



Sahtu Land and Water Board

Staff Report

Division: Water Program	Report No. 1
Date Prepared: July 17, 2015	File No. S15L8-001/S09D-001
Meeting Date: July 24, 2015	
Subject: Type B Water Licence Renewal Application by AANDC-Contaminants and Remediation Directorate	

1. Purpose/Report Summary

To consider the request for a seven (7) year renewal of a Type B Water Licence (WL) held by AANDC-Contaminants and Remediation Directorate (CARD) for the Great Bear Lake (GBL) Remediation Project, encompassing the Silver Bear Mines (including Terra, Northrim, Norex, Graham Vein and Smallwood mines), El Bonanza Mines (including El Bonanza and Bonanza), Contact Lake Mine and Sawmill Bay site.

2. Background

2.1 Project Overview

The purpose of the remediation project is to restore and remediate the abandoned sites to their original state as much as possible which will have an overall positive impact on the environment. The remediation work is described in three phases with details provided in previous Staff Reports.^{1,2,3} Phase I of GBL began the summer of 2010 and completed in 2011. Activities falling under Phase I included debris cleanup of drums and hazardous material removal at the Contact Lake, El Bonanza/Bonanza and Sawmill Bay sites. Completion Reports and were submitted to the Board for each year of work.^{4,5}

A Land Use Permit (LUP) Extension request for 2 years had been submitted with the Renewal Application for S15L8-001 and is discussed in the [S09D-001 Staff Report #4](#). The LUP extension was approved by the Board on June 29, 2015 and the [Letter of Issuance](#) was provided to CARD on June 30, 2015 via email.

¹ SLWB Online Registry: S09L8-001/S09D-001 [SLWB Staff Report 1](#). May 28, 2009.

² SLWB Online Registry: S09L8-001/S09D-001 [SLWB Staff Report 2](#). July 14, 2009.

³ SLWB Online Registry: S09L8-001/S09D-001 [SLWB Staff Report 3](#). July 21, 2010.

⁴ SLWB Online Registry: S09L8-001, [2010 Completion Report for Phase I of GBL](#), March 2011.

⁵ SLWB Online Registry: S09L8-001, [2011 Completion Report for Phase I of GBL](#), June 2012.

Phase II, the largest component of the remedial work, involves the majority of the remedial work for the Silver Bear Mines (e.g. mine closure, non-hazardous waste landfill construction) and the remaining works to be completed for Contact Lake and El Bonanza/Bonanza Mines. At the time the current WL application was submitted (February 2, 2009) it was anticipated Phase II could be complete over three years, with an anticipated start in 2010.⁶ Phase III deals with the completion of remedial work at Sawmill Bay remaining from Phase I activities and includes more building demolition and impacted soil excavation work and treatment. Comparable to Phase I plans, Phase II was expected to require a single remediation season, which was anticipated to be in 2013. The Land Use Permit and Water Licence for GBL were not issued until July 26, 2010.

The scope of the proposed work has not changed, however the proposed timelines have not been met and the contracts for Phase II and III have not yet been awarded. Contracts for these works will be procured by Public Works and Government Services Canada (PWGSC). The schedule to initiate the tendering process remains under review. Through lessons learned from other projects, CARD and PWGSC have determined that all permits must be in place before any project goes to tender.⁷

Accordingly, CARD has been unable to provide tentative schedules for the future phases of the remediation program, which are also currently subject to Treasury Board funding approvals. CARD has committed to providing updates to the Board as certainty in the project schedule progresses. On July 23, 2015, CARD provided additional details of the scope of the 2015/16 activities with the proposed tasks occurring from August 16 to September 12, 2015 (28 days):

- Site Wide Hazard Assessment, including airstrip assessment to determine upgrade requirements (Terra and satellite sites);
- Mill Assessment (Terra);
- Barrel Consolidation Program (Terra);
- Water Quality Monitoring (Terra); and
- Impacted Soil Collection Program (Sawmill Bay).

CARD has indicated that tasks will also include reviewing all water quality monitoring results and updating the Water Quality Monitoring Plan ([Appendix G](#), see Section 2.4 of this report), refining the implementation schedule for Phase II and III of the remediation and preparing for the Land Use Permit renewal in 2016/17.⁸

Mowhi Gogha De Niilee Boundary

The Silver Bear mines (Phase II) are situated within the Sahtu Settlement Area and the overlap area with the Tlicho Mowhi (Attachment 1). For this reason, beneficiaries of the Sahtu (Deline) and Tlicho (communities of Gameti, Whati and Bechoko) regions have assisted with development of the remediation plan and will be sharing economic benefits. The current application notes two options to access the Terra sites from Deline across Great Bear Lake (Transportation Route, [Appendix H](#)) which are proposed for contractor access during mobilization and demobilization (option 1 winter road, option 2 barge).

Minutes from the meeting held in Deline on June 24, 2015 highlight that there is discrepancy in the boundary with two lines described and outstanding resolution between the Crown, Tlicho and Sahtu

⁶ SLWB Online Registry: S09D-001/S09L8-001, AANDC-CARD [Water Licence and Land Use Permit Application](#), Great Bear Lake Remediation Project, February 2, 2009.

⁷ SLWB Online Registry: [AANDC-CARD – Deline Engagement Meeting Minutes](#), June 24, 2015, pg. 5

⁸ SLWB Online Registry: S09D-001, [AANDC-CARD Land Use Permit Extension Request](#), May 25, 2015.

interpretations such that no one is clear on what the boundary lines are because there are too many variations (i.e. illustration map from the Comprehensive Land Claim Agreement and interpretation map (which the Feds use) are different).⁹

Denison Winter Road – Transboundary Application

It is important to note that on April 21, 2011, CARD submitted the Denison Winter Road Land Use Permit application ([MV2011E0007](#)) to the Mackenzie Valley Land and Water Board (MVLWB). The application is a transboundary file associated with providing another transportation route option (mobilization and demobilization) for the GBL project. The route (Gameti to Great Bear Lake) would also be used by CARD to be used to access two sites located in the Tlicho region (Indore and Hottah Mines). Due to concerns raised from various organizations during review of the application, the MVLWB invoked paragraph 22(2)(b) of the *Mackenzie Valley Land Use Regulations* (MVLUR) on June 9, 2011, determining that further study was required.¹⁰

One of the concerns identified during the Denison Winter Road review process was that CARD had submitted a number of Traditional Knowledge (TK) studies previously complete with the GBL project without knowledge or consent from any of the organizations or individuals who had participated in the collection and sharing of the information presented from Deline. The use of this TK was protested for the appropriation and public sharing of confidential community intellectual property by the Deline Land Corporation and the reports were withdrawn from the public registry. On May 31, 2011, the Deline First Nation, Charter Community Council, Renewable Resources Council and Land Corporation submitted a joint letter of comment that expressed a number of concerns about the proposed project and expressed opposition to issuance of the permit.¹¹

On January 13, 2015, CARD submitted additional documentation to MVLWB which included the Denison Road Traditional Knowledge Study endorsed by the Deline Renewable Resource Council and DFN.¹² MVLWB review found that, although submissions addressed 3 of the 4 requirements, sufficient time had passed so that most of the 2011 submission required updated information to proceed with the regulatory process (Attachment 2).¹³ The GBL Water Licence renewal application had not been updated to include information regarding the Denison Road application.

