

Information Requests
Fortune Minerals – NICO Project
EA 0809-004

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IR Number: 1.1

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Submission of Management Plans - General

Preamble

In the Avalon Rare Minerals Environmental Assessment, the Board required the submission of “conceptual monitoring and management plans” for the DAR to be accepted in conformity. These plans are expected to conform to a series of guidelines listed in section 3.3.10 of the deficiency statement. Since that time, the MVLWB have issued further guidance and new best practices have emerged, especially with regards to closure plans. Thus far, the company has stated that these plans will be developed “should the project proceed”. YKDFN expect that this company should be held to the same standard as its peers and critical management plans should be required.

Request

YKDFN would like the company to submit all required plans for review. As an example, this includes (but is not limited to) ‘the fugitive dust and metals emissions’ plan discussed in section 10.9.2 of the Developers Assessment Report. With regard to this example, a concatenated plan would be the submission of an adaptive management plan that links the monitoring of incineration emissions and the local environment to triggers for actions. Selected other plans include a waste management plan, an incineration management plan, and a conceptual closure plan.

IR Number: 1.2
Source: Yellowknives Dene First Nation
To: Fortune Minerals
Subject: Wildlife Management & Road Access

Preamble

Rather than discussing the impacts associated with the creation of road access on wildlife populations, the company simply suggests that there are sufficient regulatory tools to ensure that impacts will not occur. Given past experiences in the Territory and across the country, YKDFN contend that this is simply incorrect, especially if there are no access controls in place. When access is created, wildlife populations suffer.

The company states: “Should harvesting on the all-season roads become a concern, the Tli Cho Government or the Wek’eezhii Renewable Resources Board could enact restrictions to control the harvest. So increased harvesting pressures can be controlled and the development of the NICO project should not change the amount of harvesting”. This statement is incorrect as the Tli Cho Government and the Wek’eezhii Renewable Resource Board can only place limitations on Tli Cho Citizens.

Request

Given the examples provided throughout the rest of the country and the Tibbit to Contwoyto road, the company should develop an access management plan to limit the ease with which harvesters can reach the area.

IR Number: 1.3
Source: Yellowknives Dene First Nation
To: Fortune Minerals, INAC
Subject: Security Bond

Preamble

The company states: “A security bond will be posted so that money is available to take care of potential water quality issues” [underline added]. In reading the closure discussion within the DAR, it seems that final closure is approximately 170 years in the future (20 years of operation, 120 years of closure, 30 years of monitoring). This is unprecedented in terms of NWT closure security bonds.

Considering that this company has only a single project, there is little redundancy or amortization of the risk associated with default, meaning that the probability that the citizens and taxpayers is increased over similar companies with many producing operations. For instance, what is not clear to YKDFN is how this security will be established given the great deal of financial uncertainty in the future – how will this company ensure that the environmental liabilities that it defers to far off in the future will be adequately insured.

Request

The YKDFN would like the company and AANDC to discuss how they see this extreme amount of time effecting the amount of a security bond that is required. This should further consider that this company only has a single producing property. The residents of the NWT, including YKDFN have no desire to pay for another abandoned mine in the future.

IR Number: 1.4

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Controlling land

Preamble

In section 3.12.1.2.2 the DAR states: “Fortune reserves the right to refuse access and/or entry to its premises. Fortune premises includes, but is not restricted to, all land, property structures, installations, vehicles and equipment owned, leased or operated or otherwise directly controlled by Fortune or under Fortune operating authority”. This is a very broad statement from the company and YKDFN wish to be clear on just what this mining company believes is ‘their’ land.

Request

- Explain what else this might include ie. ‘not restricted to’
- Explain what land Fortune believes that it directly controls versus what it is borrowing

IR Number: 1.5
Source: Yellowknives Dene First Nation
To: Fortune Minerals
Subject: Alternatives

Preamble

Within the DAR, the alternatives discussion is framed in such a way that the only option effectively discussed was cancellation. For instance, there is no discussion on an open pit versus an underground operation. While the extractive economics at this point in time obviously favour an open pit operation, it is not clear how the company evaluated the environmental liabilities attached to both options – which would likely favour the an underground operation.

