

# Memorandum

DATE: 13 February 2019

TO: Jennifer Winsor
Environmental Approvals Branch
Manitoba Sustainable Development
1007 Century Street, Winnipeg

FROM: Muntaseer Ibn Azkar
Air Quality Section
Environmental Compliance and
Enforcement Branch
Manitoba Sustainable Development
1007 Century Street, Winnipeg

SUBJECT: Wanipigow Sand Extraction Project - Canadian Premium Sand Inc. (File 5991.00)

Air Quality Section has reviewed the above proposal and provides the following comments:

- Air Quality Section suggests that the proponent provides a more detailed emission estimation and emission calculation for each production process and other components of the project.
- Dust emissions from fugitive sources such as aggregate storage piles, paved and unpaved roads within the project area and construction activities appears to be not considered in the emission estimation process.
- Based on the submitted modeling results, the concentration of PM<sub>10</sub> and PM<sub>2.5</sub> in the surrounding project area may be exceeded during the project's operation. In addition, model results show possible exceedances of the Manitoba Ambient Air Quality Criteria (MAAQC) for NO<sub>2</sub> due to the internal combustion of the equipment operation activities in the project. Hence, there is likelihood that the proposed project activities will contribute to the deterioration of ambient air quality in the area. Moreover, some local meteorological phenomena such as lake and land breeze effect might transport pollutants to the nearby communities. It is suggested then that additional mitigation measures may be considered if the current measures are inadequate.
- Air Quality Section suggests that the proponent submit a more detailed particulate matter emission mitigation plan and an ambient air quality monitoring plan.
- Crystalline silica content of particulate matter is a health concern for this type of operation. It is suggested that the proponent submit a detailed characterization of the particulate matter indicating silica content.

From:

Pochailo, Janis (MR)

Sent:

February-15-19 1:19 PM

To:

Winsor, Jennifer (SD)

Cc:

Keith Seymour

Subject:

Environment Act Proposal for TAC Review - Wanipigow Sand Extraction Project - File

No. 5991.00

Re. Environment Act Proposal for TAC Review

Wanipigow Sand Extraction Project

File No. 5991.00

Incorporated Community of Seymourville

Received: January 11, 2019 Due: February 12, 2019

Community and Regional Planning has received the above noted Environment Act Proposal for review and comment. We understand that the Wanipigow Sand Extraction Project is to consist of an open pit sand quarry including sequential annual quarry site reclamation; sand washing and drying within a fully enclosed wash and dry facility; ancillary facilities including permanent office and storage building; a paved 6 km long main access road and 1.5 km gravel access road for use during Project construction and for emergency access during Project operation. The wash and dry facility and the proposed gravel road are to be located entirely within the boundaries of the Incorporated Community of Seymourville. Most of the quarry sites and a segment of the paved road are also to be located within the community. The balance of the project is to be located in unorganized territory which is under control of Manitoba Indigenous and Northern Relations. The total land area within the outer boundary of the quarry lease area is 2,289 ha and the project life span is estimated to be 54 years.

The subject property is designated as **Natural Area** in *The Incorporated Community of Seymourville Development Plan* and **"NA" Natural Area Zone** in *The Incorporated Community of Seymourville Zoning By-law*. The development Plan allows for "resource harvesting" and "limited commercial uses that are deemed compatible with the surrounding environment" within the Natural Area, and the zoning by-law lists "resource harvesting activities, including silica sand extraction and mineral access rights" as a conditional use. As such, community and Regional Planning have no objection to the application as proposed; however the applicant should be advised that Part 5 of *The Planning Act CCSM P80*, gives the municipality the power, through their zoning by-law, to prescribe general development requirements for all lands within the municipalities jurisdiction. As the proposed land use is identified as "conditional" Part 7 of *The Planning Act* applies. Council may choose to reject the application or approve it with or without conditions. The conditions of approval may include the requirement for a development agreement under Section 150 of The Planning Act.

Thank you for the opportunity to comment on this application,

#### Janis Pochailo, RPP, MCIP

Community Planner Community and Regional Planning Box 50, L01 - 20 First Street Beausejour MB R0E 0C0

Ph: 204-268-6065 Fax: 204-268-6007

Email: Janis.Pochailo@gov.mb.ca

Miller, Glenn (SD) From:

Sent: February-12-19 8:48 AM Winsor, Jennifer (SD) To:

Cc: Frias, Winifred (SD)

Subject: FW: Environment Act Proposal for TAC Review - Wanipigow Sand Extraction Project -

File No. 5991.00

Canadian Premium Sand.docx Attachments:

Hi Jennifer, please see attached comments from Eastern Region SD.

#### **Thanks**

Glenn Miller (204) 345-1452 Eastern Region Regional Land Manager

From: Frias, Winifred (SD) < Winifred. Frias@gov.mb.ca>

Sent: January 15, 2019 12:33 PM

To: Miller, Glenn (SD) <Glenn.Miller@gov.mb.ca>

Subject: Environment Act Proposal for TAC Review - Wanipigow Sand Extraction Project - File No. 5991.00

#### Hi Glenn

Respectfully forwarding for your comments

#### Kind regards

#### Winifred Frias

Crown Land Programs Administrator Lands Branch Department of Sustainable Development 200 Saulteaux Crescent, Box 25 Winnipeg, Manitoba R3J 3W3 CANADA Phone: (204) 945-4524

Facsimile: (204) 948-2197







Please consider the environment before printing this e-mail

From: Winsor, Jennifer (SD) <Jennifer.Winsor@gov.mb.ca>

Sent: January-09-19 3:08 PM

To: Wilson, Brian (AGR) < Brian. Wilson@gov.mb.ca>; Markwart, Larry (SD) < Larry. Markwart@gov.mb.ca>; Labossiere, Don (SD) < <u>Don.Labossiere@gov.mb.ca</u>>; Cunningham, Neil (SD) < <u>Neil.Cunningham@gov.mb.ca</u>>; Molod, Rommel (SD)

<<u>Rommel.Molod@gov.mb.ca</u>>; Kiss, Brian (SD) <<u>Brian.Kiss@gov.mb.ca</u>>; Janusz, Laureen R (SD)

<Laureen.Janusz@gov.mb.ca>; Kelly, Jason (SD) <Jason.Kelly@gov.mb.ca>; Epp, Jane (SD) <Jane.Epp@gov.mb.ca>;

