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May 23, 2023

File: W2020L8-0003

Rasel Hossain,
Senior Manager
Crown-Indigenous Relations and Northern Affairs Canada
Contaminants and Remediation Division
P.O. Box 1500 4923-52nd St
Yellowknife, Northwest Territories, X1A 2R3

Sent by email

Dear Rasel,

Re: Sediment and Erosion Control Plan, Version 2 – Approved with Revisions Required – Rayrock Remediation Project – Miscellaneous – Former Rayrock Mine, NT

The Wek'èezhì Land and Water Board (Board) met on May 18, 2023, and considered the Sediment and Erosion Control Plan (SECP), Version 2,¹ submitted by Crown-Indigenous Relations and Northern Affairs Canada – Contaminants and Remediation Division (CIRNAC-CARD) on March 15, 2023, as required by Water Licence (Licence) W2020L8-0003.

The Board has decided to approve the SECP, Version 2 and requires submission of Version 2.1 to the Board. Version 2.1 is to include the revisions outlined in the attached Reasons for Decision and should be prepared in accordance with the Land and Water Board's *Document Submission Standards*.

As described in the attached Reasons for Decision, until lower action levels are approved as part of Version 2.1 of the SECP, any exceedance of the TSS or turbidity guideline is to result in the temporary suspension of remedial work. Also as described in the attached Reasons for Decision, approval of Version 2.1 of the SECP is required prior to the commencement of draining of Mill Lake.

¹ See WLWB Online Registry (www.wlwb.ca) for [Rayrock - Sediment and Erosion Control Plan - Version 2.0 - Mar 30 23](#)

The Board would also like to communicate that it has some concerns about the dispersal of dust that could occur during blasting activities, particularly during windy conditions. To address this, the Board strongly recommends that CIRNAC-CARD have a Tłjchq monitor on site whenever blasting is taking place.

The details of the Board's decision are set out in the attached Reasons for Decision.

Please direct questions or concerns regarding this letter to Ryan Fequet in writing.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Mason Mantla', written in a cursive style.

Mason Mantla
Chair, Wek'èezhii Land and Water Board

BCC'd to: Rayrock Distribution List
 Tim Morton – Inspector, CIRNAC

Attached: Reasons for Decision



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Reasons for Decision

Reference/File Number:	W2020L8-0003 (Type A Water Licence)
Licensee:	Crown-Indigenous Relations and Northern Affairs Canada – Contaminants and Remediation Division (CIRNAC-CARD)
Subject:	Sediment and Erosion Control Plan (SECP), Version 2.0

Decision from the Wek'èezhì Land and Water Board Meeting of May 18, 2023

1.0 Decision

On May 18, 2023, the Wek'èezhì Land and Water Board (WLWB or the Board) considered Crown-Indigenous Relations and Northern Affairs Canada – Contaminants and Remediation Division's (CIRNAC-CARD) Sediment and Erosion Control Plan, Version 2.0.² In consideration of the submission, reviewer comments, and proponent responses, the Board has decided the following:

1. To approve Version 2 of the Sediment and Erosion Control Plan;
2. To require CIRNAC-CARD to submit Version 2.1 of the Sediment and Erosion Control Plan. Version 2.1 is to include Revisions #1 to 9;
3. Until lower action levels are approved as part of Version 2.1 of the Sediment and Erosion Control Plan, any exceedance of the TSS or turbidity guideline is to result in the temporary suspension of remedial work; and
4. Approval of Version 2.1 is required prior to the commencement of draining Mill Lake.

² See WLWB Online Registry (www.wlwb.ca) for [Rayrock - Sediment and Erosion Control Plan - Version 2.0 - Mar 30 23](#)

2.0 Background

On September 21, 2020, CIRNAC-CARD submitted Version 1 of the Sediment and Erosion Control Plan (SECP) along with its complete Type A Water Licence and Land Use Permit Applications (.³ Sediment and Erosion Control Plans are a type of management plan sometimes required as part of the Licences issued by the Board.

