



July 03, 2015

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**Re: Final Environmental Impact Statement Update for the Back River Project**

Dear Tara/Dave,

On May 20, 2015 Sabina Gold and Silver Corp. (Sabina) released a positive Feasibility Study (FS) for the Back River Project located in the Kitikmeot Region of Nunavut. Highlights of the study include:

- The Project could generate a post-tax internal rate of return of 21.7% and net present value (at 5% discount rate) of \$539 million
- The Project could generate life of mine post-tax net cash flow of \$914 million on gross revenues of \$4.5 billion with a payback period of 2.2 years (from start of operations);
- Processing rate of 6,000 tonnes per day could produce an average of ~346,000 oz of gold per year (post commencement of commercial production);
- Initial capital estimate of \$695 million and sustaining capital estimate of \$529 million (including closure); and
- Approximately a 10 year operational mine life.

With the FS now complete, Sabina has commenced development of the Final Environmental Impact Statement (Final EIS). As such Sabina is pleased to provide an update on the following aspects of the Project.

### **NIRB/NWB Coordinated Process**

Following the technical sessions held in November 2014, Sabina reviewed the requirements for the Type A Water License Application and felt that some requested information would remain lacking unless the company opted to undertake a significant and expensive 2015 engineering and field program. **As such, Sabina has decided to withdraw from the NIRB/NWB Coordinated Process.** Sabina will not be submitting the Type A Water Licence Application in the Final EIS and will proceed through a separate NWB process following completion of the NIRB process.

### **Project Enhancements**

As with all Projects, Sabina has continued to refine the Project details and has taken significant effort to address concerns identified during and prior to release of the *Pre-Hearing Conference Decision Report*. Wherever practical, this was done through altering the Project design to eliminate or reduce identified concerns. In addition, ongoing studies have further increased our understanding of the Project and have led to appropriate adjustments to our planned activities.

Sabina considered the following when determining the enhancements to the Project:

- Feasibility Study outcomes;
- Pre-Hearing Conference Decision Report;
- Availability of additional baseline and site information;
- Comments from the Kitikmeot Inuit Association and other aboriginal entities;
- Comments received during additional community engagement (including consideration for alternative selection); and
- Comments received from additional regulatory and interested party engagement.

It is Sabina's view that all proposed enhancements are minor in relation to the status of the current review and in most cases have been made to address concerns identified through the process. In addition, all proposed enhancements remain within a slightly modified Project Development Areas and are in line with the *Project Description* submitted in 2012 and/or Draft EIS submitted early in 2014.

Of particular note is that following the FS and other internal reviews, Sabina has decided to remove the George mine development from the Final EIS. Should Sabina consider to advance George at a later date (likely during operations) Sabina will reengage the NIRB and others.

**A list of key enhancements that will be considered in the Final EIS can be found in the attached document. In addition, updated figures/maps are also provided.** These enhancements will be communicated in further detail through ongoing community consultation, regulatory engagement and other outreach over the next few months.



## **Commitments from the Pre-Hearing Conference Decision Report**

As part of the *Pre-Hearing Conference Decision Report* issued by the NIRB a total of 515 commitments were identified. These commitments related to additional information or additional clarity on aspects of the Project which were deemed necessary in order to complete the Final EIS and the associated Type A Water License Application(s). As Sabina has opted to remove itself from the coordinated process and remove the George Property from the proposed Project, a thorough review of all commitments was completed. This review was focused on which of the commitments remain relevant for the Final EIS, which of those related only to the Type A Water License Application or the George Property, and which were a combination.

In total, 29 of the commitments were deemed, in our opinion, to be all or part George Property or Type A Water License Application related and as such should be addressed in future processes. A complete list, with supporting rationale, of these 29 commitments can be found in the attached documentation. **Sabina requests that the NIRB review this information and provide feedback on the acceptability of this approach at its earliest convenience.**

## **Final EIS Submission Timing**

In order to ensure adequate time to address the requirements of the *Guidelines for the Preparation of an Environmental Impact Statement - Back River Project* and the *Pre-Hearing Conference Decision Report*, **Sabina now intends to submit the Final EIS to the NIRB in November, 2015.** This will allow Sabina the extra time to adequately address the project enhancements throughout the Final EIS.

