

## Review Comment Table

<b>Board:</b>	MVLWB
<b>Review Item:</b>	Northwest Territories Power Corporation - Draft Water Licence Conditions - MV2019L1-0001
<b>File(s):</b>	<a href="#">MV2019L1-0001</a>
<b>Proponent:</b>	Northwest Territories Power Corporation
<b>Document(s):</b>	<a href="#">Draft Water Licence Conditions</a> (161 KB) <a href="#">Work Plan V2</a> (158 KB)
<b>Item For Review Distributed On:</b>	July 23 at 12:02 <a href="#">Distribution List</a>
<b>Reviewer Comments Due By:</b>	Aug 13, 2019
<b>Proponent Responses Due By:</b>	Aug 29, 2019
<b>Item Description:</b>	<p>As per the Work Plan associated with the Application submitted by Northwest Territories Power Corporation for Water Licence (Licence) MV2019L1-0001, draft Licence conditions are to be circulated for review.</p> <p>The purpose of the draft Licence conditions is to allow parties to comment on the suggested wording of conditions. The Board is not bound by the contents of the draft Licence and will make its decision at the close of the proceeding on the basis of all the evidence and arguments filed by all parties. Please note that review comment and recommendation on the draft Licence condition must not introduce new evidence at this point in the proceeding.</p> <p>Reviewers are invited to submit comment and recommendations along with closing arguments using the Online Review System (ORS) by the review comment deadline specified. Please clearly indicate which condition you are commenting on.</p> <p>All documents that have been uploaded to this review are also available on our public registry. If you have any questions or comment about the ORS or this review please contact Board staff identified below.</p> <p>Tyree Mullaney</p>

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## Comment Summary

Northwest Territories Power Corporation (Proponent)				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Part A: Scope and Definitions- Closure Criteria and Objectives	<p><b>Comment</b> The definitions for Closure Criteria and Closure Objectives reference MVLWB/AANDC Guidelines for the Closure and Reclamation of Advance Mineral Exploration and Mine Sites in the Northwest Territories.</p> <p><b>Recommendation</b> The Jackfish Facility is an existing power generation facility. MVLWB/AANDC Guidelines for the Closure and Reclamation of Advance Mineral Exploration and Mine Sites in the Northwest Territories should not apply to this facility and should be removed.</p>		
2	Part A: Scope and Definitions- Closure and Reclamation Plan (CRP)	<p><b>Comment</b> Closure and Reclamation Plan definition references the Guidelines for the Closure and Reclamation of Advance Mineral Exploration and Mine Sites in the Northwest Territories.</p> <p><b>Recommendation</b> The Jackfish Facility is an existing power generation facility. MVLWB/AANDC Guidelines for the Closure</p>		

		and Reclamation of Advance Mineral Exploration and Mine Sites in the Northwest Territories should not apply to this facility and should be removed. Definition should be updated to state; Closure and Reclamation Plan (CRP); a document that clearly describes the Closure and Reclamation for the Project		
3	Part A: Scope and Definitions- Discharge Water	<b>Comment</b> Definition refers to wastewater. <b>Recommendation</b> Update to Discharge Water; Jackfish Lake water specifically drawn and used for the cooling of the pumps associated with the power generators and then discharged to Jackfish Lake.		
4	Part A: Scope and Definitions- Greywater and Sewage	<b>Comment</b> Definitions for Greywater and Sewage are not applicable. <b>Recommendation</b> Delete Definitions as they are not applicable.		
5	Part C: Conditions Applying to Water Use- Condition 2	<b>Comment</b> Part C, Condition 2 states The Licensee shall construct and maintain the Water intake(s) with a screen designed to prevent impingement or entrapment of fish. <b>Recommendation</b> Update to state; The Licensee shall construct and maintain the Water intake(s) with a screen designed to prevent impingement or entrainment of fish in accordance with Fisheries and Oceans guidelines or other best management practices		