On November 18, 2021, Type A Water Licence W2020L8-0003 (the Licence) was issued, and Version 1 of the SECP was approved with a requirement to submit Version 2 of the SCP to the Board in accordance with Part E, Condition 6 as detailed in the Board's Reasons for Decision.⁴ Part E, Condition 6 states that:

A minimum of 90 days prior to the commencement of Construction activities (with the exception of winter road Construction), the Licensee shall submit to the Board for approval, a revised Sediment and Erosion Control Plan. The Plan shall be in accordance with Schedule 4, Condition 2. The Licensee shall not commence activities described in the Plan prior to Board approval of the Plan.

CIRNAC-CARD submitted Version 2 of the SECP on March 15, 2023 as it intends to commence construction activities in the Spring of 2023. Following conformity correspondence with Board staff, an updated submission was provided on March 30, 2023. The Plan was distributed for public review on April 3, 2023. Comments and recommendations were received by the deadline of April 24, 2023, by the Tłıchǫ Government (TG), the Government of Northwest Territories – Department of Environment and Natural Resources – Environmental Assessment and Monitoring (GNWT-ENR),⁵ Environment and Climate Change Canada (ECCC), and Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC). Proponent responses were submitted by the deadline of May 1, 2023. The review summary is available on the WLWB Online Review System (ORS).⁶

3.0 Reasons for Decision

The SECP was reviewed for conformity to Part E, Condition 6 and Schedule 4, Condition 2 of the Licence. All reviewer comments and proponent responses submitted during the public review period were also reviewed. Based on the review, the Board had decided to approve Version 2 of the SECP, with revisions required for Version 2.1.

- ***Decision # 1: The Board has approved Version 2 of the Sediment and Erosion Control Plan.***

- ***Decision #2: CIRNAC-CARD is to submit Version 2.1 of the Sediment and Erosion Control Plan. Version 2.1 should include Revisions #1 to 9.***

³ See WLWB Online Registry for [W2020L8-0003 - Rayrock - Spill Contingency Plan - Sept 21 20](#).

⁴ See WLWB Online Registry for [Rayrock - Licence and Permit - Reasons for Decision - Sep 30 21](#).

⁵ The GNWT Departments of Lands, and Department of Environment and Natural Resources were amalgamated into the Department of Environment and Climate Change on April 1, 2023. For cohesion with the wording on the Online Review System (ORS), Government of the Northwest Territories – Environment and Natural Resources – Environmental Assessment and Monitoring (GNWT-ENR) was used throughout these Reasons for Decision.

⁶ See WLWB Online Review System (ORS) for [Rayrock - Sediment and Erosion Control Plan Version 2.0](#).

The reasons for this decision are:

- Version 2 includes sediment and erosion management information associated with the Schedule 4, Condition 2 requirements;
- The Board is of the opinion that none of the comments received during the public review indicate that the submission should not be approved;
- Tłchq Government indicated its opinion that the SECP was acceptable as currently presented to commence construction (TG comment 1);
- As discussed throughout these Reasons for Decision, the outstanding issues and information gaps that have been identified through this public review can be addressed in Version 2.1. The gaps to be addressed in Version 2.1 either do not relate to imminent activities or can be addressed by direction related to steps that are to be implemented until Version 2.1 is approved. Thus, the Board is of the opinion that approval of Version 2.1 is not required for construction activities to commence; and
- Other revisions to be included in Version 2.1 relate to providing clarifying information.

3.1 Sediment and Erosion Control Measures

The SECP provides information on how CIRNAC-CARD will be managing potential sources of erosion at the Rayrock Mine. Reviewer comments and recommendations on sediment and erosion control measures for the Rayrock Remediation Project as a whole are discussed below in sections 3.1.1 to 3.1.3.

3.1.1 Dust control measures

As part of the activities on site, dust is expected to be produced and the proposed control measures to be implemented to mitigate the effects of dust are outlined in the SECP.