Minutes from the June 24, 2015 meeting in Deline indicate that Elders do not support CARD access of the GBL sites using the Denison Winter Road (pg. 5) and raise question to whether the purpose of information gathering for the TK study was communicated (i.e. support Denison Winter Road application, pg. 6). CARD committed to review the possibility of completing another TK study with Deline, to be more specific to the Denison Winter Road, as part of the project planning for 2016/17. On July 22, 2015, CARD provided an update indicating that their intention is to finalize the application process for the Denison Winter Road before procuring the GBL remediation work.¹⁴

Mineral Tenure in Vicinity of the GBL Remediation Program

It was noted in [SLWB Staff Report 1](#), that there are mineral tenures (leases and claims) and authorizations issued that include the Crown Lands identified for this program (Attachment 1). The AANDC Lands Inspector confirmed on June 24, 2015 that there are several tenures in the area and

⁹ SLWB Online Registry: AANDC-CARD – Deline Engagement Meeting Minutes, June 24, 2015. pg. 8.

¹⁰ MVLWB Online Registry: [MV2011E0007 – Mitigation to Reviewer Comments Required – July 19, 2011](#)

¹¹ MVLWB Online Registry: MV2011E0007 – [Deline Community and Leadership Comment](#) – May 31, 2011

¹² MVLWB Online Registry: MV2011E0007 – [Denison Road Traditional Knowledge Study](#) – March 2012, submitted on January 13, 2015

¹³ MVLWB Online Registry: MV2011E0007 – Denison Winter Road - [Board Staff Response to Jan 2015 submissions](#). Jan 20, 2015

¹⁴ SLWB Online Registry: S15L8-001 – AANDC-CARD – [Response to SLWB additional information request](#) – July 22, 2015

the details are provided in Table 1. DEMCo Ltd. (DEMCo) holds the rights to thirteen (13) mineral claims and two (2) leases, which include the Terra Mine site and eleven (11) of the claims are anticipated to be surveyed and brought to lease this year.¹⁵ An application for a Land Use Permit for fuel storage at the Terra Mine site, along Moose Bay, has been submitted by DEMCo and is currently under review by the Board ([S15H-003](#)).

CARD indicated on July 22, 2015 that, to eliminate any health and safety concerns, single party use of the site should be coordinated between the permit holders, through the use of an Operational Agreement/Plan.¹⁶

Table 1: Mineral Tenure Considerations on Crown Administered Lands

Location	Claims	Leases
Silver Bear	17	2
Contact Lake	2	5
El Bonanza/Bonanza	3	-

2.2 Summary of Completed Site Activities

Board staff have reviewed the S09L8-001 Annual Reports and Completion (Progress) Reports and a summary of the Site activities is provided below (pg. 2-9). A summary of water use, Surveillance Network Program (SNP) sampling, and associated discharges during the term of S09L8-001 are provided in Table 3.

Phase I - 2010

The 2010 activities are reported in the 2010 Completion Report¹⁷ and 2010 Water Licence Annual Report¹⁸ which are available on the SLWB Online Registry and details are summarized below.

- The on-site work took place from August 12 to October 1, 2010 (79 days)
- The prime contractor was Aboriginal Engineering Limited (AEL)
- The total people reported on site were 46 with a total of 11,166 person hours (71% was performed by Sahtu beneficiaries).
- The Deline First Nation on-site community representatives (OCRs) observed the site activities from September 21st until September 30th.

Remediation Activities

- Air access, mobilization via barge from Deline
- The remediation activities focused at Sawmill Bay, Contact Lake, Bonanza, and El Bonanza.
- The main goals included: gathering, consolidating, and stockpiling surface debris including barrels; building closure and demolition; burning of unpainted, untreated wood; and shipping hazardous material off-site.
- Non-hazardous surface debris was collected and stockpiled on-site.
- One hazardous debris stockpile was built for old batteries, paint cans, and old transformers.
- Two burns of untreated, unpainted wood occurred.

¹⁵ SLWB Online Registry: [DEMCo Ltd. Land Use Permit Application for fuel storage](#), June 24, 2015

¹⁶ SLWB Online Registry: S15L8-001 – [AANDC-CARD Response to SLWB additional information request](#) – July 22, 2015.

¹⁷ SLWB Online Registry: AANDC-CARD [2010 Completion Report for Great Bear Lake Remediation Phase I](#), March 2011.

¹⁸ SLWB Online Registry: AANDC-CARD [Great Bear Lake Remediation Phase I - 2010 Water Licence S09L8-001 Annual Report](#), December 2010.

- Only empty drums were crushed (8235) at Sawmill Bay and others, known to contain some residual liquids or solids, remained uncrushed to be addressed during 2011 activities (2590 drums).
- There are 108 drums at El Bonanza and 20 drums at Contact Lake.
- At the end of the season, all hazardous waste was transported to Yellowknife for disposal at an approved facility outside the Territory.
- There were no unauthorized discharges reported in the 2010 Annual Report.

Camp

- A temporary camp was built at Sawmill Bay.
- In total, 74 m³ of fresh water was withdrawn from Great Bear Lake.
- Drinking water was shipped to site from Yellowknife.
- Grey water collected in a lagoon (1.5 m long by 1.5 m wide and 1 m deep) located on east side of camp.
- Surveillance Network Program (SNP) station S09L8-001(2) was located at the grey water end-of-pipe and 4 m³ was discharged after meeting the appropriate discharge criteria in the Water Licence.
- There was no SNP station S09L8-001(1) because black water (raw sewage) was collected in honey buckets and burned daily.
- There was no SNP station S09L8-001(3) because process water was not produced during 2010 activities.
- A Wildlife Response Plan was developed for the project to address possible encounters and minimize impacts to wildlife. Wildlife Monitors were onsite for the duration of the program and documented all wildlife sightings.

Phase I - 2011

The 2011 activities are reported in the 2011 Completion Report¹⁹ and 2010 Water Licence Annual Report²⁰ which are available on the SLWB Online Registry and details are summarized below.

- On-site work took place from June 5th to June 10th, July 20th to August 30th (47 days)
- The total person hours were 7,519 and 75% of the work performed was by Sahtu beneficiaries and 6% by Tlicho beneficiaries.
- 69% Sahtu beneficiary employment for the Phase 1 activities (2010 & 2011).
- The Deline First Nation on-site community representatives (OCRs) inspected all aspects of the activities.

Remediation Activities

- The remediation activities focused on mitigation of issues associated with the drums which were remaining at Sawmill Bay at the end of the 2010 season.
- During June, the contents of drums were examined and found to contain various petroleum based products, water, a mix of both or sand.

¹⁹ SLWB Online Registry: AANDC-CARD, [2011 Completion Report for Great Bear Lake sites Remediation – Phase 1](#), June 2012.

²⁰ SLWB Online Registry: AANDC-CARD [Great Bear Lake Remediation Phase I - Water Licence S09L8-001 Annual Report 2011](#), January 2012.

- Liquid drum contents were tested, classified and treated according to the standards outlined in the Indian and Northern Affairs Canada (INAC) document, Abandoned Military Site Remediation Protocol (AMSRP).
- During July and August, drums were emptied of liquid contents, cleaned and crushed (2190 drums in total)
- 204 drums remain on-site from the consolidation activities, with additional 16 drums in a historic cache, such that there are 220 drums remaining on-site at Sawmill Bay.
- At the end of the season, all hazardous materials, including 18 drums containing hydrocarbon impacted soils were transported off-site; the camp was dismantled and demobilized.