#### Comments

## **Wanipigow Sand Extraction Project**

- Timber should be disposed of in a commercial manner under the authority of a timber sales agreement, as spelled out in The Forest Act. If there is no uptake in an auction process, the timber can either be direct awarded to the proponent through a timber sale or through a timber damage appraisal. Wasted timber, or unauthorized removal of timber, are dealt with through The Forest Act and The Forest Management.
- From a forest renewal perspective, the site should be progressively rehabilitated. This will have the least amount of impact to the long-term sustainability of the forest. This sustainability issue relates to flora and fauna found in the forest, not just the trees associated with a forest and Use Regulation.
- the Licence should include a remediation plan requiring the site be returned to a natural state on a progressive basis and that the group meet with the IRMT annually to discuss remediation plans for the year

## Other Comments (by Section):

## **Executive Summary**

- States that ``no adverse long term effects to vegetation and regional wildlife
  populations are anticipated`` as `the natural land cover that will be cleared for the
  project is common to the regional area, and the extent of clearing will be limited with
  progressive rehabilitation and re-vegetation of disturbed areas conducted in
  accordance with a closure plan`.
- Comments:
  - The natural land cover does not appear to be ``common`` to the regional
    area, as the underlying soils and surficial geology appear to be substantially
    different in the Local Project Area compared to the Regional Project Area..
  - The Closure Plan has not yet been developed. As rehabilitation is planned to be ongoing through the life of the Project, the Closure Plan should be submitted for review as soon as possible, and annual reviews with field staff should occur to discuss the progress of rehabilitation and proposals for the current year.

## 2.2 Quarrying

• States that... ``reclamation will occur concurrently with the quarrying, utilizing the overburden that was stockpiled during quarry cell development. Once a quarry cell is ready for reclamation, CPS will revegetate with a native seed mixture and tree saplings appropriate for the area which will be used for reclaiming the quarry cell and the subsequent quarry cells each year for the life of the Project.``

#### Comments:

 We are assuming that details on re-vegetation, including maps, will be in the Closure Plan; however; annual meetings should occur to view rehabilitation progress and proposals for the current year.

#### 2.7 Access Roads

• States that ``both access roads will be gated to control Project Site access``.

#### Comments:

• We do not believe that it will be possible to control access, given the expected volume of traffic (An estimated 78 vehicles per hour will be entering and exiting the intersection of the Project main access roads with the Hollow Water Main Road. An estimated 96 vehicles per hour will be entering and exiting the intersection of Hollow Water Main Road with PR 304). It is unlikely that every truck will stop to unlock and re-lock the gate, therefore, access will effectively be open.

## 2.13 Project Schedule

- Table 2-2 requires clarification: It states that ...
  - Improvements to existing 1.5 km access road for construction and emergency use Q2, 2019
  - Construction of main access road and powerline Q2 Q3, 2019
  - Quarrying Initial production year: Q3 Q4, 2019 Each production year thereafter: (year-round; 24 hours/day, 7 days/week)
  - Reclamation and Closure Annual sequential (progressive) reclamation of
  - quarry cells Project Site reclamation (closure) at end of Project Life (54 years):
     2073

## • Comments:

- o Please provide a map indicating where Q2, Q3 and Q4 are. The map submitted with the application depicts QL lease # areas, but not Q2, Q3 and Q4.
- o Annual meetings with the proponent and departmental staff should occur to discuss reclamation progress and review the annual reclamation plans.

#### 3.1 Temporal Boundaries

#### Comments:

O Please clarify (with maps illustrating QL #s) the sequence of road building (main roads and secondary roads), quarrying and reclamation. It is not clear where quarrying will begin and how it will proceed. Our preference is to build the main access road, and then begin quarrying at the end of road, thereby allowing access to be decommissioned in a progressive (back to front) and orderly manner.

## 3.2 Spatial Boundaries

- States that:
  - Local Project Area is comprised of an area 2 km beyond the Project Site, which is intended to take into account the majority of direct and indirect effects of

- the Project on ECs (such as wildlife habitat loss related to vegetation clearing and noise).
- Regional Project Area is comprised of an area up to 10 km beyond the Project Site, which is intended to take into account the maximum spatial extent of potential effect of the Project, with the exception of highway traffic related to Project trucks transporting silica sand to Winnipeg for distribution.

#### Comments:

o For highly mobile mammal and avian species the majority of direct and indirect effects of the Project will likely <u>not</u> be restricted to an area 2 km beyond the Project Site. Furthermore, we do not believe that 10 km reflects the maximum spatial extent of potential effect of the Project. Rather, given the scope and duration of the Project, the Project has the potential to exert affects on a variety of species, possibly beyond 10 km. The only way to assess effects is through monitoring, and the proponent does not plan on conducting any wildlife monitoring activities.

#### 4.3.1 Vegetation

 States that: No land cover or habitats considered rare for the Regional Project Area were observed in the Local Project Site area during the terrestrial reconnaissance.

#### Comments:

- O Please clarify how the terrestrial (field?) reconnaissance was conducted (e.g. time of year, transects, routes, what was recorded), as well as what would be considered "rare". The information in Table 4-1 suggests that the Project Area appears to be different from what is present in the Regional Area. For example, the Local Project Area appears to be substantially higher, drier and appreciably more deciduous-dominated compared to the Regional Project Area.
- o Figure 4-4 and 4-5 are not consistent in their depiction of "forested".
- o What is meant by "mature" and "over-mature"? "Young" is described in Table 4-3 as greater than 3 m, but there is no description of mature or over-mature.

#### 4.3.2 Wildlife

• States that: During the TEK session, Elders indicated that moose are not common in the Regional Project Area and caribou are not seen in the Regional Project Area.

#### Comments:

- The Local Project Area is within GHA 26, and portions of the Regional Project Area are within two GHAs – GHA 26 and GHA 17A. Recent aerial surveys in these GHAs indicate that moose densities in the Regional Project Area range from "Low" to "Medium". While moose observations in the Project Area are less common than in the Regional Project Area, they are still more common here than in other parts of the GHAs.
- While caribou are wary and difficult to see on-foot, data from previously radio-collared caribou in the indicate that caribou have used habitats in the Regional Project Area (no caribou in this area are collared at the present time).

#### 4.3.3 Species of Conservation Concern

#### Comments:

- Please clarify how the terrestrial (field?) reconnaissance was conducted (e.g. time of year, transects, routes, what was recorded). If in fact, all the terrestrial reconnaissance was conducted during a 3-day period in October (Oct 10-12), the resulting data should not be used to form conclusions about presence and absence of wildlife species (e.g. caribou).
- o Wolverine (a SARA species) is not included in the table, but should be.