Request

YKDFN request that the company explain how they valued the degradation of the natural environment (given that the closure plan is effectively to allow the site to reclaim itself), the cost of depositing waste within the range of the Bathurst Caribou, and the magnitude of the environmental liabilities within their economic decision making framework.

IR Number: 1.6
Source: Yellowknives Dene First Nation
To: Fortune Minerals
Subject: Human Resources – Trade Skills development

Preamble

Within the DAR, there is no discussion on a human resources policy (ie within section 3.13.6) that will encourage the development of skilled trades people.

Request

YKDFN request that the company provide discussion on any activities the company will undertake to develop skilled trades.

IR Number: 2.1

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Caribou Assessment Endpoints & Concepts

Preamble

Within the DAR, the proponent indicates that the assessment endpoint is the “Persistence of Caribou population”. YKDFN would argue that the occurrence of significant impacts long before the caribou extinction is in doubt. The company suggests that the persistence of the herd is not at issue until 40% of the herd’s habitat has been impacted. YKDFN suggest that this seems excessively high and represents a low bar in terms of precautionary thresholds. The references advanced within the EIS seem to focus primarily on birds and wildlife smaller than caribou, in environments more temperate and forgiving than found in the arctic. Beyond the lack of effective analogs, these habitat loss thresholds have not been tested with caribou and many rely on simulations. On the other hand, Traditional Knowledge holders have been suggesting for some time that developments have already been affecting the herds – specifically altering the distribution and migration routes. It is not clear how (or if) this knowledge or observations has been a focus of the TK work, nor how (or if) it was incorporated into the formulation of the Caribou Assessment Endpoints and subsequent analysis.

The company also assesses impacts in a manner that considers natural variability within the impact assessment scheme. They suggest that if the predicted impacts fall within the range of natural variability, then this suggests little or no impact. However, this conclusion is incorrect – not only because the herd has a significant population range, which could allow significant environmental impacts to occur long before the baseline variability is exceeded, but more so because the people of this territory rely on the caribou, both for food and cultural identity. To use the current example, if the development of this project delays/suppresses herd recovery and the reinstatement of the YKDFN’s constitutionally protected harvesting rights even a single season, then that is a significant impact.

Request

YKDFN request an explanation as to why the assessment endpoint amounts to threatening the extinction of the Bathurst Caribou herd and not some point more appropriate.

Secondly, YKDFN request that the company analyze the herd’s demographic projections to analyze what impacts this (and other projects) will have on the population of the herd over the span of operations.

IR Number: 2.2

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Caribou Zone of Influence

Preamble

Within the DAR, the proponent suggests that the ZOI “is a temporary effect and the caribou may become used to the noise”, without providing any discussion on what rationale forms the basis of this conclusion or what the definition of temporary is. The decay curves based on actual observational data (and not simply predictions) at the existing mines do not reflect the assertion that the impacts of the mine decay at a rate anywhere close to what the DAR asserts and would result in the analysis undertaken within the DAR overstating the caribou occurrence closer to the mines by a factor of 3. In the absence of data which contravenes the clear, existing, evidence from the existing mines in the NWT, then the structure proposed in the DAR should be rejected.

Furthermore, the company suggests:

- “The NICO project will likely alter the behaviour and movement of a few individuals from these herds that periodically travel through the RSA”
- On p8-74/table 8.5-6 the company outlines ‘disturbance coefficients’ that it applies within the cumulative effects study. These effectively represent the decay of the Zone of Influence attached to the disturbances

Request

YKDFN request that the company explain how they derived the disturbance coefficients. In the work done at Diavik and Ekati, the actual decay curves for the Zone of Influence provide significantly different results than what is found in this submission. The company should explain this significant difference that exists between their study and the real world observations. If these cannot be adequately explained, the assessment needs to be redone.

Secondly, YKDFN request that the company explain how the ZOI observations at other mine sites show that this extends to only a few individuals and explain what the cycle of periodicity is. YKDFN contend that the ZOI demonstrated at the Diamond mines exists on a population level scale, is an annual feature on the landscape, and extends beyond the 13km RSA.

