



Type A Water Licence Amendment

Technical Meeting – March 26, 2021

#### Forward Looking Information

as required by applicable law

Statements relating to our belief as to the timing of completion of the environmental assessment, the results of the final public hearings, the timing of receipt of a project certificate and permits and the timing of the start of construction and the first gold pour, and the results of further optimization studies to the feasibility study, the potential tonnage and grades and contents of deposits and the potential production from and viability of Sabina's properties are forward looking information within the meaning of securities legislation of certain Provinces in Canada. Forward looking information are statements that are not historical facts and are generally, but not always identified by the words "expects," "plans," "anticipates," "believes," "intends," "estimates," "projects," "potential," "opportunities," and similar expressions, or that events or conditions "will," "would." "may," "could," or should occur. The forward looking information is made of the date of this presentation. This forward looking information is subject to a variety of risks and uncertainties which could cause actual events or results to differ materially from those reflected in the forward looking information, including, without limitation: the effects of general economic conditions; changing foreign exchange rates; risks associated with exploration and project development; the calculation of mineral resources and reserves; risks related to fluctuations in metal prices; uncertainties related to raising sufficient financing to fund the planned work in a timely manner and on acceptable terms; changes in planned work arising from weather, logistical, technical or other factors; the possibility that results of work will not fulfill expectations and realize the perceived potential of the Company's properties; risk of accidents, equipment breakdowns and labour disputes; access to project funding or other unanticipated difficulties or interruptions; the possibility of cost overruns or unanticipated expenses in the work program; title matters; government regulation; obtaining and receiving necessary licenses and permits; the risk of environmental contamination or damage resulting from Sabina's operations and other risks and uncertainties including those described in Sabina's annual information form for the year ended December 31, 2019 available at www.sedar.com Forward looking information is based on the beliefs, estimates and opinions of Sabina's management on the date the statements are made. Sabina

undertakes no obligation to update the forward looking information should management's beliefs, estimates or opinions, or other factors, change, except



### Technical Meeting Presentation Outline

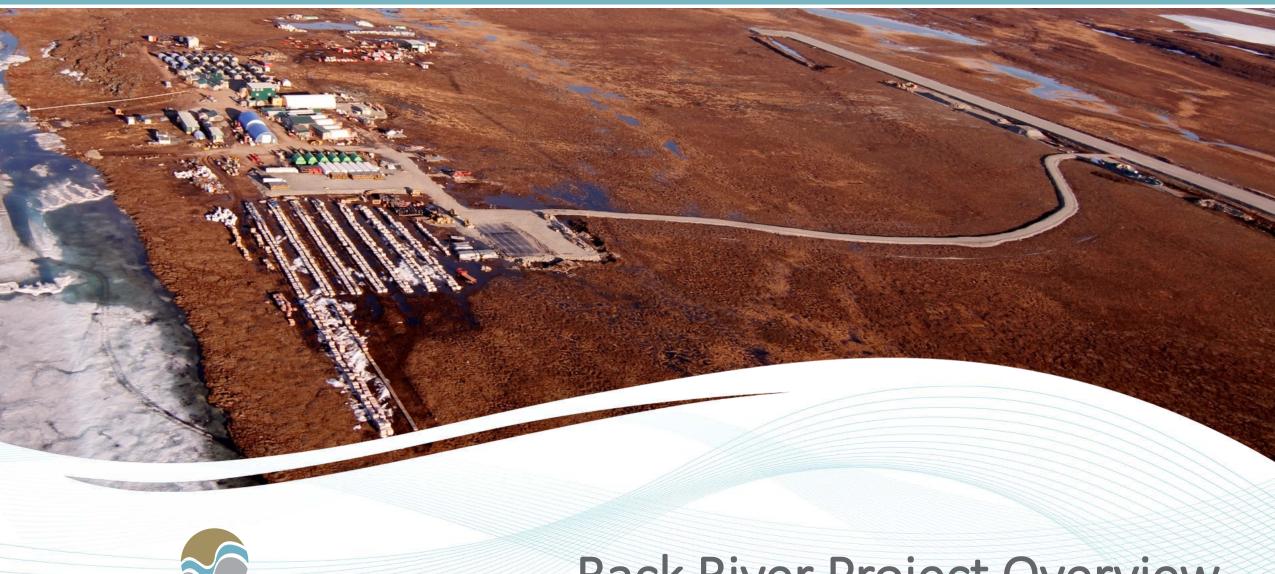
- Sabina Gold & Silver Corp.
- Back River Project Overview
- Modification/Amendment Overview
- Mitigation, Management, and Monitoring Plans
- Technical Comments
- Consultation and Engagement Summary



#### Sabina Gold & Silver Corp.

- Sabina is a Vancouver, Canada based precious metals company on track to become a mid-tier gold producer
- Listed on the Toronto Stock Exchange (TSX: SBB)
- Skilled staff with extensive northern experience
- Sabina is committed to sustainable northern development and acknowledges the need for effective community engagement
- Projects in Nunavut
  - Back River Gold Project, Nunavut
  - Wishbone Greenstone Belt, Nunavut
  - A significant silver royalty on the Hackett River Project, Nunavut

