabina) Various members of the public (see sign-in sheet)
COMMENTS	Matthew Pickard provided a Project update presentation. John Laitin took meeting notes.

MEETING NOTES:

Q – Do you have waste containers? For your waste management, are items stored on pallets? Is there protection on the ground from garbage?

Q – Is there any protection on the ground to prevent hazardous materials moving into the ground?

Q – Where wood and steel are placed - Is there any protection?

Q – Some people are going to work up north. There are lots of workers from other places; why are there not many workers coming from Kugaaruk?

Q – It would be nice to have more people from this region working.

Q – What sort of education is required to work at the site?

Q – What types of jobs are there available at site?

Q – How long is the work? How many weeks in and weeks out?

Q – How are tailings managed? Where do they go?

Q – In 2013 there were 58 Inuit employed at your site. Then in 2015 there were 15 Inuit employees. What happened?

Q – Why were so many people employed in 2013 from down south and only a few were from the Kitikmeot?

Meeting finished at 9:00pm.

KUGAARUK Jun 16/15

SIGN IN SHEET

1

2 Elizabeth Tegumiar

3 NANCY. Tigvareark

4 Adele Siggurk

5 Jocelino Siggurk

6 Debbie Klengenberg

7 Lena Kaokzik

8 Eileen Nalungiaq

9 DONOVAN Ningark

10 Guy Kringorn

11 Wilfred Immingark

12 Nathan Nartok

13 Annie Kutsiutikku

14 Guido Tigvarearuk

15 Angeline Tigvareark

16 Paul Illuitok

21. AmyAnaittuq
22. Iris Uvilug
23. Enta. Inuksaq
24. Isabella. Inuksaq
25. Nora Putulik
26 Francis. Anaittuq
27 Solomon Scissor
28 Kathy Anaittuq
29 Yanta Papuardjok
30 Stacey Figureoark
31 Allen. Immingark
32 Leonie Nirlungayuk
33 Sheila Tinashlu
34 Markale Nurtok
35 Dolorosa Nartok
36 JeanMarie Anaittuq
37 Janet Uyarrai
38 Alina. Tung
39 ERICA
40 Kautaq Ameluliik
41 Joanne Ruben
42 Josephine Sikkark
43 Mary AKLAH
44 Cassian Immingark

53 Kyle Tootiak
54 Jessica Innuksaq
55 Violet Inutuinaq
56 Alex Ningark
57 maria Kayasark
58 Vincent Ningark
59 Bernice [illegible]
60 Martina Ningark
61 Theresa Benoit
62 Sheila Anaittuq
63 Sabina Nartok
64 Samuel Kutsiutikkua
65 Ernestine Karlik
66 Mark Karlik [illegible]
67 Judy. Agnalla
68 Tracy Amautinuar
69 David krejunark
70 Jamal Immingark
71 Andy Akcan
72 David Tootiak
73 Martina Kukiuti
74 LisaMarie Innuksag
75 Janet Illuitok
76 Victor Kataluk
77 Debbie Oogaoo

Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	June 16, 2015 (3:00pm – 4:30pm)
TYPE OF MEETING	Meeting with Hamlet of Cambridge Bay Representatives
LOCATION	Hamlet Council Chambers Cambridge Bay, Nunavut
ATTENDEES	Jason Prno (Sabina) Nicole Hoeller (Sabina) Jim MacEachearn (Hamlet of Cambridge Bay) Jamie Maghagak (Hamlet of Cambridge Bay) Tyler Angulalik (Hamlet of Cambridge Bay)
COMMENTS	Nicole Hoeller and Jason Prno provided a Project update presentation. Jason Prno took meeting notes.

MEETING NOTES:

Q – Will you look at developing George in the future?

Q – Which two open pits will you use for tailings disposal?

Q – There is another mine site that won't allow bannock to be cooked or employees to bring country foods to site. What will you be doing?

Q – The 2.2 years payback figure you mentioned; is that payback based on the smaller-scale project you referred to?

Q – How will your Kitikmeot workers get to site? There have been issues associated with workers travelling through Yellowknife in the past.

Q – What are you going to do with the fish that you have to remove from Llama Lake? When Newmont had to do a fish-out, the fish weren't very high quality and most people used them as dog food so they wouldn't go to waste.

Meeting finished at 4:30pm.

MEETING INFORMATION	
DATE	June 17, 2015 (3:00pm – 4:20pm)
TYPE OF MEETING	Taloyoak Hamlet Council
LOCATION	Hamlet of Taloyoak Taloyoak, Nunavut
ATTENDEES	Matthew Pickard (Sabina) John Laitin (Sabina) John Kaiyogana (Sabina) Joe Ashevak (Mayor, Hamlet of Taloyoak) Charlie Lyall (Hamlet of Taloyoak) Rene Boisvert (Hamlet of Taloyoak) Bruce Holwell (Hamlet of Taloyoak) Mona Igutsaq (Hamlet of Taloyoak) David Nanook (Hamlet of Taloyoak) David Totalik (Hamlet of Taloyoak) Simon Qingnatuq (Hamlet of Taloyoak) Greg Holitzki (SAO, Hamlet of Taloyoak)
COMMENTS	Matthew Pickard provided a Project update presentation. John Laitin took meeting notes.

MEETING NOTES:

Q – Baffinland said the same thing about supply ships. I don't want to see ice breakers.

Q - Any plans to hire from Taloyoak or Gjoa Haven?

Q - Recent grade 12 graduates are just walking around town. You hire people and they hire their friends and relatives, but not grade 12 graduates. We tell our kids to stay in school and get an education, and they will have a good job. Yet we watch them just walk around and the dropouts are the ones that get the jobs. To me that is not right. We need to get away from that. What's the point in going to school if all you are going to be doing is walking around? That is what the kids are asking us. If you look at all the people working for you right now, from here, not one of them has grade 12 so why should we tell our kids to stay in school if big companies like Sabina are going to come in and allow everybody's friends to get the jobs? To me that is not right.

Q – We see companies like Sabina come in and say they want to hire educated Inuit but then they don't. How are we supposed to trust you if you aren't going to keep your word?

Q – If we are going to survive as a group of Inuit, as a community, and we tell our kids to stay in school, we will need your help. There are very, very few jobs in town here for young educated Inuit and we keep telling them to stay in school. What's the point of telling them this if we're not going to support them?

[Matthew Pickard asked if anyone from Taloyoak was working for TMAC. The answer was no].

Q – My point is, you guys come here and tell us what you are going to do, that you are looking for support. In order to get our support, we need something in return. We can't just have big companies come in, we give our support, and get nothing in return. To me, it doesn't work that way. I'm very supportive of the mining industry, don't get me wrong, but the longer I live in the smaller communities, the less I see. Take for example the small Inuit owned businesses in the communities that don't have a chance of getting any contracts with any of the mining companies because KIA dictates that KIA owned companies will be the ones to get the jobs. So us poor suckers out in the small communities, we're sitting there watching Kugluktuk getting richer and richer, and us poor guys, who cares about us. The mindset needs to change and not only amongst those in the mining industry. KIA needs to change their attitude. KIA is not God. At least that is what we see in the communities. They think they are the Kitikmeot but us out in the communities, we see different and we know different. We're not their servants to bow down to so we can get jobs. I saw on Facebook the other day that KC now has another company that caters to camps. They already have one, but now they have another and I know there are small Inuit owned businesses that cater to camps; we don't have a chance. What does it take? Do you know something? You as a mining company have been in this community more times than KIA has. Needless to say, we want a piece of the action.

Q – I wanted to elaborate a little more on what was just talked about. You had mentioned that people from here are funnelled through Cambridge Bay in order to get to the site. That really restricts the amount of people that you are going to be able to draw from our community because flights that are coming in and out of Cambridge Bay to our community right now only occur twice a week if I'm not mistaken. So, no one wants to go to Cambridge Bay and sit for a week before they can get home after they are done whatever rotation it is on the site. I think you are better off in making arrangements for your direct flights to come here before you get going. Otherwise, you aren't going draw many employees from here. I think you should really revisit that whole direct flight thing. How many people does it take to justify a direct flight? It may take about 8 people on a single flight to make it viable for you guys to come here. You are still going to restrict the amount of people that you are going to get on a single flight of 8 people. Otherwise, they will be sitting in Cambridge Bay for 4 or 5 days on their way home after they have done their 21 day program [site rotations will actually be 14 days in and 14 days out]. They will have 5 days sitting there and then they will have 4 days at home before they go back in. Right now the weather is fairly unpredictable so last week we didn't have a flight for 6 days, I'm guessing. So what happens in a situation like that where you are sitting in Cambridge Bay waiting to come home, waiting for a flight? I think you need to revisit the number of people that you were looking to put on that flight.

Q – The other thing I would like you to keep in mind is the longer someone is stuck in Cambridge Bay, the less his take home cheque is and the richer the bootleggers become. Unfortunately, that is the case.

Q – At what point would you say is a good time to start training people not only for construction of the mine site, but for employment at the mine site? I know there is a lot more training in Cambridge Bay related to mining that is normally done by the KIA. But if somebody from one of the smaller communities wanted to take part in that training, they would have to provide their own accommodation and meals. This leaves us out again. If we knew when that training needs to start, I am sure we could organize something here and start training people for the mining industry. The work readiness program took place and 22 individuals took part in Taloyoak.

Q – What about the desalination plant, how will that work? The reason I ask is that one of the communities, Igloolik, had their water source run out. I wanted to know if this could be a back-up in case that happens to another community. On an emergency basis. As communities, we have to think of how to deal with emergencies.

Q – I have a question regarding your marine shipping. What type of company do you propose to use for your seasonal shipping? Are you looking at using some of the existing providers here? Because if you are going to bring in 4 or 5 ships a year that is certainly going to restrict the amount of materials that the smaller communities receive from ships from the south for our resupply every year.

Q – You mentioned you will send back recyclables. Will you fill the ships with recyclables? All the communities in the Kitikmeot are looking to try and find a way to send back recyclables. That is a big issue with us. There is no feasible way to send back recyclables. If you were sending back ships and you weren't that far from a lot of our communities and we had recyclables that could be piggybacked with you, that would probably save everybody money. Our dumpsters fill up with stuff that should not be in them and we keep talking about it and there has been no movement forward to find a way to get rid of those recyclables. Metals, cars, tires and those sort of things. If there was a ship going back already with recyclables and you are going to the exact same spot that would work. Some of those recyclables have been sitting here for so long. I'm sure we could fill a ship every year.

Q – For your contaminated goods and hazardous goods – When would those be returned to a recycling location?

Q – I wanted to welcome you guys and thank you for coming and sharing this information. In the early days, in the 60's, 70's, and 80's, our ancestors, most of whom have since passed on, saw people coming around doing prospecting. Now, today, this is getting bigger. But, in the early days, our ancestors survived off the land. They were nomads. Today it is different, we are not nomads anymore, we now have motorized vehicles like skidoos, Hondas and boats. We don't set up camps; we now need to work for income. Looking at the Back River Project in 2013, 58 Inuit were employed. Later on in 2014, 15 Inuit were employed. In the future that number will be higher. That would be nice for our kids. The communities are getting bigger. We need this income. I just wanted to bring up that I support this other traffic that is going on across Nunavut and NWT.

Q – Inuit who submit an application – Do they need to take drug testing? You should have a drug test from every applicant.

Q – It would be nice to have a training site for mining in our region in the Kitikmeot. A certified Inuk person to train people in a training facility would be nice. Like at Lupin.

Q – Thanks for coming. I understand you are presenting this evening to the community as well.

Meeting finished at 4:20pm.

MEETING INFORMATION	
DATE	June 17, 2015 (6:00pm – 9:00pm)
TYPE OF MEETING	Kugluktuk Public Meeting
LOCATION	Community Hall Kugluktuk, Nunavut
ATTENDEES	Jason Prno (Sabina) Nicole Hoeller (Sabina) Cam Stevens (Golder Associates) Various members of the public (see sign-in sheet)
COMMENTS	Jason Prno and Cam Stevens provided an overview of the Bernard Harbour restoration project and results of the traditional knowledge study (6:00pm – 7:00pm). Nicole Hoeller and Jason Prno provided a Project update presentation (7:00pm – 8:30pm). Jason Prno took meeting notes.

MEETING NOTES:

Jason Prno and Cam Stevens provided an overview of the Bernard Harbour restoration project and results of the traditional knowledge study

Q – How much water do Arctic char need to move up the creek?

Q – How many fish were tagged at Bernard Harbour?

Q – What else does the tagging of fish tell you? Does it only tell you about their migration and movement?

Q – Did any fish make it as far as Ulukhaktok? Or other places far away?

Q – What month of the year is best for tagging fish?

Break

Nicole Hoeller and Jason Prno provided a Back River Project update presentation.

Q – Various employment barriers exist for local residents. For example, criminal record check requirements are a barrier. Will this requirement be relaxed at your mine? What is your plan? We need to address this issue. People change and should not be affected by past mistakes they made.

Q – To prepare for employment during construction and operations, we need to gear our junior high and high school classes towards mining. Have you looked at doing anything like this?

Q – Criminal records can be a barrier to employment, but both sides need to do something about it, not just the mining company. Community members need to be good law abiding citizens. They should also apply for a pardon if they have a criminal record.

Q – People who want a job need to quit dope so they can pass their pee test at the mines. Addictions are a big problem for us.

Q – The western Kitikmeot was first impacted by mining years ago. KIA was involved in local training at the time, but this has fallen off recently. The Kivalliq Inuit Association has done very good training for mining in their region. For example, there are women heavy equipment operators over there. These are good stories about mining and training.

Meeting finished at 9:00pm.

Sign-in Sheet

Meeting: Kugluktuk, Nu.

Date: June 17, 2015

Sabina GOLD & SILVER CORP.

	NAME	ORGANIZATION
1	Rose Ewaglok	
2	Jason Taptuna	
3	Lucy Manicyogena	
4	Lena Adjun	Hamlet + Kakayak Daycare
5	Chelsea Agun	
6	Tommy Pigalak	
7	Roy Kadlun Kokak	
8	JACKIE NOVOLIGHT	
9	Gordon Kokak	
10	Lorrie KAKOLAK	
11	Willie Pigalak	
12	Millie Avaligak	
13	Johnny Nivingalok	
14	Johnny Hatogina	
15	Mona Angulalik	
16	Jean Meyak	
17	Marjorie Adamajak	
18	Colin Adamajak	
19	Josephine A Ikkipik	
20	Doris Elatiak	

Sign-in Sheet

Meeting: Kugluktuk

Date: June 17, 2015

	NAME	ORGANIZATION
1	Bradyan	HTO
2	Doris Allen	
3	Donald Hunniyuk	Resident
4	Elmira Elutiak	
5	Thakaiyogana	
6	Gordon Hikonak	
7	Christine Kayogana	Resident
8	Abe Kuliana	" "
9	Mark Taletak	
10	Phil Evaglok	" "
11	Joanne Kokak	" "
12	Wilma Pigdak	Resident.
13	DIANA EVAGLAK	
14	GEORGE KAKILUKAK	" "
15	JOHN HIMIAK	" "
16	AGNES ALLEN	" "
17	Helen Kuneluk	" "
18	BESSIE KUKILUKAK	" "
19	David Onipkak	" "
20	LAURA-KOHOKTAK	" "

Sign-in Sheet

Sabina GOLD & SILVER CORP.

Meeting: Kugluktuk

Date: June 17/15

	NAME	ORGANIZATION
1	Mary Ann Westwood	
2	Ann Ikumatak	
3	[illegible] Elatiak	
4	Josie Allukpik	
5	Nellie Kaayoganee	
6	Anita Niptanatiak	
7	Pauline Bolt	
8	David Novoligak	
9	Aialie Klengenberg	
10	Sally Uvanatee	
11	Bobby Kuliolik	
12	Dennis Allen	
13	Bonnie Kadlun	
14	Crystal Niupk	
15		
16		
17		
18		
19		
20		

MEETING INFORMATION	
DATE	June 17, 2015 (7:00pm – 9:00pm)
TYPE OF MEETING	Taloyoak public meeting
LOCATION	E.W. Lyall Recreation Complex Taloyoak, Nunavut
ATTENDEES	Matthew Pickard (Sabina) John Laitin (Sabina) John Kaiyogana (Sabina) Various members of the public (see sign-in sheet)
COMMENTS	Matthew Pickard provided a Project update presentation. John Laitin took meeting notes.

MEETING NOTES:

Q – Thanks for coming. When you find metals and when you have significant anomalies to share, what happens with this information? Have you met with the NIRB?

Q – Does Sabina have people from Taloyoak working at the Project?

Q – How many years have you been doing work at Goose Lake? There are many mining companies coming. I support that the land is important. This has to be brought up to the federal government. It was not brought up in the past. It was left up to the elders in the past. The new ways are different. There are funds given to the people of the Kitikmeot. For the Caribou. Some people have sicknesses in their system. It has come to the point that we need more information from the biology department. The sik siks need to be studied. The mining companies will be more frequent in coming to the north. The mining companies say they will protect us. Some companies are true and some are not. I have worked at Nanisivik in the past. Some people have had sicknesses.

Q – I've thought about this often; what do you do with the human waste? Is it dumped out or stored? For the sake of the wildlife, that is my question. I have heard about Resolute; the ring seals and the beluga were affected. My second question – My grandmother used to tell me not to pick up any rocks I was not going to use. I was told to respect the environment. I did not realize this mining company thing was different. The Inuit were not treated with any respect. We used to live with the animals. That is why we are here today. No metal. They also used muskox horns for weapons before metals came around. Our land was always respected. This land was always sacred. To connect with the people.

When we heard that we were moving to large houses, it was only $2.00 per house. That money was deducted from wages. The environment was not respected. In the past we had mining companies that came in and got rich and left their garbage here. That lost a lot of respect. I am not upset about the mining companies. I am glad to have the chance to have been able to get this out. Thank you.

Q – My question pertains to the 50 Inuit people that are employed. Do you have people from Gjoa Haven? Do you have a number of the people hired?

Q – How many square feet is the tailings area?

Q – Regarding the waste, do you send it out by ship or barge?

Q – Once you find the archaeological sites around the work area, where are they?

Q – This can be of more benefit for those who want to work, to become more involved in the region. To KIA they can apply, but there are some applicants that are left out. We would be better off to have a HR representative from the company in each community. I realize this is difficult. For opportunities like catering, moving, and storage, can we get some information from the mining companies? About business opportunities. When the funds are given to KIA we seem to lose out. I'd like to have a public meeting with KIA when there are funds given to them; I'd like to see what happens. Mining sites should have regular check-ups before the mining starts and during operations. If you want some information on the sicknesses you can ask the Yellowknife hospital. You should look at the sicknesses from the animals. Thank you for coming and welcome.

Q – My question was brought up before, regarding the shipping. I know there will be lots of shipping. What if a ship runs aground; has this been considered? Some companies have huge ships. When they get loaded they overflow with water and that is dangerous. These things will start to happen in the north and become more frequent.

Meeting finished at 9:00pm.

Jun 17/15

TALOYOAK

1 MARIA Totalik

Simon

2 ᐃᓇᓯ ᑐᑕᓕ

3 John

4 Joseph Qingatoak

5 Joseph ᒍᐱᑦ

6 Gine Daniqaycha

7 JENNIFER KAROO

8 MYRA KAROO

9 Lindsay Anaija

10 ᐊᑯᑐᑕ

11 [illegible signature]

12 Martha Totalik

13 Simon Tuckto

14 Colleen Tucktoo

15 Lua Nanung

16 AIOLAA FANOLIN

17 G. Totalik. Sr.

18 Cloe Totalik

19 Johnny Karoo

20 Sarah Totalik

21 Martha Quqqiaq

22. Lene Ukuqtunnuaq

23 Elaine ~~[illegible]~~

24 Lloyd Saittuq

25 ᖁᓐᑦ ᐋᕆᑐᑦ

26 Simon Qingnaqtuq
27 Peggy Etungat
28 Allan Nanook
29 Christalun Nanook
30 ᖁᒪᓐ ᑎᑕᐃ
31 JPG N2
32 ᑎᕐᕕᓇ ᑭᒃ
33 Robin Peetoolook
34 Helen Qayutinuck
35 Ramona Totalik
36 ᐊᕐᓇᒡᒃ ᑐᑐᓇᒃ
37 Erin Qayutinak
38 Ernestine Qayutinak
39 Edna Kingatteuk
40 John Appaqak
41 Mary ᐃᑐᓪᓗ
42 Mary Uningnak
43 ᑲᓇᒃ ᓴᓐᑐᖅ
44 Steven K. Jaypoody
45 Qiu Akeeagok
46 Dora Kelly
47
48
49 Peter Qirngnuq
50 Emelye Aeeee
51 LG + 2
52 Jacqueline Tuckoo
53 Annaqyok Akeeagok

54. Mary Ugyuk

55 Ross Puniqayok

56 Rebecca Karoo

57 Barbara Tucktoo

58 Eli Marqniq

59 Mary Nueveacheak

60 Simon I. Tucktoo

61 Yolande Aupalu

62 ᒫᓂ ᐸᐅᑐᕐ

63 William. INUKSAQ

64 MICHAEL ALEEKEE

65 Elizabeth Aleekee

66 Peter Qauvtinuak Jr

67 Meranda Karoo

68 Joseph Auqqiaq J.R.

69 Colleen Higinig Igilig

70 Lydia Aqqaq

71 Karen Higimig

72 CAROLINE Anilik

73 Annie Aleekee

74 Chantel Aleekee

75 Wesley Totalik

76 ᐋᓗᑭᓚ ᐋᓗᑭ

77 Gloria Kootook

78 Lucy Ullikatalee
79 Elizabeth Ryall
80 Junette Kingmiaqtuq
81 Rachel Totalik
82 J. SAITTUA
83 . Kristine Tucktoo
84 Margaret Mannilaq
85 Rachelle Mariyah
86 ALEX. ALEEKEE
87 Robert QUQQIAQ
88 Sarah Uqqutuq
89 Nancy uqqutuq
90 Kublu Tucktoo
91 Mary Neeveacheak
92 Viola Neeveacheak
93 Joline Ashevak
94 Zachary Charlie
95 Melanie Ittungia
96 Kimberly Totalik
97 Amanda Ruben
98 Wally Pauloosie
99 Stella Tucktoo
100 Vera Paniloo

101. Amber Totalik
102 D. NANOOK
103 Deanna Ettagi
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Sabina Gold and Silver Corp.
Back River Gold Project
Meeting Notes

MEETING INFORMATION	
DATE	June 18, 2015 (10:00am – 11:30am)
TYPE OF MEETING	Kugluktuk Community Advisory Group
LOCATION	Hamlet of Kugluktuk Boardroom Kugluktuk, Nunavut
ATTENDEES	Nicole Hoeller (Sabina) Jason Prno (Sabina) Ryan Nivingalok (CAG member) Tommy Norberg (CAG member) Alice Ayalik (CAG member)
COMMENTS	Nicole Hoeller and Jason Prno provided a Project update presentation. Jason Prno took meeting notes. Agnes Allen provided interpretation services.

MEETING NOTES:

Q – George Camp is not operating now. When will it open? At the same time as Goose?

Q – Is that creek in the picture the one that has drills operating underneath it? We saw that on our site visit.

Q – It is good that the main concerns are about water and that you are addressing this. Elders always worry about water.

Q – It's good to hear that you are focussed on youth. Some youth are afraid to go south to get an education. However, there is not a lot of work in town for those that stay here. The Back River Project is giving them something to look forward to.

Q – I agree with those comments. Young people graduate and don't find work. Some want more job training.

Q – I agree with you. You can't start anything without getting your permits first. Those are important.

Meeting finished at 11:30am.

MEETING INFORMATION	
DATE	June 18, 2015 (7:00pm – 9:30pm)
TYPE OF MEETING	Kugluktuk HTO
LOCATION	Kugluktuk HTO Offices Kugluktuk, Nunavut
ATTENDEES	Jason Prno (Sabina) Nicole Hoeller (Sabina) Cam Stevens (Golder Associates) Colin Adjun (Kugluktuk HTO board member) Christabelle Newman (Kugluktuk HTO board member) Kevin Klengenberg (Kugluktuk HTO board member) Stanley Carpenter (Kugluktuk HTO board member) Barb Adjun (Kugluktuk HTO manager)
COMMENTS	Nicole Hoeller and Jason Prno provided a Project update presentation. Jason Prno and Cam Stevens provided an overview of the Bernard Harbour restoration project and results of the traditional knowledge study. Jason Prno took meeting notes.

MEETING NOTES:

Nicole Hoeller and Jason Prno provided a Back River Project update presentation.

Q – How many people are at Goose Camp?

Q – 10 years is not long for operations. It will go by quick.

Q – A 10 year mine life; what happens after that? You're just going to clean it up? Would the mine life be extended?

Q – What are you going to do about tailings dust?

Q – How will you clean the tailings water?

Q – I've seen another mine use different cells and ponds within the tailings facility to treat water. Will you use this?

Q – What has community support been like for the Back River Project?

Q – Have you been looking at ways to go green? With your power generation?

Q – I would like to see 50% Inuit employment.

Q – Maybe you should advertise now in the schools for training opportunities? For things like carpentry.

Q – Pre-trades would be more useful to provide training on.

Q – There are a lot of guys already experienced from working at Hope Bay and Tahera. Those mines shut down though, and they are looking for work.

Q – Are you going to hire contractors at your mine?

Q – Are you going to have an employment officer in the community?

Q – Going through Yellowknife when travelling to/from the mine is a bad idea. Workers come home with no money.

Q – Having someone like an employment officer in the community is useful because they can help mine workers get to the airport for their flight. They can also make sure people get out of bed for their flight.

Q – With regards to the IIBA negotiations that will take place; can the HTO or community recommend things to be included in the IIBA to the KIA? The HTO could use funds for a number of programs.

Break

Jason Prno and Cam Stevens provided an overview of the Bernard Harbour restoration project and results of the traditional knowledge study.

Q – Fish fatten up in the ocean before migrating upstream to spawn. This may not happen every year though.

Q – Juvenile / small fish won't spawn. They need to be a larger size before spawning.

Q – I heard from the elders that fish spawn in the lake and always go back up to where they were born.

Q – Environmental changes have been occurring. The land and water is now lower. You can see water lines from previous years now.

Q – When it has been a rainy summer there is more chance of fish coming upstream.

Q – This also happens when there has been more snow during the year.

Q – Some hunters have reported that some lakes have dried up completely.

Q – I saw that at one lake I was at this spring.

Q – At a location near Pin 3 I saw that happen at a lake there, too.

Q – Part of the river at Bernard Harbour is bedrock. Some people have suggested cutting a channel through the bedrock to improve stream flows. This may be needed at Bernard Harbour.

[A discussion on 'little people' occurred. E.g. what they are, what they look like, experiences with them]

Q – I think the HTO should apply for funding so that we can travel to Bernard Harbour with some youth and restore the channels ourselves this summer. Sabina will not be doing any work at Bernard Harbour this summer, so we should consider this. This doesn't mean that Sabina can't do the work it is proposing, or that our partnership with them would be affected.

Q – We might not even need to do that. We might only need some money for gas so that some HTO board members can travel to Bernard Harbour and inspect the water levels there.

[A discussion on potential summer 2015 and future restoration activities at Bernard Harbour occurred]

Meeting finished at 9:30pm.

MEETING INFORMATION	
DATE	June 19, 2015 (9:15am – 10:45am)
TYPE OF MEETING	Hamlet of Kugluktuk
LOCATION	Hamlet of Kugluktuk Council Chambers Kugluktuk, Nunavut
ATTENDEES	Jason Prno (Sabina) Nicole Hoeller (Sabina) Ryan Nivingalok (Mayor) Peter Taktokon (Councillor) Lucy Taipana (Councillor) Don LeBlanc (SAO) Council Clerk
COMMENTS	Nicole Hoeller and Jason Prno provided a Project update presentation. Jason Prno took meeting notes.

MEETING NOTES:

Q – How can the Hamlet ensure they are involved in the IIBA negotiations? The Hamlet has not been involved in these negotiations in the past, but would like to be present during the upcoming negotiations.

Q – It is crucial that a person from the Hamlet be part of the negotiations for the IIBA. You need to work with the KIA to make sure this happens.

Q – I have a concern about tailings. Will the tailings be fenced? I've seen caribou go into tailings before.

Q – Will the tailings be dry or wet?

Q – Once your mine life is done, will the waste rock still be buried in the future?

Q – With regards to IIBA negotiations, each affected community should be part of the negotiations.

Q – It is good to see youth involved in the Project. Graduates and high schoolers don't have a lot of work opportunities in town. They don't want to go out of town for more education. The Back River Project will provide opportunities for youth to stay in the north.

Q – My question is in regards to training. The diamond mines have simulators. Are you going to be looking at using those?

Q – All the companies we meet with have the same vision; they want to employ local residents. But, how many truck drivers can we produce in Kugluktuk? We don't only need truck drivers in town after the mine is done. We need training for a broader set of skills. Training in the trades is needed.

Meeting finished at 10:45am.

Appendix V3-1D

Terms of Reference for the Back River Project's Community Advisory Groups

Sabina
GOLD & SILVER CORP.

Terms of Reference for the Back River Project's Community Advisory Groups

Introduction and Objectives

The Back River Gold Project (the 'Project') is located in the western Kitikmeot Region of Nunavut, Canada and is wholly owned by Sabina Gold and Silver Corp. ('Sabina'). The Project is made up of a series of seven claim blocks and exploration camps located near Goose Lake and George Lake. The resources for the Project are comprised of the Goose, Llama and Umwelt deposits all within a 5km corridor on the Goose claim block as well as the George deposits (a series of 5 deposits) 60km to the north on the George claim block. Sabina's primary camp (i.e. Goose Camp) is located approximately 160km south of Kingaok, or 400km south of Cambridge Bay.

Community Advisory Groups (CAGs) have been established in Cambridge Bay and Kugluktuk to advise Sabina on its Back River Gold Project. The CAGs will meet on a semi-regular basis with Sabina representatives to discuss Project plans, share information, identify potential community issues, and solicit suggestions. The overall objective of the CAGs is to ensure clear and open lines of communication are established between Sabina and the CAG representatives. The establishment of CAGs are part of Sabina's broader community engagement efforts being conducted for the Project.

Membership

Membership in the CAGs is intended to reflect a diverse cross-section of the community. Members of the CAGs will include local elders and youth, and representatives nominated by Hunters and Trappers Organizations and Hamlet Councils. Both male and female membership will be strongly encouraged. It is Sabina's intent to have all members of the CAGs nominated from within the community, rather than by the company.

CAG members are free to leave the group at any time, without repercussion. In the event that a replacement CAG member is needed, the existing CAG members will decide on the best process for nominating the new member.

Sabina will host and organize all CAG meetings; however, the CAGs will also be free to organize meetings on their own (i.e. without Sabina's presence) should the need arise. When Sabina is present, one or more of the following individuals will participate:

- Matthew Pickard (Director, Environment and Community Relations)
- John Kaiyogana (Community Liaison Officer)
- Jason Prno (Community Relations Advisor)
- Other Sabina representatives, as appropriate

Roles and Responsibilities

CAG meetings and discussions will be held in a spirit of openness, trust, honesty, and cordiality. Furthermore, CAG meetings and discussions will respect the culture and traditions of all participants. Translation of materials and interpretation of discussions will be provided by Sabina as necessary, and meetings will be scheduled around important community/individual events and responsibilities wherever possible.

The CAGs will serve primarily to advise Sabina on its activities and operations. The CAGs will meet on a semi-regular basis with Sabina representatives to discuss Project plans, share information, identify potential community issues, and solicit suggestions. The CAGs will not be decision-making bodies,

although information provided by the groups may influence decisions taken by Sabina or other organizations. The CAGs may also take on additional roles and responsibilities in the future, if appropriate.

Meetings will be structured in an informal manner although presentations, guest speakers, and site visits may be arranged as necessary. Most meetings will take place within the community. Unless directed otherwise, minutes will be taken by Sabina at all meetings; these minutes may form part of the public consultation record being developed for the Project. Sabina will provide all necessary funding, and technical and logistical support for CAG meetings and events.

CAG members should be aware their names and/or photographs may be used in Sabina reports, documents and presentations. Use of names and photographs by Sabina and membership in the CAGs in no way implies that CAG members support the Project or are advocating on its behalf.

Remuneration

Each CAG member will be remunerated at a rate of $35/hour ($280/day) for their time. Payment will be made by Sabina in a timely fashion and in a manner agreed to with CAG members.

Maligoagakhaen Utkohikhalikmi Havaam Nunaliknin Ihomakhakheoktin Katimakatigen

Hivonikhiyotikhan Piyotaoyolo

Utkohikhalikmi Havaak (Havaak) inikaktok oaliheani Kitikmeoni Nunavumi Kanatami nanminigiyaovlonilo Sabina-konin (Sabina-kon). Havaak saevanik nanminikagumayun nunanik nalvakheoktilo iglukpakahotik kanitoani Goose Lake, George Lake-lo. Ihoakotikhan Havaami itun Goose-mi, Llama-milo, Umwelt-milo oyagaktakvikhani tamakmiklo 5 kilamitamik ugahiknikaktun Goose-mi nanminigiyaoyomi George-milo oyagaktakvikhami (ataotimun taliman oyagakgaktakvikhan) 60 kilamitamik ugahiknikaktok tunungani George-mi oyagaktakvoeyomayomin. Sabina-kon iglukpakakviloagan (ila Goose-mi iglukpakakvik) inikaktok kanitoani 160-kilamitamik hivugaani Kigaom, 4-hanat kilamitamiklo hivugaani Ikaloktuteam.

Nunalikni Ihomakhakheoktin Katimakatigen (CAGs-goyun) hatkikhimaliktun Ikaloktuteami Kugluktumilo ihomakhakheogutikhaenik pivageagani Sabina-kon uvnuna Utkohikhalikmi Kulmik Oyagaktakvikhakun. GAG-goyun katimavakneakun malgoektoklotik kagugugaekpan Sabina-koniklo kivgaktoktin okaohigiyaagani Havaamik opalogaeyaon, hivonikhiyotikhaniklo okaohikaklotik avanmun, tikoakhilotiklo nunalikni ihomagiyaolaktonik, tukhiklotiklo atulaaktamiknik. Piyotaoloaktok CAGs-konik naonaetomik akmaomaenaktomiklo tohaomayotigegeamikni Sabina-kon CAG-milo kivgaktokteaoyun. Hatkiknigin CAG-kon ilagiyaen Sabina-kon nunalen ilaovaaligeagani piyaohimayok Havaami.

Ilaoyukhan

Ilaoyukhan CAG-mi ihoakhakhimayok takukhaoteageagani aalatken inoen nunaliknin. Ilaoyunn CAG-mi ilakakneakun nunalikni inikneoyonik inulgamikniklo, kivgaktoktilo tikoaktaohimayun Agonahoaktinin Nanigeaktoktinilo Timeoyonin Hamlitkonilo Katimayinin. Tamakmik agutin aknalo ilaoyukhan akhukhaktaoneaktun. Sabina-kon tamaeta ilaoyukhan CAG-mi tikoaktaotkoyaen nunaliknin, oyagakheoktineogitok.

CAG-koni ilaoyun taemalaktun ihomamiknik, hoakhiktaogilotiklo. Himaohigeakalikan CAG-mi ilaoyok, avalektun CAG-mi ilaoyun ihomaleokneakun nakunikhamik tikoakhiyotikhamik nutamik ilaoyukhamik.

Sabina-kon aolapkaeneakun ihoakhaklogilo tamaeta CAG-kon katimanigin; kiheani, CAG-kon ihomamiknik ihoakhaelaktun katimavikhamiknik (ila Sabina-kon talvanegitkalaoktilogin) piyageakakan. Sabina-kon talvanetpata, ataohik amigaetkiyalunen ukunanga inuknin ilaoyokakneakok:

- Matthew Pickard (Atangoyak, Avatilikiyini Nunalelo Havakatigeknigagun)
- John Kaiyogana (Nunalikni Kivgaktokteoyok Atangoyak)
- Jason Prno (Nunalen Havakatigiyagani Ihomakhakheokti)
- Ahelo Sabina-koni kivgaktokteoyun, ihoaknikan

Ilaonigin Havaagilo

CAG-kon katimanigin okaohigiyaelo akmaomateakneakun, ukpigohutilotik, okateakpaklotiklo, piteakpaklotiklo. Ilalo, CAG-kon katimanigin okaohigiyaelo ihomagiyotaoneakun ilitkohiknik pitkuheniklo tamaeta ilaoyun. Nuptiknigin makpigaan okatiliktoeyokageaganilo okaoheoyonik monagineakaen Sabina-kon piyageakakan, katimanigiyaelo ilaoneakun nunalen inoelo hulogaktilogin havaaginilo ayoknaetkagan.

CAG-kon ihomakhakheoktigiloakneakaen Sabina-kon havaagini aolaniginilo, CAG-kon katimavakneakun malgeoktoklotik kagugugaekpan Sabina-kolo kivgaktoktenin okaohigiyaagani Havaami opalogaeyaotin, okaohigiyaaganilo hivonikhiyotin, tikoaktoklogilo nunalikni ihomagiyaoyun, tohagumalotiklo atulaktonik.

CAG-kon ihomaleolimagitun, hivonikhiyotikhan okaohigiyaen katimakatigen aktoknikalakmata ihomaleogutaenik Sabina-konin ahenilo timoeyonin. CAG-kon ahenik havaakalaktun hivunikhami, ihoakan.

Katimanigiyaen ihoakhaktaoneakun maligoakakpalagilotik kiheani kivgaktoktin, okakhakaktulunen, havakvikmiklunen polageagani ihoakhaktaolaktun piyageakaligaagan. Amigaenikhan katimanigiyaen nunalikneneakun. Pikoyaokpata aheanik, katimayotin titigaknigin Sabina-konin monagiyaoneakun tamaeni katimanikni; ukoa katimayotin titigakhimayun kitulikaa okakatigiyaoyoni naonaepkotaoneakun tohaomayotigegutini ihoakhaktaohimaktilogo Havaami. Sabina-kon pineakun tamaenik manikhaakhanik, naonaeyaotiniklo ihoakhaeyotiniklo atoktakhaenik CAG-kon katimanigiyaeni hulilogagutaenilo.

CAG-koni ilaoyun kaoyimaneakun atigiyaen piksalo atoktaolaktun Sabina-kon unipkaagini, makpigaaginilo okaohigiyaenilo inuknun. Atoknigin atenik piksaniklo Sabina-konin ilaoyonilo CAG-koni kanoklikaa CAG-koni ilaoyun ikayoktokniginik Havaamik uvalunen inmigun piyotigiyamiknik ikayugeamikni.

Manikhaakhaen

Atuni CAG-koni ilaoyok manikhaktitaoneakun akitoniganik $35.00-mik ikakni ataohik ($280.00 uplok ataohik) havaktitaogumik. Akilikhineakun Sabina-kon pinagiknahaoklotik agikatigegutigiyaniklo CAG-koni ilaoyun atoklogin.

Signatures – Cambridge Bay Community Advisory Group

Name/Affiliation	Signature	Date
Mary Kilabuk – Kitikmeot Heritage Society		19/11/12
Anna Nahoryaloak KHS	Anna Nahoryaloak	19/11/12
Omingmaktok Hunters + Trappers	Martina Kopalak	19/11/12
ELALOTOAK OMAYLEGYET		
KEITH Lear St. HAMLET	Keith Lear St.	NOV 19/12.

Signatures - Kugluktuk Community Advisory Group

Name/Affiliation	Signature	Date
Alice Ayalik	ALICE.AYALIK	Nov. 21/12
Ryan Nivingalok		Nov 22/12
Tommy Pigalak		Nov 21/12

Signatures - Kugluktuk Community Advisory Group

Name/Affiliation	Signature	Date
Allen Kudlak Jr. - Youth Rep - Kugluktuk HS.	[signature]	May 31/13

Signatures – Cambridge Bay Community Advisory Group

Name/Affiliation	Signature	Date
Cassel Kapolak	Cassel Kapolak	Aug 26 '13

Signatures – Cambridge Bay Community Advisory Group

Name/Affiliation	Signature	Date
MARY AVALAK.	Mary Avalak	OCT 10/13

Signatures - Kugluktuk Community Advisory Group

Name/Affiliation	Signature	Date
* DAVID HIVINGTOK	David Hivingtok	April 12/14

Signatures – Cambridge Bay Community Advisory Group

Name/Affiliation	Signature	Date
Kassidy Kooha-Laube	K Kooha-Laube	05/11/15

Signatures – Cambridge Bay Community Advisory Group

Name/Affiliation	Signature	Date
Connie Kapolak		Sept. 4/15

Appendix V3-1E

Community Stakeholder Interviews for the Back River and Hackett River Projects: Participant Responses to Questions related to the Potential Development of the Projects

Sabina
GOLD & SILVER CORP.

Memorandum

DATE:	October 23, 2012
TO:	Matthew Pickard (Sabina)
FROM:	Heather Henley and Kent Gustavson
CC:	Elizabeth Sherlock (Sabina); Jason Prno (Sabina); John Kaiyogana (Sabina); Deborah Muggli (Rescan); Heather Henley (Rescan)
SUBJECT:	Community Stakeholder Interviews for the Back River and Hackett River Projects: Participant responses to questions related to the potential development of the projects

This memo provides an overview of interviewee responses obtained during recent fieldwork in the Kitikmeot Region of Nunavut. Specially, the memo summarizes responses to questions related to the possible development of the proposed Back River and Hackett River Projects. A total of 60 interviews were completed. The list of responses does not indicate the number of times each remark was recorded; rather, each list reflects the variety of issues raised. This memo first provides an overview of the most common responses and then lists the responses to each question by community.

Overall, employment and training were the most commonly cited perceived benefits of the proposed projects. Funding for community projects, programs and infrastructure were the most commonly cited additional benefits of mining. The most commonly cited concerns were the environment (wildlife, land, water) and the potential increase in substance abuse as a result of high incomes associated with mine employment. Suggested mitigation measures varied and are described below.

OVERVIEW OF RESPONSES

Benefits of the Projects

Employment was cited as the number one benefit by virtually all interviewees. A variety of indirect positive impacts thought to be linked to employment, were also discussed. For example, social workers noted that increased employment may result in a reduction in social issues in the community as a result of employment and increased incomes; high school principals remarked that employment may increase student attendance, as when parents are in a work routine their children are more likely to go to school; and business people felt mine employment would increase the skilled labour based within the community. However, most respondents also noted

that increased employment and, in turn, increased income would likely also lead to increased alcohol and drug abuse, which are linked to other community issues.

Training was also a commonly mentioned benefit. Comments related to training were often coupled with a caveat. For example, it was expressed that local employment should not be only for lower level positions (e.g., cook or general labourer), but that training should be provided so people will become skilled and have a trade. It was also noted that training should enable people to balance their family and work life prior to the employment commitment in order to promote retention.

Additional benefits

Most respondents thought of additional benefits in terms of funding for community projects, programs, and infrastructure or donations to the community. Others noted that business opportunities and financial management courses for mine employees would be beneficial to both the mine companies and communities.

Concerns

Although many respondents reported concern for the environment (land, wildlife, fish, water), a number felt these concerns would be addressed, prior to the development of the mines. Second to the environment, the most commonly reported concern was that increased incomes would lead to increased drug and alcohol use that inevitably leads to other social issues (e.g., domestic violence).

One concern that was frequently mentioned in the eastern Kitikmeot communities of Gjoa Haven, Kugaaruk, and Taloyoak was the notion that due to their geographic location and distance from the projects, benefits such as employment would not be realized. Other concerns noted include a decline in subsistence living as a result of mine employment, the loss of employees to mine work, an increase in the amount of drugs in the community, health risks associated with mine work, and the possibility of southern mine employees bringing drugs into the communities and to the mine camps.

Suggested Mitigation

The most commonly reported mitigation suggestions were: 1) a course that would teach mine employees how to budget and manage their money, and 2) a course or counselling to assist mine

employees in managing their family relationships while away for work. Participants in Gjoa Haven did not directly respond to this question because they felt certain that their community would not experience any benefits or issues related to the proposed mine projects, as a result of their geographic location.

One notable strategy to reduce negative impacts on family relationships was providing the means for mine employees to communicate with their families on a regular basis (possibly by videoconference). Attention to maintaining regular family communications may enable people to feel more secure in their relationship and reduce the rate of worker turnover and of other family issues (e.g., family violence and dysfunction when workers return home).

Other mitigation strategies included support and resources to help mine employees deal with addictions, provision of recreation activities at the mine (to minimize gravitation to drug use), and airport screening to reduce the amount of drugs coming into the communities.

LIST OF RESPONSES BY COMMUNITY

Gjoa Haven

Question 1: Overall, what do you think will be the potential benefits of these projects to your sector?

- Overall sentiment there will be few if any benefits to the community as a result of their geographic location. This includes local employment and business opportunities.
- Local employment and training.
- Donations.
- Economic spin-offs.
- Employment will reduce poverty and, therefore, increase health.
- Employment will lead to less substance abuse and family violence.
- Some relief from overcrowding in homes as those who become employed in the mine will be away working for two weeks at a time.
- Improved diet as a result of mine employment and increased incomes.

Question 2: Are there any additional benefits you would like to see the project provide?

- Funding for community groups, events, facilities, and programs.
- Training.
- Coordination with school, re: programming related to future employment.

Question 3: Overall, what concerns to do have regarding the projects and your sector?

- Employment and related income will increase social problems.
- Wildlife, lands, and water.
- Subsistence lifestyle may be jeopardized if lands, animals and waters are impacted. Concern for future generations.

Question 4: Do you have any suggestions as to how these concerns could be mitigated?

- People in Gjoa Haven were reluctant to answer this question as they thought the mines would not affect them due to their geographic location. Concerns stated are general or refer to other communities and places.

Kugaaruk

Question 1: Overall, what do you think will be the potential benefits of these projects to your sector?

- Local employment.
- Easier, less costly shipping.
- Opportunities/contracts for local businesses.
- More people will be able to pay their rent, and the housing authority will be able to complete more repairs.
- Community capacity will be increased as a result of training the mine companies will provide.

Question 2: Are there any additional benefits you would like to see the project provide?

- Funding for housing, scholarships, and community-based programs.
- Training.
- Donations for events.
- Help people prepare for involvement in trades work.
- Partnership with school to increase the number of high school graduates.

Question 3: Overall, what concerns to do have regarding the projects and your sector?

- Hiring requirements: many people do not have high school.
- Environment, wildlife, water, culture.
- Decline in subsistence living.

- Drug testing will be important.
- Keeping wealth in the local communities and in the North generally.
- Landfills and clean up when mine closes.
- Business will lose their best employee to the mines.
- People don't want to leave their families for work rotations.
- Increased use of drugs and alcohol as a result of increased incomes for mine employees.

Question 4: Do you have any suggestions as to how these concerns could be mitigated?

- Mines should provide courses for their employees on financial management.

Taloyoak

Question 1: Overall, what do you think will be the potential benefits of these projects to your sector?

- Employment (and personal pride).
- Economic growth.
- Reduction of social issues.
- Training.

Question 2: Are there any additional benefits you would like to see the project provide?

- Financial contribution for: recreation opportunities, day care facilities (provided by the mine, as this may be needed for local people to accept employment), community programs.
- Employee education programs (such as budgeting).
- Mine companies should partner with hamlet and GN for capital infrastructure projects that address community needs (e.g., upgrade community arena).
- Sustainable long-term employment.
- Training that leads to employment.
- General funding for communities/community events.
- More opportunities for local businesses.

Question 3: Overall, what concerns to do have regarding the projects and your sector?

- Increased drug and alcohol addictions.
- Impacts on wildlife and the environment.
- Clean-up during operation and decommissioning.

- Possible availability of harder drugs in the community due to increased incomes.
- Environmental impacts and health, specifically cancer.
- Would like to see more local people employed (as opposed to southerners).
- Mine company should commit to hire a certain percentage from each community, rather than just those people in Cambridge Bay and Kugluktuk.
- Adverse health impacts related to mining generally.

Question 4: Do you have any suggestions as to how these concerns could be mitigated?

- Support for workers dealing with addictions.
- Budgeting/financial management course for mine employees.
- Communication between the mine company and the housing authority in order to, for example, start an automatic payroll reduction system for rent. This is helpful to housing because once someone's status changes from unemployed to employed their rent will increase and this effects the amount of funding the housing authority receives from the GN.
- Strict mine company policies and enforcement of policies as related to substance abuse and addictions. Mine companies should establish a standard and be consistent.
- Employee Assistance Program (EAP) – including qualified counsellors available both in-person and by phone. This would deal with issues related to increase income such as budgeting and addictions.
- Commit to hiring local people.

Cambridge Bay

Question 1: Overall, what do you think will be the potential benefits of these projects to your sector?

- Local/Inuit employment and training.
- Rotation work is good for Inuit people because it's employment still allows them to go out on the land when off work.
- Funding for school programming and a partnership between the community schools and the mine company with the goal of engaging students in mining-related programming for future employment.
- Being in the camps will allow people to dry out (not use drugs and alcohol). It would be helpful if there was access to counselling the camps while this is taking place.
- There will be more money in the community.

- Capacity building for the community – the mines will train people and communities will reap the benefits once the employment ends.
- Mine companies will pay royalties to the federal government and the GN which will have a positive financial impact.

Question 2: Are there any additional benefits you would like to see the project provide?

- Tours of mines in the area to introduce mining careers and employment to local people and students.
- Donations for hockey, to expand the community hall, and generally to the community. Sponsorship for scholarships for post-secondary. Donations for a new hamlet building, recreation complex (including new pool, arena, and curling rink). Hamlet is currently fundraising for this.
- Counsellors in mine camps.
- Partnership with the health centre to help deliver health programs.
- Money for children to play hockey (via direct funding of the recreation program).
- Fund a summer camp for children.
- Opportunities for local businesses.
- Mine companies could develop housing.
- Stable income for people.
- A coordinated effort for the mine companies to support training programs that leads to employment through the Arctic College (mine companies are welcome into classroom to share information and help engage students).
- Mines should partner with community organizations to reduce shipping costs (for less expensive shipping of building materials and other supplies).
- Scholarship programs.

Question 3: Overall, what concerns to do have regarding the projects and your sector?

- Drugs in work camps.
- Increase in income may lead to increase in alcohol and drug use/abuse, which leads to increases in other social problems in the community.
- People will leave their jobs with the hamlet to go work in the mines.
- People from the South bring drugs and alcohol to the community. People will sell drugs in the mine camps.
- When mines close get an increase in the number of applications for public housing, and this is difficult to deal with.

- More southern companies may begin to bid on contracts while maintaining operations in the South (southern operations have lower overhead costs and it's difficult to compete with them if your business is based in the North).

Question 4: Do you have any suggestions as to how these concerns could be mitigated?

- Recreation activities in the camp, social programs, counselling and other activities on site.
- Budgeting/financial management course for mine employees and increased wellness services.
- Airport screening for people coming from the South (for drugs and alcohol) – both coming to the community and the mine site.
- The workplace should be drug and alcohol free and should be family and health oriented.
- Support programs including drugs and alcohol treatment, EAP with counselling.

Kugluktuk

Question 1: Overall, what do you think will be the potential benefits of these projects to your sector?

- Local, sustainable employment and training.
- Increased incomes.
- Other mine companies have provided donation so we could have a youth centre with computers.
- Other mine companies are helping us to offer a pre-employment class that focuses on budgeting and family issues, as well as positive choices and decision making. This course teaches people how to go to work every day.
- More money in the community.
- Business opportunities.
- Funding for community facilities and programs, which will lead to decreased crime.

Question 2: Are there any additional benefits you would like to see the project provide?

- If the company is doing well maybe they could pave the roads in the community and provide street lights.
- Mines should makes trades people/ mine employees available to teach in the high school on a guest basis (e.g., for one week).
- Partnerships/ funding.

- Housing and additional social workers.
- Funding for youth programs.
- Training, either on the job or in schools. In the past, they took people away for work and those people had never been to a mine before – how were they supposed to know what to do/ what it was like? Difficulties adjusting lead to termination of employment.
- Long term employment.
- More information in schools – not brochures. Mine companies should provide video's so we can see what it's really like in a mine or at a mine camp. They should tell us about all the different jobs and let people know what careers will be available so they can become trained before the mine is open.
- More education and training – mine companies should focus on leaving a positive legacy here. They should train people and not just give money.
- Training for skilled positions/ help by providing apprenticeship opportunities.
- BHP Billiton did job camps in the communities: two week, hands on experience for locals interested in mine employment. Camps were very successful. Presentations and documents are not effective.

Question 3: Overall, what concerns to do have regarding the projects and your sector?

- Pollution.
- If the mine companies don't invest in people, if they just come in and scoop up employees without proper training and preparation, those people won't last in their jobs and the quick money will be spent on drugs and alcohol, which leads to domestic violence. This outcome is not an opportunity; it's an overall detriment to the people in this community. Don't set people up for failure.
- Increased drug and alcohol addictions, which creates problems within families.
- Shift work can causes issues within families.
- Lack of budgeting skills.
- Increased drinking and gambling, which will increase the number of absentee parents, having a negative effect on school attendance and leading to a continuation of the cycle of dependence.
- Mine needs to be developed in a way that doesn't affect our people, animals, and land.
- Fair treatment, transparency, and make sure people understand the project and that their concerns are addressed.
- Water, wildlife, subsistence lifestyles.

- Uncertainty of mine project development hinders economic development.
- No guarantee and short life span of mines.
- Boom-bust cycle of mining doesn't support long-term steady economic development.
- Avoid the Baker Lake experience (re: substantial increase in crime).

Question 4: Do you have any suggestions as to how these concerns could be mitigated?

- Alcohol and drug use should not be allowed in mine camps
- Counselling and more education linked to budgeting and the wage economy generally. Support in the community and at the camp – support should be available to the spouses of mine employees as well.
- Relationship counselling so people understands that if their spouse goes away for work for two weeks it doesn't have to mean a breakdown of the family.
- Parenting and budgeting courses.
- Focus in the community on the development of a culture of employment.

Appendix V3-1F

Record of Donations

Sabina
GOLD & SILVER CORP.

Appendix V3-1F. Record of Donations

Date	Organization	Community	Donation Amount/Value	Notes
December 2011	Illaliuvik Daycare Society	Kugaaruk	$1,500.00	Daycare support
January 2012	Kitikmeot Cup Planning Committee	Kugluktuk	In-kind	Sabina provided various prizes (e.g. Sabina promotional items) for the Kitikmeot Cup Hockey Tournament.
February 2012	Nattiq Frolics / Hamlet of Kugluktuk Recreation Department	Kugluktuk	In-kind	Sabina provided various prizes (e.g. Sabina promotional items) for the 2012 Nattiq Frolics.
June 2012	Omingmak Frolics	Cambridge Bay	$1,300.00 and in-kind	Sabina sponsored two barbeques for the Omingmak Frolics by providing food and personnel (i.e. John Kaiyogana).
August 2012	Inuit Summer Games	Kugluktuk	$650.00 and in-kind	Sabina sponsored a barbeque for the Inuit Summer Games by providing food and personnel (i.e. John Kaiyogana).
September 2012	David and Genieve Nivingalok	Kugluktuk	$250.00	The house of community advisory group member David Nivingalok was destroyed by fire. A donation was made through the Kugluktuk Co-op.
August 2012	Women Building Futures	Cambridge Bay	$5,800.00	Financial and in-kind (i.e. Sabina sponsored a dinner for the participants, trainers and organizers of the workshop) support for the Women Building Futures workshop.
November 2012	Cambridge Bay Food Bank	Cambridge Bay	$500.00	Food bank support
November 2012	Kugluktuk Food Bank	Kugluktuk	$500.00	Food bank support
November 2012	Gjoa Haven Food Bank	Gjoa Haven	$500.00	Food bank support
November 2012	Kugaaruk Food Bank	Kugaaruk	$500.00	Food bank support
November 2012	Taloyoak Food Bank	Taloyoak	$500.00	Food bank support
November 2012	Cambridge Bay Daycare Center	Cambridge Bay	$500.00	Daycare support
November 2012	Kakayak Daycare Society	Kugluktuk	$500.00	Daycare support
November 2012	Nutarqanut Pairivik Society	Gjoa Haven	$500.00	Daycare support
November 2012	Illaliuvik Daycare Society	Kugaaruk	$500.00	Daycare support
December 2012	Kugluktuk Christmas Committee	Kugluktuk	$500.00	Sabina helped sponsor Kugluktuk's 2012 Christmas celebrations.
February 2013	Kugluktuk Hockey Association	Kugluktuk	$500.00	Sabina provided jersey sponsorship for the Kugluktuk Recreation Complex Friday night hockey league.

Appendix V3-1F. Record of Donations

Date	Organization	Community	Donation Amount/Value	Notes
March 2013	Nattiq Frolics / Hamlet of Kugluktuk Recreation Department	Kugluktuk	$500.00	Sabina helped sponsor Kugluktuk's 2013 Nattiq Frolics.
March 2013	Kitikmeot Cup 2013	Taloyoak	$500.00	Sabina provided financial support for the 2013 Kitikmeot Cup in Taloyoak.
2013	Nunavut Sivuniksavut	Ottawa	$2,000.00	Sabina provided financial support for Nunavut Sivuniksavut student travel initiatives in 2013.
April 2013	Nattiq Frolics	Kugluktuk	$650.00 and in-kind	Sabina sponsored a barbeque for the Nattiq Frolics by providing food and personnel (i.e. John Kaiyogana).
May 2013	Hamlet of Taloyoak Fishing Derby	Taloyoak	$500.00	Sabina helped sponsor Taloyoak's 2013 fishing derby.
May 2013	Gjoa Haven Dog Sled Race Committee	Gjoa Haven	$350.00	Sabina donated 45 gallons of gasoline and two $50.00 Co-op gift certificates as prizes for the 2013 Gjoa Haven dog sled race.
May 2013	Hamlet of Kugaaruk Fishing Derby	Kugaaruk	$300.00	Sabina donated 45 gallons of gasoline and one $50.00 Co-op gift certificate as prizes for the 2013 Kugaaruk Fishing Derby.
May 2013	Omingmak Frolics	Cambridge Bay	$650.00 and in-kind	Sabina sponsored a barbeque for the Cambridge Bay Frolics by providing food and personnel (i.e. John Kaiyogana).
Summer 2013	Actua	Cambridge Bay Kugluktuk Gjoa Haven Taloyoak Kugaaruk	$55,000.00	Sabina (in addition to MMG Limited and Xstrata Zinc) helped fund a series of week-long science, technology, engineering and mathematics camps for youth in each Kitikmeot community during the summer of 2013. The camps were delivered by Actua, a registered Canadian charity.
Summer 2013	Kugluktuk Daycare	Kugluktuk	$1,200.00	Sabina donated a fridge and dishwasher to the Kugluktuk daycare
July 2013	Kugluktuk Fishing Derby	Kugluktuk	$250.00	Sabina donated 45 gallons of gasoline as a prize for the 2013 Kugluktuk Fishing Derby.
July 2013	Hamlet of Kugluktuk Canoe Clinic	Kugluktuk	$500.00	Sabina provided financial support for a canoe clinic offered in the Hamlet of Kugluktuk.
July 2013	Hamlet of Kugluktuk Soccer Clinic	Kugluktuk	$500.00	Sabina provided financial support for a soccer clinic offered in the Hamlet of Kugluktuk.

Appendix V3-1F. Record of Donations

Date	Organization	Community	Donation Amount/Value	Notes
October 2013	Cambridge Bay Childcare Society	Cambridge Bay	$500.00	Sabina provided $250.00 and 45 gallons of gasoline towards the Cambridge Bay Childcare Society's dinner and auction fundraiser.
November 2013	Hamlet of Kugluktuk Christmas Games	Kugluktuk	$500.00	Sabina helped sponsor Kugluktuk's 2013 Christmas celebrations.
November 2013	Kugluktuk Daycare	Kugluktuk	$150.00	Sabina visited the daycare and provided a gift of various daycare supplies and materials.
November 2013	Cambridge Bay Daycare	Cambridge Bay	$150.00	Sabina visited the daycare and provided a gift of various daycare supplies and materials.
November 2013	Gjoa Haven Daycare	Gjoa Haven	$150.00	Sabina visited the daycare and provided a gift of various daycare supplies and materials.
November 2013	Kugaaruk Daycare	Kugaaruk	$150.00	Sabina visited the daycare and provided a gift of various daycare supplies and materials.
December 2013	Bathurst Inlet and Bay Chimo Christmas festivities	Bathurst Inlet and Bay Chimo	$350.00	Sabina provided a $100.00 gift certificate and 45 gallons of gasoline for Bathurst Inlet and Bay Chimo's Christmas festivities.
January 2014	Nutarqanut Pairivik Society Day Care	Gjoa Haven	$350.00	Sabina donated 45 gallons of gasoline and two $50.00 gift certificates to the local Co-op for the daycare's fundraising event.
April 2014	Nattiq Frolics	Kugluktuk	$975.00 and in-kind	Sabina sponsored a barbeque for the Nattiq Frolics by providing food and personnel (i.e. John Kaiyogana). Sabina also donated a BBQ, propane tank, and BBQ utensils to the Hamlet of Kugluktuk.
April 2014	Hamlet of Kugluktuk Community Readiness Initiative	Kugluktuk	$1,500.00	Sabina provided a financial donation to cover the costs of a community feast where Kugluktuk's new Community Readiness Initiative was introduced and feedback was solicited. Sabina representatives also attended the feast.
April 2014	Taloyoak Fishing Weir Restoration Project / Youth Camp	Taloyoak	$1,000.00	Sabina provided a financial donation to help cover the costs of a local fishing weir restoration project / youth camp in Taloyoak.

Appendix V3-1F. Record of Donations

Date	Organization	Community	Donation Amount/Value	Notes
May 2014	Omingmak Frolics	Cambridge Bay	$650.00 and in-kind	Sabina sponsored a barbeque for the Cambridge Bay Frolics by providing food and personnel (i.e. John Kaiyogana).
May 2014	Hamlet of Cambridge Bay	Cambridge Bay	$1,000.00	Sabina provided funds to support a September 2014 visit by reality TV star Ariel Tweto on her 'Popping Bubbles' tour, to discuss suicide prevention, healthy living, and other topics with local residents.
May 2014	Society for Building a Healthier Kugluktuk	Kugluktuk	$1,000.00	Sabina provided funds to support a September 2014 visit by reality TV star Ariel Tweto on her 'Popping Bubbles' tour, to discuss suicide prevention, healthy living, and other topics with local residents.
May 2014	Hamlet of Taloyoak	Taloyoak	$1,000.00	Sabina provided funds to support a September 2014 visit by reality TV star Ariel Tweto on her 'Popping Bubbles' tour, to discuss suicide prevention, healthy living, and other topics with local residents.
May 2014	Hamlet of Kugaaruk	Kugaaruk	$1,000.00	Sabina provided funds to support a September 2014 visit by reality TV star Ariel Tweto on her 'Popping Bubbles' tour, to discuss suicide prevention, healthy living, and other topics with local residents.
May 2014	Gjoa Haven Search and Rescue	Gjoa Haven	$300.00	Sabina provided a donation of gasoline to help in the search of a lost hunter in Gjoa Haven.
June 2014	Ariel Tweto's Popping Bubbles Tour	Gjoa Haven	$1,000.00	Sabina provided funds to support a September 2014 visit by reality TV star Ariel Tweto on her 'Popping Bubbles' tour, to discuss suicide prevention, healthy living, and other topics with local residents.
June 2014	Cambridge Bay Aboriginal Day Celebrations	Cambridge Bay	$650.00	Sabina provided a number of prizes (e.g. fishing lures, fishing line, fishing rods, stove) for the Cambridge Bay Aboriginal Day celebrations.
July 2014	Ikaluktutiak Square Dance Group	Cambridge Bay	$575.00	Sabina provided a donation of prizes (i.e. 45 gallons of gasoline, 1 Coleman stove, 1 fishing rod) for the Ikaluktutiak Square Dance Group's first annual fishing derby.

Appendix V3-1F. Record of Donations

Date	Organization	Community	Donation Amount/Value	Notes
August 2014	Municipality of Cambridge Bay – 2014 Kitikmeot Summer Games	Cambridge Bay	$1,650.00 and in-kind	Sabina sponsored a barbeque for the Kitikmeot Summer Games in Cambridge Bay by providing food and personnel (i.e. John Kaiyogana). Sabina also donated $1,000.00 to support the event.
Summer 2014	Actua	Cambridge Bay Kugluktuk Gjoa Haven Taloyoak Kugaaruk	$10,000.00	Sabina (in addition to MMG Limited and Glencore plc) helped fund a series of week-long science, technology, engineering and mathematics camps for youth in each Kitikmeot community during the summer of 2014. The camps were delivered by Actua, a registered Canadian charity.
July 2014	Ariel Tweto's Popping Bubbles Tour	Cambridge Bay Kugluktuk Gjoa Haven Taloyoak Kugaaruk	$5,000.00	Sabina provided a financial donation to Ariel Tweto's Popping Bubbles tour so that Popping Bubbles t-shirts and autographed photos of Ariel Tweto could be provided to youth in the Kitikmeot Region.
August 2014	Hamlet of Kugluktuk	Kugluktuk	$500.00	Sabina provided a financial donation to support the participation of some Kugluktuk residents in the Nunavut Stars Hockey Camp in Iqaluit.
August 2014	Hamlet of Kugluktuk	Kugluktuk	$500.00	Sabina provided a financial donation to the Hamlet of Kugluktuk's Recreation Department to support a local canoe and kayak clinic that was being offered.
August 2014	Deninu Kue First Nation	Fort Resolution	$500.00	Sabina provided a financial donation to help cover the costs of a funeral of a young woman and the rebuilding of a home that was destroyed by fire.
September 2014	Hamlet of Kugluktuk	Kugluktuk	$1,175.00 and in-kind	Sabina sponsored two barbeques for the grand openings of the Kugluktuk Visitor Heritage Centre and the new Youth Centre by providing food and personnel (i.e. John Kaiyogana).
October 2014	Hamlet of Taloyoak	Taloyoak	$750.00	Sabina provided funds to support the purchase of hockey equipment for Taloyoak youth.

Appendix V3-1F. Record of Donations

Date	Organization	Community	Donation Amount/Value	Notes
October 2014	Cambridge Bay Childcare Society	Cambridge Bay	$1,500.00	Sabina donated a sleeping bag, 45 gallons of gasoline, a camp stove, and GPS unit for the Cambridge Bay Childcare Society's annual daycare auction gala.
October 2014	Hamlet of Kugluktuk	Kugluktuk	$500.00	Sabina provided a financial donation to support the Hamlet of Kugluktuk's Christmas festivities.
October 2014	Kuggak Radio Station	Kugluktuk	$650.00	Sabina provided various corporate promotional items to the Kugluktuk radio station.
November 2014	Western Arctic Drum Dance Group	Cambridge Bay	$500.00	Sabina provided a financial donation to the Western Arctic Drum Dance Group for performing during the NIRB Technical Meeting and Pre-Hearing Conference.
November 2014	Cambridge Bay Square Dance Group	Cambridge Bay	$500.00	Sabina provided a financial donation to the Cambridge Bay Square Dance Group.
November 2014	Cambridge Bay Wellness Centre	Cambridge Bay	$500.00 and in-kind	Sabina provided a financial donation and food to the Cambridge Bay Wellness Centre in appreciation for their lending of kitchen smallwares to Sabina during the NIRB Technical Meeting and Pre-Hearing Conference.
December 2014	Cambridge Bay Wellness Centre	Cambridge Bay	$500.00	Sabina provided a financial donation to the Cambridge Bay food bank.
December 2014	Hamlet of Kugluktuk	Kugluktuk	$250.00	Sabina provided a financial donation to the Kugluktuk food bank.
December 2014	Kakayak Daycare Society	Kugluktuk	$250.00	Sabina provided a financial donation to the daycare in Kugluktuk.
December 2014	Gjoa Haven Wellness Centre	Gjoa Haven	$250.00	Sabina provided a financial donation to the Gjoa Haven food bank.
December 2014	Taloyoak Daycare Society	Taloyoak	$250.00	Sabina provided a financial donation to the daycare in Taloyoak.
December 2014	Illaliuvik Daycare Society	Kugaaruk	$250.00	Sabina provided a financial donation to the daycare in Kugaaruk.
December 2014	Bathurst Inlet and Bay Chimo Christmas festivities	Bathurst Inlet and Bay Chimo	$2000.00	Sabina provided a financial donation to support Bathurst Inlet and Bay Chimo's Christmas festivities.

Appendix V3-1F. Record of Donations

Date	Organization	Community	Donation Amount/Value	Notes
February 2015	Kitikmeot Regional Science Fair 2015	Cambridge Bay	$300.00	Sabina donated a prize (i.e. iPad mini) for the 2015 Kitikmeot Regional Science Fair.
March 2015	Hamlet of Kugluktuk	Kugluktuk	$500.00	Sabina provided a financial sponsorship of the 2015 Nattiq Frolics in Kugluktuk.
May 2015	Hamlet of Cambridge Bay	Cambridge Bay	$600.00 and in-kind	Sabina helped sponsor a barbeque for the Cambridge Bay Frolics by providing food and personnel (i.e. John Kaiyogana).
June 2015	Cambridge Bay Wellness Centre Kitikmeot Heritage Society Cambridge Bay Youth Centre	Cambridge Bay	In-kind	Sabina and ExploreIT Network Solutions donated three refurbished laptops with software included to local community organizations.
June 2015	Kugluktuk Day Care Kugluktuk Search and Rescue	Kugluktuk	In-kind	Sabina and ExploreIT Network Solutions donated two refurbished laptops with software included to local community organizations.
June 2015	Gjoa Haven Day Care Gjoa Haven Search and Rescue	Gjoa Haven	In-kind	Sabina and ExploreIT Network Solutions donated two refurbished laptops with software included to local community organizations.
June 2015	Taloyoak Day Care Taloyoak Search and Rescue	Taloyoak	In-kind	Sabina and ExploreIT Network Solutions donated two refurbished laptops with software included to local community organizations.
June 2015	Kugaaruk Day Care Kugaaruk Search and Rescue	Kugaaruk	In-kind	Sabina and ExploreIT Network Solutions donated two refurbished laptops with software included to local community organizations.
June 2015	Kitikmeot Inuit Association	Kitikmeot Region	$5,000.00	Sabina provided financial support for a KIA-organized Emergency Medical Responder training program in Cambridge Bay for Kitikmeot Region residents in April/May 2015.
July 2015	Hamlet of Taloyoak	Taloyoak	$1,500.00	Sabina provided funds to support the hosting of the Kitikmeot Summer Games and territorial tryouts in Taloyoak in August 2015.

Appendix V3-1F. Record of Donations

Date	Organization	Community	Donation Amount/Value	Notes
July 2015	Amauligak Dancers	Gjoa Haven	$1,000.00	Sabina provided funds to support the hosting of the 2015-2016 Square Dance Showdown in Gjoa Haven in November 2015.
July 2015	Kitikmeot Heritage Society	Cambridge Bay	$1,000.00	Sabina provided a donation to support the program titled 'Kuukyuak (Perry River): A Place We Call Home'. This program brought Cambridge Bay residents who are from Kuukyuak onto the land to learn about and document the community of Perry River in August 2015.

Appendix V3-1G

Summary of Topics Raised during Public Consultation and Engagement

Sabina
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Nodes

Name	Sources	References
Community engagement and benefits	0	0
Community advisory groups	13	20
Community benefits	17	45
Community donations	11	16
Community engagement comments and suggestions	42	106
IIBA	9	14
Other	5	5
Royalties and taxes	7	9
Sabina offices in the north	7	9
Employment, contracts, and training	0	0
Contracting and procurement	17	24
Employment	0	0
Age restrictions	2	2
Assistance with finding employment in communities	8	9
Criminal records checks	13	21
Direct flights from communities	6	7
Discrimination and nepotism	7	8
Dismissal of employees	1	1
Drug testing	5	6
Drugs and alcohol	9	13
Employee assistance program and employee support & orientation programs	8	8
Employee benefits and pay	6	10
Employment effects on individual, community and family life	16	22
Employment obstacles (e.g. education and skill restrictions)	12	14
Female employees	4	4
Flights through Yellowknife and other locations	17	24
Hiring preference and number of Inuit to be employed	30	55
Inuit as managers	2	2

Nodes

Name	Sources	References
Medical checks	1	1
Need and desire for employment & questions about employment opportunities	46	99
Not keeping employment promises	5	7
Number of employees from region and individual communities	13	23
Other employment questions and comments	27	37
Relocation of families to meet charters	1	2
Rotational work	6	8
Unilingual workers	2	4
Workplace challenges	5	7
Youth	21	37
Training	0	0
Need and desire for training & questions about training opportunities	28	38
Other training questions and comments	17	23
Types of training needed	17	27
Youth	19	30
Environment and wildlife	0	0
Acid rock drainage	3	4
Air quality and dust	15	24
Aircraft	10	13
Berms	4	5
Bernard Harbour restoration project	4	35
BIPR	3	5
Blasting and explosives	12	14
Blocking watercourses	2	2
Bridges	1	1
Camps	1	3
Climate change	8	15
Company's need to maintain a healthy environment	6	7

Nodes

Name	Sources	References
Cumulative effects of mineral development	9	14
Dewatering of lakes	16	21
Drilling	11	12
Environmental monitoring	20	35
Exploration	3	3
Fencing	6	8
Fuel	4	6
Mine contaminants and waste	39	77
MLA	7	8
Noise and vibration	8	9
Other questions and comments	21	41
Permafrost	5	9
Permitting, regulations, and oversight (including EA)	33	151
Plants and vegetation	7	11
Protection of land	3	3
Reclamation and closure	22	36
Roads and vehicles (including winter roads)	17	31
Sediment quality	1	1
Shipping	15	33
Snow machines	1	1
Spills and accidents	15	30
Tailings	34	78
Transboundary effects	6	13
Waste rock	6	6
Water quality, quantity, and management	34	62
Wildlife	0	0
Birds	0	0
Birds (general comments)	11	16
Ducks	2	2

Nodes

Name	Sources	References
Hawks	1	1
Owls	1	1
Peregrine falcon	1	1
Effects on wildlife (general comments)	30	88
Fish	27	57
Insects	1	1
Invasive species	1	1
Marine wildlife	0	0
Beluga	1	1
Effects on marine wildlife (general comments)	6	6
Narwhal	1	1
Polar bear	3	4
Seals	2	2
Terrestrial wildlife	0	0
Bears	5	5
Caribou	44	131
Effects on terrestrial wildlife (general comments)	2	2
Foxes	1	1
Lemmings	1	1
Muskox	4	6
Rodents	1	1
Squirrels	2	2
Wolverines	2	3
Wolves	7	10
Other	0	0
CHARS	2	2
Not keeping promises	3	3

Nodes

Name	Sources	References
Novelty of mining in Nunavut	1	1
Other comments, issues, and concerns	15	22
Other mines and companies	47	110
Previous mine closures	19	29
Supportive & appreciative remarks	16	33
Unsupportive remarks	5	8
Use of non-metric measurements	2	2
Use of traditional place names	4	6
Project lifecycle, operations, and infrastructure	0	0
Aircraft and air access	9	11
Alternative power sources	6	6
Backfilling of pits	2	2
BIPR	9	11
Bridges and culverts	2	2
Camps and infrastructure	19	24
Challenges with working in the north	1	1
Company finances and viability of Project	14	28
Company information	3	4
Construction	5	5
Destination for mined gold	1	1
Dewatering of pits	1	1
Fuel	5	5
Gold exploration, geology, and estimates	14	24
Health and safety (including training)	8	16
Infrastructure sharing	2	2
Liability	1	1
Location	16	19
Other mining operations-related questions and comments	9	10
Other questions and comments	11	15

Nodes

Name	Sources	References
Power sources	1	1
Premature closure, shutdown, or early departure of Sabina	14	24
Processing	6	6
Project timing and lifespan	28	41
Quarries	1	1
Roads and vehicles (including winter roads)	25	39
Shipping	0	0
MLA	14	22
Number of ships to be used	4	5
Other	12	13
Routing	7	7
Timing	11	14
Types of ships to be used	8	10
Small-scale project	1	1
Transportation and destination for ore	2	2
Socio-economics (not including employment, contracts, and training)	0	0
Archaeological and heritage sites	8	15
Carving stone	1	1
Drugs flowing from mine into communities	1	1
Drugs, alcohol, gambling	3	3
Existing socio-economic conditions	15	20
Harvesting, land use, and country food	18	33
Health	6	8
Historical changes in Inuit society	7	7
Importance of land	4	5
Other socio-economic comments, issues, and concerns	13	25
Project effects in NWT	4	8
TK studies	7	12

Nodes

Name	Sources	References
Traditional use of Project area and vicinity	13	35
Youth and future generations	12	15

Appendix V3-2A

Record of Meetings with Government Officials

Sabina
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Appendix V3-2A. Record of Meetings with Government Officials

Date	Organization	Location	Purpose
2012			
June	Fisheries and Oceans Canada – Central and Arctic Region	Yellowknife	Introduction to the Back River Project
July	Northern Projects Management Office - Yellowknife	Yellowknife	Introduction to the Back River Project
	Fisheries and Oceans Canada – Central and Arctic Region	Sudbury	Introduction to the Back River Project and overview of fisheries issues
	Natural Resources Canada	Ottawa	Introduction to the Back River Project
	Fisheries and Oceans Canada – Headquarters	Ottawa	Introduction to the Back River Project
	Aboriginal Affairs and Northern Development Canada - Headquarters	Ottawa	Introduction to the Back River Project
	Environment Canada - Headquarters	Ottawa	Introduction to the Back River Project and discussion of MMER requirements
September	Fisheries and Oceans Canada; Aboriginal Affairs and Northern Development Canada; Transport Canada; Environment Canada; Government of Nunavut; Northern Projects Management Office	Site visit - Back River Project	Familiarization with the Project area and development plans
	Environment Canada – Prairie and Northern Region	Yellowknife	Introduction to the Back River Project; follow-up to site visit
	Northern Projects Management Office	Yellowknife	Project update; follow-up to site visit; discussion of next steps
	Canadian Northern Economic Development Agency	Ottawa	Overview of Sabina's plans for the Back River Project; discussion of opportunities for co-operation across the Kitikmeot Region
	Aboriginal Affairs and Northern Development Canada - Headquarters	Ottawa	Introduction to the Back River Project
	Aboriginal Affairs and Northern Development Canada - Minister's Office	Ottawa	Introduction to the Back River Project
	Senator David Patterson	Ottawa	Introduction to the Back River Project
	Government of Nunavut	Iqaluit	Introduction to the Back River Project
	Aboriginal Affairs and Northern Development Canada – Nunavut Region	Iqaluit	Introduction to the Back River Project
	Aboriginal Affairs and Northern Development Canada – Nunavut Region (technical staff)	Iqaluit	Introduction to the Back River Project; discussion of next steps
	Nunavut Legislature	Iqaluit	Introduction to the Back River Project
	Approximately 25 representatives from various territorial and federal government departments	Iqaluit	General information session
	Northern Projects Management Office	Iqaluit	Discussion of next steps

Appendix V3-2A. Record of Meetings with Government Officials

Date	Organization	Location	Purpose
2012 (*cont'd*)			
October	Broad cross-section of federal departments organized by the Northern Projects Management Office	Ottawa	General briefing on Kitikmeot Region projects with a presentation on the Back River Project
	Transport Canada – Prairie and Northern Region	Winnipeg	Introduction to the Back River Project
November	Northern Projects Management Office	Yellowknife	Discussion of CanNor's Community Readiness Initiative
December	Aboriginal Affairs and Northern Development Canada – Nunavut Region	Vancouver	Discussion of lands-related issues
2013			
January	Northern Projects Management Office	Yellowknife	Discussion of the Back River Project and its relationship to the Bathurst Inlet Port and Road Project
	Fisheries and Oceans Canada – Central and Arctic Region	Winnipeg	Introduction to the Back River Project
	Fisheries and Oceans Canada – Central and Arctic Region	Teleconference	Project update
	Transport Canada – Prairie and Northern Region	Teleconference	Project update
	Natural Resources Canada	Teleconference	Project update
	Environment Canada - Headquarters	Teleconference	Project update; MMER review
	Aboriginal Affairs and Northern Development Canada – Nunavut Region	Teleconference	Project update
	Transport Canada – Prairie and Northern Region	Teleconference	Project update; discussion on guidelines for overwintering
	Environment Canada – Prairie and Northern Region	Teleconference	Project update
	Government of Nunavut	Teleconference	Project update
	Northern Projects Management Office	Vancouver	Project update and discussion of next steps
	Aboriginal Affairs and Northern Development Canada – Nunavut Region	Vancouver	Project update and discussion of next steps
	Nunavut Impact Review Board and Nunavut Water Board	Vancouver	Project update and discussion of next steps
	Aboriginal Affairs and Northern Development Canada - Headquarters	Vancouver	Project update
	Senator David Patterson	Vancouver	Project update
	Environment Canada – Prairie and Northern Region	Vancouver	Introduction to the Back River Project
	Government of Nunavut	Vancouver	Project update
February	Northern Projects Management Office	Yellowknife	Discussion of scoping and guidelines related to shipping
	Environment Canada – Prairie and Northern Region	Yellowknife	Discussion of expectations for the analysis of migratory birds along length of shipping route

Appendix V3-2A. Record of Meetings with Government Officials

Date	Organization	Location	Purpose
2013 (*cont'd*)			
March	Aboriginal Affairs and Northern Development Canada - Headquarters	Toronto	Introduction to the Back River Project
	Northern Projects Management Office	Toronto	Project update
	Natural Resources Canada	Toronto	Project update
April	Aboriginal Affairs and Northern Development Canada – Nunavut Region	Iqaluit	Project introduction
	Northern Projects Management Office	Iqaluit	Project update and discussion of NPMO's co-ordination role
	Aboriginal Affairs and Northern Development Canada – Nunavut Region	Iqaluit	Project update and discussion of next steps
	Environment Canada – Prairie and Northern Region	Iqaluit	Project update and discussion of next steps
	Government of Nunavut	Iqaluit	Project update and discussion of next steps
	Fisheries and Oceans Canada - Headquarters	Ottawa	Project update; discussion of Fisheries Act changes
	Transport Canada - Headquarters	Ottawa	Project introduction
May	Transport Canada – Prairie and Northern Region	Winnipeg	Project introduction; discussion of marine aspects and navigable waters
	Transport Canada – Prairie and Northern Region	Edmonton	Discussion of navigable waters issues
	Environment Canada - Prairie and Northern Region	Edmonton	Project introduction
	Northern Projects Management Office	Teleconference	Project update
	Fisheries and Oceans Canada – Central and Arctic Region	Winnipeg	Project update; discussion of marine aspects and fisheries protection aspects
June	Fisheries and Oceans Canada - Headquarters	Ottawa	Introduction to the Project
	Natural Resources Canada	Ottawa	Introduction to the Project
	Senator David Patterson	Ottawa	Project update
July	Aboriginal Affairs and Northern Development Canada; Fisheries and Oceans Canada; Environment Canada; Natural Resources Canada; Northern Projects Management Office	Site visit - Back River Project	Familiarization with Project location and proposed Project plans
	Government of the Northwest Territories	Yellowknife	Project update and discussion of plans for caribou meetings
August	Fisheries and Oceans Canada - Headquarters	Ottawa	Introduction to the Project; discussion of Fisheries Act changes
	Aboriginal Affairs and Northern Development Canada – Minister's Office	Ottawa	Project update

Appendix V3-2A. Record of Meetings with Government Officials

Date	Organization	Location	Purpose
2013 (*cont'd*)			
September	Fisheries and Oceans Canada; Environment Canada; Transport Canada; Northern Projects Management Office; Government of Nunavut	Site visit - Back River Project	Discussion of freshwater issues; general familiarization with Project location and proposed plans
	Aboriginal Affairs and Northern Development Canada – Nunavut Region	Iqaluit	Introduction to the Project for new officials
	Aboriginal Affairs and Northern Development Canada – Nunavut Region	Iqaluit	Project update and discussion of next steps; discussion of specific technical issues
	Environment Canada	Iqaluit	Project update and discussion of next steps
	Northern Projects Management Office	Iqaluit	Project update and discussion of next steps
	Government of Nunavut	Iqaluit	Project update and discussion of next steps
October	Fisheries and Oceans Canada - Headquarters	Ottawa	Project introduction and discussion of the Fisheries Act
	Natural Resources Canada	Ottawa	Project introduction and discussion of ARD and permafrost issues
	Canadian Northern Economic Development Agency	Ottawa	Project update and discussion of next steps
	Aboriginal Affairs and Northern Development Canada	Ottawa	Project update and discussion of next steps
November	Northern Projects Management Office	Yellowknife	Project update and discussion of next steps
	Fisheries and Oceans Canada	Yellowknife	Project update and discussion of next steps
	Government of Nunavut; Government of the Northwest Territories	Yellowknife	Project introduction and discussion of caribou
2014			
January	Northern Projects Management Office	Vancouver	Discussion of coordination plans
	Natural Resources Canada	Vancouver	Senior level discussion of issues related to mining in the north
	Government of Nunavut	Vancouver	Senior level briefing for Minister responsible for Mines, staff and officials
	Aboriginal Affairs and Northern Development Canada	Vancouver	Project update and discussion of next steps
February	The Northern Projects Management Office coordinated participation all federal agencies	Teleconference	Informational walk-through of DEIS
	Fisheries and Oceans Canada	Yellowknife	Fisheries offset planning
	Environment Canada	Yellowknife	Project update
	Government of Nunavut and Government of the Northwest Territories	Yellowknife	Discussion on caribou management
March	Aboriginal Affairs and Northern Development Canada	Ottawa	Senior level briefing and Project update
	Northern Projects Management Office	Ottawa	Project update and discussion of next steps

Appendix V3-2A. Record of Meetings with Government Officials

Date	Organization	Location	Purpose
2014 (*cont'd*)			
April	Aboriginal Affairs and Northern Development Canada	Iqaluit	DEIS discussion and review of next steps
	Environment Canada	Iqaluit	DEIS discussion and review of next steps
	Canadian Northern Economic Development Agency	Iqaluit	Senior level briefing on the Project and how it fits into northern development objectives
	Government of Nunavut	Iqaluit	Senior level Project status briefing
	Government of Nunavut	Iqaluit	DEIS discussion and review of next steps
	Fisheries and Oceans Canada	Yellowknife	Fisheries offset planning
June	Fisheries and Oceans Canada	Yellowknife	Follow-up discussion on fisheries offset planning
July	Fisheries and Oceans Canada	Yellowknife and Bernard Harbour	Site visit to proposed fisheries offset project
	Fisheries and Oceans Canada	Burlington	Senior level briefing on Project status
	Environment Canada	Edmonton	Project update
	Transport Canada	Edmonton	Discussion on Navigation Protection Act requirements
	Aboriginal Affairs and Northern Development Canada	Ottawa	Project update and review of next steps
	Natural Resources Canada	Ottawa	Senior level briefing on Project status
	Canadian Coast Guard (DFO)	Ottawa	Project briefing with a focus on shipping
	Canadian Northern Economic Development Agency	Ottawa	Project update
September	Natural Resources Canada	Teleconference	Discussion on permafrost and acid Rock drainage/metal leaching
October	Aboriginal Affairs and Northern Development Canada	Iqaluit	Discussion on technical comments
	Environment Canada	Iqaluit	Discussion on technical comments
	Government of Nunavut	Iqaluit	Senior level briefing on Project status
	Government of Nunavut	Iqaluit	Discussion on environmental issues
	Northern Projects Management Office	Iqaluit	Preparations for technical meetings
November	Government of Nunavut	Teleconference	Discussion on environmental and socio-economic issues
	All relevant government agencies – NIRB Technical Meeting and Pre-Hearing Conference	Cambridge Bay	NIRB Technical Meeting and Pre-Hearing Conference
2015			
January	Canadian Northern Economic Development Agency	Vancouver	Project update, discussion on shipping and fisheries offsetting
	Aboriginal Affairs and Northern Development Canada	Vancouver	Project update
	Natural Resources Canada	Vancouver	Project update
	Government of Nunavut	Vancouver	Project update
March	Aboriginal Affairs and Northern Development Canada	Toronto	Project update

Appendix V3-2A. Record of Meetings with Government Officials

Date	Organization	Location	Purpose
2015 (*cont'd*)			
March (cont'd)	Canadian Northern Economic Development Agency	Toronto	Project update
April	Aboriginal Affairs and Northern Development Canada	Iqaluit	Senior level briefing
	Aboriginal Affairs and Northern Development Canada	Iqaluit	Technical update
	Canadian Northern Economic Development Agency	Iqaluit	Senior level briefing
	Government of Nunavut	Iqaluit	Senior level briefing
	Government of Nunavut	Iqaluit	Technical update
	Environment Canada	Iqaluit	Technical update
July	All relevant government agencies	Teleconference	Briefing on outcomes of Feasibility Study and next steps
September (*planned to occur)*	*Environment Canada*	*Ottawa*	*Discussion on Metal Mining Effluent Regulations*
	Natural Resources Canada	*Ottawa*	*Senior level Project status briefing*
	Natural Resources Canada	*Ottawa*	*Technical update*
	Canadian Coast Guard	*Ottawa*	*Discussion on marine and shipping-related aspects of the Project*
	Canadian Hydrographic Service	*Ottawa*	*Discussion on marine and shipping-related aspects of the Project*
	Aboriginal Affairs and Northern Development Canada	*Ottawa*	*Project update*
	Fisheries and Oceans Canada	*Ottawa*	*Discussion on fisheries protection*
	Transport Canada	*Ottawa*	*Discussion on navigation protection and marine shipping*
	Canadian Northern Economic Development Agency	*Ottawa*	*Project update*
	Environment Canada	*Teleconference*	*Technical update*
*October** (*planned to occur)*	*Transport Canada*	*Edmonton*	*Discussion on navigation protection*
	Environment Canada	*Edmonton*	*Senior level briefing and Project update*
	Government of Nunavut	*Teleconference*	*Technical update*

Appendix V3-3A

Inuit Traditional Knowledge of Sabina Gold & Silver Corp. Back River (Hannigayok) Project

Sabina
GOLD & SILVER CORP.

Inuit Traditional Knowledge of Sabina Gold & Silver Corp.

Back River (Hannigayok) Project

Naonaiyaotit Traditional Knowledge Project (NTKP)

December 7 2012

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SPICKER GIS SERVICES

Sabina Gold and Silver Corporation (Sabina) is authorized to use all the information contained within this report according to the licence signed on May 15 2012 between Sabina and KIA. Both parties are bound by the agreement and stipulations within that licence.

The Kitikmeot Inuit Association has reviewed this document and believes that the information contained within is correct but KIA is not able to confirm all information collected in the interviews. KIA accepts no liability for any inaccuracies or errors in this document.

Disclaimer

Inuit consultants are the authors of this report. We hope that in this compilation we have edited and reported their words respectfully, accurately and completely. If there are cases where we have not, these errors were unintentional and we take complete responsibility for them. V. Banci and R. Spicker, Editors.

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Title Page Photo: Camp with caribou skin tent and igloo, Kiligiktokmik (Bathurst Inlet) (Red Pedersen 1957)

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List of Figures

1. INTRODUCTION

The purpose of this report is to present regional-level Inuit Traditional Knowledge for Sabina Silver and Gold Corp's (Sabina) proposed project (Sabina Project). Sabina has recently submitted a Project Description for their Back River (referred to as Hannigayok by Kitikmiut) properties with the intent to develop mixed open-pit and underground gold mines at Goose Lake and George Lake. The Sabina Project is located approximately 75 km southwest of Bathurst Inlet, and the closest unincorporated communities are Kingaok (160 Km north) and Omingmaktok (250 Km northeast).

The source of Inuit oral knowledge in this report is the Naonaiyaotit Traditional Knowledge Project (NTKP). The NTKP is the foundation for recorded and geo-referenced Inuit Traditional Knowledge in the west Kitikmeot region. The NTKP covers Inuit land use, and fish and wildlife ecological data within a 750,000 km^2 study area, the Slave Geological Province. As well as being a repository of Kitikmeot Inuit TK, the NTKP is a land-use planning tool, designed to inform and improve the quality of environmental assessments (EA) for proposed developments in the Kitikmeot region.

1.1. Sources of Data

The NTKP oral data represents two sources; the first and major source is the data from the original NTKP interviews conducted in 1995 and 1996. The second source is the data from the Tuktu Nogait Project (TNP) which focused on Kiligiktokmik (Bathurst Inlet) and caribou. The TNP interviews were conducted between 1997 and 2000. Both of these studies are regional and reflect information that was collected at a 1:250,000 map scale. As of 2011, the TNP was fully integrated into the NTKP and is not treated as a separate project.

1.1. Consultants and Authors

The NTKP is the knowledge of 68 elders and land-users from a particular time period who were interviewed. Their birth year ranged from 1907 to 1971; most were born prior to 1940. Many more community members participated and provided information during placenames workshops and community meetings outside of these interviews.

The participants were asked questions designed to elicit information for a specific objective, the development of a land-use planning tool. This information is a reflection of their experiences, of what they thought was important, and what they were willing to convey. It is only one component of the knowledge of West Kitikmeot Inuit. There are other published and unpublished sources of Inuit TK.

The information holders of the NTKP are called consultants, to respectfully acknowledge the value of their contributions. Their identities are protected in this report, as per the original NTKP agreements.

1.2. Placenames and Geography

Placenames are the entryways into Inuit oral knowledge. Documenting the names of places on the land is the first step in sharing Inuit oral knowledge for an area.

> **C20a** *"… When people travelled a long time ago they would stop at certain places and name them. People from a long time ago named them. Inuit named the places so they would know where they are… It is for Inuit to know where they are. So people would know where they are, the places were named, for people travelling or flying…*
>
> *People would remember the names as they were travelling. They would mention the names, because all lands have names, even places that are far away. For people to know where they are, even the white people, all places have names."*

Documentation of placenames in the NTKP has been a long and involved process. The placenames were compiled from the interviews held in 1995 and 1996. They are directly linked to the stories of Inuit land use. Many of the NTKP consultants were the only ones who knew the old names, thus it was critical to capture this knowledge. Unfortunately, an awareness of the need to accurately locate and spell placenames during the interviews was lacking, resulting in a major verification problem after transcription.

1.2.1. Verification Process

Since many of the consultants had passed away, the knowledge of other elders and land users was solicited to help verify placenames. In order to provide a consensus as to placename locations and spellings, elders requested joint meetings. During 2002 and 2003 two to three day workshops were held in Kugluktuk, Cambridge Bay and Kingaok. An additional 60 experts participated in these workshops. At the end of this process, 512 unique Inuinnaktun placenames were verified; most of which had not been documented previously, as well as locally used English names. Some 40 placenames could not be verified.

During those workshops the placenames documented and verified by Beatrice Collignon were shared. Collignon undertook a major placenames study in 1990-1991 using documentation and verification process similar to the NTKP (Collignon 2006). The elders agreed that the Collignon work was reliable and that the placenames should be cross-referenced and added to the NTKP. That process has begun. Collignon has more placenames than in the NTKP, and is an important addition. Further, her study involved even older elders that had passed away by the time of the NTKP interviews.

The integration of the Tuktu Nogait Project brought new challenges. An unexpected consequence of the smaller workshops held to verify the TNP names was that people questioned some of the placenames in the NTKP that had already been verified and agreed as correct through consensus. These 'disagreements' were not necessarily errors, but a reflection of the evolution of placenames and of old names falling into disuse.

The NTKP team made the decision that the original verified NTKP placenames (including Collignon's work) were the 'baseline' for Inuit traditional knowledge. It is these original placenames that are used in reports and on report maps. Issues with placenames raised by community members will continue to be documented as will work towards a process to address them.

One particular place of concern occurs in this report. James River is a major area of use within the study area. Many consultants called James River 'Hanigayok'. However, this was disputed in subsequent workshops, but without resolving the elders' extensive use of the old name. As a result, until resolution is reached we use the English name exclusively on the

maps.

1.2.2.Placenames in the Report

Placenames were written using Roman orthography, in the spelling preferred by the Kitikmeot elders when the data was collected. If a consultant discussed a location but did not name it, the placename is included in brackets. If a placename mentioned by a consultant is outside of the study area, the NTS mapsheet number is provided for reference.

Unless a consultant specifically used an English placename, the Inuinnaktun placename is written first. The English name, if available, follows in brackets the first time it occurs in a report section; within a quote and within an English summary. In some cases, consultants used the English placename more than the Inuinnaktun name. Examples are Bay Chimo instead of Omingmaktok, and Bathurst Inlet for both Kiligiktokmik (the inlet) and Kingaok (the community). If a consultant used an English placename, it was not changed.

To minimize 'congestion' on the data maps, they contain only those placenames necessary to orient the reader on the landscape. The reader is asked to refer back to the placenames maps (Figures 3-5) to determine the location of particular places. Those placenames which occur rarely and those that are mentioned in quotes but are outside of the study area may not be present on any map.

1.2.3.Understanding Inuit Geography

Often the type of land feature is included as part of the Inuinnaktun placename. Thus one says Tahikyoak and not Tahikyoak Lake. Tahikyoak is also an example of a placename which occurs in more than one place. For example, a consultant could use Tahikyoak to refer to either Contwoyto Lake (mainland) or Ferguson Lake (Victoria Island). There are five lakes on Victoria Island named Tahikyoak. It is important to know either in which areas the consultant typically traveled, or to have a map to clearly understand where the consultant was oriented.

Some placenames are very similar in spelling; for example Piginganik (Manning Point) and Peginganik (island east of Manning Point). These are not spelling errors, and the reader is encouraged to refer to the placenames maps (Figures 3-5) to ascertain which land feature the consultant is referring to.

Just as is the case in English, a placename may physically describe a feature (Hingighalok meaning 'a big long point'), be an area rich in resources (Aimaokatalok meaning 'where you pull out lots of fish') or reflect an event that happened there (Emakatak meaning 'place where you keep almost drowning'). Hiukkittak means 'when a caribou reaches the shoreline of the river Inuit say "huikipok", go get the caribou'. Some NTS names are similar to Inuinnaktun names, but are spelled the way that an English speaking geographer spelled it. Thus on NTS mapsheets you find 'Hiukitak' and not 'Hiukkittak'.

An important orienteering point to understand is that Inuit place themselves on the land in a way that may be confusing to some readers. They refer to 'up' and 'down' not as north as south, but as to the direction that waters are flowing. Thus waters flow down to the ocean (north) and up to the interior (south). Thus, inland Inuit would say they are travelling 'down' to the ocean rather than 'up' to the ocean, as most southerners are accustomed to.

1.3. Scale of Information

It is necessary to understand the purpose of the NTKP and the conditions under which interviews were conducted in order to assess how well the NTKP describes Inuit Traditional Knowledge for Hiukkittak. The NTKP is a major regional traditional knowledge database of the west Kitikmeot. Site-specific data are mostly lacking since it was not the project's objective to collect such information. As a result, information within the NTKP for some themes may be sparse or lacking

As an example, if a 1:250,000 mapsheet had a lot of use by animals such as wolves, a consultant may have said this entire area is important and may not have marked any location, or may have drawn a box around the entire map. In the spatial (map) database it would appear as if information for wolves was missing, although there could be interview data that talks about the importance of the area for wolves. If a study was done at a larger map scale such as 1:50,000, specific kinds of data such as hunting locations or dens would have more likely been mapped.

There also are cases where both spatial and textual data are missing. The NTKP information was gathered in a long interview with 145 questions. The answers of many of the consultants become shorter towards the end of the interview, as consultants became tired, or because of the lack of experience of interviewers to recognize interviewee fatigue. For example, wolverine was the last species to be discussed. Less information may have been documented for wolverine because of where these questions occurred in the interview.

1.4. Study Area

The geographic scope of the study was developed in consultation with Sabina and Rescan Environmental Consultants Ltd. It includes a Local (LSA) and a Regional Study area (RSA). The LSA is defined as the area of land and water that encompasses the Project (Figure 1) and is consistent with the largest boundary of the wildlife, regional marine, and terrestrial study areas as defined by the baseline studies of those disciplines.

The Regional Study Area (RSA) is intended to encompass broad regional-scale information in the NTKP database that may be relevant to the Sabina Project (e.g., animal migration patterns, regional Inuit land use activities and travel routes). The RSA includes the hamlet communities closest to the proposed Project which are Kugluktuk, Ekaluktutiak (Cambridge Bay), Omingmaktok and Kingaok. The RSA essentially is the NTKP project area as it exists at present.

1.5. Structure of Report

This report begins with presenting information about Inuit, who they are as seen through their eyes. The Heritage and Lifeways section discusses where people were born, where their camps were located, their travel routes, and the locations of their important harvesting areas. The sections that follow are Caribou, Mammals, Birds, Fish and Fishing, and Water Quality. The Summary section describes how the proposed development interacts with Kitikmiut land-use, wildlife, fish and water based on Inuit Knowledge. Within this section data gaps are identified. At the end of report is a table comprised of the Inuinnaktun terms that were used in the report and their meanings, spelled using the old way of writing.

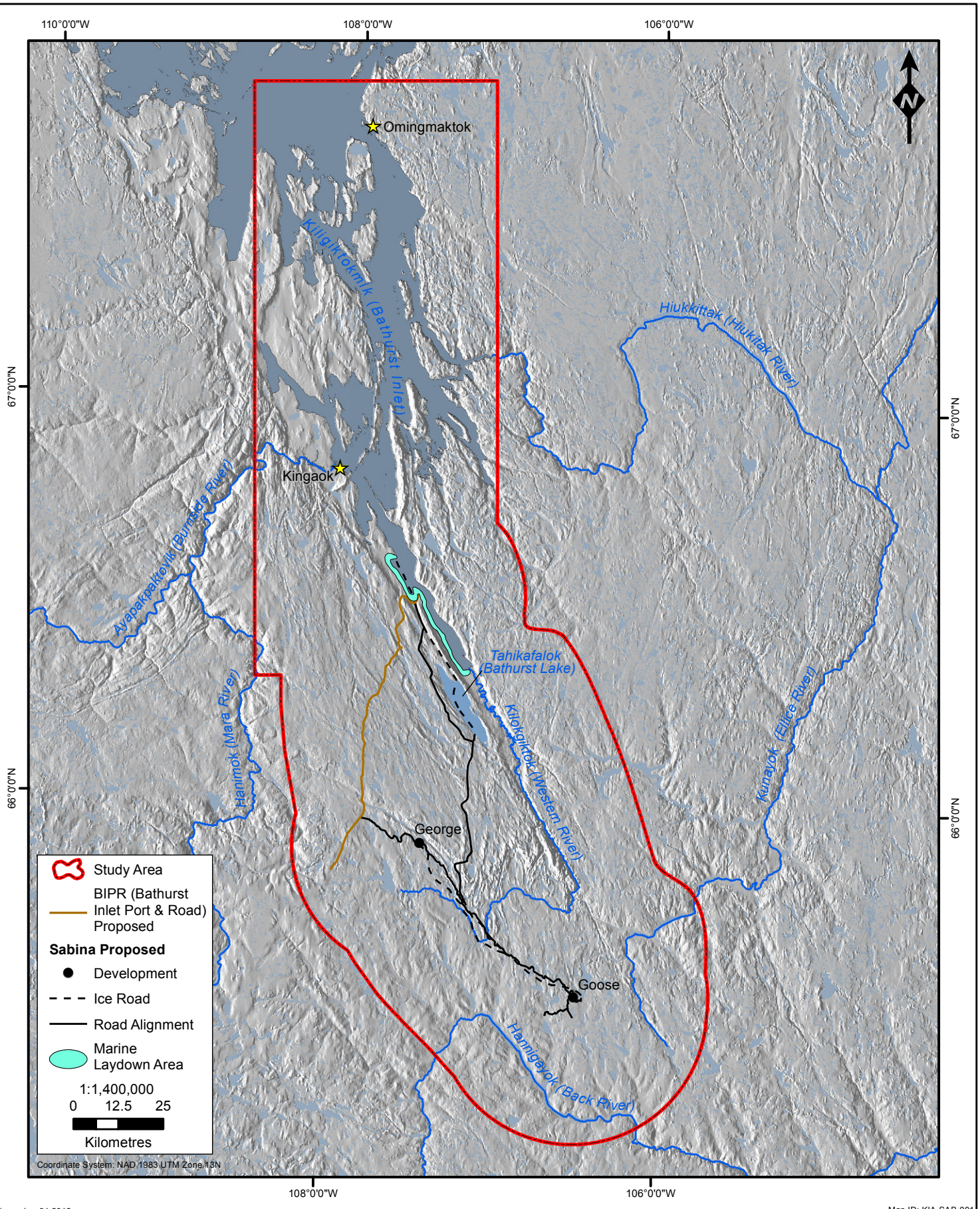


Figure 1. Sabina Project - Inuit Traditional Knowledge Local Study Area

Map produced by Spicker GIS Services (www.spickergis.com)

Regional and site-specific information are integrated in the report. Each report section begins by presenting the broad regional overview. Information from all of the NTKP for that topic has been summarized. Some regional maps are provided but in general, consultant quotes are not included as part of this overview. The overview is followed by a reporting of all available information with the Local Study Area from the transcripts. These data were compiled by extracting from the NTKP the text data that was linked to the map information within the study area.

The consultants' words are presented as they were spoken, edited for English and clarity but without interpretation. Explanatory notes are provided in coloured text. Consultant replies are encased in quotes. A series of dots '…' indicates where text has been omitted.

2. THE KITIKMIUT - AN OVERVIEW

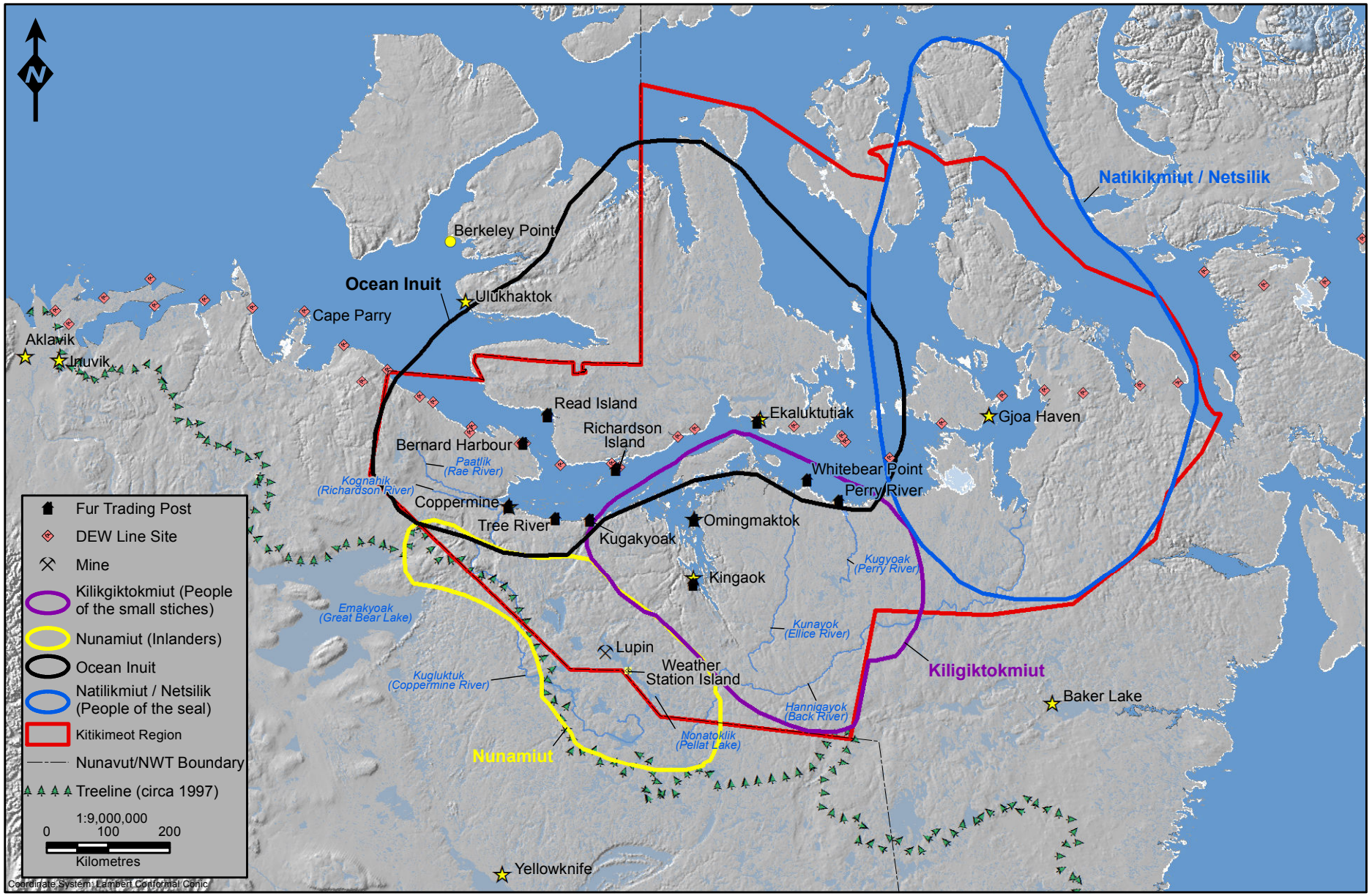
Inuit travelled extensive distances throughout the year, migrating seasonally among hunting, trapping and fishing grounds, but they had strong affinities to particular places. Consultants refer to Inuit from a specific area with the suffix 'miut'. For example, people from Kingaok are 'Kingaokmiut' and all Inuit from the central Arctic or Kitikmeot region are 'Kitikmiut'.

Kitikmiut were once known as Copper Inuit. In the 1950s and 1960s they lived in the principal settlements of Kugluktuk (Coppermine), Ekaluktutiak (Cambridge Bay), Ulukhaktok (Holman or Holman Island), Bathurst Inlet and Innaghakvik (Perry Island) (Abrahamson et al. 1964). Camps of one, two or more families were scattered throughout the region with the most northerly camp being at Berkeley Point and the most southerly camp at Nonatoklik (Pellatt Lake) (Abrahamson et al. 1964). The NTKP consultants had little to no knowledge of Ulukhaktok and the more northerly areas of Victoria Island.

The NTKP is the knowledge of Inuit from the West Kitikmeot who described themselves as belonging to one of three regional groups (Figure 2):

- Ocean Inuit – people of the sea. These Inuit lived on Killinik (Victoria Island), the Coronation Gulf coast, and on the sea ice in winter. They primarily depended on seals and obtained caribou pelts for clothing from trading with inlanders.
- Nunamiut (Inlanders) – 'people of the land'. These Inuit primarily lived inland near Tahikyoak (Contwoyto Lake), Kaomaogaktok (Rockinghorse Lake) and Napaktolik. They travelled to the coast to trade with coastal and ocean people for marine products that were not available to them, and to trade their furs at the trading posts.
- Kiligiktokmiut – 'people of the small stitches'. These Inuit, known for their fine sewing skills, lived adjacent to Kiligiktokmik (Bathurst Inlet) (Figure 3, Figure 4, Figure 5) and in the Kugyoak (Perry River) and Kunayok (Ellice River) drainages. They often traveled inland to hunt. Their hunting areas overlapped with Ocean Inuit who travelled to the Kugyoak and Kunayok areas to hunt caribou and to trap.

These group affinities changed if a person married someone from another area, if people moved due to changes in wildlife abundance, and when people started to live in coastal communities.