6	Part D: Conditions Applying to Modifications- Condition 1	<b>Comment</b> Part D, Condition 1 refers to Modifications. <b>Recommendation</b> Definition of Modification should be included and should relate only to the water cooling systems		
7	Part E: Conditions Applying to Waste and Water Management- Condition 4	<b>Comment</b> Part E, Condition 4 refers to daily erosion inspections of Discharge locations during periods of Discharge, or more frequently as directed by an Inspector. <b>Recommendation</b> Discharge locations are submerged in Jackfish Lake 5-10 m from the shore. Condition needs to be removed as daily inspections are not possible.		
8	Part E: Conditions Applying to Waste and Water Management- Condition 6	<b>Comment</b> Part E, Condition 6 states A minimum of 60&nbsp;days following the effective date of this Licence, a Thermal Plume Delineation Study Design Plan . The Plan shall be in accordance with the requirements of Schedule 2, Condition 1.&quot; <b>Recommendation</b> Extend to 90 days and update wording to include a Thermal Plume Delineation Study Design Plan will be submitted the Board.		
9	PART G: Conditions Applying to Spill Contingency Planning- Condition 3	<b>Comment</b> Part G, Condition 3 states Within 90 days following the effective date of this Licence, the Licensee shall submit to the Board, for approval, a revised Spill Contingency Plan. The Licensee shall not commence Project activities prior to Board approval of the Plan		

		<b>Recommendation</b> Remove The Licensee shall not commence Project activities prior to Board approval of the Plan; as facility is existing and currently operating.		
10	PART H: Conditions Applying to Closure and Reclamation- Condition 2	<b>Comment</b> Part H, Condition 2 states Three years prior to the expiration of this Licence, the Licensee shall submit to the Board, for approval, an updated Closure and Reclamation Plan <b>Recommendation</b> This condition is not required and should be removed.		
11	Schedule 1: Annual Water Licence Report- Condition 1 g)	<b>Comment</b> Schedule 1, Condition 1 g) states; A summary of activities conducted in accordance with the approved Waste Management Plan, referred to in Part E, condition 2 of this Licence, including: A summary of approved updates or changes to the process or facilities required for the management of Waste; A summary of approved updates or changes to the process or facilities required for the management of Waste Monthly and annual quantities, in cubic metres, of all solid Waste discharged, identified by location; Monthly and annual quantities, in cubic metres, of all liquid Waste discharged, identified by location; Monthly and annual quantities, in cubic metres, of hazardous Waste generated and removed; and Monthly and annual quantities, in		

		<p>cubic metres, of Sewage solids removed from the Jackfish Lake Power Generating Facility, identified by disposal location.</p> <p><b>Recommendation</b> Schedule 1 Condition 1 g) iii), iv), v) and vi) should be removed. All waste management practices and procedures are clearly laid out in the Waste Management Plan and waste is directed to approved facilities within the City of Yellowknife (I.e. City of Yellowknife Solid Waste Facility and Waste Water Treatment Plant) and the SNP will report on all water usage and temperatures. The values listed in Condition 1 g) iii), iv), v) and vi) have no relation to the cooling system and should not be reported on.</p>		
12	Schedule 2: Thermal Plume Delineation-Condition 1 d)	<p><b>Comment</b> Schedule 2, Condition 1 d) states Seasonal chemical characterization at a minimum of one station located at the inflow into Jackfish Lake and one station located at the outflow of Jackfish Lake Chemical characterization shall include, but not be limited to the following parameters:</p> <ul style="list-style-type: none"> <li>• Field parameters (pH, Electrical Conductivity [EC], Temperature, Dissolved Oxygen [DO])</li> <li>• Major Ions</li> <li>• Total Suspended Solids (TSS); pH Oil and Grease (Hexane Extractable) Total</li> </ul>		