We look forward to the advancement of the Final EIS through the NIRB's process.

Should you require any additional information please feel free to contact me at any convenient time.

Yours truly,



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Cc     *Kristina Benoit, Nunavut Impact Review Board*  
         *Karén Kharatyan, Nunavut Water Board*  
         *Jeff Eng, Sabina Gold & Silver Corp.*  
         *Max Brownhill, Sabina Gold & Silver Corp.*

## **Final EIS Enhancement Log**



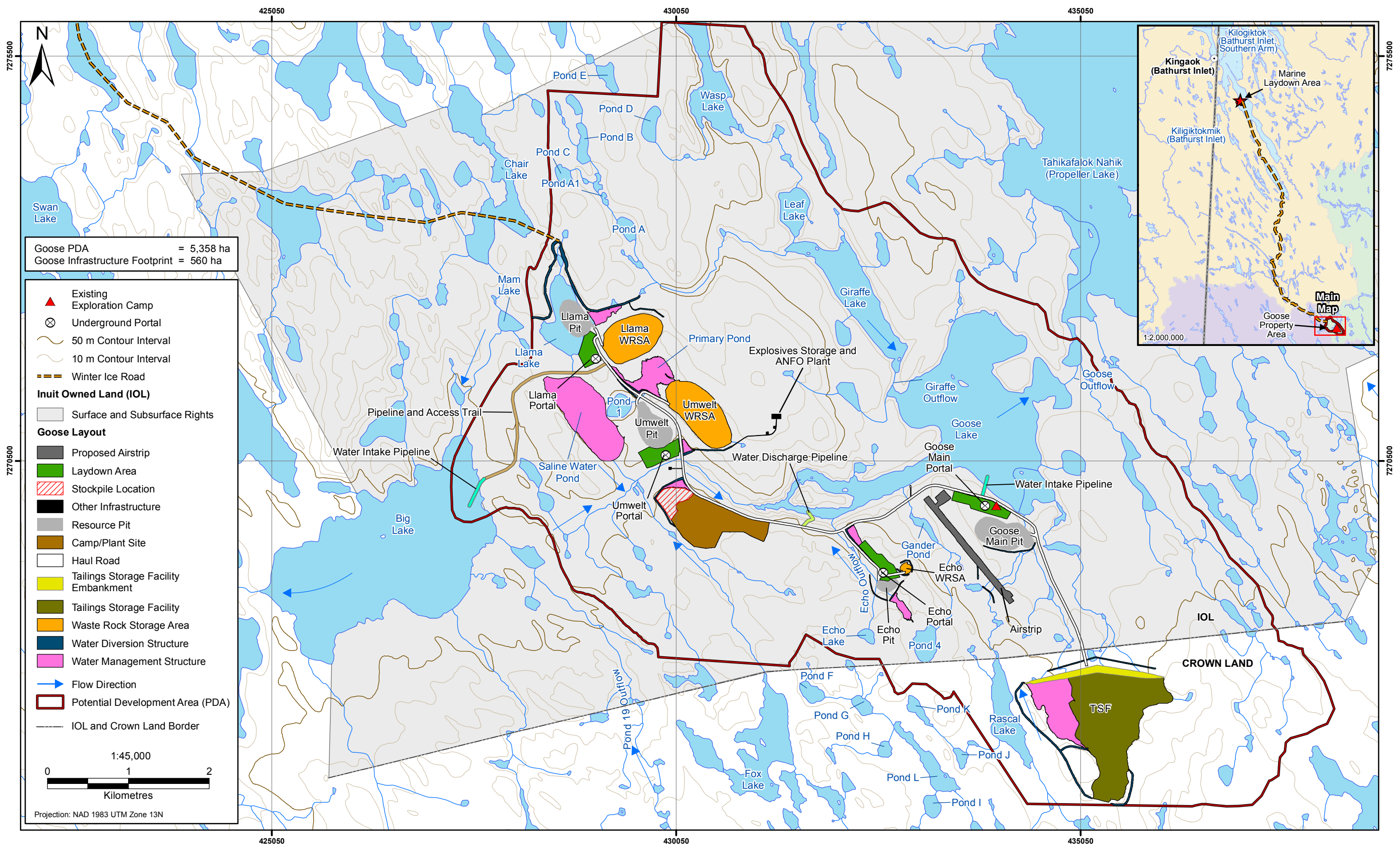
## Major Enhancements Considered in the Final Environmental Impact Statement

