



**Mackenzie Valley Land and Water Board**  
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## **Technical Workshop – Summary Notes**

### **Gordon Lake Group Remediation Project – Indigenous and Northern Affairs Canada – Contaminants and Remediation Division (INAC-CARD) Water Licence and Land Use Permit Applications (MV2016L8-0006 – MV2016X0021)**

*These meeting notes attempt to provide a general summary of the meeting. Ideas expressed by participants are paraphrased and summarized; they are not reproduced here verbatim.*

#### **Date and Location:**

September 15, 2016 – 9:00 to 11:45 a.m.  
Mackenzie Valley Land and Water Board - Board Room  
(7th Floor, YK Centre)  
4922 48th St., Yellowknife, NT.

#### **Attendees:**

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Shin Shiga (NSMA)	Kierney Leach (MVLWB)
Rick Walbourne (GNWT-ENR)	Jen Potten (MVLWB)
Devin Penney (INAC)	Heather Scott (MVLWB)
Amy Allan (INAC)	Shannon Shaw (pHase Geochemistry, consultant for MVLWB)–on phone
Sam Kennedy (INAC)	Burl Joseph (PWGSC) – on phone
Alison Heslep (INAC)	Matthew McElwaine (PWGSC) – on phone
Mike Doucet (Stantec)	Heather Beck (GNWT) – on phone
David Wilson (Stantec)	

#### **INAC-CARD's [Presentation](#):**

- Presentation delivered by INAC-CARD's Gordon Lake Group Remediation Project Team and consultants. This presentation is available on the registry, and can be found by clicking the hyperlink above.
- This presentation outlined the site locations and a summary of each site, reviewed details of the proposed remediation program, provided remediation program updates, and discussed the pre, during and post remediation program.
- Some discussion during the presentation took place regarding the use of waste rock as backfill for mine openings.
- Additionally, a discussion on how water quality is to be monitored took place, given the removal of the Kidney Pond Portal Water Management System from the project scope.

## Round Table Discussion:

- A question was asked regarding water management for borrow pits, as in other projects, borrow pits have collected water that was very high in Total Suspended Solids (TSS).
  - Response: these topics will be addressed in the Sediment and Erosion Control Plan, as well as the Quarry Plan.
- A question was asked in regards to how waste rock has been categorized. It was discussed that static characterization along with a series of tests were carried out. A site specific approach was applied to look at down gradient conditions.
  - Question: Could moderate waste rock that is being used in the mine openings as backfill cause water contamination?
  - Answer: There is a potential for 'localized' contamination to this water, however this area is not in close proximity to surface water. Overtime, this would be less of an impact than leaving the moderate waste rock on the surface to become weathered and mobilize to surface waters. Additionally, it was discussed that these openings will be de-watered prior to waste rock placement.
- A question was asked about the Tailings and Soil Containment Area (TSCA) regarding monitoring for the water and how it will be controlled around the TSCA.
  - Response: It was discussed that down gradient monitoring will take place to look for any contaminant transport. Also, the design for drainage will look to remove energy from the flow (controlling the flows) so that the water does not enter the receiving water at too high of a velocity.
- A question was asked regarding the potential for tailings at Goodrock, given that there is mention of a mill on the site. The response was that no tailings were found on site. There was a discussion on the ARD potential of the tailings, and how the tailings were assessed to not have a high potential for ARD. The TSCA will be capped and covered, and the cover material from Burnt Island has been selected to best resist erosion.
  - Discussions also took place around how 'dry' and how 'saturated' certain tailings are (West Bay tailings are dry, whereas Treacy tailings are quite saturated) and how transferring the saturated tailings may be problematic, and they will have to be de-watered before transport. This is something the contractor will have to determine.
  - A question was asked about the potential for underflow or flow through any interaction of water at the base of the TSCA and WRSCA. It was discussed that waste rock and soil is being moved to higher elevation at Kidney Pond (WRSCA – Waste Rock and Soil Containment Area) then where it is currently, and that the base of these facilities (TSCA and WRSCA) are well below the active layer. Groundwater movement is not anticipated, however looking for developing seeps is a component of the monitoring program.
- The NSMA requested INAC clarify their approach to engagement and consultation with the NSMA. The response outlined that INAC's approach is how they have engaged thus far with the NSMA for the project. The NSMA committed to submitting a letter to the Board.
- A discussion took place regarding monitoring wells being installed for monitoring of the Landfarm, as well as how the Waste Management Plan and the Operations and Maintenance Plan will encompass the necessary information for the Landfarm. As the contractor has not yet been

determined, the placement of the Landfarm may change. A discussion on how this will affect the development of the draft Water Licence took place.

- As presented in INAC's presentation, the 'potential construction' of a Portal Water Management System at Kidney Pond described in the application has been removed from the Remediation program. Questions were asked regarding the rationale for removal, what the water levels and quality in that area are like, and potential risks involved from the water.
  - A response was provided including how the groundwater model found the regime did not develop a downstream gradient, and in fact it showed a cross gradient perpendicular to the Portal. Also, water sample results from the portal were below CCME guidelines for nearly all parameters. Further information regarding the results of this evaluation, including rationale for the removal of the Portal Water Management System, is to be provided.
  - INAC committed to submitting a memo to the Board regarding removal of this component from the project scope.