		<p>Petroleum Hydrocarbons (F1, F2, F3, F4 CCME Fractions) Benzene, Toluene, Ethylbenzene, Xylene (BTEX)</p> <p><b>Recommendation</b> ~~Sampling at inflow and outflow stations in Jackfish Lake is not appropriate, given the multiple and diffuse inflows to the lake (i.e., no defined main inflow) and only intermittent outflow Recommended new wording is as follows: d) Seasonal chemical characterization at a minimum of one station located at 100 m from the discharges from the NTPC facility and at one station at mid-lake, in the deepest part of the lake. Regarding footnote 2: Based on the 2018 monitoring results, which indicated that concentrations of all organic parameters were below detection limits, and lack of a source of organics in the NTPC discharges to Jackfish Lake, data for organics are not relevant for the thermal delineation study. Therefore, Oil and Grease (Hexane Extractable), Total Petroleum Hydrocarbons (F1, F2, F3, F4 CCME Fractions), and Benzene, Toluene, Ethylbenzene, Xylene (BTEX) should be deleted. Nutrients (total and dissolved phosphorus, total Kjeldahl nitrogen, nitrate+nitrite, and ammonia) should be added to the parameter list, as they represent parameters of</p>		
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		potential concern related to thermal stratification		
13	Schedule 2: Thermal Plume Delineation- Condition 2 b)	<p><b>Comment</b> Schedule 2, Condition 2 b) states The Thermal Plume Delineation Study Report referred to in Part E, condition 7 of this Licence shall include, but not be limited to, the following: b) Graphical representation of the profile and applicable chemistry data.</p> <p><b>Recommendation</b> Recommend re-wording as follows: b) Graphical representation of thermal data and water quality profile data;</p>		
14	Schedule 2: Thermal Plume Delineation- Condition 2 c)	<p><b>Comment</b> Schedule 2, Condition 2 c) states The Thermal Plume Delineation Study Report referred to in Part E, condition 7 of this Licence shall include, but not be limited to, the following: c) Identification of the worse case; thermal plume scenario;</p> <p><b>Recommendation</b> Recommend re-wording as follows: c) Identification of the worst-case thermal plume scenario of the four seasonal conditions identified in Schedule 2 Item 1a;</p>		
15	Schedule 4: Closure and Reclamation- Conditions 1 i), j), k) and l)	<p><b>Comment</b> Schedule 4, Conditions 1 i), j), k) and l) state: The Closure and Reclamation Plan referred to in Part H, condition 1 of this Licence shall include, but not be limited to the following information: i) For the Project site, a description of Closure and Reclamation</p>		



		<p>plans, including, but not limited to:i. Closure Objectives and Criteria;;ii. preferred Closure and Reclamation option and method for each Project component identified in condition (h) above;iii. design drawings, signed and stamped by a Professional Engineer, for any Engineered structures;iv. Water management and restoration of natural drainage; predicted environmental effects during and after Closure and Reclamation activities; vi. post-closure monitoring, maintenance, and reporting;;vii. uncertainties and contingencies; viii. climate change considerations; and ;ix. Closure and Reclamation Research plans j) A description of any planned Progressive Reclamation; k) A plan for Temporary Closure, including, but not limited to the following information: Temporary Closure goals and objectives; ii. a description of activities and methods;iii. a description of monitoring, maintenance, and reporting; iv. contingencies; and;v. an implementation schedule l) An implementation schedule that includes Progressive Reclamation and final Closure and Reclamation activities.</p> <p><b>Recommendation</b> Schedule 4 Conditions i), j), k) and l) should be removed as these</p>		
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		are requirements that would be directed at Mineral Exploration and Mine Sites and do not apply to this facility.		
<b>Environment and Climate Change Canada: Eva Walker</b>				
<b>ID</b>	<b>Topic</b>	<b>Reviewer Comment/Recommendation</b>	<b>Proponent Response</b>	<b>Board Staff Analysis</b>
1	General File	<b>Comment</b> ( <a href="#">doc</a> ) ECCC Cover Letter <b>Recommendation</b>		
2	Part B: General Conditions, Condition 14 - Measure Water Use and Waste Discharge	<b>Comment</b> Condition 14 of the Draft Water licence covers the operation and maintenance of meters and devices for measuring volumes of water used and waste discharged. The measurement of water temperature is an important component of monitoring for the Jackfish Power Station. <b>Recommendation</b> ECCC recommends that Condition 14 include the operation and maintenance of temperature monitoring/measuring devices.	<b>Aug 30:</b> NTPC agrees with the recommendation to include the operation and maintenance of temperature monitoring devices	
3	Part E: Conditions Applying to Waste and Water Management, Condition 4 - Daily Inspection of Discharge Locations	<b>Comment</b> Condition 4 may not be relevant as discharge is located underwater. <b>Recommendation</b> ECCC recommends this condition be deleted or that more frequently be removed from the condition to leave the timing to the Inspector, where inspection frequency can be set appropriately.	<b>Aug 30:</b> NTPC agrees with the recommendation for Condition 4 in Part E to be deleted. See NTPC Recommendation ID#7 for rationale.	
4	Part E: Conditions Applying to Waste and Water	<b>Comment</b> Condition 6 currently reads "A minimum of 60 days following the effective date of this Licence, a Thermal Plume Delineation	<b>Aug 30:</b> NTPC agrees with the recommendation to add shall be submitted to the Board for approval to Condition 6 of Part E.	