Friday, July 3, 2015

Discipline	Site	Category	Description	Benefits	Scope
Project	George Property	Optimization	Removal of George mine development from current EA/Permitting	Require additional information to ensure an adequate evaluation of George Property; meets KIA concerns that George Property is a short mine life as compared to potential footprint; road connectivity remains in the Final EIS	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Civil	Goose Property	Optimization	Multidimensional evaluation of options ultimately relocated smaller TSF south of the KIA. Goose and Umwelt pits now utilized as tailings facilities (TF's)	Met request of KIA to remove sub-aerial tailings deposition from IOL	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Civil	Goose Property	Optimization	Relocated Plant Site	Closer distances and elevation between the open pits, underground mines, and airstrip and plant; similarly, tailings disposal to and reclaim from the TSF, and the Umwelt and Goose Main TF's, has improved over PFS/DEIS; a low point in the tailings line to TSF has been eliminated; cost savings and reduced level of risk are expected	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Civil	Marine Laydown Area	Optimization	Optimized siting of Marine Laydown Area infrastructure to suit topography	Foreshore not suited for construction of significant infrastructure due to instability of saturated marine sediments; critical infrastructure such as fuel tanks is located at locations with shallow bedrock; higher, flat ground is capitalized on to better balance cut and fill	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Infrastructure	Goose Property	Design Development	Increased electrical power generation requirements	Increase in overall power generation to better match electrical needs, especially at peak loads. Fuel estimates also increased.	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Infrastructure	Goose Property	Optimization	Rearranged and consolidated layout of facilities	Critical infrastructure such as mills and fuel tanks is located at locations with shallow bedrock; site selection better balances cut and fill; improved efficiency and safety of vehicular traffic	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Infrastructure	Marine Laydown Area	Optimization	Simplified Marine Laydown Area port facilities	Reduced footprint, capital costs and risks are realized with fit-for-purpose designs and supply. This includes a barge re-purposed as a moveable floating lightering dock, no explosives (except AN) receipt or storage, fabric buildings with compacted fill floors, no landfill	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Infrastructure	Goose Property	Optimization	Replaced microwave communications with satellite	An analysis of the communications requirements incl. availability and bandwidth to support the integrated on-site operations model concluded that dishes at Goose Property and Marine Laydown Area was appropriate	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Infrastructure	Goose Property	Optimization	Addition of water supply from Big Lake	In order to reduce possible impacts to fisheries in Goose Lake an additional water source was required	Remains inline with Preliminary Project Description and/or Draft EIS. Access to Big Lake will require a minor modification of the PDA to extend to the lake.
Mining	Goose Property	Optimization	Optimized mine plan includes additional U/G and open pit mines	Improved project economics including positive effects on mine life are realized with the addition of Echo (U/G, open pit), Llama (U/G), Goose Main (U/G)	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Mining	Goose Property	Design Development	Accounted for additional resources	N/A	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Operations	Goose Property	Optimization	Change oxygen supply model from own & operate to over-the-fence	Reduced CAPEX and simplified operability by shifting to OPEX	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Process	Goose Property	Optimization	Increased plant throughput from 5000tpd to 6000tpd	Cost-benefit advantages with improved NPV, IRR, and shorter payback period were realized when various cases of mine and mill production rates were developed and compared. No change in overall mine life.	