IR Number: 2.3

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Caribou Cumulative Effects – Cumulative Study Extent

Preamble

Within the DAR, the proponent's cumulative effects study was constrained to the area below treeline, in the winter range. This seems somewhat odd, as any reasonable person would accept that effects to caribou happen throughout their range – not just within the winter range. In the Terms of Reference the Review Board stated “In terms of cumulative effects, predict potential impacts of the NICO project on the Bathurst Caribou herd in combination with impacts of other developments in the range of the Bathurst Caribou herd” (p8-4). If the company still disputes that the herd is impacted by developments above the treeline/winter range, they need only to reconsider the references they cite in the Zone of Influence discussion to observe that the diamond mines in the NWT have demonstrated that they have an effect on the Caribou herd.

Lastly, the company which prepared this analysis, Golder Associates, also completed a similar study which seems to concur with this view - that impacts on the caribou occur above the treeline - since it included the range of the Bathurst Caribou above treeline in that study. In that study, the consultant included the Talston/Deze Energy project, which is not found in the list of projects within Section 8.9.1, the company projected a 12.2% reduction in herd abundance which is significantly larger than that projected in this study.

Request

YKDFN request that the CE study be completed in a manner that truly reflects the full range of impacts to caribou across their range, rather than some haphazard approach which puts the predictions in danger of being unsound. In addition to the developments foreseen both in this CE study and the Gaucho Kue study, YKDFN request that the following developments foreseeable developments from Nunavut be included in the analysis (No Nunavut developments were included in previous studies):

- Bathurst Inlet Port and Road (Currently in EA),
- Xstrata's Hackett River (recently purchased for \$50M)
- Sabina's Back Lake development (detailed exploration ongoing, company is well financed)
- Shear's Jericho (reopening hearing on Oct.12th, 2011)
- MMG's High Lake (Comprehensive Update due Jan 2012)
- Elgin Mining's Ulu/Lupin (1st steps of [re]opening are ongoing, company is well financed)

IR Number: 2.4
Source: Yellowknives Dene First Nation
To: Fortune Minerals
Subject: Caribou and Roads

Preamble

Section 8.3.2.1.3 deals with the specific mining caribou interactions, but it does not discuss the impacts of roads on caribou movement. There is inadequate discussion on the barrier/deflection effects of caribou movement and migration. On page 8-70 the DAR states “In some cases, roads appear to be leaky barriers (some animals do manage to cross successfully) but they may nevertheless restrict the regional-scale dynamics”. This is another important statement that requires further analysis and discussion.

Request

YKDFN request that the company complete an analysis on the impacts associated with roads and caribou movements.

IR Number: 2.5
Source: Yellowknives Dene First Nation
To: Fortune Minerals
Subject: Assessment Methodology

Preamble

The impact analysis utilizes two caribou lifespans (32 years) as part of the impact preconceptions. Given that the impacts on caribou are felt most directly by breeding females, a more reasonable basis of analysis would be to use caribou generations (~7 years). These effects are expressed most significantly in breeding success, moving through the population on a generational basis rather than on a lifespan approach.

Request

YKDFN request that the company complete the impact analysis using caribou generations instead of lifespans.

IR Number: 2.6

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Caribou Impact Assertion – Treeline vs. Barrenground

Preamble

In Section 8.5.1 the company seems to asserts “the ZOI in tundra environments may be greater than in forested areas” without providing appropriate evidence from analogous situations (ie. Barren Ground caribou, open pit mining).

Request

YKDFN request that the company submit appropriate research/evidence substantiating this assertion.

IR Number: 2.7

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Caribou Study Area Relative to the Regional Study Area

Preamble

The regional study area which is used to collect both baseline information and undertake studies in the area is much too small. Given that the observations of avoidance from other mine sites exceed the 13km buffer used in this project's RSA, it will be impossible for the proponent to properly evaluate the impacts that it is causing. For instance, if the ZOI turns out to be 17km, the company will be unable to compare this against their vegetative data when attempting to understand the source of the impacts.

Request

YKDFN request that the company modify their survey area to ensure that they collect appropriate data for long term analysis of environmental impact analysis.

IR Number: 2.8

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Caribou Harvesting Reductions

Preamble

The regional cumulative effects study suggests that the decrease of caribou available for harvesting is predicted to be within the range of baseline values. However, this does not mention that extraordinary harvesting restrictions are already in place and the herd population is at extremely low levels. Any further constraint associated with industry represents a significant impact to the exercise of Aboriginal and Treaty Rights.