Reviewers commented that information on the types of chemical dust suppressants proposed to be used, besides calcium chloride, is incomplete and recommended details be provided with clarification on the benefits of the proposed suppressants (ECCC comment 2). CIRNAC-CARD responded that water is anticipated to be sufficient for dust suppression and proposed removing the use of chemical dust suppressants to reflect the Contractor's SECP (i.e., Appendix B); only water will be used for dust control (response to ECCC comment 2). Given that calcium chloride will not be used, the Board is of the opinion that the SECP should be revised to clarify that only water will be used for dust suppression.

- ***Revision #1: Version 2.1 of the SECP is to clarify that only water will be used for dust suppression.***

As some dust might be produced while conducting remediation work in areas with impacted materials and/or soils (i.e., excavation and stockpiling), reviewers also recommended additional information on control measures associated with this work (TG comment 34). In response, CIRNAC-CARD provided details on the dust monitoring and controls that will be implemented by the Contractor, and noted that with respect to the stockpiles, section 5.3 of the Quarry Management Plan (QMP) states that "all surfaces will

be kept moist to prevent excessive dust emissions." Version 1 of the QMP does explain that dust will be controlled with the use of water but also states that the dust is to be monitored in accordance with the SECP. There is no further information in the QMP with respect to controlling dust. The Board is thus of the opinion that information provided in response to Tłjchq Government comment 34 is helpful for providing clarity on the measures that will be undertaken by the Contractor to manage dust associated with the stockpiling activities.

- **Revision #2: Version 2.1 of the SECP is to include the information provided in response to Tłjchq Government comment 34.**

3.1.2 Revegetation

Revegetation of disturbed areas is one of the erosion control measures proposed in Version 2 of the SECP. Tłjchq Government recommended additional details regarding revegetation by non-woody plants, such as grasses, be provided (TG comment 6). CIRNAC-CARD responded that discussions with Tłjchq Government regarding revegetation work is ongoing, but an objective of the project is for native species from surrounding undisturbed areas to disperse and establish themselves in remediated areas, which is addressed in Version 2 of the SECP (response to TG comment 6). The Board notes that revegetation is a component of the Remedial Action Plan and it is expected that discussions related to revegetation will be ongoing between the two parties.⁷ Given that information addressing this recommendation is already included in the SECP, the Board is of the opinion that further information is not needed at this time. However, the Board would like to note that an updated version of the SECP should be submitted if discussions with the Tłjchq Government result in changes to the revegetation section of the SECP.

3.1.3 Floating dock

Floating docks are listed as sediment and erosion control materials in Appendix B of Version 2 of the SECP. Tłjchq Government recommended that CIRNAC-CARD clarify how the floating docks serve as sediment and erosion control materials (TG comment 35). CIRNAC-CARD's response indicates that floating docks provide protection against potential shoreline sedimentation caused by boats and aircrafts (response to TG comment 35). The Board is of the opinion that CIRNAC-CARD has adequately addressed Tłjchq Government's recommendation and, since no reviewers indicated concerns with potential shoreline sedimentation, no additional information or clarifications need to be included in the SECP at this time.

3.2 Remediation Activities and Associated Measures

Some of the comments and recommendations from reviewers pertained to information provided in the SECP on planned remediation activities for impacted soil throughout the site and at Mill Lake. These are discussed below in sections 3.2.1 and 3.2.2.

⁷ See WLWB Online Registry for [Rayrock - Remedial Action Plan - Version 2.0 - Reasons For Decision - Mar 3 23](#).

