

City of Yellowknife

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February 28, 2011

Tara Kramers
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Yellowknife, NT
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Dear Ms. Kramers:

Re: Giant Mine EAs

The City of Yellowknife is pleased to submit the following Information Requests to INAC and the Review Board.

If you have any questions or if we can clarify these concerns, please contact Jeffrey Humble, Director of Planning and Development at 920-5633.

Sincerely,

Mayor Gordon Van Tighem

Encl.

Cc: Allan Erlich – MVEIRB (via email)
Todd Slack, YKDFN (via email)
Kevin O'reilly, Allternatives North (via email)
Dennis Kefalas, Public Works
Kerry Penney, Legal Services

GIANT MINE REMEDIATION

1.0 Review Board - Townsite Remediation Standards

Reference

DAR, Page 1-5 Section 1.2.1 - #2

DAR, Page 2-5 Section 2.3.3 – Soil Remediation Standards

Preamble

The DAR discusses the remediation standards of the site and emphasizes that it will be remediated to the industrial standard. The Review Board determined that industrial soil remediation was acceptable as it was an improvement to existing soil quality and would not adversely effect the environment. Throughout the process the City has continued to emphasize the need to remediate the Giant Mine Townsite to the residential standard. This is the traditional use of the land since the mine was established and the City already has an overcapacity of industrial zoned land in the City. In addition to developed and undeveloped industrial zoned lands within the municipal boundaries, further industrial lands will be added as a result of the Con Mine Remediation. The City has negotiated with Newmont Mining to remediate a portion of those lands to the Residential Standard. Given the socioeconomic and environmental legacy of Giant Mine on the City and region, the City requests fuller analysis on an acceptable remediation standard for portions of the site be provided. From the City's reports and findings there is more than 50 years worth of industrial land in the City based on the two mines and existing industrial parks, and this is not reflected in the DAR's socioeconomic analysis.

Request

- 1. Please review municipal documents and provide an analysis of the economic, land use, and growth characteristics of Yellowknife to determine whether there is an overcapacity of industrial land available in the City.
- Please address the economic and market viability of site redevelopment and reinvestment of the Giant Mine Townsite based on soil remediation to the industrial standard.
- 3. Please identify the land area of the site and the portion which the City has requested be remediated to the residential standard.
- 4. Please have the GNWT explain the intentions of site remediation standards for the site, in particular the Giant Mine Townsite given the original use of this area and the Community's interest in encouraging viable redevelopment.
- 5. Please provide the cost breakdown differentiating the variation in costs for the remediation work of the Giant Mine Townsite for the residential versus the industrial standard.

2.0 Tailings Coverings

Reference

DAR, Page 6-63, 6.6.6 Tailings cover

Preamble

The proposed conceptual tailings coverings suggest up to several hundred centimetres of cover potentially with geotextile fabric between tailings and coarse protective layer. The report indicates final design will be based on a cost-benefit analysis. Given the future public use of the site as passive and active recreation, the City has previously requested a sufficient coverage to ensure public health and safety. This was a key issue during the Con Mine Abandonment and Restoration Process and it was determined that Con Miramar (Newmont Mining) will provided specific cover over the tailings ponds. Given plans to re-establish the tailings as recreation areas, the City is concerned that what is being considered may be insufficient to properly mitigate health and safety risks.

Request

- 1. Please review the design of the Con Mine site and elaborate on the rationale for the depth proposed at Giant Mine site. What factors are considered in the cost-benefit analysis to propose lesser depths then what has been proposed for Con Mine?
- 2. Please explain what factors should be considered in determining the proper coverings depth and what risks there are of contaminants being exposed based on insufficient coverings.
- 3. What are the health and safety risks to the public associated with insufficient covering depths or exclusion of geotextile fabric between the contaminants and the coverings?
- 4. How will the Project Team ensure that the vegetation which is planted will become established? What monitoring program will be in place to ensure the plant material is sustained and will survive? If plant material dies in first several years will the Project Team provide an assurance that additional material will be planted until all is well-established?

3.0 Relevant Permits and Authorizations

Reference

DAR, Page 6-99 to 6-100 Table 6.13.1 Relevant Permits...

Preamble

The DAR indicates the Project Team will seek all approvals needed to complete the work and lists the permits and authorizations required in Table 6.13.1. The table fails to include the City of Yellowknife's Development Permit which is governed by Zoning Bylaw 4404 or the City's Building Permit which is governed by Building Bylaw 4469.

All work within the City which significantly alters the grade of a site, demolishes buildings, or builds structures are required such permits. Significant work has been undertaken to date and no such permits have been applied for by INAC.

