



August 17, 2017

File: MV2016L8-0004 & MV2016X0013

Mr. Carey Ogilvie
Department of Indian Affairs and Northern Development
Contaminants and Remediation Division
PO Box 1500
YELLOWKNIFE NT X1A 2R3

Email: Carey.Ogilvie@aandc-aadnc.gc.ca

Dear Mr. Ogilvie:

**Revised and Final Waste Management Plan – Version 11 – Approval
DIAND-CARD – Bullmoose-Ruth Remediation Project**

The Mackenzie Valley Land and Water Board (MVLWB or the Board) met on August 17, 2017 and reviewed your Waste Management Plan, Version 11, which was submitted to satisfy Part F, item 3 of Water Licence MV2016L8-0004 on July 10, 2017. In response to Reviewer comments, DIAND-CARD submitted a revised and final version (11) of the Waste Management Plan.

The Board hereby approves the Waste Management Plan, Version 11, as submitted on August 3, 2017.

This revised version of the Waste Management Plan will replace the Waste Management Plan, Version 5, which was previously approved by the Board on an interim basis under Land Use Permit MV2016X0013.

In response to concerns regarding the contractor's understanding of authorization and management plan requirements, the Board requires DIAND-CARD to submit, for the record, a report to show that the contractors working on-site have a clear understanding of the Land Use Permit and Water Licence authorizations, including the updated Waste Management Plan – Version 11. This should include a thorough description of how all site management issues, identified by the Inspector on May 23, 2017 have been addressed and what measures the contractors have put in place to ensure the same issues are not repeated. This report should be provided **by September 5, 2017**. If more time is required, please notify Board staff as soon as possible.

If you have any questions or concerns, please contact Julian Morse at (867) 766-7453 or email jmorse@mvlwb.com.

Yours sincerely,



Mavis Cli-Michaud
MVLWB, Chair

Copied to: Distribution List

Attached: Review Summary Table

Review Comment Table

Board:	MVLWB
Review Item:	INAC-CARD - Bullmoose-Ruth Remediation Project - Waste Management Plan, Version 11 (MV2016X0013 MV2016L8-0004)
File(s):	MV2016L8-0004 MV2016X0013
Proponent:	INAC - Contaminants and Remediation Directorate
Document(s):	Waste Management Plan Version 11 (26.3MB)
Item For Review Distributed On:	July 17 at 16:55 Distribution List
Reviewer Comments Due By:	July 31, 2017
Proponent Responses Due By:	Aug 3, 2017
Item Description:	<p>Indigenous and Northern Affairs Canada - Contaminants and Remediation Division has submitted a revised version of their Waste Management Plan (the Plan) required by Land Use Permit MV2016X0013 (the Permit) and Water Licence MV2016L8-0004. Revision of this Plan was required in accordance with the directive issued by the Mackenzie Valley Land and Water Board (the Board) in their June 7, 2017 Decision, which can be viewed at this link: http://registry.mvlwb.ca/Documents/MV2016L8-0004/MV2016X0013%20%20MV2016L8-0004%20-%20DIAND-CARD%20-%20Bullmoose%20-%20Denial%20-%20Waste%20Management%20Plan%20V10%20-%20Jun7-17.pdf</p> <p>The Plan has received interim approval under the Permit, but was determined by the Board to be insufficient to satisfy the requirements of the Licence. The Plan has therefore been re-submitted in accordance with the Board's direction.</p> <p>Reviewers are invited to submit questions, comments, and recommendations on this Plan using the Online Review System (ORS) by the review comment deadline specified below.</p> <p>All documents that have been uploaded to this review are also available on our public registry. If you have any questions or comments about the ORS or this review, please contact Board staff identified below.</p>
General Reviewer Information:	<p>This review item has also been distributed by fax to the following organizations:</p> <p>Fort Resolution Métis Council Trudy King (867)394-3322; Fieldworker.frmc53@northwestel.net;</p> <p>Hay River Metis Council Trevor Beck President (867)874-4472;</p>

	hrmc@northwestel.net; NWT Metis Nation Tim Heron NWTMN IMA Coordinator (867)872-3586; rcc.nwtmn@northwestel.net;
Contact Information:	Jen Potten 867-766-7468 Kierney Leach 867-766-7470

