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Mr. Joseph Mackenzie, Chair
Wek'èezhìi Land and Water Board
Box 32
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5 April 2019

Re: Closure and Reclamation Plan Version 4.1 Submission Date – Supporting Information

Diavik Diamond Mines (2012) Inc. (DDMI) acknowledges receipt of your letter dated March 29, 2019 requesting additional information regarding DDMI's closure planning schedule in order to evaluate DDMI's extension request of March 7, 2019. DDMI provides the following as requested.

1. *Clearly identify what tasks remain to refine PKC water quality predictions, when each task will start, and when it will be completed. (Revision #8).*

DDMI expects to have refined estimates of Processed Kimberlite Containment (PKC) water quality by June 19, 2019. The field research work has been analyzed and consolidated into a format that can be used predictively. Work is currently underway to provide initial estimates of potential seepage/runoff volumes and quality. Tasks that will remain after June 19, 2019 relate to estimates of water quality in Lac de Gras that could result from the estimated PKC seepage/runoff. DDMI anticipates initial water quality estimates for Lac de Gras to be complete before December 19, 2019.

2. *Identify approximately when progressive reclamation of the PKC Facility will commence, with an explanation. (Revision #9).*

There are two possible initial progressive reclamation activities[1] based on the currently approved closure concept; 1) starting placement of the dust/erosion protection surface rock layer; and 2) dewatering of the facility. The PKC is an active facility and will continue to be active even if DDMI's application to allow processed kimberlite storage in mine workings is approved and implemented (Coarse Processed Kimberlite [CPK]-fraction is still expected to be sent to the PKC until the end of commercial production). The earliest DDMI anticipates any significant progressive reclamation activities at the PKC Facility is around 2023 and

[1] Ongoing aspects of PKC operations, such as deposition strategies and CPK:FPK ratios that have the ability to influence closure, are not included as progressive reclamation activities.

this early date is conditional on approval/implementation of operational PK deposition in mine workings.

3. *Include a schedule of major PKC Facility closure planning and implementation milestones, including at a minimum (not necessarily in this order) timelines for the following: a) Completion of each reclamation research task in the expanded Reclamation Research Plan (see Revision #10); b) Engagement; c) Submission of an updated PKC Facility interim CRP (or final CRP) for Board approval prior to starting progressive reclamation; d) Submission of Final Design Reports for PKC Closure Cover; e) Submission of final closure criteria for PKC Facility; f) A determination on whether PK slimes will be removed from the PKC Facility; g) Start of Progressive Reclamation; and h) Other Construction milestones for the PKC closure cover and spillway construction (Revision #13).*

Below is a high level closure planning schedule for the PKC with "X" noting milestones.

PKC Closure Planning Milestones[1]	2019	2020	2021	2022	2023	2024	2025
Reclamation Research (see Attachment 1)							
Engagement							
Updated PKC Facility Interim CRP			X				
Final Design Report for PKC Closure				X			
Final Closure Criteria for PKC			X				
Determination of whether slimes will be removed				X			
Start of cover construction (possible)					X		
Dewatering PKC Facility (earliest possible)					X		
Start of spillway construction (earliest possible)							X

Note 1 - preliminary and subject to change

4. *Provide a site-wide closure planning schedule that demonstrates that DDMI will complete all reclamation research and engagement to enable submission of a Final CRP in 2020 that meets the Board's expectations (as described in Decision F). (Revision #54)*

The current mine plan anticipates operations to be complete in 2025. DDMI has requested a Water License Amendment that includes an application to extend the Term of the License that would extend the date for submission of the Final CRP until 2022. DDMI anticipates a Final Closure and Reclamation Plan (CRP) submission by 2022 that will provide 3 years for review/approval before the end of commercial production in 2025. Assuming a Final CRP in 2022 the following is the expected high level closure planning schedule.