	Management, Condition 6 - Thermal Plume Delineation Study Design	Study Design Plan. The Plan shall be in accordance with the requirements of Schedule 2, Condition 1. <b>Recommendation</b> ECCC recommends that "shall be submitted to the Board for approval" be inserted at the end of the first sentence.	See NTPC Recommendation ID#8 regarding the extension of the deadline of the Thermal Plume Delineation Study Design Plan from 60 to 90 days. The recommended extension will allow sufficient time for NTPC to review the data collected in 2019 and design a study that both meets the requirements laid out in Schedule 2, Condition 1 and, in the future, will provide relevant information to design the AEMP.	
5	Part F: Conditions Applying to Aquatic Effects Monitoring Program, Condition 2	<b>Comment</b> Condition 2 reads "The Licensee shall submit to the Board, for approval, an AEMP Design Plan by November 1, 2021. The Plan shall be in accordance with the MVLWB/GNWT Guidelines for Aquatic Effects Monitoring Programs and will incorporate the results from the Thermal Plume Delineation Study Report". This condition could also include the timing for implementation of the Aquatic Effects Monitoring Plan (AEMP). Based on the submission date of 2023 for the AEMP annual report in Item F.5, implementation of the AEMP would have to be in 2022. For completeness, the Draft Guidelines for Adaptive Management - a Response Framework for Aquatic Effects Monitoring could be referenced also,	<b>Aug 30:</b> NTPC recommends that the timing of implementation be outlined in the AEMP Design Plan, which will be subject to approval from the MVLWB, rather than in the Water Licence; The Draft Guidelines for Adaptive Management - A Response Framework for Aquatic Effects Monitoring (WLWB 2010) were considered in the development of the MVLWB/GNWT Guidelines for Aquatic Effects Monitoring Programs (MVLWB et al. 2019) so it is unnecessary to include them in Condition 2 of Part F. References: MVLWB, GLWB, SLWB, WLWB, and GNWT (Mackenzie Valley Land and Water Board, Gwich Land and	

		<p>which would then tie in with Conditions 6 &amp; 7.</p> <p><b>Recommendation</b> ECCC recommends including timing for implementation of the AEMP Design Plan in Condition 2, and referencing the Draft Guidelines for Adaptive Management - a Response Framework for Aquatic Effects Monitoring.</p>	<p>Water Board, Sahtu Land and Water Board, Wek'ezhì'i Land and Water Board, Government of the Northwest Territories). 2019. Guidelines for Aquatic Effects Monitoring Programs. Yellowknife NT. WLWB (Wekeezhii Land and Water Board). 2010. Draft Guidelines for Adaptive Management A Response Framework for Aquatic Effects monitoring. Yellowknife NT.</p>	
6	Schedule 1: Annual Water Licence Report, Condition 1 b)	<p><b>Comment</b> Condition B.15 only refers to the need for the Annual Report and Condition C.1 does not mention data loggers.</p> <p><b>Recommendation</b> ECCC recommends that Condition 1(b) be revised to read " The monthly and annual quantities in cubic metres of fresh Water obtained from all sources (per Part C, Condition 1) and thermal data from intake and discharge data loggers."</p>	<p><b>Aug 30:</b> NTPC agrees that the Condition 1b) should be updated for clarity. NTPC recommends that Part B, condition 15" be replaced by Part B Condition 14";</p>	
7	Schedule 1: Annual Water Licence Report, Condition 1 c)	<p><b>Comment</b> Data loggers specified as part of the Surveillance Network Plan (SNP) are not specifically included in Condition B14 or elsewhere in the Draft Water Licence.</p> <p><b>Recommendation</b> ECCC recommends that data loggers be included within the water licence under Condition B.14.</p>	<p><b>Aug 30:</b> NTPC does not recommend that data loggers be included Part B Condition 14 because the term is sufficient to include data loggers or other instruments that may be used to measure and store flow and temperature data. NTPC recommends replacing in Schedule 1 Condition 1b) with to resolve the discrepancy in terminology.</p>	