Drum Washing

- A temporary drum treatment area was constructed which consisted of a drum washing station and an effluent treatment system.
- Drums were washed with a hot water pressure washer after the removal of liquid contents, prior to crushing. Drum washing was performed on custom built stand which allowed for wash water to be collected.
- The initial source of water for washing was Great Bear Lake, then treated effluent (wash water/process water) was recycled back through the process, reducing the volume of freshwater needed.
- Treatment system contained an oil-water separator, activated carbon and clay which resulted in two waste streams: treated water and process waste (oil). Process waste was consolidated with drum content waste and stored at a cache for future remediation (70 drums).
- The total volume of water treated was 50.3 m³, 34.6 m³ of which was re-processed/recycled through the washing process and the difference (34.6 m³) was discharged to the environment.
- All process water (4 batches) was confirmed to meet the WL EQC (Part D, Item 14) prior to discharge at a location that was approved by the Land Use Inspector.
- There was a single unauthorized discharge reported in the 2011 Annual Report. The discharge was associated with an overturned noted on June 9, 2011 which was located within an old drum cache and a spill report was filed.²¹ The spill report number is 2011251 and based on visual, it was estimated that between 100 and 200 litres of oil were spilled.

Camp

- The 2011 Phase I clean-up program was based at the temporary camp constructed at Sawmill Bay in 2010.
- In total, 48 m³ of water was collected from Great Bear Lake. The water was used for washing, laundry, housekeeping, showering (e.g. grey water), and cleaning drums (e.g. process water).
- Drinking water was shipped to site from Yellowknife.
- Grey water was collected in the same lagoon used in 2010. No grey water was discharged from the lagoon in 2011 and as such there was no SNP station S09L8-001(2). The grey water was left in this soak away pit.²²

²¹ SLWB Online Registry: AANDC-CARD [Great Bear Lake Sites Remediation Phase I, Water Licence S09L8-001 2011 Annual Report](#), January 2012. pg. 5.

²² SWLB Online Registry: AANDC-CARD, [2011 Completion Report for Great Bear Lake sites Remediation – Phase 1](#), June 2012. pg.ii.

- Black water (raw sewage) was disposed of in pit latrines due to the short duration of the project and the small number of people at the site and therefore, similar to 2010, there was no SNP station S09L8-001(1). Similar to 2010, three latrines were constructed at the Main Camp area.
- Similar to 2010, A Wildlife Response Plan was in place to address possible encounters and minimize impacts to wildlife. Wildlife Monitors were onsite for the duration of the program and documented all wildlife sightings. Black bears were seen on a number of occasions during the 2011 construction season and on August 25th, a nuisance black bear was destroyed. The incident report is attached within Appendix G of the 2011 Completion Report.²³

Table 2: Summary of Phase I Project Duration, Water Usage and Discharge

Scope	Actual	Planned
Project Duration	Total 2010: 79 days (Aug 12 to Oct 30) Reported 46 people: 11,166 p-hrs ²⁴ & 12,138 p-hrs ²⁵ Est. 20 ppl for 79 days = max. 1580 person days	20 people for 3 months (90 days) = 1800 person days 8-12 hr. days = 14,400 to 21,600 p-hrs.
	Total 2011: 14 to 19 ppl for 47 days (Jun 5 to 10, July 10 to Aug 30) Reported 7,519 person hrs (p-hrs) Est. 19 ppl for 47 days = max. 893 person days	
	Total days = 126 Reported 19,657 person hours²⁶	
Water Use	Total 2010 – 74 m ³ (camp use ~ 10m ³ /day) Discharged – 4 m ³ tested greywater	10 m ³ /day – camp use 100 m ³ /day - cleaning & decontamination
	Total 2011 – 48 m ³ (camp and cleaning & decontaminating) Drum washing – 50.3 m ³ (36.4 m ³ recycled) Discharged – 15.7 m ³ treated process water	
	Total = 122 m³	
		Anticipated Phase I = 9900 m ³

Note: (1) Burning of black water occurred in 2010 without evidence of required CCME testing provided in 2010 Completion Report. (2) Water usage matches anticipated camp use both years.

2012 – Care and Maintenance

The 2012 activities are reported in the 2012 Water Licence Annual Report and there were no on-site activities.²⁷

2013 – Care and Maintenance

The 2013 activities are reported in the 2013 Water Licence Annual Report which is available on the SLWB Online Registry and details are summarized below.²⁸

²³ SLWB Online Registry: AANDC-CARD, [2011 Completion Report for Great Bear Lake sites Remediation – Phase 1](#), June 2012.

²⁴ SLWB Online Registry: AANDC-CARD, [2010 Completion Report for Great Bear Lake Remediation Phase I](#), March 2011, Table 2, pg. 2-2.

²⁵ SLWB Online Registry: AANDC-CARD, [2011 Completion Report for Great Bear Lake sites Remediation – Phase 1](#), June 2012., Table 2, pg. 2-2.

²⁶ SLWB Online Registry: AANDC-CARD, [2011 Completion Report for Great Bear Lake sites Remediation – Phase 1](#), June 2012., Table 2, pg. 2-2.

²⁷ SLWB Online Registry: AANDC-CARD, [2012/13 Great Bear Lake Water Licence S09L8-001 Report](#), July 2, 2013.

²⁸ SLWB Online Registry: AANDC-CARD, [2013/14 Great Bear Lake Water Licence S09L8-001 Report](#), September 27, 2013.

- Two short field sampling programs (June and September) were completed which focused on completing a sampling program at Ho-Hum Lake at Terra Mine as well as some care and maintenance activities at Silver Bear, Contact Lake, El Bonanza, and Sawmill Bay.
- There were a maximum of 6 people on-site daily during the field programs (10 days in June and 3 days in September).
- A maximum of 2500 gallons (9.5 m³) from Camsell River was used for the camp (showers, drinking water, etc.)
- There was a sump at Silver Bear that was used but there was no requirement to pump it out as there were a small number of people on-site. The location of the sump is ~1000m from the water's edge.
- Care and Maintenance activities at Silver Bear, Contact Lake, El Bonanza, and Sawmill Bay during the June 2013 field trip included:
 - Containerization of five leaking barrels at El Bonanza
 - Blasting of old caps at El Bonanza
 - Consolidation of debris at El Bonanza
 - Double bagging of ripped asbestos bags at Contact Lake and placement in a mega bag for protection
 - Closing off old buildings at all of the sites to deter access
 - Posting of signs that had fallen to show that these are contaminate sites
- No SNP sampling was required due to the scope of activities.

2014 – Care and Maintenance

The 2014 activities are reported in the 2014 Water Licence Annual Report which is available on the SLWB Online Registry and details are summarized below.²⁹

- Two field programs (July and September) where complete that focused on the Terra Mine Site, El Bonanza, and Northrim, with the objective to place drums in secondary containment, and Sawmill Bay to address regulatory requirements.
- There were a maximum of 8 people on-site daily during the field programs (4 days in July and 6 days in September 2014).
- Approximately 0.6 m³ from Camsell River was used for care and maintenance activities at Terra Mine Site, El Bonanza or Northrim in July.
- Activities included:
 - Response to regulatory requirements to remove drums and stained surface sand for off-site disposal from Sawmill Bay (~204 drums). The drum contents included: waste oil; waste fuels such as diesel, gasoline, and jet fuel; transmission fluid; antifreeze; oily water; and, sand with various amounts of water.³⁰
 - Care and maintenance involving placement of 37 drums in secondary containment.
- No SNP sampling was required due to the scope of activities.