Closure Planning Task[1]	2019	2020	2021	2022	2023	2024	2025
Community Engagement							
TK Panel Meetings							
NCRP Progressive Reclamation							
Fish Habitat Construction (possible)							
Start preliminary PKC dewatering/ cover placement (possible)							
Reclamation Research							
Criteria Finalization							
Monitoring Finalization							
Preferred Closure Options Confirmed							
Final Component-Specific Closure Designs							
Final Closure Plan							

Note 1 - preliminary and subject to change

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Advancing closure criteria is an important part of CRP Version 4.1. Water quality criteria for closure form a significant part of this advancement. To advance this work DDMI has been required to expedite additional water quality modelling. Predictions of post-closure seepage/runoff water quality and expected resulting conditions in Lac de Gras is the predominant task to be completed which will enable material advancement of closure criteria. DDMI hopes to complete this work in 2019 pending competing demands from other regulatory processes. DDMI anticipates ongoing regulatory review and consideration of closure criteria with finalization expected by 2021 as shown above.

3. The Board would also like a more complete list of the revisions requiring additional time and a better understanding of the time sensitivity of each of those revision, for example whether the revisions are related to progressive reclamation or are early critical milestones. To achieve this, please fill in the table below:

Required Revision	***Tasks that cannot be completed by June 18, 2019***	***Time-sensitivity of the Revision***

DDMI has completed the requested table for the 54 required revisions and included this as Attachment #2.

Finally with regard to Security Adjustments, DDMI appreciates that an extension to CRP V4.1 will impact on updating the RECLAIM model as directed and as discussed with GNWT-ENR. DDMI acknowledges that this may complicate upcoming adjustments that will be requested by DDMI for work completed on the NCRP-WRSA. DDMI would request that the basis for the requested adjustment be considered as well as the amount of work completed/remaining. DDMI accepts that a delay in the actual adjustments to security amounts may be necessary until updates to the RECLAIM model have been completed.

We trust the information provided here provides the additional explanation requested in support of DDMI's extension request and demonstrates that granting an extension would not impact on DDMI's overall closure planning schedule. Please contact the undersigned if you have any questions.

Regards,

Gord Macdonald
Diavik Closure Manager

Attachments:

1. Outstanding Reclamation Research Tasks – Status and Expected Competion Dates

2. Assumed Time Sensitivity by Revison

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Attachment #1

Outstanding Items from CRP V4 - Appenidx VIII-1. Research plan tracking table.

Research Area	Topic	Scope	Status and Expected Completion Date
1. TK Panel and Community Engagment	1.1 Wildlife	1.1.2 More detailed discussions with members from each of the Aboriginal organizations to obtain more specific recommendations on preferred options and where/how to best incorporate these recommendations in the final closure design, while still taking into account technical considerations.	On-going. TK/IQ Panel discussions continue to evolve on this topic and community updates should provide further insight into each Aboriginal organization's preferences. Expected completion by 2025.
		1.1.3 DDMI hopes to discuss these topics in community-based workshops and with the TK Panel.	On-going. TK/IQ Panel discussions continue to evolve on this topic and community updates should provide further insight into each Aboriginal organization's preferences. Expected completion by 2025.
	1.2 Re-Vegetation	1.2.3 DDMI hopes to discuss these topics in community-based workshops and with the TK Panel.	Ongoing. DDMI is working with PA organizations to arrange community visits where the results of past TK Panel session will be shared. Expected completion in 2019.
	1.3 Closure Model	1.3.2 DDMI will assess the technical feasibility and material availability to meet Aboriginal organizations recommendations for key landforms. A model that best represents the final look of the land will be constructed and shared with each of the Aboriginal organizations to obtain any further feedback.	Ongoing. Target completion 2019 pending material changes to closure options.
		1.3.3 DDMI hopes to discuss the models in community-based workshops and with the TK/IQ Panel.	Ongoing. Target completion 2019 pending material changes to closure options.
	1.4 Engagment	1.4.2 Formalize community engagement protocols with each of the Aboriginal organizations.	Ongoing. Expected completion in 2025.
2. Pit/Underground	2.4 Revised Predictions	2.4 Beyond 2013 the anticipated tasks relate to applying the results of reclamation research to update predictions of flooded pit water quality using the established mathematical modelling framework. The model is also expected to be used to evaluate the effect of different fill rates on flooded pit water quality and effects of post-closure groundwater flows on flooded pit water quality.	Modelling has advanced through the Water License Amendment process. Expected completion in 2020.