The company states “therefore the magnitude of changes to the harvesting potential of caribou from the incremental and cumulative impacts from the NICO project and other developments are expected to be low and moderate, respectively”. Given the current status, does the company feel that the continued restriction on the exercise of these culturally important activities is a moderate impact?

Request

YKDFN request that the company provide discussion on the impact level in light of the restrictions that are in place, the critical role of the caribou to both the physical and cultural health of the people and how they evaluated the impact of continued/extended harvesting restrictions that could partly be attributed to the cumulative effects of industry.

Secondly, we request that the company explain how they incorporated the costs associated with lost opportunity and per unit increased harvesting effort into their economic feasibility modeling. For example, if each caribou harvested is worth approximately \$1000 (from Economic Valuation and Socio-Cultural Perspectives of the Estimated Harvest of the Beverly and Qamanirjuaq Caribou Herds, BQMB), then what is the expected loss to communities over the life of this development?

IR Number: 2.9

Source: Yellowknives Dene First Nation

To: Fortune Minerals/ENR

Subject: Energetic Modeling

Preamble

In section 8.5.4.1 the company discusses the establishment of an energetic modeling exercise to try and quantify the likely impacts to individual caribou caused by disturbances on the range. YKDFN understands that the GNWT has already completed an exercise similar to this as part of a regional study that they undertook in the early 2000's. It is unknown if this project was ever completed.

Request

YKDFN request that the company and ENR collaborate to ensure that the modeling efforts result in similar conclusions. Few parties, YKDFN included, have appropriate resources to verify or meaningfully review this modeling effort, but as ENR has completed a similar project, they should be ideally positioned to derive results that either effectively confirm the companies statement or require further research.

IR Number: 2.10

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Cumulative Effects Monitoring and Adaptive Management Linkages

Preamble

In section 8.10 the company does not propose any cumulative effects monitoring or links for adaptive management related to surrounding events. YKDFN have observed the other mines in the territory divesting themselves of cumulative effects assessment responsibility after permitting. Thus, it is important that the proponent submit a clear plan indicating their intention and commitments when it comes to any monitoring beyond project specific.

Request

YKDFN request that the company completes a cumulative effects monitoring plan with appropriate linkages to adaptive management mitigations.

IR Number: 3.1

Source: Yellowknives Dene First Nation

To: Fortune Minerals/Environment Canada

Subject: Furans/Dioxins

Preamble

Table 10.1-2 suggests the Air Quality assessment endpoint is ‘compliance with regulatory ambient air quality guidelines or standards’. However, the guidelines that the company intends to meet are not clearly stated with respect to Furans/Dioxins. Beyond the lack of standards, the company has not established the baseline condition.

Environment Canada can provide the appropriate guidelines for the companies compliance, but YKDFN believe that there are CCME guidelines. Any emissions commitment is empty if there is no linkage with management actions. As we’ve seen at other minesites, stack testing has shown emissions exceeding guidelines, but with limited action and no adaptive management scheme.

Request

YKDFN request that the company make a commitment to meet emissions standards, including for dioxins and furans. This should be included as parts of a plan, along with appropriate baseline research in the RSA to allow for impact comparisons in the future, should the proponent have difficulty meeting the targets.

IR Number: 3.2

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Dust Control

Preamble

The project has identified dust control as an important part of the mitigations for the site, but the measures are not adequately discussed. Some mitigations are mentioned in passing but without conviction or commitment – see the companies statement that they will “consider the use of covered conveyors and limiting the height from which material is dropped” which provides no context on why the company would adopt this measure. Overall, section 10.9.1.3 lacks detail and the absence of mitigations will lead to environmental impacts which could have been avoided with sound, pro-active, management. The completion and submission of a fugitive dust management plan as discussed in section 10.9.2 would go far towards framing the issue scope.

Dust will effect water quality (especially aluminum and iron), airborne Total Suspended Particulate matter is predicted to exceed guidelines in every measured category, and there is a suspicion that dust plays a role in the caribou avoidance of minesites. Source control would represent the best possible mitigation.

Request

YKDFN request (as previously mentioned in IR 1.1 as an example) that a best management practices plan to control fugitive dust and metals emissions be developed and the impacts it will have to overall air quality be submitted.