As summarized in [09D-001 Staff Report 4](#), an Order of Inspector was issued in February 2014 for contravention of the Permit conditions related to reporting spills and removing contaminated material at the Sawmill Bay site.³¹ CARD took the steps noted above to address the regulatory

²⁹ SLWB Online Registry: AANDC-CARD, [2014 Great Bear Lake Water Licence S09L8-001 Report](#), December 11, 2014.

³⁰ SLWB Online Registry: AANDC-CARD, [Sawmill Bay Drum Removal Program](#), December 2014., pg. E1

³¹ SLWB Online Registry, AANDC, [Land Use Permit S09D-001, Inspection Report](#), February 12, 2014

requirements and submitted a Completion Report to the Board.³² An inspection of the Sawmill Bay and Terra Mine sites was complete on June 26, 2015 and was reported to the SLWB on July 14, 2015.³³ The Inspector was generally pleased with the condition of the sites however noted that not all of the contaminated soil had been removed from Sawmill Bay airstrip and requires the remaining soil to be removed prior to Sept 30, 2015. The inspection also reported that the drum consolidation area at the Terra Mine site showed multiple signs of hydrocarbon releases. The Inspector has requested a detailed plan outlining the drum consolidation program proposed for the Terra Mine and how the contaminated soil near the drum consolidation would be dealt with.

Table 3: Summary of 2010 to 2014 Water Licence Annual Reports

Year	Water Use (m ³) and Source	SNP Sampling	Discharges (m ³)
2010	74 – Great Bear Lake	Y	4 (greywater)
2011	48 – Great Bear Lake	Y	15.7 (process water)
2012	--	Not Required	--
2013	9.5 – Camsell River	Not Required	--
2014	0.6 – Camsell River	Not Required	--
Total	132.1 (WL usage for Phase I = 11,650)		19.7

2.3 Waste Management

The current licence Part D, Item 16 states that:

Within thirty (30) days, the Licensee shall design and submit to the SLWB a Domestic Waste Management Plan which contains the following:

- a) A detailed list of waste management and disposal plans
- b) A list of expected waste types and quantities to be shipped off-site
- c) Treatment, testing and disposal methods for all waste products to be transported off-site

A Waste Management Plan (WMP) was never provided to the Board for the Phase I activities. This renewal application was deemed complete on the understanding that a WMP would be submitted to the Board for approval prior to commencement of site activities.³⁴ The Draft Terms and Conditions have been updated accordingly.

2.4 Monitoring

The S09D-001/S09L8-001 [Staff Report 3](#) provides a summary of the proposed water quality monitoring to be conducted at the GBL sites. The renewal application indicates that "Monitoring will be used to determine whether the remedial strategies implemented have been successful and allow us to make modifications to ensure that the environment is being protected. A proposed Water Quality Monitoring Plan is attached and can be found in Appendix G". Appendix G includes a proposed Long-Term Monitoring Program and State of the Environment Program (both post remediation) as well as Construction Monitoring Program but has not been updated since the 2009 submission and as such does not include details specific to Sawmill Bay. The Construction

³² SLWB Online Registry, AANDC-CARD, [Sawmill Bay Drum Removal Program Report](#), December 2014.

³³ SLWB Online Registry: [S09D-001 – Inspection Report – June 26-15 – July 14 15](#).

³⁴ SLWB Online Registry: [S15L8-001 – Application deemed complete – May 27, 2015](#)

Monitoring proposes Baseline (i.e. pre-remediation annual sampling to tracking the overall quality of the receiving environment for all sites, e.g. inactive/care and maintenance sites) and Activity (Remediation) monitoring on a monthly basis at various sites while activities are ongoing. Reports submitted to date to the Board by CARD have not included results of this monitoring, including those reporting the Phase I activities.

CARD has clarified that the monitoring plans for Phase I are included the Sawmill Bay Remedial Action Plan, submitted to the Board in 2010. Board staff have confirmed that the Completion Reports do not include water quality monitoring results. CARD has further clarified that during the 2009-2015 period, pre-remediation water quality monitoring was performed at Contact Lake, El Bonanza, and Silver Bear Sites. Other related studies performed during this period included: Influence of bacteria on the stability, speciation and mobility of arsenic in sediments at Terra Mine (2010/11); site specific target levels for arsenic in the Terra Mine wetland (2014); Mass balance and flux estimates for arsenic loading to Ho Hum Lake and Camsell River from the Terra Mine (2015). The Board did not have a record of these reports.

In 2015/16, CARD will undertake follow-up monitoring at the Terra Mine Site and a desktop review of all water quality monitoring studies from Great Bear Lake Sites dating back to 2002. Upon completion of the review, CARD will submit a revised Water Quality Monitoring Program which will include a schedule for pre-remediation monitoring, updated monitoring requirements for Sawmill Bay and will identify sites for inclusion into the Surveillance Network Program. The revised plan will be submitted to the Board upon completion.

2.5 Process Requirements

Licence Start Date: July 26, 2010

Licence Expiry Date: July 25, 2015

Renewal Application Received: May 25, 2015

Renewal Application Deemed Complete: May 27, 2015

7 Year Renewal Expiry Date: July 25, 2022

Renewal Application Forwarded for Review: May 27, 2015

Number of Review Agencies: 28

Review Period End Date: June 17, 2015

A Type B Water Licence is required for the following activities: water use that exceeds 100 m³ per day; the deposit of waste; the alteration and restoration of shorelines, wetlands and drainage courses and building overland access on the Leith Peninsula.

3. Comments

3.1 Permission of Land Owner

The eligibility of the applicant to apply for the Water Licence is under Section 18(b)(i) of the Mackenzie Valley Land Use Regulations because the Government of Canada has a right to occupy the land under the *Sahtu Dene and Métis Comprehensive Land Claim Agreement* Section 21.3.1 (Government Access), and will contract to have the land use operation carried out. The Water use and Waste disposal requirements requested in the renewal application are associated with Crown activities to remediate contaminated sites on Crown Lands (i.e. excluded lands) in the NWT.

3.2 Community Consultation

The requirement for submission of an Engagement Plan has been adopted by the Land and Water Boards since the current WL was issued. CARD's application to the Board included an Engagement Plan. The Engagement Plan was distributed for review as part of the application package for Water Licence Renewal on May 27, 2015. No reviewers commented on the Plan.

Previous staff reports have summarized the extensive engagement activities associated with this project which have included capacity building (i.e. training and Science Camps), Traditional Knowledge studies as well as Leadership and Community meetings. The project had also established a Community Liaison Coordinator position based in Deline.

Community engagement has been updated since the last Staff Report (S09L8-001 #3, July 10, 2010 and S09D-001 Staff Report #4) as a detailed [Engagement Log/Record](#) was provided with the application that has been summarized in Table 4. On February 14, 2012, CARD notified stakeholders that the GBL project had been put on hold and it was uncertain if the project would go ahead. The Community Liaison position was cancelled March 2012 and has not yet been re-instated. All engagement was put on hold until 2014/15, when the renewal process was initiated. CARD provided written notification of the request for WL renewal to affected parties on May 13, 2015. Leadership consultation related to the WL renewal began April 2015 and CARD was in Deline on June 24, 2015 to update Leadership on the WL application. Additional information is provided in Section 4 of this report. The Engagement Log includes information regarding engagement efforts to support the Denison Winter Road LUP application (e.g. Tlichó focused) which have not been included in Table 4.