Research Area	Topic	Scope	Status and Expected Completion Date
	2.5 Risk Assessment	2.5 Predicted water quality conditions would then be used as the basis for a screening level risk assessment to determine if the predicted water quality is expected to pose an unacceptable risk to aquatic life. Outcomes from the assessment could include revisions to closure criteria, identification of additional research tasks and/or the need for a more detailed risk assessment (See Appendix VIII Introduction).	No unacceptable risks to aquatic life have been identified to date. Expected completion in 2020.
4. PKC	4.2 Geochemistry	4.2.1 Annual or semi-annual sample collection from surviving/accessible piezometers (as accessible) to monitor changes to pore water chemistry and identify any potential elements of concern.	On-going. Expected completion in 2019.
		4.2.2 Pore water chemistry trend analysis and interpretation; to identify any changes in pore water chemistry over time and identify any potential elements of concern.	On-going. Expected completion in 2019.
		4.2.3 Laboratory and/or small scale field leaching experiments to monitor accelerated and in situ weathering of FPK and the resultant water quality.	On-going. Expected completion in 2019.
		4.2.4 Pore water chemistry modelling based on pore water chemistry trends, and laboratory experiments and/or small-scale field experiments that may include predictive/reactive transport modelling.	Preliminary estimates complete. Expected completion in 2019.
		4.2.5 A screening level risk assessment using available PKC pond monitoring (SNP 1645-16) information, pore water chemistry information, and laboratory and/or field experiment preliminary results to estimate possible outlet seepage water quality. This risk assessment will identify parameters of potential concern and may help focus characterization of sources (e.g. pore water, beach runoff) or processes (e.g. freezing, oxidation) governing the concentrations in the outlet and seepage water.	Preliminary estimates complete. Expected completion in 2019.
	4.3 Water quality criteria	4.3.1 A screening level risk assessment will be completed based on initial estimates of probable ranges of outlet water quality and quantity. Water quality criteria from Appendix V, Table V7 will be used as the basis for screening. Areas where exposure concentrations will be estimated include streams and or inland lakes along any seepage pathway and areas of Lac de Gras.	Assessment to be conducted using water quality models with initial results expected in 2019.
		4.3.2 Update water quality criteria, if required	Criteria to be updated based on water quality modelling results. Expected completion in 2019.
	4.4 Final Evaluation	4.4.1 Thermal modelling including modelling of climate change scenario.	Not started. Pending decision on preferred closure option. Expected completion in 2021.
		4.4.2 Hydrological modelling.	Not started. Pending decision on preferred closure option. Expected completion in 2021.
		4.4.3 Predictions of seepage and outlet water quality.	Not started. Pending decision on preferred closure option. Expected completion in 2021.

Research Area	Topic	Scope	Status and Expected Completion Date
		4.4.4 Conduct and document detailed level risk assessment, if required.	Not started. Pending decision on preferred closure option. Expected completion in 2021.
		4.4.5 Update closure criteria.	Not started. Pending decision on preferred closure option. Expected completion in 2021.
6. Infrastructure	6.1 Re-vegetation	6.1.6 Finalize specific procedures for site-wide re-vegetation	Ongoing with expected completion in 2021.
	6.2 Contaminated Soil	6.2.2 Finalize procedures for management/disposal of hydrocarbon contaminated material.	Ongoing with expected completion in 2021.