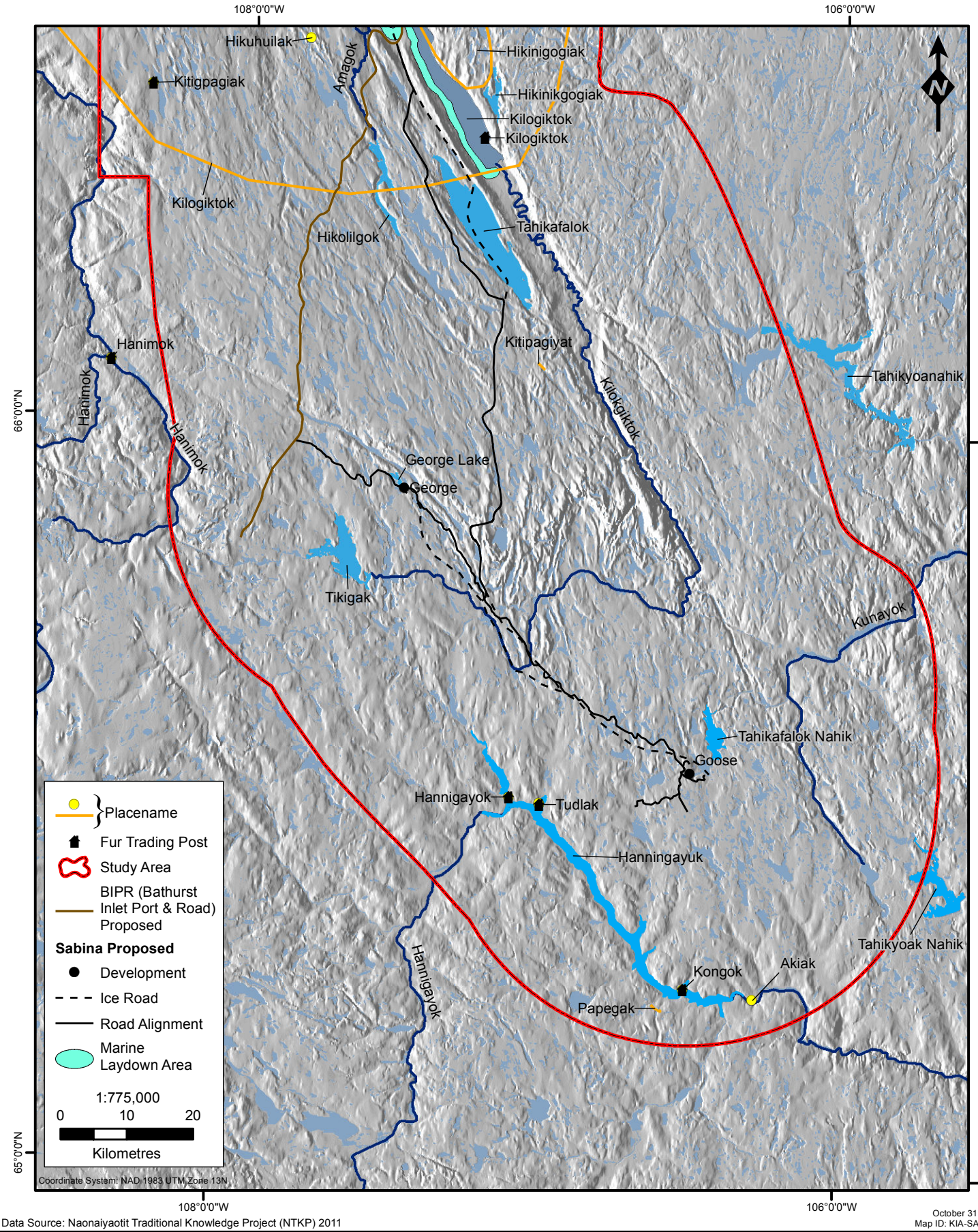


Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

October 25, 2012
Map ID: KIA-SAB-002

Figure 2. Kitikmeot Inuit Groups and Major Landmarks

Map produced by Spicker GIS Services (www.spickergis.com)



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

October 31, 2012
Map ID: KIA-SAB-003

Figure 3. Inuinnaktun Placenames – Hanningayuk (Beechey Lake) Region

Map produced by Spicker GIS Services (www.spickergis.com)

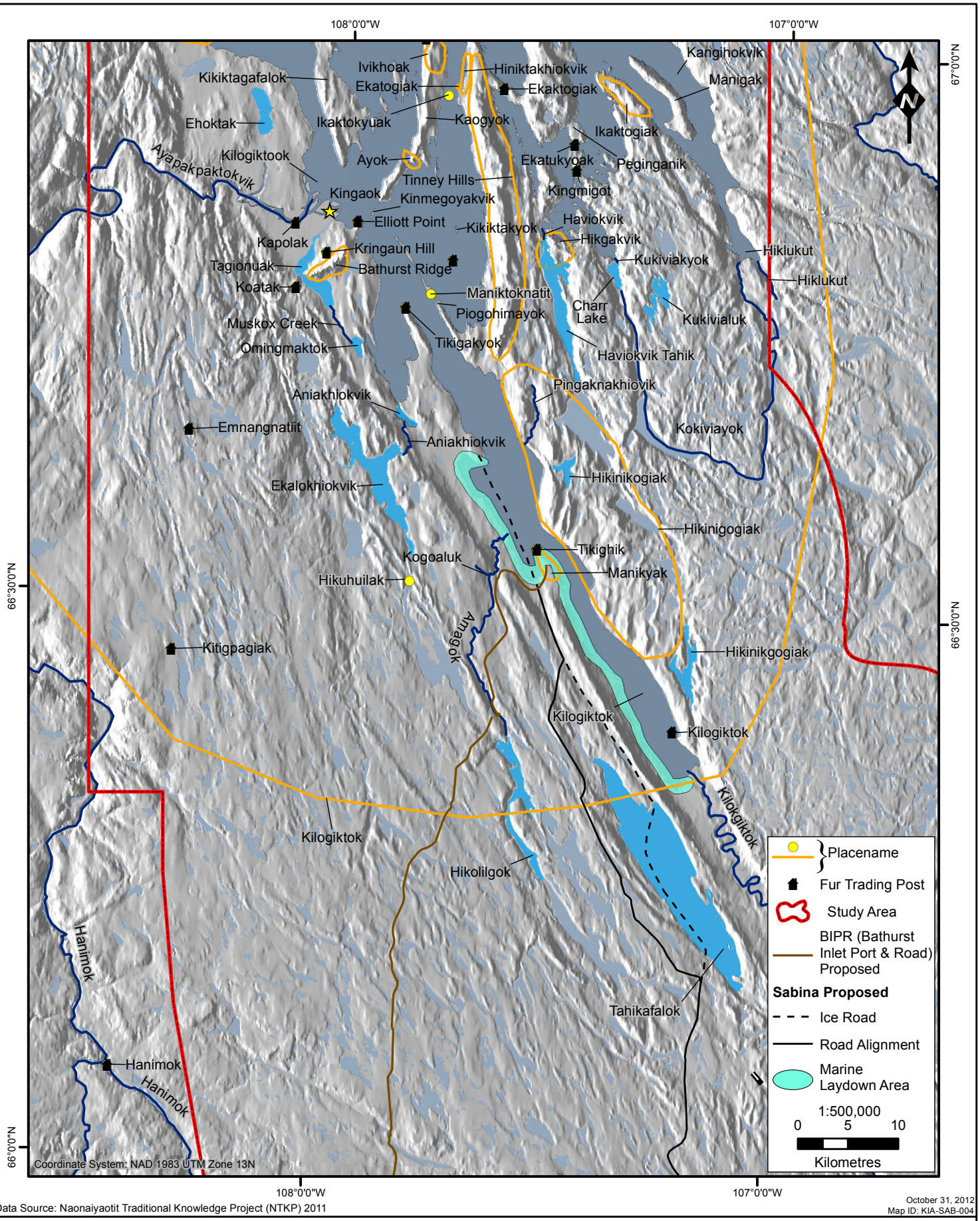
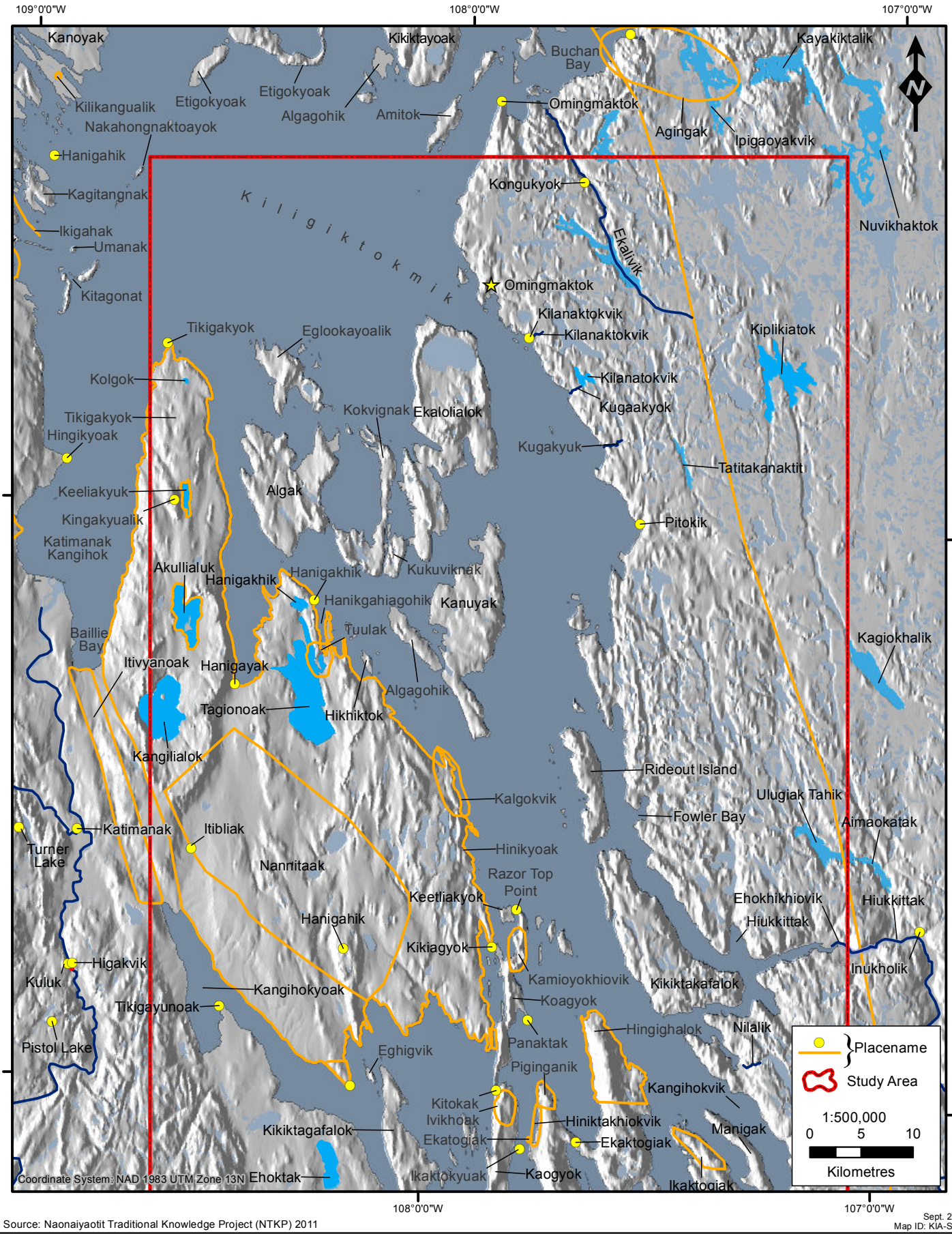


Figure 4. Inuinnaktun Placenames – South Kilogiktok (Bathurst Inlet Region)

Map produced by Spicker GIS Services (www.spickergis.com)



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

Sept. 27, 2012
Map ID: KIA-SAB-005

Figure 5. Inuinnaktun Placenames – North Kilogiktok (Bathurst Inlet Region)

Map produced by Spicker GIS Services (www.spickergis.com)

C25 *"…When people met together at Tahikyoak there would be people greeting each other from Kugluktuk, Hanigayok (James River), Kunayok (Ellice River), and places near Kunayok further to the east. Inuit used to stay at Kunayok too long ago looking for food, close to Hanigayok (James River).*

Inland, there would be people from Cambridge Bay, Kugluktuk and Hanigayok. Those were the main groups of people greeting one another. They would go inland to hunt for food at Tahikaffaloknahik (Itchen Lake). On the way from Tahikyoak to Kingaok, people would stop at Kingalhoak (Nose Lake). Sometimes there would be people only from Kugluktuk. Sometimes there were people from Kugyoak (Perry River) but not often). I'm not too sure but I don't think there were very many people from Kugyoak who traveled inland.

Around 1951 my relatives started to gather along the coast. Once they reached the ocean they started to only stay along the coast. Now they remain at the ocean…"

2.1. Time Frame of the NTKP

Kitikmiut did not always live in communities. Before the 1950s, Kugluktuk, Ekaluktutiak, Kingaok and Omingmaktok did not exist as permanent settlements. They were important seasonal harvesting places. At times of abundance such as caribou migration, seal concentrations and fish spawning runs, people would gather and live together for short periods. For most of the year small family groups traveled alone, hunting their traditional routes.

The fur trade was the most significant factor to alter the lives of Kitikmiut. The first posts were floating and mobile. Schooners anchored in places Inuit were known to frequent, and they moved frequently. These floating posts were common before 1920 but became less important and eventually prohibited by the late 1920s (Usher 1971).

Permanent posts were subsequently established by the CanAlaska Trading Company (CanAlaska) and the Hudson's Bay Company (HBC) and their spread was rapid (Usher 1971). Virtually all protected harbours were used for winter trapping and trading sites. New posts were established every year, often to intercept Inuit traveling from their winter camps to more established posts. Posts opened and closed quickly, depending on where Inuit were located on the land. Eventually the other posts closed and HBC dominated the area.

There were four main administrative trading areas for Kitikmiut, Cambridge Bay, Coppermine, Bathurst Inlet and Perry River (Abrahamson et al. 1964). The HBC Cambridge Bay post built in 1921 serviced a large region bounded by Nagyoktok (Richardson Islands) in the west and Kikiktakyoak (Jenny Lind Island) in the east The Bernard Harbour post (Nolahokyok) operated from 1916 to 1932 and Read Island (Kikiktanayok) from 1931 to 1962 (Abrahamson et al. 1964).

The first post was established at Kugluktuk in 1916 by independent fur trader Charles (Christian) Klengenberg. The HBC post was built in 1927. The Coppermine trading area included Paatlik (Rae River), Kognahik (Richardson River), Emik (Basil Bay), Tuktutuk (Lady Franklin Point) and Kugluktoalok (Tree River) (Abrahamson et al. 1964). Smaller important post locations were at Tree River (1917-1928) and Kugakyoak (1928-1936).

The first posts in Kiligiktokmik (Bathurst Inlet) were built in the 1920s and moved frequently until becoming established at Kingaok (1930-1964). In 1964 that post was moved to Omingmaktok (Bay Chimo) where it operated until 1968. The trading area for the Bathurst Inlet posts included Kangihokvik (Gordon Bay), Hanigakhik (Brown Sound), Katimanak Kangihok (Arctic Sound) and Kangihoakyok (Daniel Moore Bay) (Abrahamson et al. 1964).

Perry River (Kugyoak) was the last area to be settled by fur traders. The HBC post was first located at Kugyoak (1926-1928), on Omanaahak (Flagstaff Island) (1937-1941) and then Innaghakvik (Perry Island) (1957-1967). Beginning in 1928 until 1957, independent Inuk trader (Stephen) Angulalik ran the Perry River trading post, later partnering with CanAlaska and then the HBC. The trading area for the Perry River posts included Kugyoak, Aoulativikyoak (Whitebear Point), Atkinson Point, Kangoyak (Ogden Bay), Johnson Point and Potolik (Hat Island) (Abrahamson et al. 1964).

The demand for fur influenced Inuit to modify their hunting patterns and seasonal travel. Their routines now included visits to the trading posts, to sell furs and buy provisions. The posts brought new types of food, tobacco and tools. They became places of support when people were having a hard time finding food. Later the stores supplied Inuit with firearms and snowmachines. These tools allowed Inuit to become more proficient at obtaining food and made their lives easier.

Soon after the fur traders the Roman Catholic and Anglican missionaries arrived. Inuit were introduced to God and they wove religion into the fabric of their lives. It was the missionaries who gave Inuit the means to write their own language and they embraced the ability to express themselves in this way.

The Naonaiyaotit Traditional Knowledge Project begins just before that time of contact. Some of the elder consultants remembered the first time they saw a kablunak, a white person. They remembered hunting with bows and arrows, and the first time they shot a rifle. They remembered the first time they saw a snow-machine, a ship and a plane.

2.1. Events in the Lives of Inuit

Some of the consultants talk about important events in their lives that outsiders brought to their land. These included the DEW Line, the Lupin Gold Mine (Lupin) and residential schools. For many, Lupin was their first experience with an operating mine.

The Distant Early Warning (DEW) Line was designed and built during the 1950s as an air defence early warning of invasion of North America by Russia. Of the 63 radar sites that stretched from Alaska to Baffin Island, 16 were located in the west Kitikmeot. Many Inuit were involved in the construction of the stations and the dozens of camps and airstrips that were built and they remained employed during the 30 years of operation of the DEW line (Sperry 2001). One or two family groups were always camped at or near the various stations, fishing, hunting, and relying upon the radar stations for help at times of food scarcity (Abrahamson et al. 1964).

The Lupin Gold Mine was owned and operated by Echo Bay Mines Limited. It was located at the north end of Tahikyoak (Contwoyto Lake), on the south shore. Construction began in 1980 and the mine operated from 1982 through to 2003. Some fifty Kitikmiut worked at the mine over its lifetime. Some Inuk workers moved their families with them and they lived in outpost camps adjacent to the mine site.

Many of the consultants had been sent away to residential mission schools. The elder consultants had been sent to Aklavik (1919-1959) and Inuvik (1959-1970) and younger people were sent to Yellowknife. In Kugluktuk, the Anglican Church ran a tent hostel school in the community from 1955 to 1959, allowing some Kitikmiut to attend school closer to home.

3. KITIKMIUT HERITAGE AND LIFEWAYS

Inuit use of the land is given the term 'lifeways'. A travel route was not only for travel, it was also a place to harvest caribou, fish, trap, camp and live. Inuit were ultimate multi-taskers; each location on the land had multiple uses and more than one reason why it was important.

Nunamiut depended on terrestrial wildlife species, particularly caribou. Ocean People depended on marine species, particularly seals, and Kiligiktokmiut had access to both. All the Kitikmiut groups lived in igloos during the winter and in skin tents during the summer. Except for a few areas with an abundance of caribou or seals, large winter camps were a rarity. In general, camps were seasonal, spread across the landscape, and only used for a few days at a time. Inuit had to travel because the resources they depended upon were widely distributed, in space and in time. However, this does not mean that Kitikmiut were nomadic wanderers. They understood the cycles of the animals and where and when they had to be at particular places to intercept them.

Gathering places and travel routes of Ocean Inuit and Nunamiut within the regional study area are summarized with representative quotes. Use of the Bathurst Inlet area and the Local Study Area is presented in detail following these sections.

3.1. Gathering Places: Major Camps

3.1.1. Ocean Inuit

Ocean Inuit lived adjacent to the Coronation Gulf coast, on coastal islands where nattik (seals) were abundant, on Killinik (Victoria Island), and on the sea ice during the winter (Figure 6, Figure 7). Important centres on Victoria Island were Tahikyoak (Ferguson Lake) and Novok (Rymer Point). Kikiktanayok (Read Island) was a major centre for Inuit who lived and trapped at Kanikyoak (Prince Albert Sound) because the trading post was located there.

In winter Ocean Inuit lived on the sea ice in large igloo camps where they primarily hunted nattik through their breathing holes. These camps didn't stay in one place but moved once nattik became scarce. Prior to moving camp Inuit hunters scouted out new camping sites with many seal holes.

Ocean Inuit regularly traveled to the islands in winter and summer. They went to Gjoa Haven and beyond using kayait (plural of kayak), wooden boats and ultimately motor boats. Many of the islands in Coronation and Queen Maud Gulfs, especially the larger islands, were important seasonal living areas. There was frequent mention of Potolik (Hat Island), Kikiktakyoak (Jenny Lind Island), Kikiktakyoak (Melbourne Island), Egloovikan (meaning place with old sod houses, Edinburgh Island) and Ekaktolikyoak (Camping Island).

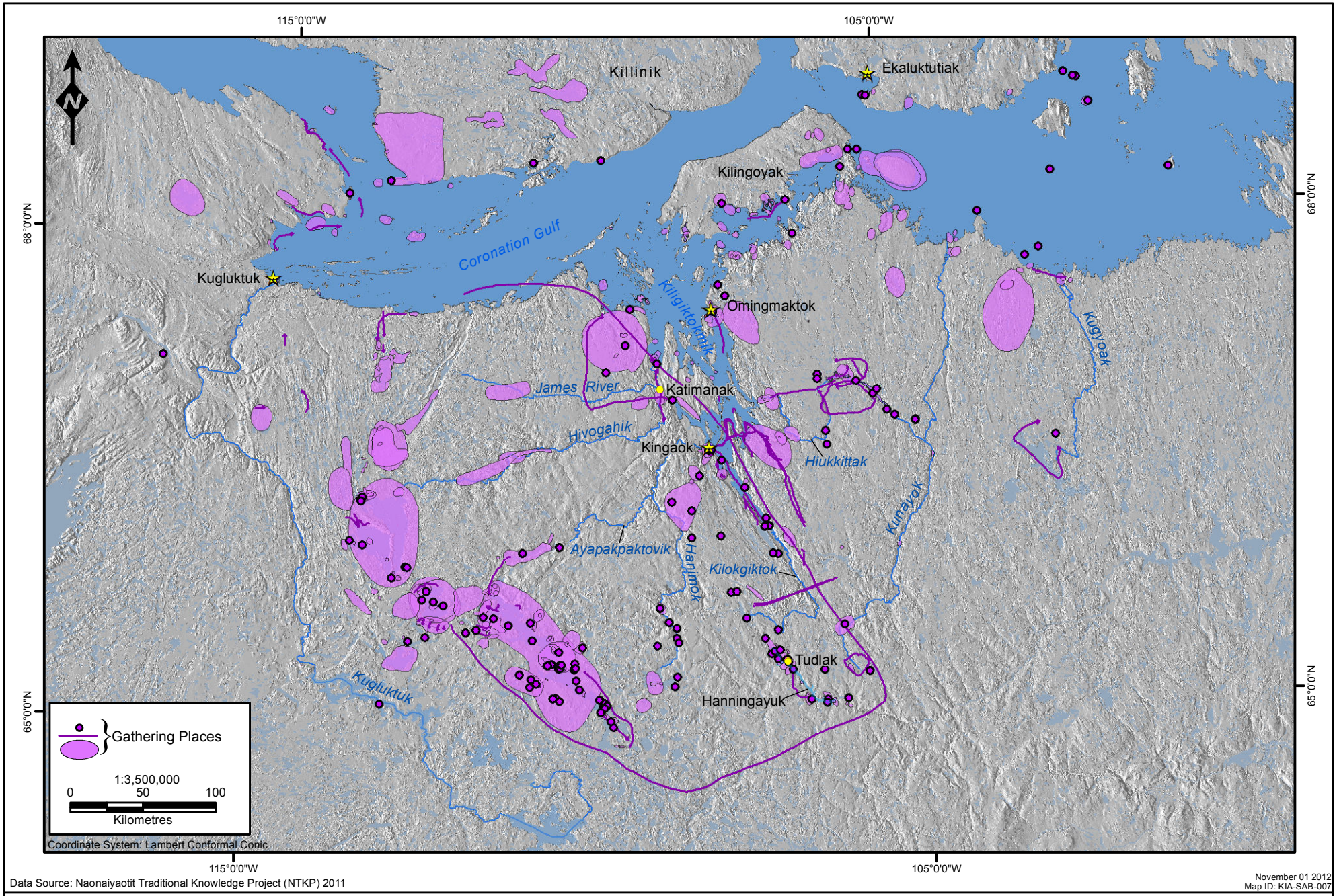
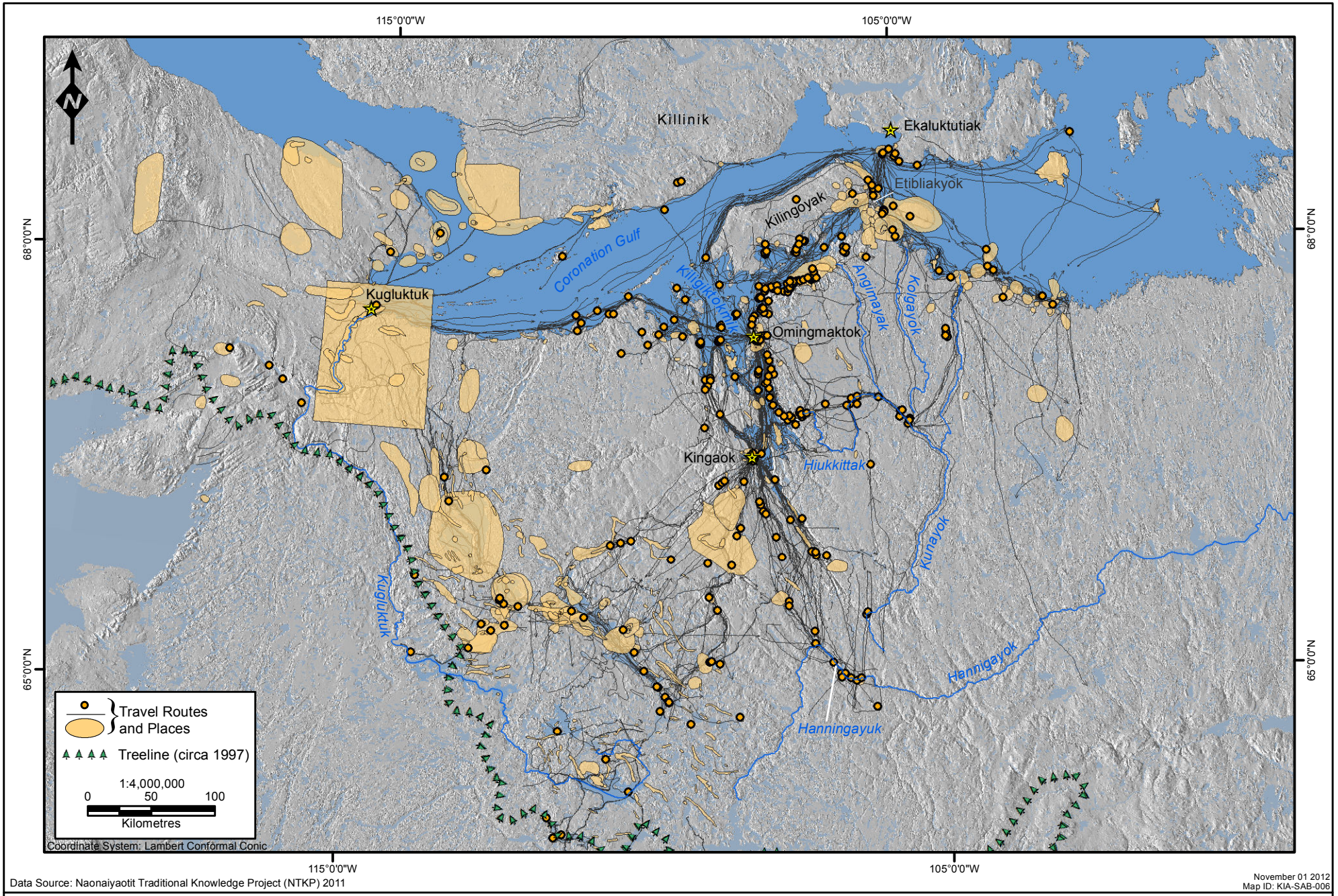


Figure 6. West Kitikmiut Lifeways - Gathering Places

Map produced by Spicker GIS Services (www.spickergis.com)



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

November 01 2012
Map ID: KIA-SAB-006

Figure 7. West Kitikmiut Lifeways - Travel Routes

Map produced by Spicker GIS Services (www.spickergis.com)

Mainland areas used by coastal people included Paatlik (Rae River), Kognahik (Richardson River), Kayotaktok (Cape Young), Tahikpak (Bluenose Lake) which is the calving area for Bluenose-East caribou, and Kugluktuk. To the east, the mouths of Kugakyoak (Kugaryuak River) and Kugluktoalok (Tree River) were sites of traditional camps. Inland, many coastal Inuit lived seasonally at Tahiapik (Dismal Lakes).

C3 *"In the spring or winter Inuit would go to a camping area out on the ice east of here. They also went to another area a little further east where they would camp during the winter.*

These winter camping areas on the sea ice were located off the coast of Kugyoak (Perry River), Kikiktakyoak (Melbourne Island), Kikiktakyoak (Jenny Lind Island) and Killinik (Victoria Island).

... They spent the winter in those areas. When it was time to leave their igloo they would head to the islands or the mainland. From those islands they would look for seals. They hunted seals and stored the seal fat..."

C19 *"... I've spent the summers... around the shorelines by Ekalivik (at Anderson Bay, Killink (Victoria Island)), Koyapik (Stromness Bay) and Kunayok (Ellice River)...*

The ocean ice takes a lot longer to melt... although there still is water on top of the ice. This river channel that flows to Kingaok gets full of water right away. When we traveled through that area of the river it was like that and it's still like that today when we travel to Tahikyoak.

When Inuit traveled close to the coast they didn't rush because the ocean ice takes longer to melt. The Burnside River (Ayapakpaktokvik) is so easy to break up because it's wide and that is why when Inuit were returning inland they would rush. We would stay at these places on the coast when we finished staying inland. After I married Kaiyogana I never went back inland but only traveled to places close to Cambridge Bay.

When I stayed with Ohokak and Kimakton, I stayed with them for a very long time, from spring through summer... I spent a summer over here (east of Kingakyok (Cape Colborne). That time we traveled along the shoreline by dogteam to over here (bay at the mouth of Ekalivik and Koyapik). I spent summer and winter over there too..."

C20a *"We hunt seals anywhere in this area at Nuvughiit (Jameson Islands)... When people hunted for seals that is where they would camp on the sea ice south of Nuvughiit."*

C35 *"... We would stay at Enuinigit (Deadman Islands) and at Nanukton (Nanukton Island) when we were hunting seals. It used to be fun to travel back then. This is Kikiktakyoak (Chantry Island). We also stayed at Nagak (Cache Point) when we were hunting seals. We also hunted seals at Okaliit (Includes Liston, Sutton and Harkness*

Islands)…

We stayed at those areas like Epiolik, Lady Franklin Point and Dickens Point when we were traveling along the coast. We hunted seals during the winter close to Harkness Island. When we returned to Kugluktuk, we would go by Nolahokyok (Bernard Harbour) to visit but we camped at Novok (Cape Krusenstern).

When we had no children, when we were hunting seals in the spring, we would go by Lady Franklin Point to Otekvik (Point) hunting ducks and gathering duck eggs. We also went to Black Berry Islands hunting seals. I know all those islands like Paongaton (Black Berry Islands), Nanukton, Otekvik, Haodlon, Kalviokvik, Kolikhat (one of Berens Islands), Kitokat (one of Berens Islands), Ekalioligayok, and Nunatonik (one of Lawford Islands). We stayed there and we know all those places.

Naoyat (Couper Islands), Kugakyoak and the island north of Kugakyoak; from all these places we hunted seals when my parents were still alive, even before I got married. Aptalok, Pigingayolik, Anagoiyakhakvik, Kikiktahokyok (Seven-Mile Island), Kugakyoaknahik (Asiak River), and Evonaakyok; I know these places from my father because he used to hunt seals from there in the spring…"

3.1.2. Nunamiut

Nunamiut lived together in large camps during winter, spring and fall. They hunted caribou during spring and fall migrations. They trapped in the winter and travelled to the trading post stores in spring and fall to sell and trade their furs, obtain provisions, and to visit with other Inuit. For the rest of the year they traveled across the land fishing and hunting in the same places that their ancestors used.

One of the most important gathering places for Nunamiut was Tahikyoak (Contwoyto Lake) (Figure 6, Figure 7).). Inuit more or less lived continuously in the Tahikyoak area since at least the late 1920s (Abrahamson et al. 1964), and prior to that, on a seasonal basis. Bathurst caribou have consistently migrated through Tahikyoak and despite annual fluctuations in numbers, people could rely on harvesting a lot of animals at traditional crossing points twice each year. Unlike much of Inuit land where in winter the majority of animals had already left for the south, caribou were present at Tahikyoak in winter, and frequently in large numbers. Year-round occupation of Tahikyoak by Inuit was made easier when firearms were introduced and food was easier to obtain (Abrahamson et al. 1964).

Other major wintering areas included Napaktolik, Kaomaogaktok (Rockinghorse Lake), Kingalhoak (Nose Lake), Tahikaffaloknahik (Itchen Lake), Hanigakhik and James River (Figure 6). These gathering places were used for the past century and most likely for centuries before that. Inuit in the Tahikyoak area typically traded at Bathurst Inlet trading posts and Inuit in the Napaktolik area typically traded at Kugluktuk and Read Island posts. This trading pattern can be seen in their travel routes (Figure 7).

C1 *"People like the Kudlak(s) mostly stayed around the lake narrows at Aimaokatalok (Kathawachaga Lake), during the summers hunting caribou. From there some of the people would go down to Kingaok in the spring after they finished trapping…*

From anywhere around there inland Inuit would go see the white people at the Kingaok trading post, even from Aallik. They would also go to the Kugluktuk trading post…

This is also another area (central-east Tahikyoak) where Inuit used to stay. In the past there was a lot of caribou swimming there. All this area was just full of caribou when the caribou were heading south in the fall. The caribou went through here. Frank Kellogok and I were staying around here that time. Inuit would go see white people at the store from there too, and from Ahiak (on Tahikyoak) also. Nigak(s) used to stay around that area (Tahikyoak) too long ago…"

C1 *"… There used to be lots of Inuit at Kaomaogaktok. They used to go see white people at the stores from somewhere around there, even from Napaktolik. In 1970 there were still people staying at Napaktolik who used to travel to Kugluktuk to trade…"*

C23 *"Long ago there used to be lots of people at the places where Inuit hunted, around Tahikyoak. Now there are no Inuit down there. Long ago there were lots of people at Tahikyoak …"*

Inuit from Tahikyoak would come closer together during the fall. Because Kugluktuk is far they would go to Kingaok to purchase supplies, after the ice in the lakes was thick enough to travel on. Kingaok is closer to Tahikyoak then Kugluktuk is during the fall.

From near Tahikyoak and Napaktolik other Inuit would travel to Kugluktuk when the ice was thick enough to travel on. There would be lots of people traveling together to purchase supplies."

C31 *"… There were big families (staying) at the winter camps, at Kaomaogaktok and at the narrows of the lakes. I don't know the names of all the lakes where people stayed as Inuit used to be spread out. The main places were Napaktolik, Tahiapik Akolik (Dismal Lakes, middle section), Kaomaogaktok, Tahikafalok, Tahikyoak, Ahiak (Fairy Lake River) and Kugakyoak."*

3.1.3. Kiligiktokmiut

Kiligiktokmiut have used Kilogiktok on a continuous basis for thousands of years. Similar to Tahikyoak, Kiligiktokmik had an abundance of food, including caribou (tuktuk) in winter, large calving areas, and nattik (seals). Inuit not only lived at Kingaok, but along the many bays of the Inlet and near the many narrows. The settlements at Kingaok and Omingmaktok were not established until after the trading posts were erected there in the 1920s and 1964, respectively (Usher 1971).

Their major camps were located on Kilingoyak (Kent Peninsula), Kingaok, and a number of locations on both shores of Kiligiktokmik. Katimanak, at the junction of Hanimok (Mara River) and Ayapakpaktokvik (Burnside River), and the junction of James River and Hivogahik

(Hood River), were locations of major camps, as were several locations on Huikkittak and Kilokgiktok (Western River) (Figure 8).

Hanningayuk (Beechey Lake), the location of Bathurst caribou calving grounds, was an important camping area during the consultants' lifetimes, their parents and grandparents, and for Inuit before them. Tudlak, at the outflow into Hanningayuk, is an old traditional community. Further to the east, the mouths of Kugyoak (Perry River) and Kunayok (Ellice River) were major Inuit gathering areas (Figure 6, Figure 7).

3.1.3.1. Omingmaktok and Kiligiktokmik East Coast

C11 *"There is Piginganik and Kingmigot… Kukiviakyok was named because it is a small river. This is where there would be deep snow. People would go down here, and here, lots. I will make it down this way, and mark this area with deep snow this way; this is where there is usually deep snow too; at Kalgilik…"*

C11 is describing travel from the east coast of Kiligiktokmik, traveling inland at Hiukkittak to Inukholik and then across the land to Kalgilik.

C11 *"This one here, traditional camping ground, this is a traditional camping ground (at the mouth of Hiukkittak)…"*

C15 *"Kangihokyoak (Portage Bay) is an important area for hunting… In the summer we hunted caribou and trapped in the winter (Kiligiktokmik area; camping area at Kilanaktokvik south of Omingmaktok)…"*

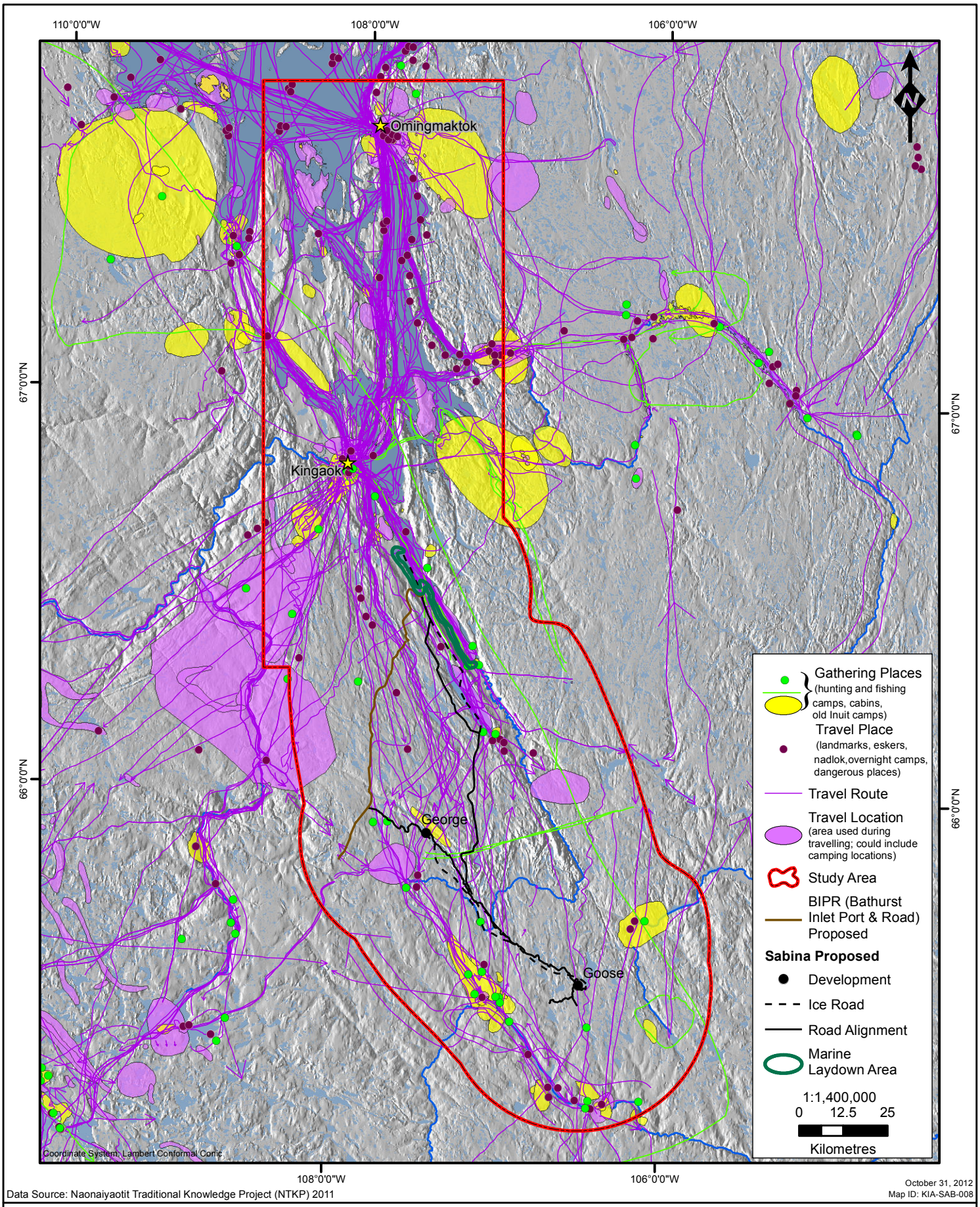
C16b *"… During the summer we traveled by… Ekatukyoak (channel) and near there, also by the island (Bear Island)… There on Bear Island are the two kaihimayonik (high hills or eskers) you were talking about. Our travel routes were around here… They include the southern part of Gordon Bay… and to Ekatukyoak.*

I used to catch lots of fish at the river (Kokiviayok), with Tigitkok. Niptanatiak's parents used to stay there… We went there (to Kingaok) to visit family, even from Ekatukyoak…"

C20a *"People still use that area. This river and lake have one name… They are really close to each other; the lake and the river are named Ekalivik… They have one name because they are one."*

C20b *"… There are campsites from as far as I can remember, the whole map, right from here, because I went all over, the whole thing as I was growing up (all along Hiukkittak)… That is an old winter camp site (mouth of Hiukkittak, north shore)."*

C203 *"I was born in Cambridge Bay (Ekaluktutiak) in 1963. I grew up in Bay Chimo (Omingmaktok) for eight years, eight to nine years, right here…"*



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

October 31, 2012
Map ID: KIA-SAB-008

Figure 8. Inuit Traditional Knowledge - Gathering Places and Travel Routes

Map produced by Spicker GIS Services (www.spickergis.com)

C214 *"… There are willows there, and vegetation, there's a beautiful island there too, Manigak. I've been to Manigak before; it must be smooth land eh? The whole island is Manigak."*

C214 *"… We've only spent summers at Kokiviayok. There is a river as well. It's small but there are a lot of fish… The ice is always there in the summer, even in the heat the ice won't go."*

3.1.3.1. Kiligiktokmik West Coast

C11 *"In the past, people would spend spring and summer at Kangighoakyok (Daniel Moore Bay). That is where they would live during the summer, at the river during the spring."*

C11 mapped a line from Tagionoak (a lake at the mouth of Kangighoakyok) south to James River and due east to the north end of Kangihokyoak (Portage Bay).

C11 *"… This was about the time the missionary first came. This whole area here is where people use to live and hunt (near Tikigakyok (Wollaston Point), Eglookayoalik (Igloriua Island)). The trading post was set up when I was growing up. This is where some houses were. There are houses here where CanAlaska had a trading post. It wasn't the Hudson's Bay, it was a trading post run by the government. The other post was CanAlaska."*

C16a *"… Kokiviayok (to the east of Tinney Hills) is the river where Panegyuk(s) and Agligoitok(s) used to stay. They used to say that there were lots of fish there. Kaniak(s) also used to stay there… They (his wife and her family) used to travel from Kokiviayok to Kingaok to visit their families."*

C17 *"I camped at the south tip of Kanuyak (Kanuyak Island)…"*

C17 *"… This is a camp I used to know, at Piginganik (Manning Point)…"*

C17 *"… If it was a spring camp you would mostly see caribou bones at that time of the year. … Apighoak's camp was behind Tinney Hills (due west of the southern limit of the mountain range)… There are tent frames and caribou bones… We used to call it upper camp."*

C17 *"I used to camp around here too, around the narrows (shoreline north of Kikiagyok - between Banks Peninsula and Goulburn Islands; and north shoreline of Hingighalok (island)…"*

C25 *"… This is called Kitigpagiak, it is south of Kingaok. In this place there are lots of willows, and it is close to Tahikyoak. It is a very high area… That is why you can see it right away, because the Tahikyoak area has low hills… People used to stay there, at a place called Mayoateet (plural of Mayoatok.).*

Taipana(s) and Hagialok(s)… camped at Mayoateet during the winter. They climbed the cliff and Taipana couldn't climb down afterwards. His wife helped him and they both climbed down…"

This area always used to have people but not very many because it was a place where people stopped en-route and did not camp for a season. People traveling through there stopped there. They called it Kitigpagiak because travelers used that route…

There is an old campsite in that area (Kitigpagiak). I've passed through there during the summer… The travelers would travel through the middle of the area. There are old campsites around there. Koihok's wife, Nahogaloak, knows that area. Koihok stayed there when he was a young man…

You can see these hills from far away in the distance, when you travel during the winter. It looks white and shiny…"

C210 *"I traveled with my parents mostly here (east shore of Banks Peninsula). They used to have a camp right there at Katimanak Kangihok (Arctic Sound). Winter and summer both, and fall, small cabins. That was when I was small. They went all the way to Bay Chimo (Omingmaktok) to go shopping or to Bathurst (Kingaok). That's where they use to live there for a while."*

C212 *"… We wintered at Katimanak Kangihok (Arctic Sound) for five years. I was fourteen years old when we left (in 1957)…"*

3.1.3.2. Kingaok and Area

C5 *"Our major camp, the one that we always went to in winter, spring and summer was at Kingaok (Bathurst inlet), because there also was a trading post, a Hudson's Bay Company post…"*

C11 *"There is a store here that people used to go down to, that is where they met white people. This area is called Tikigakyok (Young Point). Tikigakyok. This little point here, Tikigakyok… This is another traditional camping area, it's called Aniakhiokvik."*

C17 *"… This is Aniakhiokvik (Fishing Creek). Around here are old campsites. We used to camp there too…*

We camped near town (Kingaok), at the cabins… We don't go camping much anymore. We mainly stay around Kingaok and Fishing Creek. We also used to go camp at Kikiktagafalok (Young Islands).

We mostly camp during the spring; April, May and the first week of June, if we can still get around. We go by skidoo but sometimes it's too slushy and there are many ice cracks. There we went for a couple of weeks or a few days, it depends."

C17 *"… There is an old camp here, on this island (a small island four-km north of Fishing Lake). We found this not too long ago, we never knew it was there before. We found it right on this island. The blinds are constructed with rocks, like little houses… They might have put their meat caches in there. I don't know how many there are, ten or less. I think they are mostly for caribou. We looked inside them and there were caribou bones. Yes, there is something to see if you are on that island..."*

C25 *"… There is a high cliff called Mayoatok by Kingaok. You can see this hill from a long ways… You can see it right away from Kingaok. It's really hard to climb so sometimes only the men climbed it… It's close to the shore from Kingaok. It's a really high, rough area…"*

C210 *"Right where they, at the trading post right in Bathurst Inlet (Kingaok), that's where they go camping (area immediately south of Kingaok)… Boy, lots of caribou around there."*

3.1.3.1. Kiligiktokmik South

C4oming *"When I was a young boy maybe this on here, there used to be a trading post there (south end of Tahikafalok (Bathurst Lake). Long ago when I was a young boy."*

C6 *"… We reached their camp by walking (from a small lake 20 km to the north to the south end of Tikigak). Etoktok had a boat then, he had passed us by because he had been travelling in the lower area. He must have come from our camp, where the food was… This is where we walked packing our belongings."*

C11 *"… This place is Hikinikgogiak. People would spend time here during the spring, and travel this way, the caribou were here as well during the summer..."*

C17 *"… We camped for a couple of weeks or few days, it depended on availability of game. We went over here camping once, a long time ago (south of Tahikafalok (Bathurst Lake)), in the 1980s in the spring… There were no caribou there, but there were wolves and lots of other wildlife like muskox…"*

C20b *"Here is another camp (on esker south of Tahikafalok (Bathurst Lake))."*

C20b *"Here (north shore of Hannigayok (Back River), 18 km east of Kongok), this is where my parents used to winter."*

C20b *"… I spent some time there when I was packing Etokana. When I had my first child, he was born here (on a widening of Kunayok (Ellice River), where the river changes direction from southwest to southeast)."*

C28 *"This is Kilogiktok (mouth of Kilokgiktok (Western River)… This part of the river is as big as a lake; this is where we spent one summer…"*

C28 *"… I have spent some summers here as well (southern Kilogiktok (Western River) about 20 km north of Hannigayok on Beechey Lake)."*

3.1.3.2. Hanningayuk (Beechey Lake)

C4Oming *"During freeze up we walked here and spent the winter. This is where we spent the winter. Tudlak, that's Tudlak, and that's Beechey Lake close by. We spent one winter there (two-km northwest of Hannigayok)). When I was just about fifteen, in 1949."*

C4oming *"I would spend winters here, (junction of Hanningayuk and Hannigayok (Back River) in the summer I always stayed here. I remember the first time the caribou used to stay on this side."*

C6 *"… Over here this area is called Papegak…, by the outflow of Hanningayuk. Long ago at Papegak there was a topikavik (a place to put a tent) along the shore, which is where the people camped."*

C6 *"… This is where we waited for freeze-up (place seven-km north of Hannigayok (Winter Water Reach)).*

C6 "*People would gather here at Christmas. We would come here sometimes to this area after my husband and I got together (on south side of Hanningayuk seven-km west of Kongok). When my husband and I first got together this is where we camped. This is where I married when my father passed away in 1949. We got married when the priest was here…"*

C6 *"1949, I was using this travel route in this direction, after I married Henry, 1951, 1950, 1949, and this area as well, where is it now. During the spring time in March we'd take this route to Bathurst Inlet (Kingaok) (south Kilogiktook (Burnside Bay)). We'd travel to this area as well from Bathurst Inlet (Kingaok), going this way.*

The next year we travelled this way (from Kingaok south following Western River then overland to Hanningayuk). Here it is; this lake is called Tahikafalok. There were houses in this area as well (five-km south of Kilogiktok).

There had been houses here in the past, before we were born. This is a river. We travelled inland from this area here, to this area here (from Kingaok south following Western River then overland to Hanningayuk). This is what they call Ellice River (Kunayok). People called it Ellice River (Kunayok)… We went from here; we were taken here in the spring, and stayed there for the summer (point halfway between Hanningayuk and Kunayok). People called it Ellice River (Kunayok)."

C11 *"This crossing is a traditional camping ground (between Hanningayuk and Hannigayok (Back River))…"*

C11 *"This area is a traditional camp (area on Kunayok (Ellice River) where it changes*

direction from southeast to south). Fall. September. All of them. Along here. People too. There are stories that people used to live here shortly after rifles came around… Us, we'd travel down that way. Caribou would travel along the area, people would walk and hunt."

C11 *"This is where Ellice River (Kunayok) flows from. It is a traditional camping ground. We used this. This is another traditional hunting and camping area. We'd visit with others along here (a large area on south end of Kunayok where it empties into a small lake). Sometimes people would winter there after they've spent the summer."*

C16a *"… We wintered there (at Hanningayuk) for two years and then we returned to Kingaok. This was around spring after we finished trapping during the winter with Komak(s). We were the only ones there because a plane came and picked them up to go to Cambridge Bay. There were only three of us left there that time, because the children went to school.*

… We camped for nine nights (when we walked from Hanningayuk to Kingaok). There were lots of mosquitoes. It was too hot so we would walk after it cooled down… It took a long time because of all the mosquitoes… We saw (caribou) calves and cows even grizzlies… Ducks, loons and geese would fly over us…"

C20b *"I must have been about eleven (1940s). I must have been that age when I remember people travelling around. Camping here (tip of lake, eight-km north of Hannigayok (Winter Water Reach)…*

When I was a little girl that is where my parents would wait for the caribou to cross (two camps: four-km south of Kongok on south side of Hanningayuk and upper-mid Hanningayuk)."

I remember we spent one fall near Hanningayuk without food (at the camp near Kongok). We were without food and moved down from Hanningayuk. It must've happened more than once, but I don't remember."

C28 *"…This lake is where we'd watch caribou calves. This is Beechey Lake (Hanningayuk). This is where Ekalut(s) would camp (east of Tudlak on Hanningayuk). This is called Tahialok (narrows at Hannigayik (Winter Water Reach), this is where we had a tent and that's where caribou would swim (at Tudlak). It was fun in the past; it was a lot of fun back then."*

3.2. Travel Routes

C25 *"When I became an adult, long ago, I walked from Kingaok to Tahikyoak (Contwoyto Lake). It used to lots of fun when I was walking back then. I was never sad, just walking…"*

Before contact, the main mode of Inuit transportation was walking and dog-team. It was only in the early 1960s that the snowmachine replaced the dogteam as the main mode of transportation. Inuit used dogteams when hunting tuktuk (caribou) and nattik (seals), and for packing supplies. During winter sleds were used to pack and transport belongings, on sea ice and river ice. In the snow-free season backpacks were placed on the dogs.

When the ocean, lakes and rivers were ice-free, Inuit used kayait and flat-bottomed boats made of skins over a frame of willows. When lumber became available these were replaced by wooden boats with oars and then boats powered with outboard motors.

Kiligiktokmiut and Nunamiut traveled to the fur-trading posts from wherever they had wintered. Typically two major trips were made, before the trapping season in the fall to obtain supplies on credit, and in the spring to sell their furs and payback the advance. Inuit also traveled to the posts during special occasions such as Christmas, and if they found themselves short of supplies or food during the winter.

Except for travel to the fur trading posts where the destination was the goal, Inuit travel routes were also harvesting and camping routes. Even when they were travelling to the posts, they had to hunt and fish to provide food for themselves and their dogs.

> ***C3*** *"... I used to be backpacked by my father I remember but I also walked. When I got tired he would carry me on top of his backpack. They would go inland, camping as they traveled, heading to where there were more caribou. When they arrived where there were a lot of caribou they would stop. They hunted from that spot and they made day trips from their camping spot… They buried meat caches when they were hunting caribou. When it began to get colder they strapped the skins they caught onto their dogs or their backs and they left for the place where they had spent the spring. When they arrived back where they had left their sleds, or where they had spent the spring, they packed up the skins that would be used as bed mattresses and clothing onto their sleds.*
>
> *After they made their new clothing so that they could be warm during the winter they returned back to the ocean ice. I remember as a child doing this with my father. When the women were waiting for the men to return they sewed or did other chores. … Long ago Inuit never stayed still. … When their husbands returned with their catch the women were very happy. When their cooking pots were ready they would call others to come over and eat. They always helped one another, not just themselves. They would ask others to come and join them.*
>
> *When they were going to travel that day Inuit would get up really early in the morning. I remember my father used to say the stars are out so it was a good time to travel. When he was going to travel he would check the weather conditions before daylight. The people would be getting ready to travel. Sometimes I was too lazy to get up when I was told."*

Some areas on the land were especially dangerous for travel. These included areas of flowing water that never froze. Rivers were dangerous during spring break-up.

C25 *"These rivers that we call flooded sometimes overflow before the land melts. The river is flowing under the snow and over top of the ice. That is what we call flooded. The ice and river would be flooded and the ice would be opening up when the river overflows. Once the rivers overflow it's hard on the people who are hunting because they get stuck in between the rivers. If they didn't have a boat they would have to wait for the water to subside.*

If the river was really flowing and the ice was broken they would try to cross even if was deep but you must not try to cross when there is ice flowing down the river. If a person tries to cross, that person will not be alive very long. The river starts to empty within a few days so it's best to wait. You have to be careful when you're using the rivers because they do take lives year-round where there is a strong current and the ice is breaking. The ice tears up the ground as it's flowing down. (This happens) at all these rivers because the land is sloped towards the ocean. When the rivers start to flow it's hard to travel on these rivers (Ayapakpaktokvik (Burnside River)).

There would be ice cracks around the rivers that are way out but these rivers still overflow. Sometimes the water is falling off cliffs around here because there are a lot of cliffs. All those rivers are hard to cross once they start to flow. It's not only at those places but at most large rivers. Although these houses (at Kingaok) are far from the falls (Burnside Falls), when the ice starts to break up by this place it sounds like rifle shots being fired… Every spring every year the ice breaks up from the rivers."

3.2.1.Ocean Inuit

The travel routes of Ocean Inuit incorporated ice, sea and land (Figure 7). They travelled within Killinik (Victoria Island), between Killinik and islands, between Killinik and the mainland, and between islands. Typically they followed the coasts on their water routes.

In spring Ocean Inuit hunted nattik (seals). During summer they were scattered throughout the land, on the ocean shore and near rivers and lakes, hunting caribou and fishing. During late fall, once the caribou had returned towards the boreal forest, they returned to the coast and the coastal islands to hunt nattik once again. In winter they lived in large camps of igloos on the sea ice hunting nattik.

C3 *"… After I got married, but never as a child, I traveled close to Innaghakvik (Perry Island). I first came to Cambridge Bay from Kugyoak (Perry River) and Innaghakvik. I've traveled both sides of Kikiktakyoak (Melbourne Island), back and forth (from Cambridge to Kugyoak). I've also traveled by boat heading west from Cambridge Bay to Kugluktuk by the ocean and by the coast. We returned to Cambridge Bay and then to Kikiktanayok. Those are the places that I traveled by boat with my husband during the summer. Angulalik hauled the Hudson's Bay Company's supplies by boat from Kikiktanayok back to Cambridge Bay and even to Kingaok. I don't remember stopping at Omingmaktok because there was no one staying there then. We also*

hauled supplies to Gjoa Haven from Cambridge Bay and then back to Cambridge Bay.

We traveled to Kugyoak to fish at our river. In the spring we traveled many times and I won't be able to remember all (the places we went). There are too many places for me to be able to record (them all). It's nice to travel in the spring when the weather is warmer. Every spring we would go around there (off the coast near Kugluktuk, off of Cambridge Bay (the bay, not community), the Victoria Island coast across from Kikiktakyoak (Jenny Lind Island), Aoulativikyoak (Whitebear Point) and off the coast near Haloakhiokvik) to hunt seals. In the summer Inuit traveled inland, letting their dogs backpack…

In the winter we always traveled but we stayed at our main camps, the seal hunting areas, for a long time. When it was spring and we could no longer stay in the igloo we headed for land. We hunted seals from the land, even from the islands. Inuit would stay in the same camp all winter hunting seals and then they finally moved. They had their main camps towards Gjoa Haven."

C21 *… Inuit traveled from Gjoa Haven to Cambridge Bay, through this area, along the ocean shoreline (heading east along the coast of Victoria Island) to purchase supplies from here (Cambridge Bay). When people from Gjoa Haven were in need of supplies they helped one another traveling…*

I began living here (Cambridge Bay) when the airplanes and skidoos were introduced. I went to Cambridge Bay from Kingaok after I married Kaiyogana. After I was married I went to Cambridge Bay by the ocean from Kingaok. I traveled from Kingaok to Cambridge Bay through here, (north through Bathurst Inlet and Elu Inlet) passing by Etibliakyok (Kilingoyak isthmus)…

I remember growing up I traveled through that route… Those are also my adult travel routes. I traveled those routes after my stepparents died…

C26 *"When I was young (my parents) traveled from Potolik (Hat Island) to Perry River (Kugyoak)… We even went to Cambridge Bay… and from there to Etibliakyok… There are more travel routes around Ellice River (Kunayok)."*

C26 *"… In the spring I go out hunting or I go visit (people) at Coppermine and Gjoa Haven. I take my family out across to the mainland (to MacAlpine Lake and Bathurst Inlet) for a vacation or to do some hunting. In the spring, I hunt a lot especially across the mainland around Perry or Ellice River areas. I go boating lots too… In the fall time I go hunting across the mainland and at same time take a vacation with the family, or I go to Perry or Ellice River to do some guiding. I travel down to Bay Chimo (Omingmaktok) by boat to visit my mother-in-law and do some fishing… if the waters are still open.*

We do a lot of traveling in the winter. We cover more land in the winter by

snowmobile when we go hunting across to the mainland or to guide. We take a trip on snow machine down to Coppermine for the spring games or to visit my real parents. We even go further north to hunt polar bears by snowmobiles…"

C31 *"… I was raised up around Prince Albert Sound (Kanikyoak). I learned how to hunt around these areas: west of Kugluktuk, Kikiktanayok, Prince Albert Sound (Kanikyoak), Holman Island (Ulukhaktok), Minto Inlet, Berkeley Point and east of Kugluktuk around Bathurst, Perry River, Cambridge Bay, Richardson Islands and many more."*

C41 *"I traveled with my parents to Locker Point, Victoria Island and Kikiktanayok. When my father was working at the DEW line sites we were at Hall Beach, Cape Dyer and little bit of Cambridge Bay and Pin 3 (Becher Point)."*

3.2.2. Nunamiut

Inuit from both east and west coasts travelled inland to Tahikyoak (Contwoyto Lake), Kaomaogaktok (Rockinghorse Lake) and Napaktolik to visit and hunt, and during trips to the trading posts. The routes of Nunamiut covered a large area including Aimaokatalok (Kathawachaga Lake), Aallik (Concession Lake), Tahikaffaloknahik (Itchen Lake), Nonatoklik (Pellatt Lake), Yamba Lake and Tahikpak (Lac de Gras) (Figure 7).

C25 *"…This river is part of Hanimok (Mara River)…We would go through here (near Mara River and Kitigpagiak) when we were going to Tahikyoak because it's an old campsite. Inuit traveled overland during winter using the lakes...*

They traveled through here when they were going to spend Christmas… (travel route from Tahikyoak to Kingaok)…Inuit traveled very far… This bay is part of the travel route, it's part of Tahikyoak. The people used to travel through here overland. They crossed Tahikyoak north of Nonatoklik and traveled up the west side of the lake and it would take a day to get there. Tahikyoak is very long, just like the ocean… I used it one time when I followed people that were going to hunt caribou during the fall.

They would take all their family when they went to the treeline to hunt caribou because there was always caribou in the trees in the winter. During the winter when the dogs were just about out of food they would go hunting…"

C28 *"…This place is Hanigayok (James River). It is where people lived and they hunted foxes and caribou long ago. They lived and hunted like that. That place has been used by our ancestors since way back…*

There is a place that when Inuit were going inland that they fished, along Kugakyoak, around this part of Kugakyoak (near the river mouth)… They would fish there when they were going inland to Hanigayok (James River).

While I was a young girl I remember people using fish spears to fish at Kugakyoak.

They reached that area from Hanigayok by walking. Both men and women helped their dogs pull their sleds. It was a long way to go but they would reach that area by walking. They walked from way up here to down there (Hanigayok to Kugakyoak). It was a long ways. They were smart back then. I remember, when I was a young girl, I walked there, being backpacked sometimes."

C51 *"Spring time, couple times we went to visit Bathurst (Kingaok). Following Mara River and go down to Bathurst for visit, spring visit, can't trap anymore and caribou are still too far south so we go down to Bathurst and do our visiting. We go through Nose Lake, follow Mara River all the way, because travelling by land up here is really hard, really difficult, eh, hills, rocks, boulder fields, by snowmobile.*

In the past they've used Tahikyoak, go through Tahikyoak and go down to Bathurst. This river (Mara River) to follow is smooth all the way down. Because it's shallow also, easier. It took us a day and a half, with the whole family to go down. First day we camped … down here (40 km north of Kingalhoak (Nose Lake)), then we went up Hanimok (Mara River), on east shore near the esker."

Travelling route through centre of Kaomaogaktok is a spring, fall and winter travel route. Year round. Used today and in the past. Hunting grounds again. Sometimes I'd spend up to a week in some of these camping grounds or sometimes a week or anywhere between three weeks. It's good hunting there."

3.2.3. Kiligiktokmiut

The travel and harvesting routes of Kiligiktokmiut covered the length and breadth of Kiligiktokmik (Bathurst Inlet) (Figure 8). Their overland routes started on the ocean from the mouths of the major rivers such as Hiukkittak, Angimayak, Kolgayok and Kunayok, and then headed inland. Further south, their travels took them to Hanningayuk (Beechey Lake) and Hannigayok (Back River).

C1 *"… When I was a child we wintered around here (north end of Tahikafalok (Bathurst Lake)). Inuit traveled to there (Kingaok) walking, with their dogs to backpack their supplies. There were lots of caribou around there, yes lots of caribou when we going there. There were lots of newborn calves then."*

C5 *"In my preschool years we mostly traveled through all this area (the length of Kiligiktokmik, east and west; through Elu Inlet to Cambridge Bay; east along the coast to Kunayok and inland west to Kiligiktokmik). My parents moved from year to year; some places were further up and further east."*

C5 *"…When we went to trade at the Bathurst Inlet store we usually followed the same route that we followed going inland in the spring and winter… These are my travel routes when I was a young man. In summertime we stayed put.*

When we were at Bathurst we used to go caribou hunting with a boat, in all that area

(Bathurst Inlet and islands). It was the same in the fall..."

C5 *"... During the spring we traveled hunting caribou. During the summer we traveled toward Killinik (to Cape Colborne) through Hakvaktok (south coast of Melville Sound), where we used to go fishing in the spring. During the winter we trapped inland. We more or less followed the same routes.*

When we went to trade at the Kingaok store we usually followed the same route that we followed going inland in the spring and winter... These are my travel routes when I was a young man. In summertime we stayed put. When we were at Bathurst we used to go caribou hunting with a boat, in all that area (Kiligiktokmik and islands). It was the same in the fall..."

C6 *"... This travel route is how people would go through to the ocean. They'd take this route (from Hanningayuk inland across Tikigak, following a chain of lakes and small rivers to Koatak). This is the route they'd use...*

This is the route that we would take from Contwoyto Lake (Tahikyoak) when heading north to Bathurst Inlet (from Kingalhoak (Nose Lake) following Mara River north then northeast to the ocean at Koatak (south of Kingaok)."

C6 *"... People usually camp around here all the way to Beechey Lake (Hanningayuk). And this area as well."*

C6 is describing a long travel route from Pingaknaktook (south of Kaomaogaktok), following Tahikyoak (Contwoyto Lake) south, east to Hannigayok (Back River), northwest through Bathurst Inlet and west in Coronation Gulf to Kugluktoalok (Port Epworth).

C8 *"I remember traveling through here (Kiligiktokmik area) by dogteam... When I was staying with Amilinik I traveled through here... I used to travel through here too... towards Kugluktuk (by snowmachine following the Killinik coast westward). I traveled by snowmachine towards Kugyoak (Perry River).*

... I traveled from Cambridge Bay to Bay Chimo (Omingmaktok) using dogteam through here by the ocean (across the Kilingoyak isthmus and through Elu Inlet). Another area that I traveled through is from Kingaok through there (southwest towards Tahikyoak). I used to travel through here too (west side of Kiligiktokmik).... Another area is right through here (west along the coast to Kugluktoalok (Tree River)) and here (to Kimakton, north Hiukkittak)..."

C11 *"This is where we went hunting for caribou because there was caribou in the area (northwest shore of Kiligiktokmik). I travelled this area to Cambridge Bay (Ekaluktutiak) in 1959 (route along north shore of Kilingoyak across mouth of Kiligiktokmik). It took nine days...*

It is never the same location, around here (Nannitaak region) as well… This is where people would go to hunt from Cambridge Bay (Ekaluktutiak). That is not the only spot to hunt caribou. There are other areas where you can hunt caribou during the year. There are always caribou in the area."

C11 *"There is a store here that people used to go down to, that is where they met white people. This area is called Tikigakyok (Young Point)…"*

C16a *"… I stayed around here with my parents, at Hanningayuk. I remember them being there… I never went away from Kingaok. When I was a young boy we used to travel to Kangihokyoak (Portage Bay), Hiukkittak… Kimakton (part of Hiukkittak) and Kingaok…"*

C16a *"… We wintered there (at Beechey Lake) for two years and then we returned to Kingaok. This was around spring after we finished trapping during the winter with Komak(s). We were the only ones there because a plane came and picked them up to go to Cambridge Bay. There were only three of us left there that time, because the children went to school.*

… We camped for nine nights when we walked from Beechey Lake to Kingaok. There were lots of mosquitoes. It was too hot so we would walk after it cooled down… It took a long time because of all the mosquitoes… We saw tuktuk calves and cows even grizzlies… Ducks, loons and geese would fly over us…"

We walked anywhere on this land. We walked from Aniakhiokvik (Fishing Creek) to Kangihokyoak (Portage Bay)…

We used to walk to Kingaok through here, and around here we used to see calves… My parents had no boat at the time. We walked from Kangihokyoak to go to Kingaok to visit. Around here (across from Kingaok) we would make a fire and someone from Kingaok would come across to pick us up.

They (my brothers) used to go to the store and I used to follow them… We would go shopping at Kingaok when the waters were calm, at the Hudson's Bay Company store. We paid with money and on credit…"

C17 *"… In winter and summer we traveled to Fishing Creek (Aniakhiokvik)… past Kingaok and Kikiktakafalok (Rideout Island). Sometimes we went east of Kikiktakafalok to see if there were animals around, as far as Katimanak (junction of Hivogahik (Hood River) and James River)… It takes quite a while to travel through… We didn't travel much overland, but mostly along the coastline of Katimanak Kangihok (Arctic Sound)…"*

C19 *"Inuit would travel from Cambridge Bay and further north, to the ocean. They went home to Kunayok (Ellice River) traveling on the ocean by Kikiktakyoak (Melbourne Island). They would go home to Kolgayok too because they trapped from*

there, through Foggy Bay (near the mouth of Kolgayok).

If people were from here (Cambridge Bay) they traveled to Ohinggoyat (island in Elu Inlet) to the white people (trading post)… There used to be white people there so they would travel back and forth. When they needed supplies they would go to the white people.

Omingmaktok had white people later on because people from Kingaok moved there. When the snowmobiles were introduced they started going back and forth between those places. There was a retail store in the past, but now a Co-op is operating there. Kingaok people still travel back and forth to Omingmaktok now by snowmobiles, not with dogs anymore. They now use airplanes to travel from Cambridge Bay to Kingaok when people are sick."

C20a *"…This is Tahikafalok (Bathurst Lake)… on top (south) of Kingaok. This is Hikinikgogiak (Kenyon Lake)… All those lakes are joined. When I was a child, I traveled through them all of them…"*

C20a *"They would travel anywhere around here on boats and hunt caribou (coastal region from Omingmaktok south to mouth of Hiukkittak).*

Because it is Inuit's land, they always use it for hunting all over the land (large area which in the west follows the coast south from Buchan Bay to a point across from Kanuyak, and as far east as Kiplikiatok; large coastal area encompassing Hinikyoak (Banks Peninsula) northwest to Akiagokyoak (Detention Harbour)). They are always using it. We are always using this land (all of Kilingoyak)."

C21 *"… I traveled to Kingaok when I started traveling with my grandfather. We trapped along the ocean shoreline from Kingaok to over here, towards Aniakhiokvik (Fishing Creek)… From there we would return back to Kingaok. We also traveled to this area (Elliott Point near Kingaok to Kilogiktok (Western River)). This is where I learned to travel. We stayed at this place (Fishing Creek) for three summers; three years. We would go visit the white people (trading post at Kingaok) from there…*

From Kingaok we went inland to Tahikyoak (Contwoyto Lake) through this area (travel route heading southeast). Also from Kingaok (and Fishing Creek) we traveled to Hanningayuk and Koklok (south Beechey Lake)… From Kingaok we went to Kaomaogaktok (Rockinghorse Lake)…"

C21 *"… Inuit traveled to those places during the spring and winter. I'm still using the old Inuit old travel routes today so I know their travel routes (Kingaok-Portage Bay-Hood River-Arctic Sound; Kingaok southeast to mouth of Kilokgiktok (Western River); Kingaok - south overland to Beechey Lake; Kingaok - southwest overland to Tahikyoak (Contwoyto Lake) …*

They never traveled far during the summer; they stayed around their camps… When

there was snow on the ground they would travel far…

C25 *"We used to travel along this river (Hanimok (Mara River)), through here during the winter (travel route from Kingaok to Nonatoklik (Nose Lake) and on to Tahikyoak (Contwoyto Lake). That is the main route of travel to take during the winter. They don't use this area (between Ayapakpaktokvik and Hanimok (Burnside and Mara Rivers) for traveling because there are too many high hills…*

We traveled through here (Hanimok) and this place is called Katimanak (where the Mara and Burnside meet). From there (Kingaok) they have to leave the river (Ayapakpaktokvik (Burnside River)) and go around these cliffs (Emnangnatiit)… I never use that area because it's a really big bend (beginning of Ayapakpaktokvik). Part of the river doesn't freeze so I never used that area before… We would travel inside of the river (on the west side); the entire river is connected to Tahikyoak…"

C25 *"… Those lakes from Kingaok (south of Kingaok)… take a long time to cross. If we couldn't travel fast with skidoos it would take a long time. When we were hunting wolverine we used skidoos, me, Nanigoak and Avingana.*

This lake (south arm of Kiligiktokmik) takes a long time to cross and this one too (southwest arm of Kiligiktokmik that leads to Ekalokhiokvik (Tahikafalok Lake))… I spent a day or a couple of days, making day trips (three places: south of Kingaok, northeast of Emnangnatiit and east of Hanimok (Mara River)) hunting wolverine. We used to travel through there from here (from Kingaok to the old trading post at Kilogiktok) using that lake (south arm of Kiligiktokmik)."

C25 *"When I started traveling alone (as an adult), I traveled… (from Kingaok south along Bathurst Inlet). All these places along the shore are hunting areas. I used to fish along these places long ago (Contwoyto, Kingalhoak) and also along this river (Kilogiktok (Western River))… When I started traveling those areas I would cross through here many times (Ekalokhiokvik), when I was hunting…"*

C26 *"…In the spring we cross to the mainland or anywhere around here (from Cambridge Bay to Kilingoyak or Kugyoak areas)… In summer, we ago across to the mainland all along the coast here, right to Kunayok (Ellice River)… all the way down to Bay Chimo (Omingmaktok) and Hiukkittak…"*

C29 *"These are the routes where Inuit used to travel (Bathurst Inlet north, east through Elu Inlet and across the peninsula, south and east following the coast to Kugyoak (Perry River)). Even today Inuit travel through here during the winter (Kugyoak and Kunayok (Ellice River) mouths and northwest Elu Inlet). They have traveled to all these places… There are some routes that are around here where they've traveled, even inland (between Kunayok and Kolgayok and west Kugyoak)…"*

C30 *"... I went to Kingaok by boat when I was a child, (from Cambridge Bay). My father (Angulalik) would camp for a night when going there... He would camp at the islands or in bays... He must have anchored at a bay, maybe at this bay where it's deep. I was a child so I can't remember all those places... I didn't see Omingmaktok as a child, as my father never went there, only to Kingaok..."*

C203 *"I've been to Omingmaktok lots, through this channel (Kongoayok in Melville Sound). When I was a kid, we used to always go to Ekalolialok (Island) and fish. I used to go across from Omingmaktok by dogteam. Lots of travelling, mostly through this area in the spring and summer. Right down to Bathurst (Kingaok). I have always gone through in the winter time; I have gone through here a couple of times in the winter (From Kongoayok in the north, through Buchan Bay down Bathurst Inlet to Kaogyok).*

Yeah, near Banks Peninsula (Hinikyoak), they always say, "don't travel through here" (between Tikigakyok (Banks Peninsula) and Koagyok (Goulburn Island), because, in the winter time it's not safe because of the currents, the ice is really thin through here.

This is always open right there; it's always open water in the winter (between Koagyok Goulburn Island) and Koagyok (Quadyuk Island))..."

C203"*... In the fall they get caribou around Young Island (Kikiktagafalok), not too far from Bathurst Inlet (Kingaok). Along Burnside Bay (Kilogiktook), along the Burnside Inlet (north and south shores at the mouth of Kangihokyoak (Portage Bay) extending south along Bathurst Inlet to Kingaok), there are usually caribou there. You know you get caribou there in the fall. Bathurst caribou...*

In the fall of 1983, I went down there by boat in September (east shore of Kangihokyoak (Portage Bay)). Sam and Susie Kapolak got their winter supply of caribou from there... At that time there was lots of fat on them, and I think they only got bulls at that time, but bulls had thick back fat on them."

C204 *" I go down here, this area (east Kiligiktokmik (Bathurst Inlet) and Tikigakyok (Banks Peninsula). Bear Creek Hill (east shore of Bathurst Inlet south of Tinney Hills to Bear Creek Hills). During the fall, when the bulls are going back south. This is where we go caribou hunting, during the fall (both shorelines of the narrow channel between Tikigakyok (Banks Peninsula) and Koagyok (Goulburn Island)) (shore of Tinney Cove)."*

C207 *"In the summer the best time to hunt caribou is usually on the islands in Bathurst Inlet (Rideout Island north and Kaogyok south). Somewhere around these islands right here (Kikiktakafalok) and up near these islands here near Hiukkittak (Koagyok north, south shore and mouth of Hiukkittak), Rideout Island*

(Kikiktakafalok), from July to September.

It is good for bulls, mostly bulls though. Still get some cows. They get there early though around July. But later on it's mostly bulls. Some other places have more caribou. You get some caribou somewhere in there.

Around here (Tagionuak (Burnside Inlet), Kikiktagafalok (Young Islands)), and here (north shore of Portage Bay east to Banks Peninsula)… Some mainland caribou in the summer there. This (shoreline south of Kingaok from Elliot Point to Young Point) is a calving area… "

C207 *"When I was younger, I traveled here (from Kingaok following Ayapakpaktokvik (Burnside River) inland some 120 km). In winter I went up to the Mara River and up around Contwoyto (Tahikyoak) (central portion of Hanimok (Mara River)). And then I'd be travelling here and there and camped for weeks somewhere around there further (from Kingaok to Kangihokyoak (Portage Bay)) when I was about sixteen. Up to Nose Lake (Kingalhoak) and Pellatt Lake (Nonatoklik), but we didn't start going there until I was in my mid-20s.*

Years before, when I was younger, used to go from Kingaok up to Portage Bay (Kangihokyoak) to Bay Chimo by dog team. Parry Bay and Kent Peninsula (Kilingoyak), right to Cambridge (Ekaluktutiak) (travel route from Kingaok to Melville Sound through Kongoakyok and travel route through Portage Bay to Baillie Bay; travel route from Kingaok to south end of Bathurst Lake).

This was when I was five or six. Yes, I used to go visit Cambridge and stop by Parry Bay. It used to be a three-day stop on the way to Cambridge. Took close to a week, probably, because we were stopping to hunt and fish. We used to hunt and look around."

C210 *"… Right about here (north shore of Portage Bay) or around here (western Tikigakyok (Banks Peninsula)) are the best places for hunting caribou. People mostly go there in fall time…"*

C212 *"In the winter I hunt caribou in Bathurst Inlet area (area surrounding lake north of Hanningayuk) in the winter."*

3.3. Harvesting & Trapping

C11 *"People hunted and trapped all over the land."*

The harvesting activities of Inuit were tied to the cycles of animal movements, behaviour, and availability. Tuktuk (caribou) was the preferred prey for Nunamiut and for coastal Inuit when nattik (seals) were unavailable. Although seasonal harvesting areas could refer to any and all species, important harvesting areas inland were primarily for tuktuk and on the ocean for seals. The spring and fall migrations of tuktuk were times of wildlife abundance.

Inuit hunted omingmak (muskox) when tuktuk were not available, and for dog food. Small prey such as hikhik (ground squirrels) was hunted in conjunction with other activities and used as food when there was no fresh or cached meat available. For coastal Inuit, spring was an important time to hunt the large aggregations of migrating waterfowl. In the summer, they collected eggs and hunted moulting waterfowl.

Inuit fished primarily during the spring and fall, timed with caribou migration and spawning runs. Fishing was important to feed the dogteams. Due to the pulses of wildlife availability, a lot of effort was placed into drying and caching meat and fish so that it would be available during the winter season when animals were not available.

The maps of Inuit travel and gathering places (Figures 6-8) essentially are also maps of important harvesting areas. Kiligiktokmik (Bathurst Inlet) and its coastal river systems was an important harvesting region for Inuit because it was rich in wildlife resources, for caribou and large mammals, trapping furbearers and fishing.

3.3.1. Inokhok and Talo

The consultants talked about the importance of nadlok (lake and water narrows which funneled caribou on the landscape) for their gathering places because they were prime hunting areas. Nadlok were used when the land was not frozen, as tuktuk (caribou) took the easiest path instead of swimming across large lakes. However, nadlok were not needed when lakes were frozen, and Inuit needed to devise a means to hunt tuktuk at these times.

They built talo and inokhuit (more than one inokhok). A talo was a hunting blind which would hide a hunter. Talo were often constructed of rocks but could be as simple as a small hill; whatever was handy was used. Rows of inokhuit (stone piles) were built to funnel caribou towards the talo. Tuktuk thought these stone piles were people and avoided them. A series of inokhuit were placed in converging lines. A flag that moved in the wind could be placed on the inokhuit to aid in moving caribou towards the hunters.

Tuktuk were influenced by inokhuit even at a long distance, but the piles were not used alone. Women and children made noises behind the tuktuk to scare them towards the talo where the hunters in hiding killed them using their bows and arrows.

Talo and inokhok were found at traditional hunting spots, including at nadlok. They were mainly used for hunting during spring migration. Locations of inokhuit and talo indicate important harvesting areas for Inuit. These are areas that have a long period of use, hundreds and even thousands of years.

> **C5** *"… There are quite a few of these inokhok here, at the end of the lake; and here too (on the east and west shores of Tahikafalok, by Hiukkittak). They are found close to the caribou crossings and at the lake narrows… There are quite a few of them here too (mouth of Kolgayok (Tingmeak River)) and in this area (Naoyak (Parry Bay) on Kilingoyak) because these caribou keep crossing back and forth. Most of these small hills have talo."*

> **C23** *"During the summer when Inuit were going to make hunting blinds to use with their bows, they made inokhuit so that the caribou would be funneled towards the blinds. That is how we hunted caribou. These inokhuit that we built during the*

summer were always higher than the rest of the ground so that the inokhok didn't get covered with snow.

If I were lost during the winter I would recognize the inokhok and know where I was. I would know that I was there last summer because my wintering area was close to there. When you are on the land and don't know where you are going, if you can recognize the land and where you traveled by in the past, you can find your way home."

C51 "*The people placed inokhok… at major hunting areas especially near the rivers and lakes. At places where they fished… they used rock inokhok (to mark the sites). Some people used these inokhok to point out the very spot that they had fished long ago.*

They also marked major camping sites or tent sites built by old folks long ago, just like the one we got at home (at Nonatoklik). They used to use or make the biggest inokhok they could make on top of the highest hill around. When they came back home from far away after traveling they could go back to the same spot to go do their hunting and fishing again.

The inokhok rock formation is like a welcoming committee. Some of them look like they have open arms. The inokhok face the direction where you departed. They are erected if you will be absent from an area for a long time. You have said that you are going to come back to that same place so they greet you with open arms. They're like a welcoming committee for you and your family or for some other relative who you told where this area is…"

3.3.2. Trapping

Trapping was an important activity for Inuit and part of many other winter harvesting activities. Inuit trapped and traded the pelts of many animals including caribou, white and red fox, arctic hares, ground squirrels, grizzly bears, wolverine, wolves and muskrat. However, the primary furbearer that was trapped was tigiganiak (Arctic or white fox). Wolves and wolverine were not important pelts for sale to the fur market until snowmachines were introduced and Inuit could hunt them effectively.

Money obtained from selling fox pelts allowed Inuit to buy items they could not obtain from the land such as kerosene, tea, sugar, tobacco, guns, ammunition and steel traps. Good trappers were seen as successful and wealthy by other Inuit. When pelt prices dropped, Inuit couldn't make enough money from trapping and times were difficult. The cyclic nature of fox populations also made it difficult for Inuit to have a consistent income only from trapping.

Trapping was a year-round activity. During the summer and fall Inuit prepared for trapping. They buried gut piles and dried meat, and used these areas for trapping in the winter. If they managed to kill tuktuk in the winter, they set their traps around the gut piles.

Much of the trapping for wolves, foxes and wolverine was concentrated along ocean shorelines and along river banks where the terrain was gentler and travel was easier. Inuit

trapped white fox in wetlands and along the coast, where foxes were most numerous. Inuit who lived near the treeline also set their traps in the boreal forest. Trapping and Inuit traplines are discussed in more detail in the fox report section.

3.4. Meetings with Dene

Even before they had seen a kablunak (white person) and were introduced to manufactured weapons and tools from the fur-traders, Inuit had traded such items with Dene. Although in the past the relationship between Inuit and some Dene was marked with confrontation, during the fur trade peaceful meetings were common. Dene came from the boreal forest onto the tundra in winter to trap white fox, and Inuit extended their traplines south to do the same. Sometimes they would spend the winter together. Visits were occasions for celebrations and for trading. Major items exchanged were dogs, harnesses, food, furs, and tools such as snow knives.

Only Nunamiut and Kiligiktokmiut talked of visits with Dene people. The elder consultants were children when these visits happened. Typically they met at the large Inuit winter camps, at Tahikyoak (Contwoyto Lake), Kaomaogaktok (Rockinghorse Lake), Tahikpak (Lac de Gras), and Hannigayok (Back River), and wherever they encountered each other on the tundra while trapping or hunting. The furthest north that a meeting occurred was at Kugakyoak, east of Kugluktuk near the coast. Except for this occasion, mainland coastal Inuit did not recall seeing Dene when they were children.

> **C23** *"I've been told that Inuit traded their equipment or clothing with the Indians. When people were caribou hunting they would come across one another when walking. This was around Hannigayok, or south of it. When Inuit went south from Ahiak (near Kugyoak), they traveled to… Hannigayok. Sometimes they spent the spring around there on the coast but in the summer, they would go further inland.*
>
> *When the Indians and Inuit met one another they communicated using hand sign language. The Indians would dance their dances and then Inuit would do their dances; they shared their dances with each other. Inuit from around here didn't have matches at that time so they would trade for flint stones to use as fire starters. These small rocks that spark are called 'okhoyak'. The Indians would trade these during the summer. Some of the Indians had pity on Inuit and some had big hearts so they would give what Inuit needed.*
>
> *In the spring Inuit traveled north to the coast, back to their own lands after spending some time in the south. They returned home when the weather was warmer, around the month of April. The Indians returned back to where they usually spent the spring and summer, to the lakes that they knew."*

3.1.Graves

In general, consultants were reluctant to talk about death, although a few individuals shared about how deaths were handled in the past. Anywhere that Inuit lived and traveled, one can expect that people died and that their remains were left on the land. Since there were only a

few places where consultants marked locations of graves throughout the NTKP study area, maps are not provided.

C7 *"… The gravesites get so pitiful because their graves are now empty. There are only boxes left. I know Alikamik is buried there (Nanitaak region, west Bathurst Inlet). Only his skull is left, no other bones because the grizzly bears are always eating (the dead people) and it's too bad."*

C20a *"That is where my Granny (Kitirut), our father's mom grave is. Yeah. Kitirut. She was called Kitirut, Nellie (at Kilikangualik; one of Chapman islands)."*

C17 *"… There are some skeletons here from the olden days, at the point, or near the point (Elliott Point, at Kingaok). They've been there since the forties or the fifties. These are grave sites. People who died were put there.*

There are grave sites at Elliott Point and there are some here (on the coast, southeast of Kingaok). There is one skeleton there right now. There is a grave at Fishing Creek, on top of the hill (near the mouth of Fishing Lake). He must have wanted to be buried there. He was buried there long ago. The grave sites at Fishing Creek belong to Ovilok, Robert's grandfather and Jessie Hagialok's father.

I don't know who is buried here, at Kingaok… There are old crosses there at the graveyard. It has been there since the 1930s or 1940s, when people started getting sick… There is some kind of monument here… at Bathurst Inlet, somewhere around here. There is a plaque there, up by the rocks. A white man put it there…"

C27 *"… A dead person would be wrapped in caribou skins facing north. That is how they buried their dead long ago. I've also seen this. They would wrap the person in caribou skins and place them on top of the ground. They buried their dead like that because the ground was always frozen so they just placed the dead on top of the ground. They considered this a burial.*

… I remember where my mother was buried, right by a small point by a lake. Noayait was also buried there. There were four people buried there (Anialik area), my mother, Noayait, and Aivgak's mother.

3.2. Special Resources

3.2.1.Wood

Wood was scarce above the treeline, but needed and very important. Inuit either lived near sources of wood or traveled long distances to obtain it. Wood was available as willows in productive riparian habitats, from spruce at the treeline and from driftwood in the rivers and at the coast. People gathered, backpacked and stored wood wherever they found it. It was the responsibility of the elders and children to gather wood in the summer and fall before snowfall.

All available wood was used. Long pieces of wood were formed into arrow shafts. Longer pieces of driftwood were fashioned into sleds. Willows were tied together with rope made of seal skin to form drying racks for meat and fish.

A major source of wood for western mainland coast people was the Coppermine River and the treeline. Nunamiut obtained wood from Napaktolik and Tahikaffaloknahik (Itchen Lake). Kiligiktokmiut relied mainly on shrubs for their source of wood.

> ***C16a*** *"We gathered wood from Hiukkittak for our wood stove; from Hiukkittak, Kangihokyoak (Portage Bay), and Hanningayuk …*
>
> *To make a fire Inuit used avalakiak (low growing plant like a willow) and eehoktin (also a small plant used for making fire)… Those are the only types (of plants) used for making campfires…"*

3.2.2. Carving Stone and Metal

Black soapstone called 'okohikhaat' was used to carve the large kudlik, and for making cooking pots. Inuit looked for this stone around riverbanks or the ocean shore. Stone for making oil lamps and pots was found at a variety of places

Ulu blades, arrowheads and knife blades were made from copper or silver. Copper had been abundant in the Coppermine River area in the past but during the consultant's lifetimes all readily available metal had been collected.

The major source of copper for Kiligiktokmiut was Kanuyak, which means copper. Copper was also obtained from Egloyoalik (Cockburn Islands).

> ***C5*** *"People in the old days used to go to that place (a coastal area north of Etipyak (Desbarats Inlet) to get material for making stone lamps or making pots, cooking pots."*
>
> ***C17*** *"… We collected carving stone by Kingaok. Whenever we went by there we always tried to get little pieces from there… Over here, on the north end of the island (on Koagyok, south of Razor Top Point)…*
>
> *Copper is found at Kanuyak. That is where copper is found, on that island. Kanuyak means copper…"*
>
> ***C30*** *"… I saw a small piece of copper along ago. Inuit would find copper for arrowheads long ago. There is some copper metal somewhere around Kanuyak (Kanuyak Island). Inuit would find small pieces of copper metal, but not very much."*
>
> ***C39*** *"We went to Egloyoalik (Cockburn Islands) to get carving stones and here…"*
>
> Three additional sources of carving stone were mapped: at Buchan Bay, two areas at Kilanaktokvik (near Omingmaktok) and northeast Ekalolialok (Ekalulia Island).

4. TUKTUK (CARIBOU)

Tuktuk (barren-ground caribou) were and continue to be the lifeblood of Kitikmiut. Without tuktuk, survival on the land was not possible. Tuktuk provided food, clothing, utensils, tools, and shelter. The life cycle of tuktuk was a major factor in where people travelled and where their seasonal camps were located, especially for Nunamiut.

Consultants did not distinguish among caribou herds as do western scientists. However, they did recognize different types of tuktuk. Island caribou were different from mainland (also called barrenland) caribou. These two types correspond to the Victoria Island herd, and mainland herds, respectively.

Using the names given to tuktuk by scientists, the NTKP consultants had experience with four herds: Bluenose-East herd, the Dolphin and Union herd, which Inuit call Victoria Island or Island caribou, Ahiak herd, and the Bathurst herd. There was some mention of Peary caribou but their high Arctic distribution was beyond the normal range of Inuit consultants.

Consultants did not separate Bathurst and Ahiak caribou although they recognized that some caribou calved at Kiligiktokmik and other caribou (Ahiak) calved in the Kunayok and Kugyoak areas. Typically they referred to "mainland caribou", "barrenground caribou" or "Bathurst caribou", and used the terms interchangeably. They used the term "Bathurst caribou" but not "Ahiak caribou".

The consultants discussed overlap between the herds. Overlap between Ahiak and Bathurst caribou was extensive. They over-wintered together and as a result migrated together. Island and mainland caribou frequently mixed in the fall, winter and spring.

We present the caribou data as was mapped by the consultants. However we recognize that the herd names are familiar to most people, Inuit and non-Inuit. Thus within the discussion we differentiate among the herds when possible.

4.1. Inuit Use of Tuktuk

> **C6** *"… When it was time for the caribou to arrive, caribou traveled all over this land, caribou were everywhere. Long ago Inuit hunted the caribou. There were still lots of caribou. They didn't seem to decrease in numbers back then…"*

Inuit hunted tuktuk for clothing and for meat during the spring migration (April and May), before it got hot and before insects became active. Most of the dry meat that would be consumed during the summer and following winter was made in the spring. Nunamiut were always traveling and hunting, except for the spring period, as it was the one time when tuktuk would come to them, to their camps on the migration routes.

Tuktuk generally arrived on the calving grounds in May and June but they could arrive as early as the end of April. Calving took place from late May to June; 'when the snow starts to melt', 'when the river ice is breaking up', 'as soon as there is less snow on the ground', and 'around late spring thaw, well after there is a lot of water, before it really thaws'.

Tuktuk either left the calving grounds immediately after giving birth, or waited until the calves were strong enough to travel. Some consultants thought departure took a long time, two weeks or more. Some tuktu nogait (calves) were born more helpless than others, and

they took longer to be ready to travel. Once the calves were strong enough the cows started heading south or towards the ocean. One consultant said tuktuk waited for spring waters to recede so that they could more easily cross the rivers.

In general, tuktuk were scarce during summer unless Inuit came upon a post-calving herd. Tuktuk were killed for meat during the summer only for immediate use because of the problem with spoilage and storage. Summer meat was also buried as bait for winter trapping. At this time tuktuk skins were thin and were used only for parka trim. When tuktuk were absent Inuit fished, ate hikhik (ground squirrels) and dry meat, and collected firewood, while waiting for tuktuk to return.

In late summer and fall Inuit gathered together to hunt and trap. They hunted tuktuk at traditional caribou crossings, particularly at the lake narrows (nadlok). If Inuit were in a place that had caribou they might remain there for an extended period, making dry meat. If it was an especially good place they could remain there for the winter.

Tuktuk were hunted for their skins in the fall, for clothing, sleeping robes, kayait and tents, when the fur was thick. Prior to the rutting season pungnik (bull caribou) were hunted for their fat to be used in the kudlik (stone stove) for heat and light. Tuktuk meat taken during the fall was either dried or cached with rocks and buried. This meat would provide the food for the winter.

Although Bathurst caribou wintered primarily in the trees, outside the range of Inuit, some tuktuk from all the herds wintered inland, although their distribution was, in general, unpredictable and sporadic. Areas such as Tahikyoak (Contwoyto Lake), Kugyoak (Perry River), Kunayok (Ellice River) and Kilingoyak (Kent Peninsula) had a greater probability of having caribou during winter.

4.2. Important Habitats

Important habitats for tuktuk included nadlok, wetlands, eskers and other high land features which served as heat and insect relief areas. Nadlok are the water narrows where tuktuk crossed during the ice-free season. They were particularly important to tuktuk and as a result were important living and hunting locations for Inuit.

4.2.1. Nadlok

> **C22** *"Those lake narrows are used by caribou. The wildlife knows about the lake narrows (nadlok), the grizzlies and muskox know the narrows as they swim across. There are lots of campsites in that area. When the caribou are going through there, Inuit hunted them using bows."*

Nadlok were special places and could not sullied, so tuktuk were killed downstream of the crossings. Tuktuk were butchered away from where they were killed and camps were located adjacent to, but not on the nadlok.

During summer and fall Ocean Inuit and Nunamiut hunted caribou at nadlok using kayait. These kayait were long and thin, with a willow frame covered with caribou or seal hides. They were unsteady craft and required a skilled operator. When a large herd moved through during the summer and fall, there could be many caribou crossing. At these times Inuit were selective, killing those bulls with the most fat or the ones with the best pelts.

Important nadlok for Nunamiut were found at many places including much of Tahikyoak (Contwoyto Lake), Nalokvik at Hivogakhik Tahik (Fry Inlet), Napaktolik, Kaomaogaktok (Rockinghorse Lake), Aallik (Concession Lake) and Lac de Gras.

Nadlok were important hunting areas also on the ocean. The narrows at Rideout Island was a major hunting location for Kiligiktokmiut, as were all the major nadlok in Kiligiktokmik (Bathurst Inlet) and narrows within major river systems such as Hiukkittak, Kilokgiktok (Western River) and Ayapakpaktokvik (Burnside River).

C22 *"… The caribou first arrive at Tahikyoak from Kingaok area around July 12 to 15. There are no bulls at this time. When August is ending the bulls start to arrive. By September there are no cows only bulls. There are lots of bulls, all you can see is bulls. That was when Inuit harvested caribou for clothing and sleeping mats…*

Inuit used to have guns back then that didn't have any shell casings (muskets)… They made their own shells when they ran out of bought ammunition. They also hunted using bows and arrows at the lake narrows.

They used kayait when there were lots of caribou arriving for the first time. They never shot many when the caribou first arrived, only later after the caribou settled in the area. They used bows and spears from their kayak. They hunted these caribou for their meat and collected skins to be made into clothing. Only when the caribou hair was just right did they harvest the caribou for their clothing. They used their kayait and speared the swimming caribou…

Almost all the lake narrows have kayait drying and storage racks. The campsites have lots of caribou antlers and meat burying sites. These were used all the time back then. Now there are lots of caribou because there are no more inlanders. Few Inuit trim the caribou herds now like the wolves presently do, except for Bobby Algona and other Inuit from Kingaok. Also the caribou still go down to the Indian territory. There are not very many people now and the caribou are increasing in herd size."

C51 *"Spring migration routes are still more (a number of migration lines heading northeast across Tahikyoak at a number of crossing locations.). Like I say again, these crossings, funneling the areas or something like that (Hannigayok (Winter Water Reach at Beechey Lake)). Late spring and fall crossings. And narrow. Also they tend to funnel around this way, east side of Beechey Lake. Any large lake, sort of a wide lake they funnel around, but I'm sure they use crossings like this too (Kongok on Beechey Lake). It would be a crossing (nadlok one-km east of Kongok).*

These should be crossings also (Fidler Lake at Hanimok (Back River) and between Fidler Lake and Regan Lake). Any large lake like this one here, they'd go around. Okay, spring crossings. For late spring, they funnel around here, get around, funneling around south end of lakes. I've heard stories of traditional hunting grounds in this area; around Beechey Lake or the whole map area. There are some campsites there…"

4.2.2. Wetlands

Wetlands are the habitat class that consultants reported as most important for tuktuk for grazing. Tuktuk got fat from eating the plants in the wetlands. Wetlands were a source of water for caribou during hot summer periods. Cows choose areas near wetlands for calving, and the wetlands subsequently provided a source of food for their calves.

> **C48** *"The caribou like the wetlands because of the plants that they eat there. That is why the caribou start to get fat right away after the plants get ripe. The caribou even eat the mushrooms. I saw a caribou eat another's antler tip when they were resting long ago."*

> **C50** *"Flat grassy areas filled with water are called 'natingnak'. Areas with lots of rocks are called 'kigok'. Caribou like to stay in the wetlands because they eat the grass there…"*

4.2.3. Heat and Insect Relief – Ocean Coast, Cliffs, Eskers and Hills

Heat and biting insects during summer made life difficult for tuktuk and the availability of water and high points of land were critical at this time. When there was little rain and the shallow tundra lakes dried up, tuktuk moved extensively, taking advantage of the wind relief and easy walking provided by eskers. They used lakes to cool off in hot summers, and hid in the shade provided by hills, cliffs and eskers.

> **C23** *"Where there are lots of willows and grass there are lots of mosquitoes and they can drive you crazy during the summer. When you hunt caribou during the summer there are lots of mosquitoes landing on them and wanting to suck blood. When the large caribou herds start to arrive some of the caribou run, trying to avoid the mosquitoes and find a windy area. That is why the caribou get skinny, because they are not grazing but just standing or running from mosquitoes or from the heat."*

4.2.3.1. Coast and Islands

The ocean shoreline and islands provided tuktuk much needed relief from biting flies and heat.

> **C19** *"Aoulativikyoak (Whitebear Point) has been used for hunting caribou during the summer, even by boat… The caribou went to that point during the summer when it was hot out. They went to the coast when there was still ice on the shore. That's when there were mosquitoes. The caribou would go to the point to be away from the mosquitoes and also to keep cool…"*

> **C27** *"In those areas by the ice near the coast there will always be caribou in summer. When people camped on the coast, they would be away from mosquitoes and they would also keep cool. The caribou also went to these areas when the sun was really hot. That is where the people got caribou from and also made dry meat. They call these sites where the ice did not melt during the summer 'nuulak'. That is where*

Inuit hunted the caribou."

C29 *"… There are bug free places around the ocean shores (east and north of Omingmaktok and on Hingikyoak or Banks Peninsula)…"*

4.2.3.2. Cliffs, Eskers and Hills

Hills and cliffs provided tuktuk with windy areas to escape heat and insects. However, to the detriment of tuktuk, akhak (grizzly bears) walked the cliff ridges, in order to hunt tuktuk. Cliffs could also be a problem for tuktuk if they were too steep. Places where snow or ice persisted all summer were important escape habitats.

Tuktuk liked to walk on eskers but so did their predators. As a result, tuktuk made detours around the amagok (wolf), tigiganiak (white fox) and kayuktok (red fox) dens. Caribou were found on the eskers in winter because there was less snow there, and foraging for plants underneath the snow was easier.

C3 *"…The caribou stay around the hill snow banks during the summer to keep cool when it gets really hot and when there are lots of mosquitoes….*

When the caribou get into a swarm of mosquitoes they run to get away from them, trying to catch a breeze. They also stay around the tops of hills facing into the wind. They go to snow banks on the sides of hills that have persisted when it gets too hot out."

C6 *"We gathered together hunting caribou where there were lots of cliffs inland. The caribou find shade in and urinate in the shadow of the cliffs. These areas would get very stinky when there were lots of caribou cooling off in the shade. Caribou keep using the same areas for urinating causing these areas to get really smelly."*

C25 *"… The caribou stay under these small cliffs to keep cool from the sun. The bears try and catch the scent of animals under the cliffs by walking on top. I got a grizzly bear that had jumped onto a caribou that had found shade under a cliff. That caribou was just starting to die when I got it…"*

C25 *"…The caribou and muskox use the eskers sometimes. The caribou sometimes travel using the eskers... The wolves and foxes den at these eskers so the caribou make a wide circle around these dens…"*

C51 *"Eskers are important for wolves. Eskers are used as denning areas and are major caribou migrations routes during the summer time. The wolves often work these migration routes in the summer time for food."*

4.3. Island Caribou

Island caribou were smaller than mainland caribou but larger than most Peary caribou. They had the characteristic pelt colour and patterns of Peary caribou but were slightly darker. These tuktuk migrated across the sea ice to winter on the mainland and returned to Killinik (Victoria Island) for calving, summer, and the rut.

The numbers of Island caribou were on the increase and their distribution was expanding. Kilingoyak (Kent Peninsula) and Elu Inlet area did not have tuktuk or omingmak (muskox) in the past. During the time of the NTKP interviews (mid-1990s) consultants said that numbers of Island caribou were increasing and that their distribution was expanding.

> ***C16a*** *"… When we first started staying here (west edge of Elu Inlet, Kilingoyak) there were no caribou around…. Back then we used to go hunt caribou around here (on the mainland south of Melville Sound)… When we and Tighak(s) used to stay around there, there were no caribou… At that time there were only white foxes…*
>
> *We used to hunt caribou by boat and we used the ice cracks to cut across. We used ice cracks to cross (Melville Sound) when we really wanted caribou meat. During the spring we used a kayak to hunt caribou. There was nothing at Kilingoyak so we had to go to the mainland…"*
>
> ***C48*** *"… I remember there used to be none along the Island (Killinik). When I was young there was none. There was only a few caribou; it was harder to hunt caribou down there. There were only a few caribou on the Island and they'd come to our land once in a while. Every spring, what they call 'aatikton', would come down to the ocean. They probably came from the wooded areas, from far.*
>
> *A long time ago, people would travel to the Island and there was no caribou. The caribou would not come across… I'm getting old now and the caribou are showing again. My father in-law used to tell me, there used to be a lot of caribou on the island and they would hunt with a bow and arrow. They didn't have rifles then, when I was born, when I was a child."*

The increasing numbers and distribution of caribou was accompanied by more predators such as akhak (grizzly bears), amagok (wolves) and kalvik (wolverine), all of which were rarer in the past during the consultants' lifetimes. The consultants remembered stories from their grandparents that spoke of a greater abundance.

> ***C43.*** *"The distribution of wolverine has not changed much but they seem to be getting more at Victoria Island because Island caribou are migrating north. They follow the caribou.*
>
> *Those Island caribou migrate south. In the spring they go back down there north to Victoria Island and the wolves and wolverine follow them. Long ago there used to be hardly any wolves at Victoria Island where I used to live (Kikiktanayok area). Only at certain times would you see wolves down there but there were no caribou and no wolverine. Now they are getting caribou, wolverine and wolves down there."*

4.3.1. Migration

Island caribou spent the winter on the mainland and migrated back to Killinik (Victoria Island) in spring where they calved and spent the summer. They came back to the land of the Kiligiktokmiut in the fall, once the ice had formed in Dease Strait and they could cross easily.

Once on the mainland, Island caribou frequently mixed with the mainland caribou. In the fall Island caribou mixed with Ahiak caribou that were migrating south to the treeline.

The NTKP has little information on Island caribou calving areas on Killinik (Victoria Island) and more information on when these tuktuk were on the mainland. Calving areas were said to occur north of Kanikyoak (Prince Albert Sound) and near Cambridge Bay, both inland and on the coast.

C7 *"The caribou migrate or travel anywhere because they walk by just about anywhere. All that area (Hannigayok (Back River)) always has caribou."*

C7 mapped two migration corridors: one that followed the south coast of Killinik and one that followed the coast from Kugyoak (Perry River) up Etibliakyok (the isthmus) to the north coast of Kent Peninsula (Kilingoyak). The answer relates to potentially two herds. The migration corridors are of the Island herd and may also include the Ahiak herd on the mainland. Hannigayok is in the summer range of the Ahiak herd.

C11. *"… There, down there, from Victoria Island, the caribou from this island would come here (around Akinngak (Koignuk River)) … That is how it goes. The caribou from Victoria Island would go down to the Kalgilik area, to the mainland."*

C11. *"This is Kalgilik, where the caribou from Victoria Island would go, they are heading down there right now (fall time). To Kalgilik, and here to Bay Chimo as well…*

It is hard to mark down exactly where the caribou go because they do not always walk to one area. They would go to Bay Chimo, down here to Kalgilik, and to Tahikafalok. They would scatter around that area. They would go in the Kalgilik area…"

C34. *"The caribou travel heading east from south of Kugyoak and around here (Kilingoyak (Kent Peninsula)). The caribou seems to be one when they are heading north. In the spring and fall they start to cross Dease Strait heading back to Victoria Island…"*

C212. *"Tahikafalok. Cows are there, in the fall… The bull caribou, right now (fall time), are usually on the cliffs. These are the white caribou, the Island caribou."*

C215 *"Around here (southeast of Omingmaktok) I've seen Island caribou, here in Bay Chimo (Omingmaktok). We would travel to Bay Chimo (Omingmaktok) in April from here, and we'd see them all the time here. This was in April.*

That's Koagyok. Yeah, the island caribou are always coming around here… The island caribou have come to this area (point inland south of Hiukkitak)…"

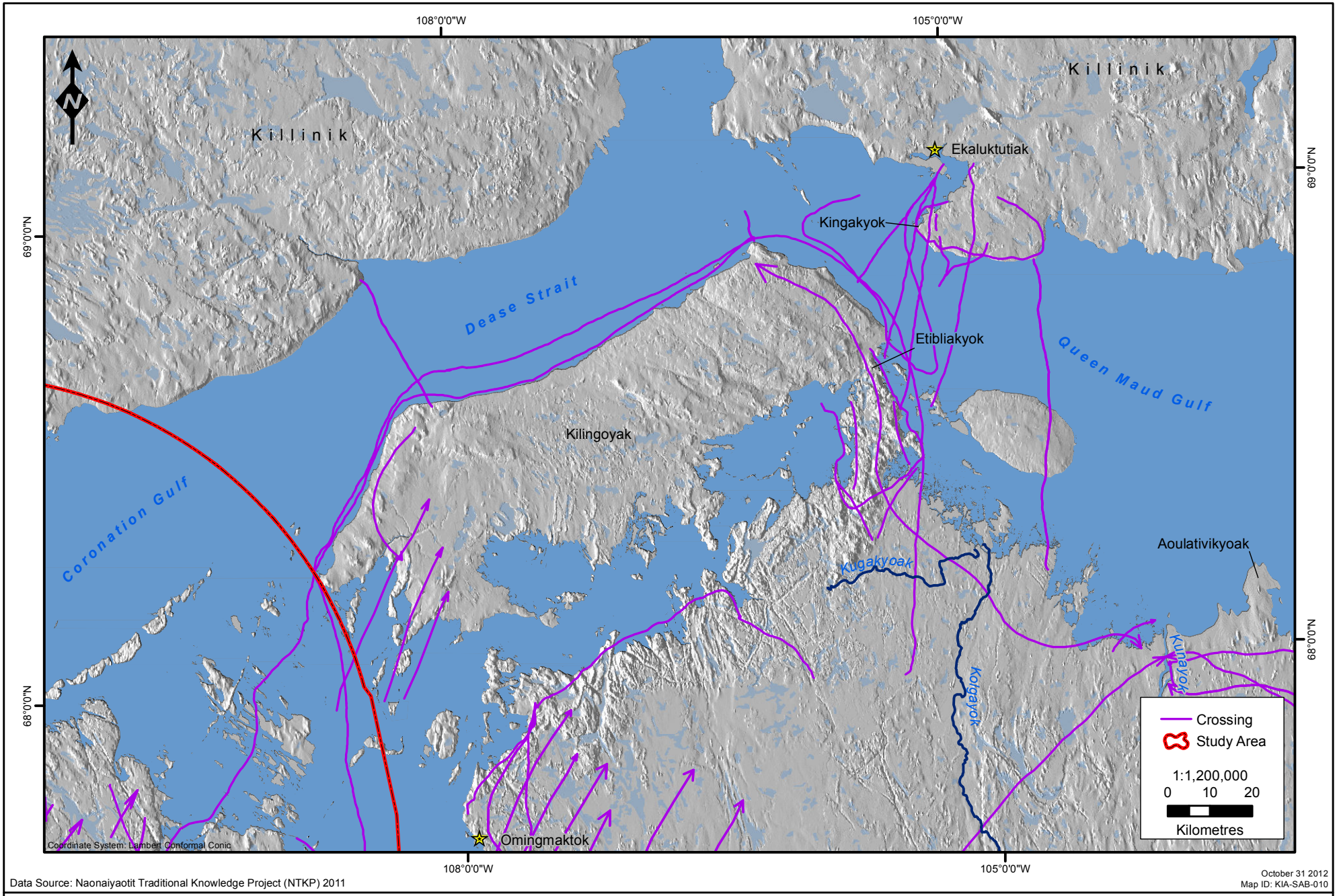
4.3.2. Crossing Locations

Once the ice formed in late November and December, Island caribou crossed over to the mainland where they over-wintered. The most important crossing area was at the west end of the Queen Maud Gulf at Etibliakyok (Kent Peninsula isthmus) although there were also crossing locations across Dease Strait (Figure 9).

> **C19** *"That point (Aoulativikyoak (Whitebear Point)) is very shallow so the ice melts quickly… There are lots of caribou tracks during the summer because wildlife swim at that location. Sometimes Inuit would see the caribou there when there was hardly any water on the land. In the summer there are caribou tracks and they also swim there. Inuit would see caribou there during the summer."*
>
> **C26** *"Victoria Island caribou … come through Cambridge Bay area down to Kingakyok (to Cape Colborne across Dease Strait); they cut across to the mainland (to Kilingoyak, down the Etibliakyok portage and follow the coast east) down to Ellice River (Kunayok)."*
>
> *C26 "….In the fall we go as far as Kunayok (Ellice River), the same thing as summer. This is where we used to get our caribou from, across the inlet on the mainland because there are hardly any caribou here (near Cambridge Bay) unless it freezes up a bit. Then the caribou start to come to Victoria Island. By fall, all the caribou are usually way over here (south on Kunayok). That is how far we have to travel to. Once in a while you spot them around this area, along the coast on the mainland toward Ellice and Perry Rivers.*
>
> *In winter, the caribou mostly cross to the mainland anywhere along here (west Queen Maud Gulf)… In the winter I mostly travel around the mainland. All this area always has caribou in the winter time, from Cambridge Bay to here (from Kilingoyak to Kunayok)."*
>
> **C48** *"My parents and the people from the west around Nagyoktok (Richardson Islands) used to hunt caribou with bow and arrow when the caribou were headed inland before freeze up. They would gather at Nagyoktok in snow houses. They'd look for a path along the shore. It was difficult to travel far. They'd catch a lot of caribou without rifles by Nagyoktok and the surrounding area."*

4.3.3. Winter

In the late 1940s caribou had wintered in some numbers on Killinik (Victoria Island). However, in general, caribou were rare there during winter. When present during winter, tuktuk were mostly found near Cambridge Bay.