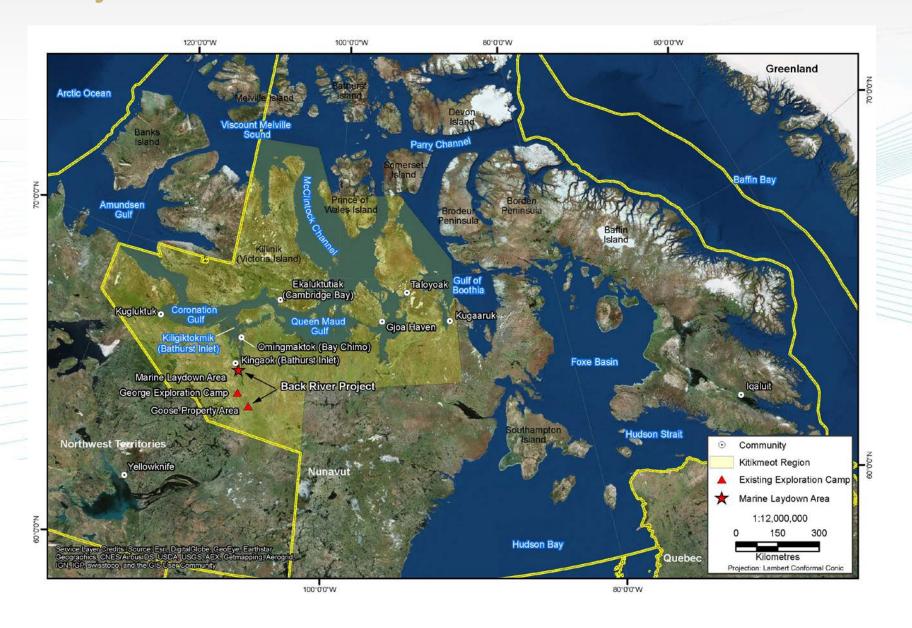






Back River Project Overview

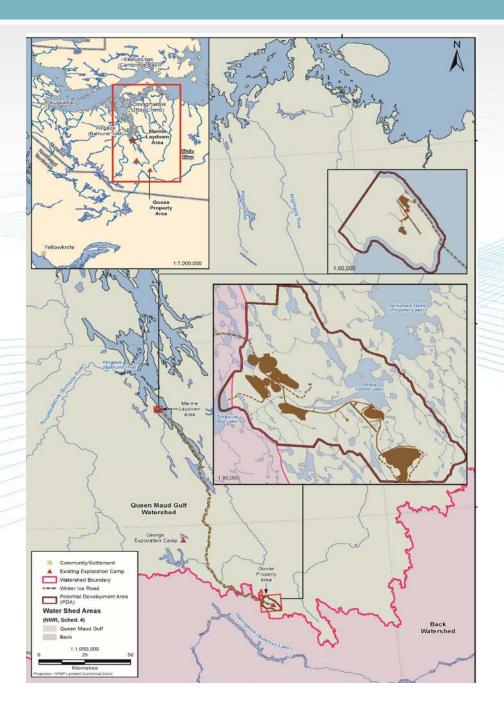
#### Back River Project Location and Kitikmeot Communities