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Attachment #2

Revision Number	Description	Task that cannot be completed by June 18, 2019	Time sensitivity of the Revision
1.	DDMI is to add only those aspects of the WRSA CRP into interim CRP Version 4.1 that require revision, and refer the reader to the approved WRSA Interim CRP Version 1.2 to read the main body of the plan.	• None	Not time sensitive as contents have been reviewed/approved.
2.	Add a description of a monitoring program that will demonstrate that closure criteria for physical stability have been met, and provide a rationale for DDMI's selected resolution in consideration of GNWT-ENR comment 11.	• None	Not time sensitive as monitoring programs will need to be finalized in the future with Final Component-Specific Designs.
3.	Include the following information related to A154/418 Type I rock disposed in the WRSA and used in construction on-site (laydown pads, roads, etc.): a) An assessment of the post-closure risk posed by poor quality seepage/runoff from A154/A418 Type I rock; b) An assessment of closure options for this material (regardless of DDMI's assessment in 3a), including consolidation of A154/418 Type I rock used in construction on-site followed by placement of cover made from A21 rock or other material, passive water treatment, and other any options identified by DDMI; and c) DDMI's preferred closure activity for A154/418 Type I rock, with rationale.	• Water quality modelling needs to be advanced to assess post closure risk. • Options need to be developed, costed and evaluated • DDMI expects to be able to complete these tasks before December, 2019.	Moderate time sensitivity as there is a general need to understand acceptability of post-closure runoff/seepage water quality so that preferred closure options can confirmed by 2021.
4.	Add to the Traditional Knowledge and Community Participation Reclamation Research Plan a commitment to continue working with elders, the TK Panel, and communities to ensure the surface of the WRSA is safe for caribou and other wildlife, and add "till placement on caribous ramps" to the contingency section of the WRSA CRP.	• None	Not time sensitive as this is ongoing work.

5.	Clarify whether restoration of nesting habitat suitability (as identified in the CSR) will occur and if so where (e.g., WRSA). If not, discuss whether this contradicts the statements in the CSR.	• None	Not time sensitive as this is a final landscape design detail.
6.	Include a discussion on the results of engagement on WRSA revegetation.	• Community engagements may not be complete so results may not be available in June 2019. • DDMI expects to be able to complete these engagements before December, 2019.	Not time sensitive as progressive reclamation activities are focused on cover construction for the next several years..
7.	Update PKC Facility seepage and outlet predictions using all information that is currently available (including consideration of PKC interception well water monitoring results). To support these predictions, summarize the results of all research related to PKC water quality predictions and explain how the results were used to predict post-closure water quality. Compare the predictions to proposed closure criteria to provide context.	• Water quality modelling needs to be advanced to assess how seepage will impact water quality in Lac de Gras • DDMI expects to be able to complete this work before December, 2019.	Moderate time sensitivity as there is a general need to understand acceptability of post-closure runoff/seepage water quality so that preferred closure options can confirmed by 2021.
8.	Clearly identify what tasks remain to refine water quality predictions, when each task will start, and when it will be completed.	• Documentation of methods • DDMI expects to be able to complete this work before December, 2019.	Moderate time sensitivity as there is a general need to understand acceptability of post-closure runoff/seepage water quality so that preferred closure options can be confirmed by 2021.
9.	Identify the approximate timeline progressive reclamation of the PKC Facility will commence in, with rationale, and ensure this timeline is identified in a consistent manner throughout Version 4.1 of the interim CRP.	• none	This information has been requested immediately so it is highly time sensitive in the opinion of the WLWB presumably to ensure that closure designs are understood before progressive reclamation starts. The PKC is an active facility until the end of commercial production so no substantive progressive reclamation is possible before around 2023 at the earliest.
10.	Expand the PKC Facility reclamation research plan to address the uncertainties identified in section 5.2.6.6 of interim CRP Version 4.0, the trials and studies identified in section 11.0 of Appendix X-5, and outstanding issues identified	• none	The revision is not time sensitive however some of the identified task are and they have progressed, are complete or are planned. The most time sensitive planned studies relate to field investigation this summer to confirm physical properties of PK slimes and delineate the extent. This

	in Table 1 (as necessary).		information is time sensitive so that it can be used to inform closure design options.
11.	Clarify whether removal of PK slimes will remain as a contingency if DDMI obtains approval to place PK underground, or become the selected closure activity.	• none	Not time sensitive as the decision is currently within the regulatory system and a decision is not expected until 2020.
12.	Compare the PKC reclamation research required for a wet facility vs a dry facility, noting any overlap in research areas.	• none	Not time sensitive as the current emphasis is on first obtaining the necessary approvals to potentially enable a dry facility at closure.
13.	Include a schedule of major PKC Facility closure planning and implementation milestones, including at a minimum (not necessarily in this order) timelines for the following: i) Completion of each reclamation research task in the expanded Reclamation Research Plan (see Revision #10); j) Engagement; k) Submission of an updated PKC Facility interim CRP (or final CRP) for Board approval prior to starting progressive reclamation; l) Submission of Final Design Reports for PKC Closure Cover; m) Submission of final closure criteria for PKC Facility; n) A determination on whether PK slimes will be removed from the PKC Facility; o) Start of Progressive Reclamation; and p) Other Construction milestones for the PKC closure cover and spillway construction.	• none	This information has been requested immediately so it is highly time sensitive in the opinion of the WLWB.
14.	Include a risk/failure analysis for the PKC closure plan or identify when this will be submitted such that it can verify the PKC selected closure activity, in which case the task should be added to the Reclamation Research Plan. Alternately, DDMI can provide a rationale for why this is not needed until the design	• none	This information is not time sensitive as DDMI anticipates it to form part of the final design process.