Table 4: Summary of Sahtu focused Meetings and correspondence since July 2010

Meeting Date and location	Meeting Purpose – Items Discussed
<p><u>November 4 & 5, 2010</u>, Yellowknife</p> <p>Attendees: CARD, AANDC-Implementation, DFN, DLC, DRRC, and Deline Community members</p>	<p>Information Sharing - provide an update on Phase 1 Activities and 2011 plans</p> <ul style="list-style-type: none"> • Deline Land Corporation and Deline First Nation raise environmental and human health concerns with practices on site. • CARD provided an update of monitoring work complete in 2009 and indicate a State of the Environment Report expected in 2012. • Action items taken away by CARD for 2011 planning.
<p><u>January 11 & 12, 2011</u>, Deline</p> <p>Attendees: CARD, PWGSC, Deline Leadership, AEL, Consultants</p>	<p>GBL Oversight Committee Start up meeting</p> <ul style="list-style-type: none"> • Update of Phase I activities, what done, what is left to be done and overview of Phase II <p>Public Meeting</p> <ul style="list-style-type: none"> • Overview of 2010 work and opportunities for 2011 • Concerns raised about garbage dumped in the water and whether there is contamination that could negatively impact permafrost
<p><u>April 6, 2011</u>, Letter to Deline and Tlichó Leadership</p>	<p>Update of remediation project timeline for Phase II and Indore/Hottah Lake Sites.</p> <ul style="list-style-type: none"> • Notice of use of right of access to the portion of winter road route (Denison Ice Road) – Tlichó lands
<p><u>February 14, 2012</u>, Deline</p> <p>Attendees,</p>	<p>Project Update Phase I, Denison Winter Road Land Use Permit concerns</p> <ul style="list-style-type: none"> • Notification that Phase II and III of project would not being going

CARD, PWGCS, Consultants, Deline Leadership	<p>ahead</p> <ul style="list-style-type: none"> • Discussion of TEK study proposed by DFN on Denison Winter Road Route and Science Camp. • AANDC notify that no additional meetings would be held in the community until the project starts up.
<u>March 31, 2012</u>	Final Deline Community Liaison Report
<u>July 29 to August 1, 2014</u> Capacity Building – GBL Site Inspection, Deline Representatives	<p>Representatives of DRRC conducted general assessment of site conditions while program is on hold.</p> <ul style="list-style-type: none"> • No AANDC participation noted
<u>March 16, 2015</u> , email Letter From CARD to Deline Leadership and SSI.	Meeting Request to provide update on status of program
<u>April 22, 2015</u> , email Letter From CARD to Deline Leadership and SSI	Update to Deline Leadership of CARD intention to apply for WL and LUP – notification required
<u>May 15 and May 21, 2015</u> , email From CARD to DRRC	Determine interest from Community in potential barrel program at Terra Mine Site
<u>May 26, 2015</u> , Yellowknife Attendees, CARD and SSI	<p>Information Sharing</p> <ul style="list-style-type: none"> • Update on Sahtu Region Contaminated Sites for Waste Sites Management Committee (Devolution Working Group)
<u>May 24, 2015</u> , Deline Attendees, CARD, Deline Leadership, DLC, DRRC, DFN	<p>Information Sharing</p> <ul style="list-style-type: none"> • Update on GBL remediation project and Port Radium monitoring Program • Update on SLWB LUP and WL process

Board staff have completed a conformity check of the Engagement Plan and Record against the Board's *Engagement and Consultation Policy* (the Policy) and the *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits* (the Guidelines). As a result of this conformity check, Board staff has included comments and recommendations for improvement of CARD's Engagement Plan.

The Policy defines an Engagement Plan as "a forward-looking document that details times and approaches to engagement with the appropriate affected party over the life of the authorization or, for larger authorizations, over the life of the project. It should reflect the scope, scale, and context of the project" (p.11). The Policy provides an assessment tool (Appendix B), to assist the Board in its review of engagement records and engagement plans. While engagement records and plans for individual projects will be assessed for completion using this assessment tool in the future, it can also be used to ensure the necessary details are included in all engagement plans. Board staff has used this assessment tool as a starting point for assessment of the Engagement Plan.

Table 5: Conformity Table, Assessment of Engagement Plan (The Policy, Appendix B)

Engagement Criteria	How AANDC-CARD's Engagement Plan satisfies these requirements:
Who was engaged	The Engagement Plan has not provided a comprehensive list of all the appropriate Aboriginal organizations, governments, and other

	stakeholders/affected parties who are primary contacts for engagement activities (p.4).
Timing of Engagement	CARD has re-established dialogue that has been on hold since 2012, in preparation of the current submission. The Plan emphasizes past engagement efforts and includes an Engagement Record that outlines the frequency of past engagement and timing of engagement (p.4-5). The Plan does not have plans for engagement beyond 2015/16.
Achieved Results	The Plan highlights past successes and the Engagement Record documents concerns and related follow up. CARD has demonstrated responsibility and reasonableness with appropriate disclosure. It is unclear what the path forward would be as there are no commitments made.

- Board staff recommends that Version 2 of the Engagement Plan includes an engagement contact list for all affected parties/stakeholders.

In addition to the Policy assessment tool, the Engagement Guidelines outlines six (6) components that an Engagement Plan must satisfy in order to be considered complete. Board staff has conducted a conformity check to ensure the Plan satisfies these requirements.

Table 6: Conformity Table, Engagement Guidelines Requirements

Engagement Plan Must Have's:	How AANDC-CARD's Engagement Plan satisfies these requirements:
1. Describe the goals and methods of engagement;	CARD has not identified goals or methods for future engagement. CARD has previously used Board recommended approaches (written notification, face-to-face meetings, and community public meetings) in its engagement with affected/stakeholders.
2. Outline a frequency of engagement that allows for relevant and timely information sharing;	CARD has not outlined a frequency for engagement.
3. Establish a process that allows the affected party to raise concerns on issues;	CARD has not identified a process for communicating concerns and issues, although issues are clearly documented in the Record.
4. Allow opportunities for, when appropriate, community meetings to take place to be inclusive of perspectives from all sectors of the community, including women, youth, and Elders;	CARD has provided examples of their past approaches to community involvement. CARD has identified the Deline First Nation (DFN), Deline Land Corporation (DLC) and Deline Renewable Resources Council (DRRC) as primary contacts in their engagement processes.
5. Ensure the proponent has procedures in place to understand and respond to issues as they arise; and	CARD's Plan does not identify a dispute resolution processes which can be utilized, should there be a breakdown in the engagement process. Reference to established dispute resolution processes should be added to the Plan.
6. Provide the opportunity for	CARD's Plan does not demonstrate proactive

relationships to be built proactively, not just when issues occur.	engagement efforts.
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- Board staff recommends that Version 2 of the Engagement Plan satisfies the Board’s Engagement Guidelines “must-have” requirements (The Engagement Guidelines, p.13).
- Board staff recommends that Version 2.0 of the Engagement Plan includes a “triggers” table to satisfy the Board’s Engagement Guidelines.
- Board staff recommends that Version 2.0 of the Engagement Plan describe the dispute resolution process in place to provide timely responses to issues that may arise.
- Board staff recommends that Version 2 of the Engagement Plan utilizes Board recommended Engagement Plan Template provided in Appendix F of the Engagement Guidelines (p.26).