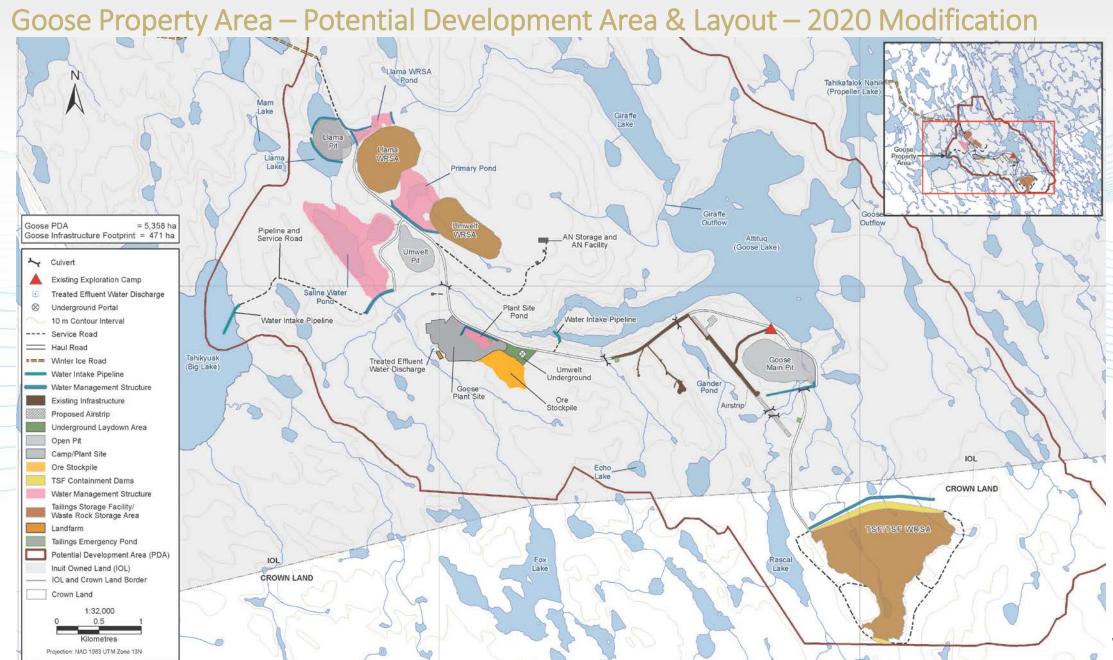


# **Back River Project**

- Goose Property
- Marine Laydown Area
- Winter Ice Road



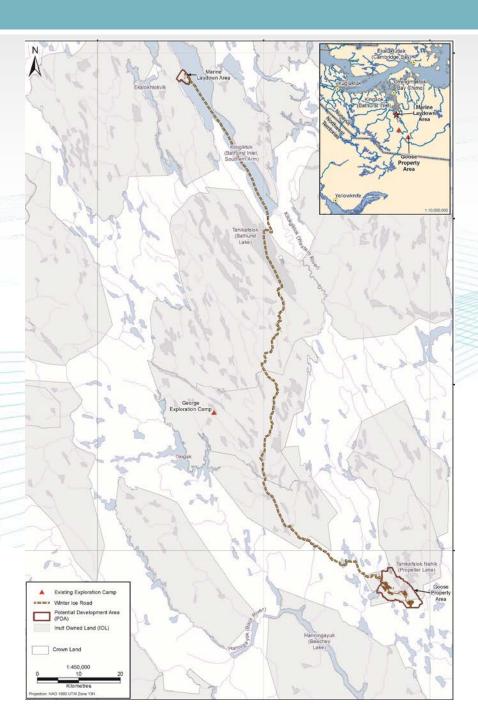








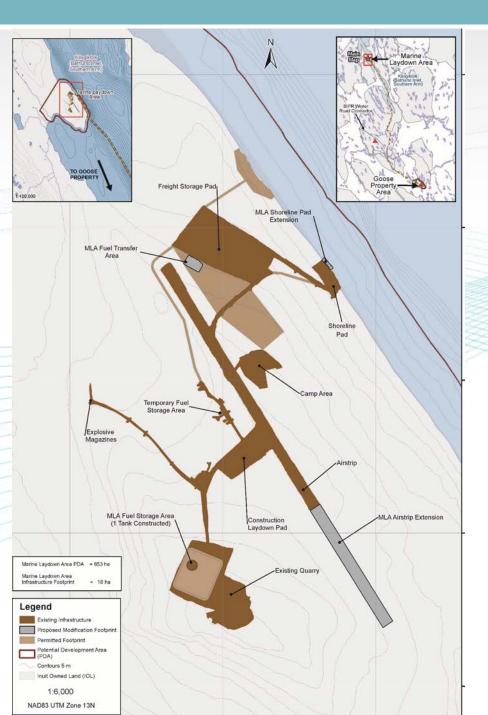
Winter Ice Road Corridor – 2020 Modification Package







### Marine Laydown Area – 2020 Modification Package







# **Regulatory History**

2013 Environmental Assessment began

2015 Sabina submitted FEIS 2017

NIRB issued
final hearing
report and PC
workshop held

2017 KIA Framework Agreement 2017 October Sabina submitted Type A Water Licence Application

2017 Dec. (17<sup>th</sup>) Project Certificate issued

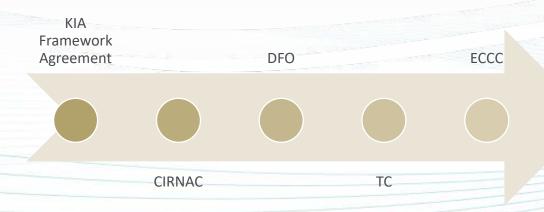
2018

NWB Issued
Type A and
Minister
approved

2020 Oct. (9<sup>th</sup>) Modification Package submitted to NWB



### Regulatory History



- Additional Back River Project permits and authorizations
- Refer to Table 1.8-1 for list of Sabina's existing permit and authorization registry

#### Sabina Authorization Registry

Authorization No.	Expiry (yr-mo-day)	Agency	Description
PC No. 007	N/A	NIRB	Back River Project NIRB Project Certificate
2AM-BRP1831	2031-12-31	NWB	Back River Type A Water License
N/A	2038-06-31	KIA	Inuit Impact and Benefit Agreement
KTCL-18D001	2038-04-20	KIA	Commercial Lease - Goose
KTCL-18D002	2038-04-20	KIA	Commercial Lease - MLA
KTCL-18D003	2038-04-20	KIA	Commercial Lease - Winter Road
KTAEL-18C001	2023-04-20	KIA	Advanced Exploration Lease - George
LUL-XX	5 years from Effective Date	KIA	Land Use Licence as per KIA Framework Agreement
KTL312C004	2021-10-15	KIA	Wishbone-Malley Exploration Activities
N2018F0021	2023-10-29	CIRNAC	CAT Train Beechy Lake Area
N2017F0016	2022-07-20	CIRNAC	CAT Train connecting Bathurst Inlet - Back River Project
N2016C0011	2021-10-26	CIRNAC	Back River Exploration Activities
N2018F0017	2023-10-11	CIRNAC	Winter Ice Road Back River Project
Lease No. 76J/12-7-2	2048-08-14	CIRNAC	Marine environment land lease - adjacent to MLA
Lease No. 76J/9-1-2	2048-04-26	CIRNAC	Goose Lake Tailings Storage Facility
2BE-GOO2028	2028-02-18	NWB	Goose Water Licence (Type B)
2BE-GEO2025	2025-05-29	NWB	George Water Licence (Type B)
2BE-MLL1722	2022-06-29	NWB	Wishbone-Malley Water Licence (Type B)
2BC-BRP1819	2019-04-30	NWB	Type B Development Works Water Licence (Replaced by Type A)
12-HCAA-CA7-00007	2031-12-31	DFO	Fisheries Act Authorization - Back River Project
18-HCAA-00185	N/A	DFO	Letter of Authorization - Gander Culvert
18-HCAA-00971	N/A	DFO	Letter of Authorization - MLA
18-HCAA-01626	N/A	DFO	Letter of Authorization - Winter Ice Road
12-HCAA-CA7-00007	N/A	DFO	Letter of Authorization - Rascal Stream Diversion
04 009 19R-M	2020-12-31	NRI	Back River Project Scientific Research License
2012-600767-002	N/A	TC	Navigation Protection Act - MLA Discharge Pipeline Authorization
2012-600767-003	N/A	TC	Navigation Protection Act - MLA Intake Pipeline Authorization
2012-600767-006	N/A	TC	Navigation Protection Act - MLA Lightering Barge Authorization
2012-600767-004	N/A	TC	Navigation Protection Act - Umwelt Lake Dewatering Authorization
2012-600767-005	N/A	TC	Navigation Protection Act - Llama Lake Dewatering Authorization