	phase.		
15.	Identify where geotextile will be used under the rock cover. If geotextile will not be used over all fine processed kimberlite, provide a rationale.	• none	This information is not time sensitive as DDMI anticipates it to form part of the final design process. CRP V4.1 will describe generally where the geotextile is anticipated for the currently approved closure design
16.	Provide additional information on pond characteristics (size, depth, etc.) and evaluate whether these characteristics could pose a significant risk to wildlife, or identify when DDMI will provide this information. Include in the PKC Facility Reclamation Research Plan if appropriate.	• none	The information is not time sensitive as these considerations will form part of the design process. While engineering design and assessment work will be conducted if this closure design option is advanced DDMI has not identified a specific requirement for a Reclamation Research Plan.
17.	Provide a summary of results from the monitoring and inspection of PKC seepage to the WRSA, and discuss the concerns raised by the GNWT-ENR (comment 26).	• none	This information has a low time sensitivity as it is being provided as background/context for consideration in future design option analysis.
18.	Identify that routing of water from the PKC to Lac de Gras is an outstanding issue and discuss how and when it will be resolved. Include in the Reclamation Research Plan if appropriate. Describe whether there is aquatic life in the path from the PKC Facility to Lac de Gras.	• none	This information has a low time sensitivity as it is being provided as background/context for consideration in future design option analysis. DDMI has not identified a need for a Reclamation Research Plan related to this revision.
19.	Assess the effects of pond size on water quality or discuss how and when DDMI will perform this task. Include in the Reclamation Research Plan if appropriate.	• Water quality modelling • DDMI expects to be able to complete this work before December, 2019.	DDMI has identified post-closure water quality modelling as a time sensitive item however specific consideration of pond size will form part of the design option analysis. DDMI has not identified a need for a Reclamation Research Plan related to this revision.
20.	In order to confirm that the PKC pond will be maintained in the long-term and fine PK will not be exposed, revisit the water balance for the PKC Facility or identify how and when DDMI will perform this task. Include in the Reclamation Research Plan if appropriate.	• Thermal modelling • Seepage analysis • DDMI expects to be able to complete these tasks to support confirmation of preferred closure option by 2021.	DDMI has identified the ability to maintain a pond in the long-term as a key uncertainty with the current closure design. These engineering analyses will for part of options analysis DDMI will conduct to confirm a preferred closure option for the PKC. This is currently scheduled to be complete in 2021 so has a moderate time sensitivity. DDMI has not identified a need for a Reclamation Research Plan related to this revision.
21.	Add a literature review on natural degradation of hydrocarbons in north inlet sediments to the North Inlet Reclamation Research Plan.	• none	This information has some time sensitivity as reviewers and DDMI are interested in finalizing a plan for the North Inlet however no progressive reclamation is possible so the

