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August 24, 2018

File: W2017L3-0002

Ms. Lisa Nitsiza
Senior Administrative Officer
Community Government of Whati
P.O. Box 92
Whati, NT
X0E 1P0

E-mail: sao@whati.ca

Dear Ms. Nitsiza,

Re: Solid Waste Facility Operation and Maintenance Plan - Version 3.0

On August 24, 2018, the Wek'èezhìi Land and Water Board (the Board) met to consider Version 3.0 of the Community Government of Whati's (CGW) Solid Waste Facility Operation and Maintenance Plan (SWF O&M Plan or the Plan), required by Part H, Condition 1 of Water Licence W2017L3-0002 and the September 27, 2017 Reasons for Decision distributed with the renewed Water Licence.^{1,2}

After reviewing the submission, the written comments received by the Board, and the proponent's responses, the Board:

1. approves Version 3.0 of the Solid Waste Facility Operation and Maintenance Plan;
2. direct the Community Government of Whati to report on when it will conduct an environmental assessment of the historically contaminated soil piles and when it plans to submit a reclamation plan for it, within 30 days of receiving the Board's decision.
3. directs the Community Government of Whati to report on its soil sampling and reclamation activities for the historically contaminated soil piles. This information is to be included under the 'summary of any studies' section of the Annual Report following the studies;
4. directs the Community Government of Whati to submit Version 3.1 or Version 4 of the SWF O&M Plan to the Board when it conducts its next annual review, but no later than September 1, 2019, with the following information:
 - a. update Section 6 of the SWF O&M Plan to reflect the Community Government's

¹ See WLWB (www.wlwb.ca) Online Registry for [W2017L3-0002 – Whati – Operation and Maintenance Plan – SWF – Version 3.0 – Jan 25 18](#)

² See WLWB Online Registry for [W2017L3-0002 – Whati – Type B Water Licence Renewal – Reasons for Decision – Sep 27 17](#)

- response to ECCC-2 and its current practices for disposing of electronic waste;
- b. update Section 17 of the SWF O&M Plan to reflect the Community Government's response to Board staff comments 1, 2, and 3, and its current practices for managing and disposing of ozone-depleting substances and mercury-containing equipment;
 - c. update Section 3 of the SWF O&M Plan to reflect the Community Government's response to Board staff comment 5 to ensure controlled access to the SWF; and
 - d. update Section 14 of the SWF O&M Plan to reflect the Community Government's response to ECCC comment 3 and Board staff comment 4, and its current practices for managing surface water, and proposed practices and triggers for groundwater monitoring.

Please see the Board's Reasons for Decision for further details.

Sincerely,



Joseph Mackenzie
Acting Chair, Wek'èezhìi Land and Water Board

Copied: Wek'èezhìi West Distribution List



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Reasons for Decision

Reference/File Number:	W2017L3-0002 (Type "B" Water Licence)
Licensee:	Community Government of Whatì (CGW)
Subject:	Solid Waste Facility Operation and Maintenance Plan

Decision from the Wek'èezhìi Land and Water Board Meeting of August 24, 2018

1.0 Decision

On August 24, 2018, the Wek'èezhìi Land and Water Board (the Board) met to consider Version 3.0 of the Community Government of Whatì's (CGW) Solid Waste Facility Operation and Maintenance Plan (SWF O&M Plan or the Plan), required by Part H, Condition 1 of Water Licence W2017L3-0002 and the September 27, 2017 Reasons for Decision distributed with the renewed Water Licence.^{1,2}

After reviewing the submission, the written comments received by the Board, and the proponent's responses, the Board:

1. approves Version 3.0 of the Solid Waste Facility Operation and Maintenance Plan;
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¹ See WLWB (www.wlwb.ca) Online Registry for [W2017L3-0002 – Whatì – Operation and Maintenance Plan – SWF – Version 3.0 – Jan 25 18](#)

² See WLWB Online Registry for [W2017L3-0002 – Whatì – Type B Water Licence Renewal – Reasons for Decision – Sep 27 17](#)

4. directs the Community Government of Whati to submit Version 3.1 or Version 4 of the SWF O&M Plan to the Board when it conducts its next annual review, but no later than September 1, 2019, with the following information:
 - a. update Section 6 of the SWF O&M Plan to reflect the Community Government's response to ECCC-2 and its current practices for disposing of electronic waste;
 - b. update Section 17 of the SWF O&M Plan to reflect the Community Government's response to Board staff comments 1, 2, and 3, and its current practices for managing and disposing of ozone-depleting substances and mercury-containing equipment;
 - c. update Section 3 of the SWF O&M Plan to reflect the Community Government's response to Board staff comment 5 to ensure controlled access to the SWF; and
 - d. update Section 14 of the SWF O&M Plan to reflect the Community Government's response to ECCC comment 3 and Board staff comment 4, and its current practices for managing surface water, and proposed practices and triggers for groundwater monitoring.