3.2.1 Excavation of Impacted Materials

As part of the remediation work, impacted soil at Rayrock and satellite sites will be excavated and reported to the Confined Disposal Facility (CDF) for long-term containment. Section 4.3.1 of the SECP provides a summary of the associated activities; Tłjchq Government and ECCC recommended clarifications regarding the extent of the work that will be conducted, materials used, and potential mitigations for tailings that may remain exposed (ECCC comment 4; TG comments 2 and 18). In its responses, CIRNAC-CARD referred to the results of the Human Health and Environmental Risk Assessment (HHERA) and the information provided in Version 1 of the Remedial Action Plan (response to ECCC comment 4). CIRNAC-CARD also indicated that the extent of the work around Alpha, Beta and Gamma Lakes is dependent on ongoing discussions with the Tłjchq Government (response to TG comments 2 and 18). The Board is of the opinion that the work described in the SECP reflects the current scope of the project while providing some flexibility.

The Board's Reasons for Decision on Version 2 of the RAP requires Version 2.1 to include information pertaining to the placement of waste rock and impacted soils in the CDF, and the soils and spilled tailings that will be removed or left in place as decided with the Tłjchq Government.⁸ Version 2.1 of the RAP is anticipated to be submitted by November 30, 2023. In addition, the Board's Reasons for Decision on Version 4 of the SCP concluded that no additional information is needed in the SCP to address spilled tailings and acknowledged that no concerns of human exposure or environmental impacts related to the spilled tailings were identified in the HHERA.⁹ Given the Board's recent decisions on Version 2 of the RAP and Version 4 of the SCP, and the forthcoming information, the Board is of the opinion that the need to revise the SECP and/or SCP can be adequately considered at the time of the review of Version 2.1 of the RAP, but that no additional information is needed at this time.

3.2.2 Mill Lake

Sediment in Mill Lake is contaminated with uranium. One of the main remediation activities for this Project is to consolidate the sediment within the CDF. This will involve draining water from Mill Lake and treating it to meet Effluent Quality Criteria (EQC); and following that, the removal of sediment from the Mill Lake basin for consolidation within the CDF.

Mill Lake periodically discharges through Mill Creek. CIRNAC-CARD plans to seal the discharge point from Mill Lake to Mill Creek during drainage of Mill Lake as it may result in an increase in sediment concentration in the remaining water that could enter Mill Creek. To do so, the SECP states that an Aquadam, a type of flood barrier, might be necessary. During the public review, ECCC commented that Aquadamams have been known to fail when used in other projects and recommended CIRNAC-CARD establish contingencies in case of failure (ECCC comment 7). In its response, CIRNAC-CARD indicated that it had considered this risk and provided several reasons for why the risk of a failure in this case is low (e.g., small basin size, frequent lack of flow in the summer). CIRNAC-CARD also explained that the consequences

⁸ See WLWB Online Registry for [Rayrock - Remedial Action Plan - Version 2.0 - Reasons For Decision - Mar 3 23](#).

⁹ See WLWB Online Registry for [Rayrock - IR Response from CIRNAC-CARD - Rayrock HHERA - Nov 20 20](#).

of a failure would be low and CIRNAC-CARD based this conclusion on information provided in the RAP that indicates that flow through Mill Creek channel over the last 60 years has not led to impacts at the lower reaches of the creek (response to ECCC comment 7). Based on CIRNAC-CARD's response, it does appear that the risks of failure of the Aquadam may be low; however, evaluating the consequence is difficult without understanding the potential concentration of sediment that may be present at the time of a potential failure. The Spill Contingency Plan required by the Licence is the plan that typically outlines contingencies associated with emergency situations and/or unforeseen events. The Board notes that INAC's *Guidelines for Spill Contingency Planning*¹⁰ do not consider the level of consequence as a factor in determining whether contingencies are needed, although it may impact the extent and type of contingencies to implement. With this in mind, the Board is of the opinion that including information on the worst-case scenario related to a potential failure of the Aquadam, and associated contingencies and spill scenarios/responses should be provided. Given that Aquadams are listed as an erosion control measure in the Government of the Northwest Territories Department of Transportation – Erosion and Sediment Control Manual, which was provided as Appendix B of the Contractor's SECP, the Board is of the opinion that it would be appropriate to include this information in Version 2.1 of the SECP. Alternatively, this information could be provided in the forthcoming submission of Version 4.1 of the SCP. In either case, this should be clearly identified in the conformity table provided with each submission. Given that the construction and operation of the Mill Lake Treatment Water Plant is not expected to begin for at least several months, the Board is of the view that this aspect does not require immediate approval.