Comment Summary

INAC - Contaminants and Remediation Directorate (Proponent)				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	General File	Comment (doc) Cover Letter to Waste Management Plan, Aug 3 2017 Recommendation		Noted.
2	General File	Comment (doc) Waste Management Plan, 3 Aug 2017 Recommendation		Noted.
Environment and Climate Change Canada: Emily Nichol				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	General	Comment ECCC has reviewed in accordance with its mandate and has no comments at this time. Recommendation Not applicable.	Aug 3: INAC-CARD appreciates your review of the document.	N/A
Fisheries and Oceans Canada: Marek Janowicz				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	General Comment	Comment General Recommendation Fisheries and Oceans Canada has reviewed the document(s) in accordance with its mandate and has no comments at this time.	Aug 3: INAC-CARD appreciates your review of the document.	N/A
GNWT - ENR: Central Email GNWT				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
10	General File	Comment (doc) ENR Letter with Comments and Recommendations Recommendation		N/A
1	Topic 1: Deficiency Conformance Table	Comment The Board has rejected the previous version of the Plan and had provided a table outlining the inadequacy of revisions directed to INAC-CARD from the January 26, 2017, Directive (Table 1 of MVLWB's June 7, 2017 Reason For Decision). As stated by the Board, the numerous	Aug 3: INAC-CARD will submit a cover letter with the revised WMP that includes a conformance table	DIAND-CARD's Cover Letter is acknowledged. In addition, DIAND-CARD should submit

		<p>issues identified in the Plan, and the recent site management issues by the contractor, demonstrates a level misunderstanding by the authors of the requirements of the Plan and the directives by the Board. The most recent plan does not provide adequate clarity on how and where these issues have been fully resolved or addressed. For example, a deficiency conformance table in a cover letter or within the introductory paragraphs of the report would provide the reviewers a clear understanding that the contractor comprehends the issue and would direct the reader to where in the document the plan has been updated to address the issue.</p> <p>Recommendation 1) It is recommended that INAC-CARD should submit either a revised plan, or an addendum, with a conformance table identifying how and where in the report recommendations from Table 1 of MVLWB's June 7, 2017 Reason for Decision have been addressed.</p>	<p>identifying where the deficiencies that were noted in the MVLWB's June 7 2017 Reasons for Decision have been met by the Plan.</p>	<p>a report to show that the contractors working on-site have a clear understanding of the requirements of the Land Use Permit and Water Licence, including the updated Waste Management Plan. This should include a thorough description of how all site management issues, identified by the Inspector on May 23, 2017 have been addressed and what measures the contractors have put in place to ensure the same issues are not repeated.</p>
2	<p>Topic 2: Acronyms and Definitions</p>	<p>Comment In the earlier Plan review (Version 10) ENR had noted confusion in the plans from various uses of the terms "Inspector" and "Departmental Representative". For clarity and consistency, these terms should be defined in the Acronyms and Definitions table.</p>	<p>Aug 3: The Acronyms and Definitions Table will be updated.</p>	<p>Noted. Adequate response.</p>