## 4.6.4.2 Hunting

#### States that:

- Caribou hunting does not occur in the Local Project Area (Appendix G1).
   Therefore, the potential socioeconomic effects of the Project on caribou hunting will not be assessed in this document.
- The Local Project Area falls within GHA 26, Moose Conservation Zone, where licenced moose hunting is prohibited (Province of Manitoba n.d.). As indicated in Section 4.3.2, results of a previous regional TEK study indicated that the Project Site Area has a low frequency of use of moose occurrence compared with other locations in the Regional Project Area (East Side Road Authority 2009; Appendix G2). Considering moose hunting is not currently conducted in the Local Project Area, the potential socioeconomic effects of the Project on moose hunting will not be assessed in this document.

#### Comments:

- Notwithstanding the lack of caribou hunting in the Local Project Area identified in Hollow Water's TEK study:
  - Any assessment must also consider the Regional Project Area. Now that there is an all-season road all the way to Berens River, traffic has increased on the road and members of some other First Nations using the road have a tradition of harvesting caribou (opportunistically) in the Regional Project Area. Accordingly, lack of caribou hunting in the Local Project Area should not be used as justification for removing caribou from consideration in the assessment.

#### o With respect to moose:

The Local Project Area is within GHA 26, and portions of the Regional Project Area are within two GHAs (– GHA 26 and GHA 17A). Recent aerial surveys in these GHAs indicate that moose densities in the Regional Project Area range from "Low" to "Medium". While moose observations in the Local Project Area are less common than in the Regional Project Area, they are still more common than in other parts of the GHAs. When considering recent changes associated with the new all-season road (e.g increased access, increased traffic volume, increased hunting pressure), it is inaccurate to assume that moose hunting does not occur within the Local Project Area. In view of the importance of moose to indigenous communities, as well as recent moose declines in these areas (hence the current closure to licenced moose hunting in GHA 26), the potential socioeconomic effects of the

Project on moose should have been considered in the both the Regional Project Area and the Local Project Area.

#### 6.4.2 Wildlife

#### States:

- Magnitude of Effect: Moderate
Direction of Effect: Adverse
Duration of Effect: Long term

Frequency: Intermittent

Scope of Effect: Local Project Area

Reversibility: Reversible

- With the application of (the above) mitigation measures, Project impacts to the Regional Project Area wildlife populations are assessed as moderate. The Project is not anticipated to have a measurable effect on wildlife populations within the Lac Seul Upland Ecoregion.

#### Comments:

- o The above clauses are contradictory (Regional vs Local Project Area)
- A number of measures are specified to mitigate effects; however, while some effects may be partially reversible, it will not be possible to reverse other effects. It will be difficult to mitigate certain effects; e.g. posting speed signs will not prevent wildlife collisions, gated access roads will not work as envisioned (see previous comments), no-go windows for nesting birds will help protect birds, but may be inadequate to protect denning mammals. Furthermore, annual rehabilitation will require more discussion to ensure that the stated objectives are being addressed.
- o The Lac Seul Upland Ecoregion should not be the area used to measure effects on wildlife populations. It is more appropriate to measure effects using the Local and Regional Project Areas. This is doable, and the proponent should be required to prepare a proposed wildlife monitoring plan for review.
- The effects of the Project should not be considered in isolation of other developments occurring in the area. Impacts from this project are additive to those already occurring from other factors; as such; the cumulatiove effects of the Project should have been considered in the assessment.

## 6.4.3 Species of Conservation Concern

#### States:

Magnitude of Effect: Minor to Moderate

Direction of Effect: Adverse Duration of Effect: Long term

Frequency: Once

Scope of Effect: Local Project Area

Reversibility: Reversible

#### Comments:

- The Project is expected to have effects within the Regional Project Area, accordingly, caribou should not have been removed from consideration for assessment
- o Wolverine should have been included in the assessment
- o The effects of the Project should not be considered in isolation of other developments occurring in the area. Impacts from this project are additive to those already occurring from other factors; as such; the cumulatiove effects of the Project should have been considered in the assessment.

## 6.6.3 .1 Hunting and Trapping

#### States:

 Magnitude of Effect: Moderate Direction of Effect: Adverse Duration of Effect: Long term Frequency: Continuous Scope of Effect: Project Site Reversibility: Reversible

- It is predicted that the Project would reduce hunting potential, and trapping success along the local Community Trapline, as a result of wildlife displacement from habitat loss due to Project-related vegetation clearing, sensory disturbance (e.g., noise and human presence), and increased wildlife mortality from vehicle collisions. Additionally, there will be changes in access to traditional hunting and trapping areas. It is anticipated these impacts will be long-term due to construction and operation of the quarry. Results of TEK studies have indicated that both hunting and trapping occur more frequently within the Regional Project Area as compared to the Project Site area.

#### Comments:

- o Please explain how these effects are viewed as reversible
- The effects of the Project should not be considered in isolation of other developments occurring in the area. Impacts from this project are additive to those already occurring from other factors; as such; the cumulative effects of the Project should have been considered in the assessment.



# Memorandum

DATE: February 12, 2019

TO: Environmental Assessment and

Licensing Branch
Sustainable Development
1007 Century Street

Winnipeg MB R3H OW4

FROM: Environmental Compliance and

Enforcement Branch
Sustainable Development

Box 4000

Lac du Bonnet MB R0E 1A0

SUBJECT:

**Environment Act Proposal – Wanipigow Sand Extraction Project** 

Client File No. 5991.00

Environmental Compliance and Enforcement Branch has reviewed the above Environment Act Proposal (Proposal) and submits the following comments:

1. The Proposal indicates that:

- there will be approximately 75 people employed during the operation phase and that Canadian Premium Sand (CPS) will upgrade the Seymourville wastewater treatment facility as required, and
- CPS will upgrade the Seymourville wastewater treatment facility/lagoon to accommodate Project wastewater treatment needs, including increased wastewater treatment demand from employees housed in the community, if necessary.

Has CPS calculated the amount of hydraulic and organic loading that the Project is expected to generate during the construction and operation phases? If so, is CPS able to confirm that the Seymourville wastewater treatment lagoon has enough remaining hydraulic and organic capacity to receive this additional waste stream without exceeding its treatment capacity?

If an expansion of the Seymourville lagoon is necessary, where will CPS direct its wastewater in the interim?

2. The Proposal indicates that CPS will conduct regular air quality monitoring during the Project operation phase and that the data collected from the monitoring will be used to update the preliminary draft air dispersion modeling results.

Can CPS clarify what is meant by "regular" air quality monitoring i.e. frequency, as well as provide details regarding the location of the data collection points? How will CPS respond should the air quality monitoring data indicate an exposure concern for employees and/or area residents?