- ***Revision #3: Version 2.1 of the SECP is to include the worst-case scenario related to a potential failure of the Aquadam, and associated contingencies and spill scenarios/responses. Alternatively, CIRNAC-CARD could choose to provide this information in the forthcoming submission of Version 4.1 of the SCP.***

3.3 Implementation of Sediment and Erosion Control Measures

In the SECP, CIRNAC-CARD proposed action levels for water and air quality monitoring that that will result in responses if exceeded. These action levels include specific values for parameters based on existing guidelines. Comments and recommendations from reviewers regarding the proposed action levels are discussed below.

3.3.1 Water Quality Monitoring

As part of the on-site monitoring to assess the effectiveness of sediment and erosion control measures implemented on site (Schedule 4, Condition 2e of the Licence), CIRNAC-CARD will be monitoring turbidity and total suspended solids (TSS) in waterbodies downstream of the Project. To address this requirement, CIRNAC-CARD proposed action levels based on the Canadian Council of the Ministers of the Environment Water Quality Guidelines for the Protection of Aquatic Life (CCME guidelines) and associated responses should action levels be exceeded.

¹⁰ See WLWB Resources for [INAC Guidelines for Spill Contingency Planning \(2007\)](#).

Application of the Guidelines

Tłıchq Government commented on the proposed action levels for turbidity and TSS and made several recommendations for potential improvements. Namely, Tłıchq Government recommended action levels of lower values than the CCME guidelines and/or a multi-level/progressive response framework (TG comments 21, 28, and 36). CIRNAC-CARD's opinion is that the use of the CCME guidelines is appropriate based on the conservativeness of the CCME guidelines, the high-level of natural variability of the lakes at Rayrock, and the planned control measures (response to TG comments 21 and 36). CIRNAC-CARD also stated its opinion that "progressive response frameworks are better suited to gradual or non-visible issues, such as changes in metal concentrations in media" (response to TG comment 28). Generally, adaptive management steps are intended to help avoid reaching undesirable situations, such as exceedances of benchmarks in the receiving environment. The Board understands that there may be natural variability in TSS; however, the guideline is a concentration above background and background concentrations should account for this natural variability. While the Board also understands that other measures are in place to help mitigate sediments from entering the receiving environment, waiting until exceedance of the CCME guideline to act is not typical practice. As such, the Board agrees with the Tłıchq Government's recommendation that a lower action level or a set of progressive action levels should be set for TSS and turbidity.

- ***Revision #4: Version 2.1 of the SECP is to include lower action levels for TSS and turbidity and/or a progressive response framework for TSS and turbidity.***

With respect to requiring approval of revised Action Levels prior to the commencement of relevant remediation work, the Board recognizes that the Licence does not include compliance limits for TSS and turbidity related to in-water or near-water works, thus exceeding the CCME guidelines does not pose a compliance issue in these scenarios. That being said, implementing measures to prevent exceedances of these guidelines is reasonable. Currently, the SECP indicates that if action levels for TSS or turbidity are observed, then additional SEC measures are to be implemented and that should these measures not be successful in lowering TSS and turbidity below action levels, that temporary suspension of remedial work will be required. The Board is requiring that until lower action levels are approved, any exceedance of the TSS or turbidity guideline result in the temporary suspension of remedial work.

- ***Decision #3: Until lower action levels are approved as part of Version 2.1 of the Sediment and Erosion Control Plan, any exceedance of the TSS or turbidity guideline is to result in the temporary suspension of remedial work.***

In response to a recommendation from Tłıchq Government to use CCME guidelines for longer duration exposure (5 mg/L or 2 NTU) instead of relying only on the short duration exposure (25 mg/L or 8 NTU) as currently proposed in the SECP (TG comment 20), CIRNAC-CARD stated that:

The long term guideline will be applied for all sediment and erosion control work, and the Departmental Representative who will be monitoring TSS will ensure TSS concentrations

meet long term exposure concentrations. This will be added to the next revision of the Plan (response to TG comment 20).