Modification/Amendment Overview

#### **Regulatory History**

2019 Engaged Regulators June 2020

NPC referred

Modification Package

to NIRB

August 2011

NIRB confirmed
Modification Package
would not constitute
significant
modification

October 2020

Sabina submitted revised PD and amendment Application to NWB

December 2020

Technical Review commenced by NWB



#### **Overarching Qualification**

 Sabina clarifies that mining areas and associated infrastructure already included in the Project Certificate (PC No. 007; NIRB File No. 12MN036) and the Type A Water Licence (2AM-BRP1831) will remain in the amended licence.

 Sabina confirms that the scope of activities in Part A, Item 1 of licence, 2AMBRP1831, remains unchanged, that Sabina is not requesting a reduction in Project scope, and that the new scope of activities associated with the 2020 Modification Package will be added to the licence as part of this amendment application.



#### Scope of Type A Water License Amendment

• Sabina is seeking approval to include amendment activities for three main components of

the Back River Project:

- Goose Property
- Marine Laydown Area
- Winter Ice Road





# Goose Property

Project Description Amendment Review

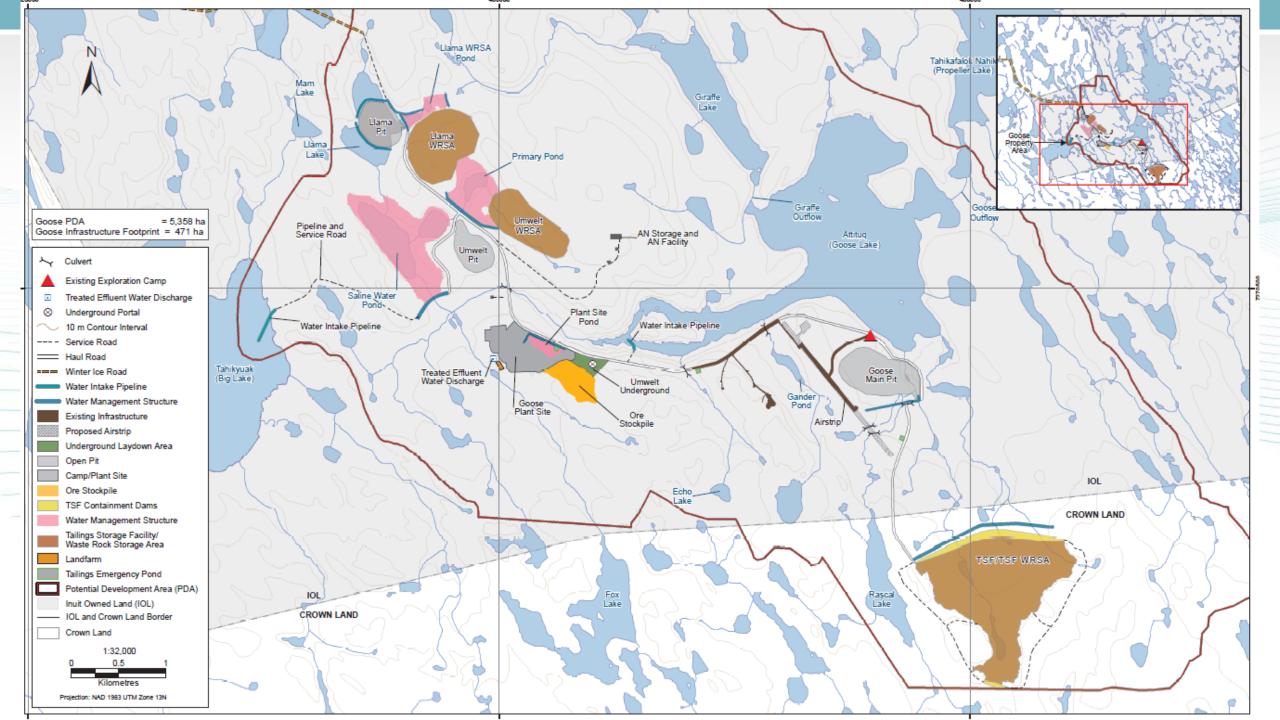


#### Scope of Type A Water Licence Amendment

- Sabina is seeking approval to include the following amendment activities for:
  - Goose Property
  - Goose Property Airstrip Extension
    - Umwelt Underground Extension
    - Goose Property Total Water Use Increase
    - Waste and Water Management Infrastructure