IR Number: 4.1

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Progressive Reclamation

Preamble

Throughout the DAR, the project suggests that there will be a significant amount of ongoing reclamation, including of the Tailings/Co-Disposal Facility.

- “In other words, closure and reclamation activities will occur throughout the operational life of the NICO project”

There is effectively no detail on how the company intends to progress with this progressive reclamation of the CDF – or any other progressive reclamation other than stockpiling soils. Furthermore, there are no indications as to what criteria this reclamation will be judged by in terms of achieving successful completion.

Request

YKDFN request that the company provide clear discussion on just what progressive reclamation they intend to undertake, how they mean to complete the action and how it will have been judged to be successful. This should be covered by the development of a thoroughly laid out plan which fits within any new and improved overall closure plan based on best practices.

IR Number: 4.2
Source: Yellowknives Dene First Nation
To: Fortune Minerals
Subject: Road Closure & Remediation

Preamble

At several points in the DAR, the developer states that the roads and Airstrip “will be closed and reclaimed” with no clarification as to what this means.

Additionally, they state that post-operations monitoring will occur from Whati, but if/when the road is reclaimed, this does not seem to be appropriate/correct.

Request

YKDFN request that the company provide clear indication on how they intend to reclaim the roads and created access, how they will pursue community input, and what the long term monitoring logistics actually will be. Furthermore, this should be included within the updated conceptual reclamation plan.

IR Number: 4.3

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Closure Terminology and Structure

Preamble

The closure discussion in the DAR does not represent a conceptual plan, conflates specific terminology and pays no mind to the upcoming closure guidelines or the best practices established in the BHP and DDMI interim closure planning. For instance, with regard to the terminology, section 3.13 and 3.14 uses the terms objectives, goals and vision interchangeably, without regard to their specified meanings. Secondly, it does not create a framework where the responsibilities and commitments associated with these terms flow through.

3.13.2 discusses goals/vision not objectives:

- “To establish conditions that allow the natural environment to recover from mining activities”
- This is insufficient as a vision. The statement should be to “return the natural environment to a condition equivalent to pre-mining conditions and allows for the end land use objectives to be practiced” (ie return to wildlife habitat)

The closure information provided is inadequate.

Request

YKDFN request that the company resubmit their closure ‘chapter’ in a form more useful for review, that takes the lessons learned in the other processes here in the NWT and applies them, both in terms of structure and the concise use of terminology to ensure that all Parties and reviewers are consistent.

IR Number: 4.4
Source: Yellowknives Dene First Nation
To: Fortune Minerals
Subject: Closure Objectives (Goals)

Preamble

Throughout the DAR, Fortune sets a low bar for its closure goals, which YKDFN suggest would be unacceptable in almost every other jurisdiction. Despite the companies statements that the end land use will be developed with input from communities, the project has already effectively and unilaterally defined the end goals. The company has stated that they intend “To establish conditions that allow the natural environment to recover from mining activities”. This does not mean that the area will be wildlife habitat, does not mean that it will be similar to the surrounding environment, does not mean that it will be representative of what existed before the mine took over the area.

The company plan can be summarized as capping the tailings (for mostly unclear reasons), removing the buildings, then leaving the site to try and heal itself over the next 150 years. There is no intention to ensure that the land is made whole again, to return the site to a productive part of the ecosystem.

The company states:

“Fortune plans to restore the site to conditions suitable for nature to reuse it. Throughout the mine planning process, the mine has been designed with final closure in mind and options for different parts of the mine site have usually been selected for the best closure conditions”.

Given that these statements cannot fail – nature will reuse the site in one way or another, though likely not in a manner that it did previously or in a way similar to the surrounding environment, YKDFN do not accept this as acceptable closure vision for a development project within the range of the Bathurst Caribou herd.

In another part of the DAR (9.2), the company notes that the key objectives of the C&R plan are to help protect traditional or indigenous values. However, it is not clear how the company has worked to establish what these values are - nor how 150 year environmental legacy will address these values.

Request

Even the mining in the Tar sands where thousands of squares kilometers of boreal forest are being destroyed will be re-vegetated. YKDFN do not accept that the NWT, especially

the habitat of Bathurst Caribou which is so relied on, should not have the same expectations. To create 'suitable conditions' for nature is an empty commitment – if the 'suitable conditions' established by southern scientists fail, this company will still have achieved successful closure – though the site may be a scar on the landscape for generations.