The Board interprets this response to mean that the SECP will also include action levels related to long-term exposure for TSS and turbidity. The Board sees no harm in including additional triggers; however, note that these should be accompanied with a description of associated responses should exceedances of the action levels occur. As addressed in Revision #4 above, these action levels should also be set so that they are triggered prior to the guideline being exceeded.

- ***Revision #5: Version 2.1 of the SECP is to be updated to reflect CIRNAC-CARD's commitment to TG comment 20. The addition of these action levels are to follow the requirements of Revision #4.***

Inspection Program

Version 2 of the SECP indicates that background data for TSS and turbidity will be measured on site at the same time as the sample to assess potential erosion but at a different location for comparison. Tłıchq Government recommended CIRNAC-CARD revise its approach to measuring background levels to model that of the CCME guidelines (TG comments 31 and 32). CIRNAC-CARD indicated that it considered the approach proposed in the CCME guidelines to determine baseline levels of TSS, but that it does not apply within the context of the Rayrock site. CIRNAC-CARD indicated that the guidelines were developed for flowing waters (e.g., streams and rivers), while waterbodies on site consist of standing water (e.g., lakes). CIRNAC-CARD also indicated that it will be applying action levels based on the CCME guidelines for TSS as noted above, which would be more conservative in standing water (response to TG comment 31). CIRNAC-CARD acknowledged that site conditions due to weather could result in variability in the interpretation of the results (response to TG comment 32). Given that the potential erosion/sedimentation events that are anticipated would be localized and intermittent in nature, the Board is of the opinion that CIRNAC-CARD has provided adequate rationale for why the proposed monitoring in Version 2 of the SECP is appropriate for the Project.

3.3.2 Air Quality Monitoring

As part of the on-site monitoring to assess the effectiveness of sediment and erosion control measures implemented on site, CIRNAC-CARD will conduct dust monitoring. In accordance with Schedule 4, Condition 2 of the Licence, CIRNAC-CARD proposed action levels for dust monitoring and responses if exceedances are detected.

Uranium and Copper

Tłıchq Government and CIRNAC both commented on the removal of copper and uranium monitoring from the air quality monitoring proposed in Version 1 of the SECP and noted that the Contractor's SECP in Appendix B still indicated that this monitoring would occur. Reviewers recommended that CIRNAC-CARD clarify whether copper and uranium was still being proposed and, if so, to provide additional details of the

monitoring program (TG comments 25, 33 and 38; CIRNAC comment 1). Tłchq Government also noted that CRINAC-CARD had previously commitment to this monitoring and recommended information be provided to understand the risk of exposure (TG comment 25). While most comments received on this topic were requesting clarity on the discrepancy between the main body of the SECP and the Contractor's Plan, Tłchq Government noted its understanding of the potential risk of contaminated dust and recommended CIRNAC-CARD consider submitting an appropriate number of dust samples for metal analysis (TG comment 25).

Uranium and copper monitoring was included in the SECP provided with the initial Application and was considered as a mitigation measure to avoid impacts on human health or the environment from potential airborne contaminants per the Preliminary Screening Reasons for Decision.¹¹ In its responses to comments on the SECP, CIRNAC-CARD indicated that it has further considered the need for uranium and copper monitoring, and "was unable to find a compelling reason to monitor for these concentrations". CIRNAC-CARD indicated that, although sediments in Mill Lake can pose a human health and ecological risk, sediments would be contained and, therefore, there is no potential for airborne dust (response to TG comments 25, 33, and 38; and response to CIRNAC comment 1). However, what remains unclear is the potential for exposure to airborne sediment following the draining of Mill Lake and the placement of sediment into the geotubes. Given that the Board understood this monitoring to be a mitigation from potential impacts of the Rayrock Remediation Project and that the Tłchq Government appears to be recommending continued metals analysis, the Board is of the opinion that a comprehensive rationale was not provided to explain why uranium and copper analysis in dust is no longer needed. Therefore, in Version 2.1 of the SECP, CIRNAC-CARD is to either provide a comprehensive rationale for the removal of copper and uranium monitoring from the air quality monitoring component of Version 2.1 of the SECP, or provide details of the copper and uranium monitoring program with proposed action levels and response(s) per Schedule 4, Condition 2.