DATE: February 11, 2019

Memorandum

**TO:** Jennifer Winsor, P.Eng.

Environmental Engineer

Environmental Approvals Branch

Department of Sustainable Development 1007 Century Street, Winnipeg, MB

R3H 0W4

**FROM:** Muhammad Iqbal M.Sc. P.Geo.

Groundwater Management Section

WS&WM Branch

Box 18 - 200 Saulteaux Crescent

Winnipeg, MB R3J 3W3

PHONE:

204-795-9957

FILE NO:

5.7.04.02

Via email:

Jennifer. Winsor@gov.mb.ca

**SUBJECT:** EAP Review Wanipigow Sand Extraction Project – File: 5991.00

I have reviewed the above Environment Act Proposal and comments are provided below.

- No site specific geology or groundwater conditions at the site have been described in the proposal. However based on available well information reports the general geology of this area consists of sand, till and clay overburden which is underlain by shale and sandstone of Winnipeg Formation of Ordovician age or at some locations where the Winnipeg Formation is completely eroded, the overburden deposits rest on granite bedrock of Precambrian age. Most of the wells within the provincial database are completed in the granite with some in the overburden sand and gravel aquifer. No information is available on groundwater quality for this area.
- The proposed water source for the project is a combination of groundwater, water from seepage within the annual open quarry pit, and supplemental water that will be trucked to the Project site from a licenced source. To confirm sufficient and sustainable groundwater volumes for the mining operation the proponent is expected (January 2019) to undertake a hydrogeological testing. It is recommended that the hydrogeological study should be designed to collect the necessary information to determine whether there is potential for impacts on groundwater users or the ecosystem.
- If monitoring wells are installed during hydrogeological testing the proponent must adhere to applicable provisions of the Groundwater and Water Well Act and Well Standard Regulation.
- It is anticipated that the Winnipeg Formation at the project location will share similar properties to the deposit that was mined at Black Island in Lake Winnipeg. In 1995, Manitoba Energy and Mines, Minerals Division collected samples at the former quarry on Black Island to assess the metal contents of the shales (Fedikow, et al, 1995). The geochemical analysis of these samples showed that the shales are strongly enriched in heavy metals. Therefore, it is a concern that during the mining operation, tailings composed

of the shale layer has the potential to leach metals to the environment. To address this concern, the proponent should conduct a risk assessment which should consider but not limited to the following;

- Collection of shale samples during the hydrogeological testing and perform geochemical analysis including the potential to generate acid and leach metals.
- Evaluate the potential risk of metals leaching to an aquifer or nearby surface waters.
- Develop a mitigation and monitoring program that takes into account the metals that are present in the shale, potential for impacts to water users and the environment.
- The proponent is proposing to establish a groundwater monitoring program as part of the pre-construction exploration activities in January 2019 (8.2 Groundwater Monitoring, page 98). It is expected that the proponent will submit a monitoring plan to Manitoba Sustainable Development for review. It is recommended that a sufficient baseline information on groundwater levels and quality should be collected prior to the commencement of mining for comparison when assessing possible impacts of mining on the groundwater resources.
- In addition to the nearby wells noted in the proposal, other wells may also be present. An assessment should be undertaken in an effort to locate all wells on the site or areas that could potentially be impacted by the operation.
- Develop a contingency plan should the quarry operation have any negative water quality or quantity impacts on any groundwater users.

#### Reference:

Fedikow, M.A.F; Bamburak, J.D.; and J. Weitzel. 1995, Geochemistry of Ordovician Winnipeg Formation Black Shale, Sandstone and Their Metal-Rich Encrustations, Black Island, Lake Winnipeg, Manitoba Energy and Mines, Minerals Division

Muhammad Iqbal

Subject:

FW: Environment Act Proposal for TAC Review - Wanipigow Sand Extraction Project - File No. 5991.00

From: Robinson, Karen (HSAL) Sent: January-31-19 12:36 PM

**To:** Winsor, Jennifer (SD); Labossiere, Don (SD)

Cc: Roberecki, Susan (HSAL); Hilderman, Tim Dr. (HSAL); Ochoo, Benjamin (HSAL); Roussin, Brent (HC/SC); Koh, Denise

(HSAL); Isaac, Mike (CYO-HCMO)

Subject: FW: Environment Act Proposal for TAC Review - Wanipigow Sand Extraction Project - File No. 5991.00

Hi

Thank you for sending me this proposal. I do have some significant concerns about this proposed silica sand mine. Attached, pleased find results of a literature review and recommendations written by Benjamin Ochoo, our policy analyst.

I looked at the map, and it seems that the quarry will be between 250-500 m from Seymourville, and maybe a similar distance from Hollow Water First Nation. But it is not clear what the exact distances are.

The project has several potential detrimental effects on human health. Here are the main concerns I have at this time, although I have not yet had a chance to discuss this matter with our lead of environmental health, Dr. Roberecki. I will probably have more comments once I have had a chance to discuss this topic with Dr. Roberecki, and Benjamin Ochoo, our policy analyst.

- 1. Distance from human populations The proponent should survey and map human populations in the affected area. It is not clear how many people live in the vicinity of this quarry, processing plant and trucking routes, and where their residences are. A survey should be included which shows the population and the distance to the quarry, processing plant and trucking routes.
- 2. Air quality this is very concerning. Silica dust is well-known to cause adverse health effects, which range from acute silicosis (weeks to months after very high exposures), to accelerated silicosis (5-10 years after exposure) to chronic silicosis (10-30 years after exposure). See this document from Alberta: https://arhca.ab.ca/sites/default/files/Code%20of%20Practice%20Respirable%20Crystalline%20Silica%20TEMPL ATE%20FINAL%202014.pdf The proposal states that there will be exceedances to particulate matter (PM2.5 and PM10) levels, and NO2. Here is what it says about particulate matter on p. 68: "The model predicted exceedances of the MAAQC for particulate matter (PM10 and PM2.5) that are associated with the Project Site operations as well as trucking activities. Predicted model results adjacentto modelled dust-generating activities was predicted to be many times above the MAAQC and predicted model results at sensitive receptors were between 2x and 5x the MAAQC. This prediction considered the dust mitigation measures as listed in Section 6.4.1." Exceedances of particulate matter will potentially have a "moderate" impact, in spite of mitigation measures (see p. 68, and 86-87). It is not clear what kind of monitoring program will be in place, what are maximum acceptable concentrations of particulate matter and silica dust for the general public in Manitoba, and what will happen if air pollutants exceed acceptable concentrations. If silica levels are very high, will the company be planning to evacuate nearby communities? Also, how stringent are provincial air quality standards, and how do they compare to other jurisdictions? Do provincial air quality standards reflect current evidence on effects of air pollutants on human health. I would expect that results of air quality monitoring would be forwarded to the regional medical officer of health.