		Recommendation 1) INAC-CARD should update the Acronyms and Definitions Table section to include the terms "Inspector" and "Departmental Representative".		
3	Topic 3: Process Water and Contact Water Treatment	<p>Comment Section 2.1.5 of the Plan states that all process water and contact water "will be treated using the Water Treatment System for Contaminated Contact Water as needed". However, it appears the Water Treatment System is only capable of oil/water separation. There are no details in this section of the Plan on how contact water, such as portal water with high metal concentrations, will be treated or handled. ENR understands some of this contact water may not be treated as described in Section 3.3 of the Plan, but it is not clear to the reader the purpose of using the Water Treatment Plant and Water Treatment System for the treating wastewater. The capabilities of the treatment system should be clarified, and reference to the treatment of wastewater that cannot be treated by the treatment system should be removed.</p> <p>Recommendation 1) It is recommended INAC-CARD update the plan with the specifications and capabilities of the Water Treatment Plant and Water Treatment System in order to allow the assessment of applicability of the systems for treating the wastewater.</p>	<p>Aug 3: Section 2.1.5 of the Plan states "The Water Treatment System for Contaminated Contact Water is capable of oil/water separation". This is not to say that the system is only capable of oil/water separation, but that hydrocarbon-contaminated water may be treated by the mobile system along with domestic wastewater and sewage. This section will be revised for clarity. Section 2.1.5 states that "...portal and trench water, which does not require treatment ... will be deposited directly into soakaway sumps" and provides a reference to Section 3.3 of the plan wherein the operational considerations for soakaway sumps are described. The selected remedial option for portal water is natural monitored</p>	<p>DIAND-CARD should ideally provide more information, as requested by GNWT with the specifications and capabilities of the Water Treatment Plant and Water Treatment System in order to allow the assessment of applicability of the systems for treating the wastewater. That said, as long as any discharge waters meet the criteria required by the Licence and reflected in the WMP, there should be no issues with the discharge of impacted or contact water.</p> <p>Part F, item 23 requires: If any of the EQCs as listed in Part F, items</p>

			<p>attenuation. Portal water will be monitored during construction monitoring and long-term monitoring until remedial objectives are achieved. Contaminated water from trenches and mine openings will be discharged directly to soakaway sumps. Contaminated water that contains PHCs will be treated on site, tested after treatment against discharge criteria, either retreated or stored while disposal options are considered and then transported for disposal/discharged to soakaway sumps (if criteria are met). All wastewater discharged to sumps will be tested prior to discharge to confirm effluent criteria as set out in Part F, Item 21 of the License has been met. Section 3.3 will be revised for clarity.</p>	<p>17, 19, and 21 are exceeded, the Licensee shall cease all Discharge from or to that specific SNP station, shall notify the Board and an Inspector, and shall take the necessary corrective action to mitigate the exceedance, as outlined in the Construction and Post-Construction Monitoring Plans referred to in Part F, items 7 and 8, to the satisfaction of an Inspector immediately.</p>
4	None	<p>Comment None Recommendation 2) INAC-CARD should clarify how non-PHC contact water and wastewater will be treated to meet EQC and protect the environment.</p>	<p>Aug 3: See above.</p>	<p>As above.</p>

5	Topic 4: Sump Waters	<p>Comment Section 3.3 of the Plan states that sump waters (including grey and black water, contact water and process water) will be "discharge to the environment upon approval from the Departmental Representative". While this section of the Plan states that treated wastewater may only be discharged once it meets discharge criteria, it does not clearly state that any wastewater should not be discharged to the environment unless it meets EQC. The vagueness of this section could allow for the release of non-treated wastewater without regulatory approval, which is prohibited in the Water Licence; furthermore, this section should describe in detail the discharge requirements of the Water Licence, specifically EQC's for discharges of wastewater (Part F - Conditions 21, 22 and 23).</p> <p>Recommendation 1) It is recommended INAC-CARD update the plan to clearly state that no wastewater may be discharged to the environment unless it meets EQCs contained in the Water Licence (Part F - Condition 21).</p>	<p>Aug 3: EQC's for Discharge listed under Part F, Items 21-23 of the License will be met prior to the discharge of any wastewater into soakaway sumps. Treatment options include onsite treatment in the Wastewater Treatment Plant/System and storage in tanks until transported off-site or otherwise treated. Section 3.3 states, "Treated wastewater that upon testing does not meet discharge criteria will be stored until such time as it can be re-treated and discharged (once discharge criteria are met), or additional treatment options will be explored and implemented if required." Section will be revised to be clear that the EQC in the License are in fact the discharge criteria referred to in the quoted text.</p>	Adequate response.
6	None	<p>Comment None</p> <p>Recommendation 2) Section 3.3 of the Plan should be updated to include a list, or a reference, of the discharge criteria set in the Water Licence.</p>	<p>Aug 3: See above.</p>	Adequate response.