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

October 31 2012
Map ID: KIA-SAB-010

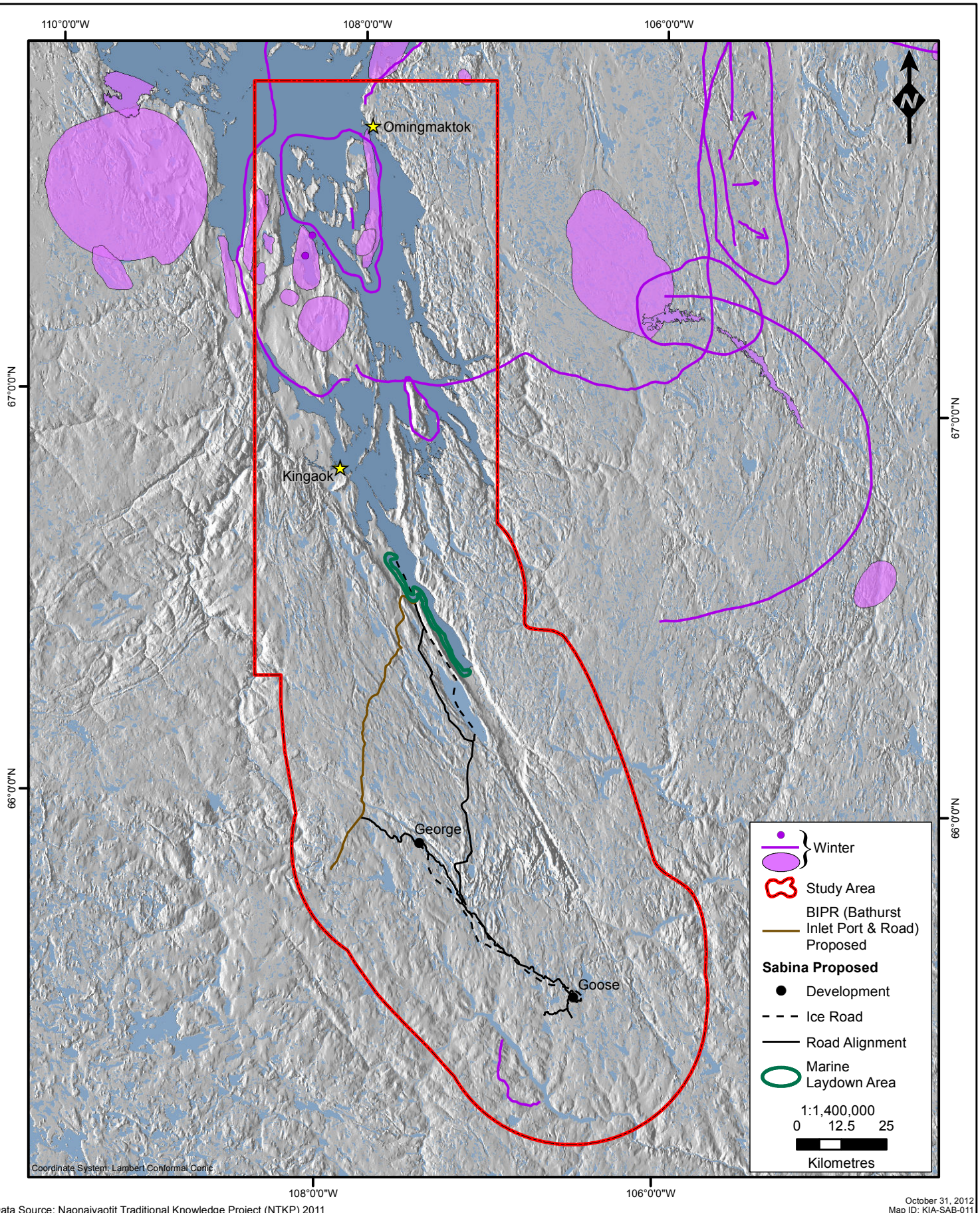
Figure 9. Inuit Traditional Knowledge - Island Caribou Migration Corridors and Crossing Locations

Map produced by Spicker GIS Services (www.spickergis.com)

Island caribou wintered on the mainland because of better forage. They mixed with Ahiak caribou at this time. The majority were found in the Kugyoak and Kunayok areas (Perry and Ellice Rivers, Queen Maud Gulf). Other wintering areas were near Omingmaktok, Kilingoyak (Kent Peninsula), Kolgayok (Tingmeak River), Etibliakyok (Kilingoyak isthmus), Naoyak (Parry Bay), Katimanak (where Hivogahik (Hood River) and James River meet), and between Bathurst Inlet (Kiligiktokmik) and Ellice River. These areas were rocky with less snow and caribou could graze there.

A number of wintering areas for Island and Ahiak caribou were mapped in northern Bathurst Inlet (Figure 10). Hiukkittak also was an important wintering location. However, the majority of Island and Ahiak caribou in winter were found further east, in the Kugyoak and Kunayok areas (Perry and Ellice Rivers, Queen Maud Bird Sanctuary).

> ***C4Oming*** *"Now there are caribou that are wintering around Omingmaktok and Kunayok. In some years the caribou further north migrate to these areas in the fall."*
>
> ***C5*** *"There are lots of caribou around when they winter here (between Kunayok and Kolgayok). One time during the winter I saw lots of caribou around there. It was when I was trapping, maybe 1946 or 1947. There are some caribou during the winter now but not that many, but a few, even around this rough area… Even this area (Kolgayok headwaters) has caribou sometimes and in some years there are no caribou."*
>
> ***C11.*** *"… This is Kapihiliktok (Hope Bay) here… There are always caribou there during the winter, it's rough terrain...*
>
> *The Island caribou would winter close to Bay Chimo, around that area. There are a lot of caribou in this area, we used to hunt there. The Island caribou as well as the mainland caribou; they'd be in this area."*
>
> ***C11*** *"This area here is called Kanuyak. Caribou would cross to these islands. There are always caribou in these areas, during the winter… They would hunt for caribou along the shore. The caribou would go along here."*
>
> ***C11*** *"Caribou would winter around the lakes (three lakes on Banks Peninsula: Keeliakyuk, Akullialuk and Kangilialok). I remember this area where caribou would winter, this one too, there are always caribou in the area (Nannitaak region)."*
>
> ***C19*** *"There are caribou that winter around here (Kugyoak) and Kilingoyak (Kent Peninsula)… These Island caribou mix with the mainland caribou that are from around Ahiak (west of Kugyoak)… The caribou are always staying close to Omingmaktok and Kilingoyak during the winter."*



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

October 31, 2012
Map ID: KIA-SAB-011

Figure 10. Inuit Traditional Knowledge - Tuktuk (Caribou) Winter Distribution

Map produced by Spicker GIS Services (www.spickergis.com)

C29 *"…. During the winter some caribou are in groups of 100 or more and some are in smaller groups of less than 100. Over here (Kent Peninsula and Perry and Ellice Rivers) is where I usually hunt caribou. There are always lots of caribou, near Kunayok (Ellice River) and around the top of (north of) Etibliakyok (Kent Peninsula isthmus), and parts of this area (along the coast). Further north of Omingmaktok and near Naoyak (Parry Bay) and Katimanak by the bay (Tagionoak) (have caribou)…"*

4.4. Mainland Caribou (Bathurst & Ahiak Herds)

The Ahiak herd was recognized as separate from the Bathurst herd by biologists because these caribou did not calve in the same places as did Bathurst caribou. The name Ahiak was taken from their calving grounds, the Ahiak region west of Perry River (Kugyoak).

The Bathurst caribou herd was named for Kiligiktokmik (Bathurst Inlet), the area that the herd traditionally calved in. They have calved both west and east of Kiligiktokmik. Their vast post-calving and summer range is the barrens of the west Kitikmeot. They typically winter in the boreal forest although their winter range is variable, from southeast of Emakyoak (Great Bear Lake) towards northeast Great Slave Lake.

Consultants did not separate Bathurst and Ahiak caribou although they recognized that some tuktuk calved at Bathurst Inlet and other tuktuk calved in the Kunayok and Kugyoak areas. They did not use the term "Ahiak herd" but typically referred to mainland caribou or Bathurst caribou, and they used the two terms interchangeably.

Island and mainland caribou mixed in the fall, winter and spring. Ahiak caribou calving grounds overlapped with the Bathurst herd, and their winter ranges overlapped with those of the Beverly, Bathurst, and Victoria Island herds.

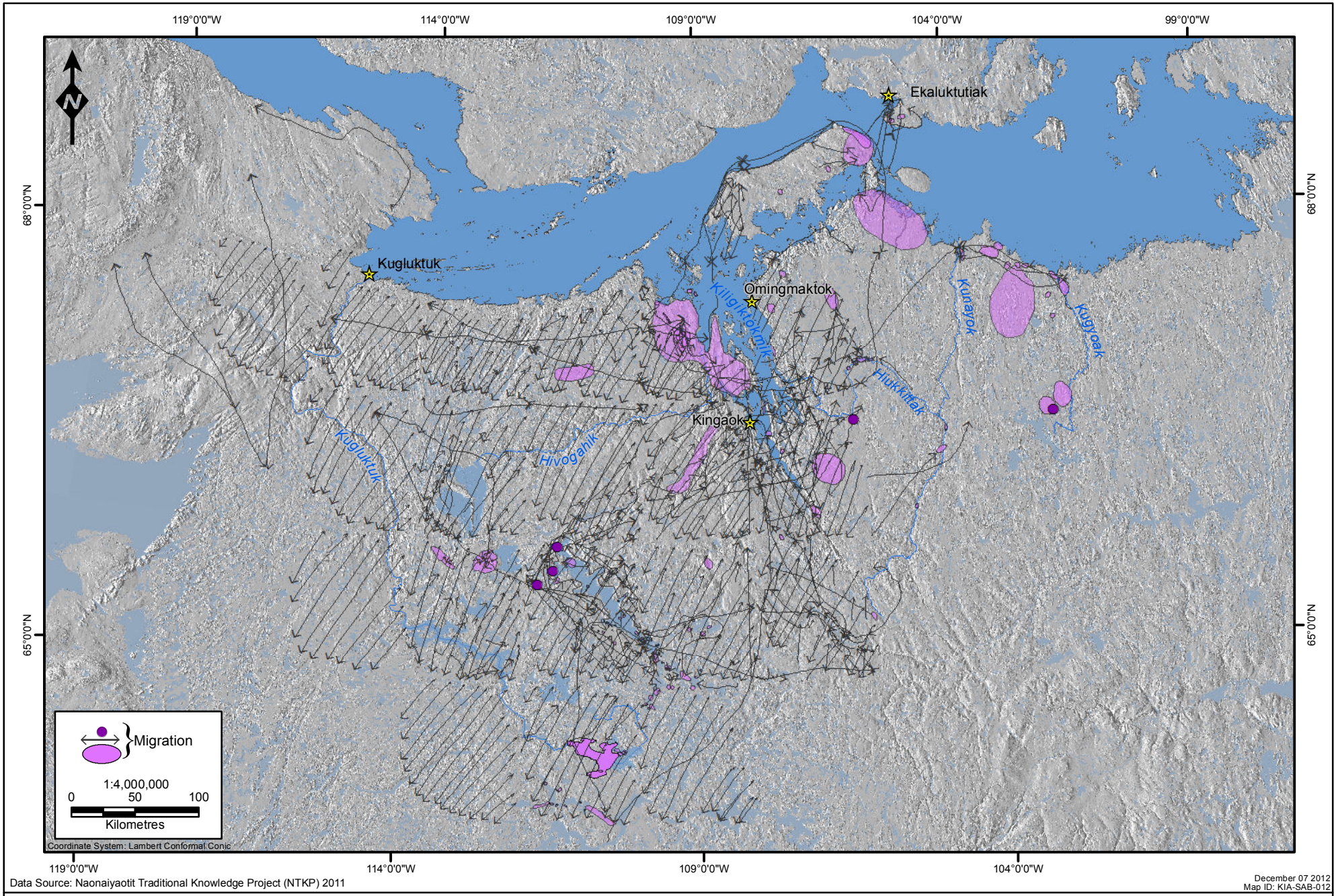
Nunamiut encountered mainland tuktuk typically during spring and fall migrations, although there were exceptions. Kiligiktokmiut were in proximity to mainland caribou in spring, summer and fall. Nunamiut and Kiligiktokmiut in some areas had access to tuktuk all year.

4.4.1. Spring Migration

The typical spring and fall migration routes for mainland caribou were a general north-east and south-west migration (Figure 11). Once caribou reached Bathurst Inlet (Kiligiktokmik) their migration routes split up both sides of the Inlet, west to Hivogahik (Hood River) and to the coast. The route along the east side of Kiligiktokmik followed the inlet north to the mouth of Hiukkittak, northeast to the mouth of Kunayok (Ellice River) and east to the mouth of Kugyoak (Perry River). All of Bathurst Inlet, including the proposed Sabina development is used by migratory caribou (Figure 12), because of the proximity of the calving grounds.

4.4.1.1. Bathurst and Ahiak Herds

The distribution and movements of Bathurst caribou changed frequently over time. In particular, spring migratory routes changed often. Sometimes caribou went through Kingaok but other times they were further east or west. One consultant said that caribou regularly came through Kingaok in the spring but had not done so for about a decade, because of changes in calving areas.

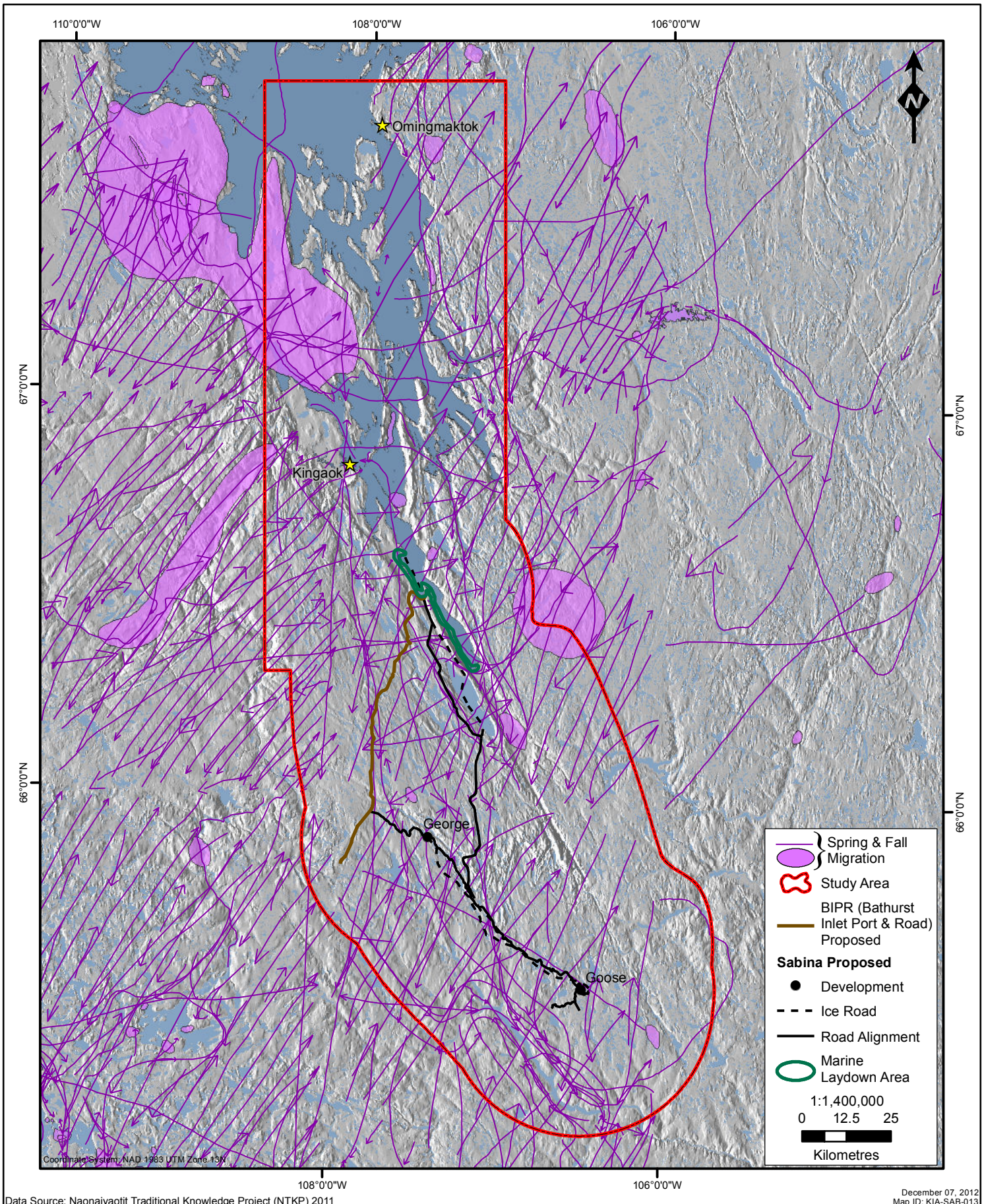


Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07 2012
Map ID: KIA-SAB-012

Figure 11. Inuit Traditional Knowledge – Tuktuk (Caribou) Spring and Fall Migration in the NTKP Study Area

Map produced by Spicker GIS Services (www.spickergis.com)



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07, 2012
Map ID: KIA-SAB-013

Figure 12. Inuit Traditional Knowledge - Tuktuk (Caribou) Spring and Fall Migration

Map produced by Spicker GIS Services (www.spickergis.com)

C5 *"Sometimes the caribou go right through Kingaok but sometimes they go a little further this way (south around the end of Kiligiktokmik to the east side of Kiligiktokmik)… They don't always use the same route…"*

C5 *"The caribou travel through this area after they have traveled north for a while, through these narrows (Katimanak, west Bathurst Inlet across to the east side of the inlet)…"*

C11 *"There would be caribou along the shoreline in this area during the spring. There is always caribou along the shoreline during the spring. There is always caribou anywhere along here (western Bathurst Inlet). There are always caribou along this area in the spring."*

C17 *"…We used to see the Bathurst caribou both before and after they had their calves. They came right through Kingaok but now they don't. I don't know why…*

We hardly see caribou around the houses (at Kingaok) anymore. For ten years, maybe more or maybe less, caribou haven't been coming around. Long ago we used to have thousands and thousands right around the houses. From late April to May we used to see lots of caribou but now we hardly see any…"

C17 *"The caribou calve mostly at Tinney Hills. I think they still go there but they take a different route now… When we first came to Kingaok twenty-four years ago, there were lots of caribou calving here back then. We hardly see anything like that anymore…*

I don't know when they stopped calving near Kingaok. Maybe it was when people started surveying and when the helicopters started flying around."

C21 *"… Where I used to live, as a young man there would be so many caribou migrating (between Kingaok and Koklok on Beechey Lake). Some of the land would have no caribou. The caribou are migrating and that is why there are no caribou sometimes. Maybe you can see only one, but never large herds."*

C25 *"… There are always lots of caribou migrating through here, where we call Hannigayok (Back River). The caribou stop because of this river. That is why there are always lots of wolves there. Once the river breaks up in the spring, caribou are found on both sides of the river. I think that is the reason why wolves stay around there.*

Sometimes the caribou stop at Hanningayuk (Beechey lake) when they are having their calves… I've heard that sometimes there would be many wolves around and they sometimes reach the houses. All this land is full of wolves. In the spring, when the caribou are having their calves, they sometimes have to stop because that river (Back River) is very strong…"

C29 *"Caribou travel by Tahialok (on Kilingoyak), Kunayok and Kugyoak … and also on*

the mainland east of Ekalivik (Footprint River). They use that area and there are always caribou around there. All that area always has caribou."

C203 *"…They were just walking, just a walk and then they maybe only broke into a trot and then that was it. From what I remember, it was like they must have been a good three thousand animals in the herd that was passing through, because it was like a long line. May, I think it was in May, probably in May. I remember our house was over here on this side. See this herd of caribou cutting across, they were just cutting across like this. Coming in that direction eh, they were going in this direction, 1971 maybe, last time I saw a big herd like that was in 1971 (crossing the sea ice from Omingmaktok to Ekalolialok). They were all cows and calves. I saw cows and calves going, and that herd I saw this morning was basically cows and yearlings."*

C203 *"I remember my brother Jimmy when he was a young man maybe about twenty. He remembers being at Arctic Sound. Right on the east side of Arctic Sound along that east shore, and he said that he literally saw thousands of caribou just migrating. That was in the early 1960s or mid 1960s.*

He said there was lots of caribou; he came back with a sled load of caribou in the springtime. He said it was like thousands everywhere. It is nice and green in here in the summer around the Hood River area. Hood River, James River right up to about Daniel Moore Bay (Kangihoakyok), that whole place is really lush. Nice and green around the Banks Peninsula (Hinikyoak). It is really nice in there in the summer time. Always see caribou all along in here, lots of caribou. I know there is always lots of caribou here (all of Banks Peninsula and large area to the north)."

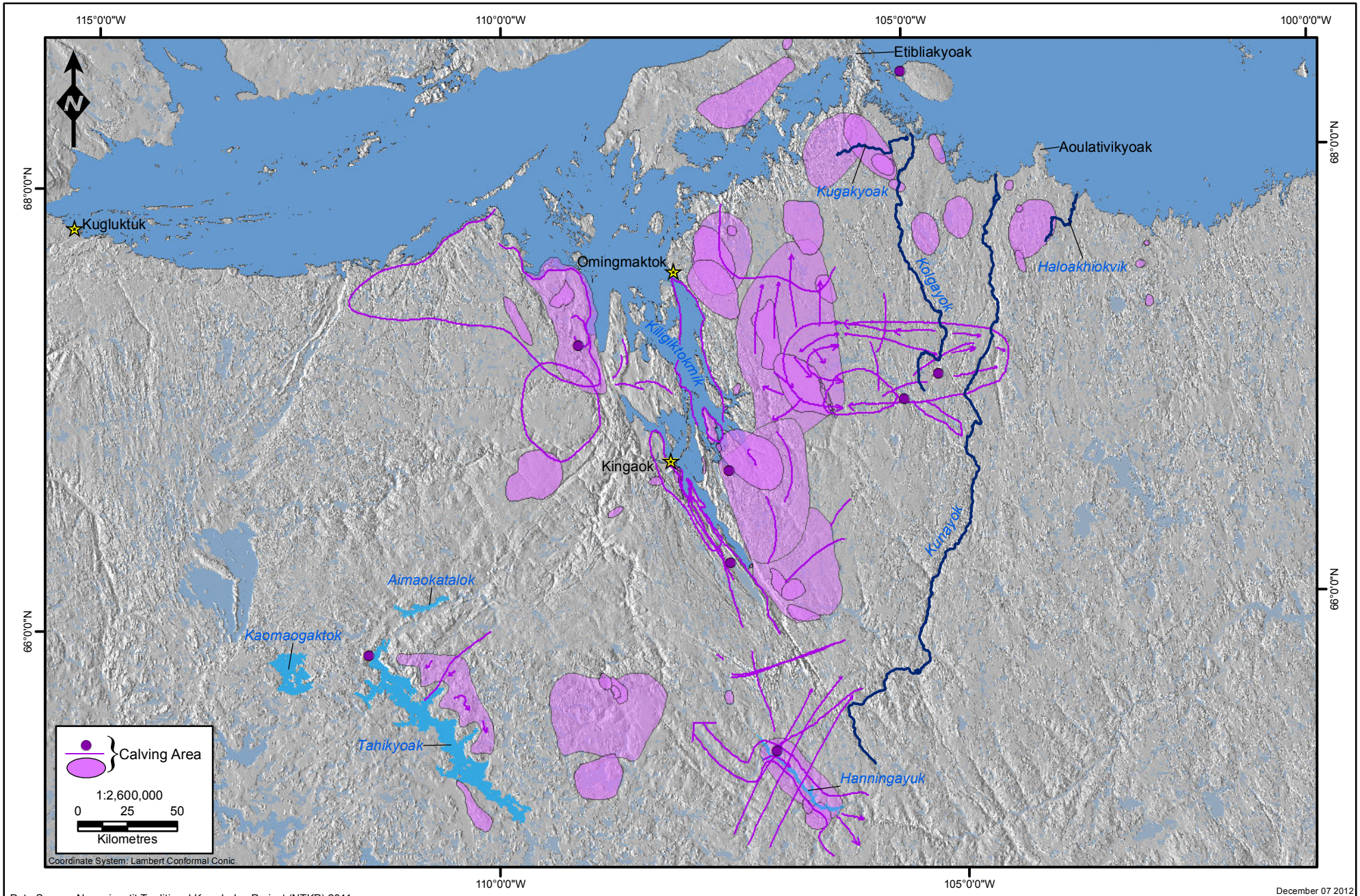
C210 *"In March there were lots of caribou going across that way (crossing between Ekalolialok and Kanuyak). Lots of caribou tracks in March, barrenland caribou moving back north."*

4.4.2. Calving

Consultants described Bathurst herd calving areas at locations both inland and near the ocean (Figure 13). Inland calving areas included north and south of Tahikyoak (Contwoyto Lake), the shorelines of Tahikyoak, Aimaokatalok (Kathawachaga Lake) and Kaomaogaktok (Rockinghorse Lake).

Tuktuk often gave birth during migration to the calving ground. If migration was late due to weather, they calved on route. Some consultants felt that tuktuk didn't have a particular calving area, or that calving areas changed frequently.

C51 *"The first (caribou) herds reach the coast around the Bathurst area, just west of the Bathurst area, and also east of Bathurst area by Bay Chimo (Omingmaktok). The latter (caribou that arrive east of Kiligiktokmik) tend to have their calves along the migration routes…"*



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07 2012
Map ID: KIA-SAB-014

Figure 13. Inuit Traditional Knowledge – Tuktuk (Caribou) Calving Areas in the NTKP Study Area

Map produced by Spicker GIS Services (www.spickergis.com)

C44 *"The location of the calving grounds doesn't seem to change but sometimes during the spring the caribou are late in giving birth to their calves. Some give birth just past Tahikyoak while they are heading north. By the time they reach northeast of Omingmaktok they already have their calves."*

Calving areas had changed over the consultants' lifetimes. In the past mainland caribou calved on the west side of Kiligiktokmik but in recent times calved on the east side of the Inlet. As a result, people in Kingaok no longer saw caribou come through their community in the spring. When Bathurst caribou calved on east side of the inlet, their calving grounds mixed with those of the Ahiak herd (Figure 13).

Inuit consultants talked about (Ahiak) caribou calving in the area south of the Etibliakyok (Kilingoyak isthmus) for many years. Important calving areas included Kunayok (Ellice River), Kolgayok (Tingmeak River), Aoulativikyoak (Whitebear Point), Kugakyoak (Kuugaarjuk River) and Haloakhiokvik. Calving areas for Ahiak caribou do not occur in the Sabina study area.

Calving areas for Bathurst caribou are present throughout the Sabina study area (Figure 14). All of eastern Bathurst Inlet was used for calving. On the east coast, the most important calving area was at Katimanak Kangihok (Arctic Sound) although smaller calving areas also occurred on Hinikyoak (Banks Peninsula) and in the vicinities of Kingaok and Tahikafalok (Bathurst Lake). All of Hanningayuk (Beechey Lake) and south was a major calving location.

C1 *"… When I was a child we wintered around here (north end of Tahikafalok (Bathurst Lake)). Inuit traveled to there (Kingaok) walking, with their dogs to backpack their supplies. There were lots of caribou around there, yes lots of caribou when we going there. There were lots of newborn calves then."*

C1 *"… When I was with my grandfather as a child the caribou used to calve around this area (south of Bathurst Inlet, east of Western River)."*

C4Oming *"The caribou have their calving grounds around Elu Inlet (east and south of Omingmaktok) and near the coastline (southeast Bathurst Inlet, Gordon Bay area)."*

C4oming *"I've heard in the recent years of a whole bunch caribou calving around here (point south of Kikiktakafalok). Just a few years ago, couple years, I've heard of caribou calving there. I must have been around 60, or 59 years old. Probably 1966, I've heard of caribou calving there."*

C5 *"… Sometimes they calve around this area (west Kiligiktokmik). Sometimes they go through here (south to west side of Kiligiktokmik) and sometimes they calve in that area too… In the spring when there is too much snow on the ground at the calving area they calve somewhere else and they calve somewhere else again the next year…*

They move from here to here (from Kiligiktokmik to Kilingoyak) depending on the lateness of the spring. When the snow gets too soft they quit traveling… I know these two areas (west and east Kiligiktokmik) because I've seen caribou giving birth to lots of calves…"

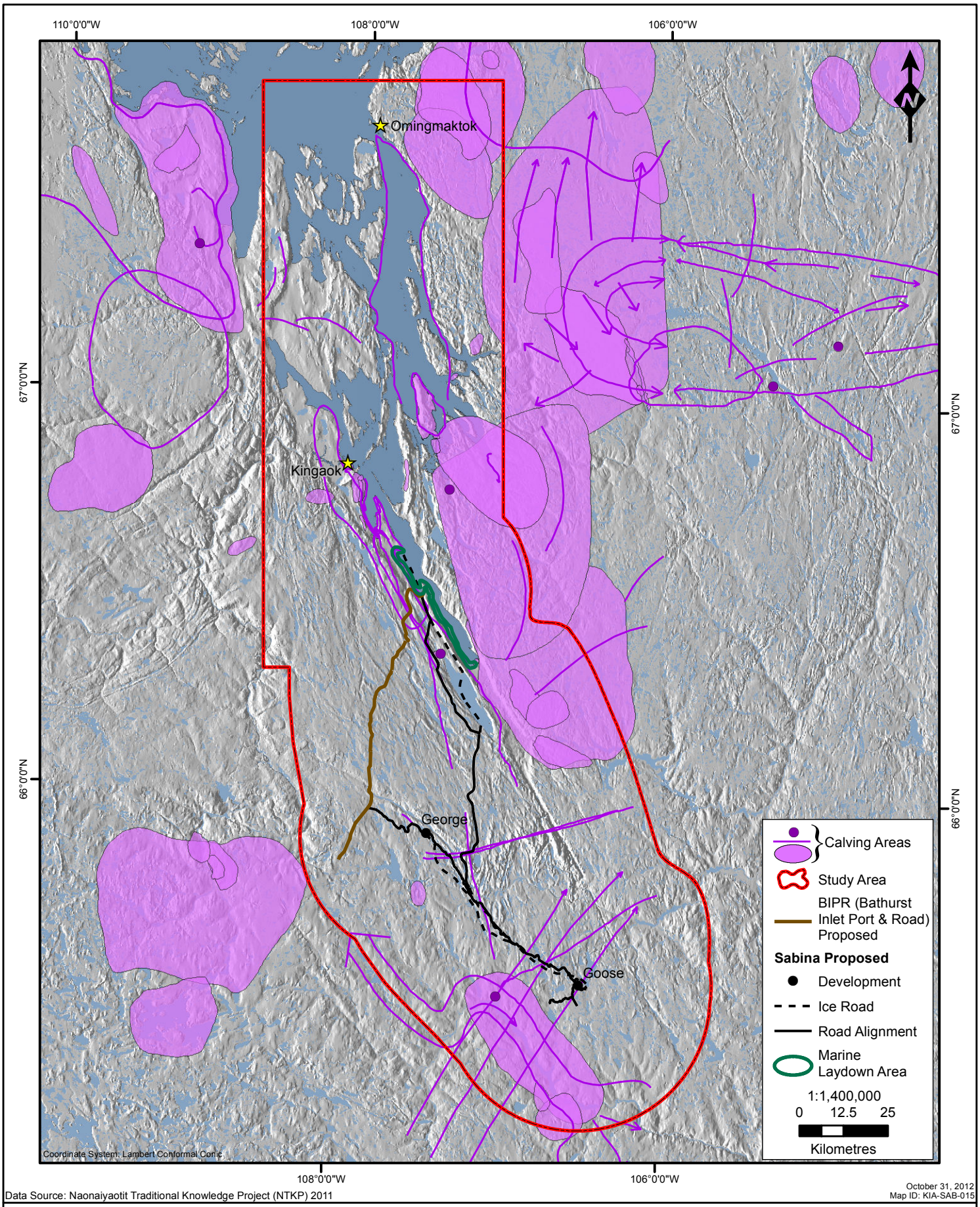


Figure 14. Inuit Traditional Knowledge - Tuktuk (Caribou) Calving Areas

Map produced by Spicker GIS Services (www.spickergis.com)

C6 "… *This is where we watched caribou calving (an area on Mara River west of Ameoba Lake). We would watch. It was fun. They would calve all over this area (an area south Beechey Lake to the east of Papegak). But this is where we watched them calve one spring (lake southeast of Tikigak)). We watched quite a bit. They usually calve around here; this is where we'd see calves."*

C11 *"… I travelled that area with my parents, there's some of the routes we took, the lakes, river. There are trees on the other side of Beechey Lake (Hanningayuk). I've seen caribou calving grounds and used to watch a lot of caribou calving in that area in the spring. I used to watch with my parents, somewhere along this area (large area east of Tahikafalok (Bathurst Lake)). There would be a lot of caribou calving around there…"*

C11 *"Caribou would calve along here, I should've marked the whole area. Caribou calving grounds (long line northeast from Tudlak to Kunayok (Ellice River). The caribou would be walking along this area. Or even this way. This is another traditional camping ground. Caribou have calved in the area all along here. After they've calved they would walk and swim, lots."*

C16a *"Caribou calve up there near Hanningayuk (south Beechey Lake) and by Hiukkittak (at Kimakton). Hiukkittak always has calves … Long ago, I remember some of the caribou calved near Kingaok. Kangihokyoak (Portage Bay) is another area where the caribou calve…"*

C16a *"…The caribou can be seen in August after they've had their calves. There are a lot of caribou around this area (Beechey Lake) in August. They travel anywhere around here because that's where the caribou migration routes are… This was when they start their annual migration southwards to where there are trees. When we stayed there with Komak(s) it was lots of fun…*

It was noisy then. The caribou migrated through all day and all night at the lake where we stayed, right close to the tents. That area is called Tudlak (at Beechey Lake). We stayed there in August and the caribou were migrating through at that time. The calves were making lots of noise. They were a lot of fun to watch…

There are calves also around here east shore of Bathurst Inlet. We walked that area during the summer and there were lots of calves around…"

C17 *"I have seen caribou calving here (on coast south of Elliott Point) and here (Ayapakpaktokvik (Burnside River) delta). About seven or six years ago (1980s)."*

C28 *"This is where calves would be born, sometimes they would get eaten from wolves as soon as they were born (point north of Tudlak on Hanningayuk). This is where caribou would calve in July, and in June. Some of them would freeze to death and some would be eaten by wolves."*

C28 *"… This is where they'd calve as well, during the spring, in June. Yes, when we're travelling to the ocean and going in land as well (travel route from Beechey Lake to Kingaok)."*

C207 *"About ten years ago they were calving right in here around this area (west shore of far south Bathurst Inlet) in the spring till mid June, early June. I saw them just as they were born. Just come out. Maybe couple of hours old. We were traveling by snowmobile, just looking around here but used to always come over the nuna to calve, around here somewhere near the east.*

All this here (large area on east shore of south Bathurst Inlet) are old calving grounds. They were starting to calve yesterday when we were going across. They are starting to go further up.

Last year we were flying in the helicopter and saw a lot of calves around the Hood River. Last few years I think they've been calving around the Hood (large area between Hood and James Rivers). 1996, 1997 and 1995. They starting calving on the west side probably about five years ago now, five or six years ago."

C212 *"I have seen caribou calving at Tahikafalok (an area to the south and east of Tahikafalok). There are always a lot of caribou calving there (1992). And I have seen calving here (on west side of Bathurst Inlet, area to the south of Otkohikhalik (Wentzel River))."*

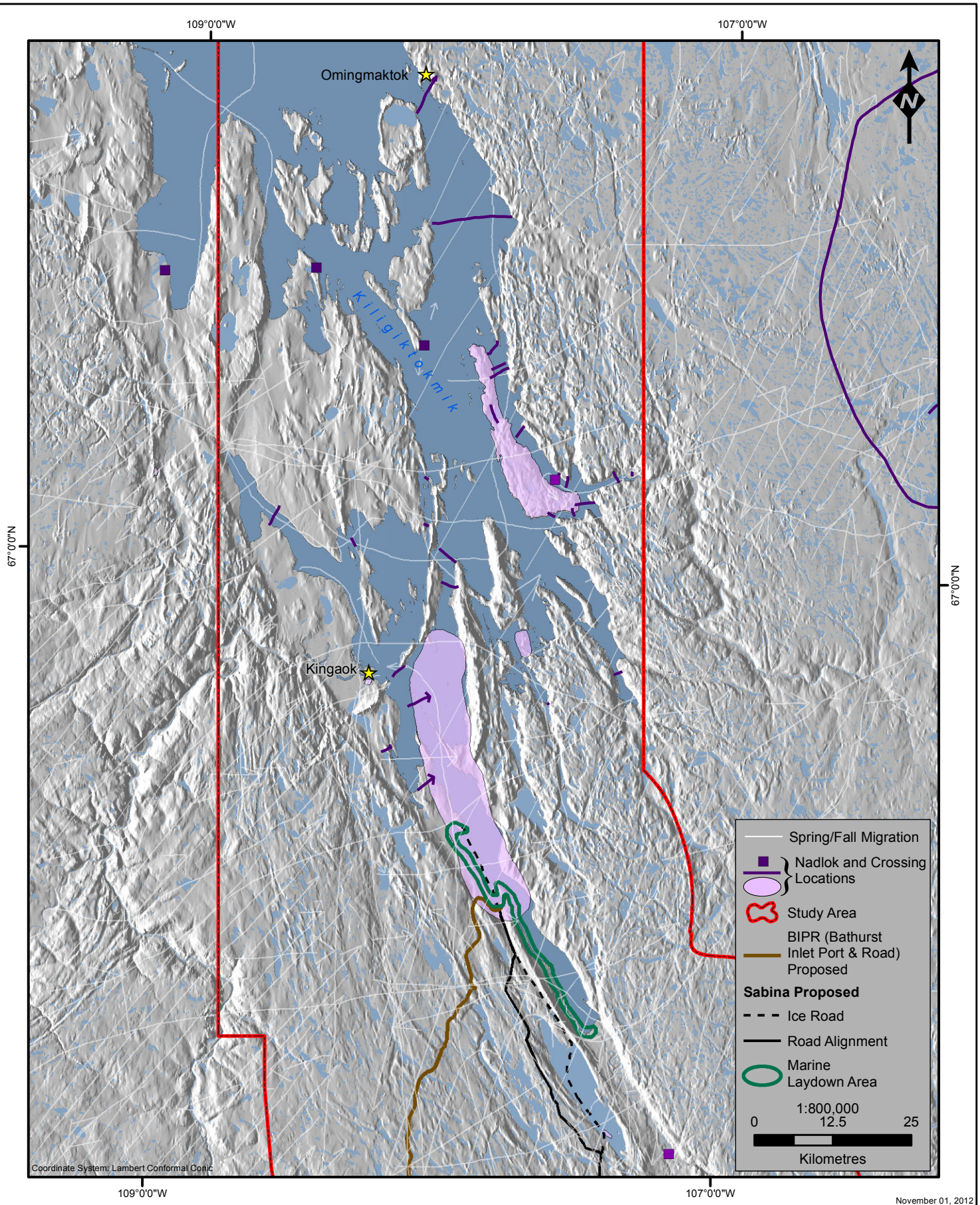
4.4.3. Post-Calving and Summer

Tuktuk left the calving areas immediately after having their calves. There were two main types of post-calving movements for mainland tuktuk, to the south, and to coastal shorelines. Tuktuk that traveled to the coast were said to originate from Kilokgiktok (Western River).

Mainland tuktuk were distributed across a large area in the summer and their occurrence was unpredictable and variable. There could be caribou in the study area during post-calving and summer, especially near the water. During this time they used a number of predictable and traditional crossing locations during open water in Kiligiktokmik Bathurst Inlet (Figure 15).

C4Oming *"I used to spend a lot of time here in the past and I've seen a bunch of caribou crossing around here after they've calved. When they're heading south, there'd be a whole bunch crossing around here (narrows on Tudlak at Hanningayuk (Beechey Lake). We used to spend the summer there and see the caribou. Close to August; I don't remember what year, it was a long time ago. When they're heading south from the calving grounds, a lot of caribou would cross there."*

C11 *"The caribou stay in this area all summer long as well as in the fall. When September comes, they would stay here for a bit by the ocean, and then pass by this bay (across the north end of Kangihokyoak (Portage Bay))."*



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

November 01, 2012
Map ID: KIA-SAB-025

Figure 15 . Inuit Traditional Knowledge - Tuktuk (Caribou) Nadlok and Crossing Locations in Kiligiktokmik (Bathurst Inlet)

Map produced by Spicker GIS Services (www.spickergis.com)

C11 *"… Caribou would swim around here. Or even this way. Caribou would travel along this route during the summer, there are many travel routes and crossings. There's another crossing there. They would swim to the island (at Kingmigot)."*

C11 *"…This is a traditional camping ground (mouth of Hiukkittak). Here's a crossing (where the mouth of Hiukkittak narrows into the river). That's another water crossing (narrows in inlet south of Gordon Bay)."*

This is called Kikiktakafalok (Rideout Island). Some caribou would cross around here and some would cross over here (two narrow locations between Kikiktakafalok and the mainland, and Kikiktakafalok and the island to the south; and two other narrow locations between the southern island also known as Kikiktakafalok and the mainland). During the summer, the caribou head that way. They would calve over here and travel this way during the summer, right here, swimming. They would travel along here, and some would swim around here. They'd be along this area as well. Mainland caribou would spend summers here."

C11 *"… Caribou would swim around here (at Kukiviakyok, land narrows at the north end of Charr Lake)... Or even this way. Caribou would travel along this route during the summer, there are many travel routes and crossings. There's another crossing there. They would swim to the island."*

C11 *"… This area is Kongok. This is where they'd swim (crossing north of Kongok). They'd swim there. They'd swim anywhere along here."*

C11 *"This is where people would go to hunt. They would get up through here, there would be many people travelling together (from Kingaok south through Tahikafalok (Bathurst Lake) to Kilokgiktok (Western River)). There are a lot of trees in that area. The caribou would travel between the trees, and some would swim and be swept away and killed from the rapids. They'd get stuck as well because of the high cliffs."*

C16a *"… We traveled by walking and we used to pack caribou far… We got caribou from around Kingaok, and near the land at Nakhoak (placename not verified; Brown Sound area). We used a boat with only oars to go there… People didn't have kickers or boat motors… When there was a breeze the people would use a sail to go and return home… When it got windy and the wind direction was right, they used part of their tents to make a sail. At that time I used to travel with my brother Anikgoak…*

The tent poles were tied together to make the sail. The sails were good to use because you didn't have to use the oars to travel…

We would get the dark (Bathurst) caribou at Ekatukyoak during the summer. Anikgoak and Kadlun were still alive when we were at Ekatukyoak. I used to go hunting for caribou with a boat using oars with my brothers. We also got caribou at

Kikiktagafalok (Young Islands) when we hunted there…

Those are the main caribou hunting areas we used when we hunted with a boat… Caribou swam across these narrows at Ekatukyoak. That was our main hunting area when my brothers were still alive…"

C20a *"The caribou would cross anywhere on here (four crossings between Kikiktakafalok (north and south Islands). The caribou would be anywhere on here. Caribou are always swimming here too."*

C20b *"A long time ago, we would see caribou crossing, inland, they'd go this way or even that way. They always swim to get to the other side (four-km south of Kongok on south side of Hanningayuk (Beechey Lake)). There's a crossing here on the bay that looks like a road….They use it all the time to swim to and from other areas.*

I spent some time there. When I was a little girl that is where my parents would wait for the caribou to cross, there and here (upper-mid Hanningayuk)."

C28 *"…This lake is where we'd watch caribou calves. This is Beechey Lake (Hanningayuk). This is where Ekalut(s) would camp (east of Tudlak on Hanningayuk). This is called Tahialok (narrows at Hannigayok (Winter Water Reach), this is where we had a tent and that's where caribou would swim (at Tudlak). It was fun in the past, it was a lot of fun back then."*

C51 *"… These crossings are funneling areas (Hannigayok (Winter Water Reach at Beechey Lake). Late spring and fall crossings. And narrow. Also they tend to funnel around this way, east side of Beechey Lake. Any large lake, sort of a wide lake they funnel around, but I'm sure they use crossings like this too (Kongok on Beechey Lake). This would be a crossing (nadlok east of Kongok)."*

C204 *"… Right at Bathurst (Kingaok) they are always crossing… Around this here (across north end of Omingmaktok (lake) at Muskox creek; and at Kingaok). By swimming or ice, both this time of year… That's where they cross most of the time (across central Bathurst Inlet from west to east). Here (from Aniakhiokvik (Fishing Lake) east across a peninsula and Bathurst Inlet). Around this whole thing here (all of southern Bathurst Inlet)…"*

C207 *"I've seen a lot of caribou swimming across from Manning Point to Kaogyok (from both Koagyoks (islands) to Tinney Hills; from south and north ends of Koagyok (Goulburn Island) to Banks Peninsula). Summer, swimming. Bulls, and in late summer, September. Some cows, but not too many. They usually go around the Inlet I guess.*

Crossings up through here, south tip of Kaogyok. Lots of good hunting around in September (across Elliot Point to Koagyok). About September, August. September, and in the spring they all cross in the inlet. Around Kaogyok is the most northern

place I've seen them crossing. Right down the Inlet, through here.

They all cross that in the spring when there's ice up right through the Inlet (wide crossing from Kanuyak east to the mainland). In the spring, they usually cross the river. But mostly to the south of Bathurst (Kingaok), southeast has always more traffic than here."

Some crossings were dangerous, such as at the rapids at Kilokgiktok (Western River). Sometimes caribou were unable to cross because of rough water and they would get trapped, resulting in mortalities. Consultants described three such events, on Tahikafalok (Bathurst Lake), Kikiktagafalok (Young Island) and Kikiktakafalok (Rideout Island).

The event on Kikiktakafalok discussed by Consultant C203 below was published in a paper by Henry and Gunn (1991). Kikiktakafalok is a rocky 40 km^2 island. It is separated from the mainland by a narrow channel of 2.5 km and from a larger island to the south by 1.5 km. During the summer of 1987 some 500 to 1000 cows and calves became stranded on the Island and remained there for 8-12 weeks. There was insufficient forage to support the animals until freeze-up. All of the available vegetation was eaten and some areas were heavily trampled. The caribou eventually died from malnutrition or were killed by wolves and bears (Henry and Gunn 1991).

This was the first time that large numbers of caribou stranded on an island had been reported by scientists, who had been alerted by Inuit. In their paper Henry and Gunn (1991) cite two Inuit individuals who told them that they believed high winds discouraged the caribou from swimming away, and that lack of leadership among the group was also an important factor.

C4Oming *"…It must've been around 1975, I've heard when one of the first planes flew over they spotted a whole bunch of dead caribou in the spring (south Tahikafalok (Bathurst Lake). I heard that a lot of dead caribou were spotted when they flew over.*

They must have gone through thin ice; the caribou from around here (Bathurst caribou). They probably went through thin ice. They must have tried crossing on thin ice in the spring. There was a lot of dead caribou up that way. In the spring time, when the ice was gone, they must have been swimming. They were seen in July, there was ice in some areas."

C11 *"Sometimes the caribou would travel inland from Bathurst Inlet (Kingaok), here's the travel route. This area on the river is dangerous, that's where there usually are caribou. There are high cliffs on each side of the river which makes it difficult to climb. That's along Western River (Kilokgiktok). Sometimes caribou would get stuck in the high area on the cliffs. Sometimes they would get caught in the rapids, that is where the caribou would get stuck (an area on Kilokgiktok (Western River) east of Tahikafalok (Bathurst Lake))."*

C203 *"All of Young Islands (Kikiktagafalok) is good sometimes during the summer. Sometimes they get trapped on the island. One time we had about two-hundred*

mainland caribou stuck on that island, so they were starving when it froze up. They all were trying to go across, most of them fell through the ice. A few died, not much. They were too hungry, they started across. They were just about out of food for the caribou on that island. They were really skinny. It was about the time when I was sixteen probably (1989). Most of the wolves caught those caribou on the island. When the ice came, the caribou were weak."

C203 *"I remember one year some caribou were stuck on Rideout Island (Kikiktakafalok). They didn't swim across and they ate all the vegetation off on the island and they died on here. It was in 1990 I think. I think in 1990-91, I can't remember. Lots of caribou died off on here on Rideout Island (Kikiktakafalok), lots of skeletons there. November, October? Before they could cross. It was in the fall…"*

4.4.4. Fall Migration

On a regional scale, tuktuk used the same corridors during spring and fall migrations (Figure 11, Figure 12). Bathurst caribou began to move south in the middle of July with major movements in August and September. Most consultants said that caribou passed by them in August and September, depending on where they lived and what year it was. In some places there could be no caribou around by September.

C11 "*Sometimes the caribou would spend the summer here. When the caribou are heading down from here, they would gather in the fall in September (at western Bathurst Inlet). Near the end of September. They gather in different areas, when the first snowfall comes. They would come from the Kugluktuk area, from the coastline, after summering along the shore, from the lakes. They would get together and head inland. There are caribou all over in the summer…"*

C11 *"When the caribou are migrating south, they'd take this route (southeast, across Hannigayok (Winter Water Reach) and down west side of Hanningayuk (Beechey Lake)). This is where caribou would walk, swim along here. There are more than one crossing. They'd swim anywhere along the river."*

C204 *"When they're crossing the main route, there's always hair on the river, along the shore (Ayappappaktokvik (Burnside River)…, along the whole Burnside. Big balls of hair in this area."*

C204 *"… In the fall they hit this water (ten-km long water area along east shore of Kaogyok (Quadyuk Island)) and they have to go around, because that's Bathurst Inlet"*

C210 *"We see caribou right up here in the fall time (an area on the mainland across from Rideout Island). This is where they still hunt caribou. Fall caribou."*

4.4.5. Winter

Inland areas with tuktuk during winter included Tahikyoak (Contwoyto Lake), Ahiak (region east of Emakyoak (Great Bear Lake), Aipkaktaktokvik (a location on Burnside River), Yamba Lake, Lac de Gras, Tahikaffaloknahik (Itchen Lake) and Aylmer Lake.

Within Bathurst Inlet, mainland caribou wintered in the northern part of the inlet and on both east and west sides. As discussed in the Island Caribou section, these are places where the different herds would inter-mingle. The only place in southern Bathurst Inlet with mainland caribou in winter was Hanningayuk (Beechey Lake) (Figure 10). Habitats used during winter consisted of rough and rocky areas because there was less snow and access to vegetation was easier.

> ***C1*** *"When I used to stay near Tahikyoak and we traveled to Kingaok… the caribou would be way south of Kingaok during the winter and fall up around Aipkaktaktokvik. That area always has caribou because there are rivers on both sides and flat wetlands. The caribou use that area for wintering."*
>
> ***C11*** *"The caribou would stay in this area during the winter. Sometimes they'd be around here during the winter. There are caribou here during the winter as well (a thirty-km line on the west shore of Hanningayuk).That's when there are caribou around during the winter. Sometimes there would be a big herd. The caribou don't always winter in the one area.*
>
> ***C11*** *"… This is part of Hanigakhik (Brown Sound), part of Tikigakyok (Wollaston Point). There are always caribou in the area. Caribou would spend winters, more than once; the mainland caribou."*
>
> ***C210*** *"This whole place had caribou all winter (Tikigakyok (Banks Peninsula)). All around home (Goulburn Peninsula)… there are always caribou."*
>
> ***C210*** *"Lots of caribou there all winter. Today I just go there for the day, for the ride. Lots of caribou. Big herd of caribou tracks, just lots up here (an area on the east side of Hivogahik (Hood River) from the coast south to James River). Caribou all winter on here. There was caribou all winter at home. Until probably end of April, there was hardly any. Mostly mainland caribou, barrenland caribou (Ahiak caribou herd). I guess they were moving all down. Lots of caribou in the winter."*
>
> ***C210*** *"This whole place had caribou all winter (western Tikigakyok (Banks Peninsula)). Here (peninsula in north-central Tagionoak (Goulburn Lake), point on northwest Hanikgahiagohik on Goulburn Peninsula). I'll mark wherever I saw the caribou. I should just make a big circle (Goulburn Peninsula)."*
>
> ***C215*** *"… Here (large area on northwest shore of Kiligiktokmik) is where we saw caribou in the winter."*

5. MAMMALS

This section presents Inuit oral data regarding the distribution, hunting and importance of mammal species other than tuktuk: akhak (grizzly bear), amagok (wolf), kalvik (wolverine), omingmak (muskox), okalik (Arctic hare), hikhik (ground squirrel), and nattik (seal). Many of these species were secondary food sources for Inuit and used if tuktuk were not available.

5.1. Akhak (Grizzly Bear)

Akhak (grizzly bears) were important animals for Inuit and there were many legends about them. Akhak were one of the animals that you should not talk about, else you risked having them avoid you if you desired to hunt them, or you risked an attack. Some consultants had no experience with akhak as their areas of use were outside of the range of akhak.

There was a strong sense of the dangerous nature of akhak and the importance of treating these animals with respect. Some consultants felt that akhak didn't have any spiritual importance; they were dangerous animals and nuisances. If akhak became a problem, they had to be killed.

5.1.1. Inuit Use of Akhak

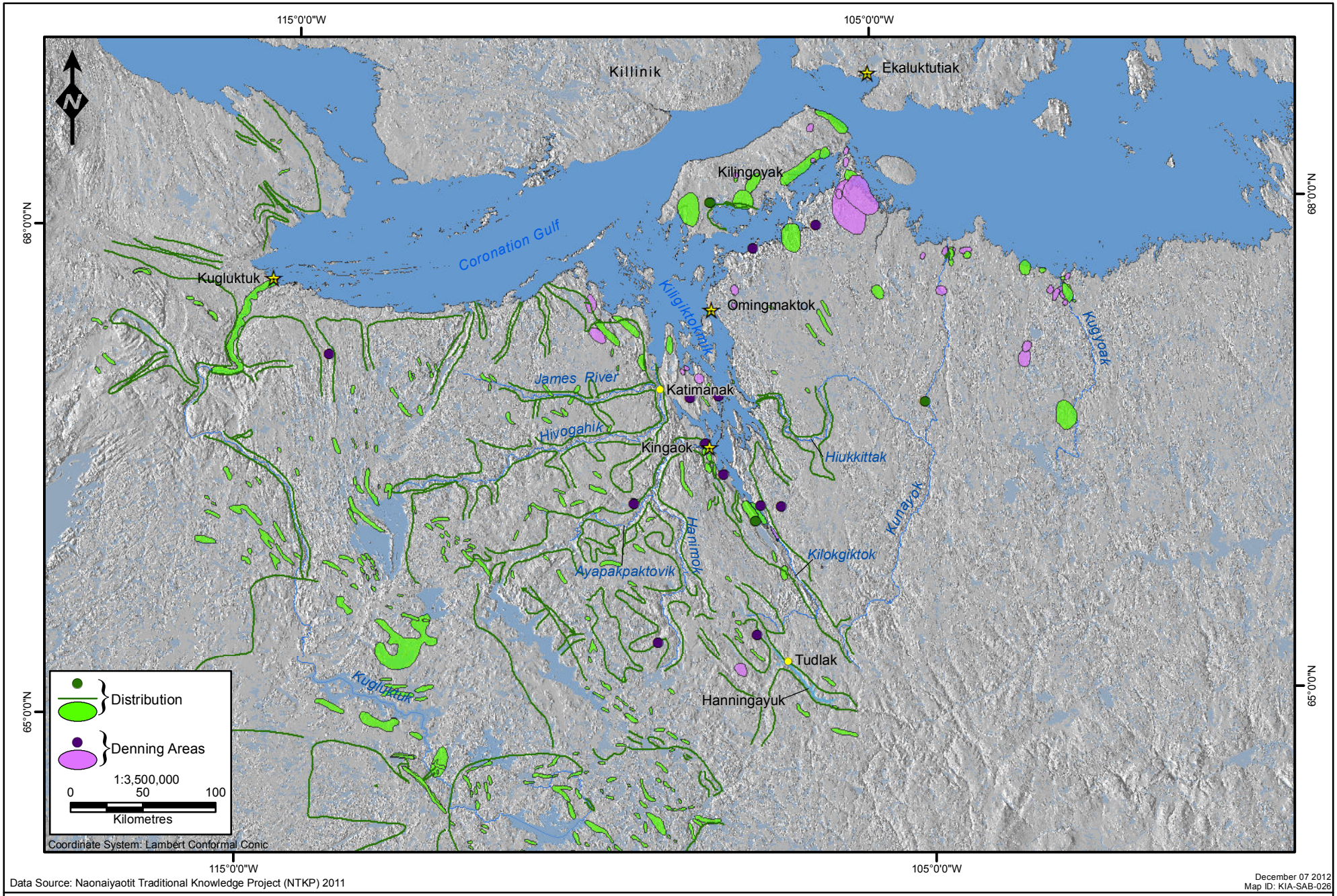
Akhak were a good source of food in the spring and fall because they became really fat. Akhak fat was good to eat and was also burned in the kudlik (oil lamp). All of the meat, fat and the pelt were used by Inuit. Some consultants mentioned that use of akhak by Inuit in the present had decreased. Akhak were hunted in spring upon den emergence and in fall, before denning.

5.1.2. Abundance and Distribution

Akhak were extensively distributed throughout the NTKP study area (Figure 16). There had been an increase in the numbers and distribution of akhak in recent times, especially in coastal areas. Frequent forest fires may have been responsible for driving grizzly bears further north, along with black bears and omingmak (muskox). People were seeing black bears where they had never seen them before.

Akhak typically were seen in spring and fall, during fish spawning runs, and caribou migration. The movements of akhak were associated with the major river systems and their watersheds. Akhak were occasionally seen on Killinik (Victoria Island). Their movements were associated with major river systems and their watersheds (Figure 17).

> ***C3*** *"… There must be more grizzly bears around Kilokgiktok (Bathurst Inlet). Kugyoak (Perry River) also has bear tracks sometimes. Further south near Kingaok there must be more grizzlies. In the past I heard of them being around there."*
>
> ***C16a*** *"Grizzlies eat the young calves and even adult caribou, both sizes of caribou. They get the calves by Hiukkittak and all around there at Gordon Bay…*

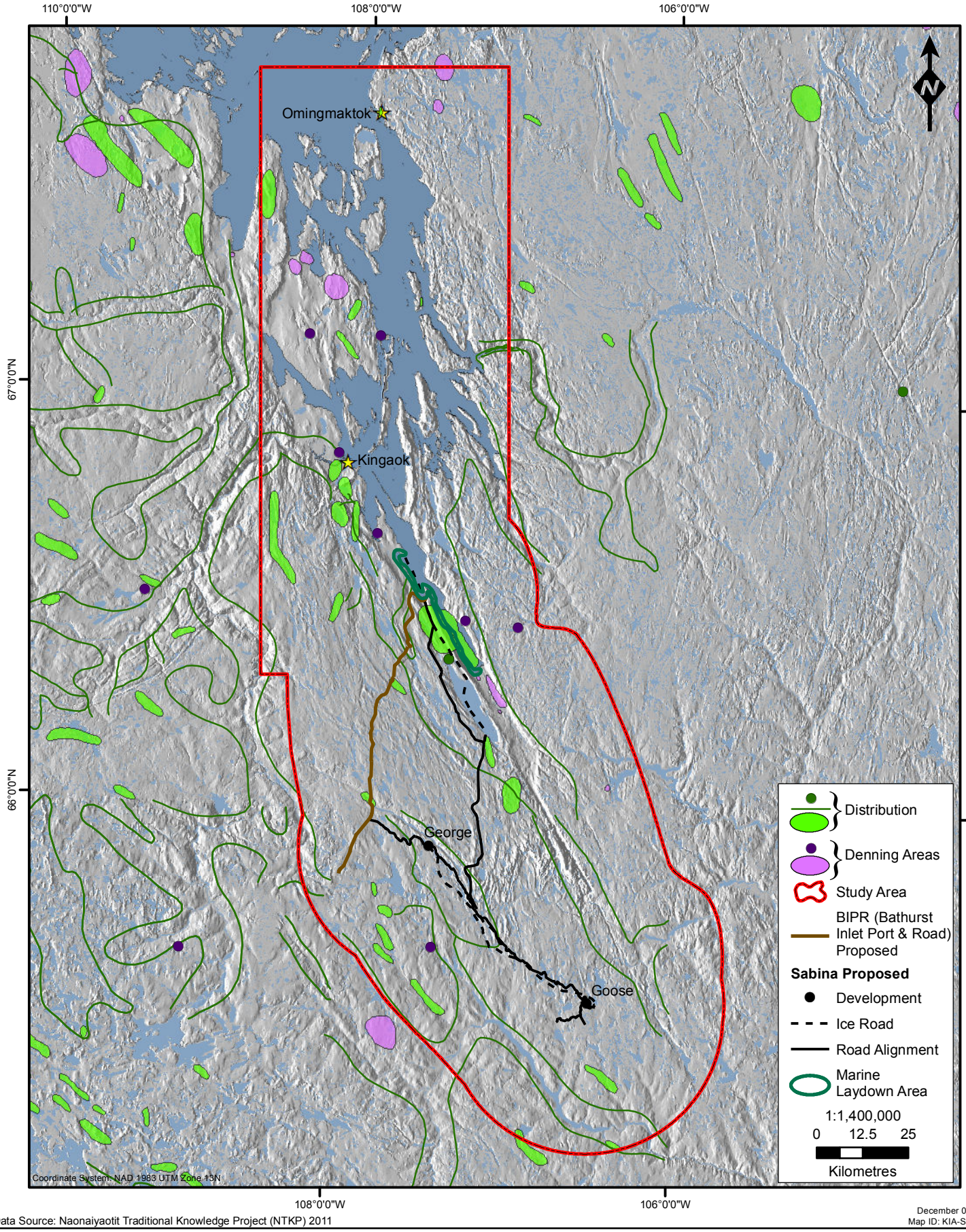


Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07 2012
Map ID: KIA-SAB-026

Figure 16. Inuit Traditional Knowledge - Akhak (Grizzly Bear) Distribution and Denning Areas in the NTKP Study Area

Map produced by Spicker GIS Services (www.spickergis.com)



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07, 2012
Map ID: KIA-SAB-016

Figure 17. Inuit Traditional Knowledge - Akhak (Grizzly Bear) Distribution and Denning Areas

Map produced by Spicker GIS Services (www.spickergis.com)

We saw a grizzly take a caribou at Kikiktakafalok (Rideout Island). The caribou was resting in a shaded area where it was cooler. At that time myself, Kingagolik and another person from Cambridge Bay got caribou… That time I had my whole family with me.

We were using a big boat. Kingagolik and I were going to the caribou. The caribou was running back and forth, trying to escape the mosquitoes and then it ran to a shaded area. We kept walking towards it. We couldn't see it and we kept walking to where we had seen it. We turned the corner very slowly to see where the caribou was but to our surprise a grizzly was attacking it. The grizzly had its jaws around the neck and stayed still for a long time… After the caribou went down, the grizzly released its hold.

The grizzly held the caribou by the neck for a long, long time until it was dead. When the grizzly was going to eat it we left quietly, trying not to let the grizzly know that we were there. When it started to eat we watched it for a while and then we left. We started to get scared so we went home. The caribou was a bull, with big antlers.

Soon after that we all left without having any tea. We traveled somewhere else to set up our camp… We kept thinking that the bear was going to come to where we were. They are scary animals."

C17 *"I've seen grizzly bears fishing on the creek behind the house here, at Muskox Creek…"*

C51 *"In the summer I see grizzly bears almost anywhere where there is an abundance of meat, such as on the caribou migration routes. I also find that the bears work the eskers for hikhik. They dig out the hikhik and feed on them."*

C214 *"Too many grizzlies, around here (large area to the west of Kilogiktok (southern Bathurst Inlet and north Kilokgiktok (Western River)). There are always grizzlies around here, near here (north Tahikafalok (Bathurst Lake)). Even the people from Bathurst Inlet (Kingaok) are talking about them. They're always coming to camp. There are always grizzlies around Bathurst Inlet (Kingaok) now…"*

5.1.3. Dens

C4Oming *"Bears make their dens on the river slopes and around the coast. Long ago Inuit used bows to hunt them."*

C11 *"The bears' dens are found where the land is high, on a sandy ground or in rock caves."*

C16a *"… Around Omingmaktok (at the point) we caught a grizzly making a den… The bear had made it quite deep but never returned back to it…"*

C17 *"… Around here (northwest of Kingaok on the coast), there's a bear den… an old one. There is one too an old one, around the narrows (north of Fishing Lake) and around there… (on Banks Peninsula, north of Kikiagyok). Those are the three I know of… There is another one across there (near coast west of Kenyon Lake)."*

C29 *"I've seen grizzly bears close to Kugyoak (Perry River)… sometimes at Kunayok (between Kolgayok (Tingmeak River) and Kunayok (Ellice River)) and over here (at Ekalivik (Footprint River) and Banks Peninsula near Hanigakhik). I've seen some at Naoyak (an area north of Naoyak (Parry Bay)). In all these areas there are grizzly bears because that is where there are dens…*

I've seen some grizzly bears walking near their dens during the spring when I was wolf hunting."

5.2. Amagok (Wolf)

Amagok were found wherever there were caribou. As a result, Inuit generally hunted the two species together. Prior to the fur trade, Inuit hunted amagok for their fur, to be used as trim on clothing, and for wolf pups for breeding with their sled dogs. The meat was thrown away or fed to dogs. If they lacked food, Inuit would eat amagok.

When their pelts became highly valued, amagok were, and continue to be, highly sought after by Inuit. With incentives such as bounties and high pelt prices, Inuit began to specifically target amagok in certain areas, and at certain times of year.

5.2.1. Distribution and Harvesting Areas

Inuit traveled extensive distances in search of amagok, as far west as Emakyoak (Great Bear Lake) and as far south as Hannigayok (Back River). Hunting areas for amagok included Kiligiktokmik (Bathurst Inlet), east to Kugyoak (Perry River), Elu Inlet, Hannigayok (Back River), the northwest coast, and extensive areas inland especially around Tahikyoak (Contwoyto Lake) (Figure 18). Bathurst Inlet was a well-known amagok hunting area among Kitikmiut (Figure 19).

Mining developments such as Lupin at Tahikyoak and various exploration properties created opportunities to kill amagok that had been attracted because of inadequate food management practices and poorly managed landfills. Amagok also frequented the Lupin mine because tuktuk were there, and because of the abundance of okalik (arctic hares).

C4Kug *"… One time from Kugluktuk we traveled to the other side (east of Bathurst Inlet) of Omingmaktok. We hunted wolves there. We had caribou outside our tent and found two wolves eating the caribou meat."*

C5 *"Wolves usually have their dens around here (two areas in east Kent Peninsula) and also along this river (mouth of Angimayak). Along this creek (Fishing Creek and east) they also den… Long ago they used to den around here (near mouth of Tingmeak River)…"*

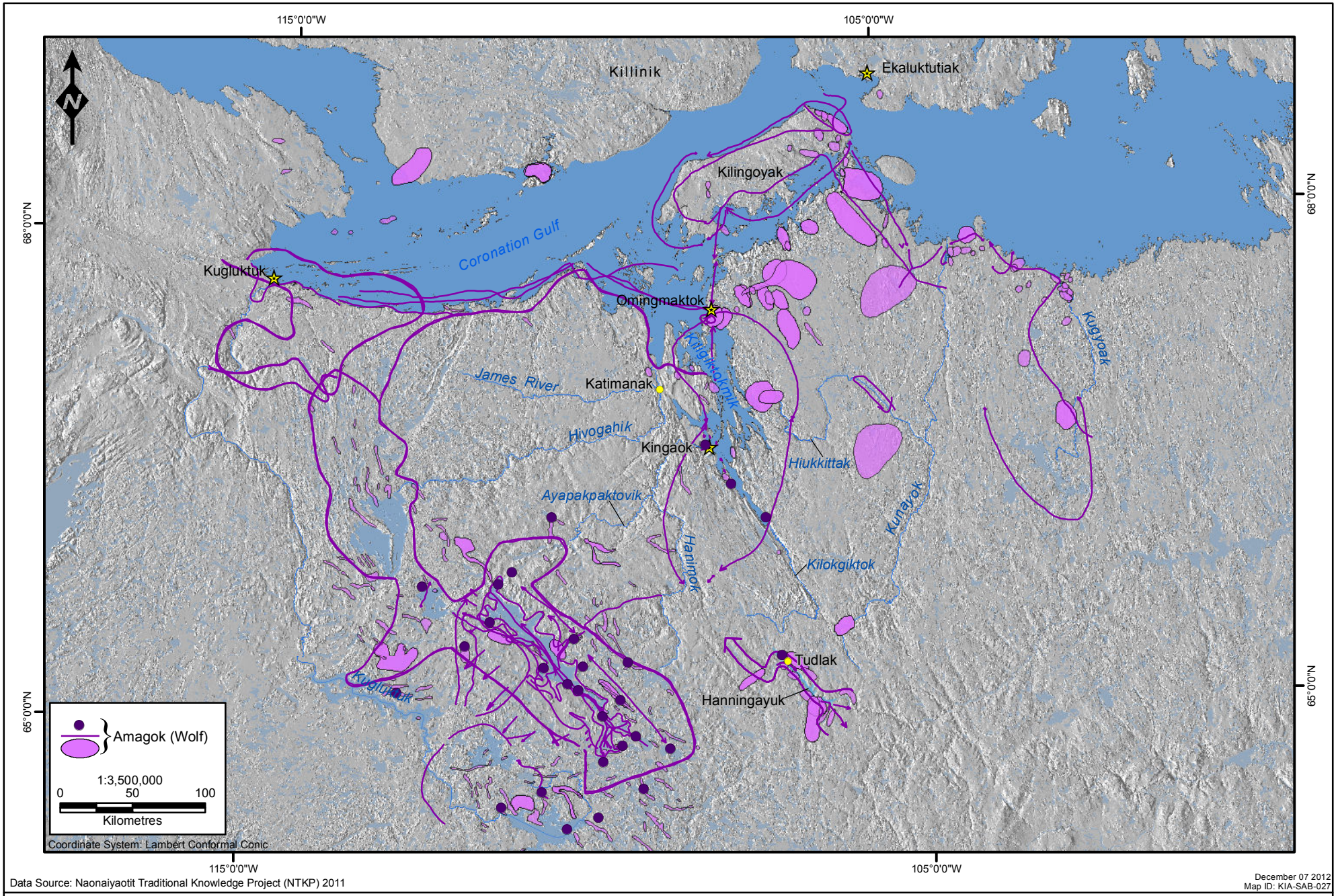
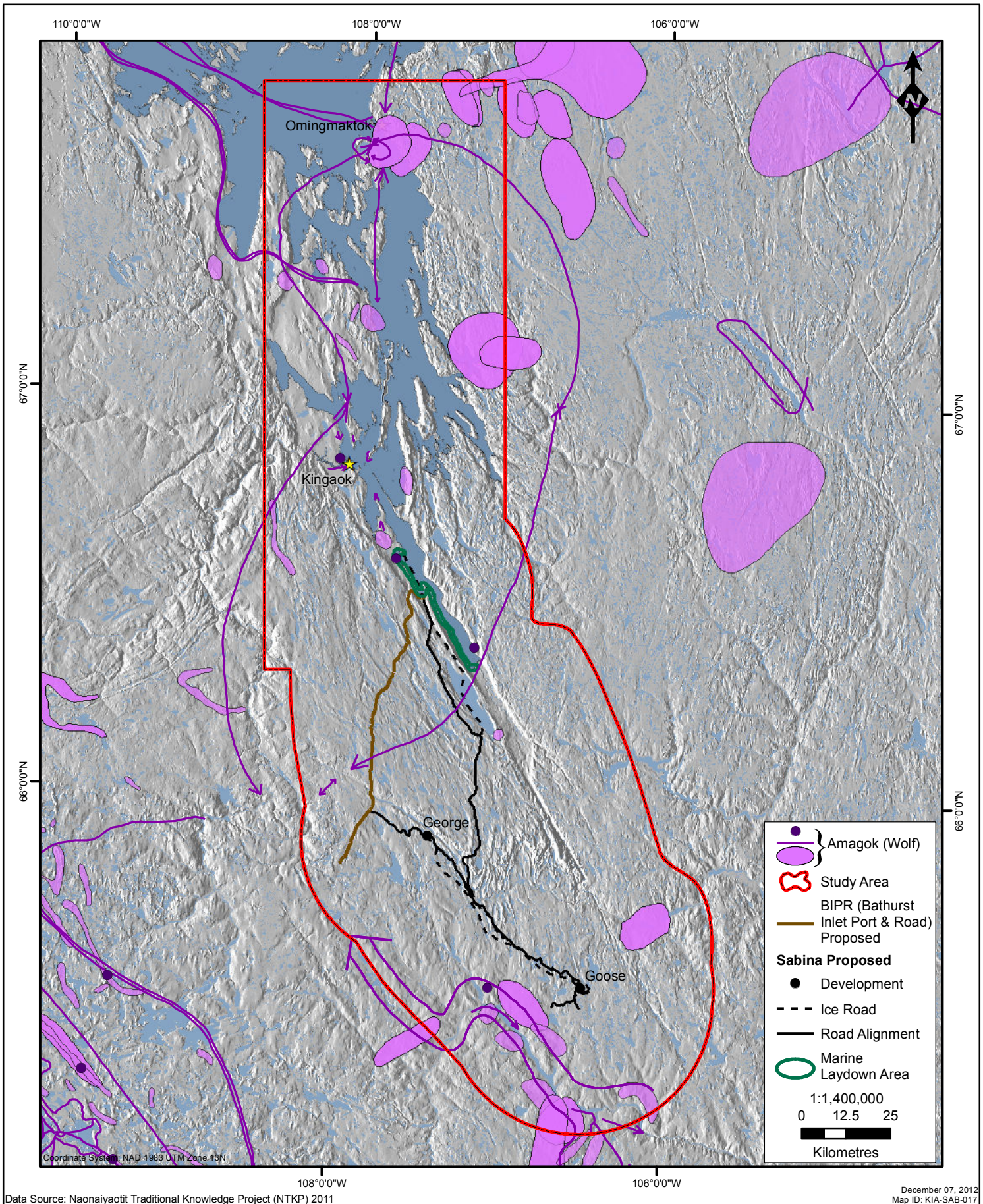


Figure 18. Inuit Traditional Knowledge - Amagok (Wolf) Distribution, Denning and Inuit Hunting Areas in the NTKP Study Area

Map produced by Spicker GIS Services (www.spickergis.com)



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07, 2012
Map ID: KIA-SAB-017

Figure 19. Inuit Traditional Knowledge - Amagok (Wolf) Distribution, Denning and Inuit Hunting Areas

Map produced by Spicker GIS Services (www.spickergis.com)

C11 *"The wolves go anywhere on the land to rest or den. Resting on the land is very important for the wolves. They don't stay in one place too long, they are always going to where there's food for them."*

He mapped a number of important areas for wolves north and south of Beechey Lake

C11 *"This is where we've hunted wolves travelling by kayak (an area on Kunayok (Ellice River) where it changes direction from southeast to south)… We were hunting for wolves during the spring, around here…*

We were hunting and killing wolves that were worth $5.00 a piece a long time ago. Their furs were not that nice, we were just after their heads. About 1944, long ago, we would hunt wolves for their heads only, for some cash, it seems cheap now, it was $5.00 for a wolf head. When there were a lot of wolves sometimes we would get $15.00, $20.00, $40.00, something like that."

C16a *"Hanningayuk (Beechey Lake) always has some caribou… We traveled in this area with Kapolak(s) and Hagialok(s). Hagialok (Jessie), from Kingaok, must have talked about that area. That area always has wolves. You always see them because there are usually caribou around.*

We traveled through that area with dogs, when Kapolak was still alive… We were neighbors that time. In the spring (we went) hunting wolves and looking for young wolf pups. It used to be lots of fun when we used to get the young wolf pups from their dens. You could see wolves anywhere, anytime during the day because the days were long then. There are lots of wolves up there. (We saw them) even when we stayed there for a just a while. Nogalaak was still alive then.

The wolves around there seem to catch caribou all the time. We saw many wolf kills when we were looking for young wolf pups around Beechey Lake. That is why people from Cambridge Bay are always hunting wolves around there…"

C16a *"We always see wolves around here (south Beechey Lake), all over this area. We always hunt wolves around there."*

C17 *"Wolves are mostly across (on the east side of Bathurst Inlet) when we first see them in spring. They come down from Tinney Hills and anywhere around Bathurst."*

C25 *"The land we call Hannigayok inland (Back River), the middle of our land, gets full of wolves, even at Tahikyoak (Contwoyto) sometimes. Those places always have some sort of food. That place south of Kingaok is called Hannigayok. All the people know of Hannigayok…*

All this area has lots of wolves and this is where they den, (on the east and west side of Hanningayuk (Beechey Lake). In the spring this area is full of caribou and that is

why the wolves stay around there, because the caribou migrate through here…

There are always lots of caribou migrating through here, where we call Hannigayok. The caribou stop because of this river. That is why there are always lots of wolves there. Once the river breaks (up in the spring, caribou are found) on both sides of the river. I think that is the reason why wolves stay around there.

Sometimes the caribou stop at Hanningayuk (Beechey lake) when they are having their calves… I've heard that sometimes there would be many wolves around and they sometimes reach the houses. All this land is full of wolves. In the spring, when the caribou are having their calves, they sometimes have to stop because that river (Back River) is very strong.

We call that river Hannigayok (Back River) and it goes along ways. It's hard to say how far. Amigaiknik knows about the lower (northern) part of Hannigayok. That river flows to the ocean. Amigaiknik also said the lower part could get lots of wolves sometimes. Inuit would harvest wolves when they go there… Both sides (of the river) are very rough. All this area is very rough."

C25 *"… At this place (Kilogiktok (Western River)) there was a Hudson's Bay Store, the very first one. The equipment there is really old and worn. I don't know when there were white people there but I know that there was a retail store there. They had a house by the point (far south Bathurst Inlet)… It's hard to say how long there was a store there… I never knew it was there until long after it had closed. That land is very beautiful where the store was…*

It used to be fun to hunt from there because there could be lots of wolves around that area, as it's a caribou travel route…"

C51 *"There are wolf harvesting areas up at George Lake, which is still an exploration site. There's one site just on the Burnside (Ayapakpaktokvik)… There is another exploration site on the Hood River…"*

C204 *"And also here's a good place for wolves on the point south (south point of Kaogyok (Quadyuk Island) across from Elliott Point)."*

5.2.2. Denning Areas

C21 *"… Some of the wolves have dens and some don't use dens when they are giving birth… In the spring when they can't reach the den sites the wolves give birth anywhere on the land away from their dens, where it's rocky or by the river banks. When they reach their dens sometimes they start giving birth right away…"*

C25 *"… The wolves always hunt from their dens; they hunt what is easy to catch from around there. The wolves are like us too. They hide where it's rough and hunt the caribou. That's why there these sandy area by the riverbanks are full of wolf*

dens. Those areas at Tahikyoak (Contwoyto) and Hanigayok (Back River) have lots of wolves in the spring. Those areas are full of wolves even during the winter…"

C17 *"Wolves mostly den around here, by this small part of the ocean (northwest of Kingaok on the coast). I know one wolf den here (just south of Bathurst Inlet lodge). (There is another one) here too (near a creek on the mainland, south of Fishing Lake)… There is one here at Tagionoak (Goulburn Lake) but it is an old one, right by that creek."*

C21 *"There are many wolf dens over here (Hanikgahiagohik) because there are many wolves found around there… Even over here (across Kingaok on the east side of Bathurst Inlet) and also at Kunayok (Ellice River), Kolgayok (Tingmeak River), Etibliakyok (Kent Peninsula isthmus) and Cambridge Bay…*

The places where I know there are wolf dens are Hanningayuk (northeast Beechey Lake), Tahikyoak (central-east Contwoyto)… and at Baillie Bay. The wolves always have dens at those places. I saw their dens as a young boy when I walked anywhere so that is how I know of these den sites…

There are dens near Enotkoahak, near the high hills (southern Tinney Hills). There are many dens that I know of. Some of the wolves have dens (to give birth in) but some don't use dens while they are giving birth…"

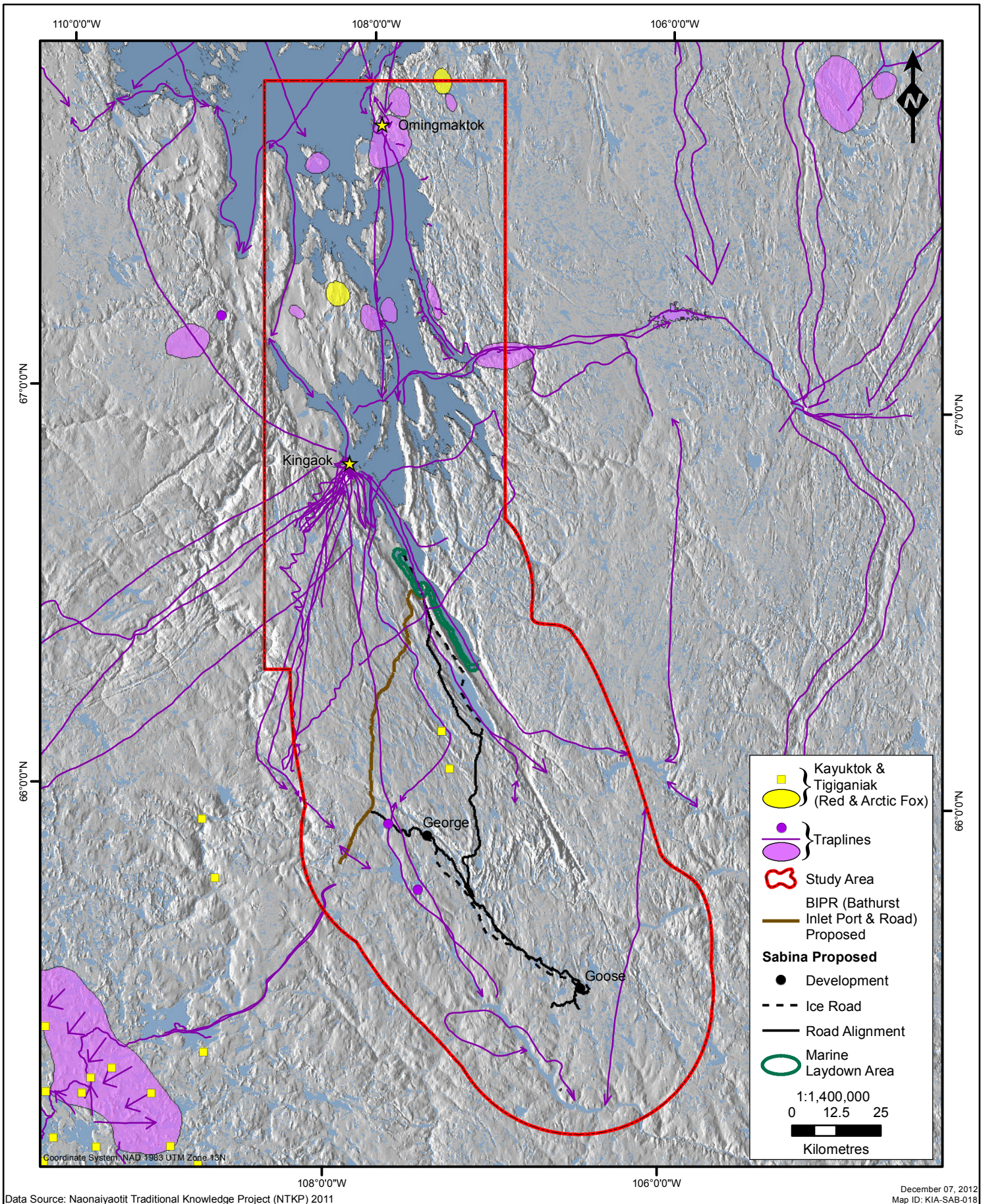
C26 *"Wolves make their dens where it's easier to dig, such as where it's sandy by the rivers. There are lots of dens around there (Kunayok (Ellice River) near the delta and Hiukkittak mouth)…"*

5.3. Fox

Foxes, particularly tigiganiak (Arctic foxes), were the most important species in the fur trade for Inuit. They were the main reason that Inuit ran traplines. Some Inuit traveled long distances to trap, a testament to the importance of the money and goods obtained from selling tigiganiak pelts. One consultant talked about Inuit from north of Baker Lake traveling into the western Kitikmeot by dogteam to trap.

Because of the importance of trapping and widespread distribution of foxes, consultants did not map fox areas. They indicated that their main travel routes (Figure 7) were also main harvesting routes, including trapping. Traplines were placed along travel routes and near camps (Figure 20). Their locations were a function of whether Inuit were inland or coastal, and where they usually over-wintered. Many of these traplines are still used today.

If there was a lot of prey on the land, there would be many foxes. The fox populations crashed when the numbers of lemmings and voles crashed. If many mice, lemmings and Snowy Owls were seen, it meant that there would be many foxes to trap in the winter. The population cycle ranged from three to six years. Population crashes had a direct impact on Inuit trappers and their ability to purchase supplies. When the fox populations crashed, Inuit had a hard time.



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07, 2012
Map ID: KIA-SAB-018

Figure 20. Inuit Traditional Knowledge - Kayuktok & Tigiganiak (Red & Arctic Fox) Distribution and Inuit Traplines

Map produced by Spicker GIS Services (www.spickergis.com)

Inuit continue to trap but this activity decreased in importance in recent years. Consultants attributed the lack of interest to low pelt prices, Inuit working for mining companies, and the availability of welfare. Anti-fur activists from the south had helped to decrease the demand for fur and to lower pelt prices. Some of the elders lamented that young Inuit were no longer interested in learning how to trap and handle fur properly.

5.3.1. Fox Distribution and Inuit Traplines

The ranges of tigiganiak and kayuktok (red fox) overlapped widely. However, to the north of this shared range Arctic foxes were dominant and to the south, red foxes were more numerous. Arctic foxes extended north to the Arctic islands where red foxes were absent. Arctic foxes were largely absent closer to the boreal forest. One consultant indicated that where interactions occurred red foxes were dominant over white foxes and would eat them especially if white foxes were found in traps.

Colour variations of kayuktok, including silver, were more common inland than on the coast and on ocean islands. Some foxes were semi-migratory and traveled to the coast in the spring to feed on newborn seals. Within the area of overlap consultants could be referring to white fox, red fox, or both species.

The major fox trapping areas for people from Kiligiktokmik (Bathurst Inlet) and the eastern coast (Figure 20) were:

- Bathurst Inlet (Kiligiktokmik)
- Kugyoak (Perry River)
- Kunayok (Ellice River)
- Kilingoyak (Kent Peninsula)
- Hanningayuk (Beechey Lake)
- Hannigayok (Back River)
- Naoyak (Parry Bay)
- Huikkittak

C15 *"Kangihokyoak (Portage Bay) is an important area for hunting… In the summer we hunted caribou and trapped in the winter (camping area at Kilanaktokvik south of Omingmaktok)…I trapped from Kingaok (major camps at mouth of Ayapakpaktokvik (Burnside River) at Kilogiktook (Burnside Bay) and more inland north of Emnangnatiit)."*

C16a *"… When I was a young man, I went from Hiukkittak to Kingaok and Kikiktakafalok to trap. At that time I learned how to trap (near Hiukkittak). … I used to trap with others from Kingaok to up there (along east edge of Bathurst Inlet north to Elu Inlet)…"*

C16a *"… When we were first married we traveled from Hiukkittak to Naoyak (Parry Bay). Since then… we stayed at Naoyak… This was when we used to use dog teams (travel and trapping route from Hiukkittak up Bathurst inlet and north)… "*

C25 *"All this area along the coast, this area down there, way down there to the ocean (north shore and northern interior of Kilingoyak) has many grassy areas so it is full of*

white fox… This has been a trapping area for a long time, around Kilingoyak and around the coast. That is where Inuit mostly trap, all along the coast and shorelines, all around there… There is quite a big area that has mostly foxes. I trapped it for a very long time.

Along the coast you could catch more foxes than inland by Tahikyoak because it's too far inland. Even though there are foxes around the rough areas you can't catch that many. The land down by the coastline has more foxes than that area inland. These foxes eat fat from around the coastlines and that is why there are more foxes around the coast…"

C29 *"Areas important for fox are found around Kugyoak (Perry River), Kunayok (Ellice River)… Ekalokpilik, near Kingaok, Etibliakyok (Kilingoyak isthmus), near Naoyak (Parry Bay) and also at Omingmaktok…"*

C214 *"I was here with my grandfather, grandmother and grandfather, this is when we were little; this is where we grew up (north shore of Hanningayuk six-km northwest of Kongok). People used to trap around here a long time ago, in the winter."*

5.3.2. Fox Dens

Fox dens were found in small or large eskers where it was sandy and not rocky. Dens were on either flat ground or steep slopes. Denning areas included locations where sand accumulated such as river and creek banks, kames, grassy areas and wetlands near waterfowl nesting sites, along creeks, and along the ocean.

Fox dens were similar to hikhik (ground squirrel) dens and often found in the same places. Foxes could return to the same location to den but not necessarily to the same den. In winter, resting dens (not to be confused with natal dens) were dug into snow banks. Tigiganiak and kayuktok used the same dens but not at the same time.

Although not well mapped, consultants indicated that fox dens were widely distributed across the landscape. Areas having tigiganiak (white fox) dens included Ellice River (Kunayok), Perry River (Kugyoak), Ahiak (near Kugyoak), Kilingoyak (Kent Peninsula), Kongokyoak (south Kilingoyak), and Killinik (Victoria Island).

Tigiganiak denning areas to the west and inland included the Novok (Cape Krusenstern) coast, the coast between Grays Bay and Bathurst Inlet, Napaktolik, Kaomaogaktok, Tahikyoak, Aimaokatalok (Kathawachaga Lake), Kingalhoak (Nose Lake) and Tahikafalok (Bathurst Lake). The distribution of denning areas for kayuktok (red fox) was similar but with fewer locations along the coast.

C16a *"Foxes have dens around Kongoayok (south of Melville Sound)… There are lots of dens around here when you travel through the land. Even though the dens are far apart, sometime they get trapped… When I trapped the white foxes, I'd catch at least one."*

C51 *"Foxes den mostly in eskers and esker type areas. These areas sometimes might*

not even be eskers, just areas where there is soft sand."

5.4. Kalvik (Wolverine)

Before the fur trade kalvik had little importance to Inuit because they were not common and hard to trap. Mostly they were regarded as pests that caused damage by breaking into caches, destroying property and stealing food. However, from the beginning of the fur trade, kalvik pelts were consistently high in value and sought after. The use of kalvik fur as trim on parkas is a relatively recent custom but this local use by Inuit became very important. In the past, Inuit used wolverine pelts as fur mats when hunting seals.

5.4.1. Inuit Use of Kalvik

Life on the land was often very difficult, and Inuit took advantage of all resources on the land. If they were hungry, they would eat kalvik but they needed to cook the meat for a long time before it was edible.

During the fur trade Inuit hunted kalvik however they could, by stalking them, and by using rifle-traps when firearms became available. When steel traps and snowmachines were introduced Inuit became very effective in hunting kalvik and the personal use of pelts increased.

5.4.2. Distribution and Harvesting Areas

Kalvik were well distributed on the mainland. They always occurred in low densities but in general numbers were stable and had not changed over time. Fewer kalvik occurred on the mainland coast compared to inland. Tahikyoak (Contwoyto Lake) was an important kalvik area, due to the abundance of caribou there (Figure 21). In recent times more wolverine were being seen south of Melville Sound. Kiligiktokmik (Bathurst Inlet) and the areas surrounding the communities of Omingmaktok and Kingaok were noted as important for wolverine (Figure 22). Little information on kalvik in southern Kiligiktokmik was provided.

Few kalvik had been seen at Cambridge Bay but they were now becoming more common on Killinik (Victoria Island), as were wolves, because of the increase in numbers of Island caribou. Wherever tuktuk and okalik (arctic hare) occurred, so did kalvik.

Tahikyoak (Contwoyto Lake) was an important area for wolverine because of the importance of the area to Inuit, and because of caribou. Today Inuit from the coastal communities travel inland by snowmachine in winter to Tahikyoak specifically to hunt wolverine and wolves.

> ***C3*** *"Wolverine are found more around Omingmaktok and Ayapakpaktokvik (Kilogiktook (Burnside Bay) area) than around here (Cambridge Bay). Sometimes there are some around Kugyoak (Perry River). Inuit used to catch them long ago…"*
>
> ***C11*** *"The wolverine… have their dens in the rocky area, even on the edge of the cliffs. Wolverine have dens anywhere, even on the snow."*
>
> C11 mapped wolverine occurrence in a large area north and west of James River; mid-Bathurst Inlet near Kingaok; on Kent Peninsula, an area south of Kongokyoak; and near Wentzel River.

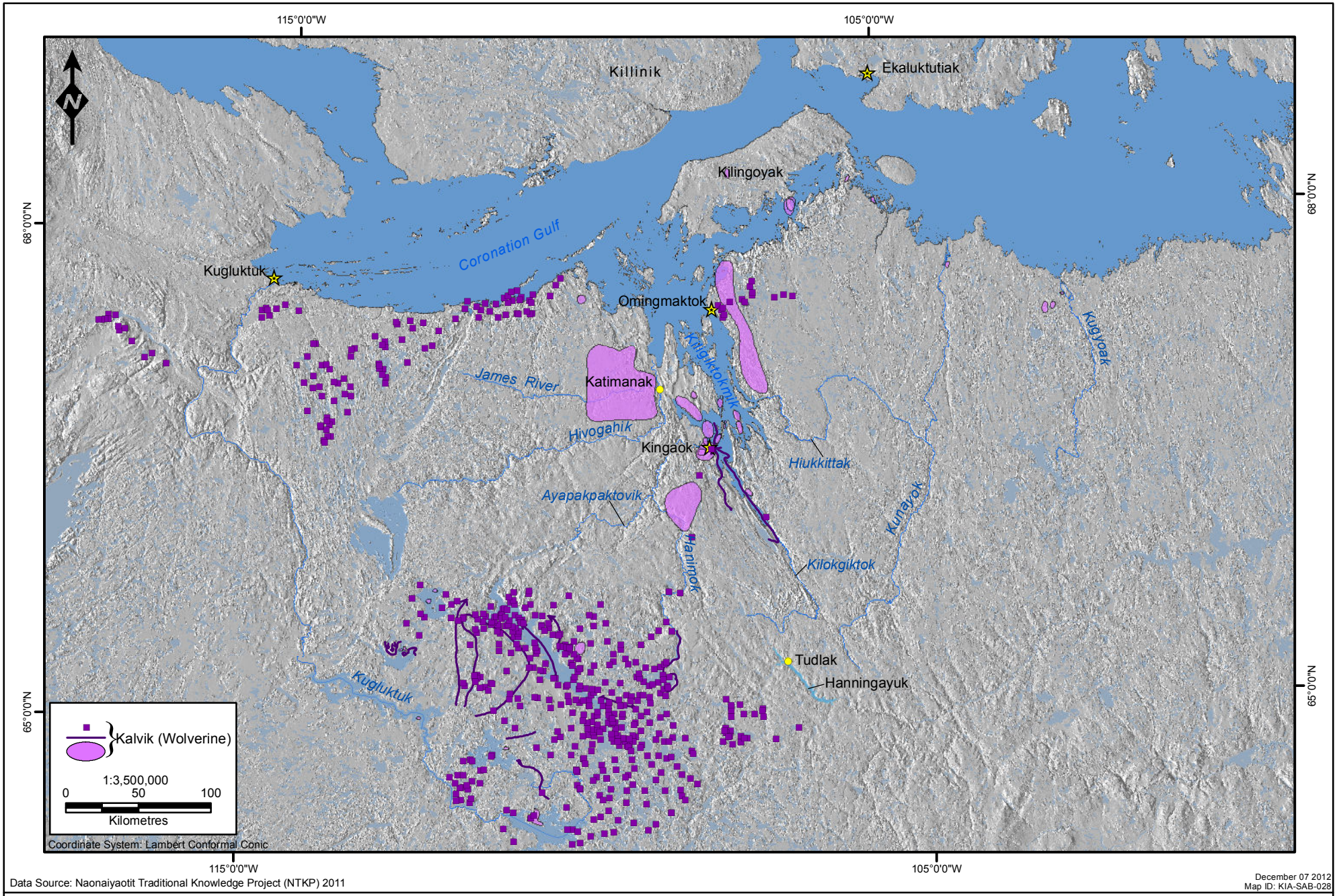
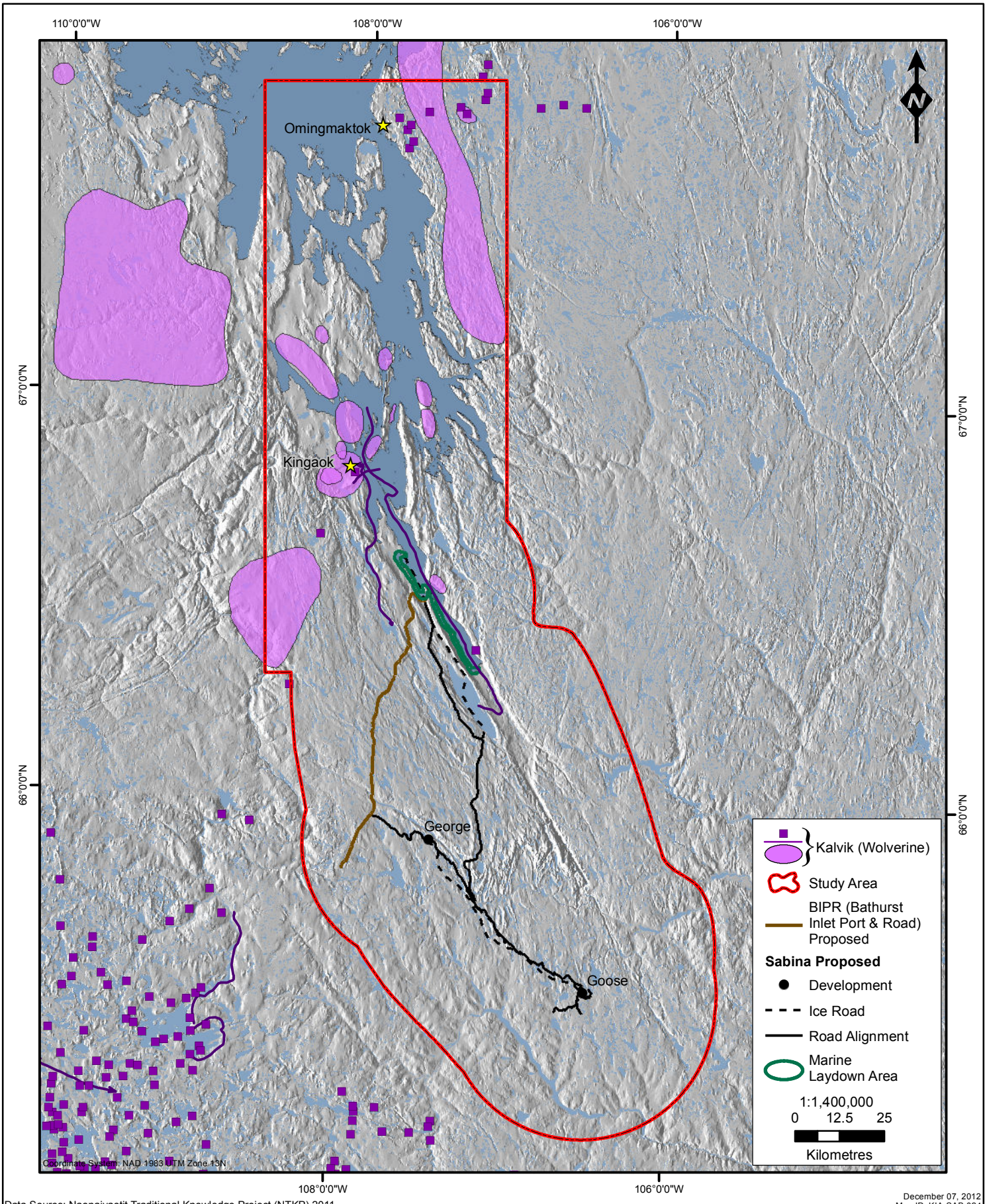


Figure 21. Inuit Traditional Knowledge - Kalvik (Wolverine) Distribution and Inuit Hunting Areas in the NTKP Study Area

Map produced by Spicker GIS Services (www.spickergis.com)



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07, 2012
Map ID: KIA-SAB-024

Figure 22. Inuit Traditional Knowledge - Kalvik (Wolverine) Distribution and Inuit Hunting Areas

Map produced by Spicker GIS Services (www.spickergis.com)

C17 *"Anywhere around Bathurst (Inlet) is important for wolverine. They are found all over, even on the ice but they spend more time on the land."*

C17 mapped an important kalvik area near the island of Kaogyok (Quadyuk Island).

C21 *"Wolverine stay under rocks or in crevices where they escape to… Here around Kingaok (and southeast Bathurst Inlet) they always go into these crevices and over here too (south of Kongokyoak on Kent Peninsula)…"*

C23 *"When I used to stay inland I saw a lot of wolverine during the winter when I used to trap. When I chased them they would escape or disappear right away… I never saw a lot of wolverine around the ocean but inland you could see them together sometimes."*

C25 *"… Those lakes from Kingaok (speaking of Bathurst Inlet south of Kingaok)… take a long time to cross. If we couldn't travel fast with skidoos it would take a long time. When we were hunting wolverine we used skidoos, me, Nanigoak and Avingana.*

This lake (south arm of Bathurst Inlet) takes a long time to cross and this one too (southwest arm of Bathurst Inlet that leads to Ekalokhiokvik or Tahikafalok Lake)… I spent a day or a couple of days, making day trips (three places: south of Kingaok, northeast of Emnangnatiit and east of Hanimok (Mara River) hunting wolverine. We used to travel through there from here (to old trading post called Kilogiktok from Kingaok) using that lake (south arm of Bathurst Inlet)."

C25 *"I've never seen many wolverine before, not like wolves… These wolverine sure can travel a long ways, even they are slow. They travel steadily without tiring, always looking for food…*

These areas close to Omingmaktok, all the way to Kingaok, close to Kingaok and further south around Hannigayok (Back River), Tahikyoak (Contwoyto Lake), and the rough area close to Kingaok are important for wolverine… Inuit have gotten wolverine before from Omingmaktok, Hannigayok, and Tahikyoak… We got some wolverine from the coast but they seemed to be carrying food back to the rough areas…"

C25 *"I've seen many wolverine around the rock crevices where they bring back food to their dens… close to Omingmaktok and Kingaok. I've also seen them in the rough areas where we have buried food before, close to Tahikyum (north Contwoyto) and Bathurst, around the snow banks…*

In all this land area around Omingmaktok… I've found dens in the rock crevices and snow banks, when I'm hunting in those areas…"

C29 *"… Wolverine mostly live in rocky rough areas… They are found around*

Omingmaktok…"

5.4.3. Abundance and Habitat Use

In some areas, at certain times, there could be many kalvik on the land. Some elders believed that kalvik were scarcer now because snowmachines had made them easy for Inuit to capture and kill. Areas around communities such as Kugluktuk had been especially affected. One consultant said there were fewer kalvik on ocean islands because of over-hunting. Another said that there used to be many wolverine at Tahikyoak in the past but the shift in hunting focus from the coast to inland was having an impact.

The habitat types most important for wolverine were rocky areas, crevices and cliffs. Rocky habitat was used as security and hiding cover, especially to escape Inuit hunters. Cliffs were used for scavenging and for caching food. Other habitat use of wolverine was determined by the distribution of their primary prey, caribou.

Wolverine natal dens were found in rocky areas and areas with cliffs. Wolverine did not den in eskers or dig holes in the ground for denning. A den consisted of snow tunnels within boulder fields terminating in a crevice. Wolverine could use willows for bedding material. In winter, wolverine used snow dens or burrows dug in snow. These types of dens were used by both males and females for resting and for escape.

> ***C29*** *"The wolverine hunting and den sites are found where there are caribou because they eat caribou that were killed by other animals… They rest in their dens, in snow dens and in rock crevices. They have snow dens just about anywhere. Some wolverine are very smart when they run away towards rocks or rocky areas."*
>
> ***C51*** *"The areas that (are important for wolverine) have a lot of rabbits."*

5.5. Omingmak (Muskox)

Prior to the arrival of Europeans, omingmak was one important element in Inuit diet that by necessity was varied, in space and in time. Omingmak were used when caribou and seals were not available. Inuit hunted them during all seasons except summer. Nunamiut hunted omingmak during the winter, as they were a source of fresh meat when tuktuk were wintering in the boreal forest and not accessible.

5.5.1. Inuit Use of Omingmak

Omingmak provided a wealth of needed materials. Omingmak meat and fat, if taken from a suitable animal and at a suitable time, was tasty and appreciated by Inuit. Omingmak fat was not used for the kudlik (stone oil lamp) because omingmak were not sufficiently numerous, compared to caribou. The hide was too thick and too stiff to be used for clothing and but was used as bedding under caribou skins and for dog mats. Part of the hide might be used for trim. Wigs were made out of the thick omingmak hair to protect the head from biting insects. Omingmak horns were made into cups, bowls, carvings, fish spears, parts of bows, and ulu handles.

Before rifles Inuit hunted omingmak using bows and arrows. The best season to kill omingmak was in the fall after the animals grew new coats and were fat, and before the

rutting season while the meat was still good. Omingmak coats were of good quality in the winter.

In summer, omingmak were skinny, the pelt quality was poor, and the meat was not good to eat. The larger bulls had tough meat, and Inuit preferred the smaller female cows and young animals. Less desirable meat would be fed to the dogs.

5.5.2. Distribution and Abundance

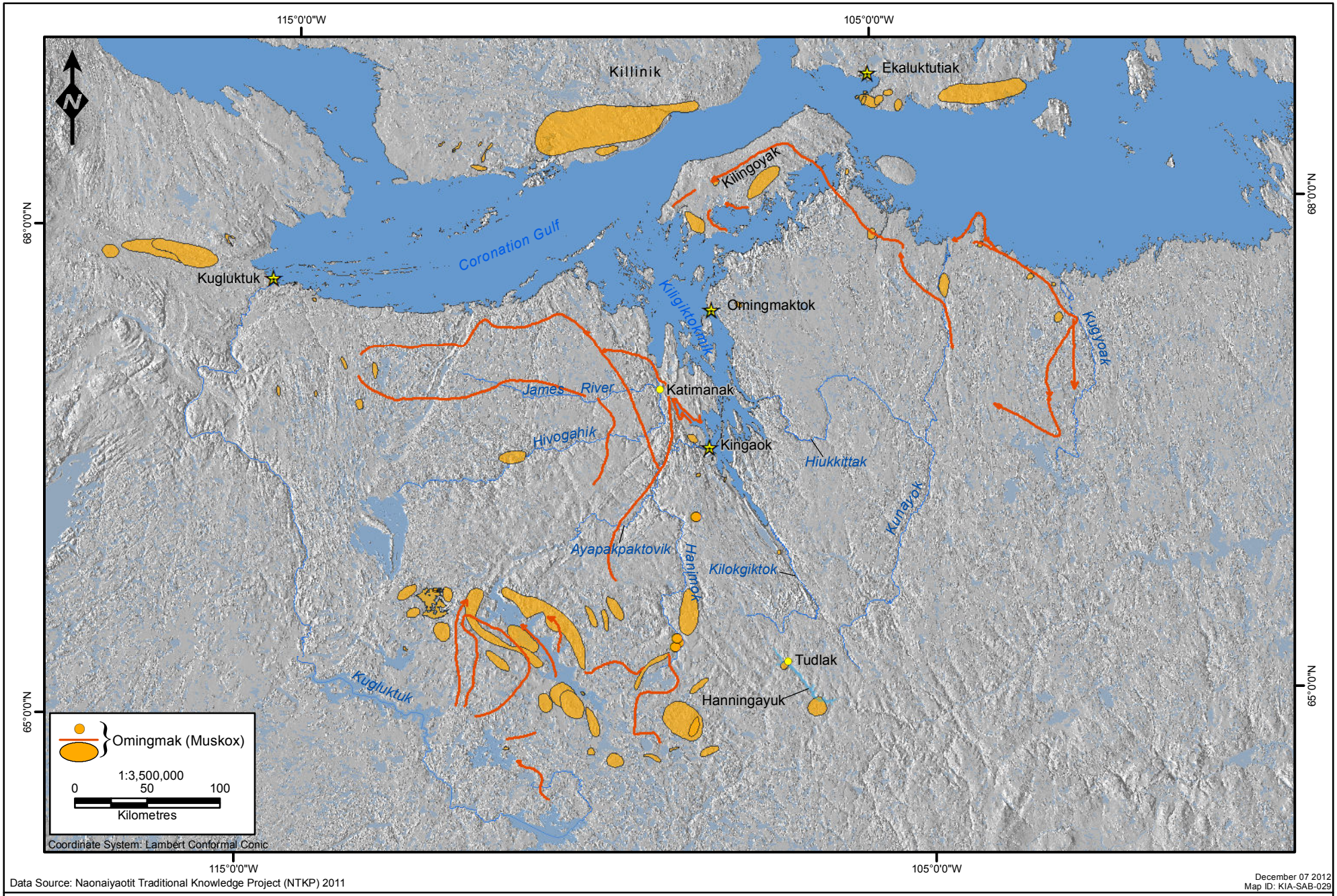
When the consultant elders were children, during the first half of the 1900s, omingmak were scarce. The elders remembered stories told by their parents and grandparents of times when muskox had been abundant. The widespread decimation of muskox populations throughout the 1800s to supply whalers and the fur trade inflicted hardship on Inuit.

A regulation implemented in 1917 prohibited hunting of omingmak by European and Inuit alike (Abrahamson et al. 1964). This regulation did not deter Inuit from hunting the animals if they needed food, but it ended up causing conflict among Inuit and the authorities. In recent times populations have recovered and omingmak have re-colonized areas that have been vacant for many years.

There had been a general increase in numbers and distribution of omingmak, and of both omingmak and tuktuk in the Elu Inlet area and on Killinik (Victoria Island). A number of consultants believed there was an inverse relationship between tuktuk and omingmak and that as the omingmak moved in, tuktuk left.

Places where omingmak occurred and locations were Inuit hunted them included Killinik, much of the coastal mainland, and inland as far south as Exeter Lake north of Lac de Gras (Figure 23). Because few areas were mapped within the Sabina local study area for omingmak, a map is not provided.

> ***C16a*** *"Long ago our parents harvested muskox at Kangihokyoak (Portage Bay). We used to go with them there and I used to follow without shooting. (Tommy) Maghagak (my older brother) didn't have a wife then. Later he got married and I did too. When they went hunting at Kangihokyoak for muskox I used to follow them. That time there were hardly any caribou around…"*
>
> ***C16a*** *"… Komak(s) and us walked to Hanningayuk (Beechey Lake) from Kingaok. People always had camp sites around there (at Tudlak). When we got there that time there were no caribou. We didn't know but there was a muskox just below us. When we got it, it was really nice to have some good meat because there were no caribou around."*
>
> ***C17*** *"Muskox are found behind Aniakhiokvik (Fishing Creek). They mostly are on the mainland here, so they are mostly found east of Bathurst Inlet. They are also found west of Bathurst but not very often. They are found year around there but I haven't seen them crossing."*
>
> She also mapped areas of muskox occurrence inland northwest of Ekalokhiokvik and at Koatak.



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07 2012
Map ID: KIA-SAB-029

Figure 23. Inuit Traditional Knowledge - Omingmak (Muskox) Distribution and Inuit Hunting Areas in the NTKP Study Area

Map produced by Spicker GIS Services (www.spickergis.com)

C17 *"During the summer we see muskox around Swan Lake (Tagionuak) (north of Muskox Creek). They are always found around there, close to the shore… I think there are more muskox than before.*

If it's too hot muskox go close to the water. If it's cool and there aren't many bugs they go up high a little bit…"

C17 *"We went over here once a long time ago camping (south of Bathurst Lake). This was in the 1980s, in the spring. There were caribou there and wolves, lots of wildlife like muskox. Bathurst caribou."*

C21 *"When I was a young man and staying around here (two coastal areas near Cambridge Bay) you hardly saw any muskox. We always stayed along the coast east of Cambridge Bay during the winter and traveled to other areas. There were hardly any muskox around Cambridge Bay or in the east. Very recently, since I turned into an adult and getting older, there are lots of muskox. Seems like the muskox migrated from the west. There are so many now…"*

C43 *"There are lots of muskox just about anywhere in the whole Arctic, all along the coast and islands, mostly around the coast (from Kugakyoak on the west coast to Otkohikhalik (Wentzel River) on the east coast). Some might have eighty or ninety in a herd. I just saw about eighty in a herd over at Kugakyoak. There were lots of muskox."*

5.6. Tuktukvak (Moose)

Tuktukvak (moose) were primarily known and used by Inuit living near the treeline. Only some consultants had experience with tuktukvak. Like omingmak (muskox), tuktukvak were increasing in numbers and distribution. Occasionally tuktukvak were found at extensive distances from the boreal forest, predominantly when they had followed river corridors north.

When they did occur, tuktukvak were found around the coastline near Kugluktuk and in the Kingaok area. Noted areas for tuktukvak were adjacent to the treeline, the Coppermine River area especially Pingnikyoak (Big Bend), Kugluk (Bloody Falls), Kugluktuk, Paatlik (Rae River), Kognahik (Richardson River) and Kugluktoalok (Tree River). A tuktukvak had been killed near Tahikyoak (Courageous Lake).

C5 *"I've never seen a moose around here (Cambridge Bay) before. Long ago Hanialiak got a moose… by Kingaok, by the side of this big bay at Kangihokyoak (Portage Bay). He got a moose from there when he was hunting caribou by boat during fall."*

C17 *"(I've seen moose) at about the same place around here, (by Kringaun Hill, south of Kingaok). Tony Akolok thought it was a horse. He was about 15 or 17 years old and he was out hunting alone. He came back and said, 'Dad I've seen a horse.' I couldn't believe him so we went to see what it was.*

Allen shot a moose not too long ago, around (northwest side of) Kangihokyoak (Portage Bay)… We see one about maybe every four to six years. We are getting more now it seems compared to back then. We see them just in winter, when we can travel with skidoos."