8	Schedule 2: Thermal Plume Delineation, Condition d)	<b>Comment</b> There is some question as to whether there is flow at the inflow and or the outflow of Jackfish Lake and if there is flow it may only be intermittent. If samples are required to be collected they may have to be in the vicinity of the inflow and/or outflow and it should also include the possibility that there may be no flow. <b>Recommendation</b> ECCC recommend that the condition be revised to include contingencies for low or no flow at the sampling locations.	<b>Aug 30:</b> NTPC recommends replacing inflow and outflow monitoring locations with other locations in Jackfish as outlined in NTPC Recommendation ID#12.&nbsp;	
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**GNWT - ENR - EAM: Central Email GNWT**

<b>ID</b>	<b>Topic</b>	<b>Reviewer Comment/Recommendation</b>	<b>Proponent Response</b>	<b>Board Staff Analysis</b>
10	General File	<b>Comment</b> ( <a href="#">doc</a> ) ENR Letter with Comments and Recommendations <b>Recommendation</b>		
1	Topic: Closure Definitions	<b>Comment</b> Closure definitions reference the definition in the closure guidelines. It may be more useful to reiterate the definition here for clarity and update the standard conditions document when guidelines are updated. <b>Recommendation</b> 1) ENR recommends that clear definitions be included in the Water Licence as opposed to referencing definitions in external guidelines. The definitions could be verbatim but should still be included.	<b>Aug 30:</b> Please see NTPC Recommendations ID# 1 to 3 and Appendix A attached regarding definitions	
2	Topic: Closure and	<b>Comment</b> The proposed definition of closure and reclamation is "the process	<b>Aug 30:</b> NTPC agrees that this definition could be	

	Reclamation Definition	and activities that facilitate the return of areas affected by the Project to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and human activities." As proposed, the definition does not consider when closure and reclamation occurs. It is noted that the other definition for closure and reclamation with the strikethrough includes additional wording to describe the closure and reclamation phase: "Means the Project area after the completion and cessation of activities as described in the completed Water Licence Application." In addition, the Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mines Sites in the Northwest Territories (MVLWB/AANDC, 2013) defines permanent closure, "Permanent closure is the final closure of a mine site with no foreseeable intent by the existing proponent to return to either active exploration or mining." <b>Recommendation 1)</b> ENR recommends the Board consider including wording that describes when closure and reclamation takes place in the definition of closure and reclamation	clarified as proposed. See Appendix A attached	
3	Topic: Discharge Language	<b>Comment</b> The conditions include both discharge of waste and deposit of waste. For example, the scope in	<b>Aug 30:</b> NTPC agrees that the use of the terms Discharge and discharged should be capitalized	

		<p>Part A, Condition 1 states that "the Licence entitles the Licensee to use Water, and deposit Waste" whereas the word "discharge" is used throughout the Water Licence. ENR notes it may be confusing to stakeholders and proponents if similar language such as deposit and discharge are used.</p> <p><b>Recommendation 1)</b> ENR recommends the definition of discharge be direct or indirect deposit or release of any Waters or Waste to the Receiving Environment. Conditions in the Water Licence should also reference deposit or release of any Waters or Waste.</p>	<p>throughout the licence. NTPC also agrees to change the definition of Discharge as proposed. See Appendix A attached. Condition 2 of Part A confirms that the conditions apply with respect to the use of Water and the deposit of Waste in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposits of such Waste may enter any Waters. As such, no further changes are required</p>	
4	Topic: Unauthorized Discharge Definition	<p><b>Comment</b> The proposed definition for unauthorized discharge is "a release or Discharge of any Waters or Waste not authorized under this Licence." ENR notes the proposed definition of "discharge" already includes that it is a release. Further, as noted above, the definition should be changed to "a Deposit of Waste or Water not authorized under this Licence". This would be more consistent with the Waters Act and Regulations.</p> <p><b>Recommendation 1)</b> ENR recommends the term • be removed from the definition of unauthorized discharge.</p>	<p><b>Aug 30:</b> NTPC agrees that this definition should be revised as proposed. See Appendix A attached.</p>	
5	None	<p><b>Comment</b> None</p> <p><b>Recommendation 2)</b> ENR recommends that the definition be changed to Deposit of Waste or Water</p>	<p><b>Aug 30:</b> See above</p>	