Further details on whether to submit Version 3.1 or Version 4 is outlined in section 3.2.2 of the Reasons for Decision.

2.0 Background

The CGW has two Solid Waste Facilities: one for bulk solid waste and the other for domestic solid waste. The facilities are sampled monthly when runoff is present for parameters outlined in the Surveillance Network Program (SNP).³ In accordance with Part D, Condition 11, the CGW is to dispose of all solid wastes at the Solid Waste Facilities as per the approved SWF O&M Plan. The SWF O&M Plan is to include information outlined in Schedule 2, Condition 1 and describe how current and future solid waste will be managed (e.g., how to prevent windblown debris, how to manage hazardous waste, how metals and recyclable wastes are segregated, how and often the facilities are maintained, identify alternatives to reduce burning and need to monitor ground and surface water). As per the September 27, 2017 Reasons for Decision, the SWF O&M Plan should also describe how the CGW plans to address the potential risks, safe management, closure and reclamation of the contaminated soil piles.

Version 1.0 of the SWF O&M Plan was submitted with the CGW's Water Licence Renewal application. In response to reviewers, CGW submitted Version 2.0. The Board was satisfied with the changes made from Version 1.0 to Version 2.0; however, because of some of the issues with the Plan (e.g., hazardous waste and capacity of the SWF), did not approve the Plan. The Board received Version 3.0 of the CGW's SWF O&M Plan on January 25, 2018. Along with Version 3.0, Dillon Consulting Limited (on behalf of the CGW) submitted a response document (the 'RFD Response Document') that includes a section on how the CGW will be addressing additional solid waste-related issues that were discussed in the Reasons for Decision.⁴

³ See WLWB Online Registry for [W2017L3-0002 – Whati – Type B Water Licence Renewal – Water Licence and SNP – Sep 22 17](#)

⁴ See WLWB Online Registry for [W2017L3-0002 – Whati – Operation and Maintenance Plan – SWF – Version 3.0 – Response to RFD – Jan 25 18](#)

Version 3.0 of the SWF O&M Plan was distributed for public review on January 26, 2018, with comments due February 20, 2018, and responses due March 6, 2018. The Board received comments from Environment and Climate Change Canada (ECCC). The Government of the Northwest Territories Department of Environment and Natural Resources (GNWT-ENR) acknowledged the submission but had no comments or recommendations. Board staff also submitted comments. Comments and responses are available in the Review Summary and Attachments.⁵

3.0 Reasons for Decision

A conformity check of Version 3.0 of the SWF O&M Plan was conducted against Schedule 2, Condition 1, of Water Licence W2017L3-0002 and the September 27, 2017 Reasons for Decision. In consideration of CGW's submission and responses to comments made in the public review, the Board believes the CGW has completed the requirements of the SWF O&M Plan.

- ***Decision #1: The Board approves Version 3.0 of the Solid Waste Facility Operation and Maintenance Plan.***

Additional direction from the Board are outlined below.

3.1 Solid Waste Facility Capacity

In Version 2.0 of the SWF O&M Plan, CGW stated there would not be enough space at the current solid waste facility for the next 10 years and that the CGW would “look into developing a waste management plan in the future, considering the potential change to the population once the all-season road is developed.” In light of the potential development of an all-season road, the Board was concerned about the potential added pressure on the capacity of the Solid Waste Facility. The CGW and its consultants, Dillon, have since updated its calculation on the capacity of the Solid Waste Facilities and have calculated that there is a total available area of 15,750 m³ remaining between the two Solid Waste Facilities. Using a modified solid waste generation formula, Dillon has calculated that the cumulative solid waste predicted in the next 10 years to be 12,768 m³, which is within the remaining area. Dillon also stated that:

In order to better understand the waste generation in the community of Whati, and begin tracking it with the development of the season road, the community proposes to contract a consultant to return to the solid waste facility in the summer of 2018 to survey the remaining land and determine within the year. Continuous measurements of the community waste generation will aid in planning for the lifespan and closure of the solid waste facility.

⁵ See WLWB Online Registry for [W2017L3-0002 – Whati – O and M Plan – SWF – Version 3.0 – Review Summary and Attachments – Mar 6 18](#)

The Board agrees with Dillon’s statement that consistent monitoring will assist in determining next steps and the eventual closure of the Solid Waste Facilities. The Board notes that monthly volumes of waste are already recorded in the Annual Report and that considerations of the implications of any potential development on future available space or closure will need to be considered during the regulatory processes for those projects. As per Part H, Condition 1 a) of the Water Licence, the SWF O&M Plan will also need to be updated to reflect changes in operation or technology, including changes to the sizes or locations of the Solid Waste Facilities.