			information is not truly time sensitive.
22.	Incorporate the results of engagement required by Engagement Requirement #2 and include a more detailed rationale for DDMI's selected closure option and why it rejected the other options in the Golder evaluation.	• Engagement • DDMI expects to be able to complete this engagement before December, 2019.	This information has some time sensitivity as reviewers and DDMI are interested in finalizing a plan for the North Inlet however no progressive reclamation is possible so the information is not truly time sensitive.
23.	Based on the results of the engagement required by Engagement Requirement #2, provide a rationale for the proposed timing of the final sediment investigation(s).	• engagement results • DDMI expects to be able to complete this engagement before December, 2019.	This information has some time sensitivity as reviewers and DDMI are interested in finalizing a plan for the North Inlet however no progressive reclamation is possible so the information is not truly time sensitive.
24.	Include a summary of the study design for the North Inlet Sediment Investigation in the North Inlet Reclamation Research Plan.	• None	DDMI is not aware of any time sensitivity around this item as the study implementation is not imminent and the study will follow previously approved designs.
25.	Provide DDMI's assessment (including cost-benefit analysis) of the pros and cons of off-site disposal of hydrocarbon-contaminated soil compared to on-site disposal, report on the results of engagement required by Engagement Requirement #3, and provide DDMI's preferred option with rationale.	• Engagement results • DDMI expects to be able to complete this engagement before December, 2019.	This information has some time sensitivity as reviewers and DDMI are interested in finalizing a plan for the North Inlet however no progressive reclamation is possible so the information is not truly time sensitive.
26.	Add a discussion about the possibility that other parties may wish the airstrip to be retained, a statement that DDMI is willing to participate in discussions with government and other interested parties to assess the fate of the airstrip, and a plan and approximate schedule for resolving this issue.	• none	DDMI is not aware of any time sensitivity with regard to this information.
27.	Include a more thorough and transparent discussion about the process used for determining which parameters will have closure criteria.	• Water quality modelling • DDMI expects to be able to complete this work before December, 2019.	DDMI, reviewers and the WLWB are all interested in advancing closure criteria so we believe the time sensitivity for this information is moderate.
28.	Provide complete, up-to-date predictions of post-closure chemical concentrations (for all components and site-wide) and provide a clear and transparent explanation about how they were derived, the level of uncertainty, and if/how they will be refined through time.	• Water quality modelling • DDMI expects to be able to complete this work before December, 2019.	DDMI, reviewers and the WLWB are all interested in advancing closure criteria so we believe the time sensitivity for this information is moderate.

29.	Include a detailed description of its approach, with rationale, for demonstrating if/when the use of standard guidelines as closure criteria for chemical parameters are not appropriate/achievable. This approach must include a consideration and discussion of alternative closure options. DDMI must include tables comparing standard guidelines, closure concentration predictions, and the proposed SSRBCC to support this discussion.	• Water quality modelling • DDMI expects to be able to complete this work before December, 2019.	DDMI, reviewers and the WLWB are all interested in advancing closure criteria so we believe the time sensitivity for this information is moderate.
30.	Incorporate revisions to Version 4.1 of the interim CRP as outlined in Table 4.	• Water quality modelling • DDMI expects to be able to complete this work before December, 2019.	DDMI, reviewers and the WLWB are all interested in advancing closure criteria so we believe the time sensitivity for this information is moderate.
31.	For closure objective SW2: a) Refine and compile predictions for water quality in all streams entering Lac de Gras in consideration of the different sources (e.g., WRSA and PKC Facility) and possible dilution prior to entry into the lake; b) Follow the steps required by the Mixing Zone Guidelines (see Section 6.0) and provide evidence to demonstrate the smallest practicable mixing zone; c) Outline a plume delineation study plan and/or provide substantive information to refine the dilution factor; d) Revise closure criteria for SW2 based on the results of (a) through (c); e) Provide evidence to support the achievability of proposed closure criteria; and f) Include a consideration and discussion of alternative options to address potentially problematic parameters (e.g., different mixing zones, passive treatment, and changes to the proposed closure design).	• Water quality modelling • DDMI expects to be able to complete this work before December, 2019.	DDMI, reviewers and the WLWB are all interested in advancing closure criteria so we believe the time sensitivity for this information is moderate.