		not authorized under this Licence		
6	Topic: Definitions	<p><b>Comment</b> There are several definitions listed that do not occur elsewhere in the Water Licence such as greywater, sewage, toilet wastes and sump.</p> <p><b>Recommendation</b> 1) ENR recommends that any definitions that are not included in the body of the Water Licence be removed.</p>	<p><b>Aug 30:</b> NTPC agrees with the recommendation to remove definitions for terms not included in the body of the Water Licence. Please see NTPC Recommendation ID# 4 and Appendix A attached</p>	
7	Topic: Annual Review	<p><b>Comment</b> Part B, Condition 8, outlines that the Licensee submit a list each year outlining which plans do not require a revision based on annual review. It may be more comprehensive for the list to also include plans that do require revisions with an estimated submission date to assist the Board in work planning.</p> <p><b>Recommendation</b> 1) ENR recommends that Part B, Condition 8, require that the notification letter submitted to the Board after the annual review of plans include a list of all plans and outline which require revisions and which do not.</p>	<p><b>Aug 30:</b> NTPC suggests that GNWT is referring to Part B, Condition 7. NTPC agrees with the recommendation to provide a list of documents that do and do not require revisions</p>	
8	Topic: Annual Reports	<p><b>Comment</b> Part B, Condition 15 includes the requirement for the submission of Annual Water Licence Report. The Boards should consider requiring that Annual Reports be submitted on the anniversary date of the Water Licence This would serve two purposes: 1) the reports would not come in all at the</p>	<p><b>Aug 30:</b> NTPC disagrees with this recommendation as it would reduce reporting efficiency. NTPC holds multiple water licences and having a March 31 deadline for all of them allows for efficiency in preparing reports</p>	



		<p>same time, and, 2) the report would better align with the anniversary date and avoid confusion over calendar date.</p> <p><b>Recommendation</b> 1) ENR recommends that the Boards consider requiring the Water Licence Annual Reports be submitted on the anniversary date of the Water Licence.</p>		
9	<p>Topic: Discharge Locations</p>	<p><b>Comment</b> Part E, Condition 4 states that Discharge locations should be inspected for erosion. It is ENR's understanding that water is discharged directly into Jackfish Lake and there would be no opportunity for monitoring in this method.</p> <p><b>Recommendation</b> 1) ENR recommends that Part E, Condition 4 be removed if Discharge locations cannot be observed for erosion.</p>	<p><b>Aug 30:</b> NTPC agrees with the recommendation for Condition 4 in Part E to be deleted. See NTPC Recommendation ID#7 for rationale.</p>	



August 13, 2019

Jen Potten  
Regulatory Coordinator  
Mackenzie Valley Land and Water Board  
7<sup>th</sup> Floor – 4910 50<sup>th</sup> Avenue  
P.O. Box 2130  
Yellowknife, NT  
X1A 2P6

Dear Ms. Potten,

**Re: Northwest Territories Power Corporation (NTPC)  
Type A Water Licence Renewal Application – MV2019L1-0001  
Power Generation at Jackfish Lake and Associated Activities  
Draft Water Licence Review  
Request for Comments**

The Department of Environment and Natural Resources (ENR), Government of the Northwest Territories has reviewed the draft Water Licence at reference based on its mandated responsibilities under the *Environmental Protection Act*, the *Forest Management Act*, the *Forest Protection Act*, the *Species at Risk (NWT) Act*, the *Waters Act* and the *Wildlife Act* and provides the following comments and recommendations for the consideration of the Board.

### **Topic 1: Closure Definitions**

#### **Comment(s):**

Closure definitions reference the definition in the closure guidelines. It may be more useful to reiterate the definition here for clarity and update the standard conditions document when guidelines are updated.

#### **Recommendation(s):**

- 1) ENR recommends that clear definitions be included in the Water Licence as opposed to referencing definitions in external guidelines. The definitions could be verbatim but should still be included.