## **Goose Property Amendment**

Airstrip Extension

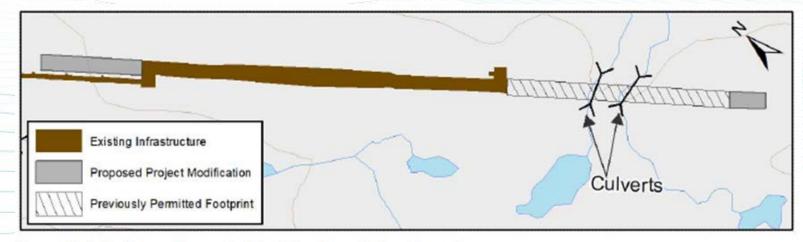


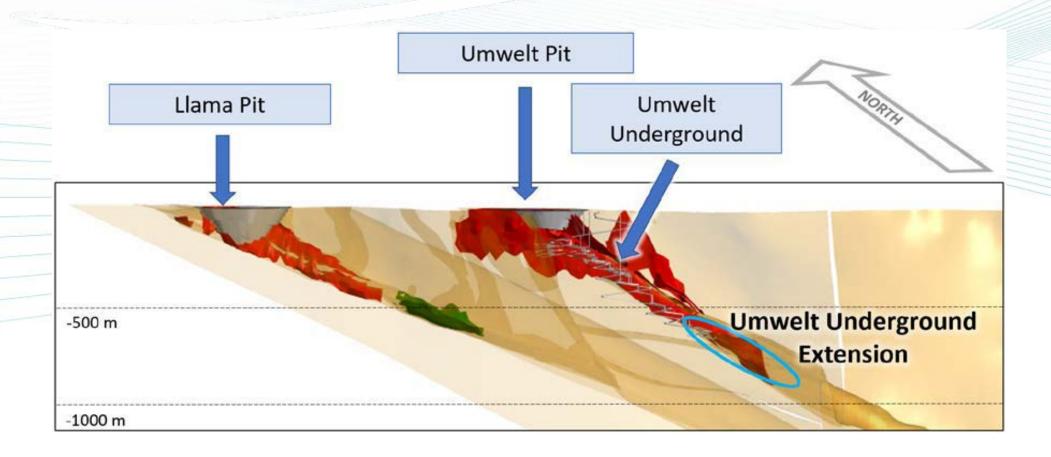
Image 2.1-1. Goose Property Airstrip - Permitting Overview





## **Goose Property Amendment**

Umwelt Underground Extension





### **Goose Property Amendment**

Total Water Use Increase

Table 2.3-1. Back River Project Current and Proposed Water Usage Summary

Water Source	FEIS [m³/yr]	Type A Water Licence Approved Quantities [m³/yr]	Additional Amount Requested [m³/yr]	Total Water Use as per Modification Package Type A Water Licence Amendment [m³/yr]
Total Water Use: Goose Property and MLA		578,000	414,450	992,450
Total Water Use: Goose Property	518,000	468,000	414,450	882,450
Goose Lake	390,000	390,000b	218,700	608,700
Big Lake	128,000	78,000°	195,750	273,750
Total Water Use: MLA		110,000 <sup>d</sup>	No change	110,000
Total Water Use: Dewatering		1,400,000°	No change	1,400,000
Total Water Use: Winter Ice Road		675 m³/kmf	1,350 m³/km	2,025 m³/km

a Total Use for domestic, construction operation and associated use including mining and milling as per Type A Water Licence 2AM-BRP1831 Part E, Item 3.



b As per Type A Water Licence 2AM-BRP1831 Part E, Item 3a.

c As per Type A Water Licence 2AM-BRP1831 Part E, Item 3b.

d As per Type A Water Licence 2AM-BRP1831 Part E, Item 3c.

e As per Type A Water Licence 2AM-BRP1831 Part E, Item 4.

f As per Type A Water Licence 2AM-BRP1831 Part E, Item 5.