5.7. Small Mammals – Okalik, Hikhik & Avingak

In times of food shortages, particularly when caribou and seals were unavailable, okalik (arctic hares) and hikhik (ground squirrels) were critically important to Inuit. Inuit killed Arctic hares with bows and rifles and they also ran traplines for them. After the caribou spring migration Inuit hunted hikhik when waiting for spawning fish to arrive in the creeks from the lakes, and while looking for caribou. They hunted hikhik beginning in late spring and throughout the summer, concentrating on riverbanks where higher densities were found. Inuit also hunted hikhik in the fall, when they were fat. The distribution of both okalik and hikhik was said to be extensive.

Compared to the wildlife species that they used for food, Inuit consultants knew less about avingak (small mammals) such as lemmings, voles and shrews. As keen observers, however, they documented the importance of avingak to the diets of predators, and the role that these small prey had in the population fluctuations of their predators.

5.7.1. Okalik

Okalik were particularly fat and tasty during mild winters. Inuit ate the meat and the stomach contents. Okalik skins were thin which limited their durability for clothing. A cloth or other backing had to be sewn onto the skin to prevent it from tearing. Okalik fur was used as trim on the atigi (parka) and kamiit (boots), and as mitt and kamik liners, however its primary use was for children's clothing.

The skins were made into booties that fit outside of the kamik, chin guards and bibs for their atigi, and duffels for packing children on their mother's backs. Okalik skin was also used as sanitary pads, sled blankets, and was sewn onto the soles of the kamiit to provide a soundproof and comfortable pad for seal hunting. During the fur trade Inuit sold okalik skins.

Okalik were found all over, inland, on the coast, Killinik (Victoria Island), and ocean islands (Figure 24). Within this wide distribution certain areas were especially good for hunting okalik, including around ocean shorelines and most of the larger Islands. Okalik frequented areas adjacent to human settlements (Figure 25).

C11 *"You can see hares all over the land, on the islands and under cliff areas."*

C11 mapped okalik occurrence and dens in areas which included Kent Peninsula, islands in Bathurst Inlet and Western River.

C16a *"Long ago, (young) Inuit first learned to hunt the ptarmigan and the rabbits. Our parents used to tell us of them, even hikhik, which is what I first started hunting, at Hiukkittak, Kangihoakyok (Daniel Moore Bay) and at Kingaok. Those were the animals I was taught to hunt first… Around here* Kaogyok (Quadyuk Island) *I always hunt hikhik and rabbits…"*

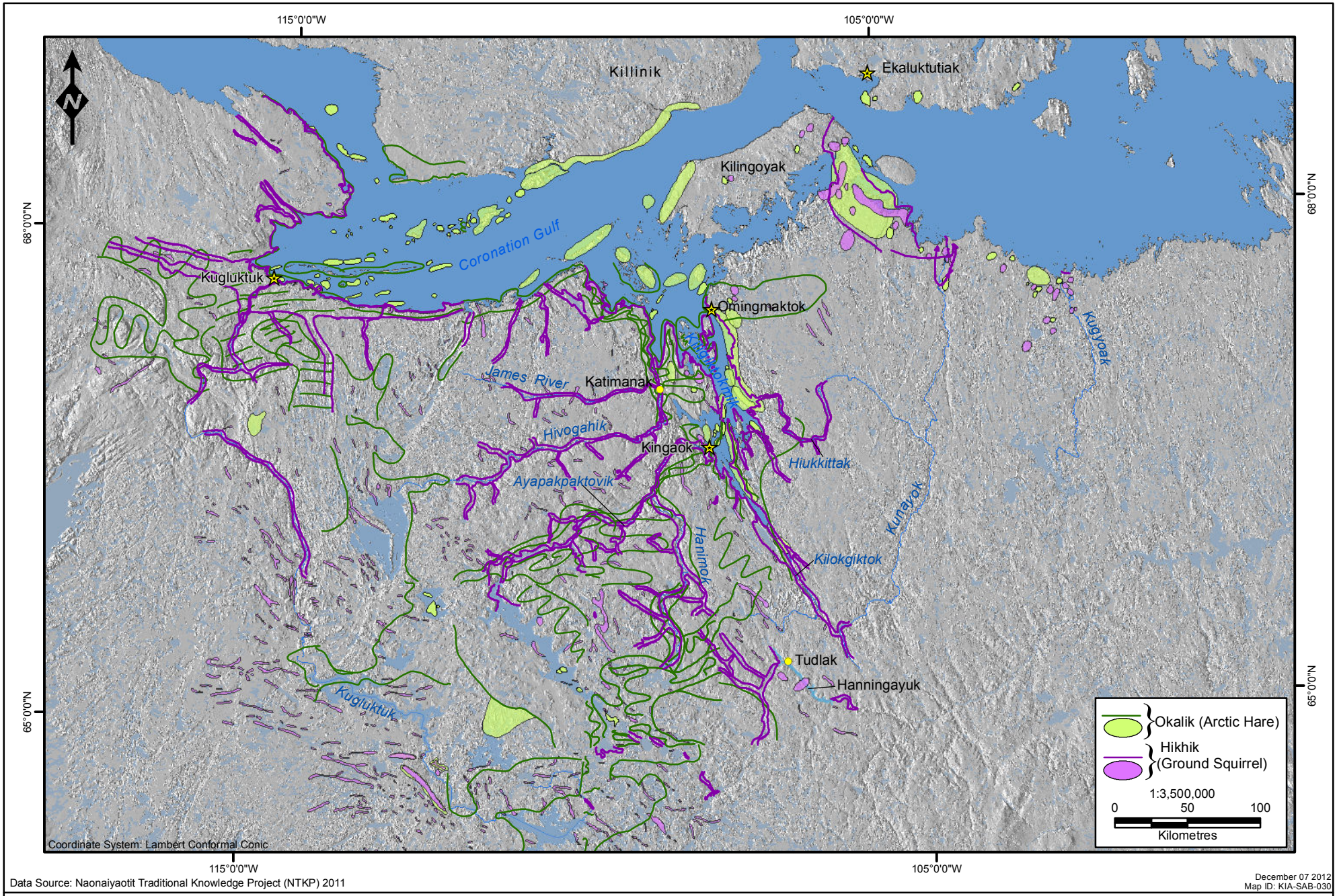
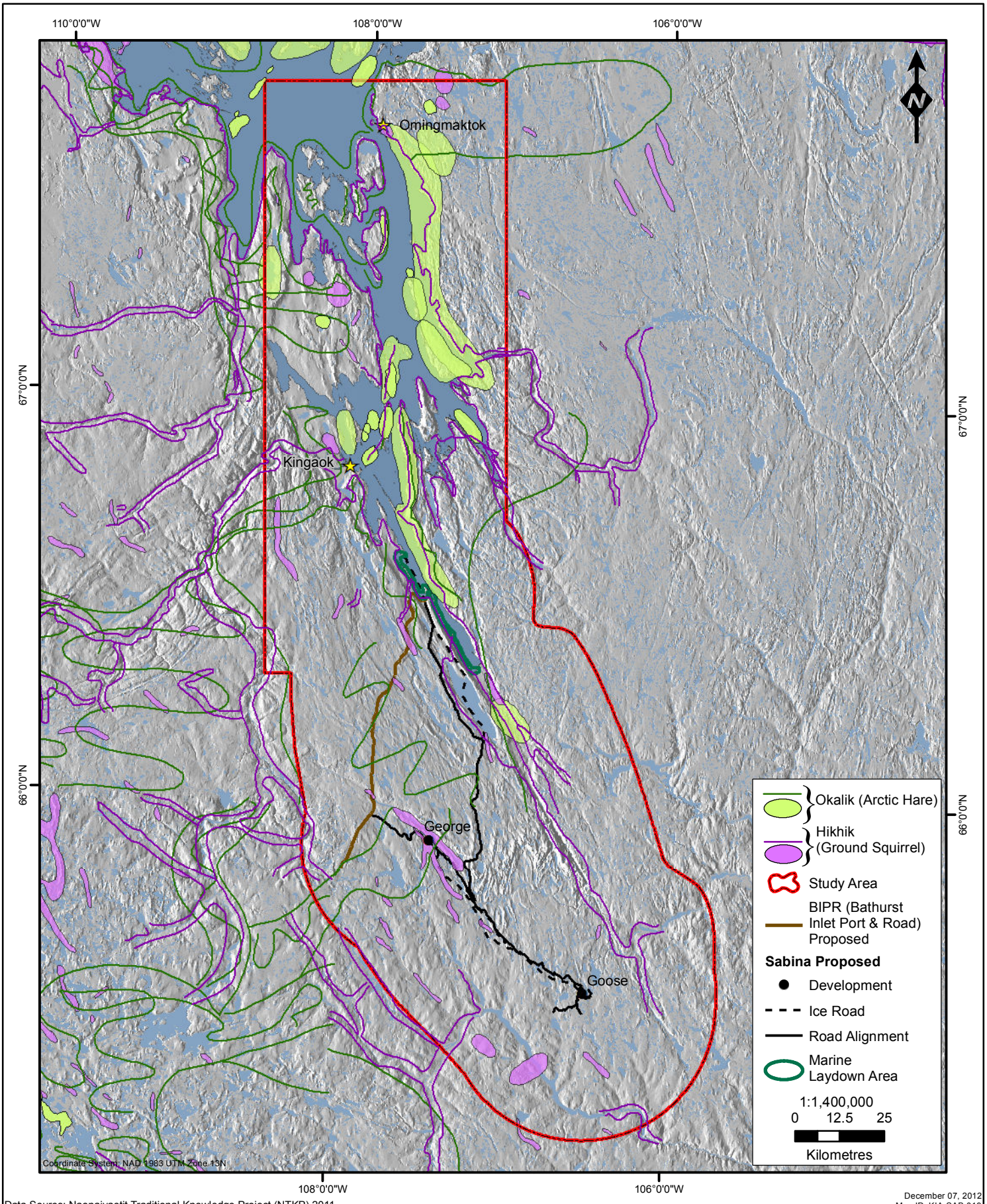


Figure 24. Inuit Traditional Knowledge - Okalik (Arctic Hare) and Hikhik (Ground Squirrel) Distribution in the NTKP Study Area

Map produced by Spicker GIS Services (www.spickergis.com)



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07, 2012
Map ID: KIA-SAB-019

Figure 25. Inuit Traditional Knowledge - Okalik (Arctic Hare) and Hikhik (Ground Squirrel) Distribution

Map produced by Spicker GIS Services (www.spickergis.com)

C21 *"This place around Kingaok, through the bay where my grandfather and I trapped along the shore, is full of hares. All that land anywhere from Kilokgiktok (Western River) to Bay Chimo (Omingmaktok) is also full of hares…"*

C29 *"I've seen hares around here (Banks Peninsula and near Omingmaktok)…"*

5.7.2. Hikhik

Just as okalik were important for food to Inuit during the winter, hikhik were important to Inuit for food during the summer. This was especially true inland as the concentrations of nesting waterfowl and eggs present on the coast were not available.

Hikhik were tasty and sought after, especially in the fall when they were fat. Although it took much time and effort, hikhik pelts were collected and used to make ceremonial atigi. Hikhik fur was also used for atigi liners, mitts, kamiit, and for under-garments. One consultant discussed shaving hikhik hides and using them to cover sled runners.

After the tuktuk spring migration hunt was over, Inuit hunted hikhik when they were waiting for spawning fish to arrive in the creeks from the lakes, and while looking for caribou. They hunted hikhik beginning in late spring and throughout the summer, concentrating on riverbanks where higher densities were found. Inuit also hunted hikhik in fall, when they were fat.

Hikhik were found all over the land, although certain areas were indicated as especially good. Although hikhik could occur on small islands adjacent to the mainland, the mainland coast was the limit of their northern distribution. The distribution of hikhik coincided with river systems (Figure 24, Figure 25). Hikhik populations were cyclic, in some years animals were more abundant than in other years.

C11 *"You see ground squirrels everywhere on the land."*

C11 *"Hikhik are found on the coast at Keeliakyuk (on Banks Peninsula). Here in the spring there are too many squirrels (east side of Arctic Sound (Katimanak Kangihok)). All of this area has squirrels from here, anywhere along the shore."*

C21 *"Where I used to stay inland at Beechey Lake and Tahikyoak, the land all over was full of hikhik. One time as I was packing a hikhik on my back I got bitten. All that land has hikhik… All the lands like Tahikyoak and Ahiak always have hikhik. I've hunted those hikhik and I stayed close to them as I was growing up…"*

C51 *"Hikhik are found where there is a lot of vegetation along the rivers and where they can burrow easily. Mostly they are found along the mud flats, eskers and rock piles."*

C214 *"… There are a lot of squirrels around that area, near Young Point."*

5.7.3. Avingak

There were three main types of avingak (small mammals); brown lemmings, Arctic or collared lemmings, and tundra voles. Most consultants called any small mammal mice or

'avingak', regardless whether they referred to lemmings, voles or shrews.

Inuit did not eat avingak. Some consultants talked about selling lemming pelts to fur traders. Inuit stored and used the dried avingak pelts as kindling when starting a fire with flint stones. Sometimes avingak were nuisances because they got into people's possessions.

Avingak were not readily visible, except for their tracks in winter and during population highs. At such times they could be found throughout the land, including on the sea ice. In general, specific areas for avingak were not mapped.

The population cycles of foxes and Snowy Owls followed fluctuations in lemming and vole numbers. An abundance of lemmings and Snowy Owls meant that there would be many foxes to trap in the winter. The cycle ranged from three to five years. Some consultants thought that avingak and foxes migrated to other parts of the land during population lows.

> **C21** *"These mice pelts were harvested for sale when the white people or traders arrived, I remember. Inuit purchased whatever they needed using mice, fox and ermine skins. They were never thrown away. You could sell these small mice skins. They were worth something then but now they are worth nothing… Now they are thrown away when they are killed."*
>
> **C25** *"… These foxes follow the life cycle of the mice because they look for mice to eat. It's their main source of food. They follow the mice five-year cycle, as they say in English… When there are lots of mice there will be lots of foxes around in some years…*
>
> *That fox is always looking for food by chasing the mice, even the Snowy Owls. These animals follow the cycle of the mice. Sometimes the mice stay in one spot and that is when the foxes seem to stop too. The Snowy Owls and white foxes are found together because they feed on the mice, following the cycle of the mice."*

5.8. Nattik (Seals)

Just as caribou (tuktuk) were central to the survival of Nunamiut, nattik (seals) were central to the lives of ocean and coastal Inuit. Coastal Inuit could have access to both nattik and tuktuk, but because of differences in timing of their availability, Inuit could not harvest enough of both types of animals.

Nunamiut and ocean people traveled back and forth to trade. Inlanders provided tuktuk and fox skins and Ocean Inuit and Kiligiktokmiut provided nattik skins and other marine mammal products. Nunamiut preferred tuktuk for eating and all Inuit groups desired tuktuk skins for clothing. Nattik skins were more waterproof and desirable for kamik soles, kayait and summer tents.

The most important species was nattik (ringed seal) although the bigger ugyuk (bearded seal) was occasionally captured in Kiligiktokmik. In spring seals were hunted when they were hauled out on the sea ice. In summer they were hunted by boat. In late summer seals started to gather together. Inuit could obtain a lot of seals at this time, as much as a boat could carry.

Consultants also knew about other marine mammals such as aivik (walrus) although this was

neither a common nor important food species.

> ***C7*** *"Ringed seals, bearded seals, walrus, beluga whale and narwhal are found around Elu Inlet."*
>
> ***C29.*** *"… Around Kugluktuk there are the bearded seal, and two different smaller seals. The smaller seals are nattik and kahigiak (spotted seal). Ugyuk is the largest of the seals."*

Whales were only captured occasionally and most Inuit had no experience with them. The whales known to consultants were narwhal and beluga. One consultant said the whales followed the large boats and that is when Inuit would see them.

> ***C17*** *"Mostly just ringed seals use the Elu Inlet area. Sometimes you get bearded seals. They are kind of rare up this way (Bathurst Inlet). We see whales only when the ships come around. I think they follow them. The barge comes in during the fall, in September."*

5.8.1. Inuit Use of Nattik

Hunting nattik in winter was tedious and time consuming. Inuit used dogs to sniff out the nattik holes and then they marked the locations. They closed up multiple holes to limit the seal's options. Hare skins sewn on the soles of their kamiit minimized noise from their footsteps, or they stood on wolverine pelts. They waited patiently, sometimes for hours, until the nattik came up for air.

Inuit ate both the meat and fat of nattik, and the meat from nattik was rich and filling. Some Inuit also drank the blood and ate the intestines. One consultant thought that bearded seal meat was not as tender or rich as ringed seal. The pelt of ugyuk made good boots.

Since their skins were thicker than nattik, ugyuk were preferred for rope, mukluks and meat bags. The pelt was thinly sliced then stretched. After drying, the hair was removed to make a strong rope. Seal skin tents for use in summer were more waterproof and durable than caribou skin tents. Kayait were also constructed of seal skin. Fat and ash was placed on the seams to waterproof them

Ugyuk skin bags were used as containers, filled with dry meat and seal fat and then buried under rocks. At times these bags would break, spilling fat on the ground. The ground was saved and subsequently used as fuel.

Seal fat was burned in oil lamps (kudlik). Inuit bought coal when it became available but preferred to use seal oil for their stoves and lamps because it generated a greater amount of heat.

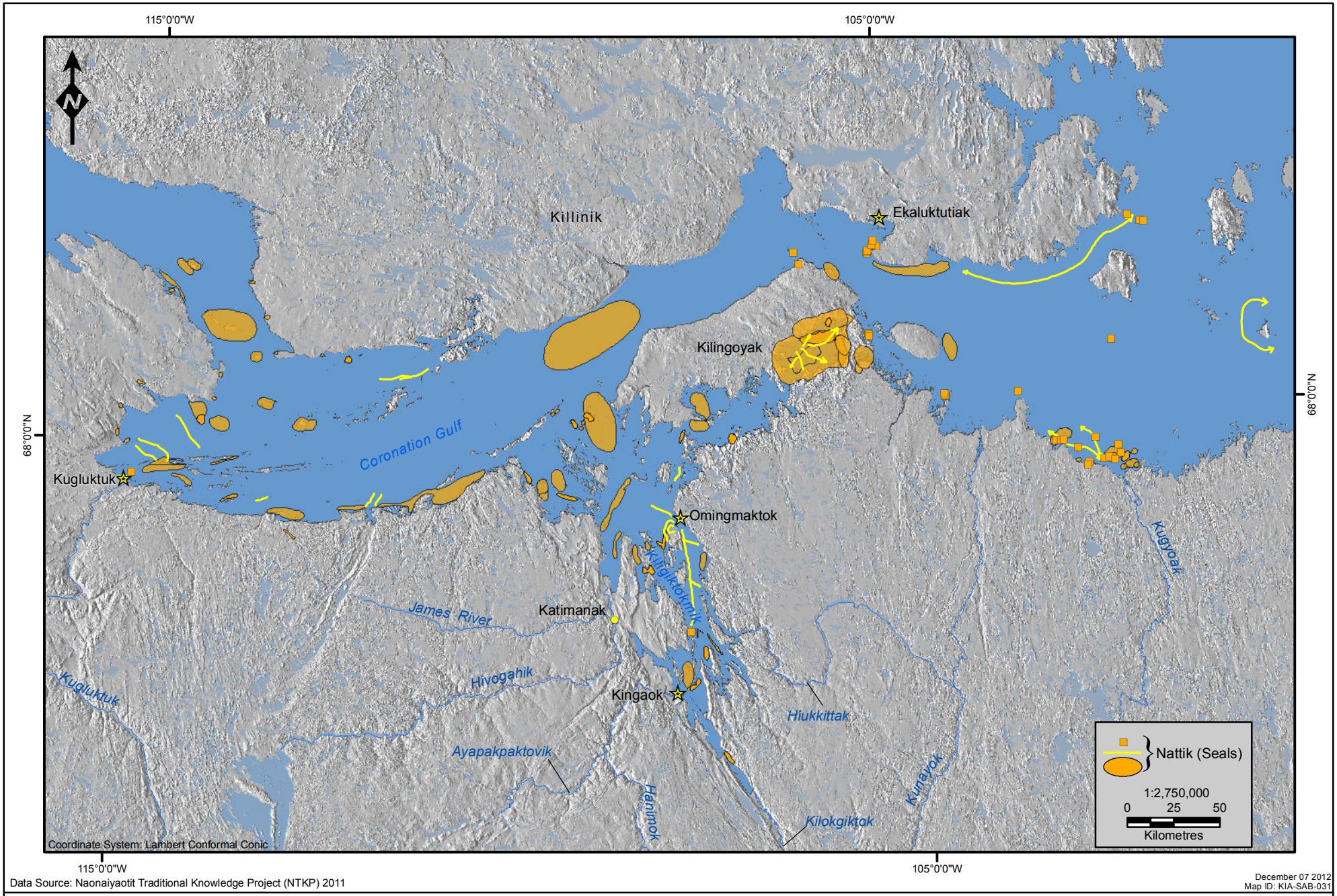
Seals were also an important meat source for dog food. Seals buried in gravel during the summer known as stink seals made better dog food. Fresh seal meat was rich and bloated the dogs, and not optimal food for them.

5.8.2. Distribution

Nattik (ringed seals) were seasonally concentrated within a wide distribution in the ocean (Figure 26). Inuit hunting areas corresponded to where nattik were abundant. Important spring hunting areas included Etibliakyok (Kent Peninsula isthmus), the ocean coast from Kugyoak (Perry River) to Cambridge Bay, Kiligiktokmik and islands within, Coronation Gulf and Kanikyoak (Prince Albert Sound). Summer hunting areas were widespread and winter hunting areas were on the sea ice adjacent to the coast and ocean islands.

Mainly ringed seals occurred within Bathurst Inlet, (Figure 27). Areas where Inuit obtained or saw ugyuk (bearded seals) included Kilingoyak (Kent Peninsula), Kiligiktokmik (Bathurst Inlet), Elu Inlet and Ayapakpaktokvik (Burnside River).

> **C5** *"Near there are lots of seals on top of the ice where there are ice cracks. During the spring, people hunt seals.*
>
> *The seals use that area and go back and forth through that channel (between Naoyak (Parry Bay) and Melville Sound). The people would shoot seals from the shoreline. They waited… because the seals always came close to the shore. That is when the seals sink easily, when they are shot by Beechy Point (Tikigak)…"*
>
> **C12** *"… Seals can be seen in the spring lying on the ice along the coast off Ekalolialok."*
>
> **C17** *"… We hunt seals with a rifle and hook… We have bearded seals going up the Burnside River (Ayapakpaktokvik). We didn't know it was a bearded seal until we couldn't put it in the boat. It was too big and we had to drag it back to the houses (at Kingaok). The meat was kind of hard, not as soft… or as rich as a ringed seal…"*
>
> **C17** *"The best place to hunt seals in the spring when they are lying on top of the ice is at… Razor Top Point (east of point, northeast of Koagyok). Right around here there are lots of seals and all along here (Bathurst Inlet between Razor Top Point and Omingmaktok). There are lots of seals along here in August…"*
>
> **C25** *"… Sometimes the seals are on the land and sometimes there are lots of seals in an area on top of the ice. All along here there always are seals. Some of the seals are very bold and you can get very close to them when there are so many seals together during the spring. In the fall when they want to be on the surface, they go onto small pieces of land, just like on the ice, and there would be many."*
>
> **C51** *"During spring time seals can be seen pretty much everywhere there is ice… The seals are more abundant on top of the ice but in the winter there are still quite a lot bedded under the snow, if you know where they are."*

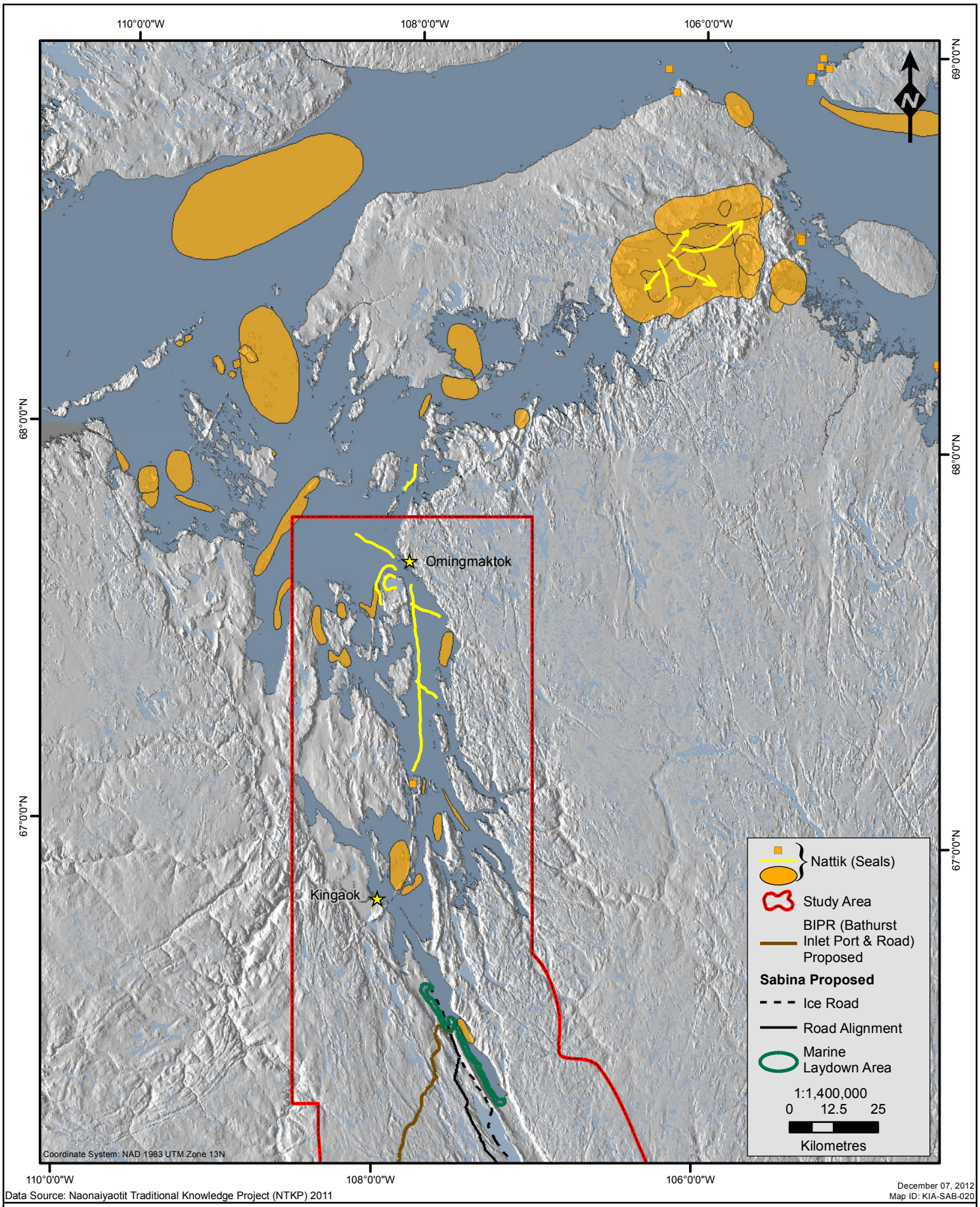


Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07 2012
Map ID: KIA-SAB-031

Figure 26. Inuit Traditional Knowledge - Inuit Hunting and Distribution of Nattik (Seals) in the NTKP Study Area

Map produced by Spicker GIS Services (www.spickergis.com)



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07, 2012
Map ID: KIA-SAB-020

Figure 27. Inuit Traditional Knowledge - Inuit Hunting and Distribution of Nattik (Seals)

Map produced by Spicker GIS Services (www.spickergis.com)

6. KOPANOAK (BIRDS)

Inuit were keen observers and possessed detailed knowledge of the ecology of the birds in their area. They knew which birds arrived in the spring and the order in which they came, where they nested in the summer and when they departed in the fall. The arrival and departure of the birds was also how Inuit knew what time of year it was.

6.1. Inuit Use of Birds

Kopanoak were an important food source for ocean and coastal Inuit, because of the large concentrations of nesting waterfowl on the ocean coast. Birds were less available and less important for Nunamiut although they did eat some species especially in summer when tuktuk (caribou) were absent (Figure 28). Inuit everywhere ate Ptarmigan. The distribution map for kopanoak is lacking in data; focused questions on birds and their habitats were not part of the NTKP interview.

Spring migratory hunts for waterfowl were important on the coast and ocean. Sandhill Cranes were pursued when they first arrived because they had large amounts of fat. Eider Ducks and Loons were hunted while they were resting on the open water in the cracks in the ocean ice. Ducks that were not eaten were cached in rocks for later use.

In summer, coastal Inuit hunted molting birds and collected eggs. They went to nesting areas on the coast and on Arctic Ocean islands specifically for eggs. Consultants mapped the areas they thought were most important for birds (Figure 29), and not necessarily all the areas in which they hunted birds.

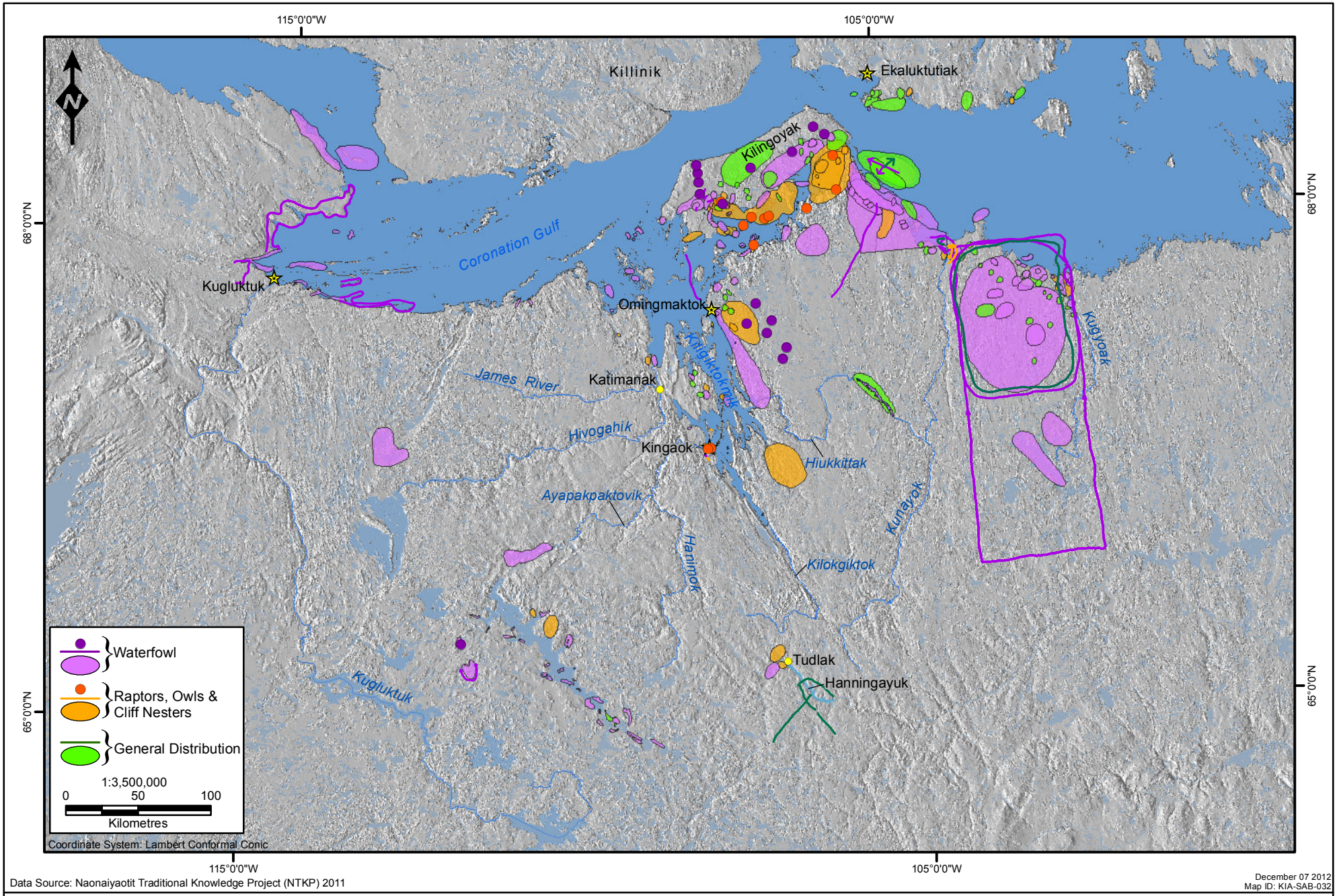
6.2. Waterfowl

6.2.1. Spring & Fall Migration

C16a *"… Ducks, loons and geese would fly over us in the spring (Beechey Lake area)…"*

C17 *"Canada Geese migrate first to the south… They stop by the sandbars and over here on the land (Kingaok) where there are berries behind Kingaok and up by Fishing Creek. These are the same places they stop in the spring. In the fall when they are passing by they always stop and have berries somewhere around here. They eat blackberries (paungan)… We always see the (Sandhill Cranes) dancing. They jump around just like they are dancing…"*

C21 *"In the summer these birds like the Canada Geese and swans are commonly seen. They arrive when the ice starts to breakup. They are the first to arrive around Killinik (Victoria Island). Ahiak (Perry River area) gets wet and full of water very quickly so it's different. At Killinik the swans and geese arrive first over here (coastal area east of Kingakyok (Cape Colborne) and directly east of Koyapik (Stromness Bay)) around the ocean shores.*

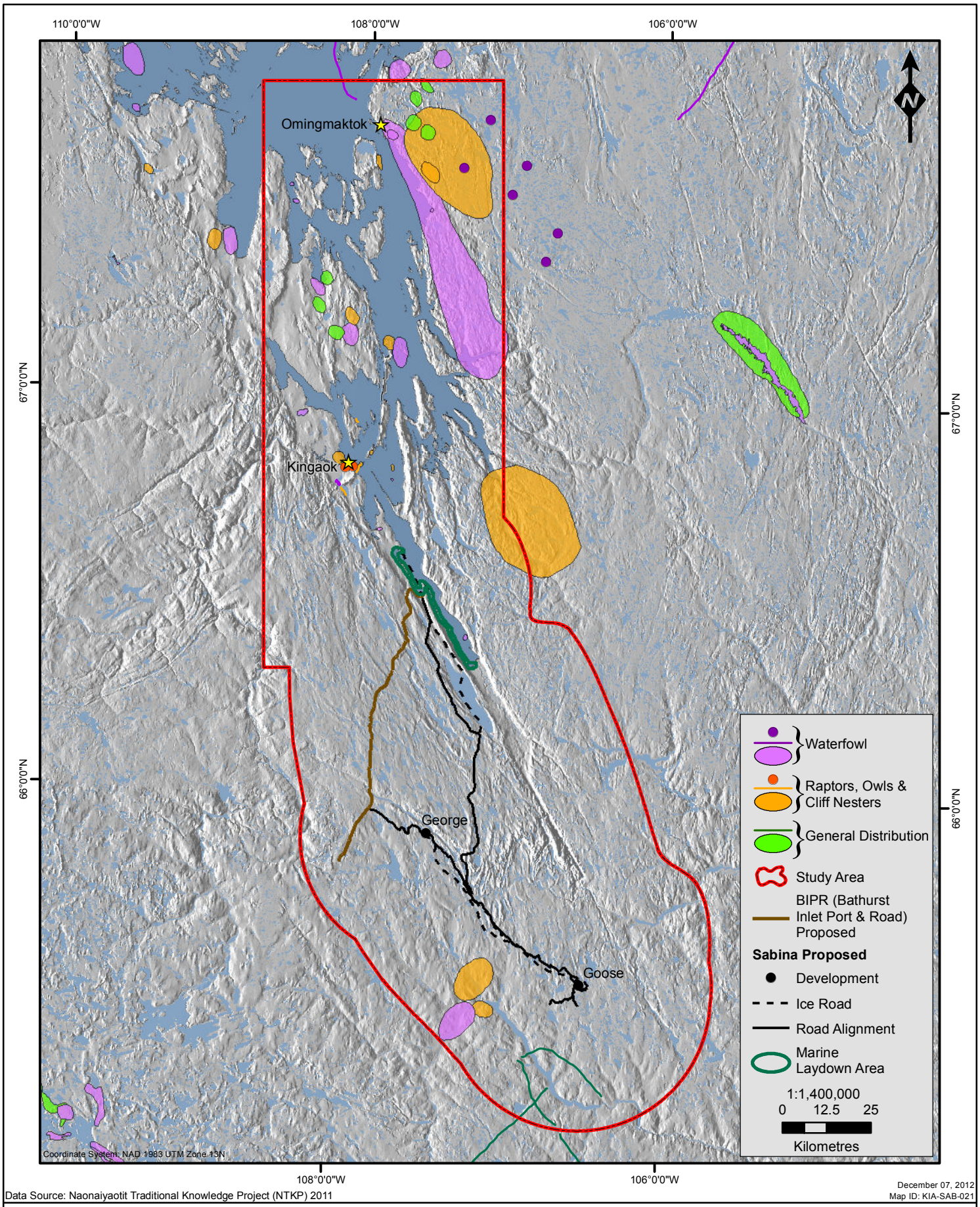


Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07 2012
Map ID: KIA-SAB-032

Figure 28. Inuit Traditional Knowledge - Inuit Hunting, Distribution and Habitat Use of Kopanoak (Birds) in the NTKP Study Area

Map produced by Spicker GIS Services (www.spickergis.com)



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07, 2012
Map ID: KIA-SAB-021

Figure 29. Inuit Traditional Knowledge - Inuit Hunting, Distribution and Habitat Use of Kopanoak (Birds)

Map produced by Spicker GIS Services (www.spickergis.com)

The lands around Hanningayuk (Beechey Lake) and Tahikyoak differ from Killinik because at those places it melts quickly. There are ducks around there in the month of May. The rivers start to flow quickly there."

C29 *"The ducks that are first to arrive are the Canada geese; Brants and swans. The Sandhill Cranes are also first to arrive and the other ducks arrive after these ducks. The Snow Buntings are always the very first ones before the ducks arrive… They arrive around here at Kugyoak (Perry River) and Kunayok (Ellice River). Before they arrive here, they're in all that area around Naoyak (Parry Bay), Omingmaktok and Katimanak."*

C29 *"The birds that arrive first… leave first, like the Canada Geese… The birds come from their land and then return in the fall. The birds that arrive first leave first from around Etibliakyok (Kent Peninsula isthmus), Kunayok (Ellice River) and from near Naoyak (Parry Bay) and Omingmaktok."*

6.2.2. Summer and Nesting

C4Oming *"Most ducks and geese nest around the islands in the ocean. The eider ducks nest on the land anywhere, all over Elu Inlet and around the coast…"*

C4Oming *"I never really hunt eider ducks but other people from Omingmaktok hunt them around Elu Inlet."*

C17 *"… Eider ducks and all kinds of birds make their nests at Bird Island (a small island east of Kingaok; local name). Sometimes it's hard to go there especially in May and June. There are many wide ice cracks and lots of slushy water. It's easy for some parts of the ice to get thin.*

During the summer swans nest here (in Swan Lake (Tagionuak))… We get a lot of geese and swans at Fishing Creek but they don't nest there.

The birds that come through here have not changed… We always see lots of geese at Fishing Creek going north and south. They stop at the same spots when they are going south… They stop anywhere on these islands, and sometime on the ground around here at Kingaok too, picking berries. Geese like to eat berries."

C17 *"… Swan nests are found not at Fishing Creek but at the lake above the creek (Fishing Lake)."*

C21 *"I know the places where the ducks nest. These ducks look after their eggs well. These ducks are not like people so they look after their eggs so their young grow big very quick…*

There are no Eider Ducks at these places further inland. Snow, Canada and White-fronted Geese nest at these sites by the rivers, on small islands, so they are

hard to find… I don't know of any nesting sites on the lakes, only on the rivers at the small islands (north of Beechey Lake and small islands northeast of Koagyok)."

C26 *"Important wetlands for waterfowl are found around Perry Island (Innaghakvik) Ellice River (Kunayok mouth), Kugyoak (Perry River) and around here (Bathurst Inlet coast from Omingmaktok south to Hiukkittak…"*

C29 *"There are wetlands … near Etibliakyok (Kilingoyak isthmus) and near Kugyoak (Perry River) … There are wetlands just above Etibliakyok (at Parry Bay) and part of Katimanak (an area further east on Banks Peninsula and an area at the mouth of Ekalivik (Footprint River)). These areas are used for nesting by Canada Geese, White-fronted Geese, and Brants. These ducks pretty well all nest together where it's wet and grassy. The caribou graze at these wetlands also…"*

C204 *"Right here (small island north of Tinney Cove), Bird Island (local name), we use for egg hunting. We go to Ehoktak also for bird hunting and goose hunting (lake to the northwest of Ehoktak)."*

6.2.3. Winter

C21 *"The Ravens and Snowy Owls don't migrate south. They spend all winter long… Those are the main two among the birds that don't leave. There are also the Ptarmigan that stay year round…*

All the land has Ptarmigans, Ravens and Snowy Owls, Rough-legged Hawks and Peregrines. These are the ones that are around Kingaok (also north end, south shore Beechey Lake; mouth of Hivogahik (Hood River)) and that don't leave during the winter…"

C25 *"The Snow Buntings (amaolikak) have their homes here during the winter. These Snow Buntings… don't really leave around here. They can be seen as soon as it's warm. They have their homes in snow, on the lee sides of the snow banks."*

C29 *"… The Snowy Owls and Eagles stay during the winter (at Omingmaktok, Elu Inlet, Kunayok and Kugyoak). There are the Ravens too that stay all winter."*

6.3. Raptors, Owls and Cliff Nesters

Cliffs were important nesting habitat for a variety of raptors (Rough-legged Hawk, Gyrfalcon and Peregrine Falcon) and other colonial nesting birds such as gulls and Cliff Swallows. Cliff nesters also included species such as Ravens, geese and some ducks.

Major coastal raptor nesting areas were identified on the south coast of Kilingoyak (Kent Peninsula) including the islands in Elu Inlet, near the mouths of Kolgayok (Tingmeak River), Kugyoak (Perry River), Kunayok (Ellice River), Omingmaktok, a large area on eastern Kokiviayok (east Kiligiktokmik), and Kingaok (Figure 29). Further south in Kiligiktokmik, important raptor areas were mapped north of Hanningayuk (Beechey Lake).

C4Oming *"Omingmaktok has cliffs all over."*

C4Oming *"Gyrfalcons use these cliffs for nesting. Wildlife officers have studied use of these cliffs near Omingmaktok by raptors like the Eagles, Hawks and Gyrfalcons, even by seagulls. They nest on the cliffs."*

C17 *"There are raptor nests here at Elliot Point (two nests on Elliot Point just south and west of Kingaok) and on the island (small island west of Tinney Hills). Over here on Young Island is a Gyrfalcon nest… There is a Golden Eagle's nest here (south of Kingaok)."*

C24 *"Most of the cliffs I've seen had Eagles."*

C24 mapped two areas with cliffs and nesting raptors, on southeast Kaogyok (Quadyuk Island) and the coastal area at Elliott Point.

C25 *"… These Eagles are called 'Kopanuakpak'. They nest at these high cliffs by Kingaok (southeast Bathurst Inlet surrounding Kokiviayok) all the time…*

I don't often see the Snowy Owls at the cliffs but only around the wetlands where they hunt the mice. They nest on the ground close to where they hunt the mice… These owls hunt only mice so they don't often go near where it's rough."

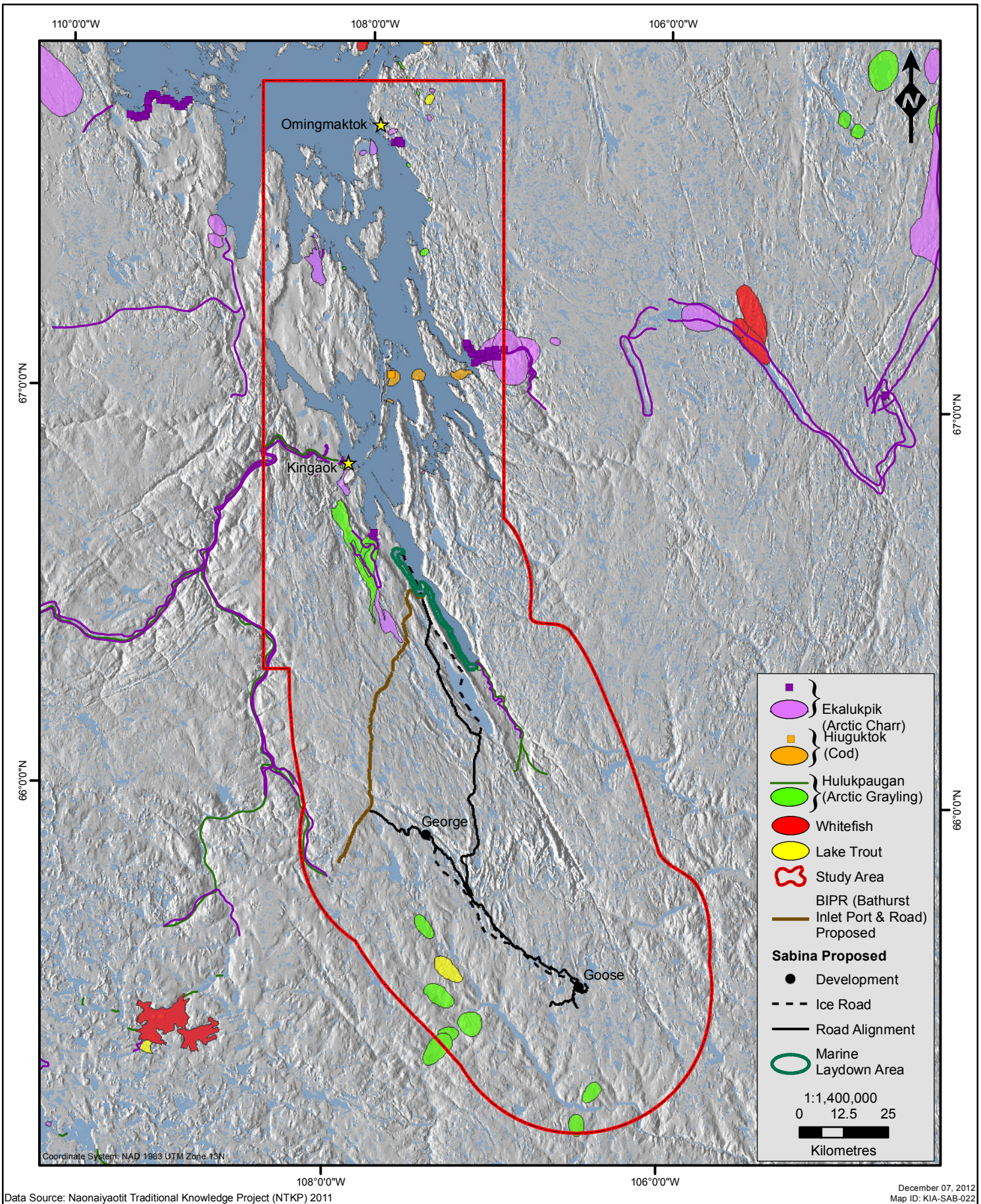
7. EKALOK (FISH) AND FISHING

Ekalok were an important part of the Inuit seasonal diet, and essential during times of food shortages, especially if caribou did not arrive because of a change in migration route or calving area. People fished primarily during the spring and fall, to coincide with spawning runs. During the summer Inuit fished and hunted waterfowl while hunting caribou, or if caribou were not available.

7.1. Fish Species

Ekalukpik (Arctic charr) were the main fish species for Ocean Inuit and Kiligiktokmiut. Ekalukpik and hiugyuktok (tomcod) were the two main ocean fish. Other ocean fish included sculpins, smelt, flounders (called turbot), wolf eel, crabs, oysters and starfish. Similar to kopanoak (birds), focused questions on fish species were not part of the NTKP interview. Although many fishing places were mapped, these places were not cross-referenced with fish species and map data by species is largely lacking.

Although over-wintering and land-locked charr did occur inland, the main lake and river fish were ehok (lake trout) and whitefish (Figure 30). There were two types of whitefish, anakheek (broad whitefish) and kapihillik (Arctic cisco). Other fresh water species that were eaten were hulukpaugan (Arctic grayling), miliugiak (longnose sucker), burbot, northern pike (also called jackfish), and eels. The map of fish distribution (Figure 30) must be regarded as having minimal data; as the consultants said, if fish are present everywhere, why map them?



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07, 2012
Map ID: KIA-SAB-022

Figure 30. Inuit Traditional Knowledge - Distribution of Ekalok (Fish Species)

Map produced by Spicker GIS Services (www.spickergis.com)

7.1.1. Ekalukpik (Arctic Charr)

C1 *"… The only lake with Arctic charr that I know of is the one south of Bathurst Inlet (Bathurst Lake). That lake has lots of Arctic charr and we speared the fish… The river (Kilogiktok (Western River)) is also very good for fishing. We fished there with hooks baited for overnight fishing and we caught a few (charr)…"*

C4Oming *"When the fish went up the river (Arctic charr fall migration) at Hiukkittak, Hakvaktok (chain of lakes at coast) and Kangihoakyok (Daniel Moore Bay), Inuit speared them or used baskets to scoop them up."*

C4Oming *"The fish look (healthy) when they are going up river (from the ocean to the lakes). At Ekalolialok and Kilanaktokvik there are lots of cracks in the rocks. Some of these fish get stuck trying to go up or down the rivers, and the fish may become injured."*

C5 *"… At that lake (Ekalolialok; on island of same name) there are mostly Arctic charr…"*

C15 *The charr come up right up the Burnside River (Ayapakpaktokvik). They spend the winter in the river."*

C15 *"Fishing Creek (near Kingaok) and Burnside River (Ayapakpaktokvik) have Arctic charr… Ekalukpik return to the lakes in the fall and they return to the sea in the spring."*

C17 *"At Fishing Creek there are red Arctic charr, 'evitagok'. We don't get them this way (at Kingaok) only at Fishing Creek… We hardly see them anywhere else. Only at Fishing Creek do we see them.*

The red charr taste different… Some people like them when they are red but I prefer the regular Arctic charr… Charr Lake too has red ones. Charr Lake is close to the ocean. We could walk down to the ocean from that lake…

There are Arctic charr there too (in a lake to the east of Tinney Hills)."

C20b *"There is a lot of fish there (large area at Charr Lake), here at Kukiviakyok and here at Hikgakvik."*

C21 *"These fish that are found further inland are very good to eat. The Arctic charr where I lived long ago (Tahikyoak and Kiligiktokmik (Bathurst Inlet)), and from some of the areas around here (Killinik (Victoria Island)) are very good to eat, just before the fall migration.*

In the spring the Arctic charr that are coming from the lakes are very skinny. When they are coming down river they are not very good to eat. Sometimes they are found around here on the ocean. The charr don't like the food at the lakes. It's just like

caribou during the rutting season; the charr don't taste very good when they are coming from the lakes.

When the charr from the ocean are going up river, they are very nice and very tasty, and also very fat. I know of the charr being like that all over. When the lake trout that are coming down river reach the ocean, they get skinny, just like the charr in the lakes…"

C24 *"There are Arctic charr at Hiukkittak. They are all sea run charr."*

C24 *"We fished for charr at Ekalolialok (lake on island of same name)… They must be sea run. They migrate to the lake in the fall and return to the sea in the spring."*

C44 *"Some lakes that have rivers to the ocean contain Arctic charr. There are many lakes with Arctic charr; so many that I can't name them all. Some of these lakes are further inland. In the spring the charr that have been in the lakes during the winter return back to the ocean, while others are going to the lakes..."*

C51 *"It's very hard to say if the charr move to the ocean every year. I'm sure there are some that come all the way from the ocean to these lakes and rivers because all are connected to some of the major lakes that are in the area.*

Back (Hannigayok), Mara (Hanimok) and Burnside (Ayapakpaktokvik) are the main rivers with Arctic charr around my area. They all connect to the ocean. Mara River is connected to the Back River and the Back River is connected to the Burnside River.

This Back River connects to Garry Lakes and just south of Gjoa Haven in Nunavut. I believe the charr could make it up to the lakes through some of those rivers. I suppose there are charr that winter at some of those lakes because there are charr around Tahikyoak (Contwoyto Lake), where they are more abundant…"

7.1.2.Hiugyuktok (Tomcod)

C5. *"… This place has Arctic cod (west shore of Labyrinth Bay, off Etibliakyok (Kent Peninsula isthmus) and this place (south of Kigaotagyok or Turnagain Point, east side of peninsula) also has cod. This bay (at Peginganik) has cod as does this bay (northeast Kaogyok (Quadyuk Island).).*

There are cod also along the side of this island (Kikiktakafalok) and here (east through the inlet where a river empties into it). There are Arctic cod that are very big where it's salty at the river mouth. Right by the side (southwest of Panaktak on Koagyok), where it's deep under the cliff, about fifteen feet below the ice, there is a spot that when you hit it you could be catching fish all day by jigging. When you try to touch the bottom, you cannot. Where those cod fish stay it's very deep…"

7.1.3. Ehok (Lake Trout)

C29 *"There are all kinds of fish in the lakes like the cisco whitefish, Arctic charr, lake trout and all different kinds of lake trout. The lake trout are all different sizes even though they are all still lake trout..."*

C29 *"... Some lake trout stay around the mouths of the rivers where the river mouths are deep, like at Kugyoak (Perry River) and Kunayok (Ellice River).*

Around the falls in the rivers, where the water is deeper, there are always fish during the winter, such as at Kugyoak and Kunayok. The smaller rivers dry up. The fish can't go up river or go downstream because the rivers are frozen. In winter these deep rivers can have all kinds of fish like cisco whitefish and lake trout. The lake trout go back to the lakes but sometimes they get stuck when winter arrives and the rivers dry up. When the rivers stop flowing there are all kinds of different fish at these places where the rivers are deep."

Ehok was also caught in the ocean, especially at the mouths of rivers.

C23 *"During the summer when we fished at Mackenzie Point (Tigigak) I wasn't expecting to catch lake trout. I checked the nets the next day and there were lots of lake trout. My wife said, 'I didn't know the ocean had lake trout.' I was quite amazed. We caught lots of lake trout in the nets and some of the fish were quite large."*

C36 *"…. Some rivers, and even the ocean, have fish that are usually found in the lakes. They got caught in our nets. Inuit sometimes caught lake trout in the rivers and sometimes in the ocean. If there are fish around you really can catch lots when you are using nets."*

7.1.4. Anakheek (Broad Whitefish) and Kapihillik (Arctic Cisco)

C36 *"... There are different kinds of whitefish. Some are small and some are big. The broad whitefish are always really fat and the cisco whitefish are lean. Cisco whitefish only have white meat. Towards fall, before spawning the cisco whitefish from around Kugluktuk get fat and then they are really tasty. The two whitefish taste different."*

C48 *"... The cisco whitefish also have fat and eggs and are very tasty but not the broad whitefish. The broad whitefish doesn't have many eggs. These are different types of whitefish that are much bigger than the cisco whitefish…"*

7.1.5. Hulukpaugan (Arctic Grayling)

Hulukpaugan were found throughout streams, rivers and in some lakes on the mainland. One consultant thought that grayling did not occur on Killinik (Victoria Island) but another said they did, in the ocean adjacent to the coastline. No locations on Killinik or in the ocean were mapped, although a few coastal streams on the mainland were said to contain grayling.

C11 *"Grayling are usually found in the small streams (between Aallik and Tahikyoak; streams south and north of Beechey Lake, and two areas on Hannigayok (Back River) where it enters Hanningayuk (Beechey Lake))."*

C15 *"Burnside River (Ayapakpaktokvik) and Fishing Creek have grayling."*

C21 *"Grayling are found in the rivers further inland. Long ago when I was a young boy I caught grayling at the rivers leading to the lakes. There are so many grayling in some rivers, at these rivers (Hannigayok, at the north end of Beechey Lake). There are some around Tahikyoak (northeast Tahikyoak), at the rivers. These small grayling are called 'hulukpaugan' and further inland they are called 'hulukpaugak'."*

C21 *"… There are some grayling in the places that I pointed out earlier, in the rivers (northwest of Beechey Lake at river) but not on the ocean…"*

C21 *"Fish are small because they take a long time to grow, just like humans do… At this river (north of Beechey Lake, south of Tikigak) you can find that type of fish (juvenile grayling)…"*

C51 *"The grayling spawn in the rivers, in the shallow boulders, in really shallow boulder fields. That creek where the river is at my place (Nonatoklik) has a lot of grayling. They tend to stay in the shallows but once in a while I see the little graylings where there is a sandy bottom. You can see them working the silts at the bottoms of the rivers. Once in a while they are working the beddings… maybe the spawning beds. I think there are some grayling that spawn in the main lakes where there are lots of weeds and silt, even grassy bottoms, especially in the sandy bottom areas and where there are lots of weeds…*

Sometimes we use very small size mesh nets to catch whitefish and sometimes we catch these grayling in the nets at the main lakes. We used to have small mesh gill nets for whitefish… and small trout. Once in a while we catch those grayling so I guess they do travel around those lakes."

7.1.6. Milugiak (Longnose Sucker)

Inuit caught suckers in lakes and in rivers.

C16a *"… We jumped across the river onto underwater rocks to get across (at the old traditional community on Beechey Lake called Tudlak). It has a strong current. The river has different kind of fish in it like codfish and 'milugiak'. This was at Hanningayuk (Beechey Lake), at the river (Hannigayok (Back River)).*

The bodies of the longnose sucker are square and they have a long nose. There are lots of bones in the meat. Komak called them 'milugiak', which means when you cut up the fish there are lots of bones. The nets got full of them, even though the nets were short."

7.2. Fishing Places

7.2.1.Ocean

Inuit fished the ocean adjacent to the mainland and island coastlines, and at the mouths of major rivers (Figure 31). In spring they fished through the ice cracks. In earlier years Inuit built weirs and fish traps at river mouths and fished using spears and baskets. In recent years they fish the rivers with gillnets.

> ***C51*** *"People fished the ocean by jigging mostly. Now they use a lot of gillnets. They ice fish today with fishing rods. There are Arctic charr and some trout close to the ocean. Some trout are really close to the ocean. There are also jackfish or pike close to the mouth of Coppermine River. In the ocean there are whitefish, what they call the broad whitefish, lots of broad whitefish, and those flat fish called flounders, tomcod, Thompson eel and sculpins…"*

7.2.2. Lakes and Rivers

All lakes and rivers feeding into Kiligiktokmik were important for fishing (Figure 32). Many of the rivers had ancient stone weirs. Many weirs had been built at the mouth of Hiukkittak, a major fishing area. Lakes near Kingaok, especially Tagionuak, were major fishing areas. Aniakhiokvik (Fishing Lake) was the local fishing spot. Further south, Tahikafalok (Bathurst Lake), Hikinikgogiak (Kenyon Lake) and Hanningayuk (Beechey Lake) were important fishing lakes.

> ***C1****. "… This river (Hiukkittak) has a really strong current and they used to have a weir back then on it right by this bend (near the mouth). There is also another weir around here. I remember we restored the stones and used that ancient weir for spearing fish…"*
>
> ***C1*** *"… The fish go further up into the lakes using the rivers. All kinds of fish do this. They also use the same river to go down to the ocean."*
>
> *Sometimes the fish will winter in the lakes because the rivers get too shallow for the fish to go down river. In the spring they start to migrate down river…"*
>
> ***C4Oming*** *"When the fish went up the river (Arctic charr fall migration) at Hiukkittak… Inuit speared them or used baskets to scoop them up."*
>
> ***C4Oming.*** *"…There would be lots of fish at Hiukkittak, Kugyoak and around Kangihoakyok (waters feeding into Kangihoakyok) during the spring. Even in the summer when the fish were ready to go up river, there was lots of fish…*
>
> *Inuit jigged for fish where the fishing was good. They fished in the lakes…. They fished these places using hooks during the spring or winter and sometimes they used nets."*

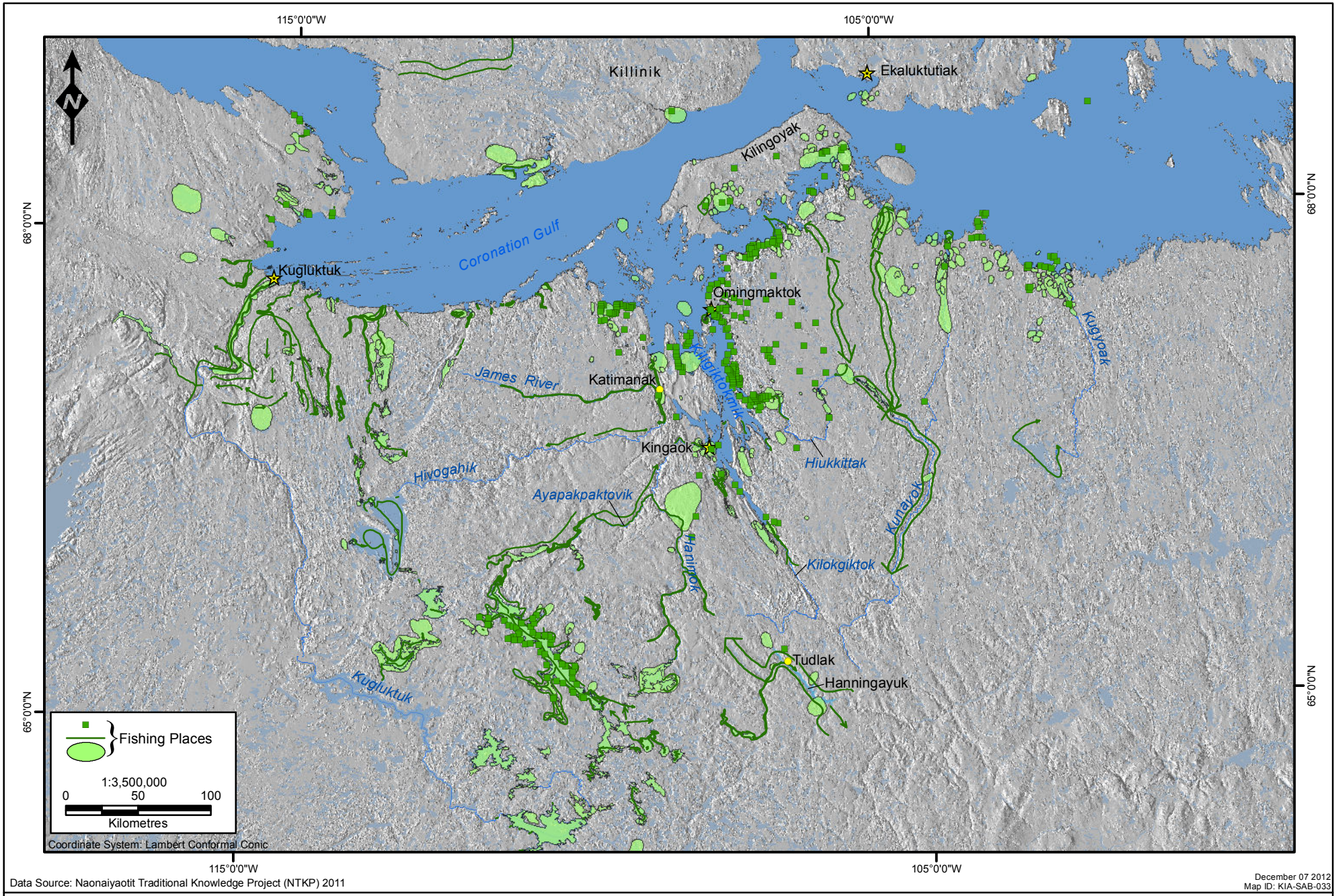
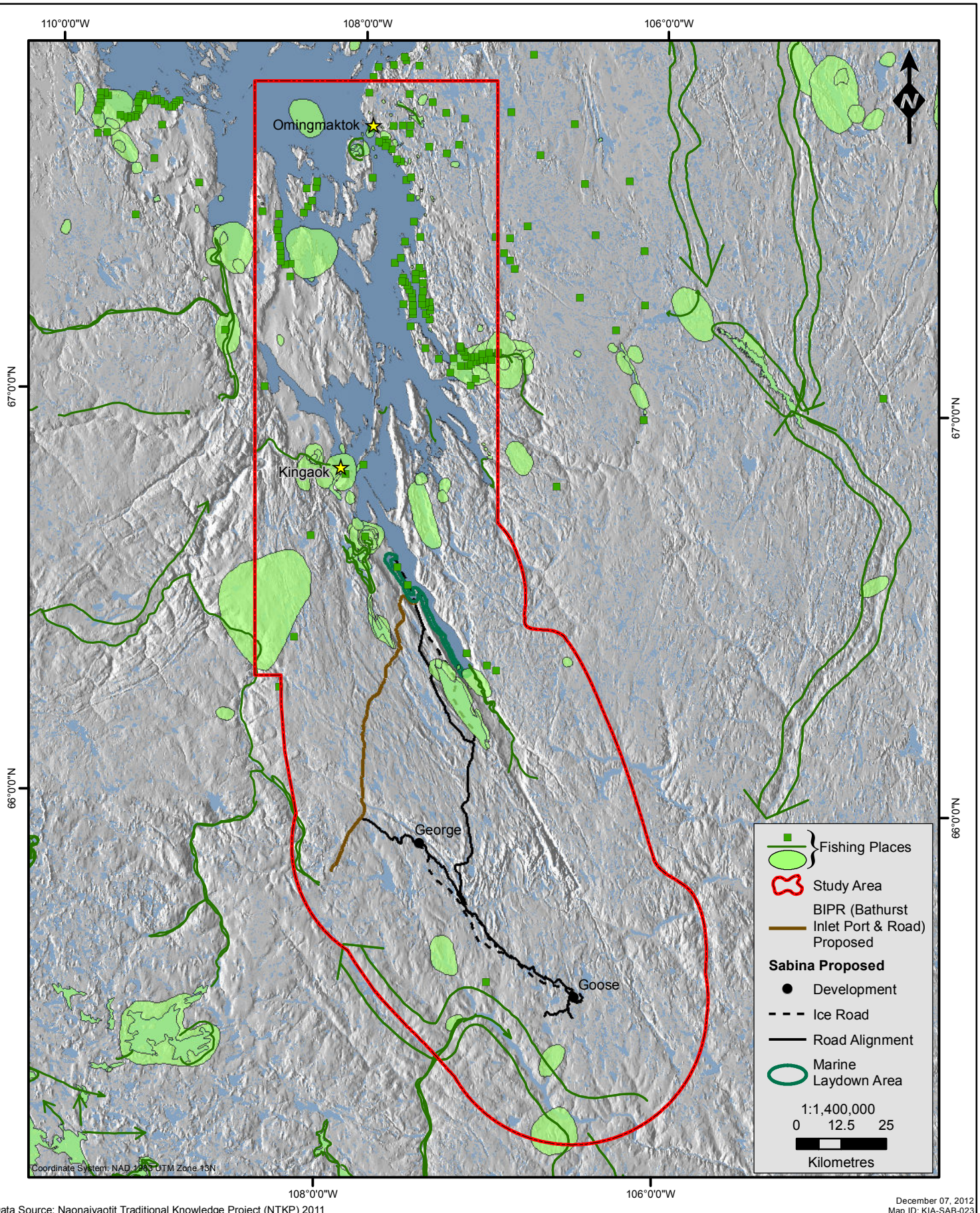


Figure 31. Inuit Traditional Knowledge - Fishing Places within the NTKP Study Area

Map produced by Spicker GIS Services (www.spickergis.com)



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2011

December 07, 2012
Map ID: KIA-SAB-023

Figure 32. Inuit Traditional Knowledge - Fishing Places

Map produced by Spicker GIS Services (www.spickergis.com)

C5 *"… The people from Kingaok and Omingmaktok must know about that river (Hiukkittak). It is really sandy from all the way up here (at the mouth) downstream… People fish the ocean at the mouth of the river. I have nets at Ehokhikhiovik (initial river section of Hiukkittak)… I usually have nets at this place… "*

C5 *"Inuit fished anywhere in the rivers. They fished the river when the fish were going down river and up river, when they needed food. (We fished at Hakvaktok (south coast of Melville Sound), Naoyak and Etibliakyok, Kolgayok (Tingmeak River), Kunayok (Ellice River)… Hiukkittak, Aniakhiokvik (Fishing Creek), Kingaok, Daniel Moore Bay (Kangihoakyok) and all along the coast of Victoria Island up to Wellington Bay (including Paatlik or Byron Bay)…"*

"These areas (coastal Parry Bay, Etibliakyok (Kent Peninsula isthmus), Kolgayok (Tingmeak River, and an area east of Fishing Creek) are fishing places. They have charr and trout… and cisco whitefish…"

C15 *"Lake trout, charr, whitefish and grayling are found in lakes."*

C15 mapped fishing lakes within the Ekalokhiokvik drainage south of Kiligiktokmik.

C16b *"When we were young, the fishing areas were identified by our parents. You should mark that place (mouth of Burnside River (Ayapakpaktokvik)) because people still go there to fish. Our parents taught us these things, even about tomcod fishing…*

I remember those fishing places because my parents stayed there when I was growing up. Niptanatiak(s) and Tigitkok(s) used to stay there (south portion of Gordon Bay and the inlet to the west)…"

C20a *"The lake is where we would have nets in the winter. Inukholik (near Hiukkittak) is where they would set nets in the winter…"*

C21 *"… At the rivers (mouth of Hannigayok (Back River) at Beechey Lake and stream on north-central shore of Beechey Lake) they liked to net for fish, for… lake trout and whitefish…*

They net fish near Kingaok every fall Ayapakpaktokvik ((Burnside River)). This lake (Ekalokhiokvik (Tahikafalok Lake)) has a small river to the ocean (Aniakhiokvik (Fishing Creek)). That is another area that they mainly fish, I know this because my grandfather liked fishing there…"

C21 *"…Inuit fished along the shore … at Kingaok (northwest of Fishing Creek). Over here at Kingaok (stream leading into and south of Ayapakpaktokvik (Burnside River) near its mouth) Inuit have fished for a long time. That river has charr and whitefish…"*

C21 *"… They would jig for fish in the lakes around here (north of Beechey Lake) when*

they were traveling to see the white people (to the trading post at Kingaok). They jigged for fish in the lakes as they were traveling, when they camped… They fished when they stopped so they could have fresh food, I remember. I was following them that time."

C25 *"… These parts of the lakes (narrows)… are called 'kongunik' (pl.) and that is why this is called 'konngok' (sl.). This narrow spot (at the narrows of Hanningayuk (Beechey Lake) never freezes all winter. That is why they tell Inuit who are traveling to be careful because this narrow spot doesn't freeze. We call those narrow parts of the lakes 'kongunik'. We know about that konngok where Inuit set fish nets because it doesn't freeze all winter. You have to be careful when you travel through there…"*

C44 *"Those rivers where Inuit mostly fish (Ayapakpaktokvik and Hivogahik) and where they hunted the caribou near the mouth of the lakes are important. Some of these areas where they mostly fished during the winter don't freeze that well. These areas sometimes are scary (dangerous places for traveling)."*

C51 *"In the fall we used gill nets to catch a lot of fish for the dogs, and for dry fish too. All these places where we had our nets have inokhok or rock pile markers… On our trap lines too we fished. We did a lot of fishing especially on the days that were stormy. We did a lot of fishing to pass the time…"*

In the Bathurst Inlet area C51 mapped Tagionoak (Goulburn Lake), Swan Lake (Tagionuak), and a lake west of Amagok as good for fishing.

C203 *"This is a good spot for fishing too (at the mouth of Ayappappaktokvik). This long arm in here, it's a good spot for fishing. When I was there in February, it was good, a good fishing spot there…"*

C214 *"There is a river there as well Kokiviayok. It's small but there are a lot of fish."*

8. WATER SOURCES AND QUALITY

Potable water was a major concern for Inuit, even before mineral development activities. Good water was not always readily available on the land, and sometimes took a lot of effort to obtain. Good water was defined as having the following characteristics:

- High clarity
- Clean (no mud or insects)
- Good for fish
- Good for drinking (palatable)
- Good for tea (doesn't make tea dark)
- Not salty
- Uncontaminated (by natural heavy metals or spills)

Inuit preferred large lakes for drinking water and avoided shallow lakes. Inuit on the coast went inland to obtain water because of tidal action near the river mouths. When good water

was unavailable, Inuit used water from less desirable sources and treated it by filtering or boiling.

> **C25** *"The water inland at Ahiak (Contwoyto Lake area) is really good water. There isn't much good water on Victoria Island. Around here at Kilingoyak (Kent Peninsula) the water isn't very tasty because all that land has lots of silt. Sometimes when you find good water around there it's good.*
>
> *The water inland is much better than the water close to the ocean… That water tastes kind of funny and it's not good to make tea from. The water found around the Kilingoyak area makes dark tea but the tea still tastes good."*

Inuit obtained water and ice from:

- Lakes
- Rivers and creeks, as long as they were flowing
- Pools under cliffs
- Pools of water among deep rock crevasses, from rain or melting snow
- Underground streams and cold water springs
- Wetlands
- Snow
- Inland - In winter from lakes and rivers through an ice hole
- On the ocean - in winter from snow and icebergs
- On the ocean - in spring, fresh water ice and pools of water on the ice surface

Generally consultants did not map places where they obtained water as they said they found water everywhere.

8.1. Locations on the Land Where Inuit Obtained Water

When they were at their camps, Inuit had traditional places where they obtained water. When traveling, they obtained potable water from wherever they found it.

Inuit living along the coast of the Arctic Ocean and Kiligiktokmik (Bathurst Inlet) had to find sources of fresh water. The lakes adjacent to the coast were not good for drinking water because underground seepage from the ocean made them saline. The water inland was better for drinking than water on the coast.

> **C16a** *"… We would get water for tea from the rivers and small lakes. We would get our water from the river at Hiukkittak…*
>
> *At Kingaok we got our water from the river (Ayapakpaktokvik (Burnside River)), where there was no salt water… The salt water goes up river when the tide is high. We would take note and taste the water. We checked the water using a cup. When the tide is high, the salt water goes further up the river. Everyone did the same thing. All the people would test the water using a cup.*
>
> *The water at Hiukkittak is better because a smaller river has no salt… This river (a small stream south of Hiukkittak) is where they mostly get water from… The salt*

water from the ocean goes way up there…"

C17 *"Burnside River is important to us because we get our drinking water from there. We got water in summer and winter until the ice got too thick and then we would have to move further up the river to get water."*

8.2. Changes in Water Quality

Inuit had seen many changes in water quality over the past few decades. These included shallower lakes and rivers that drained to the ocean, reductions in river flow, smaller fish spawning runs, and the Arctic Ocean took longer to freeze.

In general, these changes in general had lowered the quality of water. The changes were attributed to less rain and snowfall, changes in weather, increased contaminants such as dust, mineral exploration and mine development, melting of permafrost because of global warming, airborne pollutants, too many tourists, leaving garbage on the land and an overpopulation of geese. Less change had been seen in water quality inland, compared to coastal areas. However, even inland areas had seen the effects of climate change.

Consultants expressed concerns that people developing mines needed to be careful to preserve the quality of the water. Some had seen examples of non-Inuit contaminating water. Concern was expressed about the tailings ponds at the Lupin gold mine at Tahikyoak (Contwoyto Lake)) and how exploration companies had handled their waste.

C28 *"The water too, everything has changed, even the land here. It would never completely dry up. That's what people have mentioned during the summer. Even the rivers, everything has changed. In the past, when people went walking, they would have hard time finding water; sometimes they wouldn't find water at all. It's not like that anymore, it seems to rain more. Summer would never come when it rains too much. It's colder now too. It wasn't like that a long time ago. It was fun then. The ocean doesn't freeze up like it used to, maybe it's getting warmer? It must be getting warmer that's why it doesn't freeze up like it used to.*

Everything is changing and getting tougher. Sometimes you don't even know what to do. The rivers seem to get lower than they used to and the land seems to have more water..."

C30 *"… Inuit got their water from rocky areas. Now the water doesn't taste well because the rocks are dried up. They also got their water from the rivers… They would get ice from the small lakes for drinking water once the lakes were frozen…"*

C34 *"The water deliverers with their water trucks change the water quality when they add chlorine to it… It's not very good for making tea because the tea gets very dark and starts to smell. The water looks good but when you heat it, it gets very dark. I don't know why. Just around here (south of Cambridge Bay) the water is good where it's rocky. The rock around here is white and that may be causing the water to get dark or maybe it's from the ground. All the water is different all over…*

... The lakes start to get dry, even the rock basins where water collects, when the land is very dry. When it rains those places get full of water. These changes are happening around Cambridge Bay. Those places start to dry out because the sun is too hot and it doesn't rain. If I can't find good water it's going to be difficult."

C44 *"The climate is changing and the weather is different now. Even the lakes have changed. Long ago when you made tea using water from the river or lakes it used to be good. Now the water doesn't make very good tea anymore. The Coppermine River is starting to change too. Inuit have begun to talk about the changes now. Even to drink out of the river is not very good because the water is changing..."*

C44 *"Water quality is starting to change at the Coppermine River and the rivers at Kingaok. Inuit are seeing and talking about these changes that are happening. Long ago these rivers were good to drink from, not like now."*

9. SUMMARY AND ASSESSMENT OF DATA GAPS

Sabina recently submitted a Project Description for their Back River (Hannigayok) properties with the intent to develop mixed open-pit and underground gold mines at Goose Lake and George Lake (Sabina Project). This report presents regional-level Inuit Traditional Knowledge held within the Naonaiyaotit Traditional Knowledge Project (NTKP) for the proposed Sabina Project.

This report section summarizes how the proposed Sabina development interacts with Kitikmiut (Inuit of the Kitikmeot region) land-use, wildlife, fish and water based on Inuit Knowledge. Data gaps are identified and assessed.

The first major data gap that applies to all themes is that the NTKP is a regional project; data was collected at a 1:250,000 map scale. Although consultants at times discuss site-specific information, much of this information was not available spatially. Site-specific information within the Sabina Project footprint is needed at larger map scales, 1:50,000 or 1:20,000, to ensure that important cultural sites are identified and protected.

A Local Study Area (LSA) was defined as the area of land and water that encompasses the Project (Figure 1), consistent with the largest boundary of wildlife, marine, and terrestrial study areas as defined by the baseline studies of those disciplines. All available spatial and textual information within the NTKP was provided for the LSA.

The Regional Study Area (RSA) was intended to encompass broad regional-scale information in the NTKP database. The RSA essentially is the NTKP project area as it exists at present. For the RSA, broad summary information, with maps and illustrative quotes for some themes, was provided. This information was integrated in the report. Each section begins by describing the regional framework, and then the detailed information for the LSA follows.

9.1. Kitikmiut Groups

The NTKP is the knowledge of Kitikmiut who belong to one of three regional groups (Figure 2):

- Ocean Inuit – people of the sea,
- Nunamiut – Inlanders or people of the land, and
- Kiligiktokmiut – people of Kiligiktokmik (Bathurst Inlet), Kugyoak (Perry River) and Kunayok (Ellice River).

The main distinction among these groups relates to their primary food species. Ocean People depended on marine species, particularly seals. Nunamiut depended on terrestrial species, particularly caribou and Kiligiktokmiut had access to both seals and caribou.

Documenting the names of places on the land was the first step in sharing Inuit oral knowledge for the Sabina study area. Three maps with detailed placenames were provided, for the Hanningayuk (Beechey Lake) region (Figure 3), for South Kilogiktok (Bathurst Inlet Region) (Figure 4) and for North Kilogiktok (Figure 5). Although there are issues outstanding with the names of some places, placenames maps are essentially complete and there are no data gaps.

9.2. Heritage and Lifeways

In the Heritage and Lifeways section how Inuit lived and traveled was described for each group. Throughout the year Inuit lived where wildlife was abundant. These gathering places were linked by major travel corridors. Travel corridors were located where wildlife resources were most abundant, and where travel was easier. These corridors linked Inuit to each other and to harvesting areas. After contact with Europeans, they also linked Inuit to the fur-trading posts.

Two regions within the west Kitikmeot were so rich in wildlife resources that they permitted Inuit to live there year-round, especially after they had access to guns and snow-machines. These regions were Tahikyoak (Contwoyto Lake) and Kilogiktok (Bathurst Inlet) (Figure 6).

Tahikyoak (Contwoyto Lake) is at the heart of Nunamiut land-use, with a major travel corridor to Kiligiktokmik (Bathurst Inlet) in the east, and a major travel corridor following the treeline to the coast at Kugluktuk in the west (Figure 7). Kitikmiut gathering places were situated along these travel routes, the largest and most important being at large lakes and along major rivers.

Ocean Inuit had water and sea ice for their travel, and the entire Arctic Ocean coastline was a major travel corridor (Figure 7). These people regularly traveled to Kilogiktok to hunt tuktuk (caribou), amagok (wolves) and kalvik (wolverine), and to socialize and trade with other Inuit.

Kiligiktokmiut used Kilogiktok on a continuous basis for thousands of years. Similar to Tahikyoak, Kiligiktokmik had an abundance of food, including caribou (tuktuk) in all seasons, large calving areas, and nattik (seals). Inuit major camps were located on Kilingoyak (Kent Peninsula), Kingaok, and a number of locations on both shores of Kiligiktokmik. Two places named Katimanak (at the junction of Hanimok (Mara River) and Ayapakpaktokvik (Burnside River), and at the junction of James River and Hivogahik (Hood River)), were locations of major camps, as were several locations on Huikkittak and Kilokgiktok (Western River) (Figure 8). Hanningayuk (Beechey Lake), the location of Bathurst caribou calving grounds, was an important camping area during the consultants' lifetimes, their parents and grandparents, and for Inuit before them.

The travel and harvesting routes of Kiligiktokmiut covered the length and breadth of

Kiligiktokmik (Figure 8). Their overland routes started on the ocean from the mouths of the major rivers such as Hiukkittak, Angimayak, Kolgayok and Kunayok, and then headed inland. Further south, their travels took them to Hanningayuk (Beechey Lake) and Hannigayok (Back River).

The maps of Inuit travel and gathering places (Figures 6-9) essentially are also maps of important harvesting areas. Kiligiktokmik and its coastal river systems was an important harvesting region for Inuit because it was rich in wildlife resources, for caribou and large mammals, trapping furbearers and for fishing.

NTKP data for Kitikmiut gathering places and travel routes at a regional level are complete. However, detailed information at larger map scales is lacking. As examples, this detailed information would include locations of old camps, artifacts, graves, and where copper and carving stone were found. Limited information was available on the locations of these special resources.

9.3. Tuktuk (Caribou)

Tuktuk are the most important wildlife species for western Kitikmiut. Without tuktuk, survival on the land was not possible. Tuktuk provided food, clothing, utensils, tools, and shelter. The life cycle of tuktuk was a major factor in where people travelled and where their seasonal camps were located.

9.3.1. Important Habitats

Important habitats for tuktuk included nadlok, wetlands, eskers and other high land features which served as heat and insect relief areas. Nadlok are the water narrows where tuktuk crossed during the ice-free season. They were particularly important to tuktuk and as a result were important living and hunting locations for Inuit. Large lakes and nadlok funneled caribou into certain areas as they made their way to their calving grounds in the spring and back to the trees in the fall.

Important nadlok included the narrows at Kikiktakafalok (Rideout Island), which was a major hunting location for Kiligiktokmiut. There were a number of other major nadlok in Kiligiktokmik itself and within the major river systems of Hiukkittak, Kilokgiktok (Western River) and Ayapakpaktokvik (Burnside River).

Although consultants identified wetlands as an important foraging habitat for tuktuk, few areas were mapped. Similarly, few insect and heat relief areas were mapped although consultants noted that during post-calving and summertime the coastline was important for insect and heat relief.

9.3.2. Island Caribou

Numbers of Island caribou were on the increase during the consultants' lifetimes. These tuktuk spent the winter on the mainland and migrated back to Killinik (Victoria Island) in spring where they calved and spent the summer. They came back to the land of the Kiligiktokmiut in the fall, once the ice had formed in Dease Strait and they could cross easily (Figure 9). Once on the mainland, Island caribou frequently mixed with the mainland caribou.

Island caribou wintered on the mainland because of better forage. They mixed with Ahiak caribou at this time. The majority were found in the Kugyoak and Kunayok areas (Perry and

Ellice Rivers, Queen Maud Gulf). Other wintering areas were near Omingmaktok, Kilingoyak (Kent Peninsula), Kolgayok (Tingmeak River), Etibliakyok (Kilingoyak isthmus), Naoyak (Parry Bay), Katimanak (where Hivogahik (Hood River) and James River meet), and between Kiligiktokmik and Kunayok. These areas were rocky with less snow and caribou could graze there.

A number of wintering areas for Island and Ahiak caribou were mapped in northern Bathurst Inlet (Figure 10). Hiukkittak also was an important wintering location. However, the majority of Island and Ahiak caribou in winter were found further east, in the Kugyoak and Kunayok areas.

The NTKP is relevant as of the mid 1990s. In the past 15 years it is certain that Island caribou have re-occupied more former habitat. The NTKP does not have this information and this is a data gap.

9.3.3. Mainland Caribou

Consultants did not separate Bathurst and Ahiak caribou although they recognized that some tuktuk calved at Bathurst Inlet and other tuktuk calved in the Kunayok and Kugyoak areas. Inuit did not use the term "Ahiak herd" but referred to mainland caribou or Bathurst caribou, and they used the two terms interchangeably. These two herds mixed in the fall, winter and spring and their seasonal ranges overlapped. Kiligiktokmiut were in proximity to mainland caribou in spring, summer and fall. In some areas, Kiligiktokmiut had access to tuktuk all year.

9.3.3.1. Migration

The typical spring and fall migration routes for mainland caribou were a general north-east and south-west migration (Figure 11). Once caribou reached Bathurst Inlet (Kiligiktokmik) their migration routes split up both sides of the Inlet, west to Hivogahik (Hood River) and to the coast. The route along the east side of Kiligiktokmik followed the inlet north to the mouth of Hiukkittak, northeast to the mouth of Kunayok (Ellice River) and east to the mouth of Kugyoak (Perry River). All of Bathurst Inlet, including the proposed Sabina development is used by migratory caribou (Figure 12), because of the proximity of the calving grounds.

The distribution and movements of Bathurst caribou changed frequently over time. In particular, spring migratory routes changed often. Sometimes caribou went through Kingaok but other times they were further east or west. One consultant said that caribou regularly came through Kingaok in the spring but had not done so for about a decade, because of changes in calving areas.

9.3.3.2. Calving

Calving areas had changed over the consultants' lifetimes. In the past mainland tuktuk calved on the west side of Kiligiktokmik but in recent times they calved on the east side of the Inlet. As a result, people in Kingaok no longer saw tukutk come through their community in the spring. When Bathurst caribou calved on east side of the inlet, their calving grounds mixed with those of the Ahiak herd (Figure 13). Calving areas for Ahiak caribou do not occur in the Sabina study area.

Calving areas for Bathurst caribou are present throughout the Sabina study area (Figure 14). All of eastern Bathurst Inlet was used for calving. On the east coast, the most important calving area was at Katimanak Kangihok (Arctic Sound) although smaller calving areas also

occurred on Hinikyoak (Banks Peninsula) and in the vicinities of Kingaok and Tahikafalok (Bathurst Lake). All of Hanningayuk (Beechey Lake) and an area to the south was a major calving location.

9.3.3.3. Post-calving and Summer

Tuktuk left calving areas immediately after having their calves. There were two main types of post-calving movements for mainland tuktuk, to the south, and to coastal shorelines. Mainland tuktuk were distributed across a large area in the summer and their occurrence was unpredictable and variable. There could be tuktuk in the study area during post-calving and summer, especially near the ocean. During this time they used a number of predictable and traditional crossing locations during open water in Kiligiktokmik (Figure 15). The proposed Sabina marine laydown area is located within an important crossing area for caribou.

On a regional scale, tuktuk used the same corridors during spring and fall migrations (Figure 11, Figure 12). Bathurst caribou began to move south in the middle of July with major movements in August and September. Most consultants said that caribou passed by them in August and September, depending on where they lived and what year it was. In some places there could be no caribou around by September.

9.3.3.4. Winter

Within Bathurst Inlet mainland caribou wintered in the northern part of the inlet and on both east and west sides. As discussed in the Island Caribou section, these are places where the different herds would inter-mingle. The only place in southern Bathurst Inlet with mainland tuktuk in winter was Hanningayuk (Beechey Lake) (Figure 10). Habitats used during winter consisted of rough and rocky areas because there was less snow and access to vegetation was easier.

9.3.3.5. Data Gaps

As for Island Caribou, the NTKP is relevant as of the mid 1990s. Mainland caribou populations have crashed within the past decade, making the NTKP information all that more important as it portrays the typical pattern for these herds. There are no data gaps in regional movement information for mainland caribou herds.

9.4. Mammals

The NTKP provided information on land mammals and birds. The level of detail was not equivalent for all species. The database does not have information on marine mammals besides seals.

9.4.1.1. Akhak (Grizzly Bear)

There had been an increase in the numbers and distribution of akhak in recent times, especially in coastal areas. Akhak typically were seen in spring and fall, during fish spawning runs, and caribou migration. The movements of akhak were associated with the major river systems and their watersheds (Figure 16). All of Kilogiktok is an important region for akhak, because of the abundance of tuktuk, and because of fisheries resources (Figure 17).

9.4.1.2. Amagok (Wolf)

Inuit generally hunted amagok and tuktuk together. When their pelts became highly valued, amagok were, and continue to be, highly sought after by Inuit. With incentives such as bounties and high pelt prices, Inuit began to specifically target amagok in certain areas (Figure 18) and at certain times of year. Inuit traveled extensive distances in search of amagok and Kiligiktokmik (Bathurst Inlet) was one of the major hunting areas (Figure 19).

9.4.1.3. Fox and Inuit Traplines

The major reason why Kitikmiut ran traplines was for fox, in particular tigiganiak (arctic fox). There also was a demand for kayuktok (red fox) and Nunamiut in particular trapped this species. Consultants did not map fox habitats but instead mapped their trapping areas and traplines. There were a number of important fox trapping areas in the Sabina study area including Hannigayok (Back River), Hanningayuk (Beechey Lake) and Hiukkittak (Figure 20).

9.4.1.4. Kalvik (Wolverine)

Kalvik were well distributed on the mainland although they always occurred in low densities. Fewer kalvik occurred on the mainland coast compared to inland. Tahikyoak (Contwoyto Lake) was an important kalvik area, due to the abundance of caribou there (Figure 21). Kiligiktokmik (Bathurst Inlet) and the areas surrounding the communities of Omingmaktok and Kingaok were noted as important for wolverine (Figure 22) although map information was sparse. Little information on kalvik in southern Kiligiktokmik was provided.

9.4.1.5. Carnivores – Data Gaps

The importance of habitats for akhak (grizzly bear), amagok (wolf), kayuktok (red fox), tigiganiak (white fox) and kalvik (wolverine) was primarily a function of the distribution of caribou. Their interaction with the proposed Sabina development spatially was the same as that of caribou, as was Inuit use of these species.

Although there was discussion of what constituted denning habitat, map information on den locations for all the carnivores was largely lacking. In general, information on important seasonal habitats is lacking.

9.4.1.6. Omingmak (Muskox) and Tuktukvak (Moose)

Few omingmak (muskox) occurred inland but their numbers and distribution was increasing as they reoccupied former habitats (Figure 23). Tuktukvak (moose) were known from one area within the study area, near Kingaok although consultants said their distribution was expanding. Spatial (map) data is lacking for both omingmak and tuktukvak.

9.4.1.7. Small Mammals

Okalik (arctic hares) and hikhik (ground squirrels) were distributed throughout the NTKP area (Figure 24), including the Sabina project study area (Figure 25). As for akhak, hikhik distribution was associated with major river systems. Given their widespread occurrence, it is not likely that site-specific TK information is necessary for these prey species, nor is it the kind of data that consultants would be apt to map.

9.4.1.8.Marine Mammals

Nattik (seals) were seasonally concentrated within a wide distribution in the ocean (Figure 26). Nattik were harvested within Kiligiktokmik and were important to Inuit, but yet few locations were mapped (Figure 27). In particular, the NTKP does not have information on the distribution of seal species other than nattik (ringed seals) such as kahigiak (spotted seal) and ugyuk (bearded seal). Seasonal habitat use information on nattik in the study area is also lacking.

There is information that suggests some consultants had information on other marine mammals, such as walrus and whales. However, details on these species are lacking in the NTKP.

9.1. Kopanoak (Birds)

Kopanoak (birds) were an important food source for Ocean and coastal Inuit, because of large concentrations of nesting waterfowl on the coast. Birds were less available and less important for Nunamiut although they consumed waterfowl when tuktuk were absent (Figure 28).

Spring migratory hunts for waterfowl were important harvesting activities on the coast and ocean. Sandhill Cranes were pursued when they first arrived because they had large amounts of fat. Eider Ducks and Loons were hunted while they were resting on the open water in the cracks in the ocean ice. Ducks that were not eaten were cached in rocks for later use.

In summer coastal Inuit hunted molting birds and collected eggs. They went to nesting areas on the coast and on Arctic Ocean islands specifically for eggs. Consultants mapped the areas they thought were most important for birds (Figure 29), but not necessarily all the areas in which they hunted birds.

Cliffs were important nesting habitat for a variety of raptors (Rough-legged Hawk, Gyrfalcon and Peregrine Falcon) and other colonial nesting birds such as gulls and Cliff Swallows. Cliff nesters also included species such as Ravens, geese and some ducks.

Major coastal raptor nesting areas were identified on the south coast of Kilingoyak (Kent Peninsula) including the islands in Elu Inlet, near the mouths of Kolgayok (Tingmeak River), Kugyoak (Perry River), Kunayok (Ellice River), Omingmaktok, a large area on eastern Kokiviayok (east Kiligiktokmik), and Kingaok (Figure 29). Further south in Kiligiktokmik, important raptor areas were mapped north of Hanningayuk (Beechey Lake).

Regional map information is sparse and site-specific information is lacking for all bird species in the Sabina Project area. This is a major data gap. This is a consequence of how interviews were conducted, and a lack of focus on the ecology of individual bird species and their habitats.

9.2. Fish and Fishing Places

In general Kitikmiut fished wherever they were on the land, in conjunction with their other harvesting activities. Fish were especially important when tuktuk were unavailable, and to feed the dogteams during winter trapping. Inuit fished the ocean adjacent to the mainland and island coastlines, and at the mouths of major rivers. Major camping locations inland were important fishing areas. All major lakes and rivers were important fishing places, as well as a

number of smaller water bodies.

Ekalukpik (Arctic charr) were the main fish species for Ocean Inuit and Kiligiktokmiut (Figure 30). Ekalukpik and hiugyuktok (tomcod) were the two main ocean fish. Other ocean fish included sculpins, smelt, flounders (called turbot), wolf eel, crabs, oysters and starfish. Nunamiut fished for over-wintering and land-locked charr, but the main lake and river fish were ehok (lake trout), anakheek (broad whitefish), kapihillik (arctic cisco) and hulukpaugan (grayling).

Inuit fished the ocean adjacent to the mainland and island coastlines, and at the mouths of major rivers (Figure 31). All lakes and rivers feeding into Kiligiktokmik were important for fishing (Figure 32). Many of the rivers had ancient stone weirs. In particular, the mouth of Hiukkittak was well used for fishing and had long-term occupation by Kitikmiut. Lakes near Kingaok, especially Tagionuak, were important fishing areas. Aniakhiokvik (Fishing Lake) was the local fishing spot. Further south, Tahikafalok (Bathurst Lake), Hikinikgogiak (Kenyon Lake) and Hanningayuk (Beechey Lake) were important fishing lakes.

The majority of rivers which flowed to the ocean were charr rivers. In the study area the most important charr rivers were Hiukkittak, Hannigayok (Back River) Ayapakpaktokvik (Burnside River) and Hanimok (Mara River). Many, if not all, of the lakes connecting to the ocean had cover-wintering charr including Tahikafalok (Bathurst Lake), Ekalolialok, Charr Lake and Fishing Lake.

Although the location of important fishing places was well documented, the occurrence and distribution of the different fish species is a major data gap in the NTKP. This is an artifact of the interview process. Besides arctic charr, specific questions on fish species were not asked.

9.3. Water Sources and Quality

Potable water was a major concern for Inuit, even before mineral development activities. Good water was not always readily available on the land, and sometimes took a lot of effort to obtain. Generally consultants did not map places where they obtained water as they said they found water everywhere.

When they were at their camps, Inuit had traditional places where they obtained water. Fresh and clean water was more difficult to find on the coast than inland. Most lakes and rivers were used as water sources. When traveling, they obtained potable water from wherever they found it.

Inuit living along the coast of the Arctic Ocean and Kiligiktokmik (Bathurst Inlet) had to find sources of fresh water. The lakes adjacent to the coast were not good for drinking water because underground seepage from the ocean made them saline. The water inland was better for drinking than water on the coast.

Inuit had seen many changes in water quality over the past few decades. These included shallower lakes and shallower rivers that drained to the ocean, reductions in river flow, smaller fish spawning runs, and the Arctic Ocean took longer to freeze.

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11. INUINNAKTUN TERMS AND MEANINGS

HERITAGE	
Kiligiktokmiut	The people of Kiligiktokmik (Bathurst Inlet)
Nunamiut	Inlanders, people of the land
Plants and Shrubs:	
Aaukpik	Cloudberries
Kablakot	Plant used for tea (when regular tea was not available)
Kangoyat	Cottongrass seed heads; used as wicks in kudlik
Hunting & Transportation:	
Inokhok / inokhuit (sl. / pl.)	Rock pile; used in a V-formation to funnel caribou towards hunter's blind. Also used to indicate important landmarks, hunting and fishing locations.
Talo	Hunting blind
Omiak	Flat-bottom boat
Kayak / Kayait (sl. / pl.)	Narrow boat
Landscapes:	
Kaihimayonik	High hills or eskers
Kingoatigaffalok	Refers to very large eskers
Konngok	Narrows of a lake or ocean; often indicates an area of open water in winter and a dangerous travel spot
Nadlok	Lake narrows; caribou hunting and camping spots
Nuna	The land
Camps and Inuit Lifeways:	
Aglikton	Do not want to work in an area because of things that have happened there; taboo
Agooknik	Parka with a pointed hood
Akhonaton	Game using rope
Akigamiknik	Songs sang to boats so that they would sink
Akihakton	Songs for praying
Amoukkaton	Songs for singing in the background: 'Ayayaya'
Avalakiak	Low-growing plant like a willow used for starting fires
Avattak	Skipping game
Eehoktin	A small plant used for starting fires
Hogat	Upright rocks for kimegotin (drying rack made of rocks and/or sticks)
Igloo	Snow house
Igluvikan	Old sod houses built by ancient Inuit
Ingiktoktok	Person who comes to get meat from a successful hunter
Kablunak /Kabloona (sl. / pl.)	White person (meaning "bushy eyebrows")

Kalgit	Large snow house
Kamik / Kamiit (sl. / pl.)	Boot / Boots
Kapitta	Fringes on a parka
Kalikyoak / Kalgit (sl. / pl.)	Large igloo
Kimegotin	Meat drying racks constructed from willows and rope
Kudlik	Stone oil lamp, fired with seal or caribou fat
Kulittak	Outer parka
Nologakton	string game
Ohohivik	Seal skin bags filled with seal meat and fat
Okohikhaat	Black soapstone used to carve the kudlik
Oolaok	Game 'Prisoner's base'
Pakhakhaotik	Caribou femur, used to hold sewing kit
Poalgit	Snow shovel (made out of any usable material)
Topikavik	A place to put a tent or an old campsite
Ulu	Inuit knife for cutting food
CARIBOU	
Behaviour and Habitat	
Aatogoayak, igloohoutinnik	Mushrooms eaten by caribou
Algaktoktok / algaak	Jaegers eating amniotic sacs of caribou / amniotic sacs
Kigok	Rocky areas where caribou don't go
Natingnak	Wetlands where caribou graze
Nuulak	Areas where ice does not melt during summer; heat relief habitats
Ukhukgannik	Good grazing area in the fall
Movements	
Aatikanik, aatiktaak, aatiktonik, atilliktun	Spring migration; caribou traveling north or north-east
Atiktugin	Caribou crossing the ice during spring migration
Atintanik	Caribou heading south in June or July (post-calving movement)
Kablonakton	Migrating in small groups
Kilomokkamik / kilomoktok / kilomoktun	Fall migration, traveling south / One caribou heading south / group of caribou heading south
Descriptions	
Amakingoyak	Caribou wolf kill where only part of caribou has been eaten
Higgolikmik	Caribou cows without antlers
Higgolikmik	caribou without antlers
Ihimgotait	Caribou antlers (bez)
Kingaktotait	Caribou antlers (shovel)

Kivvolik	Caribou cows with antlers	
Kivvolik	caribou antlers in spring	
Kugnianit	Caribou that are used to people	
Kulavak/ angnalok	Caribou cow female	
Nigokak	Caribou stomach contents	
Nogalikyoak	Caribou cows with large calves	
Noggak / nogait	Caribou calf / calves	
Nukatokak	Caribou yearling	
Okalit	white caribou	
Poogik	white belly of caribou	
Pungnik/ anguhalok	Caribou bull / not quite an adult bull	
Tigogaak	Bull caribou with small antlers	
Tuktuk	Caribou (general)	
Tuktu nogait	Caribou calves	
MAMMALS (OTHER)		
Akhak	Grizzly bear	
Amagok	Wolf	
Avingak	Encompassing term for small mammals; also used to refer to the most common small mammal (brown lemming)	
Hikhik	Arctic Ground squirrel	
Kalvik	Wolverine	
Kayuktok Tigiganiak	Red fox Arctic (White) fox	
Nattik	Seals (general term)	
Nattik	Ringed seal	
Kahigiak	Spotted seal	
Ugyuk	Bearded seal	
Aivik	Walrus	
Kilalugak	Beluga whale	
Togaalik	Narwhal	
Okalik	Arctic hare	
Omingmak	Muskoxen	
Pihoyotonik	Places where muskox spend the summer in one area	
BIRDS	Kopanoak	Birds (general term)
Waterfowl	Ahangik	Long-tailed Duck
	Amaolik	Common Eider (male)
	Hogluktuk	Common Eider (female)
	Kaglulik	Common Loon
	Kakhauk	Red-throated Loon

	Kanguk	Snow Goose
	Kekak	Northern Pintail
	Kikat	Ross's Goose
	Kingalik	King Eider (male)
	Kugyuk	Tundra Swan
	Malikgik	Arctic Loon
	Mittik	King Eider (female)
	Niglinak	Greater White-fronted Goose
	Niglinek	Brant Goose
	Oloagolik	Canada Goose
	Paenahic	Mallard
	Tatilgak	Sandhill Crane
	Tuullik	Yellow-billed Loon
Songbirds	Nagajiit	American Robin (pl.)
	Nagakiik	American Robin (sl.)
	Tologanat	Bank Swallow
	Tulugakyoak	Common Raven
	Haghagiak	Common Redpoll
	Kopanoakpagyuk	Horned Lark
	Nahaolik	Lapland Longspur (pl.)
	Nahaoliit	Lapland Longspur (sl.)
	Amaolikak	Snow Bunting
Terns	Ikilagiak	Arctic Tern (female)
	Imitkotailak	Arctic Tern (male)
Shorebirds	Mihakpakyuk	Baird's Sandpiper
	Nuyagalik	Common Merganser
	Kilgiyook	Common Ringed Plover
	Tungaviat	Common Snipe
	Kulikulik	Killdeer
	Tulik	American Golden Plover
	Havhak	Red Phalarope
	Killikvak	Ruddy Turnstone
	Hikkeniktakyuk	Semi-palmated Sandpiper
	Komaolikpayuk	Stilt Sandpiper
	Higyagiak	White-rumped Sandpiper
Raptors	Kunakpik	Bald Eagle
	Kopanuakpak	Golden Eagle
	Kiligavik	Peregrine Falcon

	Kiligavikpak	Gyrfalcon
	Okpik	Snowy Owl
	Nipaingaktak	Short-eared Owl
	Kalaak	Rough-legged Hawk
Gulls & Jaegers	Nauyak	Herring Gull (pl.)
	Nauyavik	Glaucous Gull
	Ihungak	Long-tailed Jaeger
	Ihungahut	Parasitic Jaeger
	Igkilagoiak	Sabine's Gull
Ptarmigans	Akilgik	White-tailed Ptarmigan
	Nikhaktok	Rock Ptarmigan
	Akilgivik	Willow Ptarmigan
FISH		
Salmons		
Arctic charr	Ikalukpik, Ekalukpik	
Inland charr	Ehokketak	Hooked lower jaw (old term)
Red-bellied charr	Evitagok	Charr that stay in the lakes to reproduce and turn red in colour
Charr from lakes	Aniak	Arctic charr that are skinny because they have come from the lakes.
Arctic grayling	Hulukpaugan (pl.)	
	Hulukpaugak (sl.)	
Lake trout	Ihok or Ehok	
Cisco whitefish (Arctic cisco)	Kapihillik	
Lake whitefish	Anakheek	
Broad whitefish	(not provided)	
Smelts		
Capelin or Smelt	Ekalukgaan	Small fish
Capelin	Angmagiak	Fish with small eyes
Smelt (Rainbow smelt)	Eetooknuit	
Other Lake Fish		
Longnose sucker	Milugiak	Fish with lots of bones in the flesh
Northern Pike (Jackfish)	Hiulik	
Burbot (Lota lota)	(not provided)	
Sculpins		
Sculpin (slimy sculpin, inland)	Kanayuk	

Sculpin (marine and coastal)	Kanayuk	
Cods		
Tomcod	Hiuguktok	All cod species
	Uugak	Adult cod
	Uugayak	Young cod
Eels		
Eel (Arctic eelpout)	Akuhaauk	
Flounders		
Arctic flounder or Starry flounder	Natangnak	
General Terms (Lake Fish)		
	Eektok	Any large fish from lakes
	Hugtook	Big fish from lakes
	Hukton	Big fish
Shellfish		
Clams	Uviluk	
Mussels	Uviluvaleot	
Sea urchins	Etkoyak	
Fish Habitat		
Egligiit	'Bed', shallow places in the ocean, lakes and rivers where the activity of fish prevents the ice from freezing	
Eglin (pl.)	Places where arctic charr spawn (spawning beds)	
Imaogatagalok	Deep places in lakes where fish are found	
Imaogatnaik	Eddies; includes deep places in rivers, away from the current such as under falls where fish rest during migration	
Kabluknik	Foamy areas where streams enter lakes	
Kegekouk	Areas in lakes where the ice has melted to the bottom of the lake and fish can be found	
Konguk / Kongunik (sl. / pl.)	Lake narrows that don't freeze in winter because of fast running water; important fishing place	
Kotiatit	Lakeshores	
Makhakheek	Rivers or streams connecting lakes which allow for the movement of fish	
Patinnik	Contaminated pool of water in a river. The river freezes to the bottom and cuts off the river flow from upstream and downstream. The trapped fish subsequently die from lack of oxygen and pollute the water.	
Fish Behaviour		
Hanimoyok	Fish that migrate down river (from the lakes to the ocean)	
Mayoaktok	When the charr go up river (from the ocean to the lakes to over-winter)	
Panmoktok	When charr migrate to the ocean from the lakes (downstream) after	

	spawning
Fish Descriptions	
Mikhotianik	Membrane which covers fish eggs
Nikveet	Gills
Pigliktunik	Dead fish washed up on beach
Fishing	
Aghikgaak	Pulling out lots of fish while jigging
Hapotit	Stone weirs
Hittaak	V-shaped stone traps in rivers made to catch fish
Kakivak	Fish spear
Nakatak	Rock that marks a good ice-fishing spot (usually located on a hill beside a lake).
Togaak	Stone markers that indicate a good winter/spring fishing area.
Tugaak	Places where people regularly fish; a particular hole that has lots of fish

Appendix V3-3B

Naonaiyaotit Traditional Knowledge Project Hannigayok (Sabina Gold & Silver Corp. Proposed Back River Project) Results from Data Gaps Workshops

Sabina
GOLD & SILVER CORP.

NAONAIYAOTIT TRADITIONAL KNOWLEDGE PROJECT HANNIGAYOK (SABINA GOLD & SILVER CORP. PROPOSED BACK RIVER PROJECT)

RESULTS FROM DATA GAPS WORKSHOPS

Final Report (June 2014)

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KITIKMEOT INUIT ASSOCIATION

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Report Authors

As per convention established for the Naonaiyaotit Traditional Knowledge Project (NTKP), the individuals who have provided Traditional Knowledge (TK) data are called consultants. The consultants who are the authors of the Traditional Knowledge presented within this report are:

Cambridge Bay	**Kugluktuk**
George Angohiatok	Jack Kaniak
Mable Angohiatok	Nancy Kadlun
Nancy Haniliak	Bobby Algona
John Haniliak	Mary Algona
Lena Kamoayok (elder)	Mark Taletok (elder)
Mary Kaniak (elder)	
Martina Kapolak	
Connie Kapolak	
Allen Kapolak	
Jessie Kapolak (elder)	
Joseph Tikhak	
Noah Kaniak	

We are sad to write that Noah Kaniak passed away early in 2014. Noah dropped by for coffee and to provide “moral support”. He ended up staying for the entire workshop, voluntarily sharing his extensive knowledge and infectious humour. We appreciate having had the opportunity to spend time with him and we gratefully acknowledge his contributions.

Disclaimers

At the request of KIA and the Traditional Knowledge consultants, Sabina did not participate in the data gathering workshops. This is consistent with methods established during the inception of the Naonaiyaotit Traditional Knowledge Project, and is consistent with KIA philosophy for conducting Traditional Knowledge studies. KIA wished the consultants to feel comfortable in fully expressing their knowledge and thoughts, without concern for reprisal, perceived or not.

The consultants expressed their perceptions regarding Project details as had been explained to them by Sabina during the community meetings. When Project related questions arose during the workshops, these were relayed by email to Sabina personnel. Sabina provided answers expediently, and the information was shared with the consultants. However, Sabina did not have the opportunity to subsequently clarify any outstanding questions and assumptions that may have been held by the consultants.

Inuit consultants are the authors of this report. We hope that in this compilation we have edited and reported their words respectfully, accurately and completely. If there are cases where we have not, these errors were unintentional and we take complete responsibility for them.

Report Citation

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Mary and Joseph Kaniak, Bathurst Inlet 1969. Joseph is carving figurines for a chess board set. Two day old Connie is being packed. (Origin of photo unknown)

Title Page Photo: Fishing in Bathurst Inlet at Bay Chimo (Omingmaktok). Photo provided by Martina Kapolak.

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1. INTRODUCTION

Sabina Gold & Silver Corp. (Sabina) is proposing to develop mixed open-pit and underground gold mines at their Goose Lake and George Lake properties (Sabina Project), located in the vicinity of Back River (known as Hannigayok by Kitikmiut). The George Lake Property is located 105 kilometers (km) southwest of the community of Kingaok in Bathurst Inlet; and the Goose Lake Property is a further 60 km to the south of George. The Project also contains a marine laydown area which is located 30 km south of Kingaok.

In 2012, the Kitikmeot Inuit Association (KIA) provided Sabina with a license to use Inuit Traditional Knowledge (TK) for their proposed project that was housed within the Naonaiyaotit Traditional Knowledge Project (NTKP) database. That data was provided within a report issued in December 2012[1]. Subsequently, and after discussion with Sabina, data gaps were identified. These data gaps were addressed through 3-day facilitated workshops held in Kugluktuk and Cambridge Bay during August of 2013.

This report presents the results of those workshops. As well as collecting Inuit Traditional Knowledge, Sabina requested that KIA solicit opinions and recommendations from the consultants on their proposed mining project. These opinions and recommendations are contained within an appendix to this report (Appendix III).

2. PARTICIPANTS AND METHODS

2.1. Consultants and Facilitators

KIA identified those elders and land-users currently residing within Kugluktuk and Cambridge Bay who held specific information of the Hannigayok area. A total of 17 consultants participated, five from Kugluktuk and 12 from Cambridge Bay. The consultants were advised that the focus of the workshops was to address the TK data gaps that exist for the Sabina project area within the NTKP.

The NTKP team facilitating the workshops was comprised of:

- Facilitators (Vivian Banci and Luigi Torretti)
- GIS Specialist (Rose Spicker)
- Sam Angnaluak
- Emily Angulalik (Interpreter, Cambridge Bay)
- Transcribers (Inuinnaktun): Susie Evyagotailak, Allen and Connie Kapolak

An interpreter was not required in Kugluktuk as four of the five consultants spoke English. Those consultants translated for the elder Mark Taletok, when he wished to speak in Inuinnaktun, and to ensure that he understood the English discussions. As per NTKP convention, consultant identities are protected within the report.