## **Topic 2: Closure and Reclamation Definition**

### **Comment(s):**

The proposed definition of closure and reclamation is “the process and activities that facilitate the return of areas affected by the Project to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and human activities.”

As proposed, the definition does not consider when closure and reclamation occurs. It is noted that the other definition for closure and reclamation with the strikethrough includes additional wording to describe the closure and reclamation phase: “Means the Project area after the completion and cessation of activities as described in the completed Water Licence Application...” In addition, the *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mines Sites in the Northwest Territories* (MVLWB/AANDC, 2013) defines permanent closure, “Permanent closure is the final closure of a mine site with no foreseeable intent by the existing proponent to return to either active exploration or mining.”

### **Recommendation(s):**

- 1) ENR recommends the Board consider including wording that describes when closure and reclamation takes place in the definition of “closure and reclamation”.

## **Topic 3: Discharge Language**

### **Comment(s):**

The conditions include both discharge of waste and deposit of waste. For example, the scope in Part A, Condition 1 states that “the Licence entitles the Licensee to use Water, and deposit Waste” whereas the word “discharge” is used throughout the Water Licence.

ENR notes it may be confusing to stakeholders and proponents if similar language such as deposit and discharge are used.

### **Recommendation(s):**

- 1) ENR recommends the definition of discharge be “a direct or indirect deposit or release of any Waters or Waste to the Receiving Environment.” Conditions in the Water Licence should also reference deposit or release of any Waters or Waste.

## **Topic 4: Unauthorized Discharge Definition**

### **Comment(s):**

The proposed definition for unauthorized discharge is “a release or Discharge of any Waters or Waste not authorized under this Licence.” ENR notes the proposed definition of “discharge” already includes that it is a release.

Further, as noted above, the definition should be changed to “a Deposit of Waste or Water not authorized under this Licence”. This would be more consistent with the *Waters Act* and Regulations.

### **Recommendation(s):**

- 1) ENR recommends the term “release” be removed from the definition of unauthorized discharge.
- 2) ENR recommends that the definition be changed to “a Deposit of Waste or Water not authorized under this Licence”.

## **Topic 5: Definitions**

### **Comment(s):**

There are several definitions listed that do not occur elsewhere in the Water Licence such as greywater, sewage, toilet wastes and sump.

### **Recommendation(s):**

- 1) ENR recommends that any definitions that are not included in the body of the Water Licence be removed.

## **Topic 6: Annual Review**

### **Comment(s):**

Part B, Condition 8, outlines that the Licensee submit a list each year outlining which plans do not require a revision based on annual review. It may be more comprehensive for the list to also include plans that do require revisions with an estimated submission date to assist the Board in work planning.

**Recommendation(s):**

- 1) ENR recommends that Part B, Condition 8, require that the notification letter submitted to the Board after the annual review of plans include a list of all plans and outline which require revisions and which do not.

**Topic 7: Annual Reports**

**Comment(s):**

Part B, Condition 15 includes the requirement for the submission of Annual Water Licence Report. The Boards should consider requiring that Annual Reports be submitted on the anniversary date of the Water Licence This would serve two purposes: 1) the reports would not come in all at the same time, and, 2) the report would better align with the anniversary date and avoid confusion over calendar date.

**Recommendation(s):**

- 1) ENR recommends that the Boards consider requiring the Water Licence Annual Reports be submitted on the anniversary date of the Water Licence.

**Topic 8: Discharge Locations**

**Comment(s):**

Part E, Condition 4 states that Discharge locations should be inspected for erosion. It is ENR's understanding that water is discharged directly into Jackfish Lake and there would be no opportunity for monitoring in this method.

**Recommendation(s):**

- 1) ENR recommends that Part E, Condition 4 be removed if Discharge locations cannot be observed for erosion.

Comments and recommendations were provided by ENR technical experts in the Water Management and Monitoring Division and the North Slave Region and were coordinated and collated by the Environmental Assessment and Monitoring Section (EAM), Environmental Stewardship and Climate Change Division.

If you have any questions or concerns, please do not hesitate to contact Patrick Clancy, Environmental Regulatory Analyst at (867) 767-9233 Ext: 53096 or email [patrick.clancy@gov.nt.ca](mailto:patrick.clancy@gov.nt.ca).