Request

- 1. Why are the City of Yellowknife's bylaws excluded from the list of permits required and why have no such permits been applied for to date?
- 2. Will the Project Team be making application for works completed to date and what process will be established for ongoing work which falls under the City's Zoning Bylaw and Building Bylaw?

4.0 Water Treatment

Reference

DAR, Page 6-75, 6.8.5 Treatment Plant and Process

DAR, Page 6-76, 6.8.5 Sludge Management

DAR, Page 6-76, 6.8.6 Outfall Diffuser

DAR, Page 6-81, 6.8.7 Predicted Arsenic and Water Balance

Preamble

The section discusses what will be done or proposed to be done regarding water treatment, sludge management, discharging the treated water and arsenic impact on Yellowknife Bay in general terms, which doesn't alleviate the concerns of the City but in turn raises more concerns.

Request

- 1. Please provide a description of the technology that is intended to be used to treat the contaminated water.
- 2. Please provide clarification by the statement "best available" does this mean the latest technology on the market or what is readily available in terms of delivery.
- 3. The DAR discusses the need for a small surface disposal facility to handle the sludge, please provide specifications for synthetic and natural cover materials and the sources for the natural materials.
- 4. Please provide information regarding water temperatures that will be discharged into Yellowknife Bay at any given time of the year. While reference is made regarding "Trapped Zones" will this discharge have any impact on the formation of ice or the quality of ice that eventually forms? Will any pilot projects be conducted to help determine the optimal design of the diffuser? If not please provide justification as to why this wasn't given any consideration.
- 5. The DAR also neglects consideration that the City may revert to using Yellowknife Bay as its main water source, given this possibility and the fact the Federal Government paid for the original submerged pipeline used to draw water

from the Yellowknife River why wasn't the replacement of the existing pipeline included in this section or for consideration?

5.0 Sediment Quality

Reference

DAR, Page 7-18, 7.1.4.2 Local Study Area

<u>Preamble</u>

This section discusses the historical loading and sediment quality of Yellowknife Bay as well the possible threat the arsenic contained in the sediment may pose. The last sentence, first paragraph on page 7-18 specifically states "The arsenic in...is considered to occur in a stable form provided... conditions are maintained".

- 1. Have any studies or scenarios been generated to determine and/or predict how or what could change these conditions and what would happen if the conditions did change? Has any consideration been given how potential final uses of this area would affect the existing conditions and were any mitigating measures proposed to help ensure the current conditions continue?
- 2. Given the complexity and potential threat of the issue shouldn't other options including encapsulation been explored under this section or given due consideration?

6.0 Aquatic Environment

Reference

Page 7-60, Section 7.4.2.1

Preamble

Under the section on "Underwater Video Habitat Analysis" it explains the methodology around the use of underwater video to determine sediment type and aquatic macrophyte distribution along the proposed routes for the diffuser and emphasizes that lack of quality of some of the video taking.

1. Given the enormity of the project why wasn't the underwater video reviewed at the end of each day to determine the quality of the video and whether or not it was useful? Please provide the proposed schedule to obtain additional video?

7.0 Future Land Use and Redevelopment

Reference

DAR, Page 8-104, Table 8.11.1 Evaluation Criteria for Additional Community Interests DAR, Page 6-57, 6.6.2 Tailings and Sludge: Methods Selection, Alternatives and Preferred Alternative

Preamble

The DAR outlines the four Environmental Subcomponents for evaluating community interests: Land Use, Visual and Cultural Setting; Socio-economic Conditions; Transportation, and Local Resources. Based on the remediation plan it is not adequately demonstrated that these issues have been integrated into a future land use framework for the site. It appears from the DAR that a piece-meal approach is being taken to addressing community interests by separating the remediation work stage, from the community-based future land use vision for the site. The concern is that without an integrated approach to addressing the remediation, restoration, land use and future redevelopment of the site, the Communities will bear the responsibilities, costs, and liabilities of inadequate remediation and infrastructure improvements.

Request

- 1. Please provide an integrated land use plan for the site which reflects the Communities' interests and opportunities for siting residential, commercial, industrial, and passive and active recreation based on soil remediation, contamination levels, and proposed infrastructure.
- 2. Please provide a transportation plan for the site to demonstrate practical options for integrating existing and potential road networks, land uses, and pathways into the site.
- 3. Please comment on the heritage aspects of the Townsite in relation to the evaluation criteria of the community interests.
- 4. Please provide the potential restoration, redevelopment, or economic revitalization opportunities which might exist for the Communities regarding the future land use of the mine. What project innovation is being integrated into the site remediation process?