3.2 Hazardous Waste and Guidance on Solid Waste Management

3.2.1 Contaminated Soils

In their public review comments on the Type B Water Licence Renewal Application and Version 1.0 of the SWF O&M Plan, GNWT-ENR raised concerns about the contaminated soil piles that have been accumulating over the last few decades (GNWT-ENR comment 7 and 8 of the Application).⁶ In the Reasons for Decision, the Board directed the CGW to describe how the CGW would “address the potential risks of the contaminated soil piles, along with its plan for the same management, closure, and reclamation of these piles.” The CGW responded in its RFD Response Document that it plans to conduct an environmental assessment of the pile in the summer of 2018 and provide the soil sampling results and reclamation plan to the Board. The Board acknowledges and appreciates the CGW’s commitment to providing additional details on managing the historical soil piles. The Board is not aware of any soil sampling conducted as of date and requests that the CGW respond to the Board on when the environmental assessment of the historical soil piles will take place and when a reclamation plan will be submitted within 30 days of receiving the Board’s decision. A summary of this assessment is required in the Annual Report under Schedule 1, Condition 1, i) (Summary of any studies requested by the Board).

- ***Decision #2: The Board directs the Community Government of Whati to report on when it will conduct an environmental assessment of the historically contaminated soil piles and when it plans to submit a reclamation plan for it, within 30 days of receiving the Board’s decision.***

- ***Decision #3: The Board directs the Community Government of Whati to report on the CGW’s soil sampling and reclamation activities for the historically contaminated soil piles. This information is to be included under the ‘summary of any studies’ section of the Annual Report following the studies.***

3.2.2 Electronic Waste

Electronic waste is currently landfilled in Whati. According to ECCC’s technical guidance document, *Solid Waste Management for Northern and Remote Communities*, electronic waste has the potential to release hazardous or toxic substances into leachate or surface water. ECCC recommended (ECCC comment 2) the

⁶ See WLWB Online Registry for [W2017L3-0002 – Whati – Type B Renewal Application – Review Summary and Attachments – Sep 7 17](#)

CGW consider “other options to manage electronic waste, rather than landfilling”, noting that Section 6.3 of ECCC’s technical guidance document provides guidance on managing electronic waste.

In response to ECCC’s concern for the disposal methods of electronic waste, the CGW stated it would “develop an electronic waste storage to begin in the spring/summer of 2018...[and] will work to raise awareness in the community about the importance of keeping electronic waste out of the landfill and dropping off electronic waste at the storage facility.” The CGW intends to hire Yellowknife’s KBL Environmental to pick up, transport, and properly dispose of electronic waste. The Board believes that the CGW’s response is informative and the commitment should be reflected in the SWF O&M Plan within Section 6, under ‘if any items are shipped out of the community, how frequently is this done’.

For clarity, the next SWF O&M Plan will be either Version 3.1 or Version 4, depending on if there are additional changes to the O&M Plan when the CGW conducts its annual review. If there are no additional changes to the SWF O&M Plan aside from those outlined in this Reasons for Decision when the CGW conducts its review, Version 3.1 is to be submitted. If there are additional changes, Version 4 is to be submitted. Either submission should be submitted no later than September 1, 2019.

- ***Decision #3a: The Board directs the Community Government of Whati to update Section 6 of the SWF O&M Plan to reflect the Community Government’s response to ECCC-2 and its current practices for disposing of electronic waste. The revised SWF O&M Plan (Version 3.1 or Version 4) is to be submitted to the Board when it conducts its next annual review of the O&M Plan, but no later than September 1, 2019.***

3.2.3 Management and Disposal of Ozone-depleting Substances and Mercury-containing Equipment

In the September 27, 2017 Reasons for Decision, the Board noted that there was minimal detail on how the CGW manages and disposes of ozone-depleting substances and mercury-containing equipment. The Board then directed the CGW to consult the hazardous waste specialist from the GNWT-ENR for guidance on the management of this type of waste and include that information in the revised SWF O&M Plan. In the public review, Board staff (WLWB staff comment 1, 2, and 3) sought to clarify the management methods and disposal locations for these waste types and to confirm whether CGW’s proposed plan was based on the recommendations made by the GNWT-ENR hazardous waste specialist. Board staff also wanted to confirm that additional sources of mercury were managed. In the CGW’s responses to Board staff comments, they confirmed that its proposal to manage ozone-depleting substances and mercury-containing equipment outlined in Version 3.0 of the SWF O&M Plan “incorporates the recommendations provided by the hazardous waste specialist” and that the management of mercury-containing equipment will not only include mercury switches from vehicles, but will also include thermostats, thermometers, and fluorescent light bulbs. The Board believes that hazardous material kept and disposed of elsewhere should also be tracked and reflected in the SWF O&M Plan. Therefore, for clarity, the details of how and where hazardous materials are managed and disposed of should be described in an updated version of the Plan.