- 3. Water the proposal states that they are unsure of the effect on groundwater. This should be clarified, as the processing is going to use large amounts of water to wash the sand. Also, I didn't see anything on waste disposal. Will there be water waste, and how will it be disposed?
- 4. Noise the impact of noise on the public is predicted to be "moderate". I'm not sure what this means. Noise levels should be monitored, and they should not exceed acceptable levels. What is the acceptable level of noise for the general public? The noise levels should be monitored in the communities in the vicinity of the quarry. The project will be operating 24 hours per day, 7 days per week (see executive summary). Will night-time operations be expected to operate within lower noise levels?

I am surprised that comments are due Feb 12, but the construction of this quarry is already starting in Feb or March 2019 (see executive summary). I would expect that these concerns will be addressed before construction of this quarry begins. I would suggest a teleconference between the departments of health and sustainable development.

#### Karen

Karen Robinson MD, MPH, CCFP, FRCPC Medical Officer of Health Interlake-Eastern Regional Health Authority Stonewall Community Health Office 589-3rd Avenue S. Stonewall, MB. R0C 2Z0 Ph. 204-467-4410 Cell 204-918-1051 Fax. 204-467-4765

My usual working days are Mondays, Tuesdays and Thursdays.



## Memorandum

DATE: February 11, 2019

TO: Jeni

Jennifer Winsor Environmental Engineer Environmental Approvals Branch Sustainable Development 1007 Century St Winnipeg MB R3H 0W4

FROM: Michelle Méthot

Manager, Program & Strategies

Lands Branch

Sustainable Development Box 25, 200 Saulteaux Cres Winnipeg MB R3J 3W3

PHONE NO.: (204) 792-2025

SUBJECT: Wanipigow Sand Extraction Project - File No. 5991.00

The Wanipigow sand extraction project site (Project Site) and project components will be located on quarry lease areas with the exception of an approximately 300 m length of main access road and adjacent powerline right-of-ways on Crown land. Any further activities outside of the quarry lease that are on Crown land will require Crown land permits.

The Project Site is situated in part within the Incorporated Community of Seymourville (Director of Survey Plan 19311) and immediately adjacent to Hollow Water First Nation, existing cottage developments and Crown lands with potential for future cottage development. The Incorporated Community of Seymourville Zoning By-Law Map 1 - Natural and Seasonal Recreation Areas, identifies lands adjacent to the Project Site as zoned Seasonal Recreational and within Seymourville as Residential. As such, there are incompatible land uses between the Project Site and adjacent lands, communities and developments. Health, safety and nuisances (such as noise) associated with the Project Site must be considered and prevented to ensure that the Wanipigow Sand Extraction Project does not negatively affect existing developments or designated land uses.

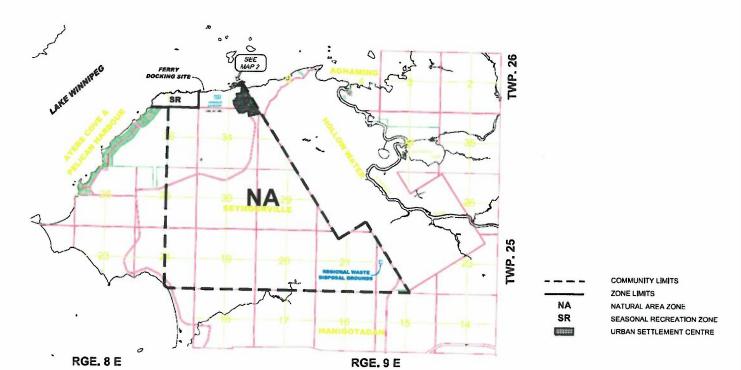


Fig. 1 Extract of Map 1 - Natural and Seasonal Recreation Areas, Seymourville

The Environment Act Proposal notes that clearing will be limited with progressive rehabilitation and revegetation. Section 6.2.1 identifies that "re-contouring of the land to conform with the surrounding area will result in minor residual impacts to the Project Site topography" and to "return topography to preconstruction conditions to the extent feasible". However, cross sectional or volumetric information is not provided to facilitate assessment of projected topography beyond the anticipated life of the Wanipogow Sand Extraction Project. Lands Branch recommends Canadian Premium Sand Inc. (CPS) submit the Closure Plan in order to review post Project long-term effects to the landscape.

Section 4.2.1, Surface Water and Drainage, identifies that "Within the Project Site, surface water drainage occurs westwards towards Lake Winnipeg through low drainage areas including bogs". In addition, 6.3.1 states, "Residual effects from road construction and clearing, levelling, compacting, and construction of Project infrastructure has the potential to increase surface water runoff within the Project Site and Local Project Area. Construction of culverts along Project access roads, as required, will assist in directing runoff flow and maintaining natural drainage pathways through low areas such as bogs."

Surface water within the Project Site is addressed through ditching which will be constructed to direct drainage to an active quarry cell. However, existing communities, cottages developments and Crown lands are located immediately adjacent to the project area (4.6.5.3 Cottages). The report does not address impacts to adjacent communities, developments and Crown lands from the residual effects of clearing, construction and culvert installation beyond the Project Site.

Section 2.8 states that there will not be a worker camp on-site and employees will be housed in surrounding communities. Vacant surveyed Crown lots are existing within the Community of Seymourville for housing development. The Community of Seymourville has recently undergone a sewage lagoon expansion, although the expansion was to accommodate existing community needs plus incremental development. Section 6.6.2.3 states "CPS will upgrade the Seymourville wastewater treatment facility/lagoon to accommodate Project wastewater treatment needs, including increased wastewater treatment demand from employees housed in the community, if necessary". Recommend CPS review housing needs and work with community and the Department of Indigenous and Northern Relations to address wastewater capacity.

Figure B-1, proposed project area showing quarry leases, identifies QL-2988, however as noted in an October 4, 2018 correspondence by the Department of Growth Enterprise and Trade states that QL 2988 will not be processed. Lands Branch advises to remove the reference to QL-2988 from this map. <a href="https://www.gov.mb.ca/sd/eal/registries/5991wanipigow/appendix">https://www.gov.mb.ca/sd/eal/registries/5991wanipigow/appendix</a> i part 2.pdf



#### Infrastructure

Highway Planning and Design Branch Environmental Services Section 1420 – 215 Garry St., Winnipeg, MB R3C 3P3 T (204) 771-4941 F (204) 945-0593

February 12, 2019

Siobhan Burland Ross, M.Eng., P. Eng. A/Director, Environmental Approvals Branch Manitoba Sustainable Development 1007 Century Street Winnipeg MB R3H 0W4

RE: Canadian Premium Sand

Client File No. 5991.00

Dear Ms. Burland Ross:

MI has reviewed the proposal under the *Environment Act* noted above and offers the following comments/concerns:

Water Management and Structures

The proposed truck haul route will be crossing the Pine Falls Generating Station. Manitoba Infrastructure and Manitoba Hydro have a shared agreement for the deck over the generating station. More discussions with Manitoba Hydro are needed to address the additional traffic and safety concerns along this portion of the route.