8.0 Adverse Effects on Hydrology

Reference

Page 8-12, Section 8.4.2.5 Residual Effects, Table 8.4.2 Assessment of Potentially Adverse Effects on Hydrology

Page 8-16, Section 8.4.3.2

Preamble

Section 8.4 discusses the predicted effects the remediation and mitigative measures will have on the surface water environment including hydrology, water quality and sediment quality.

1. Under the heading "Is Further Consideration Req'd? When?" in Table 8.4.2 for activity "Earthworks" the table indicates "yes" but only during the detailed design phase and in preparation of the environment management plan. Under the same

heading for the activity "Discharge of Treated Minewater to Great Slave Lake" the table indicates "no". Given the sensitivity of both Baker Creek and Yellowknife Bay why wasn't establishing a long term monitoring program to ensure there were no negative impacts created by the proposed activities given consideration? Do reports or studies exist that guarantee such activities will be successful with no adverse affects? If so please provide copies?

2. Please provide confirmation based on the dewatering operations proposed that the intent of the remediation is to eliminate the formation of "pit lakes"?

9.0 Guarantee Remediation Will Proceed

Reference

Page 8-15, Section 8.4.3.1 Positive Effects of Remediation

Preamble

In this section the DAR discusses the positive effects the remediation will have and makes comparisons to unmanaged "walking away" scenario, not an appropriate comparison but one nonetheless, towards the end of the first paragraph on page 8-15 the DAR indicates that the "walking away" scenario will not be allowed to happen.

1. Please provide legislation, decrees or parliamentary motions that guarantee the "walking away" scenario will not be allowed to occur?

10.0 Heritage and Traditional Knowledge

Reference

DAR, Page 1-27 and 1-28, Treasury Board Framework for Investment Planning – Assets and Acquired Services

DAR, Page 2-28 and 2-29, Use of Traditional Knowledge

DAR, Page 6-4. 6.1.2 Summary of Post-Remediation Conditions

Preamble

The DAR recognizes the heritage value of the existing buildings and townsites and also mentions the Treasury Board Framework for Investment Planning in government program delivery in federal projects. The program identifies the protection of heritage, the environment, and sound stewardship as key objectives. Other sections of the DAR emphasize the need for incorporating traditional knowledge into the process. From the City's perspective, the integration of the heritage and traditional knowledge into the remediation process is essential and should be reflected in the Remediation Plan. While the Plan discusses the history of the mine and the traditional knowledge and heritage of the YKDFN, it does not demonstrate how these will be practically integrated into the remediation process and the future use of the site. In addition to a clear heritage preservation strategy the City believes that the opportunity to embrace the Giant Mine legacy and its opportunities for the future may be missed unless carefully incorporated into the process.

Request

- 1. Please explain the heritage preservation strategy for the Giant Mine Townsite and what form of investment will be made to preserve or restore some of the existing site assets (i.e. heritage dwellings, buildings, Great Slave Cruising Club docking facility). When will this planning commence?
- 2. Please outline the heritage and traditional knowledge significance of utilizing the Giant Mine Townsite and waterfront as a place of residence, recreation, and business for the communities of Dettah, Ndilo, and Yellowknife. Will further analysis of this issue be provided along with meaningful consultation which engages the communities on how this will be practically pursued?
- 3. What opportunities for public education regarding the history and heritage of Giant Mine have been discussed by the Project Team? How will these be integrated into the site to reflect the legacy of the mine on the adjacent communities?

11.0 Marina Remediation

Reference

DAR, Page 2-5 Section 2.3.3 Historic Dispersion of Arsenic Trioxide DAR, Page 3-5, 3.4.1 Spatial Boundaries – Site Study Area DAR, Page 6-67, Section 6.7 Historic Foreshore Tailings

Preamble

In 2006 the City of Yellowknife completed and adopted the Giant Mine Lease Area Land/Water Use Plan. In addition to the redevelopment of the Townsite the Giant Mine Land/Water Use Plan identifies the development of the shoreline as a recreational space and envisions continued opportunities for leasing waterfront space to the Great Slave Cruising Club and a City boat launch. Based on increasing traffic congestion in Old Town, the City has received requests from the private sector to establish a marina facility which resulted in the issuance of a Request for Proposal in 2008. Despite receiving several proposals the City was not in a position to proceed due to the unknown remediation plans for the shoreline tailings at the mouth of Baker Creek. In 2010 the City established a Harbour Planning Committee based on funding support from Canadian Northern Economic Development Agency. A consulting team has been appointed and is exploring a number of waterfront projects for the City, one of which is the construction of a Giant Mine Marina. In this context and the recreational plans for the area, the City has significant concerns with regards to the contaminants at the mouth of Baker Creek. The disturbance of the contaminants from recreational activities, construction, or dredging has not been considered or addressed in the DAR.