- ***Decision #3b: The Board directs the Community Government of Whatì to update Section 17 of the SWF O&M Plan to reflect the Community Government’s response to Board staff comments 1, 2, and 3, and its current practices for managing and disposing of ozone-depleting substances and mercury-containing equipment. The revised SWF O&M Plan is to be submitted to the Board when it conducts its next annual review of the O&M Plan, but no later than September 1, 2019.***

3.3 Unacceptable Waste

It is important to identify the generators of the unacceptable waste as these individuals or organizations can be held responsible if identified. The CGW stated in their responses to public review comments that it has not yet had to deal with the consequences of unacceptable waste but indicated in the SWF O&M Plan that it will do the following: notify the appropriate municipal, territorial, or federal agencies; secure the waste to prevent contamination and disturbance, maintain records of the incident, and cooperate with other regulatory agencies to handle the incident. The CGW also stated in the Plan that staff are able to check any suspicious loads at any time. However, there is no specific site operator who examines each load (see Section 9) and that the staff that are on site to sort waste are only there for half a day once a week (see Section 4). With the facility always open to the public and no site operator that is consistently present, there did not appear to be a way for the CGW to identify a generator of unacceptable waste. Board staff requested the CGW to describe how the CGW would then be able to identify generators of unacceptable waste (WLWB staff comment 5). To limit access to the facilities, the CGW stated it is planning to install locking gate system in the spring/summer of 2018 to each of the Solid Waste Facilities (response to WLWB staff comment 5). While there is not yet a clear way to identify the generator, installing a locking gate system will allow the CGW to better identify suspicious loads and prevent any potential contamination from unacceptable wastes in the Solid Waste Facilities. The Board believes the installation of a locking gate should be reflected in the Plan.

- ***Decision #3c: The Board directs the Community Government of Whatì to update Section 3 of the SWF O&M Plan to reflect the Community Government’s response to Board staff comment 5 to ensure controlled access to the SWF. The revised SWF O&M Plan is to be submitted to the Board when it conducts its next annual review of the O&M Plan, but no later than September 1, 2019.***

Should the CGW encounter unacceptable waste in the future, the Board expects the CGW to address it as per the SWF O&M Plan and to reach out to the local or regional GNWT-ENR office for additional assistance.

3.4 Surface and Groundwater management

Both ECCC and Board staff requested additional information on the management of surface water surrounding the SWF. ECCC recommended (ECCC comment 3) that the CGW evaluate “the potential for landfill run-on, runoff, ponding and erosion, particularly in relation to freshet and high precipitation events” with the appropriate mitigations and contingencies in the SWF O&M Plan. To ensure that Schedule 1, Condition 1k) of the Water Licence was satisfied, Board staff requested (WLWB staff comment 4) the CGW to comment on the “need for monitoring the quality of ground and surface water.” In response to reviewer comments, the CGW committed to continuing monitoring surface water around the Solid

Waste Facilities once per month when observed through the SNP. There are no current plans to conduct groundwater monitoring; however, the CGW also committed to doing further monitoring and remediation if the result of surface water monitoring “prove detrimental to the environment.” The CGW also noted that it grades the cover material so that runoff is directed away from the SWF. The Board believes adding these details to the SWF O&M Plan would assist with future reviews and believes that the CGW should outline the triggers for when surface water monitoring “prove[s] to be detrimental” and when groundwater monitoring would be necessary in the next version.

- ***Decision #3d: The Board directs the Community Government of Whatì to update Section 14 of the SWF O&M Plan to reflect the Community Government’s response to ECCC comment 3 and Board staff comment 4, its current practices for managing surface water, and proposed practices and triggers for groundwater monitoring. The revised SWF O&M Plan is to be submitted to the Board when it conducts its next annual review of the O&M Plan, but no later than September 1, 2019.***

ECCC recommended (ECCC comment 1) the CGW include details of the SNP, such as: applicable monitoring stations, methods, and parameters to the SWFs, in the SWF O&M Plan. The CGW responded with a link to the SNP manual, noting that the concentration requirements for runoff are included in the Water Licence and that locations of sampling around the SWFs are already included in the SWF O&M Plan. The Board believes that while the details of the SNP can be useful to include in the SWF O&M Plan, however many of these details are in the CGW’s Water Licence and on the Board’s online registry. The Board believes that the CGW’s responses are appropriate and so no further action is required.

Signed the 24th day of August, 2018, on behalf of the Wek’èezhìi Land and Water Board



Witness



Acting Chair, Wek’èezhìi Land and Water Board