[1] Banci, V. and R. Spicker (Compilers, Editors & GIS) 2012. Inuit Traditional Knowledge of Sabina Gold & Silver Corporation's Back River (Hannigayok) Project. Naonaiyaotit Traditional Knowledge Project (NTKP), Kitikmeot Inuit Association, Kugluktuk NU. December 7 2012.

2.2. Community Meetings

The day before the technical workshops, half-day meetings open to the community were held in Kugluktuk and in Cambridge Bay. These meetings were also attended by the workshop consultants. Their purpose was twofold; to allow Sabina to share their plans for their proposed project and secondly, to allow the NTKP team to share the results of the TK report that had been compiled from the NTKP regional database. These meetings also provided the consultants with the background they needed to participate in the focused workshops. Simultaneous translation was provided for these meetings.

2.3. Technical Workshops

The technical workshops were held in each of Kugluktuk and Cambridge Bay over a period of two days. The workshops addressed three main themes:

1. Heritage and Land-Use: The objective was to address gaps identified for the following main topics:
   - Archaeology
   - Kitikmiut Land Use
   - Heritage
   - Plant Ecology
   - Water Quality
2. Terrestrial Ecology: The objective was to address gaps identified for fish and wildlife species. The main topics were:
   - Wildlife species (population abundance, animal health, disturbance)
   - Caribou
   - Carnivores
   - Muskox and Moose
   - Small Mammals
   - Birds
   - Fish and fish habitat
3. Marine: The objective was to address gaps identified for marine ecology. The main topics were:
   - Marine mammals (whales and seals)
   - Marine invertebrates and plants
   - Marine Birds
   - Use of Ocean Ice

2.4. Study Area

The geographic scope was developed in consultation with Sabina, and is the same as the Local Study Area (LSA) that was defined for the regional TK report (Banci and Spicker 2012). Sabina had asked that we use the largest boundary of the wildlife, regional marine, and terrestrial study areas that had been defined for the baseline studies of those disciplines within the environmental assessment. The LSA consisted of 23,016 km^2 of land and water that surrounded the proposed Goose and George mines, and the marine laydown area (Figure 1 and Figure 2). Some of the consultants talked about communities and locations far outside of the local study area. The extent of the entire area discussed is included in Figure 1 for the reference of the reader of the report.

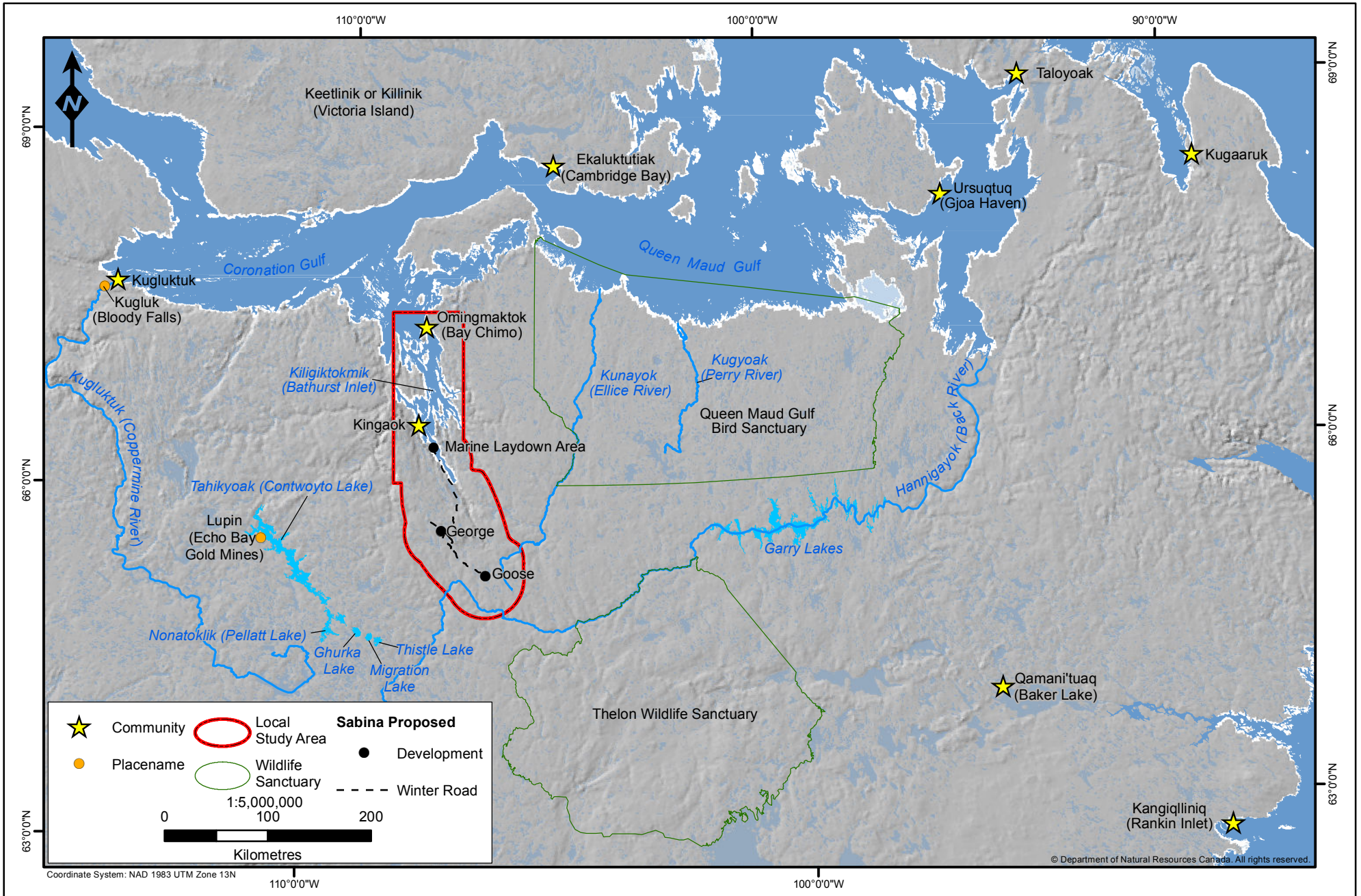


Figure 1. Sabina Hannigayok Project
Local Study Area and Extent of Area Discussed

Map produced by Spicker GIS Services (www.spickergis.com)

2.5. Maps and Recording of Spatial Data

Consultants were provided with 1:50,000 scale maps for workshops focused on the local study area and with 1:250,000 scale maps focused on the regional study area, as appropriate for the questions being asked. A total of 18 printed maps were required for each community. For 1:250,000, three printed maps covered the Sabina Local Study Area and the area covering the shipping route (Bathurst Inlet, Dease Strait, Queen Maud Gulf). Fifteen 1:50,000 printed maps covered the Sabina Local Study Area and the proposed shipping route in Bathurst Inlet.

Digital pens (brand name Capturx) allowed the consultants to record map data directly on NTS map sheets. The data was then transferred into the GIS, facilitating the digitization process. The preparation steps required to use the technology were:

1. Legends were developed for each map scale based on the existing NTKP classification and the new themes that were anticipated to be recorded.
2. The legends were incorporated into the GIS.
3. A separate mxd project was created for each of the 18 maps.
4. The maps were plotted using the Capturx software.

After each workshop, the team carried out these tasks:

- The spatial data was reviewed to ensure that each point, line and polygon was correctly attributed, and included consultant initials and legend theme.
- 'New' data, information that belonged to a theme that did not occur within the NTKP, was captured by expanding the NTKP menu system.
- Placenames were correctly spelled and located by cross-referencing with the NTKP database. New placenames were incorporated into the database.

2.6. Oral Data

The NTKP regional report that was compiled for the Sabina project area contains detailed Inuit Knowledge presented in consultant quotes accompanied by maps. It is a comprehensive and extensive report, covering a total of 139 pages which includes 32 maps. It was produced only in English. A means of effectively sharing the data and illustrating where the data gaps were to the consultants was needed. This was accomplished by using the report maps as visual aids as discussion points for the oral data. The maps were printed and copies given to the interpreters and the consultants.

To assist the consultants and facilitators with species identification, background material on the plants and animals to be discussed was compiled and included photos and descriptions of:

- Bird species
- Fish species
- Terrestrial plant species
- Marine plants and invertebrates, and
- Marine mammal species

For each technical workshop, a guide was compiled with detailed discussion questions based on the identified data gaps (Appendix I). The guide was shared and discussed with the interpreters

ahead of time so that they were familiar with the material. The guide formed the basis for discussion during the technical workshops, however the order of topics discussed was freely modified based on the consultants' wishes.

2.6.1. Recording and Transcripts

Workshop proceedings were recorded using digital audio recorders and video-taped to assist in transcription. English proceedings were transcribed by Vivian Banci and the Inuinnaktun proceedings by Susie Evyagotailak for Kugluktuk, and by Allen and Connie Kapolak for Cambridge Bay. After the audio was transcribed, transcripts were edited for English and clarity. The text was organized according to consultant, NTKP menu theme, and sub-theme.

The oral data was linked with the spatial data by working back and forth between transcripts and GIS. This step ensured that the data was correctly attributed to each theme and that all the data had been properly captured.

2.6.2. Consent Form and Verification Process

When they were first asked to participate, the consultants were advised of the purpose of the workshops and were told how their information was to be used in this study. Each consultant was provided with an agreement for review which would permit the use of his/her data for this project (NTKP Consent Form; Appendix II).

The final step in the interview process, after the spatial and text data were processed, was verification. This step ensured that each consultant was satisfied that his or her information had been correctly documented.

Although Inuit TK was collected in a group setting, the information was divided so that each consultant had his or her own transcript. For each consultant, a copy of their interview transcript and maps with their spatial data was prepared. During verification, a KIA member of the NTKP team reviewed their transcript and evaluated the spatial data with each consultant. Resulting changes or additions were incorporated within the transcripts, the NTKP database and the final report. The verification process also provided an opportunity for consultants to add any information they may have forgotten to document during the workshops.

After they made their corrections, the consultants signed their transcript indicating that they were satisfied that their information had been verified. They then provided permission for the use of their data in the NTKP and in reports by signing the NTKP Consent Form.

Verifications could not be carried out for three of the Cambridge Bay authors as they were unavailable. However, their information is included because the vast majority of the verification edits were minor in scope. Their signed consent forms will be obtained at a later date.

2.7. Report Structure

Each major report section begins with a short background which includes summary information from the regional NTKP report. This information puts the Traditional Knowledge that was provided into a spatial context. The data gaps that were addressed are then identified.

The consultants' words are presented as they were spoken, edited for English and clarity but without interpretation. Consultant replies are encased in quotes. A series of dots '…' indicates where text was omitted. Explanations added by the editors are encased in brackets or presented

outside of the quotes.

All text data and all map data are included in the report. No attempt was made to select representative quotes in order to avoid unintentionally assigning importance to any particular quote, or consultant. The only occasions where quotes were not included is if they were identical to the quote of another consultant; these cases were few.

In a workshop setting, not all participants have equal contributions. The prevalence of quotes of certain consultants does not mean that their input was more important than consultants who provided fewer quotes. These are unavoidable artifacts of the data collection methods. Some consultants were more vocal and provided more text data; other consultants were more comfortable mapping than speaking. The reader should not take this to infer that there might be disagreement with the data expressed. In each community, all workshop participants indicated that they agreed with the information that had been provided. Often less vocal participants indicated that they had nothing new to offer since another consultant had already adequately expressed their thoughts.

The reader should note that the maps contain generalized data. Given the structure of the workshops, it was not possible to obtain detailed ecological information on all the fish and wildlife species that were discussed. Thus for most species the level of detail does not go beyond occurrence and distribution.

3. KITIKMIUT HERITAGE

Inuit travelled extensive distances throughout the year, migrating seasonally among hunting, trapping and fishing grounds, but they had strong affinities to particular places. Consultants refer to Inuit from a specific area with the suffix ‘miut’. For example, people from Kingaok are ‘Kingaokmiut’ and all Inuit from the central Arctic or Kitikmeot region are ‘Kitikmiut’.

3.1. Placenames and Inuit Geography

Placenames are the entryways into Inuit oral knowledge. Documenting the names of places on the land is the first step in sharing Inuit oral knowledge for an area. To assist the reader, a map is included with the placenames that are used in this report (Figure 2). Placenames are written using Roman orthography, in the spelling preferred by the Kitikmeot elders when the NTKP data was collected. If a consultant discussed a location but did not name it, the placename is included in brackets.

Unless a consultant specifically used an English placename, the Inuinnaktun placename is written first. The English name, if available, follows in brackets the first time it occurs in a report section; within a quote and within an English summary. In some cases, consultants used the English placename more than the Inuinnaktun name. Examples are Bay Chimo instead of Omingmaktok, and Bathurst Inlet for both Kiligiktokmik (the inlet) and Kingaok (the community). If a consultant used an English placename, it was not changed.

An important orienteering point to understand is that Inuit place themselves on the land in a way that may be confusing to some readers. They refer to ‘up’ and ‘down’ not as north as south, but as to the direction that waters are flowing. Thus waters flow down to the ocean (north) and up to the interior (south). Thus, inland Inuit would say they are travelling 'down' to the ocean rather than 'up' to the ocean, as most southerners are accustomed to.

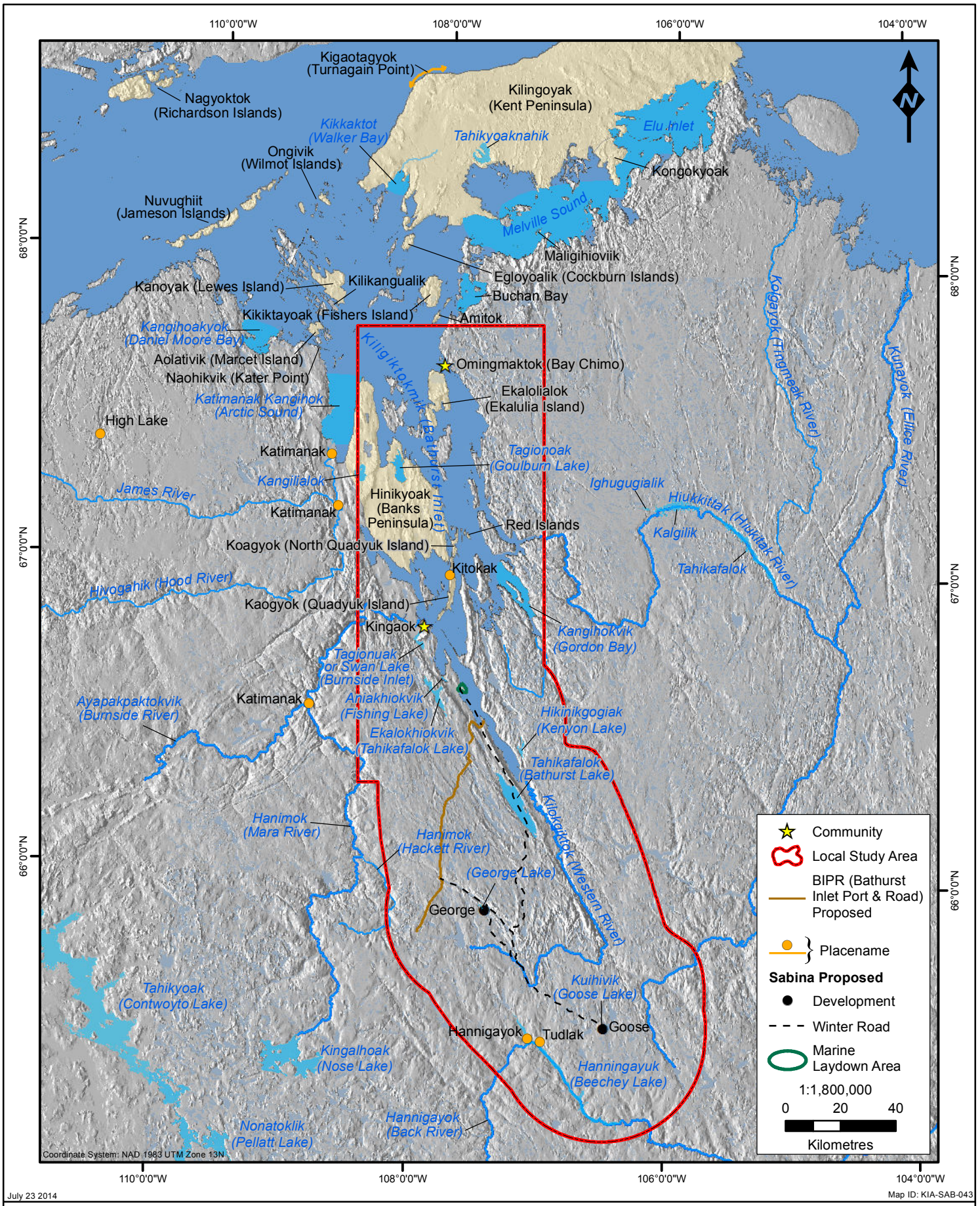


Figure 2. Placenames within the Hannigayok Study Area

Map produced by Spicker GIS Services (www.spickergis.com)

C51 "Beechey Lake is one; Hanningayuk. We know that name very well. But there could be a totally different name for a particular spot on the lake. Just like every other lake, the placenames could be on the same lake but the placenames could be different. There could be a lot of different names on the same lake."

Hannigayok (Back River)

C118 "If we look at the rivers that go to the ocean where people were, they all go to the ocean by the Bathurst Inlet area. This particular river goes to the east, that's why it's called the 'sideways river', it doesn't go north."

C114 "It goes sideways. It takes a side trip."

Kuihivik (Goose Lake)

The consultants did not know the Inuit name for George Lake, although they indicate that other elders likely did.

*C118 "Goose Lake is Kuihivik."(*Two alternate spellings were provided: Kiahivik and Keohevek.)

C121 "Kuihivik means that lots of caribou froze in that lake. The caribou that swam across that lake and froze there. That's why it's called Kuihivik."

Interviewer *"They were saying that they used the caribou meat that froze to feed the dogs. (It wasn't' good enough to feed people)."*

Aipakpaktovik (Burnside River)

C114 "It's a very strong river. You have to go from one rock to another. That's what it means. The reason why it's called that is because when people used to cross it, it was very strong, you need something to lean on. That's what "ayyapat"means.

The people who were hunting, that needed food, to go hunting on the other side of the river, that's what they named it because they had to keep leaning down so the river didn't sweep them away. (They didn't use sticks). They used their hands. That's what ayyapap means."

Interpreter *"Ayyappap, means when you're really leaning on something."*

C114 "Leaning on rocks to get across the river, trying to get caribou, food they need. That's why they called it that. The current is really strong, so you have to lean on something, so the river doesn't take you down."

C121 "Really big current, that place you cross by walking. Sometimes too, (it can get deep) but you can still wade across."

3.2. Lifeways

Inuit use of the land is given the term 'lifeways'. A travel route was not only for travel, it was also a place to harvest caribou, fish, trap, camp and live. Inuit were ultimate multi-taskers; each

location on the land had multiple uses and more than one reason why it was important.

Throughout the year Inuit lived where wildlife was abundant. These gathering places were linked by major travel corridors. Travel corridors were located where wildlife resources were most abundant, and where travel was easier. These corridors linked Inuit to each other and to harvesting areas. After contact with Europeans, they also linked Inuit to the fur-trading posts.

Two regions within the west Kitikmeot were so rich in wildlife resources that they permitted Inuit to live there year-round, especially after they had access to guns and snow-machines. These regions were Tahikyoak (Contwoyto Lake) and Kilogiktok (Bathurst Inlet).

Tahikyoak (Contwoyto Lake) is at the heart of Nunamiut land-use, with a major travel corridor to Kiligiktokmik (Bathurst Inlet) in the east, and a major travel corridor following the treeline to the coast at Kugluktuk in the west. Kitikmiut gathering places were situated along these travel routes, the largest and most important being at large lakes and along major rivers.

Ocean Inuit had water and sea ice for their travel, and the entire Arctic Ocean coastline was a major travel corridor. These people regularly traveled to Kilogiktok to hunt tuktuit (caribou), amagok (wolves) and kalvik (wolverine), and to socialize and trade with other Inuit.

> *C51 "These travel routes are ours but many, many travel routes are from people from other places such as Gjoa Haven and Cambridge, and Taloyoak, and Kugaaruk. They have all been through this area.*
>
> *A lot of our elders talked about coming down from the ocean because a lot of ocean people came down here and went up to Beechey Lake, to Beechey Lake area. Sometimes they followed along the rivers all the way down."*
>
> *C111 "Even Baker Lake… When I was at the elders gathering in March or January in Kugaaruk and Taloyoak, I met a few elders there. They asked me where I was from. I told him I was from Bathurst area. Those elders were surprised that I was from there. They started talking about old stories about what they used to do around that area from when they were young. These elders were from Gjoa Haven, Gjoa Haven and Kugaaruk."*
>
> *C51 "We're all one people. Ocean people are pretty much all related to inland people. That's the way it's always been, all the way across northern Québec, all the way to Alaska.*
>
> *They have traveled. They have dispersed into the communities. All these people from these areas, all the way across they have all come to Kugluktuk, Gjoa Haven, Taloyoak, Kugaaruk, and all these places. All these people from these places are descendants from these mainland people."*
>
> *C51 "In the olden days too, just like here too, the people from mainland stayed year-round. Some people (stayed) inland because it was a little bit further to go down to the ocean. So maybe for five or six years they stayed inland and then start to go back down to the ocean to visit their relatives. And they wanted something in their diet they were missing because they were from the ocean, they were part of the ocean people. They*

wanted to go out to the ocean to see their relatives down there and eat their cod, or charr, or whale. And the people from inland, they would bring all their caribou, caribou hides and whatnot and share with people down here."

NTKP data for Kitikmiut gathering places and travel routes at a regional level are complete and described within the NTKP report (NTKP 2012). However, detailed information at larger map scales was lacking, and the consultants were asked to address these data gaps. Examples of the kinds of information that were solicited included the locations of old camps, artifacts, graves, and where copper and carving stone were found. The data for this theme are compiled and presented together on Figure 3.

3.1.Birth Place

C51 "We are the younger generation from our descendants from the Beechey Lake area. Sometimes it is very hard to recall the stories and the placenames. It's been such a long time, 40 or 50 years now since I heard my grandmother tell us the stories."

C110 "I have spent most of my young years in the project area, Beechey Lake and around Bathurst Inlet area. The last time I was down around that area was not too long ago, in beginning of June 2013. I am still active on the land, hunting, fishing and camping."

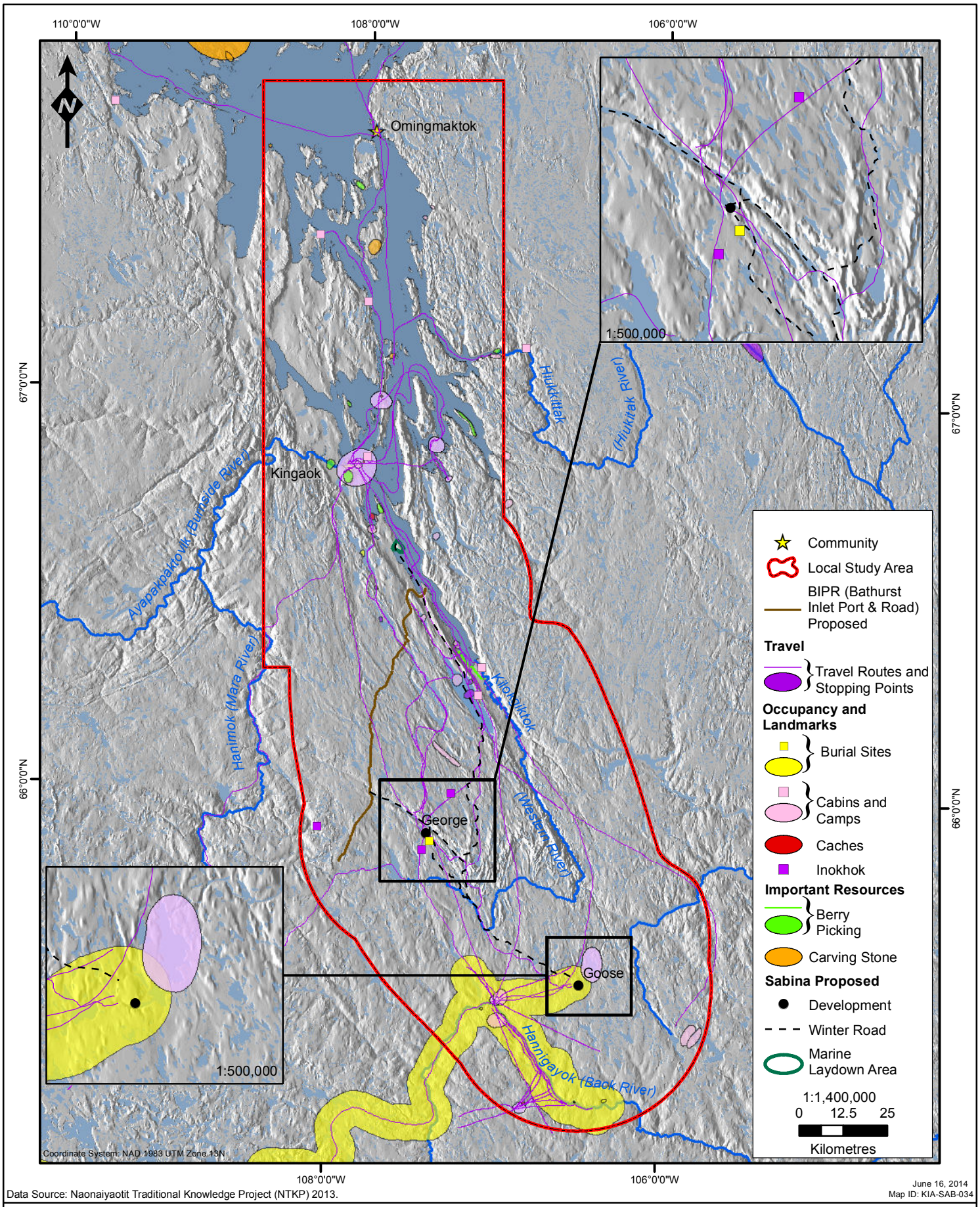
C111 "I was born in Arctic Sound, Katimanak. I've traveled this whole area (all of Bathurst Inlet area). I was home last week, to where I was born… I lived in Katimanak for at least 14 years… And then from Arctic Sound, when they build houses for people, we moved to Bay Chimo, Omingmaktok, that's where I was mostly.

And I'm still traveling. If I get the chance I love to see every place I've seen when I was younger. We were home (Omingmaktok) last week (July 2013) for about a week by boat… And then we went right to Arctic Sound area for a day trip. We go there every time we get a chance to, go home for a while. There were quite a few families there so it was good."

4. GATHERING PLACES

The major camps of Kiligiktokmiut were located on Kilingoyak (Kent Peninsula), Kingaok, and a number of locations on both shores of Kiligiktokmik. Katimanak, at the junction of Hanimok (Mara River) and Ayapakpaktokvik (Burnside River), and the junction of James River and Hivogahik (Hood River), were locations of major camps, as were several locations on Huikkittak and Kilokgiktok (Western River) (Figure 3).

C113 "In the past each family had their own little favourite place. His family would be in a different place, and my mother-in-law would be in their place. They all have their own little choices where they want to be (in certain seasons).



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2013.

Figure 3. Inuit Travel Routes, Occupancy and Locations of Important Resources in the Hannigayok Study Area

Map produced by Spicker GIS Services (www.spickergis.com)

They always met up together for Christmas or Easter or something to share their hunting stories and how their winter was or their summer was. It would be great to get the elders to tell their stories, I'm sure with a little patience you could. And they remember too. A lot of that is within their minds.

I like to listen to their stories, my mother-in-law's stories are incredible, how they lived and what they did to survive. My father's stories are incredible. Their hunting styles without a rifle, things like that. Without a corner store to go get their daily meat, just depending on the land for survival."

C51 "The way that people moved is according to the wildlife in the area. Sometimes at Beechey Lake they could stay for a couple months. For many months there would be no caribou there and they would have to move, either to Bathurst or Contwoyto Lake area. They followed the caribou herd back then just by walking alone carrying their kayaks going from lake to lake."

4.1. Traditional Camps

Ongivik (Wilmot islands)

C13 "That's the island (Ongivik) that Kellogok talks about. When people gather at that island there would be lots of people from all over the area. It was a gathering place because there used to be lots of bowhead and beluga whales.

There used to be lots of people, to the point where it seemed like there was no more room to set up camp. Nellie Kanovak used to tell us stories of how it seemed like there were so many people in one spot and no room for anymore campers to set up tents…

Beluga and bowhead whales used to always be around there. That is why there would be lots of people. My father was from around that area. When he married my mother he moved to Kugluktuk."

Lost Lake

C110 "I remember some camping sites. I remember this walking trail. Lost Lake (a small lake southwest of George Lake and north of Western River), I was born right by there. I remember this old camping area by that lake. I remembered there must be more around here but I can't remember where."

C51 "There must be more (camping areas). Because in the wintertime they go to the ocean to hunt seals, after they have gathered all the winter clothing and caribou from Beechey Lake. This here, all this part here, is more a summering area."

Kilokgiktok (Western River)

C114 "There is one camping area right here. The oldest camping area that we know of, where C121 was born, right in the tent, right on the river right here (at the mouth of

Western River). Then they moved. This (camping area was used during) summer and fall."

Tahikafalok (Bathurst Lake)

C51 "Bathurst Lake, it's one of the places that our elders talk about lots. Lakes like this tend to be used mainly for freshwater lakes, where they can winter, where they can gather for the winter, being closer to the ocean. They can go down there for a day or so and come back at the end of the day. It's because there was freshwater there. It's a bigger lake with fish, edible fish for the winter."

Kingaok (Bathurst Inlet community)

C110 "I remember when I was a small boy, we used to gather here most the time. In springtime this used to be the biggest populated place in the whole area. This was at Kingaok. This was many, many years ago, when I was a small boy. Used to be so many people gathered together, people were here for the gathering, it would be bigger than Cambridge and Kugluktuk at that time, there were so many people there."

C110 "All along here down to Swan Lake (Tagionuak), all along here to the point here, there would be gatherings. There would be igloos, or tents, whatever."

C51 "That's why it became an outpost (fur trading post).

C110 "I think there's another one (camping spot), a big one, here. Summertime. So if you do archaeological work anywhere in this area, you will find lots of ancient stuff."

C51 "Very old. You will find some stone broad heads. Stone knives and stone tools and utensils that they made; products and everything. All on these areas. Arrowheads. You find anything! Even things that are made of stone, bone. Most of it, because its bone, it can age for many, many years. Other little things, deep in the ground, will be preserved but other things would be lost."

Hiukkittak

C111 "That whole area here. It's just, anywhere you go, every little place there is all kinds (of archeological sites). No matter how high you go, on the highest parts too you can see there is a camping spot there. And where my husband found my cooking pot, at Huikkittak, on the highest hill."

Chapman Islands (Includes Kanoyak (Lewes Island) and Kilikangualik)

C13 "My parents or grandparents, told me about this great big calving area. Just in this site here, we saw really old, old archaeological sites. Tenting spots, there must've been many. They must have been in that area for a long time."

C111 "There is a great big inokhok that's higher than this house. And he asked (the elder), how come that's there? He said, that's when they catch that bowhead whale. People can see that inokhok is there, that means that there is food there for everyone."

C110 "Over the years we have seen bones, whale bones, all over there… We've seen whale bones everywhere."

C111 "When we were out a couple of weeks ago, here, we could see a lot of very old tent rings…. My son had found a piece of a cooking pot from this area. The soot at the bottom was quite thick.

This whole area is really important, anywhere you stop, you can see inokhok, and camping spots… Very, very old."

C110 "We have seen, on the island (Kanoyak), bowhead bones."

C111 "Right around here you can see that there were people that must have gotten a bowhead whale. On our way to Kugluktuk we travelled through this area. We had seen a lot of whalebones and a really big inokhok. People must have gotten a bowhead whale in that area. When we were travelling back we had passed by and we had seen the bones.

There are tent rings right around this area. There are very old tent rings that we had seen recently as we were travelling back from Bay Chimo. All around this area must have been a whaling camp. All of this area (small islands on northwest Chapman Islands group) has tent rings."

C13 "Kellogok used to tell stories about Lewes Island. In the days of when he was a young man there would be lots of people gathering in that area from the nearby camps including Kugluktuk. There would be lots of people there (at Kanoyak)."

4.1.1. Hanningayuk (Beechey Lake)

Hanningayuk (Beechey Lake), the location of Bathurst caribou calving grounds, was an important camping area during the consultants' lifetimes, their parents and grandparents, and for Inuit before them. Tudlak, at the outflow into Hanningayuk, was an old traditional community.

C13 "I have heard this place being referred to as Hanningayuk by my late father. There used to be lots of people in the area long ago."

C51 "When I was able, I went all over. I went to Beechey Lake just to see Beechey Lake itself. I never really went on the lake itself, just somewhere near… I just sat there in wonderment and I thought about the stories that my dad and my grandma had told me. Just to cleanse my mind and be at peace with the people from the past.

Our elders are always telling us stories about Beechey Lake. There are many, many stories about that area. For many, many years they have used that area because it's one of our caribou crossings… It's where the main migration route is, because it's a calving ground."

C51 "There used to be many people around this Beechey Lake around this area, all around all these areas. This is where you are going to find archaeological sites, all

around this area, both shores of Beechey Lake."

C110 "This whole area, when we are talking about camping, this whole area was used… You would probably find artifacts that are thousands and thousands of years old in this area."

C51 "Especially at Beechey Lake because there are many, many stories about that area. If you ever find archaeological sites they will be in layers, years under the ground. This is today, and this may be how many years down, and you find how many years more the further down you go, even older stuff."

C13 "I have heard they would spend the winter and summers as well."

C114 "All camping grounds there too. Year round camping grounds."

4.2. Fish Camps

All lakes and rivers feeding into Kiligiktokmik were important for fishing and many of the rivers had ancient stone weirs. These were also the locations of important fish camps.

Many weirs had been built at the mouth of Hiukkittak, a major fishing area. Lakes near Kingaok, especially Tagionuak, were major fishing areas. Aniakhiokvik (Fishing Lake) was the local fishing spot. Further south, Tahikafalok (Bathurst Lake), Hikinikgogiak (Kenyon Lake) and Hanningayuk (Beechey Lake) were important fishing lakes.

C111 "When we were little, we used to stay there and my dad used to have his nets (Kangilialok on Banks Peninsula). There is really big trout in there…."

C111 "This is also a lake with small trout. There are lots of small trout in there, there are millions of them. Charr too. Even this one here, these kind of narrows, there's charr in there and trout. (Tagionoak (Goulburn Lake on Banks Peninsula; narrows to Bathurst Inlet)"

C110 "(There are) charr and whitefish."

C110 "Kukiviakyok … is an old fishing camp. There used to be a great big fish weir in there but it's all gone now, from dis-use. It's not being used, or kept up anymore.. It's a fishing area. There used to be tons of families in there, fishing.

Summer camps (on a travel route going to Bathurst). All these places are summer camping areas. The whole area is a summer camping area. Each side of the inlet (Bathurst), all the way to the bottom."

C110 "Somewhere in here there is a weir (between Charr Lake and Bathurst Inlet). They used to be winter camps in here as well in this area… That's only one of the areas where they had winter camps. There were quite a few of them; I can't recall where they all are."

4.3. Sealing Camps

In winter Inuit lived on the sea ice in large igloo camps where they primarily hunted nattik (seals) through their breathing holes. These camps didn't stay in one place but moved once nattik became scarce. Prior to moving camp Inuit hunters scouted out new camping sites with many seal holes. Inuit had sealing camps all over the mouth of Bathurst Inlet, on the sea ice and on land next to the sea ice.

C121 "Lots of camping grounds, lots of old camping grounds here. Fish and sealing camps."

C114 "Spring, summer and fall. You go there in spring time and spend the summer and fall. We go there and wait for the migration of the caribou."

C51 "The people that come over to that area there, when they were gathering in that area there, they were mostly for sealing.

The sealing camps in the wintertime, sometimes some people go right out into the ocean, and stay right out in the ocean… until the spring."

C110 "The really big sealing camps in wintertime are way over here (north of Hinikyoak (Banks Peninsula) and between Ekalolialok (Ekalulia Island) and Omingmaktok)."

C111 "This whole area (mouth of Bathurst Inlet) is a sealing area, anywhere really. You can notice in springtime they are all by the cracks. Every crack (had a camp). There are just so many."

C51 "There are some common ones (sealing camps) from year to year. There are those leads that open up, you can expect those leads to be there for numbers of years."

4.4. Burial Sites

C51 "When they visit these graves, they tend to give a little something in remembrance for that person. The way he enjoyed his pipe tobacco, or his cigarette, or what have you. Being similar to pipe tobacco, I guess they would roll up a cigarette, light it and leave it. That's what he was remembering about his grandpa."

C13 "… If you find a skeleton, or bones, you never move or touch the bones you find on the land. You just leave them there. Same with what you find with the bones. Just like any other artifact that you find on the land. You don't ever touch them, you just leave them there. They are sacred to people, especially our people. It's because it's been used and hunted with."

C51 "Just from that archaeological piece you can feel the energy. From that energy, your mind starts to wake-up. Just like, 'I wonder what this piece has done for that person long ago.'

You don't know who it was. 'I wonder who it was. Who left it here? How did it get there?

Was it dropped? Was it meant to stay there because it was a sacred gift to the land or something?' You can feel something like that. When you feel you want to touch an archaeological artifact, just say please (ask permission). You always put it back where you found it.

(These sites where you find anything old) are very, very sacred. Who knows; it might be a burial ground. When they are being buried they leave a little something which meant a lot to that person. If he used a tool a lot in his life time you leave it there at the burial ground.

When we go to these places, your whole soul, your whole body changes. All around your body totally changes. There is an energy in those areas. All around your body, especially."

4.4.1. Locations

Anywhere that Inuit lived and traveled, one can expect that people died and that their remains were left on the land. The consultants reiterated this for all of the Bathurst Inlet area. Major camping areas were locations of potentially many grave sites (Figure 3). A grave site for a consultant's grandparents was mapped a few kilometers south of the proposed George Lake project site (Figure 3).

C13 "I have always worried about those human skulls in Richardson Islands. I was told by people to never move or touch them. Those are the bones and skulls from people who died from starvation long ago. There were from the days when food and game were scarce, you can see skulls and bones all over the land."

I always wonder and worry that there might be skulls and bones in the mining areas too. I was always told 'never touch any skulls and bones' if I came across them."

Interviewer *"The elders said that they buried their loved ones high up, so they didn't get wet, and they used rocks. They didn't have shovels long ago, so in summertime they used rocks and piled them on top in a high place."*

C114 "So where you see on a high mound or hill (next to the trail), that's where they would bury the body. They don't bury them; they put them on a high hill. They put them high so they don't get wet. There are lots of burial sites, they just can't remember where they all are."

C20a "Sometimes you can't see the burial grounds because through time, the animals would scatter the bones."

C114" Because this is a main travel route for dogteam so there are many burial sites there, her parents, and my parents. Along the shorelines, they would have various camping sites. That whole lake (Hanningayuk), it's the route to Contwoyto Lake, by dogteam."

C20b "People died in many places. There would be a lot of burial sites there. Nobody goes there now, but there are still burial sites and camping grounds there. Because there used to be lots of people travelling there, on that travelling route between Contwoyto and George Lake."

C20a "Here (on proposed winter roads from Contwoyto Lake to the Goose Property to the George Property (Figure 3)), this is the road they followed, the road route they used, that's the elders' travel route by dogteam…. Instead of going over the high mountains, you use the easiest road.

All along here you will see grave sites on the eskers and high mountains. That's how they used to travel, from Contwoyto to here (Bathurst Inlet). So you will see old burial sites. Maybe you can't see them now because they are overgrown but there are lots in that area…The whole road route, both sides, could have burial grounds."

C114 "My great-grandparents are buried there. It's right near the falls, where it doesn't freeze. Yes right there, they are buried there. My mum said that's right on the calving route. Right on their dogteam travel route." Consultants mapped burial sites both at north and south ends of Beechey Lake.

4.5. Artifacts, Songs and Drum Dances

C113 "Anyplace that you travel on the inlet you see signs of our ancestors having been there. Their tent rings, or inokhok, things of that nature, you see that all the way down the inlet."

C114 "It covers all the land, where people have been camping through the generations and generations."

<u>Artifacts</u>

C51 "And the archaeology too, dates back hundreds, thousands of years, long before the Ice Age came. You find a lot of archaeological artifacts, stone broad heads, stone tools, knives, and stuff like that in the Bathurst area, in coastal areas."

C111 "People, when they leave their stuff and they're going to come back, they buried them, they just don't leave them out they buried them so that they could come back. But they may not be able to come back for some reason. They don't leave them out; they buried them. They're not broken or anything, they buried them underground so nobody else would take them. If they come back they take them back. Most times maybe they don't go back there."

C51 "When you see stuff like that, you never remove that stuff. It was put there for a purpose so you leave it alone. You don't take it away from those areas because of a specific reason they were put there. A lot of times it's sacred, something very sacred for that person who was using that cooking pot. Stuff like that was very sacred to the

people where they put it. They may not have left it for there for very long, they may be coming back again. Sometimes they leave it there."

Songs and Drum Dances

C51 "We have to remember the songs, when they make songs, some of them are very, very sacred to our people. And some of them can be very sacred to yourself, how you have lived with this person, how you have known this person. The songs can be very, very sacred, along with the tattoos. They are very, very sacred when they put on these tattoos. It's not a beauty thing that some people have come to know. From my grandmother's stories of these tattoos, they are very sacred. And also the way you drum, how you sing your song, how they sang their song, it was very, very sacred to some people.

Some people, especially some elders, some elders have gone now. And they were singing and doing these drum dances. It's like show and tell. It's good alright but it's sacred stuff that they're singing about. It's not just for show and tell. They're very, very old stories."

5. TRAVEL

Before contact, the main mode of Inuit transportation was walking and dog-team. It was only in the early 1960s that the snowmachine replaced the dogteam as the main mode of transportation. Inuit used dogteams when hunting tuktuit (caribou) and nattik (seals), and for packing supplies. During winter sleds were used to pack and transport belongings, on sea ice and river ice. In the snow-free season backpacks were placed on the dogs.

C114 "My grandfather travelled on foot. He didn't go on dogteam, only walking. He followed the dogteam…. He walked, and walked. Healthiest man in the world."

The travel and harvesting routes of Kiligiktokmiut covered the length and breadth of Kiligiktokmik (Figure 3). Their overland routes started on the ocean from the mouths of the major rivers such as Hiukkittak, Angimayak, Kolgayok and Kunayok, and then headed inland. Further south, their travels took them to Hanningayuk (Beechey Lake) and Hannigayok (Back River).

The maps used by the consultants did not contain the proposed Sabina developments. These were overlaid on the consultants' data for purposes of this report.

Before contact, the proposed winter road linkage from Goose property to the Tibbitt to Contwoyto Winter Road was the traditional travel route that Inuit took from Contwoyto Lake to Bathurst Inlet, from inland to the sea. After the establishment of the fur-trading posts in Bathurst Inlet, this was the same route that Inuit used to take their furs to market and to obtain supplies. The rugged surrounding topography made the route from Contwoyto to Goose Lake the major and only travel corridor from inland, as illustrated by the occurrence of burial sites all along this route (Figure 3). More options were available for travel from the Goose property to the George property and then to the ocean, although all proposed winter roads are also traditional Inuit travel routes (Figure 3).

The maps of Inuit travel and gathering places essentially are also maps of important harvesting

areas. Kiligiktokmik and its coastal river systems was an important harvesting region for Inuit because it was rich in wildlife resources, for caribou and large mammals, trapping furbearers and for fishing.

C20a "My parents had to travel long distances. I would be back-packed by my father. And they would travel for days, long distance travel. My parents often travelled around Beechey Lake when I was young….

There are a lot of caribou blinds around where they travelled as well. The dogs would be backpacking whatever necessities they had taken on their travels and they would travel on."

C114 "My dad made it from here (Cambridge Bay) to Bathurst, there was no Hudson's Bay there (no trading post store), no manager there. He needed supplies, the store was supposed to be open but there was nobody there. So he took off for Garry Lakes, there was nobody there. He was with my uncle, he was only 17. From Garry Lakes they went to Baker Lake, there was still nobody there. From there they went to Rankin Inlet. That's all by dogteam. They went to Rankin Inlet, got their supplies, and came back."

C51 "My uncle, just when Bathurst started to have an outpost there, all the way from Pellatt Lake and Contwoyto Lake area, my uncle walked all the way down to Bathurst for a medical problem. He knew that there was going to be a nurse there. The manager's wife was a nurse at the trading post… There were medical supplies too. Not only for that, but also to get ammo or ammunition. That's what they mostly went down for."

5.1.Dogteam and Snowmachine

Travel routes were traditional and well used, because of the rugged topography of the Bathurst Inlet area. These well-travelled routes were dotted with camping places, and special harvesting areas which were marked with inokhok.

C114 "There are lots of inokhok, small ones (within an area east of and adjacent to Hanimok (Hackett River)). Most of them are half the size of that (of the table). That travel route by dogteam, it's the only place we saw that didn't have too many boulders. It's a valley. It's really, really rough. We traveled for three weeks."

C110 "They don't go through here because this is really high country here (area to the west of Kilokgiktok (Western River). They have a name for this area but I can't remember what it's called. It's a mountainous area. There are mountains here so you have to go through here to here. So they have to go through here.

By dog team they came to this river. They go through this here, avoiding this great big country; these mountains (from Bathurst Inlet south to Kilokgiktok (Western River)). These are winter routes, winter travel routes by dog team. I remember coming down these mountains, from these mountains down to Bathurst, couple of times."

C114 "Because the land is so rough, they have to use connecting rivers and lakes to travel with dogteam.

Mara is really hard to get up. There are only two places to get up on Mara… Further down, there are only two places you can get down. Straight down but that would be really scary! We went where Hackett and Mara meet (Hanimok), when we were going back home from Contwoyto Lake, where the two meet, and there was a wolverine right behind us (following the sled).

In this river, I remember going from here, camping all the way here, going up, going down here because it was too high to go down. What my dad had to do was to put rope on that sled and then we slide down. They travelled from there, down to there. That's all travel by dogteam."

C113 "I was just stating that as a young lad, newly wed, I liked to explore new country and I spent a lot of time travelling. I went there with my brother-in-law. We were heading up to Contwoyto Lake and we got weathered out so we spent all our time in the Mara River, Hackett River area. This was early 1990s, late 1980s. We ran into what is now known as Hackett."

C114 "And summertime travel, I remember from here we walked on the top of this mountain, straight across to there, one summer (along a travel route from Tahikafalok (Bathurst Lake) north to Kingaok). That's when I was really small. We camped there… I must have been six years old."

In this river, I remember going from here, camping all the way here, going up, going down here because it was too high to go down. What my dad had to do was to put rope on that sled and then we slid down."

C51 "The closer you get to Hackett River; it (the landscape) becomes really large boulder fields… Once you get up on the higher and flatter areas, it becomes easier to travel, where it's less rugged.

Coming up from George Lake; that was the only route could get down. I remember all right. Any other place I couldn't get down."

C113 "It's really steep. It's maybe two thousand (feet above the river). It's a long ways down… I lost two runners on my sled when I was going down. And I slowed down to stop. I had my eight year old son behind me on the sled. The sled just passed right by us. The skidoo went right over us, didn't even touch us."

C110 "I remember going down to here. Really rugged country. I remember using those kaliktiktak, brakes."

C51 "(We used) rope, really thick rope, inch and a half wide. To slow a fully loaded sled from going down the hill with the dog team."

C110 "It's all rugged through here."

C113 "Really hard to skidoo that route. We tried to skidoo up that river, next to impossible."

Dogs were used in summer as well as winter by some families.

C113 "The dogs of her parents and her brother's dogteam were mean. They were half dog, half wolf, big. They travelled winter and summer."

C114 "When we travel in summer time with my mum and dad from that camp at the end of the bay to the end of this lake here (Bathurst Lake), where you go up and walk on top of the mountain with the dogs. The dogs packed half of the stuff and my parents packed the rest of the stuff and the dogs packed me and my sister… It's a long walk. That was in the summer time.

That's what we did all summer too. The dogs were actually pulling sleds (at Hiukkittak). This is when I was five years old. They had to tie me to the sled because I would fall off, they go too fast."

Proposed Winter Road Links from George and Goose Properties to Tibbitt to Contwoyto Winter Road

As noted in the introduction to this report section, all proposed winter roads fall on traditional Inuit travel routes, and both Goose and George properties are sites of traditional Inuit occupation (Figure 3). The consultants' transcripts about their travel is generalized, the reader should consult the map (Figure 3) for detailed information.

C207 "I skidoo-ed that whole river (from Pellatt Lake to Nose Lake to Mara River)."

C114 "It (the proposed winter road alignment from Contwoyto to Goose to George) is right on the travel route. That's the travelling route from Contwoyto Lake to George Lake."

C113 "They use that route in summertime too, travelers going to Contwoyto."

C51 "I can recall going towards Beechey Lake. This is one of our (routes). This lake here, this has been one of our areas where we built an igloo, where we build our second igloo. From there, there are many ways that we could take. Sometimes we go towards the north part of the area. It's not (always) the same. We don't take the same route every year. Our routes at times are different from year to year.

But, mostly on this Lake here we have we would have an igloo, our second igloo, the first igloo being on Nose Lake. This other one here there will be another one here, and from here. Every year is a little bit different. Sometimes you take a different route towards Beechey Lake, different little routes.

A lot of times they go through Nose Lake in all these areas, just to get from Contwoyto and Pellatt Lake areas. All this route here, all the way down to the ocean. That

represents a route that may have been used way before our time."

From Hanningayuk (Beechey Lake) to Kingaok

C110 "Talking about travel routes, I know there are some travel routes going through here, to here and down to Western River by the ocean. Going down to the ocean towards Bathurst Inlet, somewhere down this way. It's not exact but somewhere in this area (travel routes going up to Bathurst Inlet for trading).

And there is another route here. There's quite a few of them. These are the routes that I knew going down to the ocean. There is a name for this great big hill here, this great big ridge at the end of Bathurst Inlet. You have to go on the west side of that. There would be travel routes all going down for traveling in here, this way, and this way, even for caribou hunting and wolf hunting."

5.2. Kayak and Omiak

When the ocean, lakes and rivers were ice-free, Inuit used kayait and flat-bottomed boats made of skins over a frame of willows (omiak). During summer and fall Inuit hunted caribou at nadlok using kayait. These kayait were long and thin, with a willow frame covered with caribou or seal hides. They were unsteady craft and required a skilled operator. When a large herd moved through during the summer and fall, there could be many caribou crossing.

C13 "I have heard that they used this land a lot by walking and by using kayak as well. Some traveled by land and some by kayak.

They would camp by the caribou crossings, by the lake and rivers to wait for the caribou to cross. And sometimes they would rest in the area to wait for the caribou to cross during the day. The caribou are more likely to swim and cross later in the day."

C111 "There used to be a lot of people who used to travel by kayak and by water. The men would be in the kayaks and the ladies would walk the dogs."

C51 "Those (kayaks) are made for speed… Long and narrow. How they make the bottom of the boat, you have a deep V in some of these boats. These kayaks are more of a cone shape. The freighters (omiak) were a little bit more flat. Those ones are made for freight, for hauling, they were a little bit wider."

C13 "When I learned, it was really lots of fun. My uncle start telling me, the caribou swimming, you got to try to get the caribou with, what you call those things, harpoon. So when the caribou swimming I got to learn that too, for hunting."

C51 "And we made kayaks. There were several different types of kayaks that we made from these willows. Especially in the little streams you have all these avalakiak, 10 foot tall willow trees. We used them for both frames; kayak frames and also omiak frames. And they made, some people made these for speed, these kayaks. And some made for freight; freighter kayaks.

Some (kayaks were used) in the lakes; the larger lakes. Some elders, some people would actually make omiaks for the big lakes too… Big boats, yes. The whole family fit… Everybody gets into this boat, several families; with all go pick aaukpik on the islands. And to move around also. And that's how our omiaks were made long ago, with willows and bearded seal hides.

Some people use sealskin and some people use caribou (to make kayait). Caribou hide. Mostly inland people use caribou hide and muskox hide. Muskox hide was used for omiak, because it was thicker and stronger."

5.3. Dangerous Places

Locations of places where travel was dangerous consist primarily of rivers and lakes with thin ice, open water, and persistent overflow. A total of 14 locations were mapped, found throughout the local study area (Figure 4).

C51 "… There are a lot of places in Nunavut, around these areas, especially rivers, where these places don't freeze year-round. It's not a big humongous falls or a very strong river but they still don't freeze year-round. Some of these places, when it is 40 or 50 below, you can still go fishing in winter.

There are stories from our elders where they found places that are very dangerous that they have come to know in their travels and they passed it on to us. They pass it on to the younger people and they tell stories about those places and they pass it on to us…"

C110 "This would be an agiak which means outlet and this would be monoa which means Inlet… You could say that every other place like right here, water bodies, have monoa and agiak. And these would be dangerous places for travel. Even the outlets will have thin ice."

C13 "The narrow channels can get thin very quickly even in the fall time. When there are times that the weather is mild, the channels will get thin very quickly. It's the same in the ocean and the lakes that this happens."

C110 "Even the slow currents can get thin quickly."

C118 "Kitokak and nadlok (between North Quadyuk and Quadyuk Islands). That's always open year round".

These places of open water were dangerous for travel but also important spots for fishing, and for access to fresh water during winter.

C114 "…. Sometimes they have to go from here by the lakes all the way but you have to be really careful where you go because its open water here (south Ekalokhiokvik). Open year round. They have to travel up top there, through this lake, but you have to go either this way or this way. You end up going all the way up through these lakes (a winter travel route on west side of Bathurst Inlet).

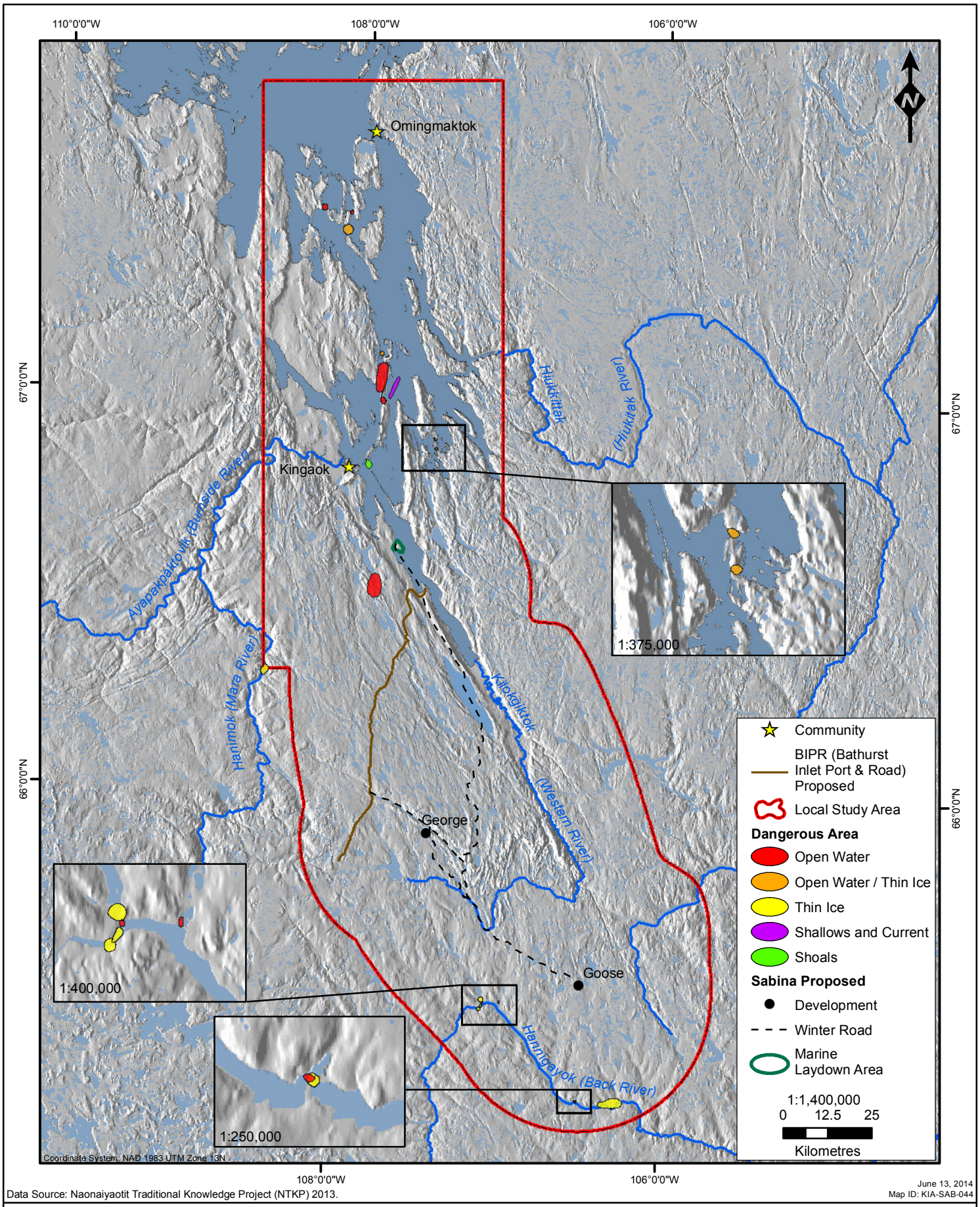


Figure 4. Dangerous Places for Travel within the Hannigayok Study Area

Map produced by Spicker GIS Services (www.spickergis.com)

They do a lot of fishing there because you don't have to make holes, open water. You have to go through those lakes. You can't really travel on the land because there are really high mountains there."

Hanningayuk (Beechey Lake)

C51" Just like any other Lake, Beechey Lake, being one of the main rivers, it will have in wintertime these little narrows, will always have thin ice year-round. And most little areas like this here."

C51 "Because it's on the outlet. This land is little bit lower than up here. This whole area will always be very dangerous and you have to be very mindful of those places (Winter Waters Reach)."

C114 "In wintertime there's always overflow around there."

C120 "Right at the edge, the narrow part. End of that Beechey Lake."

Hanimok (Mara River)

C114 "It's always overflowing there, all the time. Right on the bend, it's open there all the time."

C113 "I fell through the ice there. When we drove up the first time, we couldn't even go, so much water."

Ghurka – Migration – Thistle Lakes

C20a "Some lakes around that area could be very dangerous."

C114 "Some of them don't freeze, or they freeze but there is really thin ice."

C121 "Sometimes there is only a thin layer of ice covering those lakes, on the top, covering." (On Migration Lake and chain of lakes on southern portion of the proposed winter road south of Contwoyto Lake (Figure 1)).

C114 "Sometimes when the lakes have really thick snow, the ice below can be very thin, very dangerous for travel."

The portages between these lakes were also difficult for travel due to soil instability.

C20a "The land around there, sometimes, it stays too muddy, like quicksand."

C114 "Yes, when the rain starts, it could be like quicksand."

C20a "And it's difficult to travel because when it's like that the sled sinks quicker."

5.4. Traplines

Trapping was an important activity for Inuit and part of many other winter harvesting activities. Inuit trapped and traded the pelts of many animals including caribou, white and red fox, arctic hares, ground squirrels, grizzly bears, wolverine, wolves and muskrat. However, the primary furbearer that was trapped was tigiganiak (Arctic or white fox). Wolves and wolverine were not

important pelts for sale to the fur market until snowmachines were introduced and Inuit could hunt them effectively.

C13 "When there were hardly any foxes to trap in this area they would go and trap in Bathurst area. Sometimes there were days when trapping was slow."

C111 "Most people will go to Bathurst area, if they have a hard time for fox hunting."

C13 "If people were having a hard time traveling in this area, they would move somewhere else like Bathurst or Contwoyto or this area here."

C20a "Trapline for blue, silver foxes, all types. This trapline runs across the northern part of Bathurst Inlet, across the ocean. It starts at (Kangihoakyok) Daniel Moore Bay and ends at (Kigaotagyok) Turnagain Point."

C51 "This Beechey Lake area is where my dad and our elders from the past have talked a lot about; Hanningayuk. My dad and I have long been in the past by dog team. We had our trap line towards Beechey Lake, from Contwoyto and Pellatt Lake; more so from Pellatt Lake because that's where I have lived the longest. And from there (I traveled) just trapping alone, more in my younger days. My dad has done a lot of living all around Beechey Lake."

5.5. Meetings with Dene

Although most of the consultants had no knowledge on Dene being at Bathurst Inlet, one consultant knew of a very old story of Dene and Inuit interactions at Arctic Sound.

C111 "First time I ever hear of Indians coming down before, from our grandparents' parents. I will tell you a little bit about what I heard. The first Indians that that were coming around, they were mean to people. They don't know where they came from; they were just killing off people, any people they saw."

C110 "These stories are before white man contact."

C111 "Way before. They were killing off people when they first come up here. So this is what I heard, from the stories from many years ago. They said they were tired of being killed off. So they waited until the evening, you know how Indians have their dancing circles (powwows). These people, how we say, angatkuk, their shamans, would put their power to them and let them dance and then they killed them all off. After that I guess they started knowing that the Inuit have power too. So then they got along with everybody else."

I remember my mom was showing me there was a big evik, a killing site. It was all grown over with some kinds of plants. It was really huge; my mom was telling me about the story about that. It was really big."

C110 "This is somewhere in Arctic Sound, where they had wars."

5.6. Current Use

The consultants were asked if people, especially younger people, currently travelled to the Bathurst Inlet area to go hunting and fishing.

C110 "Not really anymore. Maybe in wintertime."

C111 "Just around Bathurst area (Kingaok)."

C110 "Mostly wintertime. Summertime, is mostly boating but wintertime they go inland to go hunting. Especially with faster machines that go further. Compared to dog team, dog teams used to go far. With machines somehow seems they can't get as far for some reason."

C51 "Even though they are dogs, you have to think about how well treated they are, how well fed they are… As long as they have food to eat they will carry you far. Fast, and in a hurry all right."

C110 "You have to keep in mind that our generation were taken away (sent to residential school) during that time when our people were still living up there. That time we lost most of our knowledge about this area because we were going to school in wintertime.

We didn't live up there anymore in wintertime. We lived mostly on the coast in summertime. Wintertime we could not travel back. We had no machines. We had dog teams. We couldn't go back there in wintertime because we were gone in wintertime, all the time for long periods, like 12 years or so. So it's kind of hard to recall what was up there."

C51 "In springtime. People from Cambridge still tend to go there, wolf hunting… From here (Kugluktuk) too. Like myself with Joseph (a community member) we made a couple trips to Bathurst. Joseph wanted to go further east, from where he was remembering in the past, because there were always wolves around those areas all winter long. That's where we went for wolf hunting. And sure enough there were many wolves that we caught."

C110 "Nowadays, I don't think there is any more trapping."

C51 "Seldom. But more in the past. Because of crossings having food, that smell of food practically all winter long, from those caribou dying at these crossings. Makes it good trapping area."

6. SPECIAL RESOURCES

6.1. Copper

Tools such as ulu blades, arrowheads and knife blades were made from copper or silver. The major

source of copper for Kiligiktokmiut was Kanuyak, which means copper. Copper was also obtained from Egloyoalik (Cockburn Islands).

C110 "One (place where people found copper) was this island here. I'm not too exactly sure of the exact place, but this island (Chapman Island)."

C118 "When we were stranded on one point, we went to pick up his nephew, and we were stranded for about five days. When we are stranded we don't have very much to do, so we tend to walk around a lot. And his wife was walking around and she found tiny pieces of copper. So we all started to walk around, and we found lots of little tiny copper pieces."(On one of Wilmot Islands (Ongivik).)

C20a "When we were kids, me and my brother, our parents were camping and we were playing outside. We were wandering about, and playing and playing all day. When we finally went home to see our parents, our mum asked, 'where did you pick up that copper from?' I said it's just a rock. I had a big sheet of copper that I was playing with, me and my brother. I didn't know what it was. There was lots of it but I can't remember where it was. We were just kids. I thought it was just a rock, but it was a big chunk of copper that we were playing with.

This was past Kent Peninsula, those islands. I am trying to remember where we used to play. Our parents were hunting for seal, for winter supply.

There was lots of it there, but I can't remember where, I was just a kid. I thought it was just a rock. My dad was making a boat, so he used the copper for nails for the boat. (He worked the copper) just by hammering it into shape. After he made it into a round ball, he just hammered it until it turned into a nail."

6.2. Carving Stone

Black soapstone called 'okohikhaat' was used to carve the large kudlik, and for making cooking pots. Inuit looked for this stone around riverbanks or the ocean shore. Stone for making oil lamps and pots was found at a variety of places

Interviewer *"Is that carving stone for kudlik or carving stone for art?"*

C118 "I think they used it for several things."

Interviewer *"Tools and implements?"*

C118 "Yes." C118 mapped a location for carving stone on Koagyok (one of the Goulburn Islands).

6.3. Soil for Sled Runners

C121 mapped a location between two lakes Kalgilik and Ighugugialik where there was good soil for mudding the runners of the sled.

C121 "Really nice soil for sled runners, where there are no rocks."

7. TUKTUIT (CARIBOU)

Tuktuit are the most important wildlife species for western Kitikmiut. Without tuktuit, survival on the land was not possible. Tuktuit provided food, clothing, utensils, tools, and shelter. The life cycle of tuktuit was a major factor in where people travelled and where their seasonal camps were located. The workshops focused on documenting site-specific data for caribou (Figure 5), especially for Island caribou as little specific information was available in the NTKP.

7.1. Herds and Inter-breeding

C117 "Nowadays they see the Island Caribou mixing, which they've never done before."

C114 "They interbreed because we are getting some Island caribou that are darker colour on the fur. Most of the Island caribou are white in colour in the fall time when they are migrating through.

Right now we do have some that are dark in colour, which is interbreeding with mainland caribou… They mix during spring during breeding season. Island caribou, what they are doing, is migrating to the mainland in springtime, mating season, as well as the mainland caribou which are migrating from east to west."

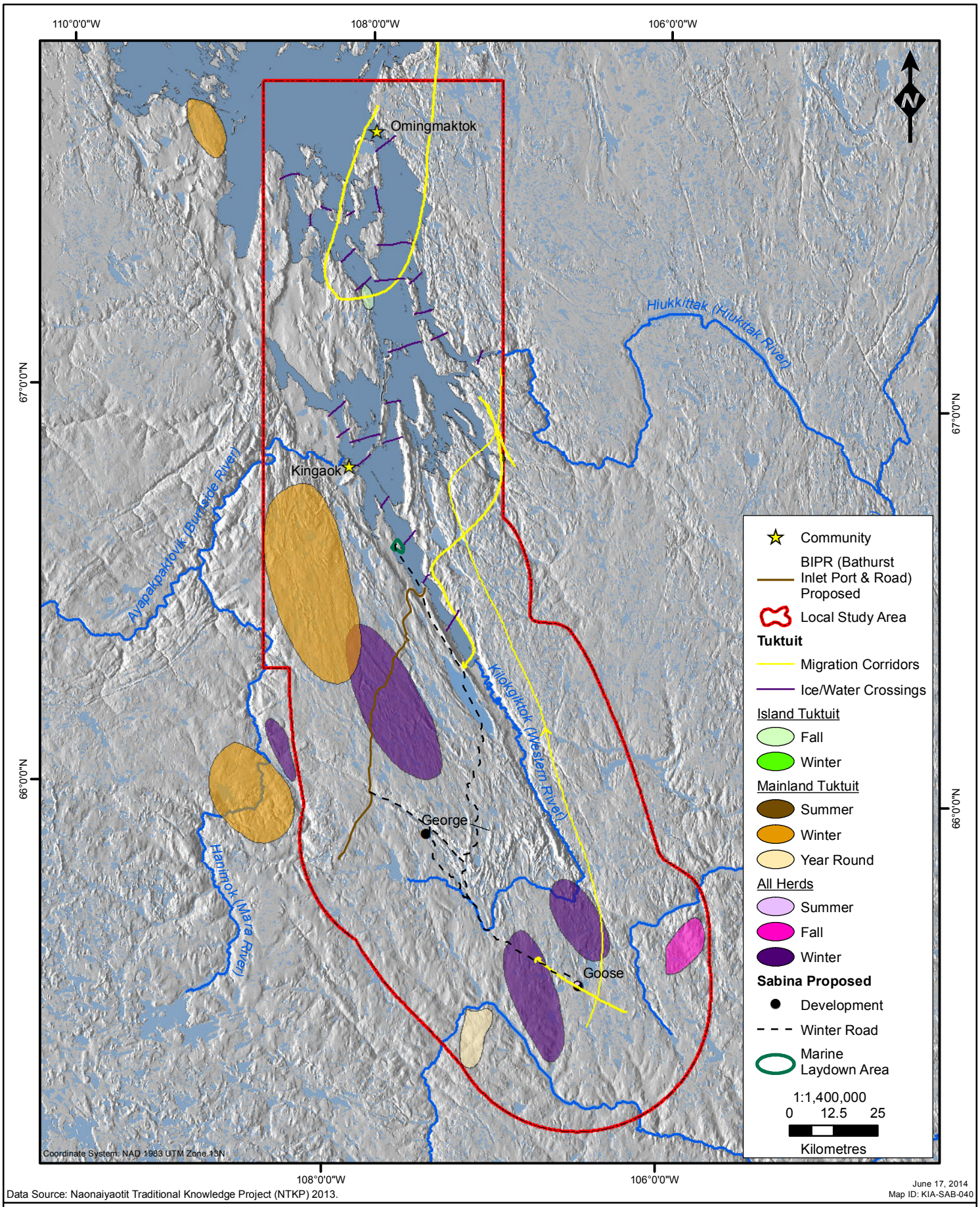
C110 "It's probably all the same caribou herd. Ahiak must be mixing up with the Beverly and Bathurst."

C51 "It's the Bathurst and Beverley herds that they (the Ahiak herd) are mixing with. They've always been doing this, for as long as caribou have been there. People are just finally noticing it, these last few years, recently. They just started to come forward, these other herds that come around this and other areas too."

C111 "Bluenose caribou are taller animals, with longer legs. But the Island Caribou are all small, they'll have mostly white coats, the Island Caribou, and they are smaller animals. That's how you know that they are Island Caribou."

C13 "The caribou from Victoria Island are not from around this area. In 1978 was when I first saw them and I did not know they were from north of us. When I first saw them I thought the skins were so nice and different. When I got a caribou I brought it to my uncle. My uncle told me that they were from the north. I never knew they were from the north. It seems like (compared to) when I first got caribou from north of us, they are coming more and more each year. The caribou from the north never used to come this close. They are small."

C51 "That's what we noticed being inland boys for most of our life, dealing with the Bathurst and Bluenose and the Beverley herds. We seldom came across the Island Caribou way off where we are around Contwoyto and Pellatt Lakes. But every once in a while we do see them because of their coat. They're white, pale white, year-round, pretty much all white year-round."



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2013.

June 17, 2014
Map ID: KIA-SAB-040

Figure 5. Tuktuit (Caribou) Mainland and Island Herds - Seasonal Occurrence in the Hannigayok Study Area

Map produced by Spicker GIS Services (www.spickergis.com)

C110 "But over the years I've noticed that some of these Bathurst caribou are ending up at Victoria Island, following the Island Caribou herd. Not that many but I've seen them going down that way with the Island Caribou. Within the last 30 years, I guess, I've seen them, 30, 40 years ago."

C110 "Another thing, talking about Island caribou, we notice that in summertime sometimes they are on the mainland. Not all of them go back to the Island, some of them stay behind. And I believe they mix together. They mate, produce different caribou, different animals."

C111 "When I was in Taloyoak this springtime, I saw a really huge caribou skin. I thought it was a polar bear. I said what is that, polar bear? They said it is a caribou skin. But it had Island white fur. It was really huge."

C51 "And then they go stay with that herd for that season. That's why I said sometimes you get pure white caribou, or very, very white caribou come through the area. They are the Island Caribou following the Bathurst caribou."

7.2. Abundance

C110 "Back in the early 1950s, when I was 3, 4, 5, 6 years old, we used to go trading in summer, springtime go visit Bathurst Inlet trading post. During that time period, springtime, when the birds start coming through from the treeline, we'd be there for a couple of weeks or so. The caribou would be going through constantly for two weeks, going east towards Ellice River, the calving grounds. Day and night, nonstop."

And then you go sleep for a while, sleeping period, you wake up, and the caribou are still coming! 24 hours a day nonstop. And then Lupin came in, it's right on the Bathurst herd major migration route, and the winter road, the whole system, all along that migration route. After they came in, for myself, we started noticing that less and less caribou were coming through over the years.

Less and less. And now there are hardly any more coming through, right to Bathurst because of all these mines along the way."

C51 "And each and every mine that they (caribou) run into, because they have a scent gland right at the bottom of their feet, they collect all these chemicals and everything on the bottom of their feet. They walk on it and it stays with them for a number of miles before it can rub off. In that time I believe what they have stepped on will actually sieve through that scent gland and into the body. That's why you see lame caribou or something. It's what I looked at when I was living at Pellatt Lake."

I have seen many changes because of this mining activity, exploration activity, be it a fully grown mine or just one little box. Drilling in the middle of nowhere can actually deter caribou from going to that area and maybe going to another area. That's what

is disrupting the migration route of the caribou."

C51 "There are less caribou now. Herds are smaller now. (There has been a) big die off like in the 1950s or the 1940s. Something happened, the numbers were very, very low too in those years.

Another one was wolves. Each and every animal has a cycle, in its natural state. The wolf cycle, there tend to be more wolves in some years, that's what we see. What we're seeing now is more wolves here today, compared to what we saw in the past, just before we start staying in Kugluktuk. There are more wolf packs than normal. But a whole lot less caribou now."

C110 "I think what will happen, down the road there will be less wolves again because there's less caribou, they will die off. It's a cycle."

7.3. Winter Range

C207 "Ten, twenty years ago, I have seen the Ahiak herd winter around the inlet all the way up towards Hackett and Mara River. And they stay all winter around Mara, Hackett River. Earlier in the fall they tend to be around Western River, around the proposed port site. But last few years I go down in winter and I haven't seen any there in winter around the proposed site."

C207 also mapped a large wintering area for mainland caribou southwest of Kingaok.

C120 indicated that caribou were present west of Beechey Lake all year-round.

7.4. Migration

C114 "I've seen them down in Hackett area in summer time, that was four or five years ago. They were migrating through in very large groups."

C114 "We were down there in July and that's when we saw the caribou migrating through. They started around Contwoyto and came through Hackett River."

C114 "Here, they used to migrate through here sometimes, across the river and up there. We saw some migrating up the river when we were camping here last time. Last summer (August 2012), when we were up there for the week. Mainland caribou. That was in August."

C114 "In fall time, September, there used to be really big migration there, downwards and across (down west side of Bathurst Inlet). I used to watch my father hunting. They are heading down in the fall; this is mainland caribou."

C114 "The main herd that I saw in the summertime was going through here (Hiukkittak area)."

C120 "I would see them here all the time (southeast of Ellice River), when I was growing

up. This used to be a main migration, I don't know about now…. This was sixty years ago."

7.5. Calving Areas

Tuktuit calving areas were considered sacred to Inuit.

C13 "My late uncle used to tell me that his dad used to tell him not to make tea around the flat lands as he did not want the ground to be full of soot from the firewood. These areas are the calving grounds for the caribou. The area is south of Bay Chimo. My late uncle's dad used to tell him not to make tea around the flat land area but to make tea further away from the area. That was the rule long ago."

C51 "He's talking about calving grounds. The elders say you should never impact them in one form or another because they are really sacred. They care for these calving grounds, particular spots on the land where it's just like a large swamp, or swampy areas where the ground becomes yellow from the calves. After they calve. And they don't want to dirty that part of the land from all the ashes or any other thing. You can't camp there, or make fires."

C13 "The caribou always return to the same calving grounds to calve year after year."

C51 "It goes for all other parts, all other areas too. People have been there for thousands of years. It's not only this area. These areas here, because they are migration routes.

Sometimes caribou tend to prefer these areas for calving grounds, because of this year's or last year's plants. It's not this year's plants; it is from years before plants. That's why they go there. If they don't find plants they might move to a different area, to a different calving area, it might be past Bathurst. Sometimes they would be on the east side of Bathurst Inlet, and sometimes on the west side, all along there, and anywhere, all the way down to James Bay area."

Consultants said that all of Bathurst Inlet was important for calving and that over time all of the inlet and surrounding areas would be used. As a result, specific calving areas were not mapped.

C20a "There are many calving areas. There would be an abundance of calving areas (in the proposed development area)."

C110 "The statement that I can make, which is true, this whole area is a calving ground, the whole of Bathurst Inlet corridor. It doesn't matter what years they are, they are going to be calving somewhere in here. It doesn't matter which part of this area. The whole area is the calving ground.

They probably go further south but I'm not too sure how far south they go, but the whole Inlet area is a calving ground."

C111 "From what I hear about the calving grounds, they use that area for a few years and then there will be no food so they change until the food grows there again. There are so many of them and there's no food. If they go back next year and there is no food for them, they change until the place grows again. They don't just calve in one spot for life. They switch … To where there's food for them."

7.6. Island Caribou

During the period of data collection for the NTKP (early 1990s), consultants indicated that Island Caribou were on the increase and occupying their former range. However, during the elders' younger years, they had seen few Island Caribou. In recent years, the trend had again reversed and Island Caribou as well as the mainland herds had experienced decreases in number.

C20b "There used to be more Island caribou around Holman. There used to be less caribou back then and their main source of food would be seal, because there was no caribou at all (for Inuit living near Cambridge Bay, when the elder was a child). And then they started traveling towards Cambridge Bay."

7.6.1. Crossings

C51 "The ocean current that I was talking about that stays open pretty much all year round is this area here. All this area here is where the ice is thin year round and open water in these spots." These locations are: open water and thin ice between Banks Peninsula and North Quadyuk Island; open water between Algak Island and an island east of it; and open water between Ekalulia Island and island west of it.

C51 "Because it's open year round, all this area is shallow seas. Currents too, shallow currents, not as strong, different strength in different water because its shallow ocean around here so it stays pretty much open year round. And caribou crossings, the people who come from Holman Island, they say there are always caribou crossing all along this route here, both ways."

C110 "These are winter crossings (many locations in Bathurst Inlet)."

C51 "I've traveled a lot over the years. Basically, every one of those islands (islands in Bathurst Inlet) has always had caribou a time or two. Being the Island Caribou, where they migrate, on these islands, all these little islands, caribou have been through all of those islands, to get to the mainland."

C111 "It depends on how many caribou there are, they will just cross anywhere it doesn't matter how wide. It doesn't have to be a small area, they will cross anywhere. This whole area here, I've seen caribou in each island."

C51 "There are more crossings. Even over here, just to the west of us (at Kugluktuk), there are always caribou crossing there. Over here, further east of Bernard Harbour, because of open water, just about year round, just on this side of Victoria Island. They

are finding more caribou crossings over there too.

Talking to local hunters, when they go from here, they go … Just like (a hunter) has an outpost camp at Richardson Islands. He says there is always more caribou crossing by there year-round too, to the other islands. When you think of animals doing that, they have to be crossing through there to the mainland, over here too."

7.6.2. Winter Range

C51 "Most times, just like all omingmak too, they want to find a little less snow to dig into and they tend to stay up mostly on high hills or rolling hills where they can feed, where there is less snow, where it is easier to dig into. And same with the caribou too. More into higher ground in the winter time and feeding in those areas…

Over those years on that trapline from Pellatt Lake, from time to time, every once in a while we run into Island Caribou as well. This was on a trapline to Hannigayok from Pellatt Lake. Sometimes the Island Caribou would winter in that area.

My dad has always shown me the differences, because it's so white. I asked him once in a while, and just like a fox, just pure white. We would see them several years apart then. But comparing that to the 1960s and 1950s, it was very seldom seen. There are more nowadays."

C110 "In wintertime Island Caribou start coming across and they are not only on the west side but all the way down to the end of the inlet, into inland. So they are staying. And I've noticed that too, hunting down there sometimes. We've seen Island Caribou down here too, in all these areas.

… And as (others) said, all the way down to Contwoyto Lake. And one time, me and my brother went up to the Thelon Game Sanctuary. We were down there, right around the borders and we noticed some kind of caribou down around there too. Middle of winter. So they all go down here."

C20b "The island caribou winter down in Bay Chimo area. In wintertime the Island Caribou would travel around Bay Chimo area."

C207 "The Island caribou always winter around the inlet until about late March, early April until they head back. But not as many as there used to be."

C20b "All winter long, all year long, the caribou travel around Omingmaktok area. But it's decreasing."

8. MAMMALS

8.1. Carnivores

The importance of the Bathurst Inlet area for caribou meant the entire region was also important for all carnivore species. Consultants documented large increases in numbers of carnivores in recent years, especially wolves and bears.

C110 "Going back to wolves, Beechey Lake, Hanningayuk, some years when the migration starts too early, or the ice doesn't get thick, or spring breaks up easy, what will happen is this great big herd comes through here, and lots of animals got lost in here. They all end up on the shores here drowned. There will be tons of them. You get lots of wolves and grizzlies, and wolverine."

C51 "That's where all the carnivores congregate year-round."

C110 "Sometimes there would be so many caribou killed, both shores would be full of caribou."

C51 "Especially year-round because of Hackett River. Hackett River has really deep, deep gouges, where the river flows at these crossings, and a lot of times these caribou don't even make it across to the other side. That's where they die and become bear food and wolf food. In those areas, they stay around those areas year-round because of what they can eat from the river; these caribou that didn't make it over the summer.

All year-round. Being on the trapline route also we always notice pretty much Hackett River area because of the ruggedness of the river and these caribou crossings. These caribou crossings are so deep sometimes that the caribou have a hard time getting out…. The entire river area…. The Mara too..."

C113 "As a child growing up on the island when I'm out fishing, I love to fish with a rod. Back then I never thought of anything that would become. Today when I do the same thing, fishing, I always have to take a rifle to make sure there are no bears around. There are so many bears now, that we have never seen on Victoria Island, ever. There are hundreds of them I believe on the island.

The same thing with the wolves, the last two years just around the outskirts of Cambridge Bay, there was between 70 and 100 wolves taken, just around the outskirts. The outfitter that runs the airplane, flying around with his clients on the west side, he claims he's seen 500 wolves on the island. That's a lot of predators."

C51 "What we have noticed is climate change everywhere, or something, in the air. All populations of wildlife, all species, carnivores, predators, their populations have risen very, very fast over the years. That's what we have noticed, along with the muskox. But caribou, for some reason, their population seems to be lower now."

8.2. Akhak (Grizzly Bear and Black Bear)

All of Kilogiktok was an important region for akhak, because of the abundance of tuktuit, and because of fisheries resources. There had been an increase in the numbers and distribution of akhak in recent times, especially in coastal areas. Akhak typically were seen in spring and fall, during fish spawning runs, and caribou migration. The movements of akhak were associated with the major river systems and their watersheds. Consultants were asked to map site-specific data for grizzly bears, including where they were known to den (Figure 6).

8.2.1. Abundance and Distribution

C110 "Just like we said with those other animals, this is all bear country also. Most of their dens are close to where they go fishing or hunting. I remember one time we were in a helicopter, coming from Goose Lake, coming down to Bathurst, coming around and we are right here. We were flying really low, not really, really low, but low, we were just coming down and all of a sudden we saw bears all over the place. We saw seven of them. I guess they were fishing in here.

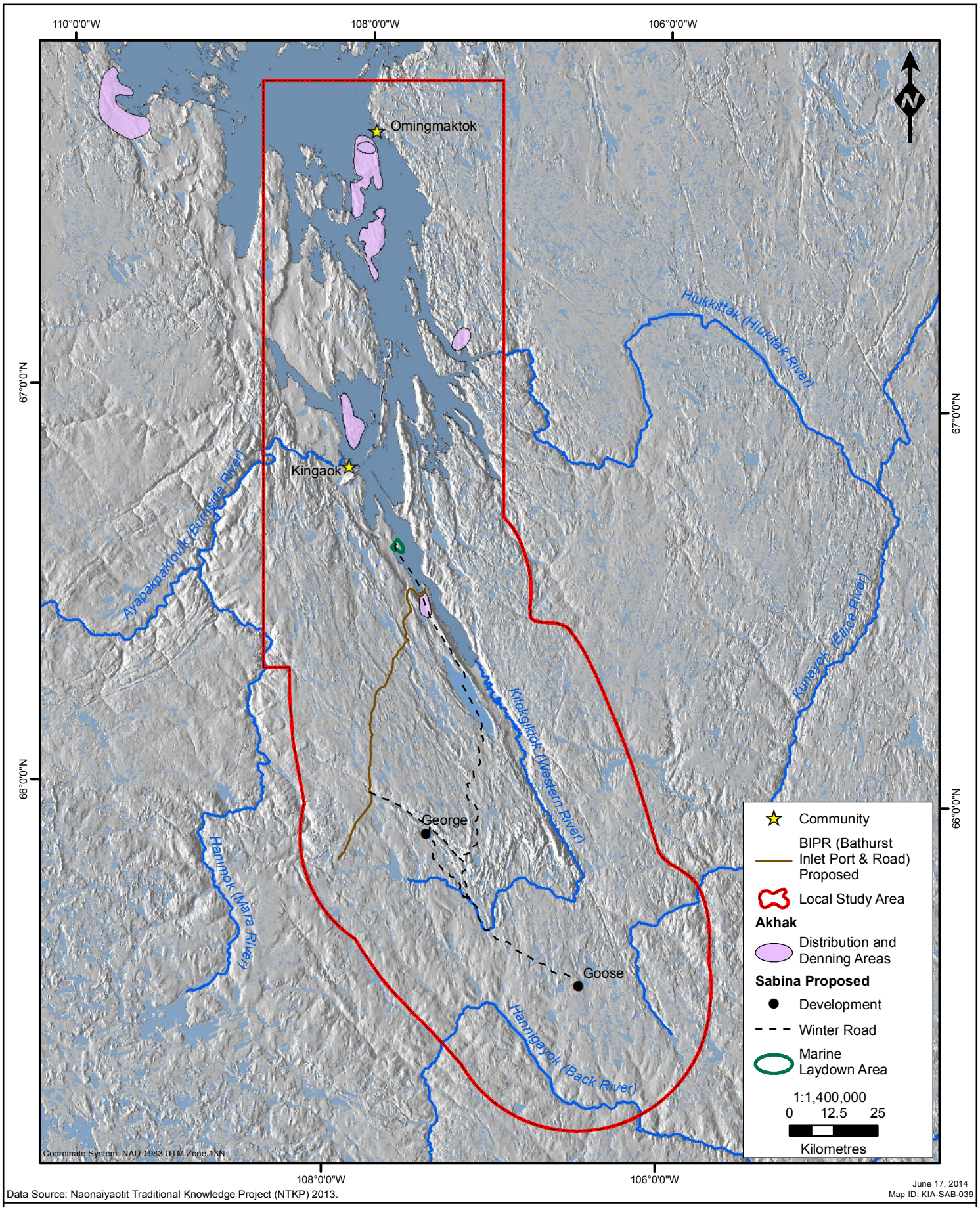
We only saw seven but there must have been more because it's so bushy in there. They all took off when they heard the helicopter. They probably took off even before the helicopter got there but we saw seven of them running away. What I heard later is that they were fishing for grayling in there, July, late July. Mid-to-late July.

I will tell you one thing though. Over the years, in my time, when I was young, we used to travel so much. You would be lucky to see one bear in a year. Or you would only see one during the year. But now, every camping trip you go on, or you go out somewhere, you see two or three at a time. In the past, you would never ever see them, for years maybe, once every year maybe."

C51 "Every other day, we are noticing more bears, especially around this area where they used to be seldom seen. Many, many years ago too, maybe one or two a year but every week or so, all these camps, all in the surrounding area, bears are getting into their cabins."

C110 "Cycles, or climate change probably mostly has something to do with it. I believe further down south, southern Canada, southern North America too, it's so warm. Everything is moving up. Forest fires, more forest fires. Animals are trying to escape to somewhere. I think that's what's happening. There are more bears up here due to that and probably more bears being born, more food. That's what I've noticed over the years in my time. We used to see only one bear once a year maybe and sometimes none at all. And now you see them anywhere you go. All over. All over the north."

C13 "We are getting lots of akhak. It never used to be like that. They are all over now. I never used to see that. We would see one akhak, once in a while, one or two, or three times all summer. Now there are lots all over."



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2013.

June 17, 2014
Map ID: KIA-SAB-039

Figure 6. Occurrence of Akhak (Bears) in the Hannigayok Study Area

Map produced by Spicker GIS Services (www.spickergis.com)

C110 "There are more bears all over the coast and inland whereas they were rarely seen many years ago. You were lucky to see them every once in a while. It's mostly a concern for camping, like staying in camps. People are more apprehensive if they have to go camping. Lots of bear sightings."

C207 "I've seen this summer that the grizzlies are very healthy. I've seen five different mothers with two cubs last winter, small cubs (cubs of the year). They all have two cubs and sometime they have three. We get a lot more wolves coming into the camp, right into the camp and going after the dogs. One time I had to shoot a dog (who was attacked) from a wolf. I shot a grizzly. The predators are getting more, more bear and wolves last few years, not many caribou.

Just this summer, going around Bathurst Inlet, we've seen five or six mothers with two cubs just from last winter. And the bears I've seen are becoming more aggressive. They don't scare off as easy. You fire a shot at them to scare them off, they do nothing, they just stand there and some come after you."

C113 "We have bears now trying to come into town (Cambridge Bay). They will take a bite out of anything once just to taste it."

8.2.2. Diets

C207 "(The bears eat) anything, roots."

C114 "Berries."

C117 "Squirrels, lemmings. (The bears) are digging the ground, wrecking the ground, going after the squirrels."

C207 "Also, I noticed that the ground squirrels are getting low numbers. I've seen bears going after the ground squirrels, its' no effort for them, even big rocks. And they eat a lot of berries as well."

C114 "But last couple of years, the berries haven't really been good, there haven't been many berries because it's too dry. The predators are preying on squirrels and caribou more."

C114 "Yes, I noticed that too. Last week when we were traveling on the mainland we saw so many bears, but we didn't see any squirrels."

C113 "You see the land churned up, the bears are digging for them. Normally you see them, and you hear them. (But not so much recently)."

8.2.3. Black Bears

C110 "Talking about black bears, I don't think I've seen one in Bathurst Inlet area, but I've heard stories that they are there. Not too long ago, about five years ago, my mom

said she saw one somewhere down there, Bay Chimo area. I've heard that, over the years, they were very secretive, but I guess they are starting to see more."

8.3. Amagok (Wolf)

Inuit generally hunted amagok and tuktuit together. When their pelts became highly valued, amagok were, and continue to be, highly sought after by Inuit. With incentives such as bounties and high pelt prices, Inuit began to specifically target amagok in certain areas and at certain times of year. Inuit traveled extensive distances in search of amagok and Kiligiktokmik (Bathurst Inlet) was one of the major hunting areas. Consultants were asked to map site-specific data for wolves included denning areas, which had been identified as a data gap (Figure 7).

C51 "There are several species of wolves around this area. Another one follows the northern Québec herd, the Beverly herd. The wolves over there they are the very long, orangey type. The timber wolves would be more treeline, and they follow the Bathurst herd more. They come from the east, that's what our elders have always said. They follow the Beverly herd…

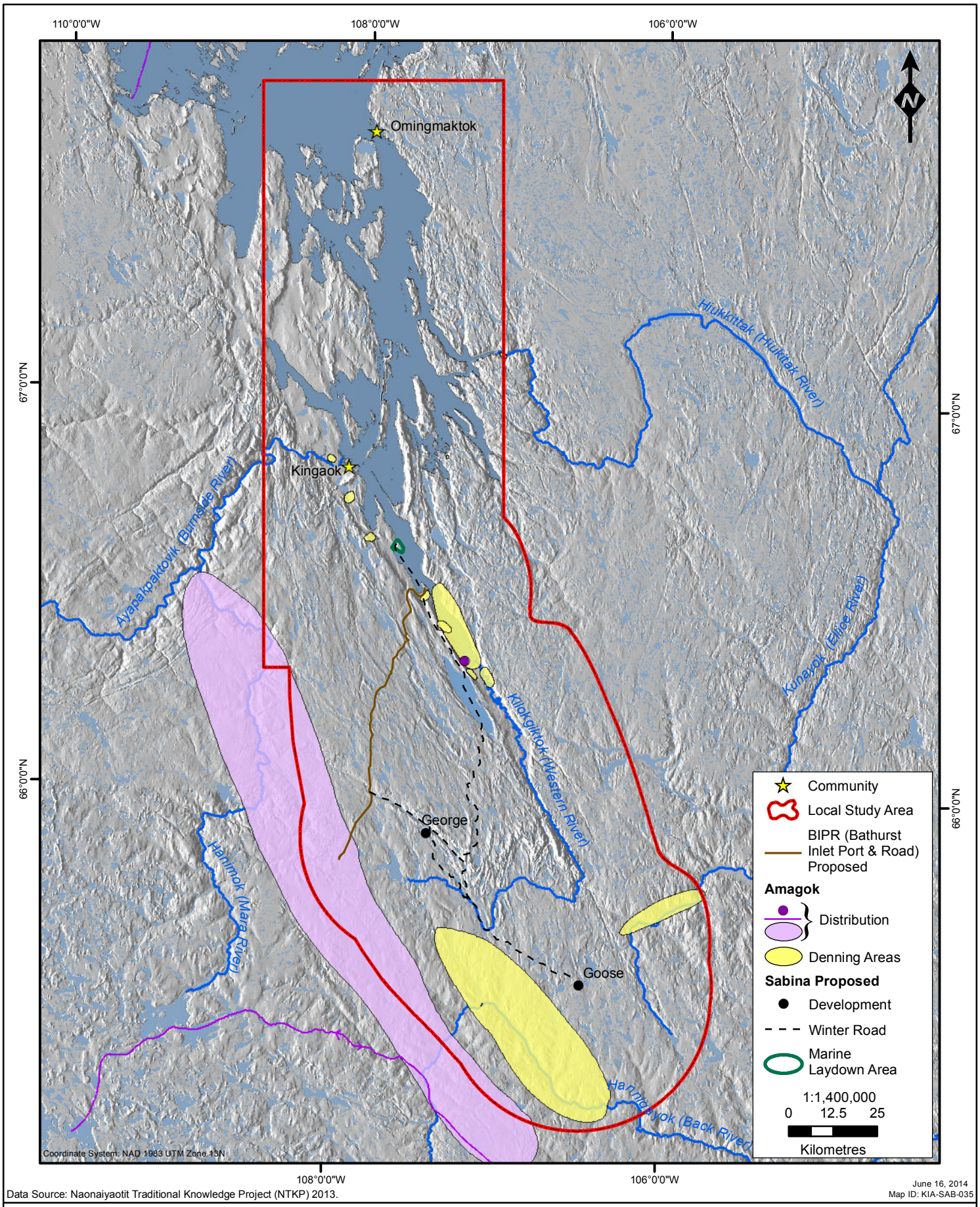
They would see them year-round too. But more so when caribou (from different herds) started to calve in this area, you would see a mixture of different kinds of amagok."

8.3.1. Abundance

C113 "Growing up in the north, and being out with the animals, living with the animals, you see changes in the migration routes and the different species that you see. The wolves, when there's a pack of wolves, just the two dominant, male and female, will bring out pups. When you take the alpha male or female out of a pack, say a pack of 30 animals, they are going to split up and they are going to start their own packs.

So that's why you see the numbers really growing, the alphas are being taken. The pack numbers will not totally break up, but they have to go out and make more puppies so instead of just the dominant male and female giving offspring, the next year you will see a half a dozen of the other members starting their own pack.

That's my way of thinking. You want to take the numbers down, if you take the alpha, there will be more wolves in the following season. I believe that to be right, I could be wrong but that's my way of thinking of why the numbers have come up so fast and so high. I know when I go wolf hunting myself I like to take the alphas. The subordinate members will come to look at what happened to the alphas and you can harvest more of them that way. You pick up that kind of hunting methods that Inuit living on the land learn to understand, when you do this, there will be more. If you do it a different way, they will still remain. That's my way of thinking, the numbers have come up because the alphas are taken, the pack splits up and you get more wolves, more pups the following year."



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2013.

June 16, 2014
Map ID: KIA-SAB-035

Figure 7. Distribution and Denning Areas of Amagok (Wolf) in the Hannigayok Study Area

Map produced by Spicker GIS Services (www.spickergis.com)

8.3.2. Distribution

C110 "Around Beechey Lake, Hanningayuk area, all of it is an important habitat for all of the wolves, because the caribou migrate through there winter and summer."

C51 "And it's also an important place where they den."

C110 "I remember when we were living down here, wintertime, when we were small children. There would be so many wolves in wintertime that the trails would be that wide. Big packs. There used to be so much in here. I remember when we were living here, there used to be lots of families living in here; because of fall time clothing gathering, food gathering. Wintertime, the wolves hung out in there. There would be so many of them. All those families had big dog teams."

C51 "They (Inuit families camping) would be surrounded by these packs of wolves."

C110 "There were six or eight families in that area. They had all their dog teams with them in the campsites. When the wolves came around, those dogs wouldn't make a peep. They were really scared because there were too many wolves. Those dogs don't make any noise at all. At that time I wouldn't know (how many) but there were so many. But in recent times, past 20 or 30 years, I've run into some packs that had over 50 (wolves) at one time. In wintertime, late 1950s and 1960s.

When we were staying there, they were always wolves coming around (southern Bathurst Inlet, north of Bathurst Lake). Always wolves coming around, hunting. Summertime, when they're hunting for their dens and their puppies. They are always hunting, they go far. This whole area is wolf country especially when there are caribou coming by."

C110 "Talking about amagok… The biggest I've seen to the present day, and I've caught a lot of wolves, was the one my dad caught, right in here somewhere (southern Bathurst Inlet, north of Bathurst Lake). Springtime. It was so huge he had a hard time bringing it home. It was the biggest one I've ever seen I've never seen anything bigger than that."

I'm not too sure how big it was, but it was big. I've seen big wolves. There are lots of big wolves around. And I've caught quite a few big ones but this was the biggest one I've ever seen. This was back in the early 1960s, maybe."

8.3.3. Predation

C113 "They're taking down a lot of muskox. They specialize on muskox harvesting, they kill a lot of muskox. They take some caribou but when I follow the tracks of these wolves, they pass through the caribou herds and they go for the muskox, they are

bigger prey, because there are so many of them. They need bigger prey to feed their packs."

C121 "I was flying around counting caribou in springtime. I saw lots of wolves around there with a big herd. They were killing the calves. And not eating them. They were saving them for later, because there's lots of wolf dens there."

8.3.4. Denning Areas

As well as documenting general denning areas, the consultants mapped wolf dens on the east shore of Buchan Bay, at Hiukkittak, seven dens sites on west side of south Bathurst Inlet, on two little islands on northern Beechey lake, south of Winter Water's Reach, and on southwestern Kunayok.

C51 "The way you call those dens, all dens, hijaiak, hijaiak is where wolf dens and where fox dens, same. Another one is hiti, individual, one den hole. Hijaiak is multiple den holes.

Denning areas, wolves, all along this place in the proposed mining area, the whole area is potential denning area. Wherever the wolf feels like home, it's all considered denning area.

Quite a few places across the migration route these wolves have denning areas. (There are more wolf dens) in northern areas, because caribou have calving areas in the north. They would be staying with that herd for the most part of the spring."

C110 "Their favorite denning areas are high eskers, big high eskers, where they can see for a long ways. Where it's dry and where they can look out on the countryside for a long ways. There are quite a few areas in there."

C51 "Water sources are another important consideration for the wolves too. What we find are river crossings, and close to lakes and streams they like to den, eskery areas."

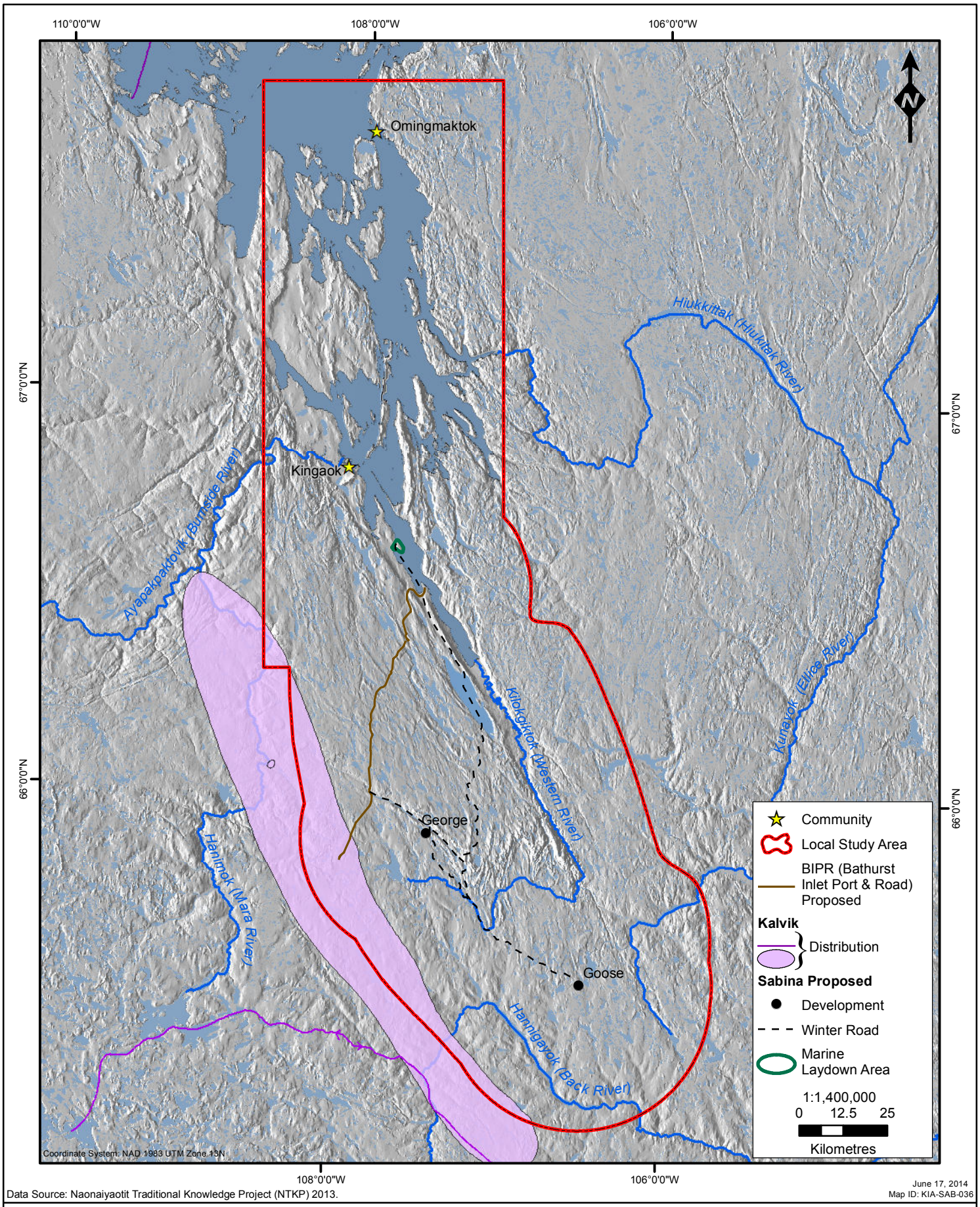
C20b "There must be a lot of dens because there are a lot of wolves. Around Ellice River area and Hanningayuk area, there are lots of wolf dens in there too."

C207 "Flying around this summer I've seen quite a few wolves on their dens, on the rivers. And also the eskers."

8.4. Kalvik (Wolverine)

Kiligiktokmik (Bathurst Inlet) and the areas surrounding the communities of Omingmaktok and Kingaok were noted as important for kalvik (wolverine) in general. However, few specific habitats were mapped for kalvik (Figure 8) as consultants said all of Bathurst inlet was important. This was because of the importance of the area for caribou, and the importance of caribou as a food source for kalvik. Generally also, important areas for amagok (wolf) were also important kalvik areas.

C110 "This is heavily populated wolverine country. Wolverine like to hang around big rivers."



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2013.

June 17, 2014
Map ID: KIA-SAB-036

Figure 8. Distribution of Kalvik (Wolverine) in the Hannigayok Study Area

Map produced by Spicker GIS Services (www.spickergis.com)

C51 "(You find kalvik at) caribou crossings."

C110 "(Wolverine country is) rugged country, big rivers, where there are mountains and boulder fields."

C51 "There are many, many areas like that (boulder and rugged) in here. All this area is so rugged. Everywhere is potential wolverine habitat, denning areas."

8.5. Omingmak (Muskox)

The numbers and distribution of omingmak were increasing as they reoccupied former habitats (Figure 9).

C111 "Long ago there was hardly any muskox. Right now there lots to see around."

C13 "Yes, sometimes we used to see only one at a time on the land. It was very rare to see lots. In 1978 there was a time when we started seeing lots."

C51 "Muskox have all come way up towards my area (Contwoyto) too. They started coming back in the late 1960s, when our elders started seeing muskox around Pellatt Lake area."

C51 "They have been missing for, I don't know how many, many, many years. Long, long time. That was the period when muskox were scarce."

C110 "Most the time you find muskoxen here, this whole area (all of Kent Peninsula). They are all over, but sometimes they are hard to see at different times of the year… The people from Bathurst, from this post, they've seen muskox all wintertime… at Mara River …"

C111 "There are so many muskox anywhere you go, here, there, there, and anywhere. They can be seen anywhere, different times."

C51 "There are more muskox now inland now compared to the 1970s and 1950s and those years. They were gone from those areas for long time again until just recently. There are so many muskox on the mainland now that we have a little bit less caribou. They, for some reason, caribou has a great dislike for muskox."

C111 "Naohikvik (Kater Point); there was really lots of muskox and baby ones there last year." C111 also mapped the occurrence of muskox adults and young on Aolativik (Marcet Island).

8.6. Tuktukvak (Moose)

Tuktukvak (moose) were documented in the northern part of the study area although consultants said their distribution was expanding (Figure 9), and animals had been seen in winter, as well as the other seasons. Locations mapped with moose included west of Baillie Bay, south of (Tagionoak) Goulburn Lake, south of Kingaok. Winter range was mapped in Portage Bay.

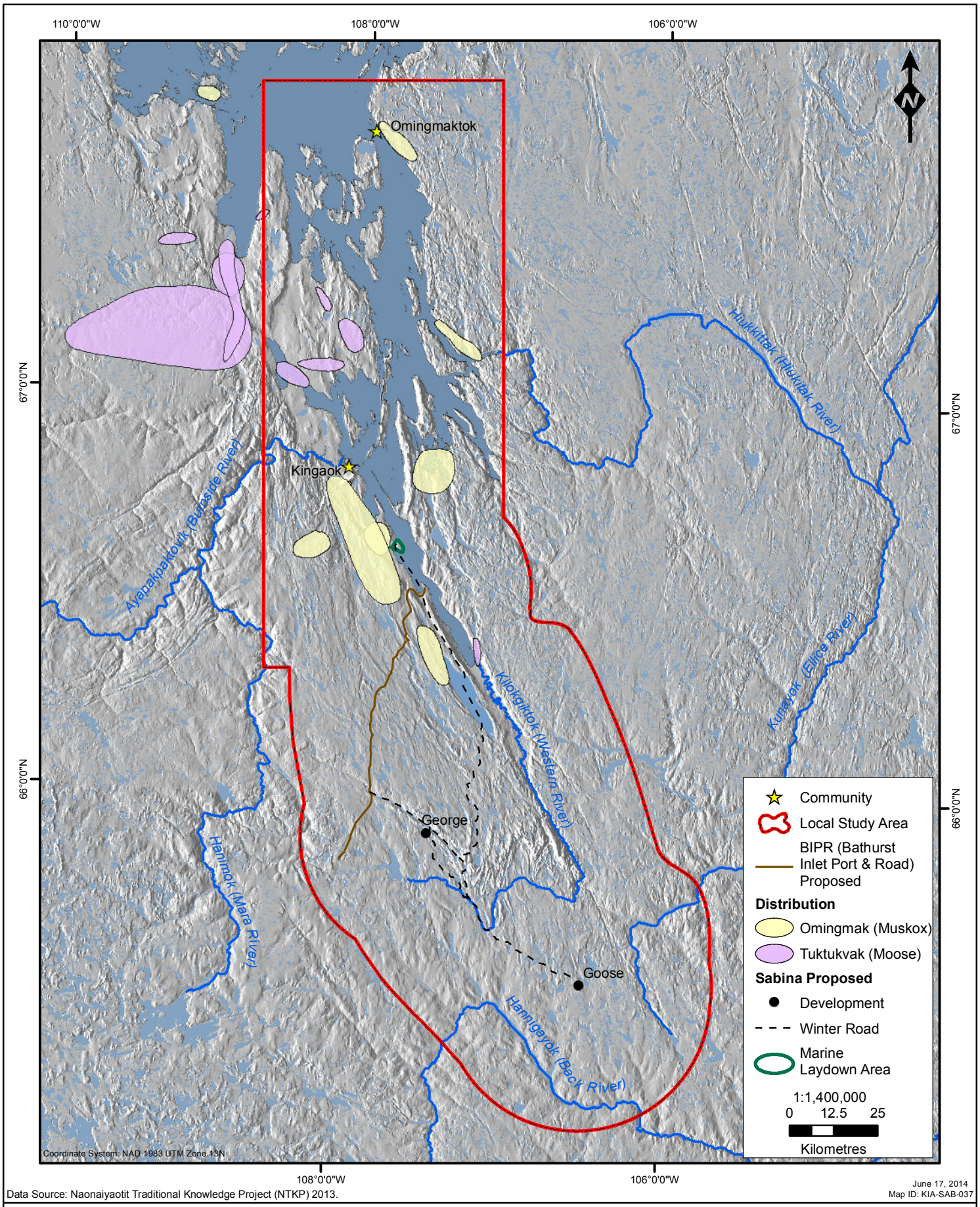


Figure 9. Annual Distribution of Omingmak (Muskox) and Tuktukvak (Moose) in the Hannigayok Study Area

Map produced by Spicker GIS Services (www.spickergis.com)

C110 "When we were living here, summertime, we caught a moose (just south of Baillie Bay). It was a female. This was in the early to mid-1960s. There are a lot of bushes in this area, a lot of trees, right in here. That's why they hang around there. Even in Western River. There's lots of trees, birch trees."

C51 There were five moose in this area (James River) that I've seen and there was another bunch in this creek here. That was in the summer, this time of year, August."

C110 "There was always moose in that area all the time…. Arctic Sound area."

C51 "All of this area is potentially moose area (a large area by Banks Peninsula and over to the west)."

C110 "They like to live where there are tall bushes near the rivers."

C51 "They like to stay inside the river valleys, in swampy areas mostly."

C110 "I remember one time we were doing a caribou survey on Ellice River calving grounds. This was late May, early June. We were counting all these caribou on the calving grounds, hundreds of thousands. Middle of nowhere, in the flat country there's a moose sitting there. Laughter! All by itself, wide open wide country, completely snowed in."

C51 "Everywhere you see in the creeks for several miles where you may have shrubs and small willow trees, around these rivers, that's where you find moose. This Western River is no different. You have moose along there too."

C110 "A couple of weeks ago we saw one here (on Banks Peninsula, Arctic Sound coast). We saw moose in there, July, end of July…. It was a big one. It was too hard to get close to it… When you pass through here, there are always people catching moose in here, in the Hood River system."

C51 "Moose is another animal that's really coming up more. It's always been here but there are more and more showing up nowadays, with climate change."

C114 "And Arctic Sound, is where? Oh here we are, you already got it, that's good. That's quite a while ago, 30 years ago. There were lots. There used to be moose across there. My dad used to catch moose from there every year (south Bathurst Inlet), August, September."

C207 "I saw moose in here (Bathurst Ridge) last summer (2012). Arctic Sound, there's moose in there too. And Hood River; we caught a moose somewhere in here."

9. MARINE LIFE

Just as caribou (tuktuit) were central to the survival of Nunamiut, nattik (seals) were central to the lives of ocean and coastal Inuit. Coastal Inuit could have access to both nattik and tuktuit, but

because of differences in timing of their availability, Inuit could not harvest enough of both types of animals.

The most important marine mammal species was nattik (ringed seal) although the bigger ugyuk (bearded seal) was occasionally captured in Kiligiktokmik. Rarely, fur seals were also seen. In spring seals were hunted when they were hauled out on the sea ice. In summer they were hunted by boat. In late summer seals started to gather together. Inuit could obtain a lot of seals at this time, as much as a boat could carry.