Request

- 1. Please clarify in a map whether the water lots of the Cruising Club lease, boat launch, and waterfront recreational area identified in the City of Yellowknife Plan is included in the SSA.
- 2. Please indicate whether the removal of contaminants or other mitigation measures are considered as part of the remediation plan.
- 3. What risks, if any, exist regarding the disturbance of the contaminants in the bay area at the mouth of Baker Creek given the boat launch and mooring activities which are taking place?
- 4. Please indicate what public health risks are present with reference to the contaminants in the bay area near Giant Mine site given the waterfront recreational opportunities available to the public (i.e. swimming, boating).
- 5. What are the potential health and environmental risks if the City, private sector or third party (i.e. Great Slave Cruising Club) were to undertake construction which disturbs the lakebed, or if dredging is required to facilitate the development of a marina adjacent Baker Creek? How will these risks be mitigated in the remediation plans?
- 6. Should the Communities and Great Slave Cruising Club be required to relocate the boat launch and marina development to another location as a result of contamination, will appropriate compensation be provided for the design, relocation and construction of a Marina at a new site? Please provide a review of costs associated with redeveloping the Townsite to include a marina versus relocation and construction at a new site.

12.0 Building Remediation

Reference

DAR, Pages 6-93 to 6-95 Buildings to Remain on Site

Preamble

As noted in the Giant Mine Plan (2006) and in the minutes of the Yellowknife Heritage Committee, the City maintains an interest in preserving a number of the heritage buildings in the Giant Mine Townsite. The City has conducted several inspections of these buildings and it is evident that a number of the buildings have environmental issues (i.e. asbestos, black mould, lead paint) and that others are significantly dilapidated. Based on some 20 structures within the Townsite the City has considered to preserve and restore 4-5. Significant investment is required to address the structural and environmental issues to bring these buildings up to code so that they may be fit for occupancy.

Request

- 1. Please elaborate on whether funding is available to deal with the structural and environmental issues of targeted buildings within the Townsite.
- 2. Please elaborate on what environmental and structural analysis has been provided on these buildings or will be provided as part of the remediation process.

13.0 Training and Education/Economic Development/Innovation

Reference

DAR, Page 1-18 Section 1.6.2

DAR, Page 1-26 Partnership with First Nations – Last Bullet Point.

DAR, Page 1-28 -First Paragraph

Preamble

In 2008 the City completed a report entitled Northwest Territories Science and Technology Park Yellowknife Facility which looked at the business case for the establishment of a Northern Science and Technology Centre. The Centre was envisioned to promote research and development relating to environmental stewardship, traditional knowledge, and northern approaches to innovative technology based on partnerships with various levels of government and organizations. A portion of the Facility was envisioned to be constructed around the Con Mine site which has the potential to attract investment based on the brownfield redevelopment potential and the geothermal district that is currently being pursued by the City. The City is currently in the process securing funding for a \$60 million investment for a district geothermal system that will draw energy from Con Mine for distribution to buildings in the Downtown core.

Based on the significant financial investment which INAC is making in this project, the City sees incredible potential for training and education, economic development, and innovation to be major components of the remediation project. The DAR discusses INAC's emphasis on promoting positive social and economic impacts for communities in all its contaminated sites projects through employment training, supporting local business, economic opportunities for First Nations, and so on. While this is identified in the Plan, there is no clear strategy as to how this will be achieved or how the local communities will be engaged. It appears that the opportunities for leveraging socioeconomic benefits will be diminished if these strategies are not fully considered by the Communities during the remediation planning stages.

Request

Based on the City's interest in the redevelopment potential of the Giant Mine site
and the innovative technology which is being applied to freeze in place the
arsenic trioxide, please elaborate on whether value-added benefits or innovative
synergies have been explored with regards to economic development
opportunities, building innovation, or training and education.

- 2. Please outline what training and education opportunities or research and development opportunities exist with reference to the Giant Mine remediation plan and the City's plans for a Northern Science and Technology Centre as outlined in the Northwest Territories Science and Technology Park Yellowknife Facility. Which opportunities exist for the immediate term (i.e. 5-10 years) and which opportunities existing for the long-term (i.e. 10-50 years)?
- 3. Please identify what local organizations have been approached with reference to economic developing, education or building innovation opportunities. What organizations might be approached to mobilize capacity in this area?
- 4. Please elaborate on what process is in place for the Communities to be engaged so that the socioeconomic benefits of the Giant Mine Remediation process are maximized.
- 5. Please elaborate on what visitor education and access will be provided on site with regards to the legacy of Giant Mine, the remediation process, and the innovative technologies employed.

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