3.3 Traditional Environmental Knowledge

Extensive Traditional Environmental Knowledge (TEK) has been collected in support of the development of the GBL Remediation Program (i.e. Remedial Action Plans) and has been summarized in previous Staff Reports. Table 7 provides a list of reports that have been recorded in the Engagement Record or previously received by the Board and not included in past staff reports. No additional TEK was submitted with the renewal application.

Table 7: Traditional Knowledge Studies submitted since July 2010.

Report Submission to Board	Report Title and Summary
September 26, 2011 Deline First Nation & Deline First Nation Knowledge Project	Deline Remediation Zone Mapping Project <ul style="list-style-type: none"> • Follow up from 2009 Traditional Knowledge mapping project, verifying placename spellings around Great Bear Lake. • During 2010-11, more in-depth mapping project focused in the ‘remediation zone’ where abandoned mines are located. • The project included educational, skill-building and research elements, gave rise to a comprehensive understanding of historical, ecological and cultural aspects of the Remediation Zone landscape.
May 21, 2013 – MVLWB	Denison Ice Road - Tlicho Traditional Knowledge Study : Oral narratives of environmental and cultural information of Tlicho knowledge and heritage information of the area along the Denison Winter Road alignment.
January 13, 2015 – MVLWB	Denison Road – Traditional Knowledge Study (Deline) Submitted as part of MVLWB LUP application follow up requirements <ul style="list-style-type: none"> • Based on Deline Remediation Zone Mapping Project with additional focus group work held in Deline on March 29 and 30th, 2012. Report was endorsed (approved by DRRC and DFN) on June 18, 2013.

The Deline Remediation Zone Mapping Project Report was received by the Board on September 26, 2011. Additional focus group work was held on March 29 and 30th, 2012 to extend the ‘remediation zone’ to include the Denison Winter Road transportation route.³⁵ The focus group meetings are

³⁵ WLWB Online Registry: MV2011E0007 – AANDC-CARD – Denison Road Traditional Knowledge Study – January 13, 2015. pg. ii.

listed as part of the past capacity building initiatives in the Engagement Plan (DFN, 2011/12, Amendment 12) but are not included in the [Engagement Log](#), nor was the 2011 Remediation Zone Mapping Project. The application provides a list of studies complete but does not seem to be comprehensive as neither of the reports in Table 7 are listed, nor is the Sawmill Bay study submitted in 2010 to support the current Water Licence and Land Use Permit approval process.

During the CARD meeting in Deline on June 24, 2015, it was requested that addition TK Study be conducted on the Denison Winter Road as Deline does not feel that they were engaged to talk about the road and that more site specific information (i.e., caribou impacts, etc.) is needed.³⁶ CARD committed to review the request as part of the project planning for 2016/17 and/or if progress in made on the Denison Winter Road application.

3.4 Potential Environmental Impacts and Mitigation Measures

No changes have been made to potential environmental impact and mitigation measures by the request for a renewal of the Water Licence.

3.5 Preliminary Environmental Screening

CARD has requested that the Board consider the Water Licence renewal application exempt from a Preliminary Screening pursuant to Part 1(2) of Schedule 1 of the Exemption List Regulations of the *Mackenzie Valley Resource Management Act* (MVRMA) as there have been no modifications to the scope of work since the [July 13, 2010 Preliminary Screening](#) was complete by the Board at the time the current licence was issued.

This application does not require a Preliminary Screening under terms of the MVRMA Exemption List Regulations, Schedule 1, Part 1, Section 2, due to the following points:

(a) has not been modified; and

(b) has fulfilled the requirements of the environmental assessment process established by the MVRMA.

The Board has reviewed CARD's application to confirm that the scope of work has not been modified. The Board did not receive any comments or recommendations regarding this request during the public review of the application. Board staff are of the opinion that the application meets the requirements to be exempt from a Preliminary Screening.

3.6 Conformity with Land Use Plan

At the time the current Water Licence (S09L8-001) was issued the Sahtu Land Use Plan (SLUP) had not yet been approved and therefore conformity with the plan was unable to be determined. The SLUP was adopted by the Sahtu Land Use Planning Board (SLUPB) in April 2013 and received approval and came into effect on August 8, 2013. The proposed project is wholly within the Great Bear Lake Watershed Special Management Zone (23). The Zone description is provided in Appendix 1 of the SLUP.

³⁶ SLWB Online Registry: AANDC-CARD, [Deline Engagement Meeting Minutes](#) – June 24, 2015, pg. 8.

Section 2.5 (Plan Exemptions), Part D (Application to Land Uses that are a Legacy of Decisions Before the Approval of the Plan) of the SLUP states that:

The *MVRMA* and *SDMCLCA* provide for land use plans to be implemented by authorizations and dispositions and do not give land use plans retroactive effect.

Accordingly, a land use that has been authorized when the Plan is approved may be undertaken or continued despite any nonconformity with the Plan until the authorization or disposition on which it depends expires or becomes eligible for renewal or amendment. From that date forward the Plan applies to the land use to the extent provided below.

The Definition of legacy land uses include Section 2.5, Part D, Item 1.2 which states:

Land uses for which authorizations are required in order to exercise rights created by or pursuant to a disposition of interests or entitlement that were issued by the Crown or a district land corporation prior to the Plan coming into effect, including, but not limited to, the following interests or entitlements:

1.2.15 (Federal) Surface land lease, easement or reserve, or licence of occupation for a purpose related to the use.

Legacy land uses are further defined in Item 1.5 which states:

Land uses identified in 1.1 – 1.4 for which renewals or extensions of authorizations have been granted or are pending, provided that the application for renewal or extension was submitted prior to the expiry date.

As per Part 3, Section 61(1) of the *MVRMA*, the Board may not issue, amend, or renew a licence or permit or authorization except in accordance with the applicable land use plan under Part 2. In consideration of best practices (due diligence) and because the exemption list does not clearly identify cleanup and reclamation activities, which are exempt from CR#1, Board staff have required the Proponent demonstrate how the project meets the appropriate SLUP conformity requirements. Further, the renewal of the Water Licence, although without a change in the type or location of development, does include an amendment request of the Terms and Conditions and has therefore been determined required to need to meet conformity with the SLUP.

Table 8 outlines how these requirements are being addressed as presented by CARD with review by Board staff. Under evaluation by the SLWB staff, it appears the project conforms to the SLUP and therefore Board staff do not recommend referral to the SLUPB for a conformity determination as set out in Section 47. The SLWB has met the requirements as per Section 46 of the *MVRMA*.