Consultants also knew about other marine mammals such as aivik (walrus) although this was neither a common nor important food species. Consultants indicated a rich presence of whales in the Bathurst Inlet area in the past, and that in recent times whale species not seen for many years were returning (Figure 10), as were polar bears. The ocean provided a variety of other food for Inuit, including invertebrates and plants.

9.1. Seals

9.1.1. Nattik (Ringed Seal)

C51 "Where you find these (ringed seal) herds in the fall, where they are starting to gather, they stay there for most part of the year in a big feeding area. As long as their feeding area has lots of food around there, there will always be seals around that area. It also depends how deep the water is too. Some seals choose to make their holes for the winter where it is less deep and there are a whole lot more seashells. Seashells and bottom feeding fish that they feed on are found where there's less deep water."

C51 "Sometimes people eat that ingaloak. When you open those seal ingaloak (intestines), there are several types of seashells. Fish and clams and mussels. Mussels, they like mussels."

C111 "It's when they get skinny in summertime. Because they stay on the ice all spring and they don't seem to go down to feed and they get skinny. Then they get fat again in fall time."

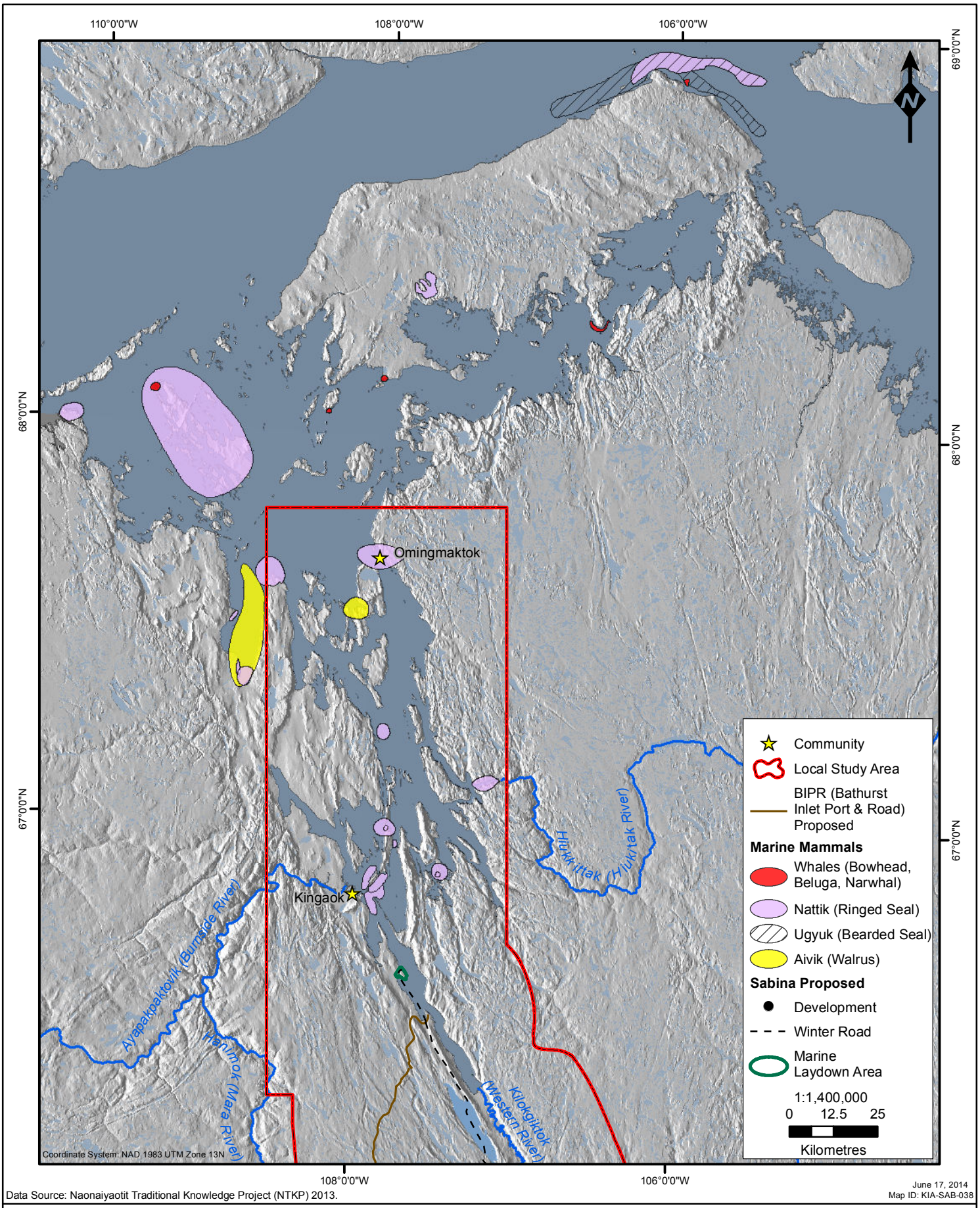
C51 "There are old bull seals in that area too. They call them tiunyak, big bull ringed seals. They get extra, extra large. You can smell them for a couple of miles before you get close to them."

C111 "When you eat them, they taste like gas."

C110 "First of all, the ringed seal, it's all over, this whole area, the whole thing (all of Bathurst Inlet). They go into fresh water in the river mouth. You see them in Hiukkittak. They are probably following fish. In all of this, its ringed seal habitat, rearing, hunting…

C111 "Anywhere in the ocean."

C121 "Sometimes you find (ringed) seals in the lake (Tahikyoaknahik), up the river."(The lake is located on Kent Peninsula.)



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2013.

June 17, 2014
Map ID: KIA-SAB-038

Figure 10. Distribution of Marine Mammals and their Important Habitats in the Hannigayok Study Area

Map produced by Spicker GIS Services (www.spickergis.com)

C51 "Once in a while too, other than ringed seals you see fur seals also. They are a little bit different from the ringed seal, their colouration is different. (They occur in the same area) but they're not as common as ringed seals."

C51 "Sometimes, these ringed seals go into the mouth of the river, into the mouth of the river, and go upstream away from the mouth of the river. It's not uncommon. Kugluktukmiut too; they see seals way, way up by the rapids (Bloody Falls)."

9.1.2. Ugyuk (Bearded Seal)

C110 "For ugyuk, there's hardly any around here, in this part here (southern Bathurst Inlet). They are found in deeper water in this area (the whole mouth of Bathurst Inlet). They occur more like individual animals."

C51 "In groups of five or six. I don't know how it is, it's little bit different towards the east, or towards the west but in these areas you don't see no more than five or six in an group, more commonly two or three in a group.

They behave very differently from ringed seals. The one me and my father-in-law caught in Bernard Harbour, was totally different, different reactions. The difference in how they come towards you when they see you. They are totally different from the ringed seal…

The one (bearded seal) we caught was a little over 12 feet long. That one was a female. There was another one with that bearded seal all right, but we didn't go after that one. It was staying further away from us. My father-in-law said it might be one of the elders of the one that came to our boat."

9.2. Aivik (Walrus)

C110 "Not in my time, but there are stories that there used to be walruses in the past."

C111 "When I was small, I remember my grandfather saying that there were few walruses coming up here (Arctic Sound), but not all the time. I haven't heard about them after that.

They said you should not approach them with a kayak because they could tip your boat. They used to see them a lot."

C110 "Before you see them, you smell them."

9.3. Whales

Large groups of whales had been seen in recent times, including more than 100 belugas in 2011 in Melville Sound, south of Kongokyoak. Narwhals had been seen east of Kent Peninsula just north of Ekoktok (MacAlpine Islands) in 2013. Several locations of old Inuit camps had accumulations of bowhead whale bones, indicating that bowhead was an important species for Inuit in the past.

C51 "It's the same thing with the whales. Whales were seldom seen in these areas for many, many years. They're starting to come back."

C111 "Once in a while, long ago, before we were born, the whales used to come around there (Bathurst Inlet). Belugas. And narwhals. I remember all those stories they told us, when the whales would come around."

C117 "Two years ago (2011), a bowhead hit the shallows (south of Egloyoalik (one of Cockburn Islands)."

C110 "Wherever you go, you can see remains of whales. From long time ago. And this whole area (Bathurst Inlet), you run into whale bones. We have seen, on the island (Lewes Island), bowhead bones."

C13 "My dad used to tell us about eating bowhead whale and that the blubber was very tasty. Even around the north area, past Bernard Harbour, there are many bowhead whale bones all along the shore. They are very heavy and large. I had seen some when we were bringing supplies to that area for the Co-op. The ribs are huge, and they would use the ribs for sled runners."

C51 "Not for the main runner but for the bottom of the sled itself, the glide. The runner shoe, they call it."

C13 "My grandparents are from this area (Bathurst Inlet). Before they moved here (Kugluktuk), they were mainly from down there. I was told that many, many years ago; there was lots of whale hunting here, for belugas and narwhals too."

C51 "You know, there are some places around that bay, that whole bay there (all of Bathurst Inlet, wherever it's deep), there are lots and lots of places where it's really, really deep all the way down to the main ocean. We're seeing more whales come around Cambridge Bay and those areas. Whales will tend to come out to those bays too such as Bathurst and around these areas because a lot of those areas are really, really deep too, some of them.

I'm pretty sure that if there are going to be more whales coming around Cambridge Bay areas and especially around those areas, Cambridge Bay and around these areas where they were seldom seen many years ago. But now they're being more seen, more of them are being seen even in Bathurst area where the bay has really, really deep spots. Really deep spots. The whales will be coming in too. I'm pretty sure we will see whales in that area."

9.4. Nanok (Polar Bear)

Nanok were always rare in Bathurst Inlet although the occasional one did occur in the past and present. Consultants thought that the occurrence of Nanok could increase with the increasing numbers of whales.

C111 "When I was young, and I traveled to Omingmaktok, somebody just got two nanok and that's the only time I heard of them. It must have been 40 years ago."

C110 "Yes that was the only one occasion. It was the early 1960s. That was the last time somebody caught two nanok there, at Bay Chimo."

C51 "(But it might change). That's what some of the elders are saying. They see into the future, way into the future sometime. The more whales we are seeing here now, because of that alone, they are saying that polar bears will start to come into this area too."

C114 "We still have polar bears coming from the north, all around the Queen Maud Gulf area. Every year they pass through. We don't see them, but we see their tracks when we travel."

C20b "Years ago I remember seeing a polar bear around Bay Chimo. Long time ago people caught a polar bear when they were out cod fishing at Hanigayak (south Brown Sound)."

9.5. Invertebrates

The NTKP did not contain data on marine invertebrates, and this was identified as a major data gap. Consultants did not map areas for these animals, but provided information on their use.

C110 "Mollusks and … mussels (oviluk, term can also be used for clams). There are usually lots of mussels in this whole area (coastal Bathurst Inlet). Did we ever see so many, around … Just hanging. They tend to grow where you have boulder fields."

C13 "My late father used to tell me that there are really lots of shells on the other side of Bay Chimo. There are clams, snails all kinds of shells. When you walk on them they make crackle sounds. I think it's on the other side of Kent Peninsula, snails and clams."

C111 "Kent Peninsula (south shore) is just full of seashells all over. It's really white with seashells and there are no rocks and sand in sight. You can't see sand or anything, it's just covered with shells."

C51 "Shallow, sandy ocean (at Kent Peninsula)."

C110 "You could see for miles, just seashell beaches."

C111 "You don't walk on sand or anything, it's just seashells."

C110 "(The crabs are found) all over, in deep water."

C111 "We just see them… They caught lots down here when they put out crab traps. There are some everywhere. When you go boating you can see the ones that have washed up on the shore."

C20b "My son rowed his boat and he would collect crabs (along the shore)."

C51 "Lots of shrimp, lots and lots of shrimp in those area."

C110 "Krill too."

C111 "Sea urchins. People would eat them."

Interviewer *"There is another clam that they eat called oviluk."*

C118 "These are our clams but they are called tablaoyak."

Interpreter *"Sometimes the starfish would get caught on the hook."*

C20b "They would eat the starfish m when they were frozen, just the best ones."

C118 "They taste like cod."

9.6. Marine Plants

C13 "The seaweed is used by marine mammals too for food, like seals and wolfish."

C51 "Some people still eat that seaweed."

C13 "In the past, people had a hard time catching food, catching wildlife. So they depended on seaweed to keep them alive."

C51 "To keep something in their stomach."

C13 "Once me and my uncle, we were walking along, with the dogs. We never get anything all day, not even hikhik. We were hungry. I had to eat a little bit of that so I could fill up my stomach a little bit so I could live. My uncle told me, eat this, we have to now, we will never get anything. And I kept that in my stomach… It made me stronger to walk. It isn't like meat or fish or anything like that."

10. KOPANOAK (BIRDS)

Kopanoak (birds) were an important food source for Ocean and coastal Inuit, because of large concentrations of nesting waterfowl on the coast. Spring migratory hunts for waterfowl were important harvesting activities on the coast and ocean. Sandhill Cranes were pursued when they first arrived because they had large amounts of fat. Eider Ducks and Loons were hunted while they were resting on the open water in the cracks in the ocean ice. Ducks that were not eaten were cached in rocks for later use.

In summer coastal Inuit hunted molting birds and collected eggs. They went to nesting areas on the coast and on Arctic Ocean islands specifically for eggs.

Cliffs were important nesting habitat for a variety of raptors (Rough-legged Hawk, Gyrfalcon and Peregrine Falcon) and other colonial nesting birds such as gulls and Cliff Swallows. Cliff nesters also included species such as Ravens, geese and some ducks. Major coastal raptor nesting areas were identified on the south coast of Kilingoyak (Kent Peninsula) including the islands in Elu Inlet, near the mouths of Kolgayok (Tingmeak River), Kugyoak (Perry River), Kunayok (Ellice River), Omingmaktok, a large area on eastern Kokiviayok (east Kiligiktokmik), and Kingaok. Further south

in Kiligiktokmik, important raptor areas were mapped north of Hanningayuk (Beechey Lake).

Regional map information was sparse and site-specific information is lacking for all bird species in the Sabina Project area. This was a major data gap. The focus on mapping information for birds was on waterfowl distribution and their nesting areas (Figure 11). Consultants documented major changes in the distribution and abundance of birds, particularly the appearance of species never seen in the north before.

10.1. Abundance and Changes in Distribution

C13 "My grandma used to tell me. One day maybe you will see nice birds from the south, one day when I am not living. They might come here one day. All kinds of birds, nice colour. Grandma used to think they must come here one day. Nice birds, nice colour."

C110 "In terms of climate change again, many years ago we used to have so many birds here. They come up here every year, arctic birds. It seems like their numbers are slowly going down. Everyone has noticed. You would hear birds in the morning, birds all over the place. But now it's hard to hear that anymore."

C51 "Everywhere you go its different now, compared to many years ago, due to climate change."

C110 "We are still seeing all the birds, but we are seeing less of them, it seems like. Pretty well all of them that come up here in the springtime."

C111 "When we were back there (Bathurst Inlet) this summer, there used to be all kinds of little birds there. But we were there for five or six days and we didn't even see one bird. Not even one. We never heard any birds."

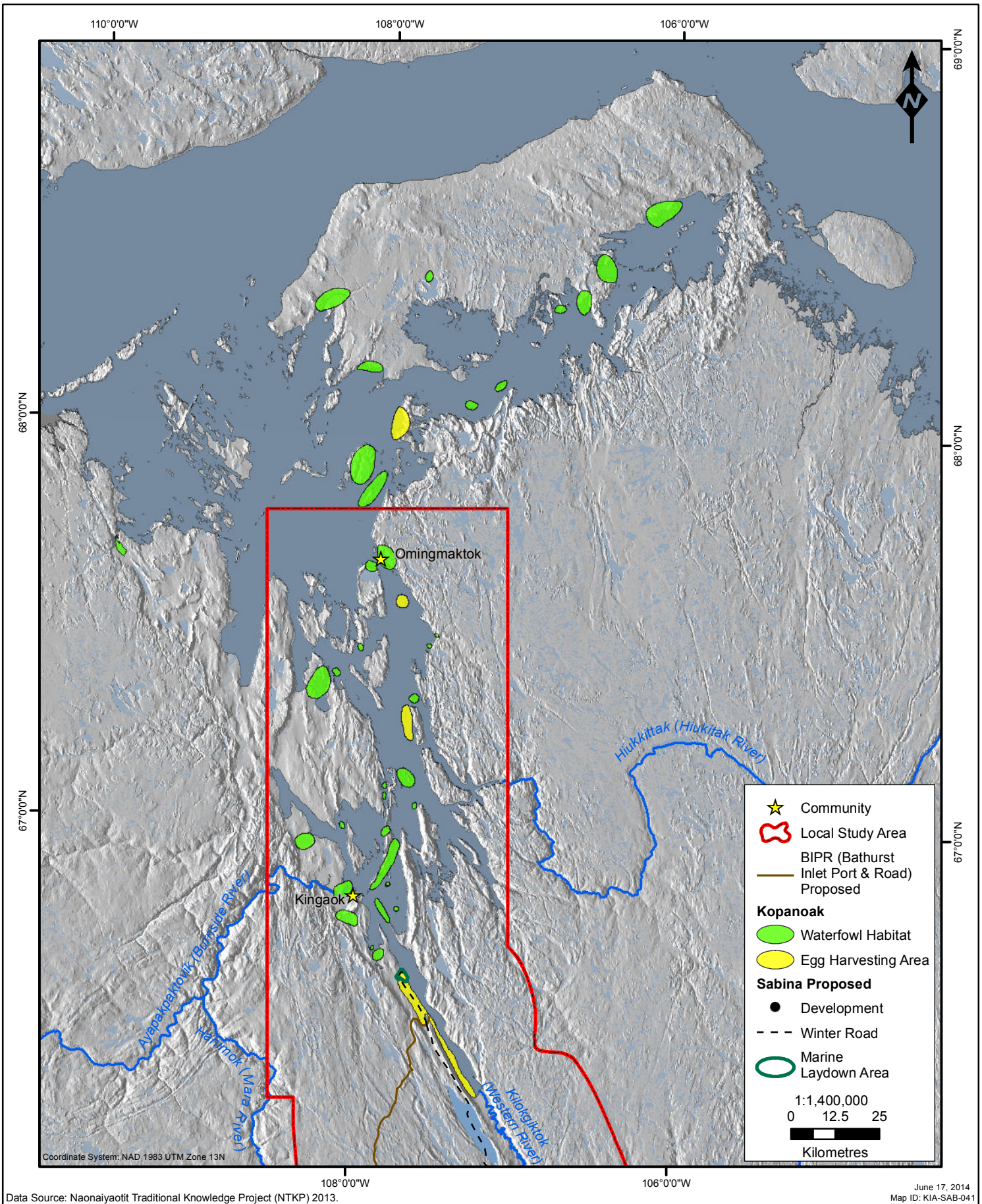
C51 "Even those shorebirds, sandpipers. There are a whole lot less of them now compared to when we were growing up. Every shoreline used to be just covered with sandpipers, all swampy areas."

C110 "All types of sandpipers. There used to be all different species too, different types."

C51 "Different types of sandpipers all along the shoreline. Waking up is different nowadays, especially when we are out camping in the tent. You always see birds right away. When you get up, the first thing you hear is a bird on top of the tent, singing you a song. It's very seldom anymore, for some reason. That's including the sandpipers."

C111 "We never hear sandpipers and little birds when we were back home this summer. Now I start remembering. We never saw sandpipers when we were there."

C51 "Just like birds are becoming (less), for some reason, these snow buntings or little larks, songbirds, there are less of them nowadays."



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2013.

June 17, 2014
Map ID: KIA-SAB-041

Figure 11. Important Habitats and Egg Harvesting Areas for Kopanoak (Birds) in the Hannigayok Study Area

Map produced by Spicker GIS Services (www.spickergis.com)

10.2. Passerines (Songbirds)

C114 "(New birds I have seen are) the blue ones, I have to find out (which species they are). And swallows, there are some swallows too. And yelllow-headed ones. Warblers, there was one here too. There were a couple of warblers, a house finch, a red one, and we saw five blue ones. And a couple of swallows…. They are just coming. Too warm, change of weather."

C207 "Tree swallows, the blue ones"

C114 "Everything is moving up north. (In the Kingaok area there are) all kinds now. And there was one white kind of bird, with a really big bill, a giant bill. It's not from here, I don't know where it came from."

C207 "Lots of robins. And those redpolls stay all winter, in the willows."

C114 "Robins too, they are here, they never were here before. We saw a couple of robins this spring, and summer. They are nesting somewhere but I don't know where. We kept seeing them outside of the house (Cambridge Bay)."

C114 "I saw a couple of those (yellow warblers) here, in the spring. I was really surprised. It landed on my deck. Didn't care, didn't even fly away."

C207 "They've been nesting around Bathurst."

C114 "Red-crested warblers, yellow warblers, mountain bluebirds. Those were the ones that were eating the caribou meat on our deck. We saw five of them on our deck. They came in the spring time around May. That was when I was making dry meat on my deck. They stayed around for about a month. And robins, we never had before."

10.3. Waterfowl

General

C20a "Anywhere, there's always lots of geese and whatever, all kinds of birds. Birds on all the islands."

Interviewer *"Even on the bigger islands?"*

C115 "Mainly on the small islands."

C110 "For waterfowl, geese, swans, ducks, loons, the Goose Lake Project site is a marshy lake, a wet area. So these types of areas would be important during their migrations. I noticed that when we were there. Geese, early spring, geese were all over the place. Sometimes different types of birds hang around there all summer too."

Eiders

C110 "All this area (Bathurst Inlet), mostly they stay on small islands. Either Eider Ducks or seagulls. The Eider Ducks, they tend to stay in the ocean all the time. Eider ducks (lay their eggs) on ocean islands, as do seagulls."

C114 "They (Common Eider) come up here (to Cambridge Bay) but not in the numbers as they do at Bathurst."

C207 "Common eiders are mostly down at the inlet."

C117 "At Hakvaktok … Eiders."

C114 "Eider ducks, lots of Eider Ducks. These two islands, there's really lots of Eider Ducks." (On groups of islands in Melville Sound and Malighiovik).

C115 "Eiders are always at Bay Chimo now. Kingaliks (King Eiders) are at that island now."

C114 "These ones (Speckled Eider). Two days ago I saw that. I didn't know what it was."

Geese

C114 "In the channel, where my brother hunts geese, right in the channel. This river we do lots of goose hunting." C114 mapped (Kikaktok) flowing out of Walker Bay and noted that Eiders were found there too.

C115 "On the islands we always see geese, seagulls." C115 mapped hunting three areas on Red Islands and Kikiktayoak (Fishers Island) and Amitok. These areas were also used for waterfowl nesting and egg harvesting.

Loons and Ducks

C51 "Being a river system (Hannigayok), all ducks will be on here, oldsquaws and mergansers, all ducks."

C110 "Loons and oldsquaw ducks have their nests on freshwater, ponds and small lakes."

C207 "The Common Loon, is not too common. You get some, but not many. The red-throated loon, they stay in small lakes and ponds. Common eider mostly down at the inlet."

C114 "They nest right on the shorelines. Because they can't walk very well. They just waddle in and out of the nest."

C207 "We also get scoters (white-winged scoters). Also just last year, the year before we've seen shovelers."

C114 "Last five years we've started to see them (shovelers) more and more often."

C115 "This (Bay Chimo) is where you always see tingmiaks (ducks)."

Mergansers

C114 "The most common thing that we see there (Bathurst Inlet) are a lot of mergansers, but we don't know where they nest. They must nest on the shorelines. And these ones (yellow-billed loons).

The mergansers are all along here (western shore of south Bathurst Inlet). All along the coast, you can see them all there, once you enter this part, you can see all the mergansers, all the way down the coast."

C207 "They're all down the inlet, scattered."

Shorebirds

C114 "Yes, lots (of plovers and shovelers). But now we are getting curlews (long-billed curlews)."

C207 "Also sandpipers, greater and lesser-yellowlegs."

Gulls and Jaegers

C51 "(Geese nest) mostly on the islands. Seagulls, they can make nests just about anywhere, even on cliffs along the ocean. Where there are a lot of cliffs the seagulls tend to make their nests, around cliffs more, all over the ocean. On the mainland, seagulls make nests on small rocky islands."

C115 "There always lots of seagulls on the little islands."

C207 "The Glaucous Gull is really greedy."

C114 "It eats caribou lungs, it always follows them."

10.4. Egg Harvesting and Nesting Sites

Many areas were mapped for nesting and egg harvesting (Figure 11).

C111 "Every summer when I was a young girl I used to go out egg hunting, egg hunting every June. Every June the birds lay their eggs. Never miss, every June there is the first egg."

C110 "The nesting sites for geese, where they their eggs, is on the cliffs too."

C51 "Goose eggs, all that area. All of Bathurst, pretty well anywhere, any swampy area. Geese like to feed in these swampy areas. Even though this area here is really, really rugged, their migration for most birds is on coastal areas, around Bathurst area normally."

C110 "Geese, Eider Ducks (are best for eating)."

C51 "A lot of folks like loons once in a while for a different taste."

C111 "Naoyak (Parry Bay), we would travel all down in here. This whole area is a geese area. This whole area is used by geese in springtime. It's a nesting area also, habitat.

All this area."

C110 "Even Arctic Terns, they nest on small islands on the ocean."

C20a "Inuit would have the ihungaks, the Jaegers, they would eat their eggs. The black jaegers (Parasitic Jaeger), they would eat their eggs. Even the little Ptarmigan eggs, and the chicks. They would eat the Ptarmigan eggs as well as the Jaeger eggs."

C114 "Seagull Island (Ekalolialok (Ekalulia Island)). It's called Breakfast Island. Breakfast and lunch!"

Gull Eggs

C110 "Seagull eggs were good long ago but not now. Seagull eggs are contaminated now."

C51 "Because of the dumps. There are more dumps now."

C114 "They (gull eggs) taste different now. Too much garbage maybe."

C20b "There aren't much contaminants along our area (Kingaok). But more so where people are active such as in communities."

10.5. Owls

C51 "Owls are more night predators. I think you have population changes due to mice populations. Owls tend to be (tied to) mice. We've even seen life cycles in lemming populations. The lemming population shoots right up, the more owls you see, and the more foxes into the area. When you see lots of owls, right away you can tell just from looking at that, you see more lemming populations."

C207 "Snowy Owls, in winter they are common."

C110 "This is Snowy Owl country, especially in wintertime."

C51 "Short-eared Owls are more common. But we see barn owls too. But they seldom come out in the day time. When it starts to get dark you start to see them."

C51 "Barn Owls. All over. Every summer we see them."

10.6. Raptors

C51 "Mostly on cliffs, on rugged cliffs, lots of cliffs, lots of raptors in this area."

C110 "All around here (Bathurst Inlet), there are lots of raptors."

C51 "Falcons, Gyrfalcons, Rough-legged Hawks (stay in winter). Eagles are more seasonal, migratory birds. Eagles tend to come up only in spring, when it's warmer. In the fall, just like geese, they head back south.

C207 "We started to get those (Bald Eagle) last spring."

C114 "We've had them at Ellice River for ten or fifteen years."

C207 "They've just started to get common."

C207 "White hawk, Gyrfalcon stays all winter."

10.7. Ptarmigan

C110 "This whole area (Bathurst Inlet) again is Ptarmigan country. Ptarmigan are found in the bushy areas."

C51 "Baby birch. You see Ptarmigan where there is baby birch. Everywhere, wherever there are shrubs. More so in rivers and streams where there are lots of shrubs."

11. EKALOK (FISH) AND FISHING AREAS

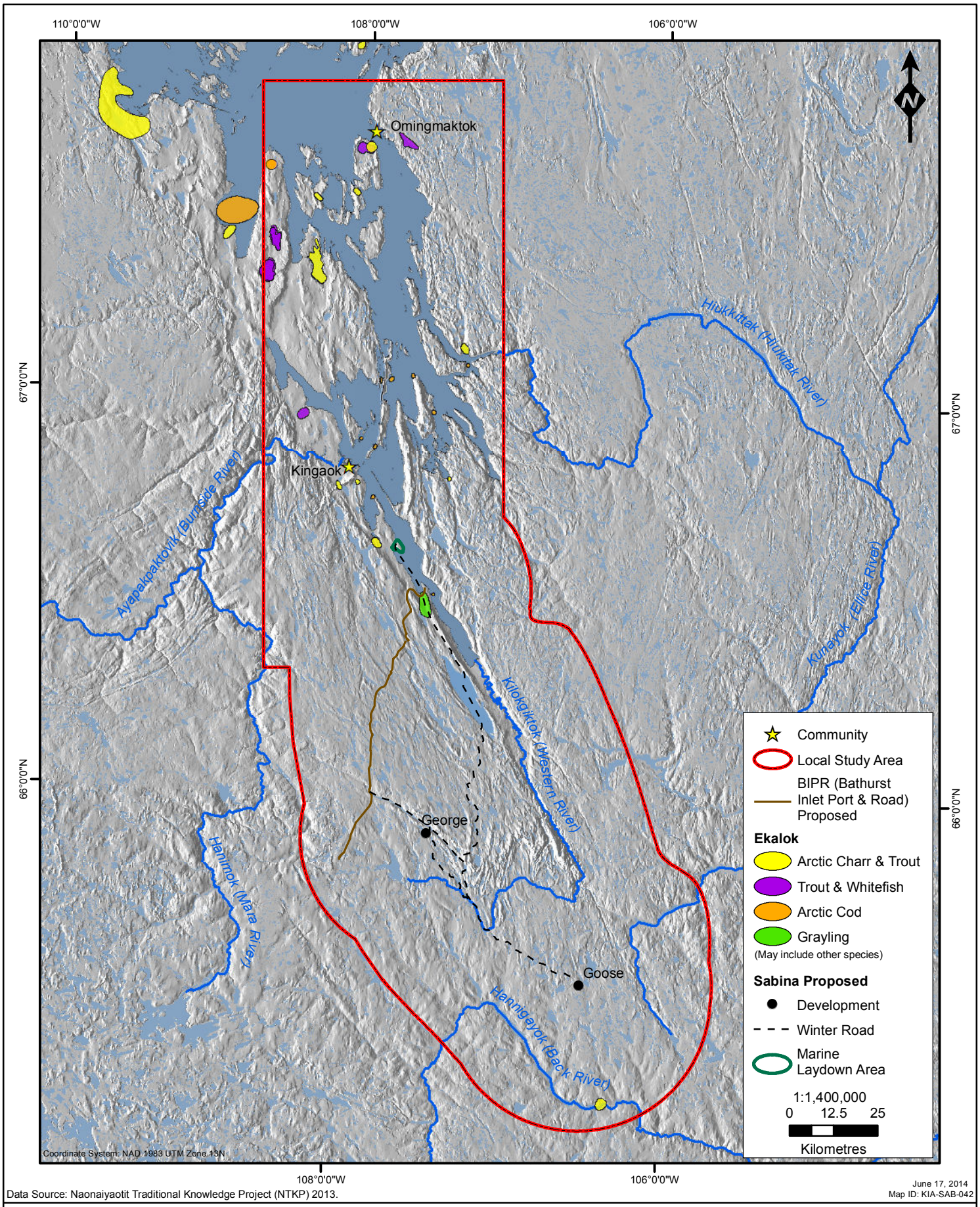
In general Kitikmiut fished wherever they were on the land, in conjunction with their other harvesting activities. Fish were especially important when tuktuit were unavailable, and to feed the dogteams during winter trapping.

Inuit fished the ocean adjacent to the mainland and island coastlines, and at the mouths of major rivers. All lakes and rivers feeding into Kiligiktokmik were important for fishing. Many of the rivers had ancient stone weirs. In particular, the mouth of Hiukkittak was well used for fishing and had long-term occupation by Kitikmiut. Lakes near Kingaok, especially Tagionuak, were important fishing areas. Aniakhiokvik (Fishing Lake) was the local fishing spot. Further south, Tahikafalok (Bathurst Lake), Hikinikgogiak (Kenyon Lake) and Hanningayuk (Beechey Lake) were important fishing lakes.

Ekalukpik (Arctic charr) were the main fish species for Ocean Inuit and Kiligiktokmiut. Ekalukpik and hiugyuktok (tomcod) were the two main ocean fish. Other ocean fish included sculpins, smelt, flounders (called turbot), wolf eel, crabs, oysters and starfish. Nunamiut fished for over-wintering and land-locked charr, but the main lake and river fish were ehok (lake trout), anakheek (broad whitefish), kapihillik (arctic cisco) and hulukpaugan (grayling).

The majority of rivers which flowed to the ocean were charr rivers. In the study area the most important charr rivers were Hiukkittak, Hannigayok (Back River) Ayapakpaktokvik (Burnside River) and Hanimok (Mara River). Many, if not all, of the lakes connecting to the ocean had over-wintering charr including Tahikafalok (Bathurst Lake), Ekalolialok, Charr Lake and Fishing Lake.

Although the location of important fishing places was well documented, the occurrence and distribution of the different fish species was a major data gap in the NTKP. Consultants mapped major fishing areas (Figure 12), but indicated that fishing occurred everywhere. As in the NTKP Regional database, charr was said to occur in all of the river systems and anywhere in Bathurst Inlet was important for fishing charr. Charr and trout were often mapped together.



Data Source: Naonaiyaotit Traditional Knowledge Project (NTKP) 2013.

June 17, 2014
Map ID: KIA-SAB-042

Figure 12. Important Areas for Ekalok (Fish) and Inuit Fishing Places in the Hannigayok Study Area

Map produced by Spicker GIS Services (www.spickergis.com)

11.1. Lakes and Rivers

C110 "Some of these big lakes you could go charr fishing by jigging."

C51 "You could wait around for lake trout. Anywhere there is an outlet on the lake, where the ice is thin … That's where people go fish. These areas you don't have to chop through two or three feet of ice. Most year-round these rivers, any outlet on the lake, or inlet, you find fish, charr, year-round."

C111 "Some parts are really narrow, in the creeks, but there is fish there. Some parts can be really skinny narrow little creeks, when the charr, the big charr are going up, and you can just grab them." C111 is talking about a fishing place, a small stream between the large Goulburn Lake and a tiny lake to the north.

Hanningayuk (Beechey Lake)

Interviewer *"Are there any areas that were more preferred for fishing by Inuit?"*

C111 "Hanningayuk area (was preferred for fishing)."

C51 "I'm not exactly sure where, but our elders, they talk about Hanningayuk (Beechey Lake) area too. Long ago before fishing nets ever came out, there used to be stone weirs there, along these rivers too…

When you start to think about the fishing season, when it's time to make dry meat or whatever in the fall time, they start to be more in the rivers, in the rapids. Not in the middle of the lake, when it starts to get cooler, in the springtime too, they stay near the rapids."

Tahikafalok (Bathurst Lake)

C111 "Right around Bathurst Lake."

C51 "(There are) stories about Bathurst Lake and surrounding areas. It's not a great big humongous lake by any means, but still its a large lake. Because it's very deep our elders have said there are fish there that could actually eat caribou.

They talk about ekalakpauk, very large fish. Ekalakpauk are giant fish. They are (not trout), they are something else. I always think about, what always comes to mind is a freshwater shark or something like that."

C111 "What I've heard is when they saw a wave coming; these lakes don't have very big waves all the time, but when they saw a huge wave coming they would run inland because they knew there was a big fish that was making that make wave. So they would go inland."

C51 "It's the same way those killer whales go after the seals, they come right up on the shore."

Ehok (Lake Trout) and Ekalok (Charr)

C110 "Ehok, they go to the ocean but mostly they stay by the river mouth or stream. In the ocean they mostly stick around the river mouth. In the study area there will be lots of charr."

C51 "(There are lots of charr) in the main part of the river systems. In Hannigayok it will be all lake trout. Any lake, any little pond there too, you wouldn't think that there would be ehok there too, but depending on how deep they are, there's always ehok in there. It could be a small little lake. You'd never think there would be fish in there but ehok are common in those areas too."

C111 "Those are big rivers. You will have lots there."

C51 "Lots and lots of lake trout."

C111 "In that area (Banks Peninsula), when the charr start going up in fall time, there will be lots of charr there too."

Kapihillik (Arctic Cisco), Anakheek (Broad Whitefish) and Hulukpaugan (Grayling)

C111 "Anywhere. There are lots and lots (of arctic cisco)."

C110 "There will be whitefish there. In summertime they will be at the coast. Then they will go back to the lakes and the river systems… (In the ocean) they mostly will stick around the coasts."

C51 "Around the shorelines. They are seldom seen out in the ocean."

C110 "You would find whitefish anywhere along here (anywhere along the coast of Bathurst Inlet)."

C51 "Little streams too."

C110 "All these little streams and rivers that drain into the lakes. There is more concentration in some parts of the lakes."

C51 "The larger lake whitefish, you can find them just about anywhere you find lake trout, in rivers, where there are fresh water rivers. Kogluk (meaning fast rapids) has lots and lots of anakheek (broad whitefish), especially at the mouth of the rivers. Every river has kogluks. So if you fish any river with rapids, you will likely catch anakheek and kapihillik (arctic cisco)."

C51 "They are just about anywhere you find lake trout, ehok, or anakheek, anywhere you find those, you also find lots and lots of whitefish in the lakes. In areas, these fish, for some reason, I don't know why that is, they stick to areas where there is less copper in the lakes.

For some reason, even though there's lots of copper around that area, there are lots and lots of whitefish here for some reason. But once you get further up on the mainland, like around High Lake area, where there is lots of copper content in the

lakes… You find some lakes on the sides of the hills, on the shoreline with steep cliffs, you can see this copper coming down into those lakes.

People don't find those whitefish around there. And for some reason over here there are a lot less whitefish on the west side because of the copper content. That's what I've noticed where I go fishing. For some reason, always fish that are not predatory fish, they don't breed in those copper areas.

And grayling, yes. If there is copper content in those lakes, there will be no lake whitefish or grayling. There are none of those where there is lots of copper content in the water."

C51 "All these streams here are considered grayling areas. Where it's further west you go you won't find whitefish or grayling. Closer to the ocean more, but further inland you go, you start to get more and more copper fields."

Tiktalik (Burbot)

C110 "They (burbot) stay in freshwater systems."

C111 "First time I caught it, a really big one, I was really young. I told my dad I caught a really, really ugly fish."

C51 "Anywhere on the land of I've caught them. We have caught many of them in Contwoyto, Pellatt Lake… People do eat them but I consider them looking more like cod to me so I don't eat them. I'm allergic to cod. I can eat just about everything else alright but for some reason, cod, and everything that eats cod, I have an allergic reaction to, such as seals or polar bears."

C13 "First time my wife see tiktalik, she asked 'what kind of fish is this?" It's a really good fish but it looks funny. They're good, they're really good, that tiktalik."

C110 "They are something like barracuda but they're small. They are silver."

11.2. Ocean

C110 "(Inuit mostly fish) inlets and bays. Sometimes we go out on the open ocean, deep water, too."

C51 "You go out into the ocean to catch cod. Deep, deep water. They live right on the bottom of the ocean, more of bottom feeding fish. They are seldom seen on top, not like charr. Charr always goes on top, it will be up on top, feed up on top (of the water)."

C110 "They are all over this whole area, all of Bathurst Inlet. Kanayuk (sculpins), and natanik, turbot, flounders, they are all over. And eels, also eels. There are all types of ocean species, but we don't know what they all are."

Arctic and Saffron Cod

C110 "You pretty well find cod anywhere. There are two types of cod here (arctic cod, saffron cod)… Yes, they are all over the inlet (Bathurst Inlet)…. They are all good eating."

C111 "I think there are more of that (indicating saffron cod) but most of the time the really big ones stay in the deep part."

C110 "What we have noticed is that they are mostly the same (in abundance). This one (saffron cod) is found mostly in the inlets and bays, in more shallow waters… And this one (arctic cod) is in deeper waters"

C51 "They (saffron cod) don't grow as large as arctic cod."

C111 "Those things (arctic cod) can grow really, really large…"

C51 "Extra extra large."

C111 "I remember catching one in the really deep part. And they said you're going to get tired trying to take that fish out. (I was fishing) by jigging… where it was really deep."

Capelin

C110 "Capelin… These are ocean fish. They are always in the ocean. Summertime they come to shore to lay their eggs. Millions and millions of eggs on the shoreline. They have to have a certain type of place to lay their eggs, mostly sandy beaches. But sometimes they find rocky parts to lay their eggs."

C51 "What we've noticed is that they come out only at certain times of the year. I don't know what it is, maybe the moon or something. Just like crabs, a certain time of the year, a certain night, or certain temperatures or something that triggers."

C110 "These always stay in the ocean, deep ocean. They only come to the shallows to lay their eggs."

C111 "There are lots in the middle of July."

C111 "Maybe twice. Early July, and then again a couple of weeks later. Then they come back."

C51 "Special conditions, full moon or something. When it gets really windy there are really lots. (Inuit get them) with a scoop, they scoop them out"

C13 "Sometimes there are really lots"

C110 "What they use them for, mostly long ago, was for dog food. They would dry them all and there would be really, really lots."

C51 "Really rich, lots and lots of oil."

C110 "And they would last through the winter for the dogs."

C111 "People eat them too."

C13 "They are really good. Like potato chips! Laughter! Really really lots. If I could see them in the water I would walk around and just go like this (demonstrates scooping capelin)."

C111 "At least they last a few days."

Rainbow Smelt and Etok (Herring)

C13 "… The shiny little fish are called rainbow smelt. They are different from the capelin, really shiny though."

C51 "They are a little bit smaller than the capelin."

C110 "Herring are different. They are bigger. There are herring in here too. Herring, etok. They are all over this ocean too. They tend to stay out in the ocean. They don't come ashore, they are mostly in the deep ocean."

Eels

C110 "We don't know what kind they are, just that they're eels. Not for me (I don't eat them). Inuit must eat them (sometimes)."

C111 "I've seen all kinds of fancy eels. They're just like snakes. They're not really deep because you can see them all over. Eels, colourful eels.

Wolffish

C51 "Wolfish, lots of wolffish around those areas too (All Bathurst Inlet). They become very, very large."

C110 "Some of them are huge (demonstrating)."

C111 "The one we saw was very huge, right on the cliff in the deep ocean. They curl up and sleep on the cliffs."

C51 "Looks just like a rock, when they curl up. Wolffish will eat just about anything. You can't kill a wolffish by bonking it over the head. You kill them by the tail. You bonk the tail. Something to do with the spinal cord."

C110 "You can't kill it like that because the head is too dense. Too thick."

C111 "They say they taste like ugyuk. The skin is smelly."

C51 "They do eat them long ago too. They were considered food."

C110 "Wolfish, the really smelly part is the skin."

C113 "They have incredible jaw strength. They don't attack anything. I see them all the time when I go diving."

C121 "The wolfish, they would use the skin for bow and arrow case. Really tough skin….

Thick skin, strong tasting."

C117 "Just like alligator skin."

C121 "When you are ice-fishing, and when you catch them, the wolfish, you have to pull really quickly because they, being really still, it's like they're resting so you have to pull them out really quickly."

Sculpins

C110 "They tend to stay in the deeper ocean. And there are other species like the sculpins."

C51 "There are lots of sculpins in lakes too."

Pacific Salmon

C110 "We've seen a few of those Pacific salmon coming up in this region, especially around Gordon Bay area."

C111 "Because it's warmer down there. They must be coming because it's so warm down there. It's colder up here."

C110 "They have a really different taste, hard to digest, or eat."

New and Unknown Species

C114 "We have sharks coming in."

C113 "We had two sightings, last week. They weren't very big, dark grey… I've seen one of those (blue shark) when I was diving a few years ago, on an ice diving course…. We saw a shark; it was probably five feet long."

C111 "Even those, just like a baby, the ones with really sharp teeth. We're starting to see lots of those too. They're like kapihillik but they have teeth like piranhas."

C110 "Something like barracuda but they're small. Smaller fish."

C51 "They have teeth, almost like whitefish."

12. ENVIRONMENT

12.1. Plants

12.1.1. Roots

C110 "We are talking about edible roots that we usually eat."

C13 "We can eat edible roots too. The plant indicators are easy to spot.

During the days that food is scarce the edible plants come in handy to eat so that you are not constantly hungry. When you eat some, your stomach is not so empty.

We would gather edible plants while walking on the land. Having edible plants is good when there is hardly any food or game. It sure saves you from going hungry during the days of no game or food."

Mahok (Eskimo Potato; Licorice Root; *Hedysarum alpinum*)

C110 "Talking about plants, especially in springtime, there is mahok. The old people say you mostly find mahok near shorelines. They are underground roots, a lot of people eat them."

C51 "They grow on salty areas too. Near the ocean."

C110 "On top is just like grass or something. Underneath the ground is the main root that we eat."

C111 "I remember my brother-in-law when he used to go collecting mahok. He used to have a big pack sack. They were really fat, fat and juicy."

C110 "You eat it raw. You clean it and eat it raw."

C111 "If you want you can cook it too. Mostly we eat them raw, they are chewy. Softer than carrots."

C51 "Like carrots but sweeter like candy. Just like berries, you keep them in the freezer in the summertime or the fall time."

C111 "When they used to walk lots, and they didn't have any food, any animals, they used to live off of mahok."

C51 "As long as you have something in your tummy, it helps, until you find something. You supplement yourself."

C122 "Even from what I remember, from what my grandmother used to tell us, some of the mahok was good for blood, it keeps the blood healthy. I can't remember which type, but there is a couple of different types you could eat that keep your blood healthy."

C114 "Liquorice root they're called. You take the cover off of the liquorice root, and you clean it."

12.1.2. Berries

C51 "Berries are very, very old fruit. For many, many generations, for elders that's what they used for fruit. They go pick berries."

Interviewer *"Is there any way to preserve berries for wintertime? Or can you only eat them in the summertime?"*

C111 "It depends on how much you pick."

C51 "If they are cool, especially in a cool area. Just like our meat. We preserve our meat underground in the permafrost. Some people put berries in the permafrost and keep them there. It will stay cool for however long."

Interviewer *"Would the plants in Bathurst Inlet ripen later? Because it's colder? Or the same as inland?"*

C51 "It's warmer in Bathurst Inlet. Just like Kugluktuk."

C111 "It's warmer up there then here. Ever since we've moved here (Kugluktuk) I haven't sweated at all."

C51 "You know why that is? It's from the mud. It's really muddy ground. Anywhere there's really muddy ground, just like rivers and streams, tend to get really hot in those places sometimes, like in July."

C110 "The reason why it's colder here (Kugluktuk) than Bathurst is because it's open ocean coming from the West. Bathurst Inlet area is more enclosed. It's way hotter than here."

C114 "There are lots of cloudberries along here, all along this river (river connecting Bathurst Lake and Bathurst Inlet, also along south shore of Bathurst Inlet). Lots of blueberries in here. All along the river are cloudberries, really lots. And blueberries here."

Aaukpik (Cloudberries)

C51 "If we are going to talk about berries we should talk about cloudberries, yummy cloudberries… (Cloudberries are found) anywhere, just like Beechey Lake, near rivers, areas that are kind of swampy, wetlands. The ground has to be moist all the time for aaukpik to grow. These aaukpik mostly live off of rainwater, not from the lakes or anything like that. Some of them are in swampy areas. The growth is really shallow and the permafrost may only be six or seven inches below the top."

C110 "Aaukpik tend to grow in wet sedge areas, small ponds and bigger ponds. And on mossy ground."

C51 "All of August is generally good aaukpik season. But mostly the third week of August. In some places the plants come up later in the summer, when it's colder out."

C111 "(They last) only about a couple of weeks. Almost two weeks, more than a week. Depends on how the weather is."

C51 "They don't last very long. You try and pick as many as you can to last you for how many weeks or days. They don't last very long, they go stale very fast."

Blueberries

C110 "A lot of blueberries grow in drier areas, compared to aaukpik."

C51 "On eskers. Mostly on eskers, on the sides of the eskers. Anywhere on top of the eskers too."

C110 "On the sides of the hills. Mostly (where the soil is) well-drained."

C111 "Blackberries take longer to ripen, blueberries and aaukpik are shorter."

Paongak (Crowberries or Blackberries)

C111 "Right now they (blackberries) are just starting to get ripe. And they will last till fall time. They get juicier."

C110 "In fall time you get lots of blackberries. Aaukpik grow by the lake sides."

C51 "They grow everywhere. You can get blackberries right in between boulder fields."

Cranberries and Bearberries

Interviewer *"Do people pick cranberries too? Or do you just eat them when you're out there?"*

C111 "Yes, we pick all kinds of berries."

C110 "All kinds of berries are picked. Crowberries (paongak) too. These are bigger than blackberries. (They are like) tomatoes. They're softer just like tomatoes."

C51 "Just like a soft tomato. They are just like tomatoes."

The consultants confirmed they were talking about bearberries.

12.1.3. Other Plants

Consultants also talked about eating mountain sorrel and beach peas. Information from other community members indicate that although beach peas were highly desired and much used in the past, they are no longer as abundant and not as easily found (L. Torretti, pers. comm.). Given the apparent importance of beach peas, Traditional Knowledge regarding this plant may warrant further investigation.

Mountain Sorrel (*Osyria dygna*)

Interviewer *"What do people eat? The leaves, the flowers, or both?"*

C111 "The leaves…."

Beach Peas

C111 "There even are peas (beach peas). There are so many peas in the Arctic Sound area. I usually go and get big round peas. They're like banana-shaped, green. There are lots of peas in that area…. There are all kinds. There are those that are really big. They are really good. We used to pick lots. Fresh peas."

C51 "Wild peas. They are found on the spongy, dry areas, close to lakeshores usually where the soils are a little salty."

12.1.4. Plants for Fire and Cooking

C51 "We are talking about smoke, how we smoke meat, and the difference between smoked meats from different plants. Sometimes we prefer different plants, one plant to another. Some people really like that heather."

C110 "We are talking about wood that are used for cooking purposes."

C13 "They would use heather (white arctic heather), twigs and the blackberry plants. The twigs that are close by the ocean have a very strong smell for me. On the mainland there are hardly any twigs.

There are two different types of wood. The one that is near the coast has a different smell to it. But when you go further inland away from the coast it smells different. That's the one that we use."

C110 "That's what they use for burning, or for cooking, heather or willows. And bearberry plants. They use those for fires too."

White Arctic Heather (*Cassiope tetragona*)

C51 "All these plants do have really oily content and then that eghot, that heather, gives off the most oil. Heather is very good for smoking your meat also, because of the oily content. It puts a glaze on the meat."

C110 "I don't think we see them here (Kugluktuk)."

C111 "It's too cold here."

C51 "There are some all right."

C110 "But not much over here right? We've got lots back home, Bathurst Inlet area."

C111 "Not right around Bay Chimo, but there are lots around Bathurst Inlet where it's hotter."

C110 "Hiukkittak area."

C111 "They even use that for mosquito coil."

C51 "Mosquito coil yes. Makes an oily glaze in your clothing. Somehow the mosquitoes don't like it. (It burns a long time) and hot, too, because of the oily content."

Avalakiak (Willows) and Birch

C51 "Baby birch some people call them baby birch or dwarf birch. Those are the main (types of wood) used for cooking."

C111 "Any kind (of wood) they would use for cooking."

C110 "The best ones were dry wood, and dead wood. Dead wood on the land. Dead wood all over the place, wherever grew big bushes… They would use mostly lots of

willows."

C51 "Baby birch are everywhere. Ladies collected them all day. Sometimes they had enough for a couple of days or maybe just half a day, depending on how much they use their kihuk (hearth, fire)."

C110 "They would use mostly lots of willows."

C51 "Willows, they had to dry them for little bit, willows being more dense than baby birch. Willows take a little longer to dry but they were still used."

C111 "They still burn them. They last longer than the dry wood. They pretty well used them all winter."

Moss and Green Alder

C51 "Sometimes they use moss too (for smoking meat). We dry that yellow, really yellow moss. We dry it up; it can get really hot too. You get lots in really swampy areas. It's almost like peat moss, but peat moss is more dense. What I am talking about is just like a sponge plant."

C110 "What I was talking about was green alder. There's lots of it around Bathurst Inlet. (it's called) avalakiak."

Coal / Oil

C51 "Kerosene came later. When I was just a little boy, growing up in Pellatt Lake, we didn't have any fuel oil or anything except for that really, really black oil that they scoop from a scoop and put it in the fire. It's like thick grease oil. They scoop it and put it in the fire in a scoop. They burn that.

It's hot, hot. Almost like coal. Really, really black oil, must be coal… It came in barrels, great big heavy barrels."

12.1.5. Plants as Medicine

Paongak (Crowberries)

C13 "I have to get some paongak. It's itchy. I got to put ointment on it. I gotta put paongak on it. Oinment. My grandma used to do that. When it gets itchy. Little bit of water coming out, pus, put poaganak, get really purple… when it gets itchy, little bit of water coming out, little bit of yellow. Put paongak on it. Start getting better after a few days." (Use of paongak as an ointment to treat infections).

C51 "It's like a wash, a rinse…. Just like hydrogen peroxide."

C122 "Like iodine. To clean wounds."

Puffball Mushrooms

C13 "When you get that stuff, it's just like cocoa. You have to use it for sores, just like

ointment."

C51 "Some people use oil, seal oil (to mix it with). Down along on the coast they use seal oil. Inland they use either bear or caribou fat for mixing before they applied it."

C13 "My grandmother would use the puff balls on my eye when I have an eye cold. My eye lids would be shut from the mucous so my grandmother would put some on. After some time my eye would open. They are good to use for that as they are damp." (Use of dried puffballs as medication for infected eyes).

C13 "You make it damp a little bit."

C51 "You dampen it a little bit and rub it on the eye and just leave it there and the eye will open."

C13 "When I was a boy, my eye was not too good. When I was sleeping the eyelids got really stuck together, there was yellow stuff, white stuff. And my grandma put that stuff on it. When you go get it, it looks just like cocoa powder."

Labrador Tea

C122 "Labrador tea. We used to pick that for making tea. But you have to be careful not to drink too much because it makes you sick."

C51 "Like medicine"

C111 "Like green tea!"

C122 "And it grows everywhere."

C51 "There are two kinds (of Labrador tea). But I never really noticed a difference between the short ones and the tall ones."

C114 "They used it in the tent, to get rid of headaches. Like aromatherapy. When they had headaches that's what they used."

White Arctic Heather (*Cassiope tetragona*)

C51 "The smoke from the plants that we use for cooking (eghot) also helps to heal our eyes. Somehow it's like a wash or rinse from the smoke."

C13 "Sometimes grandma put me on that smoke, big smoke. Open my eyes. It's all better. Oh, I could see better now. My eyes really clear."

12.2. Water Sources and Quality

Potable water was a major concern for Inuit, even before mineral development activities. Good water was not always readily available on the land, and sometimes took a lot of effort to obtain. Generally consultants did not map places where they obtained water as they said they found water everywhere.

When they were at their camps, Inuit had traditional places where they obtained water. Fresh

and clean water was more difficult to find on the coast than inland. Most lakes and rivers were used as water sources. When traveling, they obtained potable water from wherever they found it.

Inuit living along the coast of the Arctic Ocean and Kiligiktokmik (Bathurst Inlet) had to find sources of fresh water. The lakes adjacent to the coast were not good for drinking water because underground seepage from the ocean made them saline. The water inland was better for drinking than water on the coast.

Inuit had seen many changes in water quality over the past few decades. These included shallower lakes and shallower rivers that drained to the ocean, reductions in river flow, smaller fish spawning runs, and the Arctic Ocean took longer to freeze.

12.2.1. Water Sources

C51 "No matter where you go, that piece of ground, because of the salts or sand content, (the land) is going to be different than another piece of ground. So, sometimes the water tastes different from area to area."

C110 "Water quality, they've been using all these lakes everywhere we travel. I don't think there's too much concern about water quality but there are certain areas that you have to be careful about. Some areas may contain more sulfur than other sites."

C121 "They (mining companies) have to be cautious of those freshwater areas. Because wherever there is fresh water, that's what the elders used to use. That is what people used to use years ago, wherever there is fresh water along that route (the proposed winter road from Contwoyto Lake to Goose and George properties)."

C113 "When we go get our drinking water in the spring from the rivers that flow, we don't use that water because there is a lot of land (silt) in it. So we go to bigger water bodies where the flow is not as fast. And once the ice is all gone, the river water is much better."

12.2.2. Changes in Water on the Land

Consultants noted changes in ground water and a reduction in freshwater springs.

C13 "In my younger days, people used to walk so much… There used to be springs coming out of the ground, water percolating out. Now there is hardly any more water on the ground in the countryside anymore. They're all drying up. It's harder to find them today."

C51 "A lot of times where you find these fountains, it's more or less around esker areas, sandy areas. What these eskers are made up of is just a wash from rivers, glacial ice age. It's just like silt that is gathered in one spot and made these eskers. While making these eskers, these eskers will be right on top of the permafrost or that glacial ice which is receding. Long before the Ice Age had gone, the eskers, a lot of the sand that covered these areas, that sand is over the ice.

Keeping it frozen. That's where we find a lot of these. Pressure, a lot of pressure… Super, super cold. You can't drink it fast you have to drink it by sips. You can't take big humongous gulps otherwise you freeze your throat. You freeze yourself."

C13 "When we used to walk around south of here, there used to be lots of natural spring water everywhere. These are not as visible anymore as the land seems to be getting dry every year. We used to drink out of these natural springs and they were really cold. They are drying up and are not seen around anymore.

A lot of this permafrost is receding very fast, that's what we've been noticing. A lot of areas where the permafrost, sometimes when you have pressure, that pressure leaks on the permafrost and the water shoots up and you have these natural fountains. You don't see very many of those very often now due to climate change nowadays. The water has really changed over the last few years already."

C51 "I can see some differences from the 1940s and 1950s until now. There has been a very big difference because of climate change already from the 1940s right up until now. It's because permafrost is receding very fast and the permafrost is melting. Permafrost is coming up to the surface in some places. Water coming out of the permafrost can be very good all right but the old folks always say you have to be very careful about what you drink. Even though you find fountains like this you can't drink the water because it's coming out of the ground. You really don't know what's coming up from under the ground.

It's the same all over Nunavut. Especially in the north now, the climate is changing really, really fast. A lot of times what we're noticing, even on the land itself, the permafrost is receding very fast. In some areas you have big drops on the ground, sinkholes, just like a sinkhole, a lot of sinkholes on the ground now. A lot of movement on the ground because the permafrost under the ground is receding faster than normal now."

12.2.3. Changes in River and Ocean Levels

In their lifetimes, the consultants noticed decreased water levels both in fresh water and in the ocean. This was attributed both to climate changes and in some cases to the land rising. There were concerns about the effect of dropping water levels in rivers on charr trying to return to their spawning grounds.

C111 "We are talking about water. We went home to Bay Chimo which is our homeland a few weeks ago and we noticed the water level was way down. We were in this area for a long time and we noticed the water level was pretty low."

C207 "Now the Burnside River is open all year."

C110 "We went back home over a week ago for about a week. We went to Arctic Sound, Katimanak, where my wife was born. We noticed that anywhere we go boating you

have to be careful where you go because the water levels were so low. In the past where we used to go boating fast, and anywhere you want to go, you can't anymore because it's shallow all over the place now. So saying that I think Sabina, at that laydown area, for shipping, I think they should check the whole inlet again for how deep the water is. Because some of those deep spots where they propose to ship by might have gone lower, so it would be shallower now.

There will be a lot of spots there that were very deep before won't be as deep now. They probably have to check the whole route again, to make sure it's safe to do so, to shipping in there."

C111 "Not only the rivers. Everywhere is really changed. Since we know, we have been here (in Kugluktuk) now for 17, 18 years. When we travel home (Omingmaktok and Bathurst Inlet area), every area that we went through, there is about … that much missing, the water level had dropped. The water level was higher. You could see where … the lines, the lines where the water level has dropped over the years. It's not only in the rivers, but the whole ocean. That's how much water has been gone since 17 years have passed."

C110 "It has very changed. A lot of people have noticed the water. The scientists are saying that the water will be rising due to ice melting. But what we are seeing at this stage in time we're noticing that the water levels are going down, even in the big ocean. We are home about over a week ago, for a week. There's one little island, way back when we're still living in Bay Chimo, Omingmaktok, we always used to go boating by it, in between the point and the little island. The island was about this big when it was showing, as big as this table (the boardroom table), now that island is as big as the whole building itself."

C111 "You can see that the island used to be under water but now you can see the whole island."

C110 "I think it's probably due too to land rising also. That could be happening."

C110 "We've noticed over the years in Bathurst Inlet area it's been dry, really dry, over all those years."

C114 "The rivers around that area, they seem to be dryer faster. Normally when they run through springtime, they level off but they will stay at that level. What we have noticed is that when we travel around that area, the rivers are a lot lower than what they are supposed to be. So we don't know if the charr are getting up the rivers or not. Because some of those rivers have dried out.

(This is in the Bathurst Inlet area). The ones that we noticed the most were Gordon Bay River, Kokiviayok. They seem to be drying out more every year as we go down there when we do our traveling. Every year they are drying up a little bit more. We don't

know if the charr are going up, if the river decreases as it rains (in springtime). But the amount that we are seeing at that time when we are travelling (summer), they are really, really low. So we have concerns whether the charr are going up those rivers when they are supposed to go, or they are not."

12.2.4. Flood and Drought

Consultants noted one particular bad flood that had happened five or six years ago. However, in general water levels were lower due to less snow and rain. Floods would occur during spring break up, because the ice was melting faster however during the rest of the year there could be drought like conditions.

C207 "Some years you get a lot of snow, lots of water. Five or six years ago, during breakup the water was 10, 15 feet higher, probably due to our snow to the south. During breakup, around Bathurst, it was probably 10 to 15 feet higher. The water was higher. I guess it was like that all over. It took some cabins, moved some cabins that were in lower spots.

But this was just one time that I noticed that in my lifetime. This summertime, the water level was quite low than in other years. Just that one time, the water level was that high."

C114 "The flood that they were talking about, that happened all over, due to more snow and more rain during the fall. In some years, there's hardly any snow. Like last year, there was hardly any snow. And the ice is melting a lot faster now too. Both ocean and freshwater."

C113 "Definitely we have more water, with all the rain that we have been having. For this area anyways (Cambridge Bay)."

C115 "It happened like that too at Bay Chimo. I think it was a couple of years ago, or last year. We noticed right outside our house there was lots of water. And sometimes we notice our rivers getting low on water. Bay Chimo is a very damp place, I noticed that because I have been there for so many years. Today, it seems like it's getting lower, like it's getting dry. Because it's always wet in Bay Chimo. One time we noticed there was lots of water right outside our house. And it never happened before."

12.2.5. Tea Water

Interviewer *"Where is the best water for making tea, when you are on the land?"*

C114 "River water. As long as it doesn't have a fish taste."

C117 "Even snow water. Mostly the snow."

C122 "Even as a hunter in Kugluktuk, I noticed in some places where you make tea, from some lakes, I noticed there is a brown film that stays around the cup. We're

starting to see that more."

C114 "We see that a lot at Bernard Harbour."

C122 "When I was a little boy, I never used to see that. It's changing fast. And the snow."

C113 "That's a way to test the water too. When you make a cup of tea, and you see that brown ring around the outside of the cup (the water isn't good)."

12.3. Ice

Major changes in both lake and ocean ice had been documented, not only in increased melting time, but also in decreased ice quality and thus safety for people.

C51 "Lake and ocean ice are not the same. The lake has really brittle ice. You have to wait until its four or five inches to be really comfortable to be walking on fresh water ice. But for ocean water, it can be no more than two inches. It's denser. And it's spongy, just like a sponge. The salt content makes it just like a fibrous water, the salt content. There is no fibre in lake water."

C13 "I used to go onto the lakes in fall time, when it's easy to break. When I started staying in Kugluktuk, the ice was different. When you go hunting, you see open water. When you are walking on ice, the ice moves, different from the lakes. Easy to break on the lakes, not like the ocean."

C51 "It's the same around here too. Especially the last two years. How many years ago was it, there was open water right into December. Just down here (Kugluktuk)."

C13 "If you have to walk on new ice, you have to carry a harpoon to test the ice."

C51 "One to two chops, or three chops, that means it's safe. If it goes through, it's not very safe. That's how you test the ice when you want to go out fishing in the fall time or carrying water, making water hole.

What we are seeing in the snow, from our travels, it's not the same snow as 40 or 50 years ago. And what we're seeing is the same thing with ice conditions, it's not the same as 50 years ago, because of the content of the snow and the water."

C111 "The ice is thinner than many years ago. Both in lakes and the ocean".

C110 "Both, but especially the ocean. It used to take maybe a month for the ice to go away from the area, and now it only takes two days sometimes."

C51 "If they are proposing something like the Tibbitt to Contwoyto Lake (Winter) Road, lakes are a little different again from long ago. Their consistency has to do with the water content and it's different from long ago too. Due to climate change, and the film on top of the lakes, comparing it to maybe 40, 50 years ago. Because there is less snow,

the ice can be a little thicker now too. Due to the less snow that we are getting nowadays all over Nunavut. Just like snow, the ice is subjected to film, the fine film in the air that is all around us now, that is distributed all over Nunavut areas. Just like snow, the ice tends to melt a whole lot faster now. Just like snow, it's not as consistent as it was 40, 50 years ago."

C111 "We used to travel to Cambridge in October, now it's still no ice… When we used to live in Bay Chimo, people used to travel by skidoos and over that river, by skidoo and sleds. But now it's still open water the middle of October and right into the beginning of November."

12.4. Snow and Rain

Less snow meant that travel during the winter was more difficult. Dust and contaminants had affected the quality of snow. The weather was no longer predictable and sometimes it would rain during the winter.

C51 "You can see it in the wintertime. In the wintertime you can see lots, just like soot or sand on the snow, on top of the snow, it's not as white."

C51 "Even in the middle of nowhere. That's what we are finding. We are finding a lot of these snow swirls that collect these finer dusts. These holes where it collects in there, and the dust stays there for the most part of the winter. When the snow melts, you find these as the snow melts. The snow is not pure white anymore. It's more of a brownish colour."

C110 "Over the winter, even here sometimes, you see this really, really fine snow, more like a flour coming down. It's not snow; it's like flour coming down. They're not like snowflakes, it's like dust coming down."

C111 "My husband was showing me when it was really snowing. He grabbed a snowflake and he said look, look, this does not feel right. Like, it's not melting."

C13 "I was talking about trails, the difference between now and earlier years because of climate change (it is more difficult to travel now compared to the past because there is less snow). Back in my early years, I have noticed that it has changed a lot since then. Back then it used to rain lots, and lots of rain and snow. We don't get very much snow nowadays compared to 40 years ago, 50 years ago. It's really changed a whole lot since then. Our snow is really different now; it's a different consistency now."

C51 "It's through all this fine, fine dust that's coming in from the air. It's all these local mines that are making all the stuff, this fine dust that goes for many, many miles before it lands. That's what we found out, our snow is really different from the past now. It's because of this fine dust blowing further away from each mine...

Hundreds and hundreds of kilometers is what we see. What we see in the snow

sometimes, because the air in winter is really, really dry up here, that dust and everything just glides right over the snow and can go for many miles before it even stops again and before it collects on the sides of the hills again.

A lot of our winters, our hunters are complaining lots that there isn't very much snow in our hunting areas."

C110 "That's one reason why our waters are so low. There's hardly any more snow."

C51 "A lot of times, there are drastic changes in weather. Just like in wintertime, January, sometimes you get rain showers. The oddest one that happened was a thunderstorm with snow in the spring, while there was still snow on the ground. It's what we witnessed at Pellatt Lake. In springtime, late April, we always see clouds and everything, and now all of a sudden we start seeing lightning over there. There still was snow on the ground. That's what we have witnessed over the last little while, the last 20, 25 years."

C13 "Long ago there used to be a lot of rain so the rivers were always raging with fast water... Today it isn't like that anymore… The land is so different from long ago. The land seems to be so dry and hardly any water due to very little rain nowadays.

I have also noticed that the snow is very different from long ago. There are too many windy days and the snow blows away before it gets down packed enough to stay.

When I was a young man the snow would slowly fall over time without being windy and therefore the snow would be very deep and make it hard to walk on. Today the snow does not accumulate enough for it to be deep because it is always windy."

C115 "We noticed in Bay Chimo there was less snow last year."

C114 "There is less snow all over."

12.4.1. Making Igloos

C111 "People used to make really good igloos that last all winter long from fall time. They used to be really good. The inside would turn to ice from your kudlik, and it doesn't drip or anything, just turn to ice, and it would be really warm."

C51 "The ice melting on top would flow all along the walls and it doesn't drip down on all your stuff. It doesn't drip on the bed or anything, just on the side."

C111 "I used to see some really shiny igloos inside. People could even go on top. Kids play on top and they wouldn't fall in.

C51 "If you were on a hunting trip or something, or going on a trip, like myself to Bathurst with my dad. Sometimes the storm would be there all the time. It would be very difficult to put up a tent sometimes in this storm. And if you have to build yourself an igloo, something, to shade yourself from the storm. So we just make a quick igloo

for the night. Can be any kind of consistency as long as it can hold itself for the night. Just for overnight. You don't have to do testing, but you still have to find that consistency.

C13 "When I go out, I can't use tent, I make snow house, better."

C51 "The most expensive tents that they make, it won't be as warm as an igloo."

C51 "It's very, very different today. It's not snow anymore. It becomes water but it's a little bit different. There is something left after you rub on it. A film is left behind."

C110 "It's powder. Doesn't even have snowflakes in it, it's just powder. If it's a really good snowflake, it will make water, but not this.

Talking about snow, igloo building snow, the quality is not there anymore. Over the winter you notice that the snow has turned into ice because there is hardly any fresh snow coming down. It turns into ice from all the wind and the age because there is no fresh stuff underneath.

(If you had to make an emergency igloo when travelling today), you probably could but it wouldn't be very strong."

C51 "And the snow has to be very consistent when you build these igloos. If there are two different consistencies in that snow, that igloo is going to fall apart. Once you have two different layers of snow, one is going to fall apart and make the igloo fall apart. When you make an igloo, you have to be very diligent about the snow. That's why we have snow testing, like a big rod or snow knife. A rod is what we use.

(They call these rods for testing the snow) sounders. You can actually feel the consistency in the snow when you are pressing down, two, three different places. Somewhere along the middle you will feel really hard snow, and really, really soft snow. You want snow that is really consistent; otherwise your igloo is going to fall apart. Just like avalanches in mountainous areas. Different consistencies in the snow and you have warmer days, less snow blowing, less wind and you get that crust, just like rime snow, and it slides. An igloo would be the same if it had that consistency, it would keep falling.

Nowadays in wintertime we have longer spells of warm days, really warm days. It puts a glaze on top of the snow and it's becomes very, very hard, hard to travel. We have to adapt. That's what we have to do nowadays. Our generation now compared to the generations before us, our generation is pretty much different. Our snow is different, our wildlife is different."

12.5. Weather

C51 "You can see all over the world too, changes in climate, tornadoes, hurricanes that are happening around the world. The weather is very, very drastic all over the world.

And we're feeling that climate change happening in our part of the world too. We're seeing those changes also in the wildlife. We have noticed the changes in their habits in our areas, where we have grown-up; Kannighokmiut areas and all the areas where we were growing up in our younger years. We have noticed all these changes.

So even though we're doing a good thing by studying the study area, and all the data that we have collected, 20 to 30 years ago. Might be a little different if we conducted another survey of this type, we would see those changes. In some categories anyway, like birds, leaves (vegetation), fish, fish habitat, are changing drastically now because of the air and air quality. I've seen a lot of those changes in the last 20, 30 years already."

12.6. Changes in Animal Health

12.6.1. Fish

C111 "I would say that here are so many sick fish nowadays. You can see, around their tails, there is a big lump or there is a cyst, or a parasite. You can see that it is a sick fish because it's red on the face and the tail. You can notice right away. You know right away if it's healthy or not. Any red spots on the fish, they are sick. There are more (of these sick fish today). We never used to see that before anywhere."

C13 "We are starting to see some fish that have diseases. We never used to see fish like that."

C51 "We are seeing more parasites. It's not just charr, all species of fish we are finding more diseases."

C13 "For some fish, you could put your hand on the skin and it would go right through the skin."

C113 "A good example is Kugluktuk. I use this example on a few occasions. As a child, growing up in that area, Bernard Harbour, and going to Kugluktuk, I ate a lot of fish and I enjoyed it. I enjoyed eating the belly fat on the fish as a young lad, today I can't eat it. Why? Because there are minerals in the fat that destroy it. And Bathurst is starting to get the same, I can notice a little wee bit now. In Bathurst at first, the fat I could eat, but you get more of that and soon you won't have any fish to enjoy…

I believe, I could be wrong, but I believe that water quality over the years of extensive mining in the Coppermine River area, all the exploration and mining activity, has had a big impact on that river system. The same charr that I enjoyed as a child, I still can eat the fat off the charr when they are fresh. But it's when you leave them frozen for a little while, they turn yellow. I've seen that so the quality of the fish is not there and I blame it on the contaminants from the mines.

I can see a little bit of that same thing going on now in the Burnside River system, the Bathurst system. We do eat this fish but I can see that there is starting stage that I saw in the past in Kugluktuk. And I blame the minerals because there is a lot of activity above the Bathurst, there is Echo Bay (Lupin mine), and Hackett, they all drain into this area.

Having said all that, it is a concern of mine, and I believe I am not the only one. Living on the land, all of us eat the fish, and seals, and I do see some change in the seal fat. The last seal I skinned had some little round dots in the seal fat that I have not seen before ever. Something is getting into our water system. It could be coming in from the south, because contaminants travel a long way in the water system, with the tides, water is always flowing."

12.6.2. Seals

C51 "Lots. We're finding lots now (of diseases in seals). People are seeing more. We were not subjected to that long ago, like the sickness in these animals, all species of these animals around this area. We're finding more and more sickness, and parasites in these animals."

12.6.3. Caribou

C51 "You know how the world turns, the top and the bottom are where all the air and everything goes. Air quality is a big, big issue too, because it goes all over the land. It becomes very detrimental to how wildlife feeds itself from the land. Like I showed you, the plants we were looking at, the texture, that plant was just covered in dust. That's what the animals are feeding on nowadays all over the land.

Snowflakes are different now. That's what our animals are feeding on, and our hunters are complaining about finding, just like Jell-O under the skin. On caribou; blobs of Jell-O (subcutaneous fat that has the consistency of jelly).

Because caribou hair is hollow, it collects all kinds of dust also from the air. How it pollinates itself, all along the migration route. Because it's hollow, I believe it has chemicals in it also. Because what's under that skin, what goes into that skin is from that hollow hair into the skin and into the meat itself. That's what our hunters are finding, Jell-O, slimy yellow stuff that's just under the skin."

C51 uses the term "pollinate" to explain how he sees dispersion of dust in the air and across the land.

12.7. The Arrival of New Species

Consultants had noted decreases in some species, and the arrival of species that had not been documented before.

Birds

C51 "Even though we are doing this project on animals and wildlife, you can see how big of a change already has happened over the last 20 years. We noticed a lot of changes, climate change and all the wildlife. We've noticed a lot of birds that are coming here now, very strange birds some of them. Some people are noticing more strange birds that are starting to show up in these areas. Maybe in the past we did not notice, or nobody has ever talked about seeing more of those birds coming through Nunavut."

Bats

C110 "Bats. (We have seen) bats coming up."

Insects (General)

C51 "We're noticing more bugs coming up here as well. A lot of people are noticing, especially the elders. They've never seen these types of bugs that are coming up into our areas.

Even though (Kannighokmiut) have moved on for many years now, we're seeing many changes to that study area, the Kannighokmiut area, Bathurst area. A lot of people, every once in a while, on those HF radios we talk a lot when people from Bathurst were first living there. And we start, every once in a while to have conversations. Even there, same on the radio, we start to see changes in these bugs that are coming up….

Maybe (these insects) have been here for many years but have been dormant for many years. A lot of it too has to do with dust. Dust carries a lot of bugs that are in the air sometimes. They can travel for many miles."

C111 "There are all kinds of new insects that are coming."

Butterflies

C111 "This year I haven't seen one butterfly."

C110 "Mainly this year. Last year we used to see butterflies. There used to be all kinds of butterflies, now we see less and less. We used to see all colours of butterflies, all over."

Bees, Hornets and Horseflies

C51"… Long ago, especially along the tree-line, we use that beeswax a lot, and dried beeswax and use it as a glaze on the bottom of the sleds.

There are lots of beehives along the cliffs. Especially in mud flats, muddy areas, on the sides of the rivers. There's a beehive right next door to our house. Our neighbours (in Kugluktuk) have a beehive right on the eave of the house. Just a small one.

We haven't seen any changes (in bees), but hornets are a new type. There are more of

them now. They were seldom seen long ago but there are more Hornets now, through climate change. Also there are more horseflies. They were very seldom seen but now there are lots and lots of horseflies, especially on hot muggy days."

Ants

C111 "Ants too, we never ever had ants in this place before."

C51 "The red ants."

Plants and Animals Transported on Winter Roads by Southern Vehicles

C51 "Just like the winter roads here, they have to bring the goods from down south. Anything that's stuck on the bottom of the trucks, they distribute all across the road that they're on.

That's what we've been noticing; different plants especially on these haul roads, winter roads. I've seen that already. At the end of Contwoyto Lake, we are right on the lake where the winter road comes right through. We go fishing with the kids or swimming where its shallow, where we'd like to go fishing, we've seen differences already, just in that one spot, on the portage.

When we start swimming there, we start seeing just like little baby snakes, miniature snakes, we've never ever seen before, only in that one portage area. That's what me and my wife, and my children have noticed just like little snakes, about so long (two inches or five cm), in the portage."

13. APPENDICES (ATTACHMENTS TO REPORT)

There are three appendices included as an attachment to this report:

I. Workshop Discussion Questions

II. NTKP Consent Form (Sabina Hannigayok Project)

III. Concerns and Recommendations of Consultants

APPENDIX I. WORKSHOP DISCUSSION QUESTIONS

WORKSHOP 1. ARCHAEOLOGY, HERITAGE, LAND-USE AND ENVIRONMENT

In this workshop we will address the data gaps identified for the following topics:

- Kitikmiut Land Use (Travel Routes and Living Areas)
- Special Resources
- Archaeology
- Water Quality
- Plant Ecology

The focus today is on areas proposed for development by Sabina. We will use 1:50,000 scale maps.

The purpose of this workshop is to talk about use of the land by people. The kinds of topics we will cover include the location of archaeological sites, Inuit travel routes, and the locations of camps and gathering places. We are interested in where people found carving stone for the kudlik and their tools, where they collect wood and where the best water sources are. We will ask about important plants, what they were used for and where people went berry picking.

Although there are not specific questions on the time period, as we talk about all these topics we will be asking when these locations were used, and when things happened. These do not need to be specific times (for example 1966) although if people know specific times, that would be great. What we would like to know is the general time period; for example, in the 1920s, or 1950s, or in more recent times. We want to hear about how Inuit used the land long ago but we also want to know how Inuit use the land today.

Sabina has told us about their plans to develop a mine in the Hannigayok area. Part of the work that we are doing is to try and use Inuit Knowledge to suggest how Sabina can plan a better development for their project. As we talk about these questions, we would like you to think about and tell us any concerns you have about what Sabina is proposing. If you can think about how Sabina can change their plans to avoid problems (disturbance to important sites, wildlife, etc.), we would like to hear your thoughts. We would also like to hear your ideas of what Sabina can do differently to possibly avoid problems (i.e., bear or wolverine deterrence), reduce impact on caribou (i.e., calving, calves, migration, predation, etc.), avoidance of culturally or ecologically significant features, or incorporating traditional Inuit values in work plans.

We will focus the workshop by asking specific questions, but we are not tied to these questions. People are free to add other topics that come to mind, or to provide information that we did not specifically ask for.

Elders have told us that changes in weather have affected use of the land in many ways. As we talk about how people used the land, and later as we talk about fish and wildlife, we will also ask about how changes in climate have had an impact. In this workshop, we will focus on how changes in climate have affected people's travel over time. We will ask about climate change in every question.

1. TRAVEL ROUTES AND CAMPS

Land Travel

1. Can you map the travel routes for each season and talk about where Inuit were going and why?
2. What was the mode of transportation, by walking, dogteam, skidoo, boats?
3. Which locations were dangerous for travel? These include areas with open water in winter, thin ice, cliffs, etc.
4. Where are the camps along these travel routes? Which camps were used for overnight travel, and which camps were used for longer periods? Which of these camps were for hunting, trapping, and fishing and for what animals?
5. Do Inuit have camping sites and/or cabins in the area that they still use today?

Water Travel

6. Where are the travel routes on water/ice and how were these used?
7. What were the modes of transportation, skin boats, motorized boats, dogteam, snowmachine?
8. Has travel on water/ice changed over time? Why is that?

Placenames and Songs

9. Do you know of any placenames in the area that are not already on the maps?
10. Can you tell us the story of these placenames? What does the name mean?
11. Do you know of any songs that are attached to these places? Would you mind singing it? Would you mind if we record you singing?

2. SPECIAL RESOURCES

12. Do you know of any locations of carving stone, flints, copper, etc. that were used for making tools and utensils? These could be areas that were used in the past but are not used now because all of the stone has been removed.
13. Are there places that Inuit get stone for carving today?
14. Where and when did Inuit collect wood?

3. ARCHAEOLOGY

15. Do you know of any places where there are artifacts? These include places where Inuit made tools, places with old cups and utensils, and places where people cached their food. We will map these locations and we would like you to tell us about how these items were made/used Artifacts can be big or very small. They include:
    a. Tent rings
    b. Houses (made of wood, sod, bone)
    c. Hearths (where people made fires and cooked)
    d. Cache sites (for meat and fish)
    e. Tool making places (where there are lots of flakes on the ground)

f. Tools, weapons and equipment (spear points, arrow heads, blades, harpoons)
g. Fishing tools (lures, jiggers, rope)
h. Clothing and eye protection
i. Tools for hide and clothing preparation (scrapers, sewing needles)
j. Cooking and eating utensils (kudlik, cups, bowls, ulu)
k. Inokhok and talo

16. Are there any places on the land where Inuit died and were left on the land? Are there places where there are graves? Do you know who these people are and who are their families?
17. Are there places on the land which hold special importance for Inuit? These could be places where Inuit went to pray, or places where people should not go, for whatever reason. If people want to talk about shamans, we would like to hear those stories. Note that these special places are not places where it was difficult to travel; we will talk about those later.

4. WATER QUALITY

18. Where on the land did Inuit go to get drinking water during each season?
19. Was it difficult to find good water and why?
20. How was good water recognized?
21. Has the quality of water changed over time? Why is this? Where (what rivers/lakes) has water quality changed? Where has it stayed the same?
22. Can you still find good water using the skills of the past? Does the water need to be tested now to be sure it is good to drink? If it needs to be tested, tell us why.

5. PLANTS AND VEGETATION

23. What kinds of plants do Inuit know and what are their names? What are / were they used for? What time of year were they collected?
24. Where did Inuit go on the land for specific kinds of plants?
25. What kinds of berries did Inuit pick and where are /were the best berry picking places? What time of year did Inuit pick these berries?
26. How were berries eaten? Were there methods of storing berries?

WORKSHOP 2. TERRESTRIAL ECOLOGY (FISH AND WILDLIFE)

In this workshop we will address data gaps related to terrestrial wildlife and fish. Terrestrial wildlife refers to animals on the land such as caribou, wolves, foxes, grizzly bears, muskox, moose and birds. We will also talk about fish in lakes, rivers and the ocean.

The focus is on the proposed development area for Sabina, but for some questions we also cover the larger study area since animals move long distances.

Although there are not specific questions on the time period, as we talk about all these topics we will be asking when these locations were used, and when things happened. These do not need to be specific times (for example 1966) although if people know specific times, that would be great. What we would like to know is the general time period; for example, in the 1920s, or 1950s, or in more recent times. We want to hear about how Inuit used the land long ago but we also want to know how Inuit use the land today.

Sabina has told us about their plans to develop a mine in the Hannigayok area. Part of the work that we are doing is to try and use Inuit Knowledge to suggest how they can plan a better development. As we talk about these questions, we would like you to think about and tell us any concerns you have about what Sabina is proposing. If you can think about how they can change their plans to avoid problems (disturbance to important sites, wildlife, etc.), we would like to hear your thoughts.

We will focus the workshop by asking specific questions, but we are not tied to these questions. People are free to add other topics that come to mind, or to provide information that we did not specifically ask for.

Changes in weather have affected fish and wildlife in many ways. As we talk about fish and wildlife, we will ask how changes in climate have affected species and people's access to and use of them. We will ask about climate change in every question.

1. TUKTUIT (CARIBOU)

1. Where are the important wetlands and other habitats that caribou use for feeding when they are there in the spring, summer and fall?
2. What areas do caribou use to escape bugs and hot weather?
3. How do you tell the difference between the Island and Bathurst (mainland) caribou?
4. Where do you find caribou in the winter? Do you know what kind of caribou these are (Island, Bathurst)?
5. Where do you find Island caribou at the different times of the year?
6. Have you seen changes in the numbers and areas where you find mainland caribou?

2. AMAGOK (WOLF)

7. Do you know the locations of amagok dens? Do you remember when these dens were active?
8. Which areas are important for amagok? At what time of year do you find them there?
9. Where and when do you hunt amagok?

3. AKHAK (GRIZZLY BEAR)

10. Do you know where there are akhak dens?
11. Where do you see akhak in the spring? Summer? Fall?
12. Where and when do you hunt akhak?

4. FOX (TIGIGANIAK, KAYUKTOK)

13. Do you know where there are tigiganiak and kayuktok dens?
14. Which foxes are most numerous, tigiganiak or kayuktok?
15. Have you seen a change over time in the numbers and areas that these two kinds of foxes use?
16. Did you run traplines for fox? When and where?

5. KALVIK (WOLVERINE)

17. Which areas are most important for kalvik in the spring? Summer? Fall?
18. Have you seen kalvik dens where they have their young? Where?
19. Where are the best areas for trapping kalvik in the winter? Have you trapped kalvik? Where were your traplines?
20. Have you hunted or do you hunt kalvik by snowmachine? Where and when?

6. OMINGMAK (MUSKOX)

21. What areas are used by omingmak in the spring? Summer? Fall? Winter?
22. Do you hunt them in the study area? Where do you hunt them?
23. Have you seen changes in the areas that omingmak use?
24. Has the increase in omingmak numbers and areas that they use affected tuktuk?

7. TUKTUKVAK (MOOSE)

25. Have you seen tuktukvak in the study area? Where?
26. Do you hunt them?

8. EKALOK (FISH) AND FISH HABITAT

Following is a list of the main fish species that we will talk about. We will map the occurrence of arctic charr in the local study area, but we do have a lot of biological information for this species already in the NTKP. More focus will be placed on obtaining biological information for the other species. Using photographs we will identify which fish species occur and where, what their important habitats are, and which types Inuit prefer to eat.

27. Ekalukpik (Arctic charr)

28. Hulukpaugak (Arctic grayling)
29. Ehok (Lake trout)
30. Anakheek (Lake whitefish) & Kapihillik (Arctic cisco)
31. Hiugyuktok (Tomcod)
32. Burbot
33. Turbot
34. Longnose Sucker (Milugiak)

We will also ask the following questions:

35. Have you seen changes in numbers and condition of fish over time in lakes, rivers and ocean?
36. Have there been changes in the kinds of fish that occur in lakes, rivers and ocean?
37. What factors affect the health and condition of fish?

9. KOPANOAK (BIRDS)

Using photographs we will identify which bird species occur in the study area, when they are there, and what areas are important to them. We will ask which species are best for eating and which species people hunt. Questions will be organized according to main bird species groups:

38. Waterfowl (Geese, swans, ducks, eider ducks, loons) - Where do you see/hunt waterfowl species and when?
39. Waterfowl - Which species are important for eggs? Where are the egg harvesting areas? When do you harvest eggs?
40. Raptors (Eagles, falcons, hawks) - Which species occur in the study area and when?
41. Raptors - Where are raptor nests found?
42. Raptors – How do Inuit use raptors? Which species, where and when?
43. Owls - Where do you see/hunt owl species and when? How do Inuit use owls?
44. Owls - Where are owl nests found?
45. Passerines (Songbirds) - Which songbird species occur in the study area? When do you see them? Are there areas that are important for songbirds?
46. Do Inuit use songbirds? How? Which species? When?
47. Ptarmigan – Where are important areas for ptarmigan?
48. Ptarmigan – When do Inuit hunt them?

WORKSHOP 3. MARINE ENVIRONMENT

The marine environment is a major data gap in the NTKP. In this workshop we will address data gaps related to Inuit travel and use of ocean ice, and data gaps for marine animals and plants. The main topics are:

- Inuit travel and camps
- Marine mammals
- Marine fish
- Marine birds
- Marine Invertebrates (mussels, clams)
- Marine plants (seaweed, etc.)

1. INUIT USE OF OCEAN

1. Can you map the travel routes on the water and ice and talk about where Inuit were going and why?
2. Where were the sealing camps on the sea ice? Can you talk about how these camps were used?
3. Are there other ways that Inuit used ocean ice that we are not aware of?

2. ISLAND CARIBOU

Although not a marine mammal, Island Caribou use traditional ice crossings between Killinik (Victoria Island) and the mainland twice each year. In the fall Island caribou migrate across the sea ice to spend the winter on the mainland and they return to Killinik in the spring for calving, summer, and the rut. Crossing locations are identified in the NTKP, but given that the herd has been increasing in recent years, follow-up information on crossing locations and the status of the herd is required. Questions on the ecology of Island caribou are included in the terrestrial workshop and in this workshop we will focus on caribou use of ice.

4. Where are the fall crossing locations for Island Caribou?
5. Where are the spring crossing locations for Island Caribou?

3. MARINE MAMMALS

Following is a list of the main types of marine mammals. Using photographs we will identify which species occur in the study area, when they are there, and what habitats are important for them. We will ask which species people hunt and when.

6. Nattik (Ringed seal)
7. Ugyuk (Bearded seal)
8. Aivik (Walrus)
9. Beluga whale
10. Narwhal

11. Polar bear (Nanok)

4. MARINE FISH

Most of the data gaps for freshwater fish will have been addressed during the terrestrial ecology workshop. Once we review the information, any outstanding questions will be addressed during this workshop. Marine fish have not been well investigated in the NTKP; thus the main species types that consultants will discuss are not known. We will focus on fish that are important to Inuit for food and for other uses (e.g. dog food). Photos and descriptions will be used to identify species. The dominant Arctic fish families are:

12. Cods
13. Eelpouts
14. Snailfishes
15. Sculpins
16. Salmonids

5. MARINE INVERTEBRATES

There is no information on marine invertebrates in the NTKP. We will use photographs to identify which species occur in the study area and what habitats are important for them. We will ask which species people use and when. The kinds of invertebrates that could be discussed are species such as clams, crabs, shrimp, starfish, squid, etc.

17. Marine Invertebrates

6. MARINE PLANTS

There is no information on marine plants in the NTKP. We will use photographs to identify which species occur in the study area and the best areas for them. We will ask which plants people use, what their uses are, and when collection occurs.

18. Marine Plants

7. MARINE BIRDS

Limited information on marine birds occurs in the NTKP. Using photographs we will identify which species occur in the study area, when they are there, and what habitats are important for them. We will ask which species people hunt and when. Important nesting and egg collection sites will be mapped. Marine birds include species such as Eiders, Gulls, Fulmars, Auklets, Puffins, Murrelets, Guillemots, Murres, Petrels, Shearwaters, Albatrosses, Loons, and many species of sea ducks.

19. Marine Birds

APPENDIX II
Naonaiyaotit Traditional Knowledge Project (NTKP)
Consent Form
Naonaiyaotit Inuit Elitkohiitnik
Anggiktot Titigait

Sub-Project Title:

Hannigayok - Sabina Gold & Silver Corp. Back River Project

NAME OF CONSULTANT _____

ATIA OKAKTITAOYUP

Background

The Naonaiyaotit Traditional Knowledge Project

The Naonaiyaotit Traditional Knowledge Project (NTKP) is the foundation for Kitikmeot Inuit Traditional Knowledge. It is housed within a GIS database (a computer program which links map data to interview data) housed at the Kitikmeot Inuit Association (KIA) office in Kugluktuk, Nunavut. As well as map and interview data, the NTKP contains photos, audio and video recordings. The NTKP database is the property of Kitikmuit, and is preserved and managed by the KIA.

The NTKP contains Traditional Knowledge regarding Inuit land use, environment, vegetation, fish and wildlife within the Kitikmeot region. The core data was collected during 1995 and 1996 from interviews with elders and land-users and focused on the Slave Geological Province. That study area has been expanded to include the entire Kitikmeot Region as the KIA incorporates data from older studies and from current studies.

As well as being a repository of Kitikmeot Inuit Traditional Knowledge, the NTKP is a land-use planning tool, helping Inuit to decide and plan how and when development will occur on their lands.

The participants in the NTKP are called “consultants”. Consultants are fairly compensated for their contributions and participation.

Hannigayok - Sabina Gold & Silver Corp. Proposed Back River Project

Sabina Gold & Silver Corp. (Sabina) is proposing to develop mixed open-pit and underground gold mines at their Goose Lake and George Lake properties (Sabina Project), located in the vicinity of Back River (known as Hannigayok by Kitikmiut). The George Lake Property is located 105 kilometers (km) southwest of the community of Kingaok in Bathurst Inlet; and the Goose Lake Property is a further 60 km to the south of George. The Project also contains a marine laydown area which is located 30 km south of Kingaok.

The purpose of this study is to address Traditional Knowledge data gaps and information needs for the Sabina Project which exists within the regional NTKP. Additionally, Sabina has requested that KIA solicit opinions and recommendations from the consultants on their proposed mining project, as has been explained to the KIA and the consultants by Sabina.

Use of Information

Map information, interview recordings, audio, video or photographic, and the resulting translations, and/or transcriptions and/or images will be used for the following purposes:

1. Incorporation into the NTKP for the benefit of all Kitikmeot Inuit.
2. Preparation of a report which will be provided to Sabina for use within their environmental assessment according to the terms specified by the KIA.

The following consultant details will be kept confidential and will not be released to Sabina or other party without the permission of the consultant:

1. Personal identifying information including name and biographical details.

Consultant names will be listed in the report(s) to acknowledge the authors of the Traditional Knowledge data but will not be tied to specific information.

Consultants retain ownership of their individual Traditional Knowledge Information even when it is contained within the larger NTKP database. The KIA will not use the interview recordings,

whether they are audio, video, or photographic, and the resulting translations, and/or transcriptions, and/or images for any other purpose without the permission of the consultant.

Consultant Agreement

I agree to the use of the information I have provided according to the conditions stated above.

_____

Signature of Consultant

Okaotaoyuni kulaaneettoni

_____

KIA Representative

Apikhikattaktup Sainiktakha

Date _____

Obok

APPENDIX III. CONCERNS, COMMENTS AND RECOMMENDATIONS FOR SABINA

1 INTRODUCTION

This appendix accompanies the results report from the August 2013 data gaps workshops held in Kugluktuk and Cambridge Bay. As well as collecting Inuit Traditional Knowledge, Sabina requested that KIA solicit opinions and recommendations from the consultants on their proposed mining project. These opinions and recommendations are contained within this appendix.

One quote summarizes the message that all consultants wished Sabina to hear.

> *"We can't emphasize enough I guess how much we want them to ensure that our land stays the same, during their operations and after."*

The consultants' words are presented as they were spoken, edited for English and clarity but without interpretation. Consultant replies are encased in quotes. A series of dots '…' indicates where text was omitted. Explanations added by the editors are encased in brackets or presented outside of the quotes.

As in the main report, the contributions of all the consultants are included; no attempt was made to select representative quotes to avoid unintentionally assigning importance to any particular quote. However, in this appendix consultants are not identified using unique codes. Unlike Traditional Knowledge, this appendix contains people's opinions and viewpoints which may not be shared by everyone that participated.

2 HANNINGAYUK (BEECHEY LAKE)

The entire Bathurst Inlet region has been used by Inuit for thousands of years. However, Hanningayuk (Beechey Lake) was documented as having special importance. Not only has Hanningayuk had extensive Inuit use, it has high spiritual importance for Inuit with some consultants using the term "sacred" to refer to the lake and surrounding area.

People lived on both shores of the lake for many, many years. This was also a place where ocean and inland people from other regions would come together during special occasions. These gatherings continued after the introduction of Christianity, as celebrations of Easter and Christmas became important to Inuit. The consultants expressed the desire that Beechey Lake be identified as a heritage and conservation area and that development never be allowed there.

The importance of Hanningayuk is discussed at length in the main report and thus the quotes are not included here again. One quote is used to demonstrate the importance of the lake and the surrounding area to Inuit.

> *"It's very, very strong (the feeling for Hanningayuk). Like all other places, camps, where people tend to get together. In wintertime, it's more the time when they get together, when they can get around easier by dog team and don't have to walk so far. Just like at Easter time or at Christmas time. We had our own …. some people long ago had their own dates … at certain important times… And they start to think about their brothers and sisters and their neighbours*

from hundreds of miles away and they want to get together. And Beechey Lake was one of these places."

3 MINING PROCESS AND CHEMICALS

The consultants asked Sabina to consider alternatives to leaving tailings on the ground. They recommended that Sabina look into how to get rid of cyanide permanently rather than leave it behind in a tailings containment facility. Consultants were not only concerned about cyanide, they were also concerned about all other chemicals used in the mining process and its impact on the land and on water quality.

"What I've seen in Lupin with that tailings pond is that they were dumping also these barrels into the tailings pond. They empty their cyanide, cyanide barrels, I've see them dump those empty barrels right into the tailings pond."

"And another one, Yellowknife being an example again, they have lots and lots of chemicals underground. Because Goose Lake is going to be an underground project also, I think?"

"What I'm thinking about Lupin, because it was an all underground project, I'm not 100% sure but from what I heard in Yellowknife and the stories that come out from Yellowknife, I'm really afraid of these chemicals being left underground, tons and tons of chemicals that are left underground. Also how they extract the gold through pipes or what have you. It's what we are really concerned about. They're leaving their garbage right on the spot, when they leave.

Looking at Lupin again, it's one of those mines where another company takes over. Another company finishes with that project and another company takes over again. And nobody is willing to clean up that Lupin site it seems, from what I've been looking at over the years. Because it's being passed on from company to company and each company is not willing to clean up. What I'm looking at, is they are saying there may be gold under there. They are still doing lots and lots of drilling but what I see is no results from the drilling."

"There are many issues that need to be clarified before this type of project goes ahead because they are mining gold and chemicals, different kinds of chemicals are being used. Even diamonds, diamond extraction is little different from gold itself but there still are chemicals, they still have tailings ponds and a lot of chemicals. All chemicals I think are pretty much detrimental to the landscape and the area."

4 CLIMATE CHANGE AND TAILINGS CONTAINMENT

The changing weather and its effect on mining operations was a major concern of the consultants. The concern was expressed that with climate change and melting permafrost that the stability of the tailings pond and liner would be affected. They wanted to know how this would be addressed. If thermistors were used (as was seen as EKATI), to maintain freezing, what would happen after mining was completed, and who would continue to maintain the integrity of the tailings area. They said that Sabina could not guarantee that the tailings would remain contained forever. As well as climate change, earthquakes were a concern.

"When we talk about these changes, and we're talking about the tailings pond, the garbage that is being left behind by these mining companies…. The fluctuations in weather, you have to put it into consideration that the weather is really unpredictable all the time especially nowadays with climate change. We can see the drastic changes all over the world right now. The weather is changed all of over the world, Nunavut and even here. We are experiencing it here too. Some people say it's very drastic for the North compared to more settled areas in the world."

"That's why we have big concerns over tailings ponds, water quality and air quality. Now that we have, we've had many mines and experienced open pit mining already; just in the last few years, what a big difference it has been already in the dust quality. Because it's an open pit mine, dust is blowing all the time."

"Air quality, because of the open pit mines. Just from those open pit mines alone, along with the natural ingredients in the air, which might be coming from other parts of the world also. The air quality gets mixed in the air and dumped on the ground. Everywhere in the world wherever dust or anything may fall."

"It's just the same as in the meat caches. Some day you are going to have to eat that meat, maybe in a month or so. It might still be there next year depending on the permafrost, and it might be good for another year or so. Once you put in the permafrost, it would be good for how many years. It's just like a freezer. It's like we had our freezers. We dug into the permafrost. Some places you don't have to dig very deep.

Nowadays the permafrost is much deeper now because of the growth. Climate is warming up, plants and vegetation are growing faster. So the permafrost is a little bit deeper."

"That's what I've always been really worried about, people leaving their tailings ponds, just like at Contwoyto Lake. Tailings pond are subjected to permafrost changes. Due to climate change it's going to drop for some reason and that liner somehow may be stretched, or, if there's nothing supporting it, it is going to break down or break open. That's what I really have a big concern about."

"If they're going to have freezers like that underground, that's what I'm thinking, it's only when they're doing the mining. They are going to put these freezers down into the ground. It might be okay for the time that the mine is open and these freezers are maintained while they are mining but once the mining is all done and everything, who's going to maintain those freezers after they have done away with the mining in that area? If they are going to pull it out again after the mining is done, it's going to melt again. It's all going to melt again. Somehow maybe the tailings will be subjected to more sinkholes. Maybe sinkholes at the bottom of tailings pond; that's what were really worried about."

4.1 Tailings Liner

The consultants wanted to alert Sabina about their concerns regarding the tailings liner. Some had seen in other areas (the tank farm at Boston camp was the example provided) that hikhik and other animals chewed through liners, even though they were very thick linings. Other animals, including

mice, lemmings and even ground beetles could chew through thick liners. Given enough time, these animals can eat through anything. Some consultants had seen this at other sites (such as Lupin) where animals have eaten through tough materials.

"They are proposing to put their tailings at the Goose Lake site, I believe on the northwest of Goose Lake itself. What they're proposing to do is to leave the tailings there when they're done with mining and everything. They say they will put in a liner to keep the tailings from seeping underground.

I'm not too sure what type of liner they will be using but I've seen these liners. One example, I believe it was at the Boston site, Boston camp. They had a tank farm with a liner under it, thick, some type of liner, and I've seen these liners chewed through by squirrels, by hikhik, Even though they are thick liners, they still managed to punch through those liners. That's one of my worries, one of the things we should be looking at. There is a possibility of hikhik or different animals, small animals, going through the liner."

"That's why I've really been subjecting my conversations about, my concerns. I often times use Lupin a lot now (as an example) because their tailings have been in place for many years already. Anything could happen to this liner. Animals such as ground squirrels are lemmings or even beetles, the beetles that are on the tundra, they can eat through just about anything.

My concern, is that through time this will happen to this liner. Ground squirrels, they burrow into a lot of places where it's accessible, suitable, for denning. From year-to-year they make their dens in certain areas. A lot of time this material that they would be using for this tailings pond is more like a place where lemmings or ground squirrels or bugs can burrow in and chew away at the liner."

"Even mice will chew through them."

"Even those kalikuvaluk, those little bugs. They're really strong."

"Those beetles can chew through really thick seal skin. They can chew the whole thing."

"And there is a possibility that this could happen and the tailings could leak under the ground. That's one of the concerns."

5 TUKTUIT (CARIBOU)

Many concerns were iterated about caribou by all the consultants, and all the quotes are not included here as many are present in the report. Concerns were related to the effects of exploration, mining and human activities and caribou. The consultants attributed the decline in caribou herds and changes in distribution, particularly migration corridors and calving areas, to the influence of humans. They believed that the increase in helicopter traffic since the late 1960s had had a negative effect on migration.

When it was cold, noise traveled further; thus the impact of noise on caribou was greater during winter. It wasn't just a matter of helicopters flying high. Both low and high flying helicopters deterred caribou during cold seasons.

Dust was raised as a concern, and its impacts on caribou migration. The quality of caribou meat had also changed. More sickness was being seen in the meat and the fat was no longer good to eat as it was once. This was attributed to changes in food and water quality due to dust and other chemicals that had entered the environment as a result of mining and exploration.

"I was explaining that as a young man going down to Bathurst Inlet, a lot of people said it too, the caribou migration was incredible to see. The lines would stretch, not only in one spot, from the shore to the other side of the inlet. Long lines, it was incredible seeing that. After this mining exploration at Echo Bay started a winter road, I watched these caribou. I went up there, went to see and you could see that these caribou were not crossing, it was a barrier. It re-routed their migration route."

"Even today, when they see caribou, it seems like when you go to them, it seems like they run away right away, maybe from the noise of choppers. We notice it nowadays, like when you go caribou hunting. Where there are a few in a herd, they run away. Sometimes it's hard to catch them. It seems like they are more scared because of the chopper noise. We've seen that."

6 WINTER ROADS

6.1 Caribou

The impact of the Tibbitt to Contwoyto winter road on caribou was talked about by many of the consultants. Over the years since the road was first built, Inuit noticed changes in the migration of caribou and their use of calving areas in Bathurst Inlet. Every time there was a new mine built, and more exploration, there were changes in caribou behaviour. They said that it wasn't only a mine that affected caribou; even small drilling outfits have affected caribou migration.

6.2 Land Damage

"This is an example of land use by heavy equipment. Flying over from here to Bathurst in the summer in the plane, from George (Lake) north to Boston (camp at Hope Bay mining project), you can see where they used the ice road in the winter. Along the road, where they used heavy equipment you see yellow, dead grass. That grass takes a long time to grow where it's been destroyed."

6.3 Contaminants

Vehicles on the winter road have brought in contaminants. Not only have there been oil and fuel spills but also dust and mud that have been brought from areas down south because the trucks have not been properly cleaned at Yellowknife. Not only was this a source of contamination, it also was source of introduced species that were not endemic to the north (plants and animals).

"… About the potential of contaminants being spilled. I've seen it on the winter road to Contwoyto. Back in the late 1980s, early 1990s, I was out hunting at Pellatt Lake, Contwoyto. I was on the winter road and I saw where they worked on a vehicle, probably a truck, there were some big black oil spills and antifreeze left on the ice. It was just left on the ice, on the winter road. I'm always afraid it will happen around Bathurst, or anywhere where they build a winter

road or a permanent road. They leave a mess where they have been working on a vehicle or truck. I've seen that at Pellatt just on the ice. In the spring it was just left there, it's melting, there is water on that oil and antifreeze.

In the summer, just north of Lupin, at the end of Kathawachaga, where they had a winter road before, this was in the summer. I went there overland, they had left a big garbage pile there. I didn't like the sight of that. That winter road was to Hood River I think from the end of Kathawachaga. There was a big pile of garbage, and bulldozers, it was a big mess. I got it cleaned up after I told someone. They just leave the oil."

"I always find it hard to accept the fact that exploration is going to continue and it's going to go on. But I have come to realize that it is a fact and that we have to deal with it and try to ensure that the mines can better look after how they get rid of their contaminants, the chemicals. They always say that it's guaranteed that nothing gets in, but I know. I've worked in the mines, and I've seen activities going on and I know it gets into the ground, I've seen it. That little bit that gets into the ground will multiply over the years. Caribou will walk by and have a bite of that food and that contaminates him, or her, it. So, it is a big concern. If there was a way we could prohibit mining until that guarantee could be proven, and nothing left in the ground affects it."

"That is my way of thinking but again I'm one person but I try to pass on that there are dangers involved in what we are doing. Our leaders in government have to find ways to get the almighty dollar into our people and that's one of the ways that they do it I guess, by accepting mining and exploration. You weight on one hand we have all the resources that we depend on and on the other hand, they're putting all that at risk for a few dollars that will last for a year or two, or maybe five years. So without the other? The impact on the other one, if we have something that happens."

6.4 Introduced and Invasive Species

The consultants documented a number of new species that they had not seen in their area before. Many of these were birds and insects. They believed these species had arrived because of changes in climate. They also documented other species that they believed had arrived via traffic on the Tibbitt to Contwoyto winter road, on ship hulls and in ship ballast water. They were concerned that these new species, plant and animal, would have invasive qualities and harm or displace native species.

"That's why we're seeing all types of bugs and plant life all along these winter roads that are so much different from away from the road. That is going to have to be a big issue for them. They are going to have to look at the whole road, what's in there, before they start this thing."

"All along this winter road you see all this mud right in the middle-of-the-road. Sometimes I travel lots on the road when the trucking season is over. Me and my wife we travel lots on this winter road and you see mud and rocks, even strapping even from crates left behind on this road…

That's been one of my big concerns. If they are going to start using large ships, or stuff that they are going to be hauling through this area, they are going to be bringing all kinds of stuff from over there, invasive species of plants or wildlife, fish.

I watch those trucks on the winter road. Mud all along these winter roads, lakes, and streams, wherever the winter road goes through. You see all this big piles of mud, just solid frozen mud where they clean their trucks every once in a while. I've seen a big pile of mud in the middle of the road or on the portage."

6.5 Sabina's Proposed Winter Road Connector

The northern part of the road at Beechey Lake is a dangerous location as this area is open in winter (Winter Water Reach). All such narrowings at the inlets and outlets of lakes are areas of thin ice and open water and cannot support an ice road. These locations are potentially not only very dangerous for travel, they also are locations of major use by Inuit.

The consultants asked Sabina to ensure that elders are involved during the archaeological assessment of the proposed winter road connector. Archaeological sites and artifacts may not necessarily be visible on the surface because Inuit buried their most valuable tools and utensils, etc., to protect them from the elements and from animals. Elders would know which areas were most sensitive and potentially had buried artifacts.

It is better to have the winter road further away from streams and rivers, and focus on large lakes where the water level is more stable and the ice more reliable.

"That's why I asked yesterday whether they're going to do environmental studies on this proposed route. (They should conduct archeological studies with elders)… Probably where the most archaeological sites are at the narrows."

(Discussing the proposed winter road at Winter Water's Reach (Beechey Lake outlet):

"Any mouth of the river, outlet or inlet, is going to be a very, very important spot. In these places they are gathering food for the winter. You want lots of dried fish and caribou, you want to cache as much fish for the winter as possible, right in the rivers at the outlets and inlets, and of lakes. So right away I can see (a problem).

It becomes very, very difficult no matter where you are making a proposed route for a road, wherever it might go through. Even though it goes through there, it will be the same situation here or here or if you want to move it somewhere else away from that area.

It's not so bad if it's further away from the stream, maybe where the water, the lake water, is more still. What I'm seeing here is that because it's so close to the river, there are going to be fluctuations in how thick the ice is going to be from time to time over the winter. It's (that location) very, very narrow. The ice is going to be fluctuating; it's going to be very, very dangerous.

These are some of the things to watch for when they're proposing these routes. I know they have augers and they test a lot of it before they go to those lakes and streams all right, but they don't

know how these are over winter. How long a warm spell might be, a week or a couple of weeks? In that time the ice gets very, very thin."

7 BIRDS

"In the Sabina environmental presentation, they talked about VECs (Valued Ecoystem Components). Of the birds which I mentioned, they only talked about migratory birds. They didn't talk about the birds that stay all year, the ravens or ptarmigans. We want them to also consider the birds that stay all year). Ravens, ptarmigans, snowy owls, and raptors sometimes too."

8 WATER AND AIR QUALITY

The consultants expressed concerns about climate change and its impact on water in all its forms, and how that would affect the mining process. These concerns are summarized:

1. They had seen major changes in water levels in ocean, rivers and lakes in the Bathurst Inlet area. Although scientists said water levels should be rising, they have seen water levels decreasing. Islands that used to be under water are now visible. Impact of climate change on water quality was major concern.
2. They had seen decreased levels of rain and snow.
3. They have seen major changes in air quality because of dust. There was a lot more fine dust in the air which likely travelled hundreds, if not thousands of kilometers. This dust could be seen in the snow today and had changed its texture. They believed Inuit could not make the same kind of stable igloos today like in the past because the texture of the snow has changed.
4. Not only was there less snow and rain, there was a lot more wind which didn't allow the snow to form the same depths and consistencies that it did before. This has made travel a lot more difficult. Many hunters were saying they couldn't travel as easily in winter by snowmachine anymore because of the exposed ground. Safety was a major concern. They were concerned about how changes in weather patterns would affect the mining process and how it could be done safely, and ensuring protection of the land.
5. The consultants believed that water quality in the Coppermine River watershed had been affected. As a result, they felt the health and quality of fish had been affected. They could no longer eat the fat off the charr when not fresh, i.e., when it was frozen. They believed that this was due to contamination from dust and minerals that had entered the environment as a result of mining. They were now seeing the same kind of impacts in Bathurst Inlet and its river systems, not only in charr but also in seals. Mines needed better ways of dealing with contaminants, be it chemicals, or dust, or minerals released from mining. There was never a guarantee that something won't get into the ground and into the water. Over time even small amounts could accumulate and cause damage.

"… And it's not only how water, what is in the water right away, you also have to think about the rainwater, the snow also that's coming down. It's going to be washing a lot of this rock onto the ground itself, to streams and everything all these chemicals or whatever will all be washed into the streams. Water quality is one of the major, major ones. And air quality is another big issue. The wildlife is another big issue, especially for these mines. Water quality, water disperses itself everywhere in cracks and crevices and leeches down to wherever water leeches down to."