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Process	Goose Property	Optimization	Changed from 3-stage to 2-stage crushing	Reduction in capital costs through less crushing equipment being able to consolidate in one smaller building, mobile primary crusher which is fed by loader eliminated the cost of an MSE (mechanically-stabilized earthen) wall	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Process	Goose Property	Optimization	Changed from stationary to mobile primary crusher	Reduced costs incl. reduction in building size	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Process	Goose Property	Optimization	Introduced oxygenation to achieve recoveries forecasted in PFS and reaffirmed with FS	Improved gold recoveries	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Process	Goose Property	Optimization	Reduced grinding size from 100 to 50micron	Improved gold recoveries extracts more of the available resource; the net gains more than offset the increased capital and power required to achieve this	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Process	Goose Property	Optimization	Added fine ore mill	Cost-benefit advantage to achieve grind size with reduced operating costs	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Process	Goose Property	Optimization	Added two Carbon-in-Column (CIC) to the leach thickener overflow	Improved gold recoveries	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Process	Goose Property	Optimization	Changed leaching process from Carbon In Leach to Carbon In Pulp	Improved gold recoveries	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Process	Goose Property	Optimization	Eliminate SO2 plant in lieu of direct addition of SMBS	Reduced CAPEX and simplified operability through the elimination of the plant; SMBS handling and feeding systems were always in the base design as it is required for start-up and was a back up to the SO2 system	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Process	Goose Property	Optimization	Reduced cyanide dosage and residual	Reduced OPEX and simplified water treatment prior to discharge; the slurry was amenable to the cyanide destruction process so there is high confidence that target CN levels are achievable and improved	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Waste Mgmt.	Goose Property	Optimization	Deposit PAG atop tailings deposited on TSF and cap with NPAG	Reduced WRSA storage footprint and capacity requirements; allows for progressive reclamation	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Waste Mgmt.	Goose Property	Optimization	Changed design of TSF containment system including liner reduction	Reduced costs and risks and improved constructability considerably	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Waste Mgmt.	Goose Property	Optimization	Re-purpose mined out workings to store tailings and water	Reduced TSF capacity requirement thereby reducing amount of disturbed area; allows for progressive reclamation thereby significantly reducing Project and environmental risks	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Waste Mgmt.	Goose Property	Design Development	Increased allowable waste rock lift thickness for freeze back	Reduced conservatism through more detailed understanding with thermal modeling; this resulted in reduced footprint, easier water management, reduced costs and improved operability	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Water Mgmt.	Goose Property	Design Development	Updated assumptions accounted for increase in groundwater flows and salinity.	A better understanding was gained from baseline data and studying other operations yielding a reduction in risk of saline water management.	Remains within defined Project Development Area; Umwelt Lake will serve as repository for saline water during operations.
Water Mgmt.	Goose Property	Optimization	Realigned Rascal Lake outflow stream	Improved constructability, operational safety by not needing culverts under the airstrip that would be subject to freeze up and hence maintenance in confined space, and reduce environmental impact	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS
Water Mgmt.	Goose Property	Design Development	Accounted for water treatment requirements for contact water	Water treatment requirements were not developed with PFS/DEIS; updated and more inclusive water and load balances improved the understanding of the system along with the discharge criteria	Remains within defined Project Development Area; remains inline with Preliminary Project Description and/or Draft EIS