For questions regarding this comment, please contact Russ Andrushuk, P. Eng, Acting Executive Director of Structures, at (204) 945-5058 or at Russ.Andrushuk@gov.mb.ca.

Eastern Regional Operations & Highway Planning and Design – Roadside Development

The proposed project may have negative impacts to the provincial highway network and a Traffic Impact Study is needed to determine if any on-highway improvements are required on the provincial highway network.

The department has been in negotiations with Hollow Water First Nation to Declare the Hollow Water Access as a Provincial Road. If Declared the proposed access connection from Hollow Water Access to the proposed development site may need an access permit from the department.

For questions regarding this comment, please contact Karen Toews Therrien, Manager of Roadside Development, at (204) 945-0324 or at Karen. Toews Therrien@gov.mb.ca.

Thank you very much for providing us the opportunity to review the proposal.

Sincerely,

Kimber Osiowy, M. Sc., P. Eng. Manager of Environmental Services

From:

Vitt, Corv (SD)

Sent:

January-11-19 10:51 AM

To:

Winsor, Jennifer (SD)

Subject:

RE: Environment Act Proposal for TAC Review - Wanipigow Sand Extraction Project -

File No. 5991.00

No concerns.

Office of Drinking Water (ODW)

#### Cory Vitt, M.Eng. P.Eng.

Approvals Engineer
Office of Drinking Water
Manitoba Sustainable Development
1007 Century Street
Winnipeg, Manitoba R3H 0W4

Phone: 204-806-1363 Fax: 204-945-1365

Email: Cory.Vitt@gov.mb.ca

Website: www.manitoba.ca/drinkingwater

From: Winsor, Jennifer (SD) Sent: January-09-19 3:08 PM

To: Wilson, Brian (AGR); Markwart, Larry (SD); Labossiere, Don (SD); Cunningham, Neil (SD); Molod, Rommel (SD); Kiss, Brian (SD); Janusz, Laureen R (SD); Kelly, Jason (SD); Epp, Jane (SD); Conrod, Matt (SD); Missyabit, Ron (SD); Frias, Winifred (SD); Page, Elaine (SD); Phipps, Graham (SD); Vitt, Cory (SD); Stonehouse, Perry (SD); Shabaga, Greg (SD); Miller, Glenn (SD); +WPG574 - HRB Archaeology (SCH); Ramrattan, Alisa (GET); Schafer, Dave (OFC); Hodgson, Kimberly (OFC); Liske, Cal (GET); Roberecki, Susan (HSAL); Browne, Helen (HSAL); Peck, Angela (HSAL); +BEA208 - Beausejour CRP (MR); +WPG969 - MIT Environmental Services Section (MI); 'Kessler, Anna (CEAA/ACEE)'

Subject: Environment Act Proposal for TAC Review - Wanipigow Sand Extraction Project - File No. 5991.00

Good afternoon,

Your review and comment is requested for the attached Proposal submitted pursuant to The Environment Act:

#### https://www.gov.mb.ca/sd/eal/registries/5991wanipigow/index.html

Please let me know if you are unable to review the proposal. A non-reply will be considered as indicating your department has reviewed the proposal and has no concerns.

Any comments you have on the Proposal should be emailed to me by FEBRUARY 12, 2019.

\*\*No hard copies will be provided\*\*

Thank you,

Jennifer Winsor, P.Eng. Environmental Engineer Environmental Approvals Branch

From:

Epp, Jane (SD)

Sent:

February-07-19 11:40 AM

To:

Winsor, Jennifer (SD)

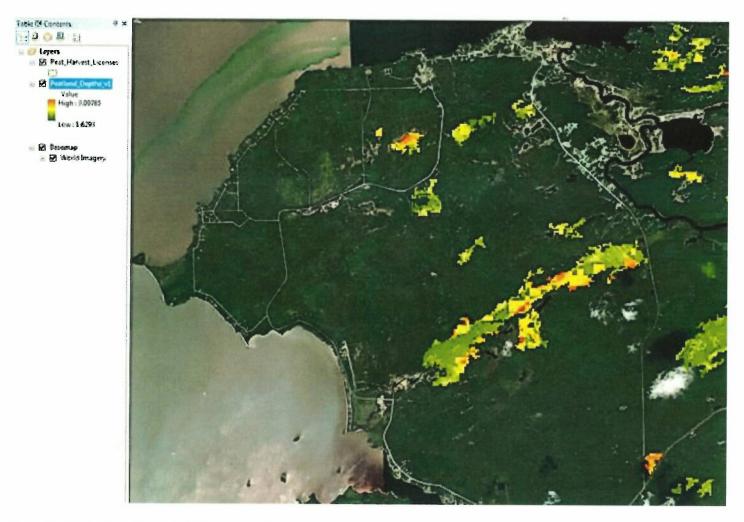
Subject:

RE: Environment Act Proposal for TAC Review - Wanipigow Sand Extraction Project -

File No. 5991.00

In relation to peatlands (bogs and fens) Forestry and Peatlands provides the following:

Peatlands though present are not continuous throughout the region. The project area overlaps with areas that are supposed to have 1.5-3 meters of peat, see below image that models potential peatland inventory (availability and depth). With no current interests or potential interests for peat harvest in the area there are no concerns or issues.



## In relation to potential forestry impacts

Comments from Regional Forester:

From a forest management perspective the issues are tied to harvesting of timber and the long-term impacts to the wood supply for FMU 31. There is also an Options License that is in the approval stages for this general area. A question arises on the commercial disposition of the timber and how that is handled through the pending Options License and the associated clauses in it related to not allowing commercial harvest within the bounds of the license area for two years.

Growth Enterprise and Trade (GET) of Manitoba has approached Forestry and Peatlands Branch to open and clear area for a road and a processing site for this project. At this time, any further development requiring timber removal (beyond the exploration that has occurred) should be put on hold until an Environment Act License and Indigenous Consultation are approved/completed. All of the preliminary work can be completed but no actual activity on the land should occur until approvals are in place.