YKDFN request that the company:

- a) Explain what criteria were used in terms of the decision process which selected a 170 year closure timeframe as the preferred option.
- b) Describe why they will not commit to undertake any re-vegetation work which will allow the area to be reclaimed to wildlife habitat type similar to the surrounding area.
- c) Why the residents who rely on the land should accept this
- d) How have the company established the communities traditional and indigenous values and how do they intend to assess if the closure plan has been successful at protecting them?

IR Number: 4.5

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Closure Vegetation

Preamble

Throughout the DAR, Fortune sets a low bar for its closure goals, which YKDFN suggest would be unacceptable in almost every other jurisdiction. Despite the companies statements that the end land use will be developed with input from communities, the project has unilaterally defined the end goals. None of these goals include appropriately re-vegetating the area to a state where it provides similar habitat to the surrounding environment.

The company states:

“The current plan is to create stable and favourable surfaces that will allow native plants to slowly take over the areas naturally. If suitable plants can be identified and enough seeds are available, some active planting may also occur”

“Fortune will study the feasibility and applicability of using various plant species and planting or site preparation techniques as part of their revegetation program; however, the current revegetation management objective will be to create a stable and favourable landscape that will encourage natural colonization, and encroachment and regeneration of endemic plant species. This will be complemented by planting or seeding where required”

Given the wording associated with these passages, it seems that no planting will occur as there is no planning to identify suitable plants or collect seeds to allow for revegetation.

In section 9.4.1.3.1 the company makes statements that seem to suggest that revegetation will be an important component of successful reclamation, and commits to develop a revegetation plan. However, these statements are in conflict with other sections of the closure discussion.

Request

YKDFN request that the company explain:

- a) What, in the company’s opinion, would constitute suitable plants and how does the company intend to identify them?
- b) Over the next 20 years of operation, 120 years of closure and 30 years of monitoring, what is the company is going to do to ensure that there is appropriate

seeds and sufficient intra and inter species diversity to fulfill their closure obligations?

- c) What conditions would require planting or seeding and what would be the trigger to enact this? Within the current closure objectives, this would never be needed and is an empty statement.
- d) The development of a revegetation plan should be emphasized, with a clear vision, consistent with reasonable expectations of mine site reclamation. The integration of this plan with the closure and reclamation plan should be established, with clear links to closure objective, research reclamation and potential criteria for evaluation.
- e) The proponent also suggests that similar vegetation studies to those undertaken at Ekati and Diavik will be undertaken, without providing any indication as to what studies in particular or a commitment when they will be commenced. This should be clarified and incorporated into the closure research plan.
- f) Given the long backloading of liability, what financial management actions will the company take during operations to ensure that the closure program, appropriate monitoring, and research activities are sufficiently resourced, as in the sustainable development policy?

IR Number: 4.6

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Closure Process

Preamble

In section 3.14.3 the company has indicated that the closure process will be collaborative in the future, with ongoing engagement to develop end land use objectives and an adaptive management approach to the C&R program which will apply the results of site-specific and regional research. In YKDFN's experience, these broad policy statements do not always translate to action.

It does little good to establish the end goals after the land has been impacted – the decision process has been prejudiced – this is an important principle of 'planning for closure'. The goals/objectives for closure must be established prior to the process to allow all parties to appropriately evaluate the benefits vs the impacts. Until these objectives have been clarified and established by a collaborative process, the discussion around operations is moot. The establishment of an engagement process after the permitting phase is the same scheme employed by the other mines – history has shown that it has not resulted in the establishment of any meaningful method of engagement. Finally, the adaptive C&R approach is a good step, but it needs to be addressed within the conceptual closure plan – not just as an idyllic policy statement.

In section 3.14.11.2 the company states "Fortune will study the feasibility and applicability of using various plant species and planting or site preparation techniques as part of their revegetation program..." without providing details on any studies they intend to pursue or when they intend to be completed.

Request

For the closure plan, YKDFN request

- a. The company immediately work with communities to develop an engagement plan for closure – focusing on end use, closure goals/vision and the objectives
- b. Provide an engagement plan explaining how the company intends to include communities in the closure planning process throughout the life and post-operations/pre-closure of the mine, including a discussion on how this will be funding after operations cease.
- c. Describe what site specific studies are planned to be undertaken, linking them as a 'reclamation research plan' to mine components and closure objectives within an updated mine closure plan.