## **Draft Updated Figures**

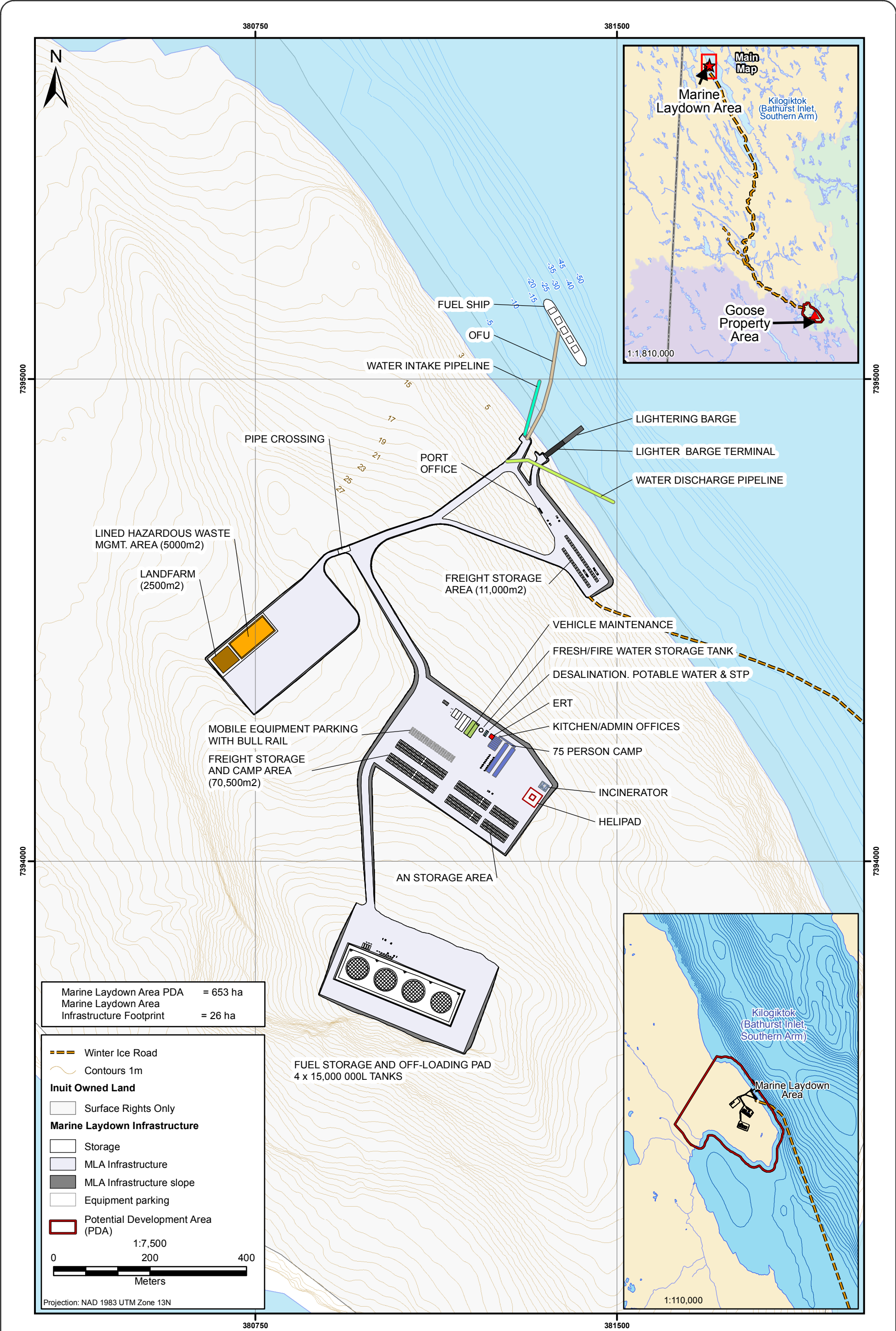




Potential Development Area and Layout  
Goose Property Area

Preliminary Draft

Figure X.X-X



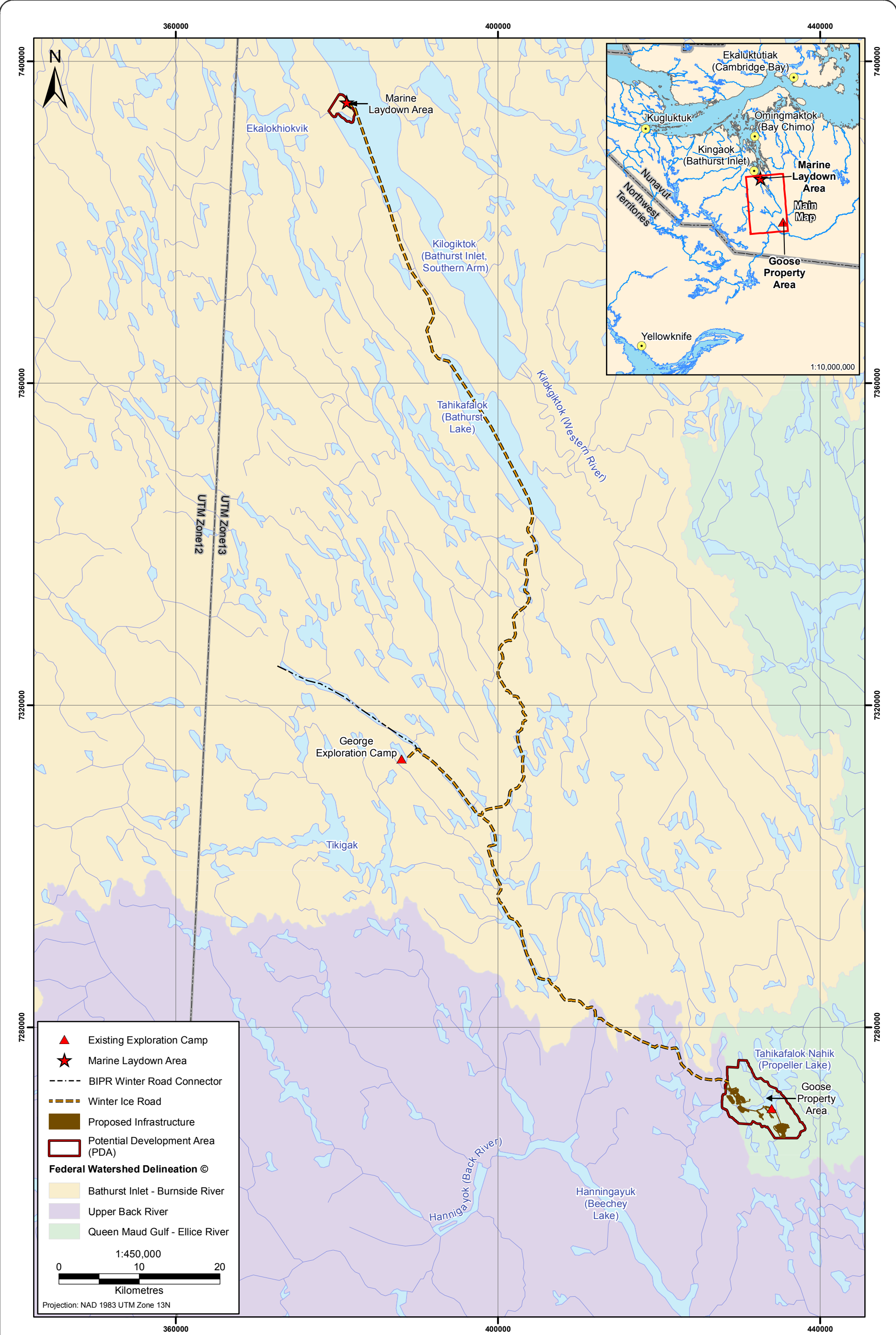


Figure X.X-X

## **Requested Commitments To Be Revised For Final EIS**



## Recommended Modifications to Commitments

Friday, July 3, 2015

Volume	General Reference	Interested Party	IR REF	CR REF	TC REF	PHC REF	PHC Report	COMMITMENT	Partially Required for FEIS	Not Req'd for FEIS	Rationale for Change
2	Project Description & Alternatives	AANDC	AANDC-48	~	~	~	~	Sabina commits to providing a more detailed estimation of waste generation quantities and facilities design in the FEIS.	X		Waste quantities will be provided. For facilities, conceptual/preliminary design to be provided in Final EIS. More detailed design to be provided in Type A Water License Application.
2	Project Description & Alternatives	EC	EC-2	~	~	~	~	Sabina commits to providing incinerator vendor specifications in the FEIS.	X		Conceptual/preliminary design specifications to be provided in Final EIS. More detailed design to be provided in Type A Water License Application.
2	Project Description & Alternatives	KIA	~	KIA-92	~	~	~	Sabina commits to including design criteria for all water management facilities in the FEIS.	X		For facilities, conceptual/preliminary design to be provided in Final EIS. More detailed design to be provided in Type A Water License Application.
4	Atmospheric Environment	EC	~	~	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.		X	More detailed design to be provided in Type A Water License Application. Since systems have not been finalized nor purchased this is not practical to provide at FEIS stage.
4	Atmospheric Environment	EC	~	~	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.		X	More detailed design to be provided in Type A Water License Application. Since systems have not been finalized nor purchased this is not practical to provide at FEIS stage.
5	Terrestrial Environment	AANDC	~	AANDC-31	~	~	~	Sabina commits to providing dyke designs and seepage calculations into the pits. This will be presented in the FEIS water balance.		X	Conceptual/preliminary design to be provided in Final EIS. More detailed design to be provided in Type A Water License Application. George removed from Final EIS so this will not be done for Lytle and Occurrence Lakes.
5	Terrestrial Environment	AANDC	~	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 licensing process.	X		Preliminary design, management, mitigation and monitoring to be provided in Final EIS. More detailed design to be provided in Type A Water License Application.