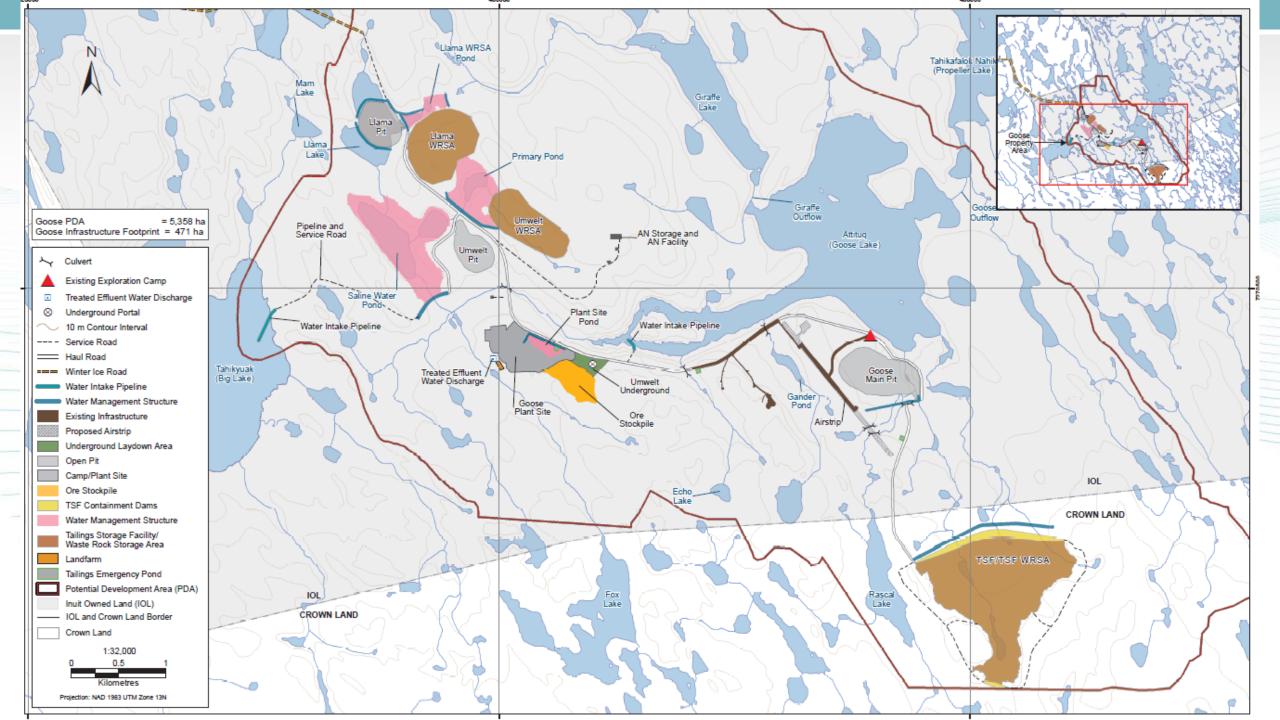
#### Goose Property Amendment

Waste and WaterManagement

Table 3.1-1. Back River Project Mine Plan Comparison Table

Category	Туре	Previously Permitted	2020 Modification Package
Project Schedule	Durations	Construction: 4 years Operations: 10 years Closure: 8 years Post-Closure: 5 years	Construction: 3 years Operations: 12 years Closure: 8 years Post-Closure: 5 years
	Life of Mine	27 Years	28 Years
Open Pit	Mining Areas	Umwelt Open Pit Llama Open Pit Goose Main Open Pit Echo Open Pit	Umwelt Open Pit Llama Open Pit Goose Main Open Pit
Underground	Mining Areas	Umwelt Underground Llama Underground Goose Main Underground Echo Underground	Umwelt Underground
Waste Rock Storage Areas (WRSAs)	Locations	Umwelt WRSA Llama WRSA TSF WRSA Echo WRSA	Umwelt WRSA Llama WRSA TSF WRSA
	Volumes	Waste Rock: 59.0 Mt Overburden: 5.3 Mt	Waste Rock: 86.6 Mt Overburden: 6.5 Mt
	NPAG/PAG Ratio	NPAG¹: 24.7 Mt (~42%) PAG²: 34.3 Mt (~58%)	NPAG <sup>1</sup> : 36.2 Mt (~42%) PAG <sup>2</sup> : 50.4 Mt (~58%)
Tailings Management Facilities	Locations	Tailings Storage Facility Umwelt Tailings Facility Goose Main Tailings Facility	Tailings Storage Facility Llama Tailings Facility
	Volumes	19.8 Mt	12.4 Mt
Process Plant	Throughput	6,000 tpd	3,000 - 4,000 tpd





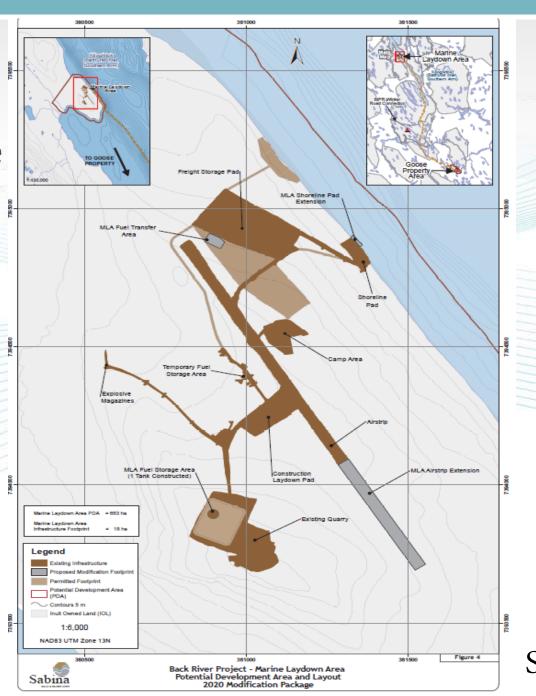
# Marine Laydown Area

Project Description Amendment Review



# Scope of Type A Water Licence Amendment

- Sabina is seeking approval to include the following amendment activities for:
  - Marine Laydown Area
    - Fuel Transfer Area
    - Airstrip Extension
    - Shoreline Pad Extension





## Marine Laydown Area Amendment

• Fuel Transfer Area

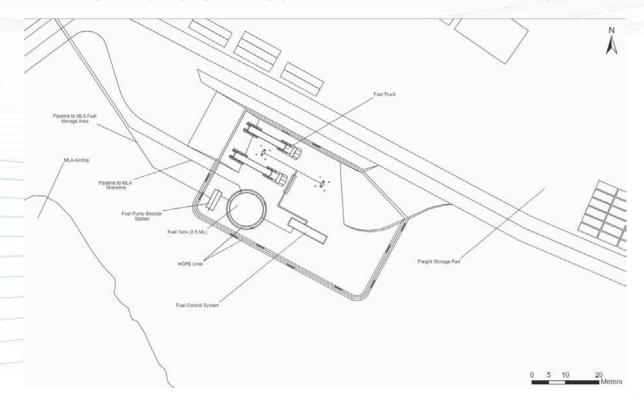




Image 4.1-1. Proposed MLA Fuel Transfer Area (in orange) adjacent to the MLA Freight Storage Pad, looking South