7	Topic 5: 2.1.3 Hazardous Waste	<p>Comment INAC CARD has been registered as a generator of hazardous waste in the Northwest Territories (NWT) as "NTG051" according to the Guideline for the General Management of Hazardous Waste in the NWT . The Guideline for the General Management of Hazardous Waste in the NWT defines hazardous waste and outlines the roles and responsibilities of generators, carriers, and receivers of hazardous waste in the NWT. ENR, Environment Division (ED) registers generators, carriers, receivers, and tracks the disposal of hazardous waste generated in the NWT to authorized receiving facilities on hazardous waste movement documents (manifest). The application indicates hazardous waste will be managed in accordance with the Transportation of Dangerous Goods Act (TDGA). The TDGA does outline transport safety requirements; however the cradle to grave tracking system (within Canada) is administered by the provinces and territories throughout Canada and utilizes the hazardous waste movement document. The Waste Management Plan also indicates that a certificate of disposal will be forwarded to authorities having jurisdiction.</p> <p>Recommendation 1) It is recommended that INAC CARD specify in the Hazardous Waste Management Plan that the ultimate disposal of hazardous waste generated on-site, and transported off-site will be documented on hazardous waste movement documents from INAC CARD (NTG051) to suitably authorized receiving facilities according to the Guideline for the General Management of Hazardous Waste in the NWT.</p>	<p>Aug 3: INAC-CARD is committed to safe storage, packaging, and transport of hazardous waste materials located on-site, and will conform with all relevant guidance and legislation to ensure cradle-to-grave management. This includes guidance and legislation at both federal and territorial levels, including providing appropriate documentation to any Authorities-Having-Jurisdiction. Section 2.1.3 will be revised to reflect this commitment.</p>	Adequate response.
8	None	<p>Comment None</p> <p>Recommendation 2) It is recommended that INAC CARD specify in the Hazardous Waste Management Plan that a copy of each hazardous waste movement document will be forwarded to the Environment Division of the Department of Environment and Natural Resources.</p>	<p>Aug 3: See above.</p>	Adequate response.
9	Topic 6: Hazardous Waste Guidelines	<p>Comment The Waste Management Plan also identifies asbestos and lead paint waste as waste types that will need to be managed. The waste management plan does not reference the Guideline for the Management of Waste Asbestos or the Guideline for the Management of</p>	<p>Aug 3: See above.</p>	Adequate response.

		Lead and Lead Paint along with other hazardous waste guidelines. Recommendation 1) It is recommended the Waste Management Plan reference the Guideline for the Management of Waste Asbestos or the Guideline for the Management of Lead and Lead Paint along with other applicable hazardous waste guidelines. All of ENR's hazardous waste guidelines can be found at the following website: http://www.enr.gov.nt.ca/en/services/guidelines .		
MVLWB: Shannon Allerston				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
2	GPS coordinates	Comment Maps have been included in Appendix G of the WMP (v.11) showing locations of waste management activities. GPS coordinates of the waste management sites remain outstanding. Recommendation Detailed geographic information for known or established waste management activities and historic waste management areas, as identified on maps in Appendix G should be provided in accordance with Licence requirements, the Board's Guidelines, and previous recommendation of GNWT-ENR.	Aug 3: A list of coordinates for major waste management activities has been added to Appendix G. INAC-CARD believes that the site plans and maps provided in the appendices are sufficiently detailed in providing geographic locations for all waste management activities and legacy waste areas.	Adequate response.