"There are a lot of issues about water. It's not only natural water that we are subjected to through these mines. Another one is their plumbing, their sewage ponds and sewage lagoons and whatnot. They all emit chemicals through these pits. Even though they don't actually let any sewage or anything to the tailings pond. What I've seen in Lupin is that they have two areas, where they have their tailings and a different area where they are dumping their sewage. They use a lot of chemicals in their cleaning and what have you to the sewage lagoons."

"The river systems flowing down anywhere are connected. All the little streams that flow from Lupin and Mara, Burnside, all flows into Bathurst Inlet. It's always my concern as well if they have some sort of spill going down the rivers will end up in the inlet."

" … When they (mining companies) are giving their stories and their presentations, they always say that they guarantee that nothing is going to happen. There are never any guarantees, there's always a little bit of something that gets into the system, we can see that. Every year (there is) a little bit and the following years it adds to it, and so on. Many years into mining and exploration and I believe that the impact that it has on the fish (is apparent) today. There could be other things involved in the ocean, when fish reach the ocean but I believe that it's in the river system. (That is where) contaminants get into the fish and that affects the fat. As it does in marine mammals and in seals, you can see the contaminants are most visible in the fat of the animals. That's my concern."

8.1 Sewage Treatment

The consultants wanted to know what the plans were for sewage treatment. They recommended some sort of sewage treatment similar to what was being used at Diavik, and not sewage lagoons.

"At Diavik all the sewage is treated before it goes back out to the lake. From what I have seen, where they dump the water, the sewage that they're putting back into Lac de Gras, it's one of the places where we tested for fish quality, and for how we make tea. From those spots, where the treated sewage water comes out, that's where we collected some of our drinking tea water, for tests.

It was good. It was all good. And when we drink tea in our homes we don't want to see any film on the cup, on the top of the cup, chemicals. We didn't see that when we made tea at Diavik when we were doing those water tests, the water effects monitoring program.

After they put this water in this pond, this lake, the treated water from the treatment plant, they have a holding lake which settles for a number of times before it can go back into Lac de Gras. I think that would be another recommendation that we would like to see for Sabina. Some sort of

a water treatment plant for their sewage, sewage lagoons or whatever. And I'm wondering if tailings, can there be something that can be treated to the cyanide, just like the sewage from camp. How would that be if they were to treat that before, instead of being raw tailings, which are being dumped into a tailings pond."

8.2 Landfill Site for Metal

The consultants had seen the landfill site where junk metal had been stored at the EKATI mine. They had observed metals leaching into the ground from rain and snow. They believed that this had impacted water quality in that area and they were concerned that it also was impacting water quality in the Coppermine River system. They wanted Sabina to be aware of this concern and to not construct a similar landfill site for metal.

"Even the metal dumps. They have so much metal that they dump. They bury them underground. Same thing, all the rust still comes up. It's hard on animals because the rust is very strong. First time I went to Ekati, when they showed me that big dump, the metal dump, they dig underground and they just leave it under there and they don't think it will affect anything but it's still going to affect so many."

"Leeching (of chemicals into the ground and into the water)."

"*That's going to spread over the years because rust never sleeps, just keeps going and going."*

9 SHIPS AND SHIPPING

The consultants were concerned about ships and potential contaminant spills in Bathurst Inlet and in the ocean. Bathurst Inlet is a dangerous water body for those who don't know it, because of many currents, uncharted reefs and high winds. They recommended that recent bathymetry studies be conducted in the inlet, especially given the rapid changes in water levels that they have recently seen. They emphasized that past studies were not reliable because of the changes in water levels that had occurred.

The consultants asked for more information on shipping options, types and sizes of ships, even though Sabina had told them that ships were only for re-supply and would be the same types as those used to re-supply communities. They were concerned because of the presence of other potential developments. They asked Sabina to consider the effect of shipping by other mining companies (Xstrata, MMG) etc., on the environment of Bathurst Inlet and the ocean. They asked to not only consider Sabina in isolation because there could be many more demands and potential impacts from these other developments.

9.1 Spills and Accidents

"Another (concern) is their hull, the bottom hull, I think they should be coming with double hull ships. This whole area, I don't think has been studied properly for how deep the ocean is, where all the reefs are, and where the shoals are. (There are) shoals and shallow spots that you can't see from top of the water."

"There are so many sharp cliffs in the water."

"I mentioned that we went back home over a week ago for about a week. We went to Arctic Sound, Katimanak, where my wife was born. We noticed that anywhere we go boating you have to be careful where you go because the water levels were so low. In the past where we used to go boating fast, and anywhere you want to go, you can't anymore because it is shallow all over the place now. So saying that I think Sabina, at that laydown area, for shipping, I think they should check the whole inlet again for how deep the water is. Because some of those deep spots where they propose to ship by might have gone lower, so it would be shallower now.

There will be a lot of spots there that were very deep before won't be as deep now. They probably have to check the whole route again, to make sure it's safe to do so, to shipping in there."

"As an example, a couple years ago there was a big ship hauling fuel. It got stuck near Gjoa Haven somewhere… Cruise ship got stuck here too. That can happen with shipping too. Whatever they're hauling, it may be fuel, or chemicals, who knows. This sort of thing can happen too. They can run ashore. Ships are not as mighty as some people think. The mighty Titanic was never supposed to go down."

"I am afraid that up around Bathurst Inlet there is a lot of current, and it's too narrow for big ships (shoals, shallows and dangerous currents mapped surrounding Kaogyok (Quadyuk Island) and Koagyok (north Quadyuk Island)). What happens if there is a big wind and a ship gets pushed into the shallows? They have a lot of reefs around the inlet. Sometimes these reefs are sticking out of the water, just rock. I'm always concerned that if they start bringing big ships in there, something happens, and there is an oil leak, it's always my concern."

"The ships that they are talking about, especially Xstrata, they require huge ships, twice as big as this building. These are capable of running all year; they can break through twenty feet of ice, no problem. … Ships that are that big, if you have one little spill from those big ships, what's going to happen to us? The marine mammals will be decimated.

I think of stuff like that all the time. I'm greedy for my land. I want my kids to enjoy it, and their kids. I just bring up stuff like that for you all to think about, because it is a big step. And they want to run all year, that's what they've been saying but I am totally against it. Because they have the capability of running a ship down to that port twelve months of the year. That's something else to think about, not just what's going on, on land, what's going on, on the ocean."

"Where they had a big ship hit bottom and oil all over, you see that on the news, it's devastating. The animals, the marine life, birds, everything, doesn't stand a chance against something that happens like that. I'm very concerned about that. That's why I always speak strongly against mining but again it's not up to me. Sure, it's good to see your family members out making a few dollars but you only get a few dollars for a short time. Like I said, if something happens with any of the projects, and they have a chemical spill, or oil or something in big amounts, I always think about that. We'll never be able to fish, or eat seal, birds, or anything, will be contaminated so we can't eat them. I like to be careful about how we go planning the future for our kids, and their kids."

9.2 Ballast Water and Invasive Species

"These ships hold all their wastewater in their hulls and they dump it when they get to port. They should not be allowed to empty their hulls when they get to port. Anything, all their waste products, they should not dump into the ocean. They should not be dumping anything into the ocean; they should take it to proper disposal sites."

"The ballast, and those ships, and the shipping routes, (their impact on) our ocean mammals, our plants, and these ocean shorelines, I'd like to see all that taken into consideration."

"The ones (ships) from the west, from Hay River, they often use barges, we are used to seeing that. But the ones that are coming from the east, they use ships. So they (Sabina) might be using ships. What I was thinking, is what kinds of ships they will be using. The ships coming from the east are ships that carry ballast, water ballast so they could have their weight distribution, their ship to have a proper weight distribution. How they balance their ship, they take in water from ballast to equalize their weight distribution. One part of the ship might bring in more water for their weight.

What I was getting at is if they are getting that ballast from other parts of Canada like Montréal or other places, the habitat down there is a little bit different. If they are going to carry that ballast all the way down to here. When you see all the water flowing from the sides of the ships; that is ballast. What I'm getting at is that ballast, that water content in that ship is different and they will be distributing the water all across the shipping route. They could (bring with them) species that don't belong here."

"My worry is that with the water they will be bringing wildlife into this area that that does not belong here, that will contaminate that whole area."

"That was my thinking when Baffinland wanted to start sending ships all the way to China. Where are they going to get that ballast from, from China or from over here? So they're going get some ballast, ocean water from here and carry it down all the way to China. And when they are coming back from China they are going to collect different water again and bring it all the way to Nunavut."

"Even these crates, all of these sea-cans that we get here, whatever's in there came from Tuk (Tuktoyaktuk), and further south. How far have those sea-cans come? Those bugs get in there and come all the way up here. Just like anything they ship up here. They are collecting all sorts of bugs from the south and bringing them up here, in their sea-cans, and their trucks and what have you. I've seen them everywhere."

"That laydown area, they will be leaving lots of equipment in that area for the season, until the winter road season opens. What they are shipping from the south, whatever comes in on the ships, they will be leaving all that equipment there. Whatever is in or on the bottom of the sea-cans, mud and whatever, is going to be distributed all over this marine laydown area."

10 CLOSURE AND REMEDIATION

"It's got to be, everything has to be ongoing all the time towards remediation and cleanliness for after mining is closed. You always have to be looking towards remediation not halfway through the mine life. Everything else has been dumped and everything before the remediation process has started.

A lot of times, we have a hard time saying the real things that we really see before they started their remediation process. What has been there, why wasn't it done like this, why wasn't remediation process looked at before the mining ever started? Now all of this has been done already (in cases of contaminated sites) and it's really hard for the cleanup process to begin. I would really like to recommend that the remediation process should be ongoing right from the beginning, right until the very last day that this mine will be done."

10.1 Security Bond for Mine Cleanup

The consultants were concerned about the legacy of past mining. They asked that the security bond be sufficiently large enough to adequately complete clean-up. Tahera was used as the example. They recommended that regulators collect the entire amount, not just a security deposit.

"I'd like to mention the security bond that must be required if this project were to go ahead. This is for protecting the land and the water, the security bond. We've known over the years, back in pre-land claims era, the federal government and territorial government had a responsibility for distributing permits and advice on development permits for mining. These companies were never required to deposit any security bonds for site cleanups, pre-mining cleanup, I meant post- and pre-mining cleanup also. What's been happening is during those years these mining companies, exploration companies, they just left whatever they don't need to take back, they just left it on the land, all over the land be at campsites, barrels, fuel, whatever they needed for the mine site. They just left it behind.

It caused a lot of problems and is still causing a lot of problems over the years on the land. For all these sites to be cleaned up we will be stuck with the bill. While these mining companies make all the money, pocket all the money off the land, the public ends up with having to clean up their sites. For security I think what has to happen from now on, the security has to be there to cover the whole post mining cleanup, be it water, land or whatever. That has not been happening. A good example is right now is the Tahera site, where the security was never collected by the regulators. They never collected the whole bond, be it the federal government, the territorial government, or the Inuit owned lands. I'm not too sure which one did not collect the bond but now the public is stuck with cleaning up that site again. For all future mining proposals I think the regulators should be collecting the whole amount of the security bond instead of letting the project go ahead and saying they will collect it later. That's for the water quality and wildlife values, post-mining."

10.2 Concern of Other Companies Taking Over

"If it comes to that again would I like to see for Sabina to do is if they're thinking about handing it over to another company, is to get all their cleaning done, tailings well-maintained and everything else before they turn it over to another company who might want to have another go at that mine site. And then they could start their own tailings pond, whatever again. That's what I do really like to see."

"That's what I'd like to see, a big cleanup before they hand it over to another company who would be really interested in doing something else at that mine."

11 CONSULTATION - LISTENING TO INUIT

11.1 Comments on Communication by Sabina

Consultants were concerned that they were not consulted on a change in the location of the marine laydown area and the first time they were made aware of this change was during the workshop. They preferred the option presented during the workshop but said that they should have been advised regarding this change in plans.

"How can we have any concerns if we don't even hear? Like Sabina hasn't given us the information on their new proposed project? For example, it (the marine laydown area) used to be proposed to be on this part but now it's down here and we didn't get the information that it was moved up there. Nobody gave us that information until yesterday."

"Why bother building two areas if you can work with one rather than mess up so much land. You can't put it back together once it's all damaged. Rather than have two places, why can't they just work with one? Why didn't they give us that information before?"

"Nobody was consulted. That's the main thing. We knew about the main one (BIPAR) but the top one we didn't know anything about."

"If they are going to do an on the land road and go by the ice, why can't you just go on the ice all the way down rather than damage the land overland. If they had given us that information we would have had a chance (to respond), but we didn't have that information. So this is the first time that we have seen a different part of the proposed site."

"I don't understand why they are going to go overland instead of using the ice road. They can just use the ice road (talking about the proposed all-weather road at the marine laydown area)."

11.2 General Comments on Consultation and Past Activities

"These mining proponents, whoever they are, coming to be on the land, hopefully they will start to listen to people, to what people are saying. Landowners, us land owners of this region, we should be listened to, to what we are saying, be it Crown land or Inuit-owned land or some other lands, it all belongs to Inuit. It's been our habitat for thousands and thousands of years. I think

the outside people who come to do proposals like mining; they should listen to landowners before they start."

"You can see this whole thing (the Kitikmeot region) has been staked. And we didn't even get to say a word. This whole area has been staked by outsiders. We didn't get to say anything… I flew right from here (Kugluktuk) by helicopter, all the way to Yellowknife, and all you can see are all stakes. I've never seen so many stakes anywhere before. The whole place is staked. Nothing is open. We don't have land left."

"In my younger years I did a lot of hunting and exploring on my own around Contwoyto Lake and Pellatt Lake areas. I would run into drilling operations that I had never once heard about in Kugluktuk. Sometimes I would run into drilling rigs or small mining camps which I had never heard about. I am glad mining operations are more into communities, and community knowledge, that these communities know about each and every little exploration that goes on in the north, where mining companies put their explorations. That's what I would like to say."

11.3 Inuit Advisory Group

The consultants recommended that Sabina establish an advisory group of elders and younger land users that would be involved from the beginning of the process to ensure that Inuit values are considered throughout the life of a mine.

"And through time, we as elders would like to go to this mine on a yearly visit, by elders or on some sort of a project. A lot of the times when we have elders going to mines, they are looking at the cleanliness, or air quality or whatever they might have an issue with. They bring a lot of elders into these mines for one specific thing. But it should be ongoing, maybe elders going for air quality or water quality. Maybe that group can look at the air quality throughout the mine life. Another one being water quality; all of this towards the remediation process."

"*One missing ingredient to this group, a youth group, some of the youth. Like I said before, we're not getting any younger. We're thinking of the youth, the next generation. The younger generation, such as our children or somebody younger, consider a youth group, maybe school, somebody from the school. It would be a good idea if they sat and learned about how we talk about stuff like this, because they are the ones who will be living in these areas in the future. Even times when we come to meetings for Diavik or BHP, all of us elders are saying that we are not getting any younger. We're saying all this stuff for the younger generation to follow and to put this knowledge into themselves for their generation and the next generation to follow. It would be something for Sabina to look into incorporating into a group session like this. We have to at least, start from the younger years, even younger, and keep them as they become adults."*

Some of the consultants had recommendations for other ways to engage and support Inuit communities.

"What I've noticed in the community is just one-week or two-week culture elder youth conferences out on the land. You can't learn very much from one week or two weeks. It's got to

be on-going, year-to-year. Like ourselves, we are all born out on the land, we know how to live off the land, how to collect what we need from the land."

"A community could send out a whole bunch of young people into that group for a get-together for a month or so and then they can go back into the community, or a school class project maybe. It might work a little better for young people and instill in their minds a little cultural experience on the land."

11.4 Other Communities

The consultants recommended including other communities in the Traditional Knowledge Assessment process, because they share the same water system and/or because people from other communities also traditionally used the Bathurst Inlet area. They also asked that participants from the different communities be brought together afterwards to share their thoughts and experiences.

"What I'd like to suggest is that after all these meetings have been conducted in our communities, once the community consulting such as this is done, I think it would be a good idea for all those consultants such as ourselves to get together and recollect what we have said about this project. I think that it would give really good insights. A lot of time what other communities will bring up would refresh our minds over here too. So, in that way I think it would be a good idea if all the consultants get together and share some stories. *What we might have missed here, Cambridge Bay will have, or Gjoa Haven, or Taloyoak, or Kugaaruk, or wherever. It will refresh our minds over here too. It would be a good thing to do."*

12 COMMENTS ABOUT MINING, JOBS AND ENVIRONMENT

"I guess we have to accept whatever's coming. Too many young people are not doing anything. They don't want to go somewhere else, some of them don't want to go anywhere, and they want to stay in communities. There's nothing for them to do in communities, job wise. There are lots of things to do, but job wise, there are very limited jobs in each community."

"Now it's really different. We never had hungry young people before. Now there so many young people with no jobs and they are not able to go on the land to look for whatever they want because they got no skidoos, dogs. Most of our younger families, they have no food on the table and it's pretty hard for them because they have no job and they have no machines, so they don't depend on the land anymore."

"And the money that we are getting does not last if you have big families, like we're both working and we have kids who don't work. We have to support their families. We are hardly getting enough food for these two weeks, doesn't even last for two weeks till next payday because we have to try to support this other family because they don't have anything. Everything is so costly right now.

And skidoos especially. You have to go out on the land, plus you have to buy gas because you can't get anywhere on the land without gas. Just go to Bay Chimo from here, for just one week, we need to spend on gas and groceries which cost us over $2000 already, just to make it there

for a week and back. There are so many jobs and it's a rich Nunavut, but yet our Inuit people are always hungry.

My oldest daughter is 30 years old. She is really concerned about all the mines. She was saying 'Why do they wreck our land and we don't end up getting anything out of it.' Because they're not working or anything and we have to support them."

"From my point of view, today's society, it's all based on a monetary system, worldwide monetary system. In the past, people were indigenous people, aboriginal people, depending on wildlife and water, air quality. You didn't need money to carry on life, carry on your traditions in your life… That was a way of life for people worldwide, for aboriginal people. Now everything has changed because of the monetary system, and everybody has to live through this system now because there is no other way. So it's geared to, the whole world is geared towards money now so everyone is into that system now.

So it's a really hard choice, like you said, for us to turn away mining or any industrial development up here. Simply because there are more people growing all the time, population boom or whatever, so it's very difficult for Inuit people to decide what to do, to say no to mining. Trying to live off the land I don't think can be done anymore, big-scale wide. Individuals might be able to do it, small groups, small families might be able to do it, but territorial wide, Canada wide, and we can't do it anymore because everybody is depending on money. Dependence is on money.

That's my point. It's a very hard choice. I think we have to make sacrifices which we are doing already. We are forced to live into this style. That's where a lot of the problems come in. Inuit life has been assimilated into another culture. That's why all the problems are coming, cultural change, like suicides, alcohol, anything like that. It takes away the stress from individuals. My point is that we are in monetary system now so we have to accept it but not at any cost I believe we will accept it. But we have to be in control of whatever happens up here."

"We have to remember that although that is the place that you're going to have mining, or a mine site, the surrounding area could be could be affected for many, many miles in the surrounding area."

"That's what I mean, right from what Sabina has proposed, or any other mining company, when you start talking, immediately you should be thinking about plant life, and wildlife, people really into consideration. We are all as one up here; we have always lived by the rules of the land and the weather. Sometimes we have a hard time saying yes to a lot of things, when we really want to say no. It's really all right as long as you keep it really, really clean, especially our plant life."

"We have to think about our traditional way of doing things, like long ago. We may have to eventually come back to those things maybe in the future when all the mining and everything starts to be gone and there's nothing left to mine, and all our fuels and everything. We don't have big oil wells anywhere, or lumber anywhere. We have to take care of all this for wildlife to come back after the mining is gone.

I would like to really say to them, when they want to build these mines, that it's very delicate. It's what we've been telling these mining companies for a long, long time. It just seems like they just kind of ignore us. They just go ahead and start to mine."

"I understand that what is happening today, we cannot do away with any stuff from the South now. We Inuit people are relying on it, and that's okay. We don't even mind if a mine becomes open up here but I just wish these mining executives would finally say we will take all the garbage and take it back where it came from and not leave it anywhere in these areas or anywhere the mining activity is. The mines are only for 20 years, 25 years, but they will destroy the land and that habitat for wildlife for many, many years. It takes many, many years for that part of the land to start to really get back to its normal state again, the way it used to be."

"Crown land and Inuit owned lands, all lands are equal. It's all Nunavut. Just because its Crown land, it doesn't mean that you can start to do things that you can't do on this land (IOLs) because everything on this land is the same as on Crown land. All habitats and everything, it's all equal. Just because it's Crown land, doesn't mean you can go ahead and do whatever you want on it."

13 COMMENTS ON THE WORKSHOPS

"I am happy with this type of consultation with Inuit people. I am satisfied. In the past, we were worried about what was going on, when stuff like this happened. But I feel more comfortable with this system coming in. I'm happy that mining companies are seeking input."

"I'd like to say that I've been to so many meetings, but I've never had this kind of meeting with all these maps. It really wakes up my mind to see what is going to be going on. I am learning from it and I'll pass it on to the younger people as I get older. Just listening has opened my mind, just listening to the others and the elders, has just opened my mind about knowing what's going on in this whole area. I've been through all that (that entire area) but I'm just really learning lots from all these maps. It just really opened up my mind."

"From my perspective, these types of workshops are now necessary in terms of the people who own the land, providing input into any proposals, any proposal, any development proposal up here. This workshop highlights what needs to be passed on to the proponents, in terms of wildlife, environmental, archaeological or whatever. These are Inuit rights. To be more effective in working fast or well, a smaller group like this, rather than a great big large group is better, because it takes a while to get all this information from people. The smaller the group the faster you go. The larger the group, the longer things take. Like if we had a big group right now, we would be going into next week."

"Meetings like this refreshes the mind, you remember a lot. It sort of opens things up."

"It's like my whole mind again went back to this area. It was especially helpful to have an elder sitting there because, I find that I would be kind of lost if he was not there."

"It refreshes the mind. Everywhere you go. Just like Joseph (Niptanatiak). Joseph has always been one of the consultants. What he talks about, it really refreshes our younger generation. We tend

to forget a lot. We have a lot of activities in the communities, and working for numbers of years. And some people, it really refreshes our minds when we have elders who know a lot about the past in that era and generation."

"When we have these groups, it's a good place to discuss our concerns that we have about how our land is being used, how it's affecting our lifestyle, the impact that it has on the land and the game that we depend on for food. We want to ensure that it's available for our children, and our grandchildren. (It gives us) a better understanding of how the mines work."

13.1 More Information Required

Consultants asked for more information from Sabina on their timeline, and on underground mining plans. They said that they needed a better understanding of how mines "work", especially their impact on the animals that Inuit depend on for food. They wanted to ensure that animals would be available for Inuit today, for their children and their grandchildren.

13.2 Follow-up

The consultants asked for a follow-up meeting from Sabina in a year's time or so, to see how their recommendations had been addressed.

"That would be a good thing to have. It would give us something to look back and study in between those periods."

Appendix V3-3C

Existing and Publically Available Traditional Knowledge from Selected Aboriginal Groups in the Northwest Territories

Sabina
GOLD & SILVER CORP.

Sabina Gold & Silver Corp.

BACK RIVER PROJECT
Existing and Publically Available Traditional Knowledge from Selected Aboriginal Groups in the Northwest Territories

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November 2013

BACK RIVER PROJECT

EXISTING AND PUBLICALLY AVAILABLE TRADITIONAL KNOWLEDGE FROM SELECTED ABORIGINAL GROUPS IN THE NORTHWEST TERRITORIES

November 2013
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Prepared for:

Sabina Gold and Silver Corp.

Prepared by:

Rescan Environmental Services Ltd., an ERM company
Vancouver, British Columbia

Executive Summary

Rescan™
an ERM company

Executive Summary

Sabina Gold & Silver Corp. (Sabina) is proposing to develop the Back River Project (the Project), located in the West Kitikmeot region of Nunavut. The Project involves the development of mineral deposits in two properties (the Goose and George Properties), with associated infrastructure including a proposed winter road connecting the two properties to a Marine Laydown Area to be located in southern Bathurst Inlet. A winter road connecting with the Tibbit-to-Contwoyto Winter Road in the Northwest Territories (NWT) is also proposed as an alternative transportation corridor for the early phases of the Project.

The Nunavut Impact Review Board (NIRB) requires that the Project's Environmental Impact Statement (EIS) considers the Traditional Knowledge and Traditional Use (TK/TU) of selected NWT Aboriginal groups. This report identifies the TK/TU of NWT Aboriginal groups in relation to the proposed Project. Aboriginal groups considered in this report include the following:

- Akaitcho Dene First Nations, comprised of:
  - Yellowknives Dene First Nation;
  - Lutsel K'e Dene First Nation; and
  - Deninu K'ue First Nation.
- Tłı̨chǫ; comprised of:
  - Behchokǫ̀;
  - Gamètì;
  - Wekweètì; and
  - Whatì.
- North Slave Métis.

Study communities belong to Dene and Métis ethno-linguistic groups. Northern Dene traditionally occupied the boreal forest-tundra transitional zone. Subsistence patterns, social organization and cultural traditions were, and continue to be, largely shaped by relationships with caribou. Three distinct Dene language types traditionally occupied the area of interest, including Yellowknife, Chipewyan and Dogrib. The descendents of Chipewyan and Yellowknife traditions make up the Akaitcho Dene First Nations, which include the Yellowknives Dene First Nation, Lutsel K'e Dene First Nation and Deninu K'ue First Nation. Descendents of the Dogrib tradition belong to the Tłı̨chǫ, comprised of the communities of Behchokǫ̀, Gamètì, Wekweètì, and Whatì. The Métis are a distinct Aboriginal group that derives from unions between French, French-Canadian and Scottish fur traders and Cree and Dene women. Descendants of Métis of the North Slave region are represented by the North Slave Métis Alliance.

Akaitcho Dene, Tłı̨chǫ Dene and North Slave Métis have and continue to harvest caribou in the barrenlands and within the treeline. A number of other game species and fur-bearing animals are harvested in the barrenlands. Some Aboriginal groups' harvesting range extends as far as Contwoyto Lake. Study communities with demonstrated traditional land use activities in the Contwoyto Lake area include the Yellowknives Dene First Nation and the Tłı̨chǫ Dene. Members of the Deninu K'ue First Nation also indicate current use of the Contwoyto Lake area.

Study communities have provided observations about caribou migration and distributional patterns as they relate to mine sites and winter roads. Aboriginal groups observe that caribou alter migration routes and distribution in response to noise and air disturbances associated with mining activities. Additionally, they note that winter roads can create migration barriers due to collisions, visual obstruction, noise and visual disturbance, and increased hunting pressure. These observations may provide valuable sources of knowledge for the assessment of any potential environmental effects associated with the Project.

Acknowledgements

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This report was prepared for Sabina Gold & Silver Corp. (Sabina) by ERM Rescan. Data sources were collected and analysed by Rescan Senior Consultant Justin Page (Ph.D.). The report was written by Justin Page. Kent Gustavson (Ph.D) provided senior technical review.

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BACK RIVER PROJECT

EXISTING AND PUBLICALLY AVAILABLE TRADITIONAL KNOWLEDGE FROM SELECTED ABORIGINAL GROUPS IN THE NORTHWEST TERRITORIES

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Acronyms and Abbreviations

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Acronyms and Abbreviations

Terminology used in this document is defined where it is first used. The following list will assist readers who may choose to review only portions of the document.

EIS	Environmental Impact Statement
ha	Hectares
GNWT	Government of the Northwest Territories
MNNWT	Métis Nation of the Northwest Territories
NWT	Northwest Territories
NIRB	Nunavut Impact Review Board
NSMA	North Slave Métis Alliance
Rescan	Rescan Environmental Services Ltd. (currently ERM Rescan)
Sabina	Sabina Gold & Silver Corp.
TK/TU	Traditional Knowledge and Traditional Use

1. Introduction

1. Introduction

Sabina Gold & Silver Corp. (Sabina) is proposing to develop the Back River Project (the Project), located in the west Kitikmeot Region of Nunavut (Figure 1-1). The Project involves the development of mineral deposits in two properties (the Goose and George Properties), with associated infrastructure including a proposed winter road connecting the two properties to a MLA to be located in southern Bathurst Inlet. A winter road connecting with the Tibbit-to-Contwoyto Winter Road in the NWT is also proposed as an alternative transportation corridor for the early phases of the Project.

The Nunavut Impact Review Board (NIRB) requires that the Project's Environmental Impact Statement (EIS) considers the Traditional Knowledge and Traditional Use (TK/TU) of Aboriginal groups. According to NIRB, "the Proponent must incorporate into the EIS the TK to which it has access or the TK that it may reasonably be expected to acquire through appropriate due diligence, in keeping with appropriate ethical standards and without breaching obligations of confidentiality" (Rescan 2012; NIRB 2013).

The purpose of this report is to identify the traditional knowledge and traditional use of selected NWT Aboriginal groups in relation to the proposed Project. The study adopts the Government of the NWT's definition of TK as "knowledge and values, which have been acquired through experience, observation, from the land or from spiritual teachings, and handed down from one generation to another" (GNWT 2005).

1.1 STUDY COMMUNITIES

This study focuses on NWT Aboriginal groups whose traditional land and resource areas and activities directly and/or indirectly relate to the Project area or Project activities. Direct connections relate to resource harvesting in and around the proposed mine sites and winter roads. Indirect connections relate to caribou that migrate through the Project site and/or winter roads and that are harvested by Aboriginal groups outside of the Project area. This report does not make a determination or conclusion regarding any potential interaction with the Project, but focuses on providing information to assist in the assessment.

Figure 1.1-1 and identifies NWT Aboriginal groups' traditional, asserted, and settled land claim territories in relation to the Project. This includes the following:

- Akaitcho Dene First Nations, comprised of:
  - Yellowknives Dene First Nation;
  - Lutsel K'e Dene First Nation; and
  - Deninu K'ue First Nation.
- Tłı̨chǫ, comprised of:
  - Behchokǫ̀;
  - Gamètì;
  - Wekweètì; and
  - Whatì.
- North Slave Métis.

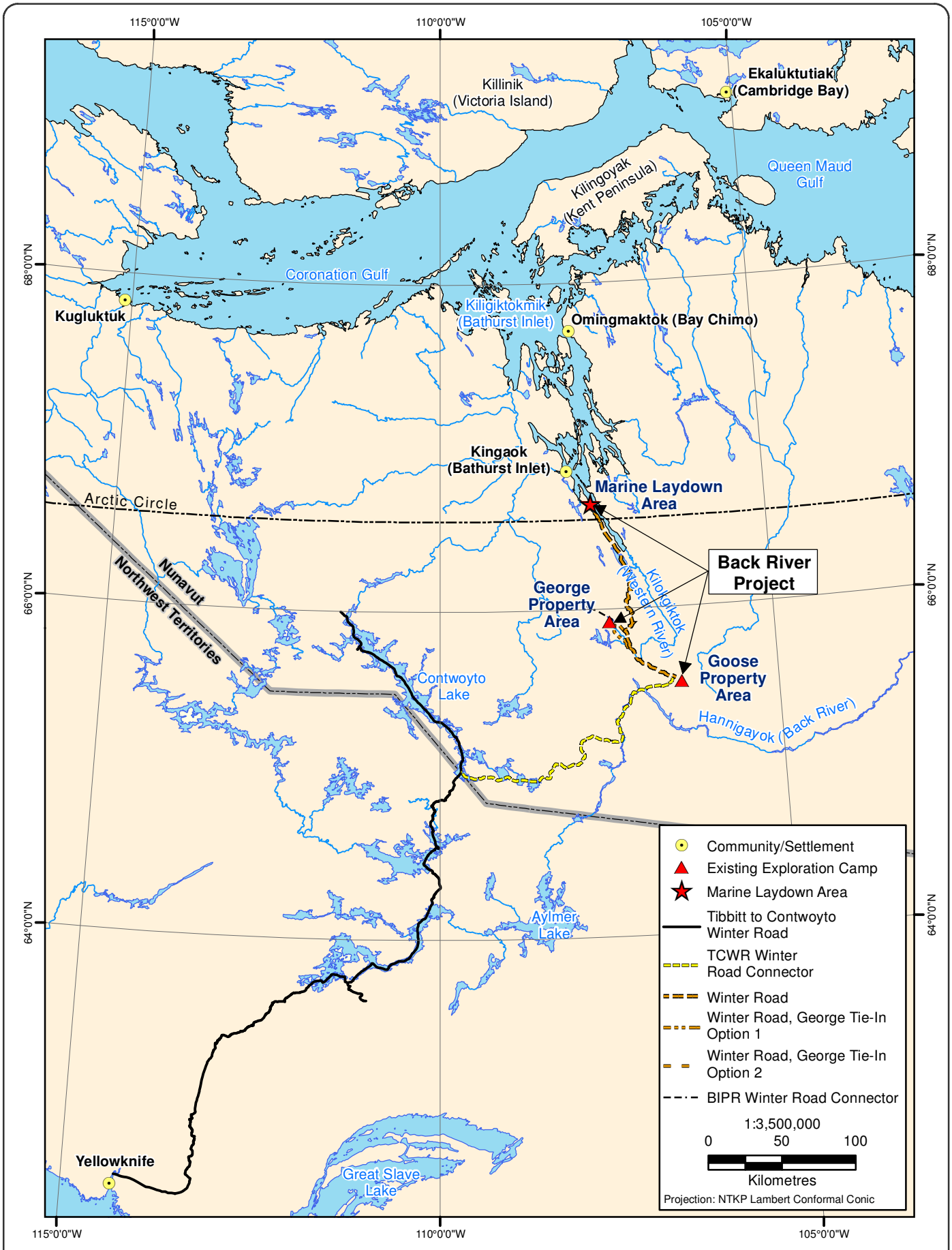
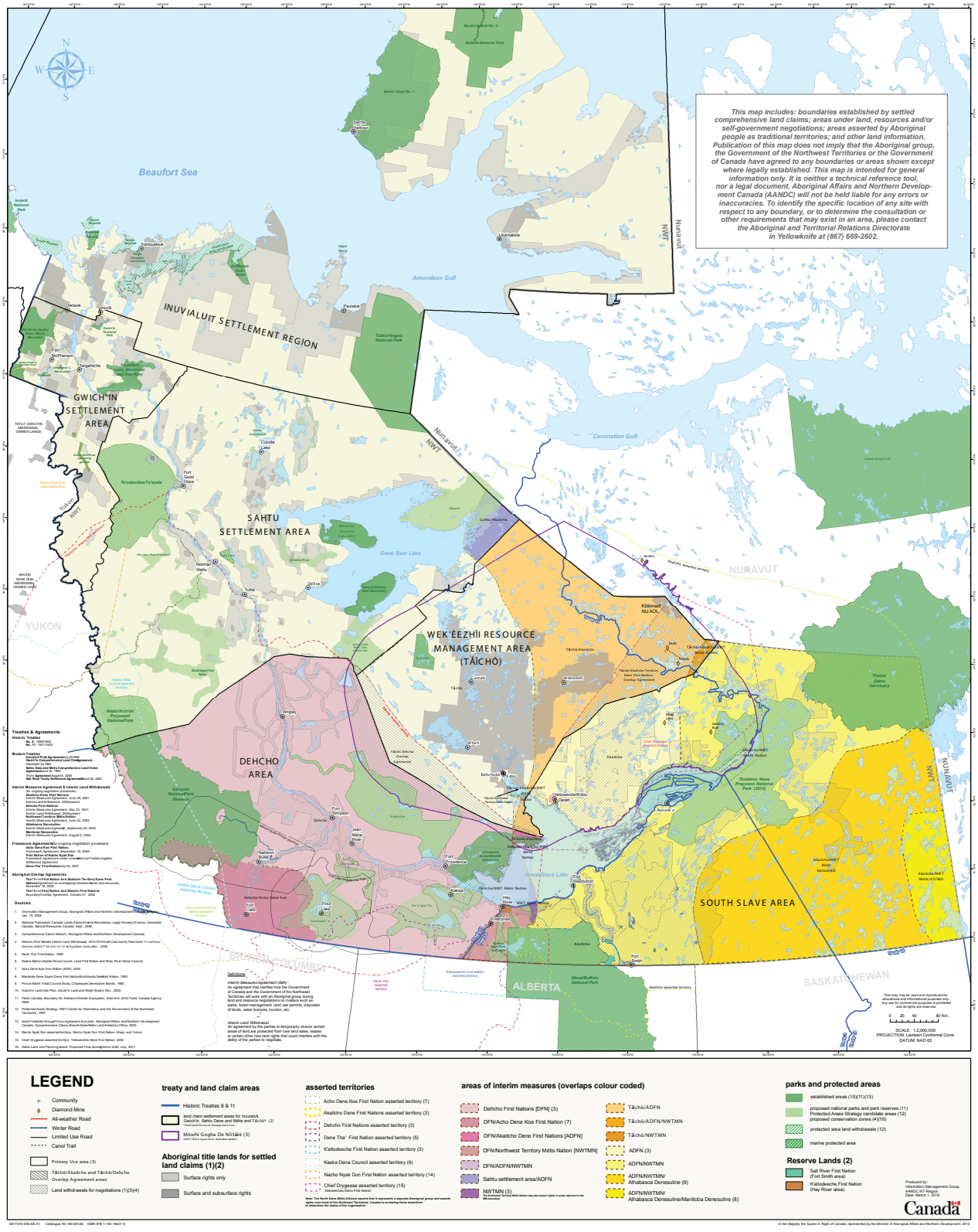


Figure 1-1

Back River Project Location



Source: Aboriginal Affairs and Northern Development Canada (2013).

Figure 1.1-1

NWT Land Information Related to Aboriginal Groups

1.2 ORGANIZATION OF THE REPORT

Following a presentation of the methods that guided data collection and review, Section 3 presents an ethno-linguistic overview of the study groups. The purpose of this overview is to provide the pre-contact context for the socio-political groups that formed in the recent past and whom comprise the study groups for the present study. Section 4 provides an overview of the socio-political groups, noting their ethno-linguistic origins. Section 5 presents information about historical and contemporary land use for the study groups.

2. Methods

2. Methods

The study collected publically-available sources of information about the study communities' TK/TU. Primary sources included:

- published ethnographic studies;
- published academic research;
- proceedings from research workshops;
- relevant existing TK/TU reports;
- relevant Aboriginal submissions to the Mackenzie Valley Environmental Review Board; and
- websites of Aboriginal organizations and communities.

Materials were reviewed to provide 1) an understanding of the ethnographic and socio-political organization of Aboriginal groups in the NWT, and 2) Aboriginal groups' historical and contemporary TK/TU as it relates to the proposed Project. A full list of materials reviewed is located in the references section of this report.

2.1 LIMITATIONS

The report relies exclusively on secondary data. While a substantial amount of information relating to the TK/TU of the study communities can be gleaned from secondary sources[1] – particularly as it relates to Aboriginal groups' use and knowledge of caribou – site-specific data would provide a more accurate picture of Aboriginal groups' TK/TU as it relates specifically to the Project sites and potential spatial interactions with the Project.

In addition, while recent secondary materials are available for many of the study communities, an understanding of some Aboriginal groups' TK/TU could potentially be enhanced through the collection of more recent information. In particular, detailed information about contemporary land use as it relates to the Project sites is not currently publically available.

[1] Note that a TK study of the NSMA prepared for De Beers Canada Inc.'s Gahho Kue Project is expected to be submitted to the Mackenzie Valley Impact Review Board by Oct 29, 2013 and so was not available at the time of writing.

3. Ethno-linguistic Groups

3. Ethno-linguistic Groups

3.1 DENE

The Dene are Northern Athabaskan speakers of the northern boreal and subarctic regions of Canada[2]. Within the NWT, the Dene are comprised of the Chipewyan (Denésoliné), Yellowknife (T'atsan ottiné), Dogrib (Tłı̨chǫ), and Hare, Mountain and Slavey (Sahtu) language groups. Dene means "people" and the term Denendeh refers to the "land of the people."

3.1.1 Chipewyan

The Dene Sųłiné-speaking Chipewyan are the most numerous and extensively distributed of the Dene (J. G. E. Smith 1981). Pre-contact Chipewyans occupied the forest-tundra interface from near the mouth of the Coppermine River to near Hudson Bay. The primary game animal pursued by the Chipewyans was the Barren Ground caribou, which winters in the fringe of the boreal forest and migrates into the tundra in the summer to calve. The Barren Ground caribou structured the Chipewyan seasonal cycle, seasonal distribution, socioterritorial organization, technology, and religious beliefs. Three dialects were spoken by the Chipewyan, corresponding to territorial organization around the three Barren Ground caribou herds (Bathurst, Beverly and Kaminuriak). Band movement and size was based on herd movement. During caribou migrations, regional bands of 200 to 400 individuals formed, while at other times smaller local bands of 50 to 60 individuals would follow herds to their winter and summer foraging ranges. Local bands were made up of several hunting groups which would be distributed along the foraging locations of caribou.

The Chipewyan were marginally involved in the fur trade, due to the relative scarcity of fur-baring animals in their territory. However, some Chipewyan migrated south into the closed forest to partake in the fur trade and others served as intermediaries between the Hudson's Bay Company and the Dogrib and the Yellowknife. Due to their limited participation in the fur trade, Chipewyan social structure, culture and territory did not change appreciably until the 1960s when several bands were relocated to the outskirts of towns containing social services and a cash economy (J. G. E. Smith 1981). Nevertheless, Chipewyan peoples maintained a traditional relationship to the caribou, with several families returning to their traditional territories in the early 1970s.

3.1.2 Yellowknife

Yellowknife Dene were a major division of Chipewyan (the T'atsan ottiné) who spoke a distinctive dialect of Chipewyan (J. G. E. Smith 1981). Yellowknife Dene occupied the Yellowknife and upper Coppermine River drainages in the late eighteenth and early nineteenth centuries. The Yellowknife range, like other Chipewyan, centred on the boreal forest-tundra transitional zone, including the north shore of the eastern half of Great Slave Lake, the Coppermine and Yellowknife Rivers to the west, the upper reaches of Back River to the east, and encompassing Contwoyto Lake to the north. The Yellowknife were largely organized around the Bathurst Caribou herd (Gillespie 1981).

Upon the establishment of trading posts in the Great Slave Lake and Great Bear Lake region in the eighteenth century, the Yellowknife dominated other Aboriginal groups in the area, particularly the

[2] Athabascan speakers are geographically located in three areas: Northern Athabascan, Southern Athabascan and Pacific Coastal Athabascan. Generally, the term Dene is applied to the Northern Athabascan speaking peoples. However, the term Dene is sometimes used to refer to the entire Athabascan language family, as is the case with the annual Dene (Athabascan) Languages Conference. The term Na-Dene refers to a broader language family including Athabascan, Eyak and Tlingit languages.

Dogrib. Chief Akaitcho was the prime leader at this time. After a revenge attack by the Dogrib in 1823 and the removal of trading relationships in their range, the Yellowknife relocated fur trading activities to Fort Resolution and began to amalgamate with other Chipewyans there. Yellowknifes also intermarried with Chipewyan and Dogrib populations of Yellowknife Bay, and Snowdrift (now Lutsel K'e). According to most anthropological accounts, by the twentieth century the Yellowknife no longer had a distinctive dialectical or ethnic identity (Krauss and Golla 1981). However, this claim is disputed by the current day Yellowknives Dene First Nation (Weledeh Yellowknives Dene 1997), as well as by Chipewyan of Rocher River (Freeman 2008; Vanden Berg and Associates 2012).

3.1.3 Dogrib

The Dogrib are *Tłı̨chǫ Yatıı̀*-speaking Dene who traditionally occupied lands between Great Slave Lake and Great Bear Lake and from the lowlands on the east side of the Mackenzie River to Contwoyto, Aylmer and Artillery Lakes. The larger portion of the Dogrib range is characterized by a transitional zone between boreal forest and tundra. Before 1823, Dogribs were harassed by the Yellowknife, particularly under the leadership of Chief Akaitcho, forcing them to avoid certain sectors of their traditional range. After the 1823 revenge attack, the Dogribs regained their range and, due to the efforts of Dogrib Edzo (according to oral tradition), made peace with the Yellowknife. Dogribs were organized into regional bands that occupied and exploited particular areas for significant parts of the year. Bands were made up of sets of families that formed short term task groups or longer term local groups. The Dogrib annual cycle was characterized by hunting and trapping fur-bearing animals for trade in the early summer, caribou harvest at the forest edge and tundra in the summer, fishing in the fall, caribou harvest within the forest in the early winter, and caribou harvest in the spring as the herds are moving toward the tundra for calving. The primary location for caribou harvest was at Snare Lake where large numbers of caribou could be found during the migration to their summer calving grounds (De Beers Canada Inc. 2010). This seasonal round was punctuated by gatherings at Fort Rae (founded in 1852) to trade and engage in festivities in late June, Christmas, and Easter. Dogrib continued to practice a traditional lifestyle into the 1940s. In the 1960s and early 1970s, Dogrib settled in the towns of Rae, Yellowknife and Edzo[3]. Dogrib now refer to themselves as Tłı̨chǫ, from Tłı̨chǫ Done (or Thlingchadinne) meaning "Dog-Flank People."

3.2 MÉTIS

The Métis are a distinct Aboriginal group who trace socio-genesis to the fur trade. Métis are the descendants of the children of French, French-Canadian and Scottish fur traders and their Ojibwa or Cree wives. Métis worked largely in transportation occupations, such as canoemen and packers, and also as interpreters, guides and providers for the fur trade. In addition to transportation work, Métis were involved in fishing, caribou and moose hunting and fur trapping. The offspring of *couriers de bois* and local Aboriginal women, the first generation of Métis in the subarctic were becoming established in the late 1700s and early 1800s as the fur trade reached the area (Jones 2005; Enge v. Mandeville et al. 2013). Other Métis moved into the Subarctic with the fur trade in the late eighteenth and early nineteenth centuries and settling at trading posts (Slobodin 1981). Subsequent to the defeat of the Métis Nation in 1885, subarctic Métis were joined by Métis from the Saskatchewan River region, previously of the Red River valley. The Métis of the southern sub-arctic are identified as Red River Métis, and are distinguished from northern Métis, who are located north of Fort Simpson and derive more recently from the descendants of Dene women and northern European men (Slobodin 1981). Métis speak French, English, Michif, Tłı̨chǫ Yatıı̀, and Denésoliné.

[3] Rae and Edzo (collectively referred to as Rae-Edzo) were renamed Behchokǫ̀ in 2005.

3.2.1 North Slave Métis

Métis became established in the area north and east of Great Slave Lake subsequent to early explorations by *couriers de bois*. They trace their ancestry back to particular families, including the Beaulieus, Laffertys and the Mandevilles who are well represented in the historical record. By the second decade of the nineteenth century, the North Slave Métis were distinct from other indigenous groups (Jones 2005). Many resided in Old Fort Rae, a Hudson's Bay trading post. North Slave Métis worked as fur trade employees and hunted and trapped in the area between Great Slave Lake to the south, Great Bear Lake to the north and present day Nunavut to the east. Hunting included caribou hunting in the tundra (Jones 2005). North Slave Métis travelled extensively throughout the region, evidenced by wide marriage networks. Settlements included Old Fort Rae, Lac La Martre, Yellowknife River, Old Fort Providence, Fort Resolution, Beaulieu Fort (present day Lutsel k'e), and Fort Reliance.

4. Socio-political Groups

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4. Socio-political Groups

4.1 AKAITCHO DENE FIRST NATIONS

The Akaitcho Dene First Nations represent the interests of the Yellowknives and Chipewyan Dene First Nations, including Dettah and N'Dilo (Yellowknives Dene First Nation), Lutsel k'e, and Deninu K'ue. The name Akaitcho is taken from the Yellowknife Chief of early nineteenth century. The asserted traditional Akaitcho territory stretches from the eastern portion of Great Slave Lake (Tu Cho) in the east, north of Contwoyto Lake in the north, to the Nunavut border in the east, and south into Saskatchewan and Alberta. In 1900, Chief Drygeese signed Treaty 8.[4] Due to differences in interpretation of the treaty in the 1970s, Canada and the Dene engaged in a comprehensive treaty claim process (the Dene-Métis Comprehensive Claim) that failed in 1990. In 2000, the Akaitcho developed a Framework Agreement with the government of Canada and the Government of the Northwest Territories to guide negotiations toward a final treaty agreement. To date, the Akaitcho Process has resulted in a 2001 Interim Measures Agreement for screening development applications in Akaitcho asserted traditional territory, a 2006 Interim Land Withdrawal of 1,034 ha from the City of Yellowknife, and a 2007 Land Withdrawal Agreement to protect 62,000 km of federal Crown land within Akaitcho traditional territory while negotiations continue. An agreement in principle and final agreement are yet to be completed.

The Akaitcho Dene First Nations are also represented by the Akaitcho Territory Government and the Akaitcho Treaty 8 Tribal Corporation.

4.1.1 Yellowknives Dene First Nation

The Yellowknives Dene First Nation, also known as the Weledeh Yellowknives First Nation in reference to the Weledeh (Yellowknife) River as well as the T'atsaot'ine, are located in the communities of Dettah and N'Dilo. The First Nation was formerly known as the Yellowknife B Band, having been so named in Treaty 8. While pre-contact Yellowknife were a subgroup of the Chipewyan, the band signing Treaty 8 were primarily Dogrib who had incorporated some of the descendants of the historic Yellowknife[5] (Gillespie 1981). Following the failed Dene-Métis Comprehensive Claim in the 1990s, the Yellowknife B Band changed its name to the Yellowknives Dene Band by Band Council Resolution in 1991 (Vanden Berg and Associates 2012). The Yellowknives Dene First Nation is pursuing a treaty agreement under the Akaitcho Process. In 2012, the population of Detah was 260 and N'Dilo was approximately 200 (NWT Stats 2013b). The majority of Aboriginal speakers in Dettah speak Tłı̨chǫ Yatii (Statistics Canada 2013b).

4.1.2 Lutsel K'e Dene First Nation

Lutsel K'e, a Chipewyan community, is a Designated Authority located on the south shore of Great Slave Lake's east arm. It is the most northerly Chipewyan community, located at the treeline.

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[4] According to anthropologists, Chief Drygeese was chief of the Dogrib band *Wulede hoti* (or Connie River People) and that they were misnamed as Yellowknife. However, the Akaitcho claim that Chief Drygreese did in fact sign treaty on behalf of the Yellowknife. Others suggest that three different men signed on behalf of the Yellowknife: Chief Snuff, headman Tzin-Tu and headman Ate-ee-zen. See Helm (1981), Vanden Berg and Associates (2012), and Akaitcho Treaty 8 Tribal Coprporation (2013).

[5] Some Yellowknife Dene claim that anthropologists are mistaken in identifying the contemporary Yellowknife Dene Nation as Tlicho, and that the Nation derives from the pre-contact Yellowknife. See Yellowknives Dene First Nation Elders Advisory Council (1997) for more information. The Dene of Rocher River claim to be the direct descendants of the historic Yellowknife peoples, with a traditional territory east of the Slave River between Great Slave Lake and Lake Athabasca (Freeman 2008.) The same argument is made in De Beers (2012).

The community grew around a Hudson's Bay Company post founded in 1925. Prior to settlement at the post, Chipewyan families occupied ?edaghecho Tue at the southern end of Artillery lake during caribou migrations (Jacob 1987). Known as the Yellowknife A Band until the 1960s, the First Nation changed its name to Lutsel K'e in 1992. The population of Lutsel K'e was 310 in 2011 (NWT Stats 2012). The majority of Aboriginal language speakers speak Dene Sųłiné. The Łutselk'e Denesôłıne refer to their traditional territory as Denesôłıne Nëne (Lutsel K'e Dene First Nation 2005).

4.1.3 Deninu K'ue First Nation

The Chipewyan community of Deninu K'ue is a Settlement Corporation situated at the mouth of the Slave River. Formerly known as Fort Resolution (est. 1786), Deninu K'ue is the oldest documented community in the NWT. Together with other Dene who occupied lands north, south and east of Great Slave Lake, the Chipewyan and Yellowknife ancestors of the Deninu K'ue frequented the fort to trade and, after adhering to Treaty 8 in 1900, collect treaty payments. Those who traded and lived at the fort were referred to as Dene Nu Kwen, which translates as "Moose Deer Island House People" (Smith 1982). More permanent settlements arose as Chipewyans moved to the fort to be close to their children who were placed in residential school there (Vanden Berg and Associates 2012). Originally grouped with the Yellowknife A Band, the Chipewyan Band of Fort Resolution changed its name to the Resolution Band in 1962 and to Deninu K'ue First Nation in 1992 (Vanden Berg and Associates 2012). The population of Deninu K'ue was 475 in 2011. Almost all Aboriginal language speakers in Deninu K'ue speak Dene Sųłiné (Statistics Canada 2013c).

4.2 TŁĮCHǪ GOVERNMENT

The Tłı̨chǫ Government (also known as the *Tåîchô Government*) represents the interests of Tłı̨chǫ (prev. Dogrib) citizens residing in Behchokǫ̀, Gamètì, Wekweètì and Whatì. Following the collapse of the Dene-Métis comprehensive land claim negotiation in 1990, the Dogrib Treaty 11 Council negotiated a regional land claims and self-government agreement with the Government of Canada and the Government of the Northwest Territories[6]. Upon ratification of the Tłı̨chǫ Agreement (Tlicho Government, GNWT, and Government of Canada 2003) in 2005, the Tłı̨chǫ Community Governments of Behchoko, Whatì, Gamètì, and Wekweètì replaced Indian Act Bands and NWT municipal corporations and the Tłı̨chǫ Government was formed. As the governing authority within Tłı̨chǫ Lands, the Tłı̨chǫ Government has the power to pass and enforce laws, delegate its powers and authority, and establish structure of Tłı̨chǫ Government and its internal management (Tlicho Government 2013b). The Tłı̨chǫ Agreement designates 39,000 square kilometres of land located between Great Slave Lake and Great Bear Lake as Tłı̨chǫ Lands, which are owned by the Tłı̨chǫ Government. On these lands, Tłı̨chǫ citizens hold certain exclusive rights, such as the right to harvest furbearers and take and use water. In the wider Tłı̨chǫ traditional territory, known as the Môwhì Gogha Dè Nîîtåèè[7], Tłı̨chǫ citizens hold non-exclusive rights to harvest trees and plants and all species of wildlife at all times of year without a licence from the Government of the Northwest Territories. The Tłı̨chǫ Government must be consulted whenever a development is proposed for the Môwhì Gogha Dè Nîîtåèè that might affect the well-being of the Tłı̨chǫ. The Wek'èezhìi Resource Management Area encompasses Tłı̨chǫ lands. It is contained within the Môwhì Gogha Dè Nîîtåèè. The Wek'èezhìi Renewable Resource Board makes recommendations about wildlife management, forest and plant management, and commercial activities within the Wek'èezhìi Resource Management Area.

[6] The Yellowknives Dene First Nation (formerly the Yellowknife B Band under Treaty 8) chose not to participate in the negotiations. See Section 5.1.1.

[7] Described by Chief Monfwi during the signing of Treaty 11 in 1921.

4.2.1 Behchokǫ̀

Behchokǫ̀ (formerly Rae-Edzo) is located on the northwestern tip of Great Slave Lake and comprised of the communities of Rae and Edzo. The name Rae is taken from Old Fort Rae, established in 1852 approximately 8 kilometres from the present location on the southeast shore of Marion Lake. By 1890, over 600 people had settled in the area. Permanent housing was built in the 1940s (Legislative Assembly of the Northwest Territories 2013a). Rae houses the central offices for the Tłı̨chǫ Government. The community of Edzo (whose name was taken from Chief Edzo who is said to have made peace with Chief Akaitcho of the Yellowknife in 1823) was constructed by the federal government in 1972, as it was considered to be a more suitable site. While a school was constructed in Edzo, 90% of Behchokǫ̀'s population reside in Rae. The population of Behchokǫ̀ was 2,174 in 2012 making it the largest Tłı̨chǫ community (NWT Stats 2013a). Almost all Aboriginal speakers in Behchokǫ̀ speak *Tłı̨chǫ Yatıì* (Statistics Canada 2013a).

4.2.2 Gamètì

Gamètì (formerly known as Rae Lakes) is located along the chain of waterways linking Great Slave Lake and Great Bear Lake. Traditionally used as a temporary hunting camp, Tłı̨chǫ families settled in the community in the 1970s when an airstrip, school, store and log houses were constructed (Tlicho Government 2013a). The population of Gamètì was 311 in 2011 (NWT Stats 2013c). All Aboriginal language speakers speak *Tłı̨chǫ Yatıì* (Statistics Canada 2013d).

4.2.3 Wekweètì

Wekweètì (formerly known as Snare Lake) is located on the Snare River. The community was founded in 1962 by former chief Alexis Arrowmaker who brought several families from Behchokǫ̀ to pursue a more traditional lifestyle (Tłı̨chǫ Government 2013). Prior to the founding of the community, Tłı̨chǫ families travelled annually from Behchokǫ̀ to Wekweètì to harvest Bathurst caribou that would be migrating along Snare Lake in the fall (Judas 2012). With a population of 141 in 2012 (NWT Stats 2013d), Wekweètì is the smallest Tłı̨chǫ community. Almost all Aboriginal speakers in Wekweètì speak *Tłı̨chǫ Yatıì* (Statistics Canada 2013e).

4.2.4 Whatì

Whatì (formerly known as Lac La Martre) is located on Lac La Martre. A traditional hunting area, Tłı̨chǫ families began to settle there after the establishment of a trading post by the North West Company in 1793 (Legislative Assembly of the Northwest Territories 2013b). A federal school was established in 1955. The population of Whatì in 2012 was 519 (NWT Stats 2013e). Almost all Aboriginal speakers in Whatì speak *Tłı̨chǫ Yatıì* (Statistics Canada 2013f).

4.3 NORTH SLAVE MÉTIS ALLIANCE

The North Slave Métis Alliance (NSMA) represents the interests of approximately 500 Métis residing in Yellowknife, Behchokǫ̀, Whatì, Gamètì, Wekweètì, Dettah and N'dilo. Prior to 1996, North Slave Métis were represented by the Métis Nation of the Northwest Territories (MNNWT), formed in 1972 to represent all indigenous Métis in the NWT. Following the collapse of the Dene-Métis Comprehensive Claim negotiation process, the MNNWT was disbanded and two regional Métis groups—the South Slave Métis Tribal Council (now the Northwest Territories Métis Nation or NWTMN) and the NSMA – formed. On January 19, 1998, the NSMA submitted a statement of claim to the federal government for lands in the North Slave region. While the federal government is currently negotiating an Agreement-in-Principle with the NWTMN, no negotiations have taken place to date with the NSMA. The federal government takes the position that the NSMA does not have the right to establish a land claim or have access to caribou harvesting rights and devolution funds because its members are not a distinct Aboriginal group indigenous

to the region (Wohlberg 2013). However, a June 20, 2013 decision of the Supreme Court of the Northwest Territories confirmed that NSMA members have a *prima facie* claim to Aboriginal rights under Section 35(1) in the Constitution and exercise them in the area north and east of Great Slave Lake, NWT, and must be consulted when their rights may be affected (Enge v. Mandeville et al. 2013).

5. Traditional Land Use and Harvesting

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5. Traditional Land Use and Harvesting

5.1 AKAITCHO DENE

In pre-contact times, Yellowknife and Chipewyan Dene subsisted primarily on caribou. Caribou were hunted in the spring as they returned to their summer habitat in the tundra and throughout the summer on the barrenlands. Other animals harvested included geese, ducks, ptarmigans, beavers, muskrats, snowho and artic hares, fish of many species, moose and muskoxen (Vanden Berg and Associates 2012).

5.1.1 Yellowknives Dene First Nation

According to the Yellowknives Dene First Nation (Weledeh Yellowknives Dene 1997), the Yellowknives Dene First Nation derives directly from the pre-contact T'satsąot'ınę and not from Tłı̨chǫ, as concluded by anthropologists. The Weledeh Yellowknife, according to the Advisory Council, occupied and used the Weledeh (Yellowknife) river and surrounding lands (Weledeh-Cheh). Some families resided year round in the Weledeh-Cheh, fishing and hunting moose and rabbits. However, most families travelled to treeline camps in the late summer and early fall, from which they would move into the barrenlands to hunt caribou migrating south across Contwoyto Lake, Yamba Lake, Lac du Sauvage, Lac de Gras, Mackay Lake and Courageous Lake (Weledeh Yellowknives Dene 1997). Weledeh Yellowknife remained in the barrenlands until April, during which time they harvested muskox and trapped animals including mink, lynx, wolf, fox, hare, and squirrel. Weledeh Yellowknife remaining in Weledeh-Cheh harvested caribou that migrated a far south as Great Slave Lake, trapped marten, muskrat, beaver, and harvested birds including ptarmigan and grouse. In the spring, Weledeh Yellowknives returned to Weledeh-Cheh where they fished for species such as trout, whitefish and loche, and they continued to fish in the summer.

Yellowknives Dene continue to hunt, trap and fish. Game animals harvested include caribou, muskox, black bear, and moose. Harvested fur-bearing animals include beaver, coyote, fox, lynx, marten, mink, muskrat, otter, rabbits, squirrels, wolf, weasel, and wolverine. Birds harvested include upland game birds and waterfowl (Avalon Rare Metals Inc. 2011). Fish are also harvested. In general Yellowknives Dene harvest fur-bearing animals from late fall through spring, game animals year-round when available, waterfowl from spring until late fall, and game birds year round (Avalon Rare Metals Inc. 2011). In 2008, approximately 39% of residents in Dettah and 37% of residents in N'Dilo hunted or fished, while approximately 20% of residents in Dettah and 14% of residents in N'Dilo trapped (NWT Stats 2009b). However, approximately 70% of residents in Dettah obtained at least half of their meat and fish through hunting and fishing (NWT Stats 2009a).

Yellowknives Dene have observed a general decline in animal populations and animal health and quality. In particular, they note that caribou do not migrate as far south as they did in the past and that the quality of caribou hides are thinner and of poorer quality and caribou meat is not as fat as it used to be (Avalon Rare Metals Inc. 2011).

5.1.2 Lutsel K'ue Dene First Nation

The Lutsel K'ue Dene traditionally harvested caribou from the Bathurst and Ahiak[8] herds as their primary food source. Other large game harvested included muskox and moose. Harvesting activities also included fishing and trapping. Harvested fish included trout, inconnu, grayling, lake herring, whitefish, and

[8] The Ahiak herd is also known as the Beverly herd. The term Ahiak is used by Lutsel K'ue and as such is also used here to reflect their use of this term.

northern pike. Harvested birds included goose, grouse, and ptarmigan. Fur-bearing animals trapped by the Lutsel K'ue Dene included white fox, wolf, wolverine, grizzly bear, ground squirrel, and Arctic hare. Typically, Lutsel K'ue Dene hunted in the fall, trapped in the winter and spring, and hunted birds, caught fish, and gathered plants and berries in the summer and early fall (De Beers Canada Inc. 2010).

Resource harvesting activities took place primarily around the East Arm of Great Slave Lake and north into the barrenlands. This area, referred to as *Kakinëne* (the rich land), "extends from Nidítagh Tué (MacKay Lake) and Tåa Gai Tué (Aylmer Lake) in the north to Kaché Tå'azí in the south, from Æedacho Tué (Artillery Lake) in the east to Åu Tué (McKinlay Lake) in the west" (Lutsel K'e Dene First Nation 2005). This area consists of eight regions:

- The Kache Tué region encompasses Kaché Tå'azí (McLeod Bay) and the watersheds of the small rivers feeding into it. The area is a primary overwintering site of the Bathurst caribou herd and a site of winter caribou harvest. Lutsel K'ue Dene also trapped wolf and white fox and fished in the area.
- The Desnedhe Che region encompasses the Lockhart River between Æedacho Tué and Tu Nedhe Pike's Portage. Pike's portage is the historical main route used by the Lutsel K'ue Dene when travelling to and from the barrenlands.
- The Æedacho Tué region is defined by the water, shores and inland areas of Artillery Lake. Caribou from the Bathurst and Ahiak herds migrate here after returning from calving grounds and remain in the autumn to fatten up for the winter. Lutsel K'ue Dene harvest caribou at this location and used to live here either seasonally or year-round.
- The Bedaghé Tué region includes a secondary route by which the Lutsel K'ue Dene accessed the barrenlands. Bathurst caribou travel through the region in the late summer. The lakes in the region, Tué Cho (Fletcher Lake), Datthi Tué (Walmsley Lake), and K'ezus Tué (Cook Lake), were used for fishing.
- The K'asba Nÿne region encompasses K'asba Tué (Ptarmigan Lake) and Åudaghe Tué (Clinton-Colden Lakes) and the surrounding barrenlands. The area was used extensively for trapping white fox and hunting muskox.
- The Tåa Gai Tué region encompasses Tåa Gai Tué (Aylmer Lake) and the headwaters of the Lockart River and Back River. Sandy eskers in the region provide habitat for grizzly bears, wolves and other tundra mammals. Caribou travel through the area in the late summer. Lutsel K'e Dene trapped foxes and wolves and harvested caribou in the area.
- The Na Yaghé Tué region (1 and 2) is a rocky area through which caribou migrate en route to other regions. Except around MacKay Lake, the Lutsel K'e Dene did not traditionally hunt or trap in this area.

Contemporary resource harvesting for the Lutsel K'e Dene First Nation takes place around the East Arm of Great Slave Lake, particularly around Lutsel K'e and Artillery Lake (De Beers Canada Inc. 2010). Game animals harvested include caribou, black bear, grizzly bear, moose, muskox, deer and wood buffalo. Fur-bearing animals harvested include beaver, fox, lynx, marten, mink, muskrat, otter, porcupine, rabbit, squirrel, weasel, wolf and wolverine. Upland game birds, waterfowl and fish are also harvested (Avalon Rare Metals Inc. 2011). Fur-bearing animals are typically harvested from late fall through spring, game animals are harvested year-round when they are available, waterfowl are typically harvested in the spring and fall, and game birds are normally harvested year-round (Avalon Rare Metals Inc. 2011). In 2008, approximately 73% of Lutsel K'e residents hunted or fished, while approximately 33% trapped (NWT Stats 2009b). However, approximately 92% of households obtained half or more of their meat and fish through hunting or fishing in 2008 (NWT Stats 2009a).

Lutsel K'e Dene note that the Bathurst caribou herd are migrating further away from Lutselk'e than normal and are also more skinny than usual (Lutsel K'e Dene First Nation 2005; Avalon Rare Metals Inc. 2011). Hunters explain this occurrence with the supposition that environmental disturbances, such as mining developments, are causing stress to caribou and are causing them to travel greater distances to avoid disturbances (Kendrick, Lyver, and Lutsel K'e Dene First Nation 2005; Lutsel K'e Dene First Nation 2005). Elders suggest that caribou alter their migration routes in order to avoid mining infrastructure, including ice roads (Parlee, Manseau, and Lutsel K'e Dene First Nation 2005). In particular, collision risk, traffic densities, visual barriers, snow drifts and increased hunting access are noted as potential contributions of winter roads to altered caribou migration patterns (Kendrick, Lyver, and Lutsel K'e Dene First Nation 2005).

5.1.3 Deninu K'ue First Nation

The Deninu K'ue traditionally relied on hunting, trapping and fishing to meet their dietary needs. Primary game included caribou, moose, muskox, buffalo, deer, and bear. Furbearers harvested in the barrenlands included artic fox, red fox, wolverine, wolf, and muskox. Harvested furbearers in the transitional forest included beaver, marten, muskrat, mink, river otter, and lynx (Vanden Berg and Associates 2012). Harvested birds included duck, goose and ptarmigan (De Beers Canada Inc. 2010). Before the 1940s, the Deninu K'ue travelled every fall to the barrenlands to harvest caribou (D. M. Smith 1982), occasionally by way of the East Arm of Great Slave Lake (Fort Resolution Education Society 1987). According to Smith (1982), after the 1940s their resource range was reduced to the southern parts of Great Slave Lake, including Rocher River, Deskataway Lake and Simpson Island (Fort Resolution Education Society 1987). Occasionally, Deninu K'ue would trap for white fox in the barrenlands, upon arrangement with the Lutsel K'e (D. M. Smith 1982). Other accounts suggest that Deninu K'ue continued to regularly hunt in the barrenlands until the 1970s (Vanden Berg and Associates 2012). Deninu K'ue generally hunted in the fall, trapped in the winter and fished and hunted in the summer.

Many Deninu K'ue continue to hunt in the barrenlands as a means to exercise their Aboriginal rights and to supplement wage labour (Vanden Berg and Associates 2012). Caribou and fish were the main food sources exploited. In addition to caribou, animals harvested north of Great Slave Lake in recent years include moose, black bear, muskox, wood buffalo, cougar, Artic wolf, tundra wolf, grizzly bear, and deer. Harvested fur-bearing animals include beaver, coyote, fisher, marten, mink, otter, squirrel, weasel, muskrat, wolverine, lynx, Artic fox, and hares. Birds harvested include duck, geese, grouse, and ptarmigan (Avalon Rare Metals Inc. 2011; Vanden Berg and Associates 2012). Deninu K'ue also harvest fish. Fur-bearing animals are typically harvested from late fall through spring, game animals are harvested year-round when they are available, waterfowl are typically harvested from spring till late fall, and game birds are normally harvested year-round when they are available (Avalon Rare Metals Inc. 2011). Many Deninu K'ue use the Tibbit to Contwoyto Winter Road as a means to access the barrenlands to hunt caribou (Vanden Berg and Associates 2012). Winter roads to Rae Lakes and Lac la Martre are also used. Caribou hunting areas include Lac de Gras (Vanden Berg and Associates 2012), the East Arm of Great Slave Lake (Vanden Berg and Associates 2012), Lac la Martre, McKay Lake (Vanden Berg and Associates 2012), Rae Lakes, Whitefish Lake (Vanden Berg and Associates 2012), Artillery Lake, Lac du Sauvage, Contwoyto Lake (Vanden Berg and Associates 2012), and the Thelon River Basin (De Beers Canada Inc. 2010). As a consequence of a 2010 caribou hunting ban, some Deninu K'ue hunt in the barrenlands east of Great Slave Lake. Approximately 43% of Deninu K'ue 15 years and older hunted or fished in 2009, while approximately 17% of those 15 years and older trapped in 2009 (NWT Stats 2009b). Generally, hunters distribute meat to family members and elders upon return from the hunt (Vanden Berg and Associates 2012). Approximately 70% of households consumed at least half of meat and fish obtained through hunting and fishing in 2008 (NWT Stats 2009a).

Deninu K'ue have observed that both the quantity and quality of caribou have declined in recent years. Indicators of health include levels of fat (as indicated by tail bushiness) and the taste of meat (Vanden Berg and Associates 2012). Others note that migration patterns have changed (attributed to mining activities and a past forest fire), with caribou rarely travelling as far south as they have in the past (Vanden Berg and Associates 2012). In particular, Deninu K'ue attribute changes in caribou migration patterns to explosions and vibrations associated with mining activities (Beaulieu 2010; Vanden Berg and Associates 2012). Ice roads are also identified as a cause for a change in migration patterns, as they create disturbance and increase hunting pressure (Vanden Berg and Associates 2012). Deninu K'ue also note that the roads are difficult for caribou to cross as they can develop large snow banks on each side (Vanden Berg and Associates 2012).

5.2 TŁĮCHǪ DENE

The Tłı̨chǫ relied on hunting, trapping, and fishing for subsistence. The primary resources harvested by Tłı̨chǫ include caribou, moose, hare, duck, grouse, ducks, ptarmigan, beaver, muskrat, hares and fish. Tłı̨chǫ moved to hunting and fishing camps to intercept caribou as they migrated to winter and summer ranges. Fish were harvested year round, with the bulk of harvests taking place between October and December. Ducks were harvested June to August, ptarmigan October to March, and grouse all year (Helm 1981).

Tłı̨chǫ traditional territory included the area between Tideè (Great Slave Lake) and Sahtì (Great Bear Lake), extending from Kôk'èetì (Contwoyto Lake), Ts'eèhgootì (Aylmer Lake) and Æedacho Tué (Artillery Lake) in the barrenlands, to Dehtso (Mackenzie River) in the west (Legat et al. 2001). The Môwhí Gogha Dé Nîîhtłée, originally described by Chief Môwhí during the signing of Treaty 11 and recognized in the 2005 Tłı̨chǫ Agreement, defines this traditional territory. The Môwhí Gogha Dé Nîîhtłée is made up of four regions of traditional importance. Nôdìı, a plateau west of the Camsell River, is used for hunting woodland and barrenland caribou, trapping fur-bearing animals, and collecting medicinal plants. Detsı̨ta is a forested area east of the Camsell River. Detsîts'ôneè is an area just below the treeline. Hozìı refers to the barrenlands (Legat et al. 2001).

Tłı̨chǫ continue to hunt caribou, trap and fish (Tlicho Government 2012). In 2008, approximately 40% of Tłı̨chǫ people hunted or fished, and approximately 13% trapped (NWT Stats 2009b). The greatest percentage of residents who hunted and trapped was in Wekweètì (approximately 56%) and the lowest in Behchokǫ̀ and Gamètì (both approximately 38%). These differences are mirrored in the trapping figures, with the greatest percentage of people trapping (approximately 22%) in Wekweètì and the lowest percentage (approximately 12%) in Behchokǫ̀. Approximately 74% of Tłı̨chǫ obtained at least half of their meat and fish from hunting and fishing in 2008 (NWT Stats 2009a).

Tłı̨chǫ hunters observe caribou behaviour for indicators of change and distributional patterns. Some characteristics observed by Tłı̨chǫ include caribou fitness in spring and autumn, number of young, and number of caribou using particular crossings (Adamczewski et al. 2008). They also monitor the state of caribou habitat, such as the abundance of lichen, grasses and sedges, and the extent to which these plants have been affected by fire or industrial development (Adamczewski et al. 2008). Such knowledge is embedded in oral narratives that provide a wealth of contextual information, such as caribou's relation to place, people, wolves, snow depth, and time of freeze and thaw (Adamczewski et al. 2008).

5.3 NORTH SLAVE MÉTIS

North Slave Métis depended on a mixture of wage labour from fur trading companies and subsistence hunting and trapping. Typically, North Slave Métis men would work for the fur trade companies in the summer and hunt, trap and fish for the remainder of the year (North Slave Métis Alliance 1999). While the

men were away, North Slave Métis women would typically remain near the forts and garden, fish, and trap birds and small game (North Slave Métis Alliance 1999). Primary game included caribou, muskox and moose. Harvested furbearers included white fox, wolf, wolverine, grizzly bear, squirrel and hare. Birds harvested included goose, grouse and ptarmigan. Harvested fish included coney, trout, grayling, lake herring, whitefish, and northern pike. North Slave Métis also harvested berries (De Beers Canada Inc. 2010).

North Slave Métis have indicated their continuing reliance on caribou as a source of sustenance, health and well-being (North Slave Métis Alliance 1999). While the 500 or less North Slave Métis peoples living in Yellowknife cannot be disaggregated from the larger Yellowknife population (15,775 people aged 15 and older in 2008), it may be noted that approximately 35% of Yellowknife residents hunted or fished in 2008, while approximately 1% trapped (NWT Stats 2009b). Approximately 11% of Yellowknife residents obtained at least half of their meat and fish from hunting and fishing in 2008 (NWT Stats 2009a).

North Slave Métis have observed fluctuations in caribou population over time, as have other Aboriginal groups in the region (Beaulieu 2010). Some North Slave Métis have observed that caribou have changed migration and distributional patterns due to pollution and noise disturbance associated with mines (North Slave Métis Alliance 1999). Others have observed that winter roads create changes in caribou migration and distribution, due to collisions, physical barriers, noise disturbance, and increased access for hunters (North Slave Métis Alliance 1999). North Slave Métis also predicted that the cumulative effects from industrial activities could create further shifts in caribou distribution, with caribou retreating further into the barrenlands, dividing into two herds and shifting their range further to the east and/or west (North Slave Métis Alliance 1999). North Slave Métis evaluate the health of caribou by observing amount of fat, presence of parasites, condition and smell of internal organs, and behaviour.

6. Summary

6. Summary

All study communities have extensively used, and continue to use, lands and resources that may interact in some way with the Project. In particular, Akaitcho Dene, Tłı̨chǫ Dene and North Slave Métis demonstrate a strong traditional and contemporary reliance on caribou. The materials reviewed establish that study communities harvested, and continue to harvest, a number of game species and fur-bearing animals in the barrenlands and that some communities' resource harvesting range extends as far as Contwoyto Lake. Study communities with demonstrated traditional land use activities in the Contwoyto Lake area include the Yellowknives Dene First Nation and the Tłı̨chǫ Dene. Members of the Deninu K'ue First indicate current use of the Contwoyto Lake area.

Study communities provided observations about caribou migration and distributional patterns as they relate to mine sites and winter roads. Aboriginal groups observe that caribou alter migration routes and distribution in response to noise and air disturbances associated with mining activities. Additionally, they note that winter roads create migration barriers due to collisions, visual obstruction, noise and visual disturbance, and increased hunting pressure. These observations may provide valuable sources of knowledge for the assessment of any potential environmental effects associated with the Project.

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Appendix V3-3D

Traditional Knowledge Study Report on the Arctic Char Fishery in the Nulahugyuk Creek - Hingittok Lake Area (Bernard Harbour), Nunavut

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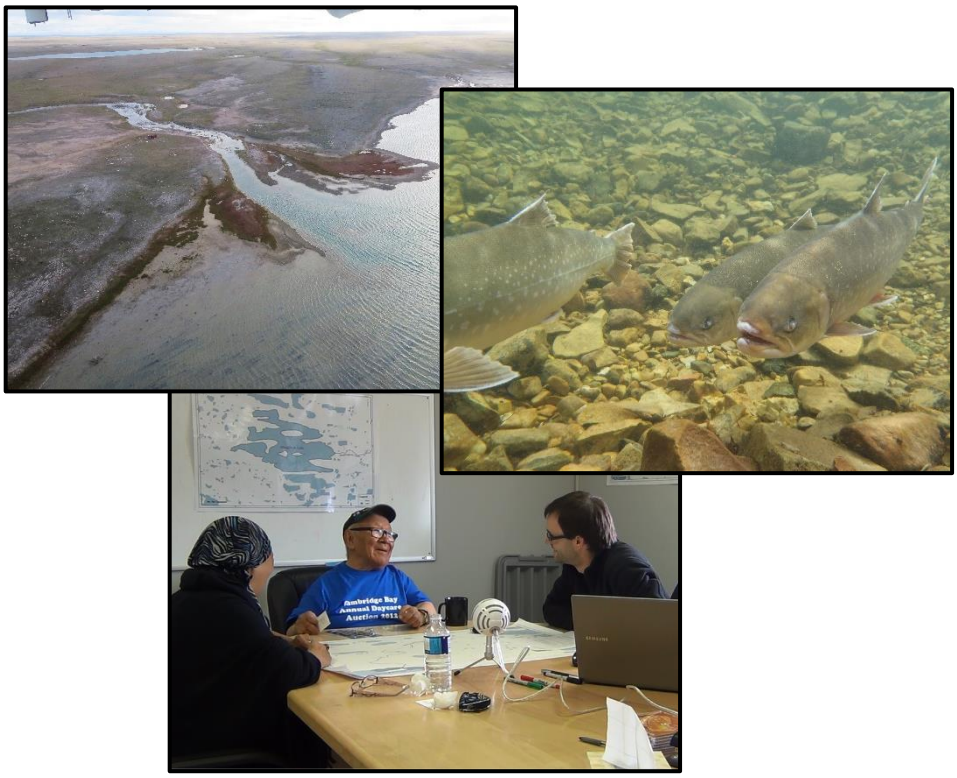
Traditional Knowledge Study Report on the Arctic Char Fishery in the Nulahugyuk Creek - Hingittok Lake Area (Bernard Harbour), Nunavut

April 2015



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This report was also reviewed and edited by individuals interviewed for the study and various representatives of the Kugluktuk HTO and Sabina Gold & Silver Corp. prior to its finalization.

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Jason Prno (Sabina Gold & Silver Corp.) – Cover page, top and bottom images; Figure 2; Figure 3; Appendix D images
Cameron Stevens (Golder Associates) – Cover page, middle image
David Epilon (TK study interviewee) – Figure 7
Canadian Museum of History – Figure 8, Figure 9, Figure 10, Figure 11, Figure 12, Figure 13

EXECUTIVE SUMMARY

A Traditional Knowledge (TK) study was carried out by Sabina Gold & Silver Corp. (Sabina) in partnership with the Kugluktuk Hunters and Trappers Organization (HTO), in an effort to develop a better understanding of the Arctic Char fishery in the Nulahugyuk Creek - Hingittok Lake (Bernard Harbour, Nunavut) area. The information collected from this study will support stream restoration efforts being proposed by the Kugluktuk HTO and Sabina at Bernard Harbour, which Sabina anticipates will help satisfy a Department of Fisheries and Oceans (DFO) requirement to offset fisheries habitat effects at the Back River Project. In the long term, the information collected from this study will help enable the Kugluktuk HTO and Sabina to restore a historic, locally-utilized Arctic Char fishery, for the benefit of Kugluktuk residents. Data for the TK study has been gathered from key informant interviews with Bernard Harbour land users, various secondary sources (e.g. historic records, land use reports, academic publications), and a site visit to Bernard Harbour.

The study has revealed that Bernard Harbour was (and continues to be) an important land use area for a number of Inuit families. Historically, most families lived at Bernard Harbour seasonally, either in tents or cabins, although some individuals lived at Bernard Harbour year-round. Fishing and hunting were noted by interviewees to be very good at Bernard Harbour, and were said to be the main reasons why Inuit visited the area so frequently. Bernard Harbour continues to be visited by local Inuit, although land use activities occur to a much lesser extent than in the past. Most individuals that now visit Bernard Harbour travel there by boat and stay in tents or cabins upon arrival. While most of these visits are of a shorter duration than in the past, the focus of these visits remains on camping, fishing, and hunting.

Bernard Harbour was noted by interview participants to be an excellent area for harvesting Arctic Char. Historic fish harvesting activities occurred primarily at a fish weir that was constructed by Inuit at the mouth of Nulahugyuk Creek. However, fish nets and jigging were also (and continue to be) utilized in the ocean offshore of Nulahugyuk Creek, at Hingittok Lake, and other local lakes. The fish weir was constructed of stones and functioned by allowing migrating fish to pass through an opening into an enclosed pool of water. After a sufficient number of fish had entered the pool, the opening would be closed and fish would be harvested using *kakivaks*, traditional Inuit fish spears. Harvesting at the weir took place at certain times of the year when fish were migrating through the Nulahugyuk Creek system. Numerous fish (dozens to hundreds) would be caught at the fish weir, with many being dried for later consumption. Once enough fish had been caught to feed the Inuit families that were present as well as their dog teams, any extra fish would be stored in a cache for later use.

A number of interview respondents noted there were two main migrations of Arctic Char in the Nulahugyuk Creek – Hingittok Lake system. The main downstream migration (to the ocean) was noted to commence in the spring beginning with ice-out on Nulahugyuk Creek. Fish moving downstream were sometimes noted to be skinnier and smaller by interview respondents. The main upstream migration (towards Hingittok Lake) was noted to occur in the late summer or early fall. The fish involved in this migration were travelling to Hingittok Lake to spawn. However, some interviewees also suggested that fish were migrating at different times and directions than other interviewees did. Potential explanations for these discrepancies are discussed in the report, but this remains an area in need of further examination.

Fish had little difficulty migrating to / from Hingittok Lake in the past. This was because historic water levels in Nulahugyuk Creek were high and there were few obstructions present. Interview respondents

also commented on a number of recent changes they have observed in regards to Arctic Char migrations at Bernard Harbour. Perhaps most importantly, it was noted that Arctic Char no longer migrate up Nulahugyuk Creek as expediently as they did in the past. Many fish now struggle to migrate upstream due to low water levels in the creek and the increased presence of obstructions (e.g. rocks). Fewer numbers of fish migrating through the Nulahugyuk Creek system were also noted. Some interviewees mentioned that other creeks in the region have experienced similar flow changes. Reduced snowfall in the winter, less rain, and climate change were suggested as some potential causes of these changes. These changes were noted by some interview respondents to have begun approximately 25-55 years ago. Similar changes have also been documented elsewhere in the western Kitikmeot Region.

Arctic Char spawning was documented by interview respondents to occur after the fish had completed their upstream migration in the fall. Arctic Char were noted to turn red when they were spawning and are often referred to as 'red-bellied char' during this period. Most individuals believed that spawning occurred in Hingittok Lake and some spawning locations were able to be described and documented.

Fish caught at Bernard Harbour in the past were generally said to be in very good health and excellent to eat. Similarly, interview respondents noted that dead and stranded fish were not often seen on the banks of Nulahugyuk Creek in the past, although fish eaten by bears were occasionally noted. However, some fish would be caught with scratches obtained during their downstream migration through the creek (e.g. from the ice). In more recent times, some respondents have noticed changes in the health of fish at Bernard Harbour and in other parts of the region.

While interview respondents were, for the most part, unable to provide detailed comments on changes they've noticed take place to Hingittok Lake, some local and regional changes were nevertheless documented. It is apparent that many regional lakes and ponds have become shallower in recent years and some have dried up completely. Reduced snowfall in the winter, less rain, and climate change were again suggested as potential causes of these changes. Similar changes have also been documented elsewhere in the western Kitikmeot Region.

A number of stories and legends from the Bernard Harbour area were described by interview participants, including those pertaining to Inuit land use, Hudson Bay Company activities, the nearby DEW line site, and the presence of 'little people', a giant, and human spirits. A number of grave sites were noted to be present in the Bernard Harbour area, some of which were confidentially mapped by interview respondents. Some Inuit customs related to fish and fish harvesting are also reviewed in this report.

The findings presented in this report support the Kugluktuk HTO and Sabina's proposed stream restoration activities in a number of ways. First, they provide historic baseline environmental information related to the Arctic Char fishery at Bernard Harbour, which will be useful for assessing the relative success of any future restoration activities that are undertaken. Second, this report describes recent environmental changes observed by Inuit in the area and the negative implications these changes have had on the Arctic Char fishery. This highlights the potential benefit stream restoration activities may have on the Arctic Char population at Bernard Harbour. Third, this report has confirmed the value and importance local Inuit place on Bernard Harbour. Local residents are generally very supportive of the stream restoration work being proposed by the Kugluktuk HTO and Sabina, and wish to see the Nulahugyuk Creek – Hingittok Lake Arctic Char fishery returned to its previous status. While many

individuals interviewed for this study were dismayed to know about the current state of Nulahugyuk Creek, they were optimistic that stream restoration efforts would have a positive outcome.

ACKNOWLEDGEMENTS

The Kugluktuk HTO and Sabina Gold & Silver Corp. would like to thank all the participants in this TK study for the time they took to share their knowledge, stories, and insights into the Bernard Harbour Arctic Char fishery:

Agnes Allen
Sam Angohiatok
David Enogaloak
David Epilon
John Himiak
Roger Hitkolok
Simon Hogaluk
Frank Ipakohak
John Ivarluk
Bessie Kukilukak
Anonymous participant

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1. INTRODUCTION

1.1 Study Background, Goal, and Intended Outcomes

Stream restoration activities in the Nulahugyuk Creek - Hingittok Lake area (also known as Bernard Harbour) were initially proposed in the early 2000s by the Kugluktuk HTO. These were proposed with the goal of restoring a traditional Inuit Arctic Char fishery, which has been negatively impacted by changing environmental conditions in recent years. The Kugluktuk HTO has since worked closely with Golder Associates (Golder) to advance early stages of the project (e.g. initial environmental baseline and stream restoration work) and, for some time, the two organizations were seeking an industry partner to help advance the project to completion. Sabina Gold & Silver Corp. (Sabina) was eventually identified as this industry partner.

In an effort to develop a better understanding of the Arctic Char fishery at Bernard Harbour, a Traditional Knowledge (TK)[1] study was conducted. The goal of this study was to document historic and contemporary environmental conditions in the Bernard Harbour area, with a specific focus on the local Arctic Char fishery. This TK study is intended to complement the scientific baseline studies that have been conducted, and has used a number of qualitative data collection methods that are described in the following section. The information obtained from this study will support proposed stream restoration activities at Bernard Harbour, while also enabling Sabina to satisfy a Department of Fisheries and Oceans (DFO) requirement to offset fisheries habitat effects at the Back River Project. In the long term, the information collected from this study will help enable the Kugluktuk HTO and Sabina to restore a historic, locally-utilized Arctic Char fishery, for the benefit of Kugluktuk residents. Further details on the relationship between the Kugluktuk HTO and Sabina in executing the Bernard Harbour restoration project have been captured in the *Bernard Harbour Restoration Project Agreement Between: The Kugluktuk Hunters and Trappers Organization and Sabina Gold & Silver Corp.* signed by both parties in June 2014.

All TK data collection, analysis, and reporting activities have been conducted by Sabina on behalf of the Kugluktuk HTO. However, all TK data and reports that result from the TK study will be owned by the Kugluktuk HTO. Sabina may publish the final TK study report in the Back River Project Final Environmental Impact Statement (FEIS) and / or in other regulatory submissions. TK study results may also be presented by Sabina and / or its representatives in other public forums (e.g. conferences, company publications and presentations). All TK data and reports that result from the TK study will also be made available to the Kitikmeot Inuit Association (KIA) for inclusion in their Naonaiyaotit Traditional Knowledge Project (NTKP) database, with the understanding the KIA may utilize and distribute this data and information for their own purposes. While the KIA was not formally involved in the study, they had no objections to it being undertaken and have been kept informed of its progress. The data and results of the TK study are also intended to be freely shared with other Nunavut organizations that may benefit from its use.

The location of the Bernard Harbour restoration project area can be seen in Figure 1. Bernard Harbour is located approximately 100 kilometers (km) directly north of Kugluktuk, along the south coast of

[1] Use of the term 'Traditional Knowledge' is generally preferred over 'Inuit Qaujimajatuqangit' in the western Kitikmeot Region.

Dolphin and Union Strait. Bernard Harbour is about 4.5 hours travel time by boat from Kugluktuk. Modern-day photos of the Bernard Harbour area can be seen in Figures 2 and 3.

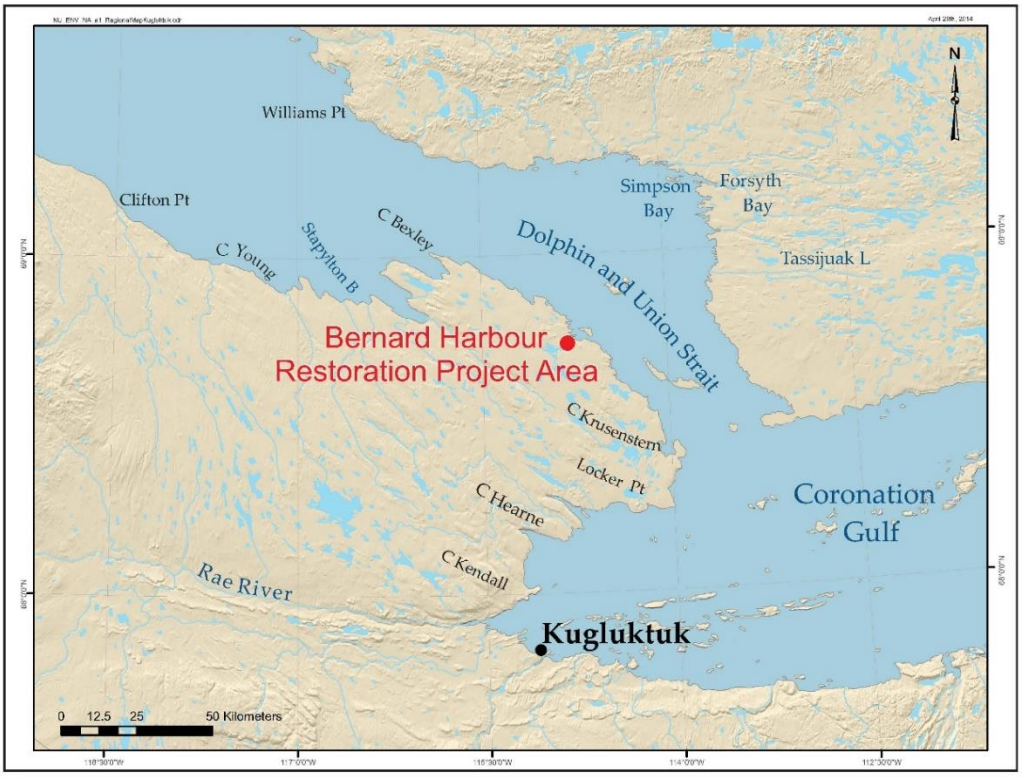

Figure 1: Bernard Harbour restoration project area

Figure 2: Aerial view of the mouth of Nulahugyuk Creek, looking southwest (July 2014). HTO cabin is visible on the left.

Figure 3: Nulahugyuk Creek, looking upstream, with some previously restored channels visible (July 2014)

2. METHODOLOGY

2.1 Study Design

This study relied primarily on the collection of TK to document historic and contemporary environmental conditions related to the Arctic Char fishery in the Bernard Harbour area. TK can be defined as a "cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission" (NIRB 2007). In northern Canada, it generally refers to knowledge held by Aboriginal peoples of the land and wildlife, and of strategies for living within local social-ecological systems.

TK is now required to be considered in various regulatory processes for proposed developments throughout northern Canada (e.g. Rusk et al. 2009; White 2009). Even in instances where use of TK is not explicitly required by law, it is often considered a 'best practice' for environmental management. This is because Aboriginal peoples are known to possess detailed knowledge of their local environments (and strategies for managing those environments) due to years of intensive land use and observation. Information that has been obtained by land users is often also shared between other Aboriginal land users, both inter- and intra-generationally, in a cumulative fashion.

TK is especially useful in locations where scientific information on particular species and environments may be lacking, like some areas of the Canadian Arctic. TK can thus be used to complement existing sources of scientific information, while also acting as a new source of information when other sources are limited. As Usher (2000: 187) notes, TK can provide "a broader and deeper understanding of baseline conditions and a fuller understanding of local environmental processes, at a finer and more detailed geographical scale, than conventional scientific knowledge can offer". The use of TK also encourages public participation in environmental decision-making. Public participation processes, generally, result in better and more socially acceptable decisions to be made. This is because public participation can allow for local individuals to share relevant information, voice their opinions, and have their perspectives considered by decision-making authorities (e.g. Sinclair and Diduck 2009; Diduck 2010).

TK studies are regularly conducted throughout northern Canada and various methodological guidance has been developed (e.g. Wenzel 1999; Usher 2000; ITK and NRI 2007; Tobias 2009). Most TK studies now rely on some combination of one-on-one interviews, focus groups, land use mapping exercises, or other qualitative methods to collect data. Community participation in research design and delivery is also considered a best practice. Regardless, each TK study is unique and requires a considerable amount of effort to ensure that particular community and study objectives are met.

Sabina and the Kugluktuk HTO have worked closely together during the study design, data collection, data analysis, and reporting phases of this project to ensure each organization's goals were achieved. The *Bernard Harbour Restoration Project Agreement Between: The Kugluktuk Hunters and Trappers Organization and Sabina Gold & Silver Corp.* signed by both parties in June 2014 provides further details on this relationship, and the goals and structure of the TK study. The Kugluktuk HTO has reviewed and approved all TK study plans and reports before they were finalized and was instrumental in organizing the study at the local level. Confidentiality and informed consent measures were also employed, and the TK study team consisted of both a trained qualitative researcher and a local Inuk with strong interpersonal ties in the region, in an effort to minimize potential intercultural research difficulties.

As described in further detail below, this TK study relied on both verbal and spatial information shared by Bernard Harbour land users. This was documented using one-on-one interviews and land use mapping. However, this information was also supplemented with information obtained from relevant secondary sources (e.g. historic records, land use reports, academic publications). A site visit to Bernard Harbour also occurred, to help contextualize and clarify the findings.

2.2 Data Analysis

This study relied on qualitative data analysis techniques. The data for qualitative analyses generally come from fieldwork that includes activities such as interviews, observations, and document analysis (Patton 2002). Unlike some other types of studies, qualitative research designs tend to be "naturalistic to the extent that the research takes place in real world settings and the researcher does not attempt to manipulate the phenomenon of interest" (Patton 2002: 39). Patton (2002: 5) further notes "the themes, patterns, understandings, and insights that emerge from fieldwork and subsequent analysis are the fruit of qualitative inquiry."

The research was also inductive in nature, as no hypotheses pertaining to the Bernard Harbour Arctic Char fishery were developed beforehand and 'tested' against the data that was collected. Rather, the data was analyzed in an exploratory fashion, with the intention of uncovering new insights and findings. Specific interview questions were developed in advance, however, to help focus the interview process and ensure the study objectives were met.

Analysis of the TK interviews was aided by using the NVivo 10 software package, which is a commonly used application for analyzing qualitative research data. The software allows users to sort and organize ('code') interview data, identify data similarities and differences, and uncover key themes and findings. For example, overarching themes pertaining to 'Arctic Char', 'Traditional Uses of Bernard Harbour', 'Current Uses of Bernard Harbour', 'Nulahugyuk Creek', 'Hingittok Lake', 'Other Environmental Changes', 'Sensitive Areas', 'Stories and Legends', and 'Opinions of Proposed Stream Restoration Work' were created. Each of these overarching themes, in turn, contained a number of descriptive subthemes (which totaled over 175) where related interview data was stored. For consistency, those individuals who conducted the interviews were also those who coded and/or reviewed the interview transcripts, and conducted (or verified) the data analysis.

A series of maps were used to record relevant spatial information shared by the interview participants. All interview maps were digitized using Geographic Information System (GIS) software, and each point, line, and polygon feature was created as a separate GIS shapefile with a unique identifier. These shapefiles were then sorted according to theme, edited as necessary, and aggregated into a series of theme-based maps. Maps were prepared for fish and non-fish related themes at both Nulahugyuk Creek and Hingittok Lake. Final theme-based maps are presented later in this report.

Interview quotes are presented throughout this report and in many instances have been edited for clarity and readability. Interview quotes also have a random identifier number associated with them rather than a name, in order to help protect interviewee confidentiality. It should be noted that not every interview quote or piece of information obtained during the research process has been presented. Interview quotes have generally been provided when they help illustrate a common theme uncovered in the research, or provide greater detail regarding a particular topic. In some instances, contradictory

quotes and information are also provided to demonstrate the full range of viewpoints shared by interview participants on a particular topic. The inclusion of an interview quote doesn't necessarily mean that consensus on a particular issue was held by the interviewees.

As noted earlier, information from secondary sources is provided throughout this report. This information has been included to support the interview data or present alternative viewpoints to be considered. Together, these data sources were analyzed to see if common themes and findings could be identified in regards to the Arctic Char fishery at Bernard Harbour.

2.3 Data Collection Methods

2.3.1 Key Informant Interviews

Key informant interviews were utilized as the primary means of data collection for this study. Key informant interviews are a useful strategy when attempting to find out information from people which cannot be directly observed by researchers (Patton 2002). The purpose of this interviewing, as Patton (2002: 341) notes, "is to allow us to enter into the other person's perspective". Generally, it is those people in an 'expert' position to comment on a given topic that are recruited to participate in key informant interviews (e.g. land users and harvesters with significant knowledge of a particular area or species). Interviewing is considered a standard practice in TK studies (e.g. Tobias 2009).

All key informants were identified in advance by the Kugluktuk HTO or with the help of existing TK study participants. Key informants were generally individuals who were knowledgeable about the Bernard Harbour area, through regular habitation and/or land use activities in the area (in the past or present). While not everyone who was identified as a potential interview participant was able to be interviewed due to scheduling and availability restrictions, a total of 10 interviews were eventually conducted over the period of July 2-9, 2014 (see Table 1).

Interviewee	Location of Interview	Date
Sam Angohiatok	Cambridge Bay	June 9, 2014
David Enogaloak	Kugluktuk	June 5, 2014
David Epilon	Cambridge Bay	June 9, 2014
John Himiak and Agnes Allen (joint interview)	Kugluktuk	June 4, 2014
Roger Hitkolok	Kugluktuk	June 2, 2014
Simon Hogaluk	Cambridge Bay	June 8, 2014
Frank Ipakohak	Kugluktuk	June 3, 2014
John Ivarluk	Kugluktuk	June 5, 2014
Bessie Kukilukak	Kugluktuk	June 5, 2014
Anonymous participant	Confidential	Confidential

Table 1: Interviews conducted during the Bernard Harbour TK study

All interview participants were compensated for their time. Study participants were additionally provided with a description of the proposed stream restoration work and TK study before the interviews commenced, either during a study 'kick-off' meeting held at the Kugluktuk HTO offices or one-on-one

prior to individual interviews. Participants were then required to sign a consent form before commencing the interviews (Appendix A). Inuinnaqtun interpretation services were provided to all participants who required them.

The interviews were conducted by Sabina representatives Jason Prno (Community Relations Advisor) and John Kaiyogana (Community Liaison Officer), with the assistance of interpreters when necessary. Interviews were conducted both in Kugluktuk (at the Kugluktuk HTO office) and Cambridge Bay (at the Sabina office), depending on where the key informant resided. Interviews occurred, on average, over a half-day period with various breaks. All interviews (with the exception of one anonymous interview) were tape recorded and videotaped. Tape recorded interviews were transcribed onto Microsoft Word documents by contract transcribers, and the transcripts were then reviewed by Sabina representatives for accuracy. The content of these transcripts was analysed using NVivo 10 at a later date.

Key informants were interviewed using an interview guide approach, a common qualitative research practice that allows for flexibility in data gathering. As Patton (2002: 343) notes, "an interview guide is prepared to ensure the same basic lines of inquiry are pursued with each person interviewed. The interview guide provides topics or subject areas within which the interviewer is free to explore, probe, and ask questions that will elucidate and illuminate that particular subject". A copy of the interview guide used in this study can be found in Appendix B. Questions were developed by Sabina in consultation with fisheries scientists from Golder and representatives from the Kugluktuk HTO. The interview guide includes questions pertaining to respondent background information, Inuit land use and harvesting, local environmental conditions, Arctic Char ecology, and other topics related to the Nulahugyuk Creek - Hingittok Lake area. Various reference books (e.g. on Arctic ecology, early exploration of the Bernard Harbour area, Inuinnaqtun vocabulary) were also made available to interview respondents to assist them in answering questions.

A series of maps (Appendix C) were used to record land use and environmental information provided by the interview respondents. As noted above, the individual maps were digitized using Geographic Information System (GIS) software, and the data from these maps were aggregated into a series of theme-based maps that are presented later in this report. Following the interviews, preliminary results of the TK study were presented to a number of interview participants and HTO representatives at the Kugluktuk HTO offices. Feedback on these preliminary results was solicited and opportunities were provided for the attendees to clarify and/or add new information. All interview participants were also provided with an opportunity to review and provide comments on a final draft of the TK study report. Photos of all the interview participants can be found Appendix D.

2.3.2 Document Review / Other Sources

A number of secondary sources were reviewed in order to obtain supplemental insights pertaining to the Bernard Harbour Arctic Char fishery. For example, the book *Arctic Odyssey: The Diary of Diamond Jenness, Ethnologist with the Canadian Arctic Expedition in Northern Alaska and Canada, 1913-1916* was reviewed. This book documents the daily lives of the southern party of the 1913-1916 Canadian Arctic Expedition, who made their expedition headquarters at Bernard Harbour while exploring various parts of the western Canadian Arctic. The book reproduces the daily diaries of Diamond Jenness, an ethnologist with the Canadian Arctic Expedition at the time. Numerous references to Bernard Harbour are made throughout the book and some useful insights about the Arctic Char fishery there and elsewhere are provided. As Condon (1992: 203) notes, "*Arctic Odyssey* constitutes an important primary

document about one of Canada's premier ethnologists at work in a region of the Arctic just prior to the dramatic influx of traders, trappers, missionaries, and government administrators, who would ultimately and inextricably change the face of Copper Eskimo life."[2]

The *Nunavut Atlas* (i.e. Riewe 1992) was also reviewed for this study. The *Nunavut Atlas* project was begun in 1985 by the Tungavik Federation of Nunavut (TFN)[3] to assist Inuit in preparing for land claim negotiations, by helping define their areas and lands of interest. The *Nunavut Atlas* was prepared using both previously published information (e.g. from the Inuit Land Use and Occupancy Project, and Northern Land Use Information Series maps) and interview data collected in each Nunavut community in 1986-1987. The Atlas contains maps and textual descriptions of wildlife and Inuit land use and harvesting activities throughout the territory. Riewe (1992:2) notes that while "the purpose of the project was primarily to update previously published Inuit land use information", the "Nunavut Atlas does not provide an exhaustive account of Inuit land use throughout the Nunavut Settlement Area. Nevertheless, the exacting, community-based research led to the production of a detailed set of maps which accurately portray general Inuit land use".

A selection of other documents were also reviewed for this research. For example, a number of publications that record the perspectives of Inuit on the effects of climate change in the Canadian Arctic were reviewed. Much of this research has made use of Inuit TK and some findings are directly relevant to the research presented in this report. These findings are cited where appropriate. The Canadian Museum of History's photographic archives were also accessed in order to obtain imagery from the Canadian Arctic Expedition's visits to Bernard Harbour. Images of the Bernard Harbour camp, its Inuit residents, and fishing activities at the Bernard Harbour fish weir have all been included in this report.

The Kitikmeot Inuit Association's (KIA) *Inuit Traditional Knowledge of Sabina Gold & Silver Corp. Back River (Hannigayok) Project* report (i.e. Banci and Spicker 2012) and the *Naonaiyaotit Traditional Knowledge Project - Hannigayok (Sabina Gold & Silver Corp. Proposed Back River Project). Results from Data Gaps Workshops, Final Report (June 2014)* (i.e. Banci and Spicker 2014) were also reviewed. While not specific to the Bernard Harbour area, these reports do contain a number of insights into historic and contemporary environmental conditions in the western Kitikmeot Region generally.

Finally, the research presented in this report has benefited from insights obtained during informal discussions and meetings held with northern residents on the Bernard Harbour Arctic Char fishery. Information obtained during these discussions has helped to clarify and contextualize information obtained during other parts of the TK study.

2.3.3 Bernard Harbour Site Visit

A boat trip and overnight site visit to Bernard Harbour was originally planned to occur with TK study participants and their family members in July 2014. However, heavy ice conditions along the planned

[2] As noted by the National Aboriginal Health Organization (2015), "Eskimo is the term once given to Inuit by European explorers and is now rarely used in Canada. It is derived from an Algonquin term meaning raw meat eaters, and many people find the term offensive." As such, references to this term are only included in this report when they are found in direct quotes from other sources. Otherwise, this report uses the term Inuit (for plural uses) or Inuk (for singular uses).

[3] The Tungavik Federation of Nunavut is now known as Nunavut Tunngavik Inc. (NTI).

boating route from Kugluktuk to Bernard Harbour unfortunately forced the trip to be cancelled[4]. However, Sabina representatives, along with the Chairperson of the Kugluktuk HTO and representatives from the Kitikmeot Inuit Association and Department of Fisheries and Oceans were able to make a day visit to Bernard Harbour in July 2014 by aircraft. The site visit participants observed a number of the locations discussed in the TK interviews, took photographs, and engaged in discussions with Golder technical staff who were present on site completing a fisheries baseline program.

Observations made during the site visit were used mainly to contextualize and clarify the information obtained during the TK interviews. Photographs and other information obtained during the visit are included throughout this report.

2.4 Study Limitations

A small number of limitations were faced in this study. For example, some interview respondents could only provide a limited amount of detail on particular aspects of the Bernard Harbour Arctic Char fishery. Some had difficulty recollecting details or were unfamiliar with topics discussed in the interview questionnaire. Other respondents hadn't visited Bernard Harbour since they were young, and were drawing on childhood memories they acknowledged may have been incomplete. More generally, language interpretation challenges appeared in some interviews, although these were generally mitigated by the use of experienced interpreters, by repeating questions where necessary, and confirming respondent answers to those questions. Nevertheless, some comments made by interview participants remain unrecorded in the interview transcripts as a result of these challenges.

Some interview participants also provided answers that weren't specific to Bernard Harbour. In some instances, it was apparent that participants were drawing on experiences and observations from other creeks and rivers in the region when formulating their response to a particular question. While this information is helpful for understanding regional-level environmental dynamics, it did somewhat limit the amount of site-specific information that could be obtained. Further details and clarification on this are provided where appropriate in this report, although the degree to which certain interview statements were based on experiences and observations from other creeks and rivers in the region weren't always able to be deciphered by the research team.

Some study participants also mentioned that a site visit by them to Bernard Harbour would have been helpful for the research process. It was noted that an in-person visit to Bernard Harbour would have helped bring back personal memories and provide a more productive context for discussions on the Arctic Char fishery. For reasons noted earlier, however, a site visit was unfortunately unable to be organized in 2014. While a fairly comprehensive understanding of the Arctic Char fishery at Bernard Harbour has been developed as a result of this TK study, some knowledge gaps nevertheless remain. These are commented on where applicable in this report.

[4] At a later date, Sabina provided TK study participants from Kugluktuk with food, supplies, gasoline, and motor oil to enable them to visit Bernard Harbour independently by boat, should they desire.

3. RESULTS

Results from the Bernard Harbour Arctic Char fishery TK study are discussed below. Summaries of important themes that emerged in the research are provided and supplemented with interview quotes, images, and insights from secondary sources. Interviewee maps of fishing and other land use activities in the Nulahugyuk Creek and Hingittok Lake areas are presented in Figures 4 - 6.

Many of the historic observations provided by interviewees in this report are from when those interviewees lived in the Bernard Harbour area in the 1940s-1960s. However, some of these individuals have continued to use the Bernard Harbour area since that time and have provided more recent observations and insights; these are interspersed throughout the report and its maps. Some of Diamond Jenness' observations from the Canadian Arctic Expedition have also been included in this report for additional context and date back to even earlier times (i.e. 1913-1916).

However, it is difficult to pinpoint the exact temporal scope of all the TK observations shared in this report. This is because interviewees did not always recall specific dates associated with their observations, the fact that TK is 'cumulative' (e.g. knowledge is learned and passed down from older generations to younger ones, and the knowledge base builds over time), and some TK may be at least partly based on observations and insights obtained from other time periods and locales. Specific temporal information, where it exists, is provided as appropriate in this report.