# Marline Laydown Area Amendment

Airstrip Extension

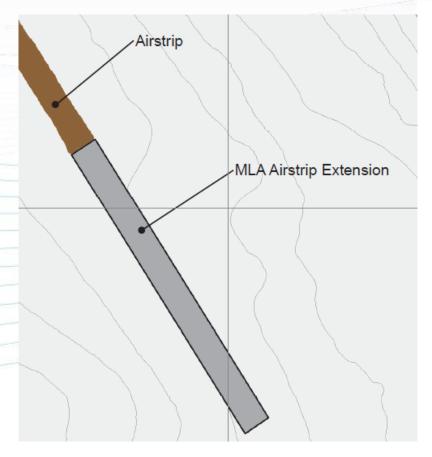




Image 4.2-1. Proposed MLA Airstrip Extension (in orange), overlaying the existing MLA All-weather Airstrip, looking South



## Marine Laydown Area Amendment

Shoreline Pad Extension



Image 5.1-1. Existing MLA Shoreline Pad Demonstrating Current Gap between Barge and Pad



Image 5.1-2. Proposed MLA Shoreline Pad Extension (in orange) adjacent to the existing MLA Shoreline Pad, looking West



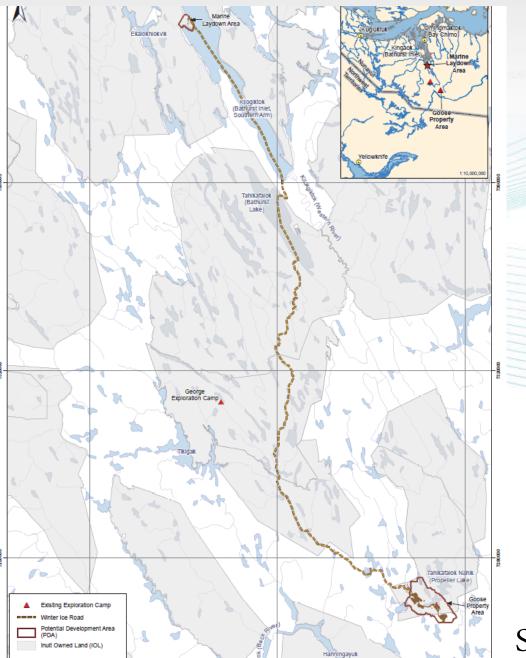
# Winter Ice Road

Project Description Amendment Review



# Scope of Type A Water Licence Amendment

- Sabina is seeking approval to include the following amendment activities for:
  - Winter Ice Road
    - Subbase Upgrade
    - Service/Emergency Camps
    - Total Water Use Increase





#### Winter Ice Road Amendment

Subbase Upgrade



Section of winter ice road showing typical grades, dense boulders, and undulating terrain



Section of winter ice road showing typical steep grades



#### Winter Ice Road Amendment

Service/Emergency Camps





#### Winter Ice Road Amendment

#### Total Water Use Increase

Table 2.3-1. Back River Project Current and Proposed Water Usage Summary

Water Source	FEIS [m³/yr]	Type A Water Licence Approved Quantities [m³/yr]	Additional Amount Requested [m³/yr]	Total Water Use as per Modification Package Type A Water Licence Amendment [m³/yr]
Total Water Use: Goose Property and MLA		578,000ª	414,450	992,450
Total Water Use: Goose Property	518,000	468,000	414,450	882,450
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Total Water Use: Winter Ice Road		675 m³/km <sup>f</sup>	1,350 m <sup>3</sup> /km	2,025 m³/km

a Total Use for domestic, construction operation and associated use including mining and milling as per Type A Water Licence 2AM-BRP1831 Part E, Item 3.



b As per Type A Water Licence 2AM-BRP1831 Part E, Item 3a.

c As per Type A Water Licence 2AM-BRP1831 Part E, Item 3b.

d As per Type A Water Licence 2AM-BRP1831 Part E, Item 3c.

e As per Type A Water Licence 2AM-BRP1831 Part E, Item 4.

f As per Type A Water Licence 2AM-BRP1831 Part E, Item 5.





**Monitoring Plans** 

# Mitigation, Management, and Monitoring

- Application For Amendment:
  - Water Management Plan included:
  - Saline Management Plan
    - Water and Load Balance
  - Tailings Management Plan
  - Waste Rock Management Plan
  - Borrow Pits and Quarry Management Plan
- Modification details are contained within or are being included in the next iteration of these management plans, where applicable.
- These revisions will be submitted as an addendum to the Annual Report.
- Draft Water Licence Framework

MMMP	Version NWB	
Aquatic Effects Management Plan	February, 2021 Ver3	
Borrow Pits and Quarry Management Plan	November 2020 Ver3	
Environmental Management and Protection Plan	October 2017 Ver2	
Fuel Management Plan ;	October 2017 Ver2	
Hazardous Materials Management Plan	October 2017 Ver2	
Incineration Management Plan	October 2017 Ver2	
Interim Closure and Reclamation Plan	March, 2021 Ver3	
(including Interim Closure Cost Estimate)	March, 2021 Ver3	
(included Vegetation Monitoring Plan)	March, 2021 Ver3	
Landfarm Management Plan	October 2017 Ver2	
Landfill and Waste Management Plan	October 2017 Ver2	
Waste Rock Management Plan	November 2020 Ver3	
Ore Storage Management Plan	October 2017 Ver2	
Risk Management and Emergency Response Plan	August 2018 Ver3	
Road Management Plan	October 2017 Ver2	
Spill Contingency Plan	October 2017 Ver2	
Tailings Management Plan ; and	November 2020 Ver3	
Water Management Plan	October 2020 Ver3	
(includes Saline Water Management Plan)	October 2020 Ver3	
Quality Assurance/Quality Control	October 2017 Ver1	

# Mitigation, Management and Monitoring

- Sabina commits to provide the next update to the hydrodynamic model ninety (90) days following approval of the licence, including mixing zone design.
- The updates are to take into account commitments made with respect to the submissions received during the technical review of the Application, as well as final submission and issues raised during the Public Hearing process.