- **Revision #6: Version 2.1 of the SECP is to either:**
 - **provide a comprehensive rationale for the removal of copper and uranium monitoring from the air quality monitoring as part of the SECP; or**
 - **provide details of the copper and uranium monitoring program with proposed action levels and response(s) to action level exceedances.**

Given that the construction and operation of the Mill Lake Treatment Water Plant, and thus the future draining of Mill Lake, is not expected to begin for at least several months, the Board is of the view that this aspect does not require immediate approval. However, to ensure that the monitoring of uranium and copper is fully considered prior to the exposure of Mill Lake sediments, the Board requires approval of Version 2.1 of the SECP prior the commencement of draining of Mill Lake.

- **Decision #4: Approval of Version 2.1 of the SECP is required prior to the commencement of the draining of Mill Lake.**

¹¹ See WLWB Online Registry for [Rayrock - Preliminary Screening - Determination and Notification - Jan 14 21.pdf](#)

Particulate Monitoring

As part of the air quality monitoring program, CIRNAC-CARD is proposing particulate monitoring. This monitoring was also considered as a measure to mitigate impacts on human health or the environment from potential airborne contaminants per the Preliminary Screening Reasons for Decision. Schedule 4, Condition 2 requires action levels and responses associated with dust monitoring. The SECP indicates that the monitoring will measure airborne dust, including total suspended particulates (TSP), particulate matter 10 (PM10), and particulate matter 2.5 (PM2.5). PM10 and PM2.5 are indicative of particle sizes.

Tłchq Government noted that CIRNAC-CARD did not provide action levels for PM2.5; rather, CIRNAC-CARD stated that meeting guidelines for PM10 would ensure PM2.5 levels are acceptable. Tłchq Government indicated that this may not always be true and recommended that CIRNAC-CARD consider setting action levels for PM2.5 (TG comment 26). In its response, CIRNAC-CARD agreed that grain size could vary and stated that the “objective of the SECP with respect to dust is to establish procedures to control dust emissions, with the monitoring intended to show that the procedures were effective.” However, as discussed above, the air quality monitoring was considered a measure to mitigate impacts to human health and the environment. The SECP also states that air quality monitoring will be established “to provide data to ensure remediation activities will not cause adverse effects to people or the environment.” In its response, CIRNAC-CARD agreed to revise the wording in the SECP (i.e., to remove suggestion that dust levels within the PM10 guidelines will maintain PM2.5 levels) and proposed comparing PM2.5 levels to the Canadian Ambient Air Quality Standards (CAAQS). CIRNAC-CARD explained that action levels for PM2.5 are not appropriate because the CAAQs are intended to demonstrate the ambient air quality in cities or large geographical areas and are based on long-term (3 year) averages. CIRNAC-CARD also stated that short-term measurements greater than the CAAQs do not represent a risk. At this time, the Board is of the opinion the CIRNAC-CARD’s consideration addressed the Tłchq Government’s recommendation. Parties will have a chance to consider CIRNAC-CARD’s rationale for not including action levels for PM2.5 in review of Version 2.1.

- ***Revision #7: Version 2.1 of the SECP is to include rationale for why action levels for PM2.5 should not be included.***

Monitoring Oversight

The Board has some concerns about the dispersal of dust that could occur during blasting activities, particularly during windy conditions. To address this, the Board strongly recommends that CIRNAC-CARD have a Tłchq monitor on site whenever blasting is taking place.