Table 8: GBL Remediation – SLUP Conformity Requirements

Conformity Requirement	Application Section(s)	Supporting Evidence	Board Staff Review
General Conformity Requirement			
CR#1 – Land Use Zoning	N/A	Proposed land use is not prohibited within the project area. Furthermore, the application is exempt from	Confirmed, Activities related to the cleanup and reclamation of contaminated sites or historical industrial sites are exempt from

		CR#1 as per S 2.5 of the Plan, as it is related to: F) cleanup of contaminated sites	CR#1
CR#2 – Community Engagement and Traditional Knowledge	9, 12, and Appendix E	Community Engagement and Traditional Knowledge studies have been carried out and documented in the Engagement Plan and Log as per the Water Licence Application submission.	<ul style="list-style-type: none"> Confirmed, details discussed in Section 3.2 and 3.3 of this Staff Report Section 12 of Application (Studies Undertaken) provides list of completed TK and Traditional Environmental Knowledge studies
CR#3 – Community Benefits	3 (personnel), 9, Appendix E and Annex (RAPs)	Project contracts have demonstrated Aboriginal Opportunities Considerations (AOC), and continued commitment to Aboriginal employment and training	<ul style="list-style-type: none"> Confirmed, details discussed in Section 3.2, 3.3 and 2.2 of this Staff Report Proposed project addresses community concerns, includes economic benefits, training and capacity building, carrying out TK studies and documenting Elders knowledge for archival purposes. Onsite Community Representative for Phase I activities
CR#4 – Archaeological Sites and Burial Sites	12, (Studies Undertaken) and Appendix I	Prince of Wales Northern Heritage Centre was engaged. A burial site was documented and GPS coordinates were taken.	<ul style="list-style-type: none"> The current LUP (S09D-001) includes condition (10.1) which does not specify that no activity should occur within 500m of burial site which would be consistent with the SLUP. LUP extension (2 yrs) was deemed a legacy use. Section 12 identifies that site is located near Sawmill Bay. Draft WL Part I, Item 7 states: The Licensee shall not operate any machinery within 150 m of any suspected or known historical or archaeological site or 500 m of a burial ground.
CR#5 – Watershed Management	4 and Appendix I	Remediation activities are not anticipated to have significant impacts on water bodies. Project objective is to decrease the potential influx of deleterious substances to the adjacent water bodies.	<ul style="list-style-type: none"> Confirmed, Section 4 is description of undertaking, which includes restoration of wetland at Terra Mine Ho Hum Lake Tailings Containment Area and restoration of natural drainage at Northrim Mine. Appendix I includes proposed mitigation measures for winter road and barge activities. Appendix G includes a proposed Water Quality Monitoring Program which will be revised in 2015 and submitted to the Board with consideration of additional to SNP
CR#6 – Drinking Water	4 and Appendix J (Camp	Drinking water will comply with Canadian Drinking Water	<ul style="list-style-type: none"> Confirmed, the land use activity is

	Facilities)	quality guidelines.	<p>not directly within a community catchment however the GBL watershed is considered a drinking water source catchment for Deline.</p> <ul style="list-style-type: none"> • The potentially affected community has been engaged, baseline water quality has been collected prior to start of activities with additional water quality testing to monitor potential impacts proposed in Appendix G. • Effluent testing is required as part of the SNP. • Activities will mitigate existing environmental and human health concerns at the abandoned mine sites.
CR#7 – Fish and Wildlife	10, Annex (RAPs), Appendix I and J	Project activities are not anticipated to impact fish or wildlife species. Camps to be established on impacted areas). Project to benefit wildlife by removal of deleterious substances.	<ul style="list-style-type: none"> • Confirmed, details discussed in Section 2.2 of this Staff Report. • Phase I activities included development of a wildlife response plan that addressed potential encounters and minimizing impact to wildlife. • Wildlife monitors onsite for duration of work documenting wildlife sightings. • EC review comment (ID 8) provides CARD with most recent list of COSEWIC and SARA listed species which CARD will review and develop appropriate mitigation and monitoring plans in consultation with appropriate authorities if encountered at the sites. • Onsite Community Representatives for duration of Phase I remediation activities. • Standard WL conditions applied for water withdrawal and setbacks from ordinary high water mark. • Draft WL Part I, Item I states: The Licensee shall not move any equipment when one or more caribou are within five hundred (500) metres.
CR#8 – Species Introductions	N/A	Introduction of non-native vegetation or animal species is unlikely to occur.	Confirmed, no intentional introduction of non-native species will occur.
CR#9 – Sensitive Species and	N/A	Program to take place within disturbed areas, unlikely to impact sensitive species.	Confirmed, see comment regarding EC review comment ID 8

Features			
CR#10 – Permafrost	N/A	Project activities unlikely to have impacts on Permafrost. The sites are in an area of discontinuous permafrost.	Uncertain
CR#11 – Project-Specific Monitoring	10, Appendix G and SLWB Reviewer comment ID #1	There is ongoing water quality monitoring conducted at Terra Mine.	Appendix G will be updated in 2015 and submitted for Board approval and consideration of additional sites to the WL SNP.
CR#12 – Financial Security	N/A	Federal Agency, exempt from security post	Confirmed. Pursuant to Section 94 (Exemptions) of the <i>Mackenzie Valley Resource Management Act</i> , CARD is exempt from posting security.
CR#13 – Closure and Remediation	A and Annex (RAPs)	The Closure and Reclamation Plan was developing in conjunction with community engagement.	Confirmed, list of RAPs provided in Section 12 and available on the SLWB online registry.
Special Management Conformity Requirements			
CR#14 – Protection of Special Values	4	AANDC is aware of the importance of the Great Bear Lake and Mackenzie River and will protect, respect and take into account its values	Confirmed, the purpose of the GBL project is to restore and remediate the abandoned sites to their original states as much as possible which will have an overall positive effect on the environment and contribute to protecting the health of Great Bear Lake, its watershed and animals.
CR#15 – The Great Bear Lake Watershed	4, 10, Appendix E and Appendix G	The community of Deline has been engaged as described in the engagement plan in Appendix D. The intent of the remediation project is to restore and protect the surrounding watershed. A site specific monitoring program has been provided in Appendix G.	Confirmed
CR#16 Fish Farming and Aquaculture	N/A	N/A	Confirmed
CR#17 – Disturbance of Lakebed	4 and 10	There are minimal environmental impacts expected during excavation of docks and dock walls. Potential impacts associated with suspended sediment will be mitigated through the use of sediment curtains in all areas where shoreline work is being performed.	Appendix I
CR#18 – Uses of Du K’ets’Edi Conservation Zone (Sentinel Islands)	N/A	Not applicable, project not within the Sentinel Islands.	Confirmed

CR#19 – Water Withdrawal	N/A	Not applicable, water withdrawal is not occurring from Lac Belot, Stewart Lake or Tate Lake	Confirmed
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3.7 Draft Licence

A Draft Water Licence S15L8-001 with Terms and Conditions has been prepared in consideration of the amend request (Attachment 3 & 4).

4. Other Agency Comments

The Water Licence renewal request was distributed to 28 review organizations with the Land Use Permit extension request package (S09D-001) requesting a reply by June 17, 2015. Review comments were received from the Deline Land Corporation and Deline First Nation, Government of Northwest Territories – Environment and Natural Resources (GNWT-ENR), AANDC-Resource Management Officer (Land Use Inspector) and Environment Canada. Proponent Responses were received June 24, 2015.

Deline Land Corporation & Deline First Nation

The Deline Land Corporation submitted a letter to the Board, jointly with the Deline First Nation, regarding the CARD WL renewal on June 17. The letter acknowledges that little activity had been made on the remediation file since 2012 and that the DFN and DLC were looking forward to renewed interest in the project (Attachment 6).³⁷ The letter also highlighted:

- We have a number of parties that have interest in these processes, starting with the most affected, the community of Deline, then the Tlicho communities of Gameti and Whati;
- There are issues that the affected parties are presently facing with the land claims that shadow the environmental protection processes and needs some attention; and
- In the interest of all parties, bringing forward information and bringing together the people will foster a better framework to put in place for these regulatory processes which falls to a Water Licence Public Hearing in Deline.