3.1 Traditional and Current Uses of Bernard Harbour

3.1.1 Traditional Use

Data from key informant interviews and secondary sources indicate that Bernard Harbour was historically an important land use area for a number of Inuit families. Interviewees had fond memories of living in the area in the 1940s-1960s and recalled various stories and events from that time period. It was noted that most families lived at Bernard Harbour seasonally, either in tents or cabins, although some Inuit lived at Bernard Harbour year-round. Travel to, from, and around the area was generally by foot, dog team, boat, kayak, or skidoo (in later years). A number of families also regularly travelled between Bernard Harbour and Read Island, as there was a Hudson's Bay trading post at Read Island. Sample quotes from the key informant interviews help provide some additional context:

> *[BH7] Yeah I remember that, yeah. Lots of people went there, fishing… Oh yeah, quite a few of them, lots of tents.*
>
> *[BH8] Lots of people used to live there.*
>
> *[BH8] … Lots of people used to live in that area… Stay along the coast... That was before the DEW line site, people used to live there before the DEW line site along the coast.*
>
> *[BH3] You could see there was lots of round stones where they had their tent.*
>
> *[BH3] I know it's long, long ago they used to, people gathered there… Lots of camping grounds there.*

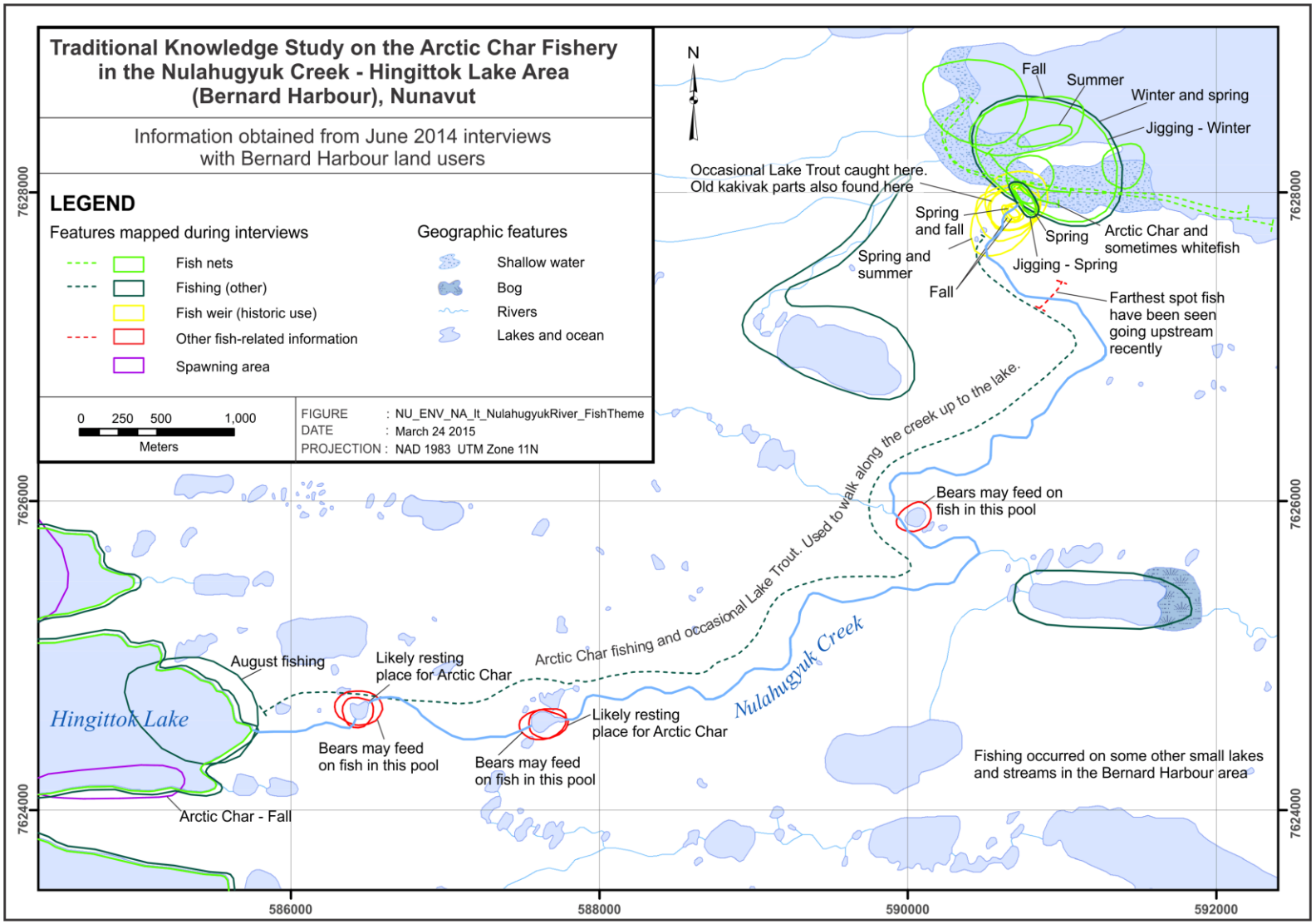

Figure 4: Map of fishing and fish-related information in the Nulahugyuk Creek area obtained during June 2014 interviews with Bernard Harbour land users

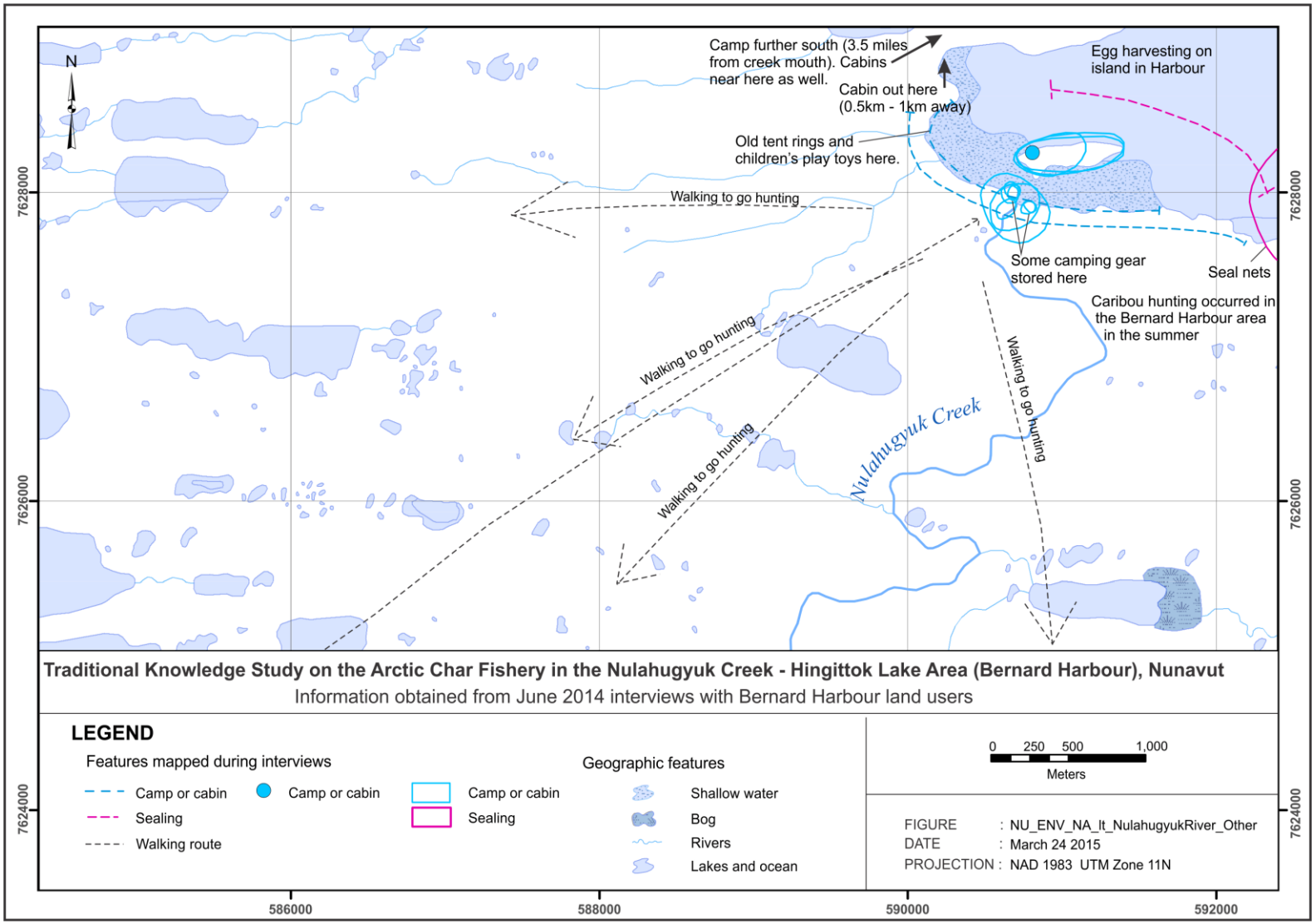

Figure 5: Map of other land use information in the Nulahugyuk Creek area obtained during June 2014 interviews with Bernard Harbour land users

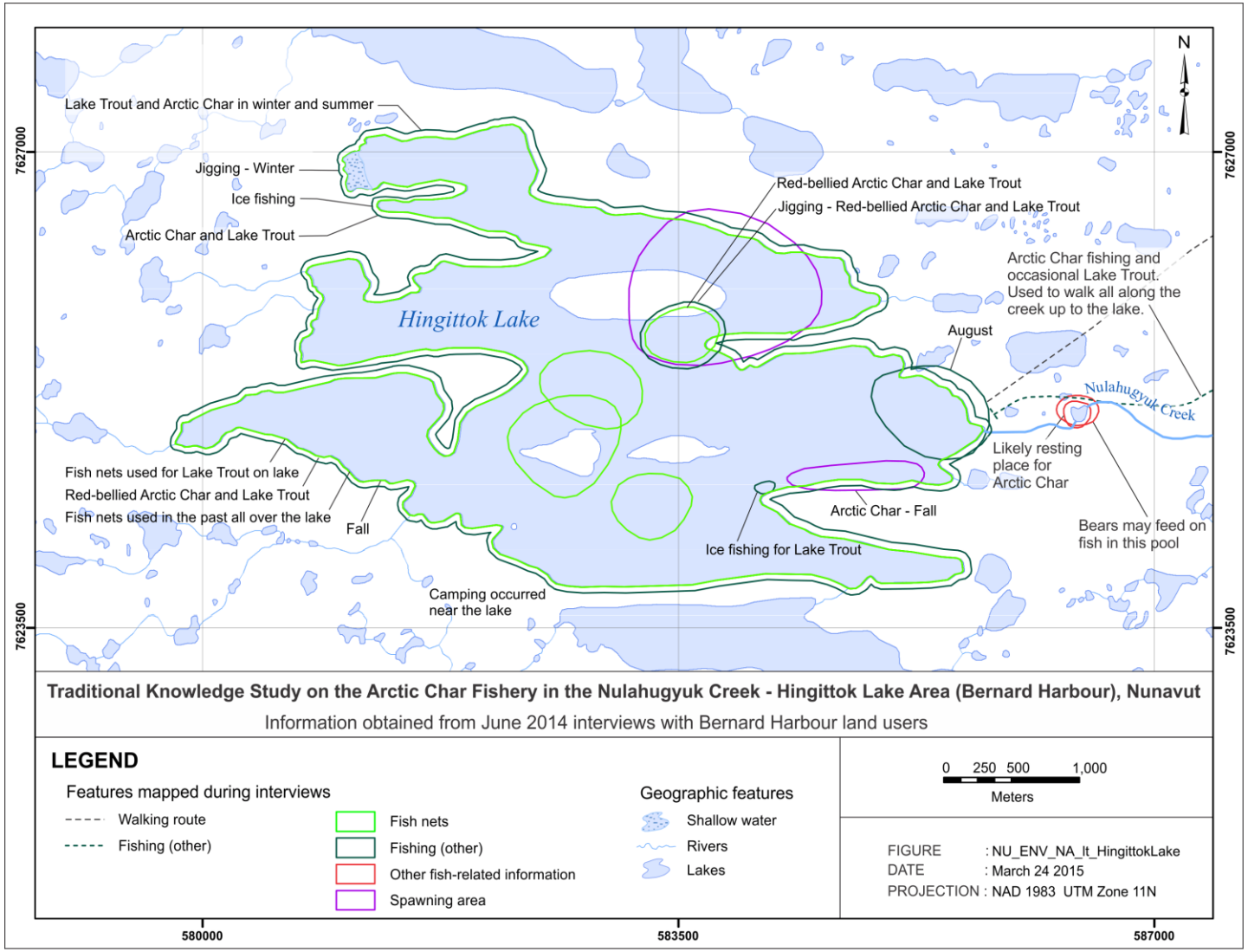

Figure 6: Map of fishing, fish-related, and other land use information in the Hingittok Lake area obtained during June 2014 interviews with Bernard Harbour land users

[BH4] There was lots of tent[s]. I didn't know how to count then, but to me there was lots, all over.

[BH3] 5 or 6 families.

[BH10] Yeah. Yes, lots of people used to live in that area. All over, even in [the] east side of Bernard Harbour. They used to live around there from years ago, along the coast there. One small river, they used to stay around there. People used to stay all over the place, no matter where they go.

[BH10] Well there were quite a bit of families there. There were quite a bit of families, come from Read Island area. Used to go up there and go fishing, go fishing all the time, in the fall, in the summer time anyway, early fall maybe.

[BH9] Bernard Harbour was one area where people stayed year round sometimes. Sometimes people they just go there to go hunt, depending on the season.

[BH9] My ancestors, all the people, my grandparents used to live there, hunt. So most of the people, all the elders around town have been there before once in their lives, maybe more than once, because of the fact that it was one of the most popular places where the fishing occurs in the fall time.

[BH9] They were staying in tents at the time, but I wasn't quite sure whether they were caribou skins or canvas but I know they [were] staying in tents. But in the old days they did have caribou tents and seal skin, whatever they can put together as to make shelter.

[BH6] They used to go there for the whole summer. They had their own dog teams to go there to spend the summer there.

[BH9] Well, one thing about Bernard Harbour and other places, they don't live there year round, that's one thing one has to remember. Some people maybe do, but very few people lived there year round. Because in the olden days people followed the animals, they go inland for caribou, they go to the sea for seals, fish, ducks. There's special places for these kinds of animals in certain areas so they go to them, that's why they're never in the same place all the time. Until they created a settlement in Kugluktuk where everybody sort of, I don`t know, stranded together maybe? Because of the government system.

[BH11] But the reason my stepparents moved to Bernard Harbour [was] because it was getting pretty poor hunting around Read Island. But you know we used to go back and forth from Bernard Harbour to Read Island, back and forth [for the] hunting season or whenever my stepdad have time off. Because he was working for Billy Joss at [the] Hudson Bay post, and in the summer by boat and in the winter by dog team.

[BH8] It's life. It's nice living on the land. I grew up up there. I lived for a while in Bernard Harbour in my early years. When my wife was seventeen I married her here, and then we lived with the family at Bernard Harbour. And those days we had matchbox houses from the housing. First that housing here, and I told them to drop one matchbox house in

Bernard Harbour. It's a prefab building. The way we put it up me and my wife, the foundation, we used a piece of bowl – soup bowl – for leveling it out for the foundation to put up the house.

[BH4] That was fun. And yeah, from Read Island, moved to Nulahugyuk [Creek] but I was just a baby, I heard, and that is where most of Read Island resident[s] used to go. Caribou hunting, fishing, my father used to tell me, most of Read Island resident[s], they used to travel to Nulahugyuk [Creek]. And they used to tell me where they used to have old tuktu [caribou] tents. But I can't remember some of them, but when we were there, we saw old rocks [for tent rings]. My parents used to tell me, [in] the past, there was hardly any caribou in Read Island, that's why they used to travel right, across this way. There was lots of seal, fish, and they loved that Nulahugyuk Creek 'cause they used to tavak. And they used to be from all over even those days we called Coppermine, here, Kugluktuk, lot of people go there, 'cause it's really good hunting ground…

[BH4] Must be 4 month [a year we would stay at Bernard Harbour]… Yeah. That's why, got to hunt for food. We never use white man food, must be only tea, sugar, and bannock, biscuit, that's all I remember growing up.

[BH7] Dog team only. Dog team, long time ago they had no skidoos, no Honda, nothing, only dog team.

[BH8] Yeah, people long ago used to walk, nothing but walk; no boat, no machine, no radio, no telephone. Living in igloo. In the summer they'd live in a caribou skin tent. That's about all I could remember of my youth.

[BH4] My dad, I remember we used to travel by kayak and dog team. I think in springtime we used to go there by dog team, and summertime, you know those old inboard motor, he had those kind… I remember it was a wooden boat.

Figure 7: Photograph of David Epilon (TK study interviewee, second from right) and family at Bernard Harbour (date unknown)

Fishing and hunting were noted by interviewees to be very good at Bernard Harbour, and were said to be the main reasons why Inuit visited the area so frequently. Arctic Char, Lake Trout, caribou, seals, and birds were noted to be plentiful at different times of the year, and many families could be sustained because of the productivity of the land and ocean. Interview respondents subsequently mapped various land use activities in the Nulahugyuk Creek – Hingittok Lake area (see Figures 4 - 6). As described in greater detail in following sections of this report, one unique feature of Bernard Harbour was the seasonal availability of large amounts of Arctic Char and the presence of a fish weir that Inuit used to harvest fish. Sample quotes from the key informant interviews provide some additional context on the land use activities that occurred:

[BH11] … Why it's [a] good hunting ground area. They don't have to go really far to get whatever they're looking for.

[BH8] It's one of the good places for hunting and sealing in winter, and lots of geese in the spring… And even fishing, yep, they make dry fish and some of them bury the fish underground for dog food.

[BH3] It's a nice place to hunt you know, there's caribou there always, even it's quite a ways from here. It's a good place to rest or go hunting, see lots of our old stuff on the ground. It's [a] nice place you know.

[BH11] … because you can well mostly seal for their skin and meat for the people and for the dogs… my brother in law he used to make fishnets with the twine rope or string and my stepdad, get them prepared before summer and make them to catch fish. And in the summer time before the fall they'd start preparing hooks for the seal hole and well we used to go by dog team all the time, go hunting, go trapping… And in the summer time when they want something different, caribou meat, we'd go walking for I don't know sometimes days, four or five days until they see caribou. And then three or four enough with a few dogs carrying bags on each side and we'd go home, share it with other people that were there and others that were not able to go out hunting but can go out boating and get seal or ducks and anything, fish. We only don't eat char but trout from the lakes that you go to and also tomcod and I used to see flat fish but I haven't seen [them] in years, I don't know how long.

[BH11] You know in the summer time too, not only ducks and fish and seals and caribou, but besides that it's sometimes fox. But we would get wolf skin and squirrels, yeah we'd do a lot of that too. I mean when the squirrels are fat and they're really good and tasty, good and soft when they're really cooked. I don't know how I can describe the taste. And there would be other meat that we'd eat too but not too often. It's rabbit and there would be ptarmigans, and well there was no beavers or muskrats.

[BH8] Yes, that's their livelihood, to keep themselves going and the dogs going; they have to hunt. Like you, you need money, that's why you're working; to keep living, you need money. Here, people long ago, they hunt so they could eat and live, feed their dogs.

[BH4] And I remember my mom, she loved berries, that's all she worried about there, I remember that. 'Cause she's originally from Kugluktuk and akpiks [cloud berries] that's

what she missed when we were living in Tuktutuk [Lady Franklin Point], boy she was happy when we got to Bernard Harbour, summertime… Lots of berries. And she loved going there, 'cause there's berries.

[BH1] Yeah [we lived there all year]. Hunting around. I went to hunt fox, seal hunt. Whatever. That's the way we have to live, hunt for food… No, not that many [caribou]. Once in a while we could caribou hunt there.

[BH10] People used to live there [at Bernard Harbour], wintertime… Bernard Harbour, people never stop. They seal hunt, eat, look for eggs in summer, spring time. A lot of eggs too. Lots of eggs, ducks. Eider ducks. Sometimes no place to step on that island, so many eggs.

[BH10] Well there was always lots of things to do years ago. They dried fish, and they go caribou hunting. We used to go caribou hunting from Bernard Harbour, walking. Dogs would be packing, we'd be walking. Go to where we used to go caribou hunting. That was, I thought it was close but it's kind of far. They do something, at the same time, other family looks after the fish, other family go caribou hunting.

Records of the Canadian Arctic Expedition's interactions with Inuit at Bernard Harbour are also demonstrative of the importance of the area to, and regular inhabitation by, Inuit. However, Diamond Jenness' first visit to Bernard Harbour in 1914 provides some indication of how the Bernard Harbour site was organized and utilized historically by Inuit:

"*They were old sites, yet not so old as we had imagined, for the inhabitants could not have deserted the place more than 2 months ago. There were rings of stones, which seemed to have held down the tent walls, and other rings much smaller inside, [on] which the stone lamp was probably set when in use. Fragments of implements, some shavings, and a few charred sticks were strewn everywhere…The settlement was divided in two parts by a large creek…The creek at this point is tidal, for the settlement lay at the head of a fine large harbour, well sheltered, and apparently accessible to vessels drawing at least 10 feet and perhaps more.*" (Jenness and Jenness 1991: 284).

"*Near the right half of the settlement were some caches, three made by piles of stones covering in one case a seal poke full of blubber; in another four seal spears were inserted – two made of long brass tubing with iron tips at each end; the third covered two or three pieces of driftwood. A little to one side was a cache of four trimmed boards with two large soapstone lamps and a wooden bowl resting on top. The bowl was weighted down with four stones to prevent it from blowing away. Finally there were three coal-oil cans cached together with a stick or two of wood.*" (Jenness and Jenness 1991: 285).

Jenness goes on to describe the Inuit he encountered at Bernard Harbour throughout his diaries. Various photos were also taken by members of the Canadian Arctic Expedition of life at Bernard Harbour during this period[5]. From these records, it is evident that a number Inuit families resided at Bernard

[5] The official collection of photos taken during the Canadian Arctic Expedition is now housed at the Canadian Museum of History archives.

Harbour for at least part of the year at that time. On June 29, 1916, for example, Jenness describes the Bernard Harbour camp as having "…comprised about nine families" (Jenness and Jenness 1991: 603). In a photo taken that same day, at least 16 Inuit can be counted spearing fish at the Bernard Harbour fish weir. Other photos taken during the Canadian Arctic Expedition portray Bernard Harbour residents, campsite conditions, and daily activities (see Figures 8 and 9, for example).

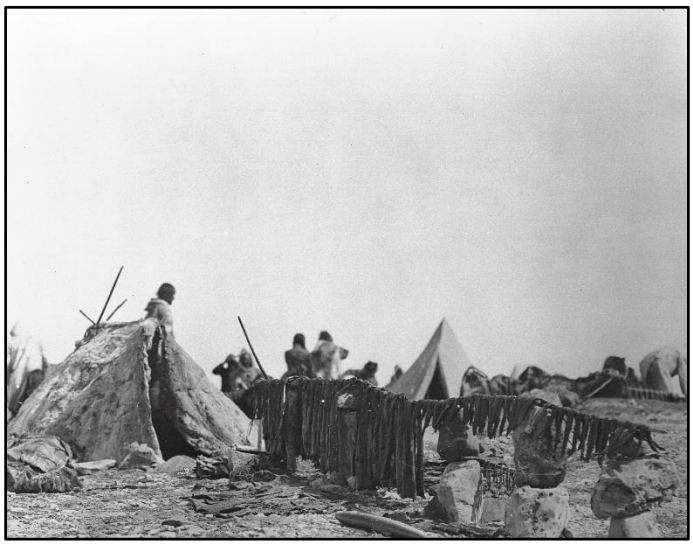

Figure 8: Bernard Harbour campsite (July 1915) [Reference: Inuit and fish drying near tents at Bernard Harbour, Northwest Territories (Nunavut), Canadian Museum of History, 51653]

Figure 9: Bernard Harbour campsite (April 1916) [Reference: Snowhouse of Uluksoak and three Copper Inuit woman at Bernard Harbour, Northwest Territories (Nunavut), Canadian Museum of History, 38972]

The *Nunavut Atlas* also describes use of the Bernard Harbour area by Inuit and alludes to the large number of wildlife species that are present. For example, it identifies a number of features in and

around Bernard Harbour including a fishing site, an outpost camp, and a number of recent camp and archaeological sites. The area is part of a larger area marked 'Inuit Land Use – High Intensity', which means that the area is currently used every year[6]. Bernard Harbour is also at the north end of a marked corridor, and the *Nunavut Atlas* (Riewe 1992: 186) notes that these types of corridors "are often used for traplines, but also serve as travel routes to hunting areas to the north and west. In addition to the hunting and trapping activity concentrated along these routes, fishing occurs in most of the larger lakes."

Furthermore, the Bernard Harbour area appears to be part of a larger area that residents of Kugluktuk (formerly known as Coppermine) have used regularly:

> *"Coppermine residents use this large area intensively, particularly from November to April when they trap Arctic fox. Many Inuit extend winter or spring trapping and fishing trips to hunt barren-ground caribou. Wolves, wolverine and grizzly bear are hunted when encountered. Each of the coastal campsites shown is used every spring and summer by several family groups. These camps serve as bases for hunting along the coast and for travelling inland. In spring and summer the coastline northwest from Cape Krusenstern is commonly used for hunting seal near shore and for hunting birds along the shoreline"* (Riewe 1992: 186).

> *"Domestic fishing, which is an important source of protein, continues to be an inexpensive form of food production that requires only small amounts of capital and equipment. Fishing occurs year-round, but often it is intensified in the fall and winter when fish are preserved by drying or freezing for winter use by hunters, trappers and dog teams. In spring, the fish are caught by jigging and in fall, gill nets are used in open water and under ice. Fishing activity is heavy in lakes which serve as the end points for traplines. Lake trout and whitefish are the main species caught. With the decline in the use of dogs, catches have declined and fish are now used primarily for human consumption"* (Riewe 1992: 187).

The Bernard Harbour area is also identified in the Nunavut Atlas as an area for waterfowl, while further inland is identified as an area for Arctic Fox.

3.1.2 Contemporary Use

Interview participants noted that Inuit continue to use Bernard Harbour, although visits tend to be shorter and less frequent than in the past and no one lives there permanently any more. Most individuals visiting Bernard Harbour now travel there by boat and stay in tents or cabins upon arrival. There remain a small number of cabins (including an HTO cabin) and supplies present at Bernard Harbour that visitors use. The focus of these visits remains on camping, fishing, and hunting[7]. However, the fishing that now occurs at Bernard Harbour is generally with fish nets and rod/reel; the fish weir is no longer used.

[6] It should be noted that the Nunavut Atlas was published in 1992 and has not been more recently updated.

[7] One interviewee present at the Kugluktuk results verification meeting noted that current land use activities at Bernard Harbour tend to focus on camping, caribou hunting, and dry meat preparation (and, to a lesser extent, on fishing). They noted this was because Inuit families no longer have dog teams they need to feed with large amounts of food; this food was historically sourced from harvested fish.

[BH9] Bernard Harbour is another place like Kugluktuk, it's less than 100 miles, so people go there all the time to go hunting. Because right now up to today people have to go out of Kugluktuk to go hunting because it's cleaner and there's more animals outside of the community. So up to today as far as I know Bernard Harbour is still pretty popular.

[BH 9] Because I know people still like to go there not just for that but because of the beautiful area and abundance with animals, caribou.

[BH4] Weekend trips and that.

[BH3] You know they got fast boats now and they got lots of time. They can go right after work, go [to] Bernard for a couple of days and home.

[BH10] Yeah, we go back down there just about every year but last three years we haven't been there really. We go there every summer.

[BH10] Well they still do that [dry fish at Bernard Harbour]. They still dry fish all over where they go, along the shore, in the ocean.

[BH6] No, there's hardly anybody that goes down to Bernard Harbour now, but a long time ago there used to be a lot of people. [The interviewee] noticed that there's hardly anybody going down now… There's a lot of people that used to go there for so many years, but all the people that used to go there, most of them are passed on right now. So I don't think there's anybody that goes down anymore.

[BH8] People used to do that [use the fish weir] long ago in my younger days, but big families though. After the DEW line opened up, people don't live there no more, I don't know how come.

[BH10] Less people. People hardly ever go down there. Some people don't know about it.

There have also been some recent local initiatives focused on Bernard Harbour. For example, stream restoration activities at Bernard Harbour were proposed by the Kugluktuk HTO in the early 2000s. This eventually led to a partnership with Golder to conduct environmental baseline and preliminary stream restoration work in the Nulahugyuk Creek – Hingittok Lake area, and the subsequent involvement of Sabina to complete this work. This project continues to have the support of the Kugluktuk HTO and many local residents. The Kugluktuk HTO also organized a TK camp at Bernard Harbour in August and September 2007[8] where local youth learned a variety of traditional skills from Kugluktuk elders, including fish harvesting and preparation methods. A total of 24 youth and 10 elders participated, and the project was supported by a number of local individuals and organizations.

Reasons cited by interview respondents for Bernard Harbour not being used as regularly by Inuit as in the past included the movement of people off the land into permanent communities like Kugluktuk and

[8] A seven part DVD was produced to document the camp (see *Kugluktuk Hunters and Trappers Organization 2009*). These DVDs are also regularly shown on local television channels.

Cambridge Bay, the distance Bernard Harbour is away from those permanent communities, the costs and time associated with extended travel, and because hunting and fishing activities now often occur closer to permanent communities.

3.2 Arctic Char

3.2.1 Harvesting

Bernard Harbour was noted by interview participants to be an excellent area for harvesting Arctic Char and was one of the reasons why Inuit visited the area so regularly in the past. Historic fish harvesting activities occurred primarily at a fish weir that was constructed at the mouth of Nulahugyuk Creek. The fish weir was constructed (and had to be maintained annually) of rocks and functioned by allowing migrating fish to pass through a man-made opening into an enclosed pool of water. After a sufficient number of fish had entered the pool, the opening would be closed and the fish would be harvested using *kakivaks*, traditional Inuit fish spears. Harvesting at the weir took place at certain times of the year when fish were migrating through the Nulahugyuk Creek system. Interview respondents identified the location of fish harvesting activities in the Nulahugyuk Creek – Hingittok Lake area (see Figures 4 and 6) and often recalled memories of using the fishing weir (or 'fish trap'):

> *[BH11] You know, there would be a lot of families helping one another building and the first time I thought they were building some kind of bridge to get across and here they were building the traps for the fish that [were] going up… somewhere just a little bit up away from the mouth. Because, it's where it's a little shallower they would start picking up rocks and put them together, line them up. But I would think my goodness they're making a crooked bridge and then there would be a gap for the fish to go up in. You know when they hit the rest of the wall they would go where it's open and then get up there. Then when people see, there would be some kind of, just like somebody, a lookout for fish when they would see them splashing or going up and they would shout to the neighbours and others and my goodness there was lots of commotion… and they'd put their sealskin boots on or just go [with] whatever they were wearing and they would get their spear or hook and [there would be] some screaming and lots of excitement.*
>
> *[BH9] But this particular spot in the fall time, this is where you don't need fishing nets and you can set up a weir and bring the fish in as they were going up and trap them and then harvest them to dry for their dogs, and food, what have you. And sometimes they used the skins for carvings and little things, little bags, they would make little bags, tool bags or, you know, sewing bags and things with the skin.*
>
> *[BH7] They close it. Everybody starts fishing in there with the kakivak. And when they are finished, [they] open it at night, whatever when there's no more fish there. Then again at night, they open it, lots of fish when that river is going down and then lots of fish then, so everybody go there, doesn't matter morning or late at night, you close it, fishing again. After that, the fall time, September, so they take all this off. No more fish then. Take it all off here, and both sides, take them off. Put them all together at rock, one on at each side. Put them one place, don't have to walk far and open it up. Put them on the side here. Rocks here, rocks, all those rocks belong to here.*

[BH3] Before they start slaughtering the fish they make it, the trap, fix it all nicely, and then they open [a] few spots so the fish can get in there. I know they used to wait for [a] few days to get that, how many fish they want in that trap. And they close it, before they kakivak.

[BH4] I remember my dad saying too, when they [were] going to leave Nulahugyuk, they have to remove those rocks… And I remember he used to say "You got to leave it the way it was before you leave it." I was always told that wherever you go, you leave it the way it was. You could use it, reuse it. Or, you know, go back to it. That's what my dad used to tell me.

[BH10] And [it] used to be a very good fishing area, for char, spearing. But over the years, every summer they used to fix that. Every single summer they fixed the weirs, every spring, or every summer before the fishing. But nobody hasn't done that in so many years that's why it seems like the water is coming down, but the bottom used to be on the bottom now.

[BH10] Well, we used to go Bernard Harbour all the time. First I remember was when my great-grand parents were still living… I guess I was getting packed or something, I remember going to the river… and then look around, and then as soon as we got there, this old couple, they came and they, here, put on caribou skin clothing and then jump right in and start spearing fish.

[BH9] In the old days when things are making lots of noise that's when I realize that these guys are ready to put a stone on the door part where the fish goes in and out. And that's when I know they are going to do the thing [start catching fish]. But I didn't call it fun those days, but when you think of it today that's a fun thing to see because everybody's screaming and all that kind of stuff going on and they're all walking in the water as if the water wasn't cold. I know for a fact that Inuit are a very shy people, maybe that's why they leave their clothes on and then just get right out there and go for it, you know what I'm saying?

[BH6] You know, before they had fish nets, they would use only those spears [kakivaks]… to catch the fish.

[BH10] Yeah, they pretty well make them [kakivaks] every year. Sometimes they last [a] long time, but sometime they hit a rock and they break and you got to make another one. They only use caribou antlers around this area, years ago. That's all they had, caribou antlers or muskox horn. Yeah, there's two kinds they make. One [is] kind of a heart shape, but the most [popular] one is straight, kind of straight one, from this area, spears for fishing.

[BH4] But it was [a] really, really good fishing area and they used those kakivaks. And they used them for big fish, they make dry fish, even for the dog team.

[BH1] And then you go into the weir... When it's full ohh, lots of work though, lots of work.

[BH9] Well they only do this for a short period of time, like for a few days, while the char is running. And once a family have his catch enough then they give up. But they would help you to get what you want. They would help each other to harvest char…

[BH5] In August. Pretty good fishing in August. July is really too hot, eh.

[BH6] In the summertime they would use kakivak, when the fish are going upstream.

[BH1] Only July [we would fish]. July [is] when it [has] more water. Then we were there.

[BH10] In the fall they go up and that's where they fish in the fall time. Coming up from the ocean and then, that's when they fish in the fall time.

[BH1] Different size. July [is] when there's some pretty good size… Like that [foot and a half long].

[BH10] Yeah, from there on, every summer time, I know every summer time and the fall time I think, I believe, they used to go fishing in that creek.

The Canadian Arctic Expedition's Diamond Jenness also described how the fish weir at Nulahugyuk Creek was built:

> *"Fish dams of stones had been set in the creek, three rows one above the other. The lowest (A) had several gaps in it, the middle one was shaped rather like the Eskimo bow and was entirely closed save for a V-shaped opening, which guided the fish upstream. One side of this V was also the side of another closed V, which had its point downstream and was roofed with large stones so at to make a dark Recess. The uppermost dam (C) was entirely closed"* (Jenness and Jenness 1991: 284).

Figures 10 and 11 show scenes from the Nulahugyuk Creek fish weir taken in 1915 and 1916 by the Canadian Arctic Expedition.

Figure 10: Inuit harvesting fish at the Bernard Harbour fish weir (June 1916) [Reference: Copper Inuits spearing salmon at Nulahugyuk Creek, Northwest Territories (Nunavut), Canadian Museum of History, 37080][9]

Figure 11: Bernard Harbour fish weir (June 1915) [Reference: Stone weirs in fishing creek near Bernard Harbour, Northwest Territories (Nunavut), Canadian Museum of History, 51055]

Interview respondents noted that numerous fish (dozens to hundreds[10]) would be caught at the fish weir and dried for later consumption. Once enough fish had been caught to feed the Inuit families that were present as well as their dog teams, any extra fish would be stored in a cache for later use.

[9] It is likely that all references to 'salmon' in the Canadian Arctic Expedition's reports and photographs from Bernard Harbour pertain more specifically to Arctic Char.

[BH10] Yeah, hundreds of fish anyway. I remember when they do spearing they never stop, they put string on, sometimes string. It's just full of fish, you know, by the gill. And they used to, you got a string and then, and you catch the fish, you put it by the gill and then keep fishing until you got enough.

[BH11] … I don't know how many. The women and sometimes men would be very busy gutting them and drying them out and I mean dry them good and then wrap them up either with caribou skin or seal skin and bury them for winter time or so. And while there's plenty we'd put stuff away until we don't know we might come short, or maybe the hunting might be poor again because they think ahead of time to prepare and [it was the] same with meat. We'd dry meat.

[BH5] Way in the past boy that's too much man, lots of fish, must be around 30, 40. Lots of dry fish.

[BH9] So, I know, I had fun. I did it. I've done it. Because my parents and my step-parents were there to do it so I was part of the whole thing. So, anyway, they would all go out there and they would chase the fish around or just stay in one place. I found out that was the easiest thing to do is then just chase the fish, right? I'm not going to do that, I'll just stay right here, oh, there it comes [making a noise]. People learn after a while you know, than having to be all wet with your clothes. But things were happening like that because they were harvesting fish to dry because they had no freezers. So they would catch as many fish [as] they want until they are happy and then they would fillet them as they catch them and then they would open the door and go to [the] camp site and go fillet the fish, clean the fish and hang them to dry. And maybe by that time, I don't know how many hours later, then it's time to go again until they're happy or everybody's happy.

[BH7] Yeah, lots of fish, oh, lots of water too.

[BH6] There were too many fish, it was too many ever to count or anything. So just what you see is there; they never, ever count, they never ever count, or anything like that.

[BH4] They used to, I remember they used to catch lots. They make bifi [dry fish], they used it for food, even for their dog food but you know, the haonikluk [bone parts], when you make bifi, that's what they used for dog food. And they used to dry them too, on the ground.

[BH4] There was no rack, they dried them on the ground. They were scarce with wood, that's why everybody dried their fish on the ground.

[BH3] Sometimes they pile rocks [to dry fish]. You could tell on your walk, on the ground for, where people used to live long ago and they used to pile up rocks or that high. Maybe they found a stick, or whatever, and they just used that.

---

[10] Some participants in the Kugluktuk results verification meeting noted that historic fish harvest amounts were most likely in the hundreds, as many fish were needed in order to feed Inuit dog teams.

[BH10] They do that all over the place, sometimes you could find rocks all put together, you know, rocks all around. You've seen them eh? Rocks all around, that's where they used to bury their catch years ago.

[BH8] It's hardly any different. Some fish are pretty big. It's still the same here; some fish are still pretty big. It's amazing. I don't know how old they are when they get that big; it takes them years and years to get that big, not like down south where it's [a] warmer climate. The fish grow faster in the warmer climate than it is up here. That's why we catch mostly six to eight pound char. Once in a while you get a few big ones, not very many. It's a pretty old fish when you get a big one… Sometimes we do, yes [catch big fish at Bernard Harbour], but the best fish we'd like is landlocked char when it comes down; it tastes a lot better.

[BH10] I don't know the fish down [in] that area, they're not that big, but you come up here, you get big fish in here. It's a lot warmer I guess. The further north you go, the fish start to get smaller… The fish are bigger up on the south side because the water is warmer now.

[BH1] … some fish really big. Some smaller.

Figures 12 and 13 show fishing-related scenes from Bernard Harbour taken in 1915 and 1916 by the Canadian Arctic Expedition.

Figure 12: Bernard Harbour fish drying racks (July 1915) [Reference: Fish drying racks near Bernard Harbour, Northwest Territories (Nunavut), Canadian Museum of History, 39361]

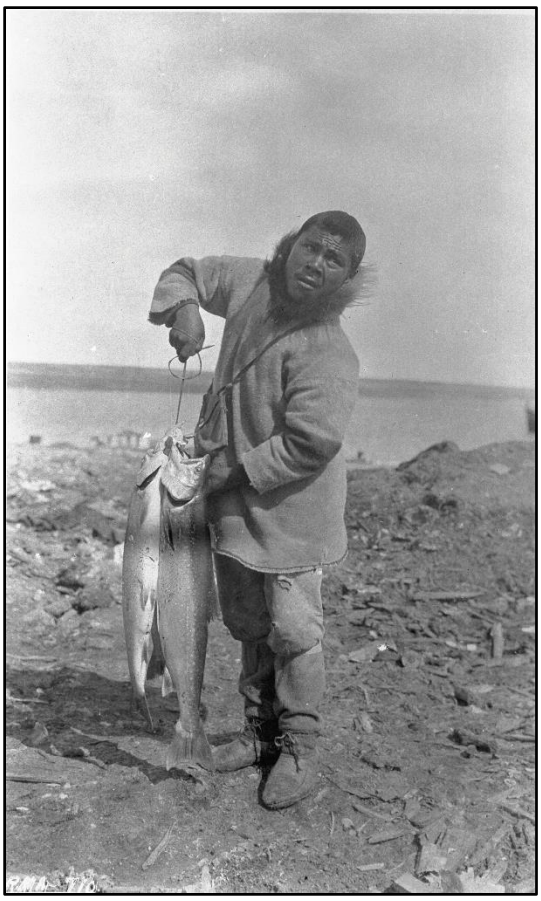

Figure 13: Fisherman and Arctic Char caught in nets at Bernard Harbour (June 1916) [Reference: Mangalina holding three large salmon trout at Bernard Harbour, Northwest Territories (Nunavut), Canadian Museum of History, 38992]

The men, women, and children living at Bernard Harbour engaged in many different activities. It is apparent that the camp at Bernard Harbour could be a very busy place at times.

> *[BH4] …those days men's got, they're the main hunters, providers, the women stay home, cook and you know, make dry fish, dry meat. They'd have to stay home and sew, mend whatever holes their clothing, and look after kids.*
>
> *[BH8] The men do all the kakivak works and the ladies skin out, cut the fish to dry them out… [The children would be] playing, just like any other kids who are playing, but they've got no TV, so they [have] no computer. Summer games and whatever.*
>
> *[BH4] … like little girls they got no toys, so they use rocks. Copy tent frames, [with] rocks, they do that too… Yeah, and even rocks too, 'cause they had no doll. I remember too, me, when I was small, I used to pack rock, we used them as a doll.*
>
> *[BH11] Well I wouldn't know how many families were there at the start and we don't live too far from one another, just like next door you know. Not too far though. And my*

goodness every morning you could hear somebody hollering "time for tea, time for breakfast", whatever, it never stops. Whenever somebody cooks something they share, they call out to others around them "come and have tea, come and have some fish". They would go out of their tents, well cabins now, and invite anybody to come and have whatever they were offering. But you know my wife and I we talked about that one time, gee sometimes I wish I could hear that when we were out, at our cabin and somebody somewhere calling out "come and have tea, come and have", you know, meat.

[BH7] You know old people, when they get [back] after fishing, people [were] singing Inuinnaqtun song, Eskimo, you know. Singing around, having tea, gather around. Celebrating after the fishing. They happy about it. Dancing, drum dance a little bit maybe… Celebration. After that they [were] dancing and next day again they happy about it, what they get fish for, dry fish. Dancing around, play around. But that ending [in] September. They separate, you know, finished.

[BH4] And one day the hunters, one day when they walk back to the camp they used to have drum dances and some kind of Inuk games too.

[BH10] Well people years ago have a lot of stories. Every time before you go bed, there be old folk telling stories. Stories, it's like watching a movie. Some stories are like a cartoon, some stories are mostly about a young people that became hunters, great hunters.

Diamond Jenness' description of the scene he saw on July 4, 1916 at a fishing creek located at nearby Cape Krusenstern provides some additional context:

"They are having an easy time, lying about in their tents all day waiting for fish to show up in the weir. From time to time someone goes down to look and gives a whoop if any appear, whereupon everyone rushes out, clothed or naked, grabs a spear, and runs down to the creek… For the children this is perhaps the pleasantest period of the year. The weather is warm, there is perpetual sunshine, and almost their sole duty is to brush away the mosquitoes that swarm around them. These diminish somewhat in the 'night' hours, so the children usually roam about all night, playing on land and water, looking for eggs and mice, snaring small birds, and bathing in the creek or in an adjoining lake; by day they sleep in the tents with the door blocked up with skins" (Jenness and Jenness 1991: 608).

Use of kakivaks at the fish weir was not the only method of fishing that Inuit employed at Bernard Harbour[11]. Jigging (i.e. the use of a rod, line, and hook) from the ice was also popular, as was the use of fish nets. Jigging and fish nets were used on the ocean off of Nulahugyuk Creek and at Hingittok Lake itself (and other local lakes). In recent times, fish nets have been the preferred method of catching fish[12]. While Arctic Char is often the focus of Inuit fish harvesting activities, other species such as Lake Trout, Arctic Grayling, and whitefish are also caught in the Bernard Harbour area. Figures 4 and 6

[11] Many of the fishing activities described in this report as having occurred in the past have also occurred in more recent times, with the exception of fish weir use.

[12] One interview respondent even noted they had conducted fishing trials on Hingittok Lake using fish nets to see if a commercial Arctic char fishery could be established there.

display Inuit fish harvesting activities in the Bernard Harbour area as documented by interview respondents, while the quotes below provide some additional context:

[BH6] [The interviewee] remembers they used to use that [fish weir], even fish nets at the mouth of the river too, that's what [the interviewee] remember[s]. Before that ice freezes up or the ocean freezes up… I think they used the lake, the creek; anywhere they fish, because they used to get a lot of fish. They made dried fish, anything that they would do with the fish, or just put it away so they can have it in a cache… You know, you bury these heads and then a month or a couple of weeks later you can take them out. It's just like having, well it's kind of smelly, but people have those fish like that… Aged fish. Yeah, they age it… When they were really aged they were just so good to eat, just char, that's what they used, only with char.

[BH6] Oh, just at the mouth of the river I think that sometimes they do ice fishing too… They used to have caribou horns for a jigger and [the interviewee] remembers that they used to have these caribou sinew for line, for fishing line; that's what they used to use for jigging… I think just at the mouth of the river they used fish nets in the wintertime, and in the springtime they find open ice and sometimes they put fish nets in there too to fish.

[BH10] Yeah, spring and fall [is when we would set nets].

[BH10] In the fall time too. Summertime you can put [a] fish net anywhere.

[BH3] I know the people in Bernard Harbour used to travel a lot up here [to Hingittok Lake].

[BH10] All over, we fish all over the lake. All along the shores, mostly, mostly in this area… Ice fishing. And we fish all over this lake but we fish anywhere. Anywhere lake is… Yeah, we fish all around. People never stop fishing. They try to find fishing spots all over the place, and then whatever fishing spot they put, they sometimes they used to put markers down. You know, two rocks together or one each for [a] marker. They have those fishing spots, [it was] like that for many years so people in generation to generation, they fish there.

[BH9] I believe so, I believe people would go there [Hingittok Lake] because that's the reason why I know this lake quite well. Normally, people today, in the old days, I think they do go there if somebody wanted fish, they're going to go there because the fish in here are called land-locked char. You can get Lake Trout as well but very rarely if you're looking for aanaakhiiq [whitefish] or other fish like ivitaaruq [spawning char], they're going to get them there.

[BH9] People don't go there for that [ice fishing on Hingittok Lake] anymore, but in old days they did… It was one of [the] popular lakes because it was close for them to go [to] from Bernard Harbour with dog team to go up for the day kind of thing. They would go back and forth when they fish in the fall time when the ice was not very thick. Likewise, like here when the ice is too thick people quit fishing and then some of them, they fish until the ice gets to be like three feet, four feet, then by that time it's too much work and too cold. So by then they should have enough char for the winter or for part of the winter anyway.

[BH8] In wintertime they go fishing up here [at Hingittok Lake]… But they don't have the ice chisel we used to have; they used a piece of bone from the caribou antlers, sharpened it pretty good, piece of wood... But they used to have special markers, that's where they [were] most likely to go fishing for years to come. And those markers were there all the time, but now just like nobody ever goes there no more in the winter to go fishing, ice fishing… Along the shore somewhere, where they figured is a good fishing spot, and they got special markers, some of them pointing directly to where you could fish, close to shore or further away from the shore. Piles of rocks, special markers. People from long ago, they knew what these markers mean. But today, I don't hardly ever see [them], even when I travel by dog team in my time…

[BH11] Oh yeah we would fish and try out some lakes like this here where there are creeks, because there would be some [that] would go up maybe into other lakes… Well I can recall the closest one here but this one here we usually go to the most and sometimes in winter we would camp here two or three days fishing for char and then we would go home, we'd share with the other people that were there. But I don't know what area though.

[BH4] I remember when they come back from walking, hiking, they had nice big fish. And he said it's from the lake or something… Namaging [carrying] fish and I notice the fish they caught were big.

[BH4] And, I can't remember who, somebody was carrying a jigger, homemade jigger out of caribou horn, antlers. And he was fishing in one of the lakes, you know, just like casting. And he caught a Lake Trout, I don't know which lake.

3.2.2 Migration

A number of interview respondents noted there were two main migrations of Arctic Char in the Nulahugyuk Creek – Hingittok Lake system. The main upstream migration (towards Hingittok Lake) was noted to occur in the late summer or early fall (e.g. July-August. One interview respondent indicated the migration could extend into September as well). The fish involved in this migration were travelling to Hingittok Lake to spawn. It was also noted that Arctic Char turned red when they were spawning (often termed 'red-bellied char' by interview respondents). The main downstream migration (to the ocean) was noted to commence during the spring break-up on Nulahugyuk Creek and continue on through ice-out (e.g. June/July). Fish moving downstream were sometimes noted to be skinnier and smaller by interview respondents.

[BH9] Yeah, before the ice when there's a lot of water in the lakes running down, you get a lot of rain and all the water is built up so that's when most of the fish would make it up to the lake. And some fish might have time to go back, but [the] majority of the time when the break-up is gone in the spring time then some of the fish go down back to the ocean with the ice. And some of them they do get scratches and things like that going through things like that. It's normal, but some of them will die eventually, but you know they all don't die.

[BH6] [The interviewee] remembers like when the ice is all gone, the fish would be going upstream and there was a lot of fish, even when the snow was gone, they would fix those…

the channels, everything, they would fix them up after the ice and snow is gone. That's when there's so many fish going upstream.

[BH8] In the fall they're going inland… the spring they're going back down.

[BH1] July. That's the only time that [the fish] try to come up.

[BH10] I know sometimes when it's deeper they go up. Depends what day you on, or how much rain you have. And then the fish start to go up. The more rushing water, the more fish go up. But sometimes [there is] no rain for [a] long time, they don't go up, because some part is kind of shallow now. Some part is still pretty deep though, but it's been changed for many years.

[BH7] You know, the last one out is big char, last ones. The first ones [to migrate upstream], small… Small fish. About four to six [pounds] maybe… Two and four and six, sizes… Some, last ones a big char, going up last. I know that… Oh, about this size [2.5-3 feet long].

[BH4] In the morning they go up [upstream].

[BH1] Fish going to be stop[ing] by here [in these pools] for a little while trying to come up. Stay there for a little while. That's the way in any river. Stop for a while, rush for [a]while. It goes to there it goes to the creek up again.

[BH10] Yeah, well sometime when they start to come up right away [after the creek opens up] it depends how much water. And fish like to go in the rushing water.

[BH9] Yeah, well that's not when they go up, they go up in the fall right, before the ice. They just come down with the ice floe when it's free to go down, that is how come they call those, you know, you seen them John they call them 'aniaq'. When the ice breaks up people go throw nets in and drag them, right? You get some really long skinny fish, they call them 'aniaq' and that's the ones that [have] been stranded for some lakes for all winter, so, if there [are] so many fish in the lake, there's not very much food in the lake, right? Depending on how big the lake is, so if the food is not in abundance and when these fish come crawling back down to the ocean and you catch them, they have a big head and long skinny body. You'll see some of those time to time and as well as beat up fish trying to make it home or get out of this mess.

[BH3] … there is two different kind of char. Like, and some do come from the lake, they call it aniak. And they're really skinny and long. They call it aniak because they've been in the lake or you know, trying to get there, they get so skinny… We always get quite a few, mainly in the fall.

[BH1] I see some, I know they running up some, coming down to the ocean because we have a trap, a rock trap, one like that. From the trap, it go and came from the lake. That's what skinny from the lake. Different. Old, skinny. That's go out to the ocean.

[BH7] … when the ice [is] opening, river going down fast, people say some going down, they get skinny, from the lake I think, they get skinnier going down to ocean.

[BH10] In the spring time, some fish go down… from the lake.

However, some ambiguity about the exact timing of fish migrations was uncovered in the interviews, as some interviewees suggested that fish were migrating at different times and directions than other interviewees did. For example:

[BH8] [The fish would migrate down to the ocean in] late fall… Probably September… August, September.

[BH8] In the early spring when the fish are coming up. When they're going up the river… Yeah, that's when the river broke, the fish start coming up when the river is open. And that's when they have a fish trap made and they used whatever they make [kakivak]… Yep, out of caribou antlers and pieces of wood, whatever driftwood they had.

[BH8] In the fall they're coming down [to the ocean] and that's when the days are getting darker, night. Fish start coming down… Some of them stay up there; landlocked char, they get red belly. I don't know how come they get [a] change [in] colour when they stay up there too long. Landlocked. Once in a great while they go down and we'll catch them on the net. They call it evetagok, just like it's not like an Arctic Char no more, it's red belly. Arctic Char is still shiny a char even when they're coming down.

[BH6] I think they go upstream in the summertime and then just before the ice freezes or the water freezes, they would start going downstream.

[BH6] They go both ways, I think; there's too many fish.

[BH10] … they go back to the ocean in the fall time. When it start[s] to freeze I guess, because you don't find no fish in the, you can find fish in the some part of the lake, river, where it's deep, but not so often anymore.

[BH10] And then in the fall time they start to go down and even in the fall time they start to go up too.

[Interviewer] Okay, and after they spawn, then you would see the fish come back down to the ocean?
[BH3] Yeah.
[Interviewer] And that would be in the fall sometime?
[BH3] Yeah.

[Interviewer] Okay, and now for the movement down, from the lake down to the ocean, that's in the fall?... After the spawn?
[BH3] That's when the ice [is] starting to form. Cold, 'cause I think they know where the good fishing spots is always safe, you know, they go up from the ocean and when they start getting cold, maybe they got [a] mind too, that's why they know to go back down.

While clarification on migration timing matters was sought by the interview team where appropriate, the issues could not be fully resolved at the time of the interviews. These issues were then brought forward during the July 2014 results verification meeting held with interview participants and HTO representatives in Kugluktuk. Participants in this meeting generally confirmed that Arctic Char in the region have two main annual migrations (i.e. downstream to the ocean in spring, upstream to spawn in the late summer/early fall), as described at the beginning of this section. However, it was suggested the discrepancies uncovered in the interviews might also be due to a number of factors.

For example, it is possible that separate groups of fish may have been travelling *both* upstream and downstream at or near the same time of year. This could have happened if the timing of the upstream and downstream migrations occurred closely together, or overlapped one another. Results verification meeting participants confirmed that modern day fish migrations in the region are often only separated by a couple of weeks, and that this could have been the cause of some of the confusion in the interviews. It was also suggested that if some fish in the past had encountered too many obstacles on their upstream migration they may have turned back to the ocean in order to find an alternative spawning location; this would then explain any observations that suggested fish were moving in both directions at the same time. A meeting participant also clarified that, unlike modern scientists, older generations of Inuit didn't necessarily pay attention to certain details of fish migrations (e.g. exact dates and timing of runs every year)[13]. Nevertheless, this topic remains an area in need of further examination.

Interview respondents also noted that fish had little difficulty migrating to / from Hingittok Lake in the past. This was because water levels in Nulahugyuk Creek were deep and there were few obstructions present. Similarly, interview respondents noted that dead and stranded fish were generally not seen on the banks of Nulahugyuk Creek in the past. Verification meeting participants also provided some clarification on the migration of different size/age classes of fish, for which the interviews themselves provided little information on. For example, one participant suggested that size/age class migrations may be controlled by water depths. It was noted that larger fish require deeper water to migrate and will only begin to migrate upstream when the water becomes deep enough. Smaller fish, however, can migrate in shallower water. Another participant commented on their observations from Tree River, a river system located to the east of Kugluktuk. This individual had observed younger, smaller fish migrating upstream there in early July, followed by bigger 'red-bellied' Arctic Char migrating upstream in mid-to-late August.

Diamond Jenness' diary entries from the 1914-1916 Canadian Arctic Expedition help shed additional light on the timing of Arctic Char migrations at Bernard Harbour. One entry from June 29, 1916 is particularly detailed and provides information on migration timing, size and number of Arctic Char captured, and on Inuit harvesting techniques. It also suggests that fish migrated in different directions at the same time in Nulahugyuk Creek:

[13] It is possible that language interpretation issues may have been the source of confusion in some interviews. Furthermore, the terms 'spring', 'summer', and 'fall' weren't defined in advance of the interviews and the interviewers/interviewees may have assumed these terms applied to different periods of time than one another. It is also possible that some interviewees may have mistakenly provided inaccurate information.

"Wilkins came with us as far as the fishing creek to get some photos of the Eskimos spearing fish. The salmon are now migrating, mainly at night up the creeks to the lakes, and the young fish are coming down at the same time from the lakes to the sea. The salmon from the sea average about 8 lbs in weight and about 2 feet long; the young fish are only about 8 inches long and weigh about 1/3 lb. The former are caught in traps of stone at the mouth of the creek, the latter at other stone traps a little higher and at others again at the outlets of the lakes. While the men race about in the water spearing with the qaqivuk the large salmon, the women catch them as they flee for shelter into dark box-like cavities of stones and string them on a line. We waited till the first migration of the evening took place, when about 40 salmon were caught. The Eskimos, mainly the children, ran to the upper series of traps and caught the little fish in their hands" (Jenness and Jenness 1991: 603).

Other entries from Bernard Harbour (between July 8-12, 1916) describe the end (and in one instance, re-commencement) of the Arctic Char migration:

"All the Eskimos had gone inland to hunt caribou as the salmon migration had ended… The Eskimos had been very successful in their fishing, more so than last year" (Jenness and Jenness 1991: 610-611).

"The salmon, which had ceased migrating up the streams, causing the Eskimos at the fishing creek to go inland, suddenly resumed their migration, and Ikpuk's family, being alone, have speared a great number" (Jenness and Jenness 1991: 612).

"No more fish had entered the weirs, and the young fry had ceased migrating seawards" (Jenness and Jenness 1991: 612).

In any case, interview respondents commented on a number of recent changes they have observed in regards to the Arctic Char migrations at Bernard Harbour. Perhaps most importantly, it was noted that Arctic Char no longer migrate up Nulahugyuk Creek in the same numbers or with the same level of ease as they did in the past[14,15]. This is because many fish now struggle to migrate upstream due to low water levels in the creek and the increased presence of obstructions (e.g. rocks). Other fish have been seen attempting to migrate upstream, but then turn around once these obstructions are reached.

[BH5] Well, long ago the spear fishing used to be fun, lots of fun. But these years there's hardly any fish coming up now, it's too shallow.

[BH4] Some of them we've seen they try to swim up, when they can't make it, they just turn right around… Yeah, too hard for them. But when they fixed that creek [when the HTO and Golder restored portions of the creek]. You could see, they went up.

[BH5] In August they try to go up and they always go back down. They don't come back. I don't know what the reason is. They trying to go up here, I guess.

[14] A report prepared by Golder Associates on the Bernard Harbour Arctic Char fishery (2013: 3) also notes that local knowledge "suggests that these migrations have declined markedly over the past 30 to 40 years."
[15] Banci and Spicker (2012) remark that Inuit in the region have seen many environmental changes over the past few decades including smaller fish spawning runs.

[BH7] Fun place, yeah, I like that place. I never forget it. Now is pretty saddening it's about the river gone down. I can't believe it. I'm so sad about it, you know. The fishes go up, maybe, not too far, now, fall time, go back probably, you know. Can't go up anymore.

[BH10] Yeah, but lots of changes, hardly any fish anymore.

[BH9] As far as we know today the river is so dry that these fishes aren't making, I don't think they are making it all the way up to the lake anymore, for the past few years because of the water level… I believe so [that the water level is lower today]. That's what everybody believes and I believe that as well because it doesn't mean that there's no more fish in the lake, it's just that they can't do the run anymore. There might be few fishes that are still going up there from time to time amongst the hard times where other fish can't make it, other fish will make it up there somehow if they're still doing it.

[BH8] It's possible [these changes have had an effect on the Arctic Char], because you need good water to have the char running… Some of them probably too late to come up the river. Then what they do is go look for stronger rivers than the weak ones.

[BH4] Really changed… Hardly any fish.

[BH3] I think the reason too, there's lots of, what you call it, moss on the front part of the river. When the water gets low they just stick out. We see lots. I don't know if that's a problem for the fish, it must be 'cause when the river was deep, they had no problem. That's why long ago be people fish there always, they make a trap for fish and when that trap is full they just close the whole thing and get after the fish.

[BH10] Well we hardly ever go down there in summer time. Only once and a while we'll go down, but the weirs are all buried. That's why hardly fish go up anymore maybe… Because, right, for generation to generation they used to fish that weir. Every summer they'd make a pass for the fish. Way for the fish to go up.

3.2.3 Spawning

Arctic Char spawning was noted by interview respondents to occur after they had finished their upstream migration. Arctic Char were said to turn red when they were spawning and were often referred to as 'red-bellied char' during this period. Most individuals believed that spawning occurred in Hingittok Lake, although a limited number of individuals suggested that spawning might also occur in smaller rivers and streams[16]. Example quotes from the interview participants provide some additional context:

[BH5] Well, in August their colour change[s] and I know when the colours change on the char they tend to go up.

[16] However, one participant in the results verification meeting in Kugluktuk noted that it is unlikely fish would spawn in Nulahugyuk Creek because the creek freezes solid in the winter.

[BH8] … Some of them stay up there; landlocked char, they get [a] red belly. I don't know how come they get [a] change [in] colour when they stay up there too long, landlocked. Once in a great while they go down and we'll catch them on the net. They call it evetagok, just like it's not like an Arctic Char no more, it's red belly. Arctic Char is still shiny a char even when they're coming down. I don't know what the difference from the ocean to the lake [is]. I don't know what makes them red up here; they've been there too long, they're landlocked, they get come down no more. I don't know how many years they stay up there to turn that colour. We always say that's the best fish you could have, but it's the red belly fish down here.

[BH3] It would have to be middle of August or late August [that Arctic Char spawn].

[BH3] … when they start coming up from the ocean and they're really silver. And then when they been up on the river and they up on the river for maybe a month or so, they start to change colour towards fall time. That's when they're getting ready to spawn.

[BH5] Like in first week of July maybe [fish will spawn].

[BH1] [Spawning will] start in the fall when it's ice, freezing.

[BH10] They, I know they come up, they come up in the fall, mostly in the fall to spawn or something.

While most interviewees admitted they did not possess detailed knowledge of how Arctic Char spawned in the Nulahugyuk Creek – Hingittok Lake system, some limited mapping of spawning locations did occur (see Figure 6). One interviewee even recounted a childhood memory of their father making holes through the ice on Hingittok Lake in order to view fish 'nesting' areas on the bottom of the lake. These nests were noted to be circular and domed-shaped structures, about twenty feet wide. The nests were dark red in colour if they held spawning Arctic Char, or grey in colour if they held spawning Lake Trout. Spawning was noted by this interviewee to have occurred in the fall time, when the ice had become thick enough to walk on and drill holes in. Other interviewees provided some additional context:

[BH5] …I know there's lots of – they call it iglik. They call it iglik for all the fish. They spawn there.

[BH9] I'm not sure if they use the whole lake [for spawning], but the lakes, when looking for land-lock char, there's only some areas that these fishes will pick. They don't spawn like the fishes in a normal place where they go spawn anywhere. When these char come, they spawn all around this area right here. They call them 'igliq', you've heard that eh? They call them 'the beds' in Qablunaaq [white person's] way…

[BH9] I'm not sure when they spawn because I don't look for that, but the way people see it is in the fall when the fishes are running before the ice, that's when they're spawning.

[BH1] Have a white spot. You know, at the lake you can see white spot in the lake, fish because fish go round, round, round, that make hovak [fish eggs] put the hovak [fish eggs] there.

[BH7] You would see, what did you call those nice little rocks together, shiny ones. They would spawn in those little rocks, round, you would see them on the bottom… Oh they were really shiny, nice round and you could see the char going around. Fall time. When you see that shiny rocks, make a hole about size that much, Mount Pelly… Yeah really shiny, really white. White rocks all around one place, nice…Yeah, circle, round, nice. [Interviewee indicated they would be about 6 inches across].

[BH3] … when they're spawning in the river, they have to go where there is hardly any current… It's gotta be late, around late August, it's somewhere around there. But they always have, they spawn where little bit of current is. It's not fast… I think it's little creeks, like [where] not that strong current is. Yeah, they always go [to a] little creek, 'cause every time you work in a little creek there's little [fish].

3.2.4 Health

Interview respondents noted that fish caught at Bernard Harbour in the past were generally in very good health and were excellent to eat. Similarly, interview respondents noted that dead and stranded fish were not often seen on the banks of Nulahugyuk Creek in the past, although some fish would be seen with wounds that were obtained during their migration through the creek (e.g. some wounds were obtained while migrating downstream through broken ice). Remains of fish eaten by bears have also been observed on a limited basis.

[BH5] Never seen any dead fish…

[BH7] Yeah, healthy fish, fat and nice fish, there were nice fishes fall time, going up the river…

[BH11] Good health? What, the fish? Oh yeah. Yeah.

[BH9] … but I know the fish are very healthy when I catch them in the fall when I go there [Hingittok Lake]. When they are frozen they look beautiful, they are very tasty. The only thing is when you cut them up their white meat [is] kind of like that colour. It's not red meat like the char we get here in the white water system… You could never tell the difference, if you were blind-folded you would never know. I had trouble selling the char because of the white meat, the fish is red, red as this, the whole thing, as you see it as you hold it. Once you cut it open, it becomes red, the meat inside. Because of the colour of the skin doesn't mean it's like that inside, so that's one thing I found out about this land-locked char in this one. But I don't know in Cambridge or in other places, I've never fished where I've catched red meat in the lake so I have no clue why, but I imagine it has something to do with what they eat. Because once they get out, you know, it's there, right, it's not up there, the food chain just changes… The meat we get down here before they go up, they're red, because when you catch them and you see the racks, they're all beautiful pink, red meat, red blood meat… I think it's the food chain that makes the food colour, same thing with you, if you start to eat one thing then your texture is going to change.

[BH6] [The interviewee has] never, ever seen any dead fish, because where they had the channels and whatever, it was always full of water.

[BH4] Only around here [we saw stranded or dead fish] before it was fixed [when portions of the creek were restored by the HTO and Golder]. I remember fish are having hard time going up the creek but after it's fixed, no sweat for them… Go right up.

In more recent times, some respondents have noticed changes in the health of fish at Bernard Harbour and in other parts of the region.

[BH4] They used to be healthy, but now. I think 'cause the creek is getting too shallow, you could see they're wounded, or, you know, scar, old scar.

[BH11] Sometimes we catch char at the lake or even the fish nets now… There are spots and just like boils. No, never seen nothing like it.

[BH6] Yeah, I think [the interviewee has] seen changes to the char, and there's so many garbage around or anything that flows from the river. [The interviewee has] seen quite a few changes to the fish, the colour and – I think in the past few years we didn't get very many fish. Like a lot of people put fish nets out, must be two or three years in a row, there was hardly any fish… Not very many fish; people put fish nets out, they would only maybe get one or two for how many weeks. And they don't really know. They've noticed the changes, like maybe not very many fish is coming down from up there… And [the interviewee] noticed the changes even in these lakes too; there's hardly any water flowing down. I think that's how come the fish is kind of late coming down to Kugluktuk.

Prno et al. (2011) similarly found that some Kugluktuk residents have observed an increase in the number of sick or diseased wildlife in recent years. For example, there have been more instances of diseased, sick, and unusually small fish noted in the region (Prno et al. 2011). Banci and Spicker (2014) also document Inuit concerns about seeing more sick and diseased fish in the western Kitikmeot Region.

3.2.5 Inuit Customs

The diaries of Diamond Jenness reveal a number of important Inuit customs related to fish and fish harvesting. While the following entries do not pertain to Bernard Harbour directly, many were describing locations near to Bernard Harbour.

"I took the teapot down to the creek to wash it out. One must not wash it directly in the creek or the fish will smell the contents and not come up. I took an aluminum cup to dish up the water in, and the Eskimos told me iron was taboo in the fishing creek while the fish were running" (Jenness and Jenness 1991: 605).

"The Eskimos have a curious custom with reference to the salmon migrating up and down stream. If caught going up, their heads (if they are lain on the ground) or their backs (if hung up to dry) must face upstream, and vice versa if captured when migrating to the sea. Then the other salmon will follow in their wake, as though their companions were still continuing their journey, and be captured likewise in the same weirs. Probably a similar

process of reasoning explains why lake trout caught by jigging should be laid with heads facing the hole in the ice, though I could never obtain any other reason than that "it had always been the custom to do so"" (Jenness and Jenness 1991: 609).

"It seems that the fish began to come up in numbers after we passed on our journey down the coast, as Qaritaq came and said "You bade the fish come up – they came so we have killed great numbers"… Patsy has told me a fuller account of how I made the fish swim up this creek. As we were leaving to go east along the coast Qaritaq had asked me to "will that the fish should come up." That same evening after we had left a large shoal of them did actually migrate up and were speared. The doctrine of the 'power of the will' plays as great, perhaps a greater part in Eskimo philosophy than in our own" (Jenness and Jenness 1991: 610).

"Two or three told me today that on the ice caribou and fish may be eaten raw, but must not be cooked, and I promised not to cook any. Ikpukkuaq said that long ago some people cooked caribou on the ice and ice cracked up and they perished. Others agreed that a similar result would happen if they infringed the rule" (Jenness and Jenness 1991: 350).

3.3 Nulahugyuk Creek and Hingittok Lake

3.3.1 Nulahugyuk Creek

A number of interview respondents noted that flows and water depths in Nulahugyuk Creek traditionally varied throughout the year, with deeper flows occurring around the time of ice breakup and lower flows occurring around the time of freeze-up. The breakup of ice on the creek was generally noted to occur in the spring (e.g. May/June, although one respondent indicated breakup could occur in March-April, while others said it could extend into July). Freeze-up of the creek was generally noted to occur around September/October, although one respondent noted it could begin as early as the end of August. Interview respondents also noted that Nulahugyuk Creek used to be much deeper in the past with few, if any, obstructions to fish migration. Conversely, Nulahugyuk Creek has now become very shallow, with many exposed rocks and obstructions to fish migration.

[BH6] It used to be really, really, really deep. Couldn't see any rocks, even if you go down, but now you can see all these rocks that you've never seen before.

[BH7] … when I look in the picture there I can't believe it. No water there. Different.

[BH7] So, I remember that lots of water [was] going down, as soon as the river's going. Deep, right to the banks. Now when I see that picture, I can't believe it.

[BH11] Well really it depends where or how far you go. Well if you go up the river in some parts it could go up to your waist and some parts up to your knee...

[BH5] We noted [the] river a long time ago it used to be pretty deep, you couldn't even go across… Right over your knees. And how many years later we went back there the water was way down and keep going down really, almost every year, I think. And from there almost dry… And further down here all that green stuff growing on the gravel, it's from

[being] too shallow and getting dry and getting wet again… This part used to be really wide like you see it in that camera… You used to run it and get across there now. We used to use hip waders or seal mukluks…

[BH5] Well, ever since we start going down people always tell us the river's getting shallow there and then when we kept going to that place it's getting worse, worse, worse every year. Water drying…

[BH5] … There usually barely [was] rocks showing in those days. Now you could see lots and lots, right now. I think it's too shallow now. In the past [it] used to be pretty deep almost all the way up.

[BH11] Well yeah we had to go up a little further where it's up to knee deep where they can make their traps for the fish but like from here to the – what is that, warehouse? It's deep. You could go boating in there.

[BH8] It was bigger, not like today; just about disappearing, that river today. Not like long ago… It was deep and they make a fish trap by the mouth of the river.

[BH8] The river is drying out compared to long ago. You could [now] walk right across it without getting over my boots. You just about could cross it without your running shoes.

[BH4] But we notice that creek it's really slow now… But down here where they never fix the creek, it's kind of shallow. But after they fixed that down below, the fish look happy, really, you could tell. But when, before it was fixed, they were having hard time going up.

[BH3] Lots of boulders and just like shallow, 'cause there's boulders there. Yeah, and hardly any water running.

[BH10] Oh, lots. They used [to] get quite a bit of fish there, when the fish used to go up all the time, but it's never looked after anymore and it's, the rocks, they're coming in every summer. When the river's strong the rocks go down and right on weirs there you could still see the weirs before but I guess that's where the rocks stop and they start to build up on it.

Some interviewees mentioned that other creeks in the region have also experienced reductions in flow. Reduced snowfall in the winter, less rain, climate change, and the drying out of lakes and ponds were all suggested as some potential causes of these changes. Some interview respondents noted that these changes began to occur approximately 40-55 years ago (i.e. in the 1960s-1970s), although one respondent believed the changes began occurring only about 25 years ago (i.e. in the 1990s).

[BH8] Yep, [different rivers and creeks in the area are getting shallower] because there's hardly any more run-off from the land going to the river. Because these little lakes, they got creeks that goes to one certain river from the land, there's always a creek joining the main river, 'cause it's on the lowest part.

[BH1] Everywhere, you know. Everywhere here people say, hear, even TV. River different now. Not only us. Different, different land now.

[BH3] Tree River is, it's different, there's always lots of water, there's lots of fish there yet. Bernard Harbour used to be like that... 'Cause its lack of snow or you know, hardly anything going in to that creek nowadays.

[BH8] I really don't know, but what I always think is, just let the nature be. It's the way the world is changing these days, most of the rivers are drying out. Even here [in Kugluktuk] it's drying out. The river is not as strong as it used to be here. I can't even reach the falls no more with my boat and motor. I used to have a 75 [horsepower] outboard motor and could go right up that falls to go fishing. Now I've got a 60 – a smaller horse – I try to go up, even it got remote control so I could go on the shallow water. I moved it up, I still hit rocks. It's drying out. I can't pass the first falls no more, that's how much it's drying out.

[BH10] Yeah, we used to, when I first came here [Kugluktuk] in 1957, we used to have spring ice break up July the first. Now it's earlier. Now that river is running right now [first week of June].

[BH8] It's draining out, compared to a long time ago, because I believe it's climate change. Year after year the oceans here, the ice is getting thinner and thinner. Long ago it used to be five, six feet thick of ice here and lots of snow. These years, hardly any snow anymore anywhere, but the lakes are getting thicker and thicker because it's no more snow.

[BH6] It's been kind of warm too, I think, and it's just from the heat, or we're probably not getting very much rain or whatever. That's how come our lakes are getting less water.

[BH10] Shallower. I remember, yeah it's a lot shallower now because years ago, used to snow a lot, but today we don't get that kind of snow anymore. Years ago there used to be a lot of snow. When you stop by dog team, you can build igloo anywhere. But today, kind of hard to find deep snow to make an igloo, today. But some years it's still, but not like years ago.

[BH5] I don't really know [why these changes have occurred] but I think it [is] clogging up with the mouth up the river here [at Hingittok Lake]. I guess when the snow starts to push down and all that gravel must be bit higher than over there, maybe that's where it's really slow… I think it's best to do – check it out in summer. So you could even make it deeper again up on the both sides, see how it goes. Might take off again. Maybe that's why. And further down here all that green stuff growing on the gravel, it's from [being] too shallow and getting dry and getting wet again. Maybe that's why. I don't know.

[BH3] I think it's changed from lack of snow or our climate. Yeah it's changing up… This year it's gonna be worse I think, there'll be hardly any water 'cause there was hardly any snow. I think it's pretty well it's climate change… Probably lack of rain too. Not that long ago there used to be lots of thunder going 'cause it was raining all the time around here, but nowadays, maybe once in a while.

[BH10] Well, it's getting shallower it's got to get wider. Some parts are filling up with rock maybe. Sometimes we get, sometimes when the water side, we get rushing water and this

push the rocks anywhere. And it's getting wider, even just like Kugluktuk now. It's getting wider over the years, my years anyway, my time.

[BH10] Every summer they fix it [the fish weir] up. Every single summer pretty well, after the break up. They fixed the weirs every year, but nobody hasn't done that for after 1950s. From since after 1950s. From generation to generation, people used to look after it because that's where they fish. It hasn't been done for so many years, that's why it seems like it's getting wider. Because the weir was all held up with rock shale. That's where the deep part was. Because they look after it many years ago, it was good, because that's where they fish.

Similar changes have also been documented elsewhere in the western Kitikmeot Region. For example, Banci and Spicker (2012: 116) remark that Inuit in the region have "… seen many changes in water quality over the past few decades. These included shallower lakes and rivers that drained to the ocean, reductions in river flow, smaller fish spawning runs, and the Arctic Ocean took longer to freeze." Inuit have attributed these changes to a number of factors including "less rain and snowfall, changes in weather, increased contaminants such as dust, mineral exploration and mine development, melting of permafrost because of global warming, airborne pollutants, too many tourists, leaving garbage on the land and overpopulation of geese." In a related TK study, Banci and Spicker (2014: 83) found that some Inuit in the western Kitikmeot Region have "noticed decreased water levels both in fresh water and in the ocean. This was attributed both to climate changes and in some cases to the land rising. There were concerns about the effect of dropping water levels in rivers on charr [sp.] trying to return to their spawning grounds." In general, however, water levels were noted by Inuit to be lower because of less snow and rain (Banci and Spicker 2014).

Prno et al. (2011) have documented Kugluktuk Inuit observations of changing ice, precipitation, wind, and weather norms in recent years. "Consistent with research in other communities across the circumpolar north", they note, "there is widespread recognition by residents in Kugluktuk that climatic conditions are changing" (Prno et al. 2011: 6). One individual they interviewed was even quoted saying "water levels in some instances have been decreasing and this has prevented access by char to some spawning lakes. Some char populations are now dropping. It could be a major concern" (Prno et al. 2011: 10).

3.3.2 Hingittok Lake

Interview respondents were, for the most part, unable to provide detailed information on changes that have occurred to Hingittok Lake. However, some local changes were documented as were changes that have occurred on other lakes and ponds in the region. It was said that many regional lakes and ponds have become shallower in recent years and some have dried up completely. Reduced snowfall in the winter, less rain, and climate change were again suggested as potential causes of these changes.

[BH5] Even Kugluktuk here some ponds are drying up.

[BH5] Some of these ponds too, they're getting dry right now. Maybe that's why the river is drying up.

[BH11] My wife and I when we used to walk, go fishing to Grenier [Lake], we would go through or avoid going by the lakes around. There are some just like they're empty, just like they're getting drained out and there would be some of them just mud around.

[BH6] Yeah, [the interviewee has] seen lots of changes; it's not like it used to be. Lot of these lakes are drying out, not very much water in the lakes.

[BH4] Everywhere it is changing… It's the water level, even some lakes are getting dried out. When we travel. We see that… They['re] used to [be] lots of lakes, some of them really dried out now. Totally dried out.

[BH1] … the water level's really low… in the lakes.

[BH10] Yeah, [the] level [on Hingittok Lake is] changing now… down… Level change little bit. The less now you get, the less water you have, no rain. That's how it's been all over… The lakes are, even the ponds are getting very low all over.

Similar changes have been documented elsewhere in the western Kitikmeot. For example, Prno et al. (2011) documented Inuit concerns about the recent disappearance of tundra ponds around Kugluktuk. These disappearances were attributed by some residents to increased permafrost melt (Prno et al. 2011). As noted in the section above, Banci and Spicker (2012) also remark that Inuit have noticed some lakes in the region have been getting shallower over the past few decades.

3.4 Sensitive Areas

A number of grave sites were noted to be present in the Bernard Harbour area, although only some of these were able to be mapped by interview respondents [17]. In some instances, interviewees knew that someone had been buried nearby but could not recall the exact location of their interment. Interview respondents stressed these burial sites should not be disturbed. It was also noted that personal effects were often buried with the deceased and that these sometimes could be seen around burial sites. Removal of these artifacts was also to be avoided.

[BH5] I know quite a few of them [burial sites] here. Must be in that point too.

[BH6] [The interviewee's] mother was buried there at Bernard Harbour, right, I think, at the point, somewhere in that area... You know, in the bay here, somewhere in that point. I think, well, they didn't have any, what do you call them, coffins or anything, and they used to just bury the people, just in the ground… They put all her belongings there, like her needles and her thimbles and whatever… They used to have a bone, like those for needles, so her sewing kit was put aside.

[BH10] They starve[d], years ago because [of] the weather, can't hunt anymore. In some part, from Bernard Harbour going west along the shore, along the coast, the story about that is that people, winter time [they] starve[d] around there. I don't know how many people, I don't know how many families. They starve[d] around there.

[17] Due to their sensitive nature, the location of burial sites have not been identified in this report.

[BH5] …They used to have a little rock piled up and rock like that [for grave sites]. Now that ground is going down or ground going down.

[BH3] You know the difference between where the burial grounds are, it's [a] pile of little rocks or inuksuk. Yeah, that means something [is] under there.

[BH5] When you walk along here you will see part of the spears, made by a bone, caribou.

[BH11] Yeah. Well it was summer when my stepmom and I when we would go out hunting ducks, looking around for caribou. Maybe they're close by but we don't go too far and getting squirrels at the same time or whatever we can get, rabbits and ptarmigans. And we would come across some kind of rocks put together around and there would be skeletons of a persons and sometimes in some areas there would be two or three and little ones and sometimes with some of them they were just bare, just like they died or starved at that place. And sometimes we would find tin cups and whatever there may be, some kind of animal bone that they used. And something you know walking quite a ways and I would try and examine, what some things are and my stepmom always told me don't touch those, just respect, just leave it alone, don't disturb it. So there were times I really wish I could but that's like our tradition, its respect.

[BH5] They say don't touch that cup. They left it there. If you want to, you're going to get that cup you change it with your something. But, so the person's cup might go after you or give you bad luck or whatever I don't know… You don't touch it and just leave it the way it is.

[BH6] … [The interviewee] was told that you're not supposed to take anything from where the people put their belongings. And you're not supposed to take anything unless you replace it, because it's not a good thing. [The interviewee] was told, [the interviewee would] never, ever take anything from that place or a thing that was put there from other people.

[BH4] We were told never to step on graves. Out of respect we can't walk on them.

[BH4] We [have] always been told, never, never touch the grave site as I was growing up.

[BH10] And if you really need something from in there, is that something you really need, if you don't have it or something, you could replace it with something. That's how the people say, but that's how they used to do it years ago. You know, it's like a burial site or something.

3.5 Other Matters Related to Bernard Harbour

3.5.1 Other Environmental Changes

Interview respondents described other environmental changes that have occurred at Bernard Harbour beyond those pertaining to fish and the Nulahugyuk Creek - Hingittok Lake area, although these were

limited in number and not the focus of this study. For example, during the results verification meeting held in Kugluktuk some participants noted that some new species of wildlife were now moving into the region for the first time or in greater numbers than before. These included muskrats, beavers, grizzly bears, sharks, killer whales, and walrus. One interview respondent noted they never used to see grizzly bears at Bernard Harbour in the past and could thus walk around freely and without worry. However, there are now many more grizzly bears in the area which would make walking around the site dangerous.

Again, these types of changes are not necessarily unique to the Bernard Harbour area as similar changes have been documented elsewhere in the western Kitikmeot Region. For example, some Kugluktuk residents have said that southern species are increasingly being found in the region and that altered animal migration and hibernation patterns are now occurring (Prno et al. 2011). Likewise, Banci and Spicker (2014) document a number of environmental changes observed by Inuit in the western Kitikmeot Region, including less predictable weather, changes to ice and precipitation regimes, and the arrival of new species of birds, bats and insects.

3.5.2 Stories and Legends

A number of stories and legends from the Bernard Harbour area were described by interview participants. Some of these discussions focussed on fur traders and the Hudson's Bay Company, and it is evident these both had an important influence on the lives of local Inuit. Inuit regularly visited their posts to trade for goods and supplies that would not otherwise be obtainable to them. A number of interviewees also described the time when a Hudson's Bay Company boat accidentally sank near Bernard Harbour after running aground in the early 1950s. The ship was loaded with supplies including food, clothes, dishware, and boat motors. Owing to the clarity and shallowness of the water in which the boat sank, some Inuit (including some individuals interviewed for this study) were able to lower ropes attached with hooks down to the boat and recover a number of items for personal use.

> *[BH10] There was lots of stuff in that [sunken Hudson Bay] boat. First they didn't want anybody to touch it. It start sinking and then they said keep whatever you want from in there. My goodness, after it sunk we used to use a hook. People had lots of food, a lot of bacon, my goodness. Bacon, lard, flour… Sewing machines… Outboard motors… Lots of stuff, clothing. Clothing were in bundles, all in bundles… Lots of stuff in that boat. I got plates and not too long ago, only [a] few years ago, maybe ten years ago, I saw plates down there. I made a hook I could grab [them with], I got I think four plates. Hudson Bay plates, gold trim.*

> *[BH9] …and then by word of mouth they found out the ship sank and everybody is catching bubble gums and things like that so they tell everybody else and they all start coming.*

The construction of the DEW line site near Bernard Harbour was another important event for local Inuit as it introduced new people and technologies into the area. DEW line sites also provided a source of employment for some Inuit and served as an evacuation point in times of emergency. More generally, some interviewees described the process of moving off the land into permanent communities, and the long-distance travel and time away from family that was often required to obtain health care and education in the past.

[BH9] But other than that, I know the other thing is the DEW line when it came in it created work for the Inuit that was living around the surrounding area.

[BH11] Yeah. When I first saw these people I didn't know they were military or soldiers, they're walking around the beach with guns and radio on their back talking to somebody. I don't know what they were doing or what's going on and I asked my mom how come there's lots of people with guns and they don't even go out hunting. And my mom said, she understand from somebody, translated to them that they were soldiers and [were] setting up some kind of camp or something and I said my goodness they should go out hunting if they've got guns.

[BH11] And then they started kind of hiring people to do some work for them… And I mean these people they were not educated or know anything of machinery or never been to school besides my stepdad… they were being hired as workers for them and some of them, my goodness, they got the hang of how to operate machines and drive, there was no automatic, these were, they were all standard and my goodness. So some of them were permanently hired, the ones that were taught and every day [they had] something new to handle like [a] D8 and a grader and jeep, Bombardier, whatever there is. Lots of them at the time they were taught to operate machines and I mean they were good and some were still working for the DEW line in 1960s and 70s.

[BH8] When I was nineteen years old I went on the DEW line for two years, I think… My training from the DEW line site is heavy equipment operating. I know a little bit about it, that's how come I like working in Contwoyto [Lake] as [an] equipment operator.

The Bernard Harbour area also has its share of legends. For example, two respondents described the presence of 'little people' in the region. These mythical individuals are much smaller than an average Inuk, but travel and use the land as other Inuit would. The little people were noted to be peaceable, but could only be seen or heard at a distance. It was said to be impossible to ever confront one face-to-face, as they will disappear beforehand.

[BH5] Little people. Like you guys seen them in Cambridge right?... There was a story about the one in Cambridge though, it was amazing. They [were] walking in the house, in the camp, looking all over and smelling with the people. Really nice clothes they said. And then they said something and they both went out, those kind of peeked out the door, they were gone. Disappeared. Maybe people like that around there. Sometime[s] we could see little footprints when we [were] walking around. But we seen some in – up here, small footprints. Hunting. Charlie Bolt seen one too. Once it's gone it's gone just like that… Fast.

[BH10] Well, just little people called Toonik. We used to see a lot of them, quite a few of them in Read Island years ago. Yeah, friendly people alright. But sometime[s] you could see them, sometime[s] you don't and they're just like us little. They got their own dog teams. When you play out, people used to play out a lot in the moon light long ago, remember that?... When we were oolaoging in Read Island, lots of people, old people, and everybody gets together, go on the shore and play some games. And then [a] dog team starts coming. Oh dog team are coming, so everybody started running. Sometimes they just come by us fast. They disappear all the time. They don't hurt anybody. They're people too, I guess. I see

them, used to see them long ago lots. Even in Bernard Harbour. One time they were down there, they were trying to sleep and people were just talking and laughing outside, outside the tent somewhere. Couldn't go to sleep so they told them to keep quiet and they finally got quiet and I don't know. It's kind of strange… Yeah they['re] still around, they don't hurt anybody, but they all say they're really strong people.

Two interviewees also described the legend of a giant that lived in the Bernard Harbour area.

[BH10] … in a very, very early days there's a giant that was around that area. They said the footprints are still there [in the Ayayak area], but seem to be disappearing now because the ground.

[BH5] There's Andre the Giant footprints over here, not very far from that place… It froze in the okalik… Footprints over here. I seen a toy one in Uyagakyok, and one is 50 – 62 miles from here. Very big rocks and a big boulder right on of top the rock. Pretty neat boy. When I told somebody that's a giant [juggling] toy, you know… Another one down there you could see from here, that point, the big rock there. And there's another one not very far from Bernard Harbour. And when he was going across to that island, only go about halfway still walking. Must be pretty big… Boy that boulder [is] bigger than this whole house… Must have been really light for him. There's three of them. I never had my camera that time. I would have take[n] that picture [of] that sitting on the really big rock. Grab it just like that. That's it, I think.

[BH10] Yeah. That island, Liston Island, that's where they say that big, big rock, they say it's a big giant that kneel[ed] down and turn[ed] into a rock. Used to be in Bernard Harbour. Years ago he said the footprints are still there in Bernard Harbour… He said that footprints are still there and juggling rocks are in, what's that point? Liston point area? In the mainland there, it's just big juggling rocks.

Finally, one interviewee described the presence of human spirits inhabiting Bernard Harbour:

[BH5] That's why sometime that building in the – kind of haunted around there. You still could hear people even talking, people laughing, talking around and the cups and whatever moving around in the cabin… And people still like, you know, they go back where they was born or where they lived. You could hear them laugh and talking but you can't see them. One morning my late honey went to go get something from the cabin and got it and she thought people were having tea next door at the tent. She peek[ed] in there. Nobody in there. Just people laughing in there, talking around. Amazing… And one of my brother too, he was with my other tent. He said he was sleeping and he heard something move. Primus stove was pumping. People still alive around there. That's what I was told anyway. But they always say don't be scared.

3.6 Opinions of the Proposed Stream Restoration Work

TK study participants were generally very supportive of the stream restoration work being proposed by the Kugluktuk HTO and Sabina, and wished to see the Nulahugyuk Creek – Hingittok Lake Arctic Char fishery returned to its previous status[18]. Many individuals were dismayed to know about the current state of Nulahugyuk Creek and were optimistic that stream restoration efforts would have a positive outcome.

> *[BH6] It's a good idea that you guys are partnering with the HTO; it's a good thing that you guys are doing that thing. [The interviewee] said I'm glad that you are helping out [to] restore the creek… I'm glad you guys are doing the right thing for the fish, because if anybody didn't do anything for the fish in the creek, it would just destroy the whole fish and everything and we wouldn't have anything for the people in Kugluktuk.*
>
> *[BH8] On the fish side, yes, it's a good idea. Yeah, for fish. Otherwise we get dried out. The fish wouldn't be able to go up and spawn. They'd look for a river that's better than this if they can't get up that river.*
>
> *[BH10] … you got to maintain where the fish go sometimes.*
>
> *[BH10] … it's [the fish weir] got to be fixed up like it used to be from generation to generation. It hasn't been fixed up for many years, that's why it seems to be getting less fish, because some part is too low now.*
>
> *[BH4] But I love what you guys [are] trying to do. I'm 100 percent with that.*
>
> *[BH4] 100 percent support. 'Cause we seen it, me and him, we seen it, the first time… 'Cause when my husband was alive, we were there, in summertime, by boat, and before anybody touched this creek they were having hard time going up and I guess going down, but when we went there when they fixed the creek, they were going up.*
>
> *[BH10] Yeah, I hope we start to do some spear fishing in the future though. Like the good old days when you just close your eyes and you just look at what people do. You be fishing, having fun, that's the way it was in the olden days. Now young people don't even do that, they got to think about that when they grow up. It's very important, yeah. Some people, all those young people, always want to find out about olden days too. It's good for them, it's good for everybody.*

Other respondents raised various suggestions for the work. A small number of respondents expressed skeptical opinions of the proposed stream restoration work.

> *[BH3] … avoid heavy equipment...*

[18] A report prepared by Golder Associates (2013: 11) also mentions that "very positive" feedback and "a desire to continue the Arctic char conservation work at Bernard Harbour" was expressed by residents of Kugluktuk during Golder community presentations on the Bernard Harbour work in February 2013.

[BH4] I think it's good too, I agree. You know, if you guys restore wherever it needs to be restored, but use man-power.

[BH8] And if you're going to change it, you're going to have to change it year and year after year in order to keep it deep. You want to do that?

[BH10] It's not fixed up [the fish weir] any more that's why it, if it's fixed up every year it shouldn't be changing. Too much. Where the water flow, where the fish go. If it was fixed up every year, there could have been still fishing there but the water is, get wider the shallower it get. It get wider, the sides always coming in. Sometimes when you have in springtime, the water just rushes in and start to get wider. Maybe that's why the weirs were full of shale, water coming down. Once and a while when you have a lot of water, the water just push shale down the river sometime. It block up the weirs. But years ago they fix it up every year for the fish to come up, but today it doesn't happen anymore.

[BH9] The thing you have to understand, for sure, this is a natural state. There's really no way of re-constructing it so that it can happen again, naturally. I don't think it's going to happen because it's still going on today. I believe there's still fish going up to that lake regardless of what you are doing and what other people are doing. I know for a fact some fish are still getting up there somehow. Likewise, they are struggling because of the water levels, nothing to do with the creek, it's just water levels. If the water's there, the creek is there, so you just need to turn the tap on and that's it.

[BH9] You need to focus on the long term. Because eventually the place is only going to be used as how it's been remembered and most likely there'll never be people to go there to do the same thing, to harvest fish for themselves. Because they can harvest fish here [in Kugluktuk]. I was telling you earlier how much it cost to go that far from Kugluktuk in the winter time… And people almost want to get paid to be down there these days, so no one in this community will go down to do that on their own anymore, for any reason, unless it had to be a film or something, something has to trigger something for people to do that again.

[BH9] One year, one day, sometime it will be flowing again on its own without humans' help, I know… That's not climate change, that's natural. It's just colder some years, some years are warmer, so I believe that creek will be replenished one day.

[BH8] Oh yes [the fish were healthy at Bernard Harbour]. Until I started seeing you guys coming up with markers on the back of the fish. A fish that's been touched by a human and let go, I caught one of them in a river up here. It's unable to eat; it's only good for dog food, it's not the same fish no more after you touched the fish and let it go again. Never the same. 'Cause it lose[s] that some kind of a slime they have, just like you washed it off from your own flesh when you touch the fish and you let it go, he's not a healthy fish no more. Just like an animal, when you shoot them you never killed an animal, you wounded it, he's not [a] healthy caribou no more. Same thing, yeah, they say, don't play with our food, otherwise it's not healthy no more when you do something to. Any wildlife that's been touched by a human, even grizzly bears, when you tranquilize them to put a tag it's not the same grizzly anymore. It's something to do with whatever you guys put in the tranquilize[r] thing. I don't know.

4. SUMMARY AND CONCLUSIONS

This study has provided important information on historic and contemporary environmental conditions in the Bernard Harbour area, with a specific focus on the local Arctic Char fishery. Many of the historic observations provided by interviewees in this report were from when the interviewees lived in the Bernard Harbour area in the 1940s-1960s. However, some of these interviewees have continued to use the Bernard Harbour area since that time and have provided more recent observations and insights which were interspersed throughout the report. Diamond Jenness' observations from the Canadian Arctic Expedition date back to the early 1900s (i.e. 1913-1916) and were also included for additional context where relevant.

Historically, the Bernard Harbour area was used by a number of Inuit families for camping, fishing, and hunting on a seasonal (and in some instances, year-round) basis. The presence of a healthy Arctic Char fishery was an important reason why Inuit visited Bernard Harbour so frequently in the past, as Inuit families would traditionally harvest large numbers of migrating Arctic Char at a stone weir constructed at the mouth of Nulahugyuk Creek. This purposeful manipulation of the Nulahugyuk Creek system led to many successful Arctic Char harvests and provided an important source of food for Inuit and their dog teams.

Although visits occur on a less frequent basis than in the past, Inuit continue to use the Bernard Harbour area for camping, fishing, and hunting activities. However, a number of recent (but persistent) environmental changes have been documented in the Bernard Harbour area (and the western Kitikmeot Region, more broadly) by Inuit, including reduced water volumes in local creeks and ponds. These changes have been particularly noticeable on Nulahugyuk Creek, whose reduced water levels now pose various challenges to Arctic Char attempting to migrate through the Nulahugyuk Creek – Hingittok Lake system.

The findings presented in this report support the Kugluktuk HTO and Sabina's proposed stream restoration activities in a number of ways. First, they provide historic baseline environmental information related to the Arctic Char fishery at Bernard Harbour, which will be useful for assessing the relative success of any future restoration activities that are undertaken. Second, this report describes recent environmental changes observed by Inuit in the area and the negative implications these changes have had on the Arctic Char fishery. This highlights the potential benefit stream restoration activities may have on the Arctic Char population at Bernard Harbour. Third, this report has confirmed the value and importance local Inuit place on Bernard Harbour. Local residents are generally very supportive of the stream restoration work being proposed by the Kugluktuk HTO and Sabina, and wish to see the Nulahugyuk Creek – Hingittok Lake Arctic Char fishery returned to its previous status. While many individuals interviewed for this study were dismayed to know about the current state of Nulahugyuk Creek, they were optimistic that stream restoration efforts would have a positive outcome.

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6. ENDORSEMENT

This report has been prepared and endorsed by the Kugluktuk Hunters and Trappers Organization and Sabina Gold & Silver Corp.

For the Kugluktuk Hunters and Trappers Organization:
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Chairperson
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Signature _____ Date April 23/15

For Sabina Gold & Silver Corp.:
Matthew Pickard
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APPENDIX A: PARTICIPANT CONSENT FORM

PARTICIPANT CONSENT FORM

Traditional Knowledge Study on the Arctic Char Fishery in the Nulahugyuk Creek - Hingittok Lake (Bernard Harbour) Area, Nunavut

Introduction:

Stream restoration activities in the Nulahugyuk Creek - Hingittok Lake area (also known as Bernard Harbour) were initially proposed in the early 2000s by the Kugluktuk HTO. These activities were proposed with the goal of restoring a traditional Inuit Arctic Char fishery, which has suffered from significant harvesting declines in recent years. The Kugluktuk HTO has worked closely with Golder Associates (Golder) to advance early stages of the project (e.g. initial environmental baseline and stream restoration work). The two organizations have also been seeking an industry partner to help advance the project to completion. Sabina Gold & Silver Corp. (Sabina) has now been identified as this industry partner, who will support stream restoration work in the Nulahugyuk Creek - Hingittok Lake area in order to satisfy Fisheries Act offsetting requirements for its Back River Project while supporting the desires of the Kugluktuk HTO and the community members of Kugluktuk.

In an effort to develop a better appreciation of historic and contemporary environmental conditions in the Nulahugyuk Creek - Hingittok Lake area, a Traditional Knowledge (TK) study is being proposed. The proposed TK study will act to complement the scientific baseline studies that are being conducted, and will involve a small number of Kugluktuk residents. The TK study will carried out by Sabina on behalf of the Kugluktuk HTO, who has also helped plan the study and recruit interview participants, amongst other tasks. The results of the TK study will be the property of the Kugluktuk HTO and will be used by Sabina for the advancement of fisheries offset obligations as required for the Back River Project. However, the TK study results will be made publically available and TK study data, files, and reporting will be provided to the Kitikmeot Inuit Association (KIA), so that it may become part of their larger Naonaiyaotit Traditional Knowledge Project (NTKP) database.

Summarized TK Study Methodology:

Approximately 10 Kugluktuk residents will be recruited to participate in the TK study. TK will be collected using individual interviews, which may be a half day to a full day in length. Both elders and contemporary land users familiar with the Nulahugyuk Creek - Hingittok Lake area will be recruited for the study. The Kugluktuk HTO has assisted Sabina in identifying and recruiting appropriate land users for the interviews. The interviews will be conducted by Sabina personnel Jason Prno (Community Relations Advisor) and John Kaiyogana (Community Liaison Officer), with the assistance of other personnel from the Kugluktuk HTO, Sabina, or Golder as appropriate.

The questionnaire to be used in the interviews can be found at the end of this document. It includes questions pertaining to respondent background information, Inuit land use and harvesting, local environmental conditions, Arctic Char ecology, and other topics related to the Nulahugyuk Creek - Hingittok Lake area. All interviews will be tape recorded and / or videotaped. Detailed notes will be taken by Sabina personnel and maps will be used to record relevant spatial information shared by study participants. All participants will be compensated for their time by the Kugluktuk HTO at a rate of $35.00/hour ($280.00/day). Study participants will additionally be provided with a description of the proposed stream restoration work and TK study before commencing the interviews. Participants will also be required to sign a consent form (i.e. this document) before commencing the interviews. Inuinnaqtun translations and interpretation services will be provided to all participants who require them.

Information collected from the interviews will be supplemented with information obtained from relevant historical records and TK documents. A potential site visit to the Nulahugyuk Creek - Hingittok Lake area with selected TK study participants is also being considered. Together, this data will be analyzed to see if common themes and findings emerge in regards to the Arctic Char fishery in the Nulahugyuk Creek - Hingittok Lake area. Relevant spatial information will also be analyzed and presented using Geographic Information System (GIS) software. Preliminary results of the TK study will be presented and verified in-person with interview participants in a group setting prior to their finalization.

The final results of the TK study will be documented in a report to be provided to the Kugluktuk HTO. This report will also be included in Sabina's Final Environmental Impact Statement (FEIS) submission to the Nunavut Impact Review Board (NIRB) and Nunavut Water Board (NWB), and / or in other regulatory submissions. TK study results may also be presented by Sabina and / or its representatives in other public forums (e.g. conferences, company publications and presentations). All TK data and reports that result from the TK study will be made available to the Kitikmeot Inuit Association (KIA) for inclusion in their Naonaiyaotit Traditional Knowledge Project (NTKP) database, with the understanding the KIA may utilize and distribute this data and information for their own purposes. The data and results of the TK study are also intended to be freely shared with other Nunavut organizations that may benefit from its use. Finally, it is anticipated the results of the TK study will be presented in a public meeting to the community of Kugluktuk at a future date.

Contact Information:

If you have any questions at any time about the study, you may contact the Kugluktuk HTO or Sabina Gold & Silver Corp. directly:

Kugluktuk HTO
David Nivingalok (Chairperson) & Barb Adjun (Manager)
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Sabina Gold & Silver Corp.
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Participation:

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study prior to report finalization, every attempt will be made to remove your data from the study, and have it destroyed. You have the right to omit any question(s) / procedure(s) you choose. You also have the right to remain confidential if you choose. Those who wish to remain confidential will not have their names, photographs, tape and video recordings presented in public (e.g. reports, presentations, other media). However, confidential participants may have quotes and other TK information presented in public, unless otherwise indicated by the participant.

Consent:

I have read and understand the above information. I have received a copy of this form. I agree to participate in this study.

Participant's name_____

Participant's signature_____ Date _____

I wish to remain confidential ☐

I do not wish to remain confidential ☐

I agree to be photographed, tape and video recorded ☐

I do not agree to be photographed, tape and video recorded ☐

Witness' name_____

Witness' signature_____ Date _____

APPENDIX B: KEY INFORMANT INTERVIEW GUIDE

Respondent background information:

1. What is your name?

2. Where were you born?

3. When were you born?

4. Where have you lived in your lifetime?

Inuit land use and harvesting:

5. a) Do you or your family currently use the Nulahugyuk Creek - Hingittok Lake area (also referred to as Bernard Harbour) for Arctic Char harvesting activities? If so, please describe how you or your family use the Nulahugyuk Creek - Hingittok Lake area. **[Note: use categories below]**.

   b) Have you (or others) noticed any changes in you or your family's Arctic Char harvesting activities in the Nulahugyuk Creek - Hingittok Lake area (also referred to as Bernard Harbour)? If so, please describe the changes that have occurred and the historic and / or seasonal timing of these changes. **[Note: use categories below]**.

   - Harvesting and travel methods, and accommodations used
   - Location of fish harvesting activities
   - Timing of fish harvesting activities at each location
   - Age / size of fish harvested at each location (e.g. juvenile/immature fish (small fish or 'smolts') vs. adult fish (large fish))
   - Number of fish harvested at each location
   - Health / condition of fish
     - General health / condition of fish harvested at each location
     - Number of stranded / deceased fish
   - Frequency of harvesting activities
   - Number of individuals participating in harvesting activities

6. a) Is the Nulahugyuk Creek - Hingittok Lake system (also referred to as Bernard Harbour) currently used by other Inuit for Arctic Char harvesting activities? If so, please describe _____ . **[Note: use categories below]**.

   b) Have you (or others) noticed any changes in Arctic Char harvesting activities by other Inuit in the Nulahugyuk Creek - Hingittok Lake area (also referred to as Bernard Harbour)? If so, please describe the changes that have occurred and the historic and / or seasonal timing of these changes. **[Note: use categories below]**.

- Harvesting and travel methods, and accommodations used
- Location of fish harvesting activities
- Timing of fish harvesting activities at each location
- Age / size of fish harvested at each location (e.g. juvenile/immature fish (small fish or 'smolts') vs. adult fish (large fish))
- Number of fish harvested at each location
- Health / condition of fish
    - General health / condition of fish harvested at each location
    - Number of stranded / deceased fish
- Frequency of harvesting activities
- Number of individuals participating in harvesting activities

Local environmental conditions:

7. a) How would you describe current conditions at Nulahugyuk Creek specifically in regards to _____? **[Note: use categories below]**.

   b) Have you (or others) noticed any changes at Nulahugyuk Creek specifically in regards to _____? **[Note: use categories below]**. If so, please describe the changes that have occurred and the historic and / or seasonal timing of these changes.

   c) Why have these changes occurred?

   d) Have these changes occurred at other creeks in the local area?

   - Maximum creek flow levels and water depths
   - Timing and strength of peak flows (or, spring freshet)
   - Timing of 'ice-out' conditions / opening of creek for fish migration
   - Presence of shallow water and barriers to fish migration
   - Strength of flows at freeze-up and timing of freeze-up

8. a) How would you describe the current lake levels at Hingittok Lake?

   b) Have you (or others) noticed any changes to lake levels at Hingittok Lake? If so, please describe the changes that have occurred and the historic and / or seasonal timing of these changes.

   c) Why have these changes occurred?

   d) Have these changes occurred at other lakes in the local area?

Arctic Char ecology:

9. Please describe the environmental / ecological conditions you believe that Arctic Char populations require to survive.

10. a) How would you describe the current Arctic Char run in the Nulahugyuk Creek - Hingittok Lake system (also referred to as Bernard Harbour) specifically in regards to _____? **[Note: use categories below]**.

    b) Have you (or others) noticed any changes in the Arctic Char run in the Nulahugyuk Creek - Hingittok Lake system (also referred to as Bernard Harbour) specifically in regards to _____? **[Note: use categories below]**. If so, please describe the changes that have occurred and the historic and / or seasonal timing of these changes.

    c) Why have these changes occurred?

    d) Have these changes occurred at other creek-lake systems in the local area?

- Migration
    - Upstream migration
        - Timing
        - Size of migration
        - Speed / effectiveness of movement upstream
        - Number of stranded / deceased fish
        - Fish predation (e.g. by gulls, bears)
    - Downstream migration: juvenile / immature fish (small fish or 'smolts') vs. adult fish (large fish)
        - Timing
        - Size of migration
        - Size of fish (especially juvenile / immature fish)
        - Health / condition of fish (especially juvenile / immature fish)
- Spawning
    - Timing
    - Location

Other:

11. What is your opinion of the stream restoration work that Sabina is proposing to conduct in the Nulahugyuk Creek - Hingittok Lake area (also referred to as Bernard Harbour)?

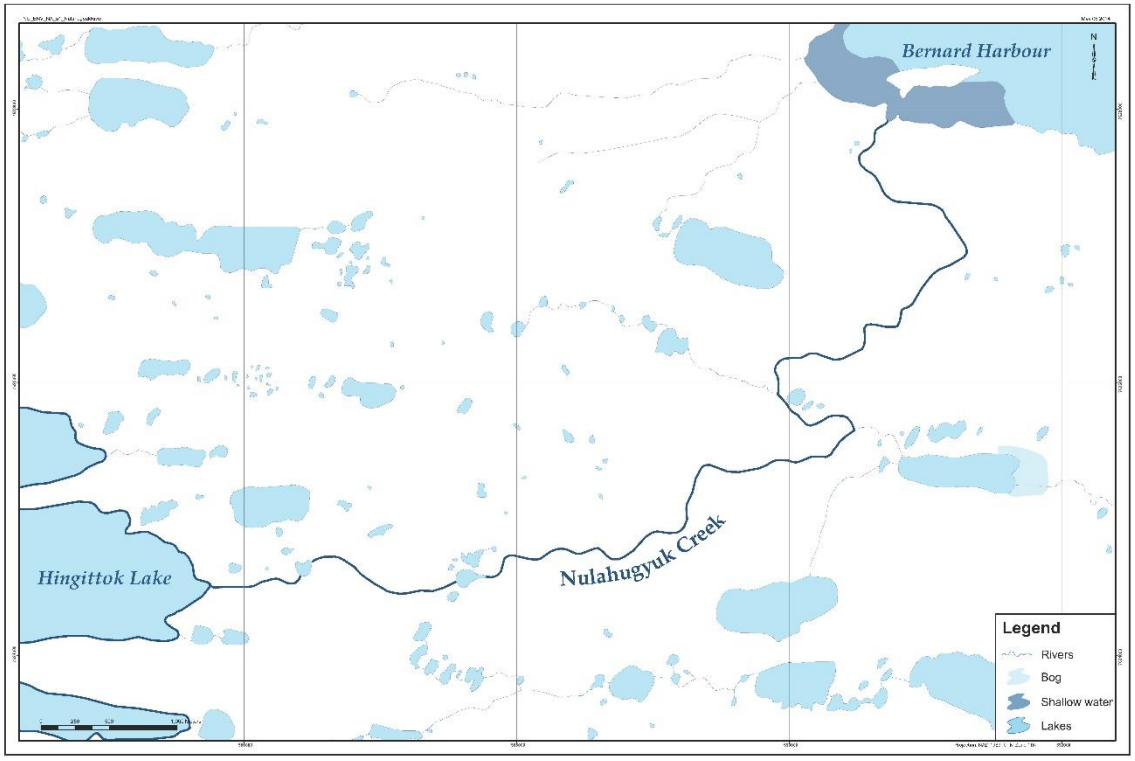
    - Are you supportive of the work?
    - Do you have any suggestions as to how the work can be improved?

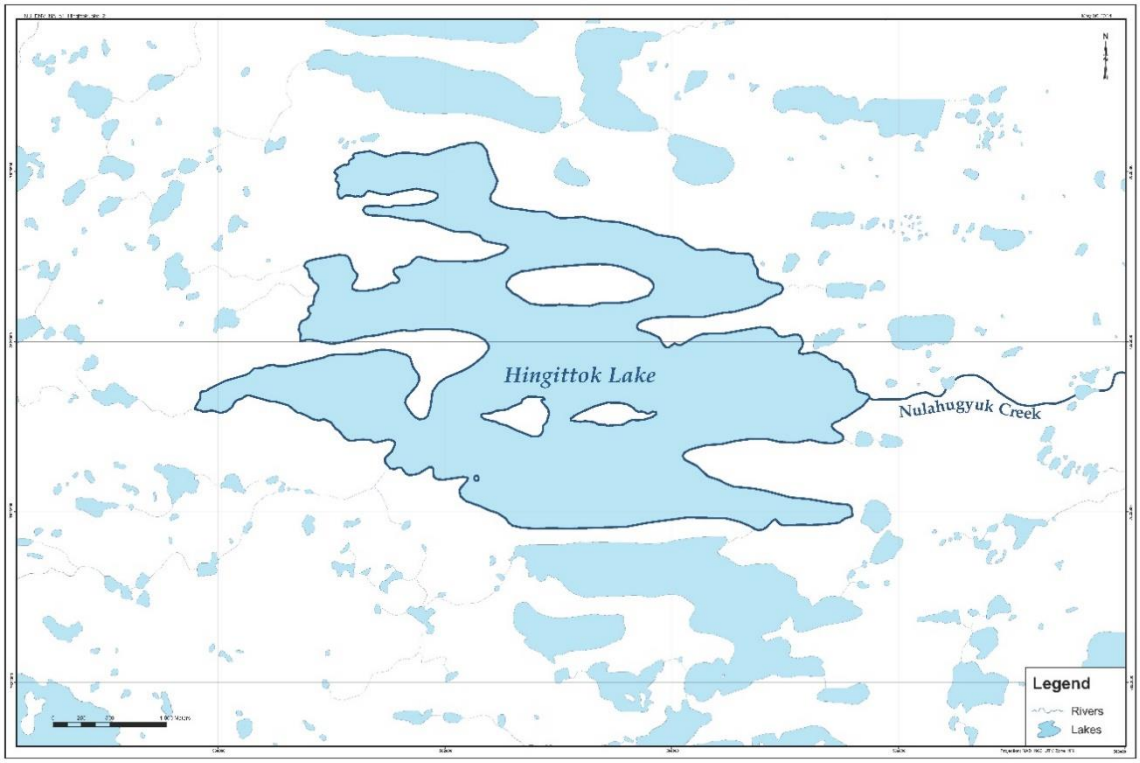
12. Are there any important areas (e.g. archaeological areas or grave sites) in the Nulahugyuk Creek - Hingittok Lake area (also referred to as Bernard Harbour) that should be avoided?

13. Do you have any stories from the Nulahugyuk Creek - Hingittok Lake area (also referred to as Bernard Harbour) that you would like to share with us?

14. Is there anything else you would like to share with us?

APPENDIX C: MAPS USED DURING KEY INFORMANT INTERVIEWS



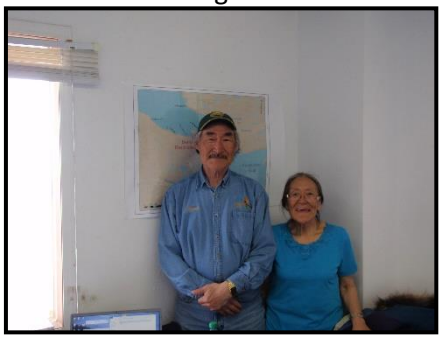


APPENDIX D: PHOTOS OF INTERVIEW PARTICIPANTS

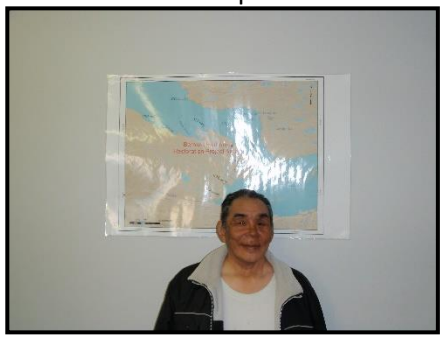
Sam Angohiatok


David Enogaloak


David Epilon


John Himiak and Agnes Allen


Roger Hitkolok


Simon Hogaluk


Frank Ipakohak


John Ivarluk


Bessie Kukilukak