32.	Confirm that the proposed closure criteria for SW2 are below acute toxicity levels and include recommendations for how it will address parameters that show the potential to be acutely toxic.	• Water quality modelling • DDMI expects to be able to complete this work before December, 2019.	DDMI, reviewers and the WLWB are all interested in advancing closure criteria so we believe the time sensitivity for this information is moderate.
33.	Include in Appendix V of the interim CRP Version 4.1, a comprehensive table for surface runoff and seepage water quality that shows all the derived closure criteria, with a summary column that shows the one that is being selected for a given parameter	• Water quality modelling • DDMI expects to be able to complete this work before December, 2019.	DDMI, reviewers and the WLWB are all interested in advancing closure criteria so we believe the time sensitivity for this information is moderate.
34.	In Version 4.1 of the interim CRP, address the clarifications requested by EMAB (in the follow-up correspondence received by on EMAB comment 92) and clarify which closure criteria are being proposed for sediment quality.	• none	This information has some time sensitivity as reviewers and DDMI are interested in finalizing a plan for the North Inlet however no progressive reclamation is possible so the information is not truly time sensitive.
35.	a) For any criteria proposed as "Satisfactory final inspection by a professional engineer" or "As-built conforms adequately with approved design", propose additional specific (numeric and/or narrative) criteria. These criteria are SW6, SW11, M3, M5, W1, W2, W3, P2, P3, and NI6; and b) In preparing these criteria, DDMI must consider all reviewer recommendations regarding this issue (e.g., EMAB 43, 44, 45, 74, 78, 81, 86, 87, 93, 201, 202, and 212; GNWT-ENR comments 4, 10, and 11).	• none	DDMI, reviewers and the WLWB are all interested in advancing closure criteria so we believe the time sensitivity for this information is moderate.
36.	Estimate the length of time needed to demonstrate that each criteria has been met and ensure these timeframes match the monitoring period described in the CRP (e.g., Appendix VI-2 of the interim CRP Version 4.0).	• water quality modelling • DDMI expects to be able to complete this work before December, 2019.	DDMI is of the opinion that details of monitoring programs are currently not time sensitive.
	Identify the need to work with the TK Panel	• none	DDMI is of the opinion that details of monitoring programs are

37.	and communities on wildlife criteria and monitoring plans in the Traditional Knowledge and Community Participation Reclamation Research Plan.		currently not time sensitive.
38.	Report on the results of all completed tasks in the Infrastructure Area Reclamation Research Plan (RRP) and describe how the results impact criteria for closure objective SW10.	• none	Moderate time sensitivity to resolve closure criteria and in particular if there is a need for further consideration of SSRBCC.
39.	Add research task to the Traditional Knowledge and Community Participation Reclamation Research Plan to determine how to measure palatability of vegetation to wildlife with the aim of informing the closure criteria for closure objective SW4, in consideration of EMAB's comments (61-63 and 208-210).	• none	This work is to take place in the future so there is no urgency or time sensitivity to this revision.
40.	Include a map of the current footprint and indicate how much of an increase is represented by the maximum footprint (currently proposed as 13 km2) compared to the operational footprint, and how this relates to predictions during the environmental assessment.	• none	DDMI understands this information is for future context and as such does not expect it is currently time sensitive.
41.	Update this criterion so that it can measure the success of closure objective SW8 or present a schedule for acquiring the information necessary to propose a measurable criteria in the final CRP.	• none	Moderate time sensitivity to resolve closure criteria.
42.	Revise the closure criteria associated with SW9 to be more specific to the closure objective and explain how the criteria can be evaluated.	• none	Moderate time sensitivity to resolve closure criteria
43.	Apply a consistent approach with regards to handling/rounding significant figures in its derivation of closure criteria.	• Water quality modelling • DDMI expects to be able to complete this work before December, 2019.	Moderate time sensitivity to resolve closure criteria
44.	If there are any newly proposed cost adjustments beyond those required by the Board, provide thorough rationale for any	• Revised RECLAIM • DDMI expects to be able to complete this work before	DDMI understands the need to revise the current RECLAIM estimate and that all Parties would prefer that this be sooner rather than later. We do not understand this to be an urgent