Timber should be disposed of in a commercial manner under the authority of a timber sales agreement, as spelled out in The Forest Act. If there is no uptake in an auction process, the timber can either be direct awarded to the proponent through a timber sale or through a timber damage appraisal. Wasted timber, or unauthorized removal of timber, are dealt with through The Forest Act and The Forest Management and Use Regulation.

The auction process can be prepared ahead of time but not advertised, or implemented, until such a time that the EAL is approved. The time required for an auction is a minimum of 14 days for the volume of timber that needs to be cleared. Once all of the authorities to remove timber are in place the time delay to get an operator working can be done quickly, based upon the successful bidders schedule.

From a forest renewal perspective, the site should be progressively rehabilitated. This will have the least amount of impact to the long-term sustainability of the forest. This sustainability issue relates to flora and fauna found in the forest, not just the trees associated with a forest.

#### Comments from Forestry and Peatlands Branch:

As long as the Company follows the strategies and mitigation in the EAP, and the to be developed Closure Plan: harvesting of timber (making it available to community and through auction), dust control, limiting the development of roads, and progressive revegetation, Forestry issues and concerns will be minimized.

Jane Epp
Forestry and Peatlands Branch
Water Stewardship and Biodiversity Division, Sustainable Development
200 Saulteaux Crescent, Box 70
Winnipeg, MB R3J 3W3
MOBILE COMMUNICATIONS 204-794-8545
Fax: 1-204-948-2671
email: jane.epp@gov.mb.ca

From: Winsor, Jennifer (SD) Sent: January-09-19 3:08 PM

To: Wilson, Brian (AGR); Markwart, Larry (SD); Labossiere, Don (SD); Cunningham, Neil (SD); Molod, Rommel (SD); Kiss, Brian (SD); Janusz, Laureen R (SD); Kelly, Jason (SD); Epp, Jane (SD); Conrod, Matt (SD); Missyabit, Ron (SD); Frias, Winifred (SD); Page, Elaine (SD); Phipps, Graham (SD); Vitt, Cory (SD); Stonehouse, Perry (SD); Shabaga, Greg (SD); Miller, Glenn (SD); +WPG574 - HRB Archaeology (SCH); Ramrattan, Alisa (GET); Schafer, Dave (OFC); Hodgson, Kimberly (OFC); Liske, Cal (GET); Roberecki, Susan (HSAL); Browne, Helen (HSAL); Peck, Angela (HSAL); +BEA208 - Beausejour CRP (MR); +WPG969 - MIT Environmental Services Section (MI); 'Kessler, Anna (CEAA/ACEE)'

Subject: Environment Act Proposal for TAC Review - Wanipigow Sand Extraction Project - File No. 5991.00

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Your review and comment is requested for the attached Proposal submitted pursuant to The Environment Act:

#### https://www.gov.mb.ca/sd/eal/registries/5991wanipigow/index.html

Please let me know if you are unable to review the proposal. A non-reply will be considered as indicating your department has reviewed the proposal and has no concerns.

From:

Wiseman, Kylene (SD) January-24-19 2:42 PM

Sent: To:

Winsor, Jennifer (SD)

Cc:

Stonehouse, Perry (SD)

Subject:

FW: Environment Act Proposal for TAC Review - Wanipigow Sand Extraction Project -

File No. 5991.00

#### Good afternoon,

This proponent is required to submit an Application for Licence to Construct a Well and Divert Groundwater. This application is required in order to issue a Groundwater Exploration Permit which must occur PRIOR to groundwater exploration and to well construction. In addition, the proponent will need to hire the services of a hydrogeologist registered with Engineers Geoscientists Manitoba as a condition of the Permit.

Thank you,

## Kylene Wiseman, P. Geo.

A/Head of Groundwater Licensing Water Use Licensing Section Manitoba Sustainable Development Box 16, 200 Saulteaux Cres Winnipeg MB R3J 3W3

Phone: 204-945-7424 Fax: 204-948-2357 Email: Kylene.Wiseman@gov.mb.ca

From: Winsor, Jennifer (SD) < Jennifer.Winsor@gov.mb.ca>

Sent: January-09-19 3:08 PM

To: Wilson, Brian (AGR) < <a href="mailto:Brian.Wilson@gov.mb.ca">Brian.Wilson@gov.mb.ca</a>; Habossiere, Don (SD) < <a href="mailto:Larry.Markwart@gov.mb.ca">Larry.Markwart@gov.mb.ca</a>; Labossiere, Don (SD) < <a href="mailto:Lonningham@gov.mb.ca">Neil (SD) < <a href="mailto:Neil.Cunningham@gov.mb.ca">Neil (SD) < <a href="mailto:Neil.Cunningham@gov.mb.ca">Neil.Cunningham@gov.mb.ca</a>>; Molod, Rommel (SD)

<<u>Rommel.Molod@gov.mb.ca</u>>; Kiss, Brian (SD) <<u>Brian.Kiss@gov.mb.ca</u>>; Janusz, Laureen R (SD)

<<u>Laureen.Janusz@gov.mb.ca</u>>; Kelly, Jason (SD) <<u>Jason.Kelly@gov.mb.ca</u>>; Epp, Jane (SD) <<u>Jane.Epp@gov.mb.ca</u>>;

Conrod, Matt (SD) < <a href="mailto:Matt.Conrod@gov.mb.ca">Matt.Conrod@gov.mb.ca</a>; Frias, Winifred (SD)

< Winifred.Frias@gov.mb.ca >; Page, Elaine (SD) < Elaine.Page@gov.mb.ca >; Phipps, Graham (SD)

<Graham.Phipps@gov.mb.ca>; Vitt, Cory (SD) <Cory.Vitt@gov.mb.ca>; Stonehouse, Perry (SD)

<Perry.Stonehouse@gov.mb.ca>; Shabaga, Greg (SD) <Greg.Shabaga@gov.mb.ca>; Miller, Glenn (SD)

<<u>Glenn.Miller@gov.mb.ca</u>>; +WPG574 - HRB Archaeology (SCH) <<u>HRB.archaeology@gov.mb.ca</u>>; Ramrattan, Alisa (GET)

<a href="mailto:Alisa.Ramrattan@gov.mb.ca"><a href="mailto:Schafer@gov.mb.ca"><a href="mailto:Holgson"><a href="mailto:Laisa.Ramrattan@gov.mb.ca"><a href="mailto:Holgson"><a href="mailto:Laisa.Ramrattan@gov.mb.ca"><a href="mailto:Laisa.Ramr

< <u>Kimberly.Hodgson@gov.mb.ca</u>>; Liske, Cal (GET) < <u>Cal.Liske2@gov.mb.ca</u>>; Roberecki, Susan (HSAL)