3.4 Camp Location

During the public review of Version 2 of the SECP, Tłchq Government commented on the location of the clean water intake for the camp, noting that the proximity to Alpha Bay may lead to the perception of water from this location being considered unsafe. Tłchq Government recommended that CIRNAC-CARD reconsider the position of the clean water intake and asked if it could be moved to Lake A (TG comment

37). CIRNAC-CARD responded that, per the Licence, Sherman Lake is the approved water source for camp operations and that it would not move the location if such a change would require an amendment to its Water Licence (response to TG comment 27). CIRNAC-CARD also stated that “Verbal discussions with the CIRNAC Inspector...has indicated that the inspector is in agreement with the definition that Lake A, Sherman Lake and Alpha Bay should be considered a continuous waterbody.” The Board is unaware of any comments raising this issue during the Licence proceeding but note that the water for use in the camp is to be tested in accordance with the Surveillance Network Program (SNP) in the Licence at SNP station 1663-5 (Part B, Condition 14 and Annex A). Per the Licence, the sampling location of SNP station 1663-5 can be changed at the discretion of the Remediation Contractor. The Board is also of the understanding that Lake A is part of Sherman Lake; therefore, as long as the sampling location remains within Sherman Lake, an amendment to the Licence would not be required.

3.5 Commitments

In response to recommendations received during the public review, CIRNAC-CARD committed to editing various sections of the SECP. The Board is not concerned with the proposed revisions because they reflect Parties’ recommendations and/or because CIRNAC-CARD indicated it had engaged with relevant Parties prior to this public review. These include the following comments:

- Tłıchq Government comment 4, 6, 7, 11, 13, 15, 16, 19, 22, and 24;
- GNWT-ENR comment 2 and 3; and
- ECCC comments 3 and 6.

Given that CIRNAC-CARD agreed to revising the Plan in response to these comments, these revisions should be included in Version 2.1 of the SECP.

- ***Revision #8: Version 2.1 of the SECP is to incorporate the commitments made in response to Tłıchq Government comments 4, 6, 7, 11, 13, 15, 16, 19, 22, and 24; GNWT-ENR comments 2 and 3; and ECCC comments 3 and 6.***

3.6 Contractor’s SECP

As discussed throughout this Reasons for Decision, some differences were identified during the public review of the SECP between the main body of the SECP and the Contractor’s SECP provided in Appendix B. While some of the required revisions will address these identified differences, Part E, Condition 6 of the Licence requires compliance with the approved SECP and it is unclear at this time whether additional differences exist between the main body of the SECP and Appendix B. Given that CIRNAC-CARD is the Licensee and that CIRNAC-CARD has not indicated that alternative details may be provided in Appendix B, the Board is of the opinion that some clarification is needed to prevent potential enforceability issues should conflicting information between the main body of the SECP and the Contractor’s SECP (i.e., Appendix B) be identified in the future. To address this, the Board requires Version 2.1 to include text that clarifies that the main body of the SECP should be referenced for compliance purposes should there be any conflict with the Contractor’s Plan provided in Appendix B.

- **Revision #9: Version 2.1 is to include a clarification that the main body of the SECP should be referenced for compliance purposes should there be any conflict with the Contractor's Plan provided in Appendix B.**

3.7 Other comments

Other comments submitted during the public review are not discussed in these Reasons for Decision because in the Board's opinion, the responses provided by CIRNAC-CARD adequately addressed the reviewers' comments or were identified as not requiring a response (e.g., letter to support comments). These comments include the following: GNWT-ENR comment 1; ECCC comments 1 and 5; and TG comments 3, 5, 8, 9, 10, 12, 14, 17, 23, 27, 29, and 30.

Signed the 23rd day of May 2023, on behalf of the Wek'èezhìi Land and Water Board



Witness



Mason Mantla
Chair, Wek'èezhìi Land and Water Board