	differences of opinion between the GNWT and DDMI (based on the results of engagement required by Engagement Requirement #7) on the security estimate for interim CRP Version 4.1.	December, 2019.	requirement so suggest it has a moderate time sensitivity.
45.	Increase monitoring periods in Appendix VI-2 to match the likely period of time required to demonstrate that criteria have been met. To achieve this, DDMI must: a) For each closure objective, estimate the length of time required to monitor in order demonstrate that the criteria have been met, with supporting rationale; and b) Update all relevant parts of interim CRP Version 4.1 to match the monitoring period, including section 5.5, the schedule in Figure 8-1, criteria in Appendix V, monitoring described in Appendix VI, etc.	• Revised RECLAIM • DDMI expects to be able to complete this work before December, 2019.	DDMI understands the need to revise the current RECLAIM estimate and that all Parties would prefer that this be sooner rather than later. We do not understand this to be an urgent requirement so suggest it has a moderate time sensitivity.
46.	Include an estimate of long-term water treatment in interim CRP Version 4.1. Until there is further discussion on the need for treatment and the appropriateness of including the estimate in the security deposit, DDMI does not need to include the estimate in the RECLAIM estimate.	• Completion of treatment plant scope/cost estimate. • DDMI expects to be able to complete this work before December, 2019.	DDMI understands that this is for context/background information and it is not to be included in the RECLAIM estimate. As such we expect this revision has a low time sensitivity.
47.	Based on the results of the engagement with the GNWT, improve the documentation submitted with the revised RECLAIM estimate for Version 4.1 of the interim CRP.	• Revised RECLAIM • DDMI expects to be able to complete this engagement before December, 2019.	DDMI understands the need to revise the current RECLAIM estimate and that all Parties would prefer that this be sooner rather than later. We do not understand this to be an urgent requirement so suggest it has a moderate time sensitivity.
48.	Include a statement of DDMI's commitment to work with the TK Panel to determine a suitable TK Closure Monitoring Plan and schedule.	• none	TK Closure Monitoring is an ongoing topic with the TK Panel and while important it has not been identified as time sensitive by the TK Panel or DDMI.
49.	Include the Traditional Knowledge and Community Engagement Plan as a reclamation research plan in Appendix VIII.	• none	This is not time sensitive as the 2019 TK Panel Meeting is already planned.

50.	Add a table (or tables) that shows, for each reclamation material, the predicted quantity available for closure (accounting for possible off-spec material), the estimated quantity required for each closure activity, and the amount remaining once all closure activities are complete.	• Material balance based on revised A21 material supply estimates. • DDMI expects to be able to update this work before December, 2019.	DDMI's has ongoing requirements for this information to assist with progressive reclamation planning however to date only the immediate requirements (2019) have been addressed. DDMI is not aware of a time sensitivity for the 2020 and beyond material balance.
51.	For each reclamation activity, identify the preferred contingency and significantly increase the level of detail for this contingency. Ensure all uncertainties associated with the preferred contingency are addressed.	• none	DDMI understands this information is for context/background in consideration during future design and/or design option analysis and as such has a low-moderate time sensitivity.
52.	Add the following text to Section 5.2.6.9: "If long-term active water treatment is required, long-term site presence would be required to maintain the collection system and operate the water treatment plant. Fuel would need to be supplied for power. DDMI (1999a) – Section 4.3.2 lists the chemicals that would need to be supplied over the long-term. These include lime, sulphide, polymer and coagulant. The sludges from long-term active water treatment will basically consist of fine PK particles, metal hydroxides and metal sulphides. These will come from the clarifier underflow and backwashes will be in the order of 1%. They would be pumped to the PKC facility for disposal (DDMI, 1999a)."	• none	This information is for completeness/clarity and as such has no time sensitivity.
53.	Add the following text to Section 5.2.5: "A cover will be placed over the Type III rock in the north PKC dam as noted in NCRP-WRSA Final Closure Plan V1.1 and included in Appendix X – North Country Rock Pile Closure Design Drawing 006 Detail 3."	• none	This information is for completeness/clarity and as such has no time sensitivity.
54.	Add a site-wide closure planning schedule that demonstrates that DDMI will complete all reclamation research and engagement that will enable submission of a Final CRP in 2020 that	• none	This revision is very time sensitive as the WLWB has requested this schedule immediately. DDMI has requested a License Amendment that includes an application to extend the Term of the License requiring a Final CRP in 2022. DDMI's

	meets the Board's expectations (as described in Decision F). The Reclamation Research Plans and the Research Status Tracking Table (Appendix VIII) should reflect that all research will be completed in time for final plan submission and should include detailed scopes of work for all remaining research tasks.		anticipates that a Final CRP submission by 2022 will allow 3 years for review/approval prior to the end of commercial production.