**Technical Comment Review** 

### **Technical Comments - Overview**

- Received initial Technical Comments on January 29, 2021 from CIRNAC and ECCC
- Sabina responded to initial Technical Comments on February 12, 2021 and included updated Hydrodynamic Model Report
- Received Technical Comments on March 2, 2021 from KIA, CIRNAC, and ECCC related to the Hydrodynamic Model
  - Meeting held with ECCC on March 4 to discuss questions and comments
  - Meeting held with CIRNAC on March 8 to discuss questions and comments
- Sabina responded to Hydrodynamic Model Technical Comments on March 12, 2021
- 18 Technical Comments received on the Application and 13 subsequent Technical Comments received on the Hydrodynamic Model



## **Technical Comments - KIA**

6 Technical Comments regarding Hydrodynamic Model

Reference No.	Subject	Status
KIA-WLA-TC-1	Divergence from FEIS predicted impacts to Goose Lake	Resolved - Commitment to update HD model 90 days following approval
KIA-WLA-TC-2	Change in discharge period to include two years of the operational period	Resolved - clarification provided
KIA-WLA-TC-3	Water quality predictions and defining the mixing zone	KIA to confirm
KIA-WLA-TC-4	Model warm up period	KIA to confirm
KIA-WLA-TC-5	Water quality inputs into the hydrodynamic model	KIA to confirm
KIA-WLA-TC-6	Model calibration	KIA to confirm



## **Technical Comments - CIRNAC**

## 9 Initial Technical Comments and 1 regarding Hydrodynamic Model

Reference No.	Subject	Status
CIRNAC-WLA-TC-1	Saline Water Pond Balance	Resolved – model report provided, Commitment to update HD model 90 days following approval
CIRNAC-WLA-TC-2	Hydrodynamic Model	Resolved - model report provided, Commitment to update HD model 90 days following approval
CIRNAC-WLA-TC-3	Arsenic concentration in tailings beach sediments	Resolved - updated table provided
CIRNAC-WLA-TC-4	Criteria for segregating PAG and non-PAG rock	Resolved - commitment to provide addendum in Annual Report
CIRNAC-WLA-TC-5	Use of containment ponds as tailings facilities	Resolved - confirmed cost in ICRP; and commitment to provide 60 notice
CIRNAC-WLA-TC-6	Temporary PAG Stockpiles	Resolved
CIRNAC-WLA-TC-7	Quarry Site Development Plans	Resolved - commitment to provide addendum in Annual Report
CIRNAC-WLA-TC-8	Additional approved infrastructure Tailings Management Plan	Resolved - commitment to provide addendum in Annual Report
CIRNAC-WLA-TC-9	Saline Water Management Plan	Resolved - commitment to provide addendum in Annual Report
CIRNAC-WLA-HydroD-TC-1	Hydrodynamic Model Review	CIRNAC to confirm



# **Technical Comments - ECCC**

#### • 9 Initial Technical Comments

Reference No.	Subject	Status
ECCC-WLA-TC-1	Tailings Production and Storage	Resolved - confirmation provided
ECCC-WLA-TC-2	Tailings Storage Facility	ECCC to confirm
ECCC-WLA-TC-3	Waste Rock Storage Area Design	Resolved - confirmation provided
ECCC-WLA-TC-4	Changes to Outputs of the Water and Load Balance	Resolved - table requested provided
ECCC-WLA-TC-5	Establishment of Meromixis in Umwelt Reservoir	ECCC to confirm
ECCC-WLA-TC-6	Hydrodynamic Modelling and Water Quality in Goose Lake	Resolved - Hydrodynamic Model provided
ECCC-WLA-TC-7	Inconsistencies in Water and Load Balance	ECCC to confirm
ECCC-WLA-TC-8	Updated Modelling Predictions and Comparison to WQ Guidelines	ECCC to confirm
ECCC-WLA-TC-9	Air Quality	Resolved



# **Technical Comments - ECCC**

6 additional comments regarding Hydrodynamic Model

Reference No.	Subject	Status
ECCC-WLA-HydroD-TC-1	Predictions at the Outlet of Goose Lake	Resolved - Commitment to update HD model 90 days following approval
ECCC-WLA-HydroD-TC-2	Model Calibration	ECCC to confirm
ECCC-WLA-HydroD-TC-3	Uncertainty and Limitations	Resolved - Commitment to include in next update HD model
ECCC-WLA-HydroD-TC-4	Comparison of Model Results to Background Concentrations	ECCC to confirm
ECCC-WLA-HydroD-TC-5	Chromium Water Quality Guideline Exceedance at PN03	Resolved
ECCC-WLA-HydroD-TC-6	Predicted Water Quality in Goose Lake	ECCC to confirm







Consultation and Engagement

## Consultation & Engagement

- Community Benefits and Engagement
- Employment and Training
- Environmental Management and Monitoring
- Traditional Knowledge
- On-going Socio-Economic Monitoring



- Sabina has engaged communities specifically regarding the Modification Package Application
- Details of the proposed modifications in the Modification Package were presented during public meetings (September 2019) in Cambridge Bay and Kugluktuk
- Sabina discussed its need to complete detailed engineering and further refinement of the Project's execution plan during public meetings held in each Kitikmeot Region community in May 2019: Cambridge Bay, Gjoa Haven, Kugaaruk, Kugluktuk, and Taloyoak