<<u>Susan.Roberecki@gov.mb.ca</u>>; Browne, Helen (HSAL) <<u>Helen.Browne@gov.mb.ca</u>>; Peck, Angela (HSAL)

< Angela.Peck@gov.mb.ca>; +BEA208 - Beausejour CRP (MR) < BeausejourCRP@gov.mb.ca>; +WPG969 - MIT

Environmental Services Section (MI) < MITEnviServices@gov.mb.ca>; 'Kessler, Anna (CEAA/ACEE)'

<anna.kessler@canada.ca>

Subject: Environment Act Proposal for TAC Review - Wanipigow Sand Extraction Project - File No. 5991.00

Good afternoon,

Your review and comment is requested for the attached Proposal submitted pursuant to The Environment Act:

Subject: FW: Environment Act Proposal for TAC Review - Wanipigow Sand Extraction Project -

File No. 5991.00

Attachments: Review comments\_RDD(GET)\_rev.docx; Review comments\_RDD(GET)\_rev.pdf

From: Beruar, Omkar (GET) < Omkar.Beruar@gov.mb.ca>

Sent: February-12-19 1:03 PM

To: Liske, Cal (GET) < Cal.Liske2@gov.mb.ca>; Winsor, Jennifer (SD) < Jennifer.Winsor@gov.mb.ca>

Cc: Wilson, Brian (AGR) < Brian. Wilson@gov.mb.ca >; Markwart, Larry (SD) < Larry. Markwart@gov.mb.ca >; Labossiere,

Don (SD) < <u>Don.Labossiere@gov.mb.ca</u>>; Cunningham, Neil (SD) < <u>Neil.Cunningham@gov.mb.ca</u>>; Molod, Rommel (SD)

<<u>Rommel.Molod@gov.mb.ca</u>>; Kiss, Brian (SD) <<u>Brian.Kiss@gov.mb.ca</u>>; Janusz, Laureen R (SD)

<Laureen.Janusz@gov.mb.ca>; Kelly, Jason (SD) <Jason.Kelly@gov.mb.ca>; Epp, Jane (SD) <Jane.Epp@gov.mb.ca>;

Conrod, Matt (SD) < Matt.Conrod@gov.mb.ca>; Missyabit, Ron (SD) < Ron.Missyabit@gov.mb.ca>; Frias, Winifred (SD)

< <u>Winifred.Frias@gov.mb.ca</u>>; Page, Elaine (SD) < <u>Elaine.Page@gov.mb.ca</u>>; Phipps, Graham (SD)

<<u>Graham.Phipps@gov.mb.ca</u>>; Vitt, Cory (SD) <<u>Cory.Vitt@gov.mb.ca</u>>; Stonehouse, Perry (SD)

<<u>Perry.Stonehouse@gov.mb.ca</u>>; Shabaga, Greg (SD) <<u>Greg.Shabaga@gov.mb.ca</u>>; Miller, Glenn (SD)

<<u>Glenn.Miller@gov.mb.ca</u>>; +WPG574 - HRB Archaeology (SCH) <<u>HRB.archaeology@gov.mb.ca</u>>; Ramrattan, Alisa (GET)

<<u>Alisa.Ramrattan@gov.mb.ca</u>>; Schafer, Dave (OFC) <<u>Dave.Schafer@gov.mb.ca</u>>; Hodgson, Kimberly (OFC)

< <u>kimberly.Hodgson@gov.mb.ca</u>; Liske, Cal (GET) < <u>Cal.Liske2@gov.mb.ca</u>; Roberecki, Susan (HSAL)

<<u>Susan.Roberecki@gov.mb.ca</u>>; Browne, Helen (HSAL) <<u>Helen.Browne@gov.mb.ca</u>>; Peck, Angela (HSAL)

<a href="mailto:square;"><<u>Angela.Peck@gov.mb.ca</u>>; +BEA208 - Beausejour CRP (MR) < <a href="mailto:BeausejourCRP@gov.mb.ca">BeausejourCRP@gov.mb.ca</a>; +WPG969 - MIT

Environmental Services Section (MI) < <a href="mailto:MITEnviServices@gov.mb.ca">MITEnviServices@gov.mb.ca</a>; 'Kessler, Anna (CEAA/ACEE)'

<anna.kessler@canada.ca>; Mraz, Peter (GET) < Peter.Mraz@gov.mb.ca>

Subject: RE: Environment Act Proposal for TAC Review - Wanipigow Sand Extraction Project - File No. 5991.00

Hi Cal and Jennifer.

Here are Mines Branch comments for your consideration.

#### Omkar N. S. Beruar, P. Eng, M. Eng, MBA

**Chief Mining Engineer** 

Regulatory Services | Resource Development Division

Manitoba Growth, Enterprise and Trade

360 - 1395 Ellice Avenue

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| Doc name            | Section<br># | Page<br># | Questions/ Comments  | Applicable<br>Legislation   |
|---------------------|--------------|-----------|--|---|
| part_1_to_sec_3     | 1.7.1        | 7         | Seems like, they proponent is already in 'advanced exploration' phase without giving 60 days notice to and without filing a mine closure plan with the Mines Branch -  | The Mines and<br>Minerals Act –<br>Section 74(2),<br>111(1), 111(2),<br>128(3), 188(2);<br>MR 67/99 |
|                     | 1.7.2        | 7         | The proponent must be aware that the Class 2 development designation is also triggered by the fact that it is a major mining project with an annual production of 1 million tonne of silica sand (nonaggregate material) and just not a tiny quarry operation. |   |
|                     | 2.2.1        | 12        | Fig 2-4 does not indicate the depth or thickness of topsoil/overburden/silica sand above the granite bedrock. It also does not indicate the location or depth of water table or aquifer(s). Borehole sections will be required showing the above information.  |   |
|                     | 2.3          | 13-<br>14 | The activities seem to raise excessive concentration of dust in air. A detailed mitigation plan for dust containment may be required   | ·   |
| part_3_sec_5_to_end | 7            | 97        | Mine closure plan will be submitted to Mines<br>Branch. Mining operation can not be commenced<br>until the filed closure plan is approved by the Mines<br>Branch.  | The Mines and<br>Minerals Act –<br>Section 74(2),<br>111(1), 111(2)<br>MR 67/99                     |
|                     | 7.1          | 97        | Mine Closure plan requires a rehabilitation plan for all the facilities connected with the quarrying and processing of the silica sand on the site   |   |
|                     | 8, 8.4       | 98        | Monitoring and follow up, air quality, water quality and revegetation also to be part of Mine closure plan.  |   |