5	Terrestrial Environment	EC	~	~	EC-26	~	~	Sabina commits to conducting additional site characterization of the TIA foundation to support detailed design after receipt of the water licence.		X	Type A Water License Application removed from Final EIS.
5	Terrestrial Environment	KIA	~	~	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 publicly available Feasibility Study Report.		X	George Property is removed from Final EIS.
5	Terrestrial Environment	KIA	~	~	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.		X	George Property is removed from Final EIS.
6	Freshwater Environment	EC	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.		X	George Property is removed from Final EIS.
6	Freshwater Environment	EC	~	~	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.		X	George Property is removed from Final EIS.
6	Freshwater Environment	GN	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.		X	Preliminary design, management, mitigation and monitoring to be provided in Final EIS. More detailed design and SOP's to be provided in Type A Water License Application.
6	Freshwater Environment	KIA	~	~	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.	X		Conceptual/preliminary design to be provided in Final EIS. More detailed design to be provided in Type A Water License Application.
6	Freshwater Environment	KIA	~	~	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.	X		Conceptual/preliminary design to be provided in Final EIS. More detailed design to be provided in Type A Water License Application.
6	Freshwater Environment	KIA	~	~	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.	X		Conceptual/preliminary design to be provided in Final EIS. More detailed design to be provided in Type A Water License Application.
6	Freshwater Environment	KIA	~	~	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.	X		Conceptual/preliminary design to be provided in Final EIS. More detailed design to be provided in Type A Water License Application.
6	Freshwater Environment	KIA	~	~	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.	X		Conceptual/preliminary design to be provided in Final EIS. More detailed design to be provided in Type A Water License Application.
6	Freshwater Environment	KIA	~	~	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.	X		Conceptual/preliminary design to be provided in Final EIS. More detailed design to be provided in Type A Water License Application.