IR Number: 4.7

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: CDF Closure objectives and Actions

Preamble

The closure scheme for the CDF varies throughout the document. For instance, section 3.14.7.1 notes the CDF cover is 0.25m of overburden, with 0.25m of sand underneath. Other places indicate that the cover is 0.5m of overburden and 0.25 m of sand.

While this itself is a problem, what is more serious is that it is difficult to discern what exactly the intent of the cover is. There is discussion on the need to reduce infiltration, but it does not suggest what criteria a successful cover will be measured against. It is not enough to simply place a cover for coveri sake – it must achieve some objective which the structure can be evaluated against in terms of success and which will drive the monitoring.

Section 9.4.4.5.2.1 suggests that “Field testing of both cover details is recommended to evaluate their relative performance in terms of net infiltration rates”. This confirms that at least one objective relates to infiltration – but it also leads us to wonder who this recommendation is being made to.

Unlike other parts of the closure discussion, in section 9.4.4.5.6 “the final top surface of the CDF will be sloped gently toward the west and vegetation will be established on the surface of the till cover to prevent erosion”. Strangely, the company feels that vegetation can be established here, but not elsewhere. There seems to be an inconsistency in the companies approach.

Request

- a. What are the specific parameters of the cover system within the conceptual closure plan?
- b. What is the objective of the cover and what criteria will success or failure be evaluated by? For example, using the above example, what reduction in net infiltration will be required for successful closure implementation.
- c. What criteria is the company proposing to evaluate if the establishment of vegetation on the covers will be successful? For all other closure components, they have stated that they will create conditions for natural re-vegetation, a low bar that will be much easier to accomplish and evaluate.

IR Number: 5.1
Source: Yellowknives Dene First Nation
To: Fortune Minerals
Subject: Water Management - Nitrates

Preamble

Several of the other mines in the Territory have encountered issues associated with nitrate (and ammonia) levels in the effluent that were not predicted. Why is this not expected to be a potential water quality issue with the Fortune project?

Request

YKDFN request that the company provide discussions explaining why these contaminants of concern are not expected to occur at significant levels within the waste stream.

IR Number: 5.2

Source: Yellowknives Dene First Nation

To: Fortune Minerals

Subject: Site Specific Water Quality Guidelines

Preamble

There is no justification provided for the application of site specific water quality guidelines, which would generally result in degradations of the receiving environment water quality. Almost unilaterally dispensing with the CCME's Water Quality for the protection of Freshwater Aquatic Life is not a precautionary approach – it suggests an approach whereby the development could not or did not seek to try and meet CCME guidelines, so established new objectives which were achievable.

Request

YKDFN request:

- 1) The company provides justification for the development and application of a wide range of SSWQO instead of utilizing the CCME guidelines for the protection of aquatic life.
- 2) The company explains how they valued the unaltered water quality within the receiving environment and/or; the company explains how they 'costed' the deposition of waste in an effectively pristine receiving environment.

IR Number: 5.3
Source: Yellowknives Dene First Nation
To: Fortune Minerals
Subject: Post Operations Water Management

Preamble

In section 9.4.1.2.1, the design standard for extreme water events is not clear. Extending this line of thought, it is not clear how the role of climatic change will alter the precipitation regime. As YKDFN understands the predictions, the probability of more extreme events will increase, which suggests that the extreme events return period (eg. 1 in 20 year event) which engineers plan for needs to be reconsidered. This is especially true considering the operational period and the long post-operations phase.

Secondly, in Chapter 7, the company seems to suggest that the site specific water quality objectives that they have proposed for the operational period be left in place for the post-operations/closure phases.

Request

YKDFN request that the company provide information on the extreme water design standards that were used for this project as well as what climatic modeling they used to establish the benchmarks for the values used in the return periods of extreme events.

YKDFN also request that the company provide discussion and clear commitments on what effluent quality criteria they suggest should apply after operations cease. Including information on just what the company intends to do, both in terms of the objectives of the establishment of the wetlands, but also on the design and optimization in terms of meeting these EQC's would be valuable in terms of the consideration of effective criteria.