CARD responded to the comment on June 24, 2015 providing a summary of the project scope, noting that because the Great Bear Lake remediation project is a complex, large scale project, it is anticipated to take at least five (5) years to complete and it exceeds the current Federal Contaminated Sites Action Plan (FSCAP) funding years. CARD indicated that to prevent jeopardizing the project that they are looking into options to secure funding for the entire Project. CARD stated they are committed to keeping the Deline Land Corporation, the Deline First Nation and the SLWB up to date as new developments arise and indicated that the Project team would be going to Deline on June 24, 2015 to provide Leadership an update on the GBL Water Licence renewal application, the Land Use Permit extension as well as a project update on Port Radium.

Board staff requested CARD provide the Board with an update from the Deline Leadership meeting that included an overview of concerns raised, highlighting any that remained unresolved with anticipated follow up. CARD provided the SLWB with the minutes from the June 24, 2015 meeting on July 20, 2015 with an updated Engagement Log on July 21, 2015. The minutes outline CARD's

³⁷ SLWB Online Registry: [S15L8-001 – Review Comment – DLC DFN – Jun-17 15](#).

meeting objectives and outcome expectations which included sharing information on the project status, discussing Leadership concerns expressed in the Water Licence review letter, and to establish a dialogue on how to most effectively engage on project information and maintain a positive working relationship with the Community.³⁸

Board staff acknowledge CARD's response to concerns raised by DFN and DLC and suggest further engagement is needed. The current Engagement Plan does not provide 'triggers' or schedule for future engagement activities.

Environment Canada

- EC noted that the renewal application indicates that waterless toilets will be used and recommended that toilet wastes not be incinerated
- EC recommended that if the use of incinerating toilets is used that AANDC-CARD provide proof that the incinerator is designed for incinerating sewage and should provide stack testing results demonstrating that the incinerator can achieve the Canada Wide Standards for Dioxins and Furans.

CARD responded that the application included a request to amend Part D, items 8 to 11, of the WL to support the use of pit latrines or waterless toilets for short duration satellite camps when project operations are anticipated to be at or below twenty (20) individuals per site (i.e. at or below threshold for Type B WL). CARD reiterated that the preferred option is Incinolet or Pacto type units for sewage waste when in close proximity to surface water and that the Contractor(s) retained for the remediation work would be responsible for the design of the project specific Waste Management Plan, including sewage disposal, that will be required to comply with federal, and territorial laws, codes and regulations before submission to the Board for approval prior to the commencement of site activities.

Board staff suggest that this recommendation is addressed in the requirement that a Waste Management Plan be submitted in advance of commencement of site activities for Board approval. The Draft WL Part D, Item 3 states that the Licencee shall operation in accordance with the Waste Management Plan, once approved.

- EC recommended that the Spill Contingency Plan (SPC) be updated to include the appropriate EC emergency contact information.

CARD responded on June 24, 2015 that the SPC will be updated and would include contact information of the National Emergencies Centre (NEEC) for any technical and scientific assistance as recommended.

CARD provided commitment to implement the additional five EC recommendations related to migratory birds and Species at Risk as documented in the attached Review Comment Table.

GNWT – ENR

The Department of Environment and Natural Resources reviewed the application and has no comments or recommendations for consideration by the Board at this time.

³⁸ SLWB Online Registry: AANDC-CARD, [Deline Meeting Minutes and follow up letter](#), 24 June 2015, pg. 3

AANDC – Land Use Inspector

A Late Comment was received recommending that dated contact information be included in the Spill Contingency Plan and that other documents be updated to reflect the changes that have occurred since devolution.

AANDC-CARD responded that the Spill Contingency Plan will be updated and will communicate to the contractor the updated contact information for the AANDC Site Inspector.

5. Conclusion

Board staff recommend that the Board grant a two-year Water Licence with Terms and Conditions as per subsection 26(6) of the *Mackenzie Valley Land Use Regulations*. There has been a lack of follow up on commitments made during the 2009/10 application process. For example, the proposed Water Quality Monitoring Plan (WQMP) for the Site was not implemented. More effort could have gone into updating the application in consideration of the request for a 7 year WL and there has been an increasing trend of documented concerns at the Sites. This project is a priority for the region and the Sites are classified as Class 1: high priority within the [Federal Contaminated Site Action Plan](#) (FCSAP) program. Comparable Sites (i.e. Colomac Remediation, [W2014L8-0003](#) – Post Remediation Phase and [W2009L8-0003](#) – Remediation Phase) have extensive SNP requirements that more accurately reflect the scope provided in the WQMP. As noted in Section 2.2 above, the current SNP applies only when effluent is discharged and thus is not currently monitoring the Site conditions.

CARD has identified that the required authorizations must be in place before proceeding to contract procurement. Funding has not been secured and CARD has suggested that if this window is missed it may be another 5 years before Phase II/III could be eligible for funding again. Not issuing the Licence for the full term requested may put the project in jeopardy.

Based on past activities summarized in Section 2.2 of this Report, a yearly amount of 100m³ is proposed (maximum used in 2010 was 74 m³) as the water treatment and recycling process efficiently reduced the amount of water needed to wash over 2000 drums (48 m³ was used for camp and drum washing activities in 2011). It is unlikely the proposed 2015/16 activities would require more than 100 m³. As the Phase II activities are anticipated to take upwards of 3 years to complete, all reference to the associated water use, including the transportation route access, has been removed from the conditions of the Licence.

Board staff recommend the Board:

- Not approve CARD's Engagement Plan as it does not meet the basic requirements of the Board's Engagement Guidelines.
- Not approve the Spill Contingency Plan and require an updated version be submitted to the Board for approval before commencement of site activities.
- Require CARD submit a Waste Management Plan for Board approval prior to commencement of site activities as committed by CARD.
- Require submission of an updated Water Quality Monitoring Plan within 180 days of issuance with evaluation of sites to include in the SNP monitoring for both construction, and care and maintenance phases of the Project.
- Amend the SNP to include 2 locations at the water intake for Great Bear Lake and Camsell River.

- Require submission of updates to the Remedial Action Plans, with revised timelines and reflecting the work complete since 2009.
- Support the proposed approach for 2015 and require CARD consider in its evaluation of water quality monitoring results obtained since 2002, implementing the State of the Environment Program which was proposed in the WQMP to occur every 5 years, post-remediation.

Board staff recommend the Board directs CARD to take consideration of the lessons learned during the Phase I activities, in combination with the planned additional water quality monitoring results and review, and submit for the Phase II and III water use and waste disposal needs of the GBL project when applying for the LUP renewal.

6. Recommendation

Board staff recommend that the Board grant a two-year Water Licence with Terms and Conditions as per subsection 26(6) of the *Mackenzie Valley Land Use Regulations*.

7. Reference Material Attached

1. Map of Mineral Tenure in Great Bear Lake Remediation Area
2. Email from SLWB and WLWB on behalf of MVLWB, January 20, 2015
3. Amendment Request
4. ORS Review Comment Summary Table
5. CARD Response to SLWB regarding GBL Schedule and Denison Application
6. DFN/DLC Comment Letter June 4, 2015
7. GNWT-ENR No Comment Letter
8. CARD Minutes Deline Leadership Meeting June 24, 2015
9. Draft Exemption from Preliminary Screening Letter
10. Draft Water Licence
11. Draft Issuance Letter
12. Draft Reasons for Decision

Respectfully submitted,



Sabrina Sturman
Regulatory Specialist

Executive Director Comments:



Paul Dixon
Executive Director