6	Freshwater Environment	KIA	~	~	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.	X		Conceptual/preliminary design to be provided in Final EIS. More detailed design to be provided in Type A Water License Application.

Volume	General Reference	Interested Party	IR REF	CR REF	TC REF	PHC REF	PHC Report	COMMITMENT	Partially Required for FEIS	Not Req'd for FEIS	Rationale for Change
6	Freshwater Environment	KIA	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.		X	George Property is removed from Final EIS.
10	Management Plans	EC	~	~	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.	X		Conceptual/preliminary design to be provided in Final EIS. More detailed design to be provided in Type A Water License Application.
10	Management Plans	EC	~	~	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.		X	George Property is removed from Final EIS.
11	Type A Water Licence Application	AANDC	AANDC-46	~	~	~	~	For the FEIS, Sabina will remove the reference to Appendix G (from Vol 11, Appendix 4C, Section 5.9).		X	Type A Water License Application removed from Final EIS.
11	Type A Water Licence Application	EC	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 integral part of design.		X	George Property is removed from Final EIS.
4	Atmospheric Environment including Climate, Air Quality, Noise and Vibration	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 adaptive management if elevated metals, dioxins, furans, and/or ammonia are detected through the dust fall monitoring program.	X		Preliminary design, management, mitigation and monitoring to be provided in Final EIS. More detailed design to be provided in Type A Water License Application. Since systems have not been finalized nor purchased this is not practical to provide at FEIS stage.
6	Aquatic Environment including Water Management, Freshwater Environment, Hydrology, Hydrogeology and Mine Rock Characterization	NWB	~	~	~	~	X	Sabina commits to include the conceptual design of all water management structures within the water licence application filed as part of the FEIS.		X	Type A Water License Application removed from Final EIS.
6	Aquatic Environment including Water Management, Freshwater Environment, Hydrology, Hydrogeology and Mine Rock Characterization	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.		X	Goose Property is no longer treated as a zero discharge site in the Final EIS.
6	Aquatic Environment including Water Management, Freshwater Environment, Hydrology, Hydrogeology and Mine Rock Characterization	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.		X	George Property is removed from Final EIS.