Sincerely,

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

Patrick Clancy  
Environmental Regulatory Analyst  
Environmental Assessment and Monitoring Section  
Environmental Stewardship and Climate Change Division  
Department of Environment and Natural Resources  
Government of the Northwest Territories

## Appendix A to NTPC Response dated August 29, 2019- Summary of NTPC Proposed Revisions to Part A

### Part A: Scope and Definitions

#### Scope

	Condition	Title
1.	<p>This Licence entitles the Licensee to use Water, and deposit Waste for industrial activities at the Jackfish Power Generation Facility.</p> <p>The scope of this Licence includes the following:</p> <ul style="list-style-type: none"> <li>a) Withdrawal of Water for the cooling of the power generators;</li> <li>b) Depositing of Waste; and</li> <li>c) Progressive Reclamation and associated Closure and Reclamation activities.</li> </ul>	SCOPE
2.	<p>This Licence is issued subject to the conditions contained herein with respect to the use of Water and the deposit of Waste in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposits of such Waste may enter any Waters. Whenever new Regulations are made or existing Regulations are amended by the Commissioner in Executive Council under the <i>Waters Act</i>, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be automatically amended to conform with such Regulations.</p>	REGULATIONS SUBJECT TO CHANGE
3.	<p>Compliance with the defined terms and conditions of this Licence does not relieve the Licensee from responsibility for compliance with the requirements of any applicable federal, territorial or municipal legislation.</p>	LEGISLATIVE COMPLIANCE

#### Definitions<sup>1</sup>:

Defined Terms
<p><b>Action Level</b> – a predetermined qualitative or quantitative trigger which, if exceeded, requires the Licensee to take appropriate actions.</p>

<sup>1</sup> Defined terms are capitalized throughout the License, including when used in other definitions.

## Defined Terms

**Analyst** – an Analyst designated by the Minister under subsection 65(1) of the *Waters Act*.

**Aquatic Effects Monitoring Program (AEMP)** – a monitoring program developed for the Project in accordance with this Licence and the MVLWB/GNWT *Guidelines for Aquatic Effects Monitoring Programs*

**Board** – the Mackenzie Valley Land and Water Board established under subsection 99(1) of the *Mackenzie Valley Resource Management Act*.

~~**Closure Criteria** – has the same meaning as that in the MVLWB/AANDC *Guidelines for the Closure and Reclamation of Advance Mineral Exploration and Mine Sites in the Northwest Territories*.~~

~~**Closure Objectives** – has the same meaning as that in the MVLWB/AANDC *Guidelines for the Closure and Reclamation of Advance Mineral Exploration and Mine Sites in the Northwest Territories*.~~

**Closure and Reclamation** – the process and activities following the cessation of the Project that facilitate the return of areas affected by the Project to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and human activities.

~~**Closure and Reclamation Plan (CRP)** – a document, developed in accordance with this Licence and the MVLWB/AANDC *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*, that clearly describes the Closure and Reclamation for the Project.~~

**Construction** – any activities undertaken during any phase of the Project to construct or build any structures, facilities or components of, or associated with, the development of the Project.

**Discharge** – a direct or indirect release of any Waters or deposit of any Waste to the Receiving Environment.

~~**Discharge Water** – wastewater-Jackfish Lake water specifically drawn and used for the cooling of the pumps associated with the power generators and then discharged to Jackfish Lake.~~

**Engagement Plan** – a document, developed in accordance with the MVLWB *Engagement and Consultation Policy* and the *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*, that clearly describes how, when and which engagement activities will occur with an affected party during the life of the Project.

~~**Greywater** – all liquid Wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include Toilet Wastes.~~

**Inspector** – an Inspector designated by the Minister under subsection 65(1) of the *Waters Act*.



## Defined Terms

**Licensee** – the holder of this Licence.

**Minister** – the Minister of the Government of the Northwest Territories (GNWT) – Environment and Natural Resources.

**Professional Engineer** – a person registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists to practice as a Professional Engineer in the Northwest Territories as per the territorial *Engineering and Geoscience Professions Act*, and whose professional field of specialization is appropriate to address the components of the Project at hand.

**Project** – the undertaking described in Part A, condition 1.

**Receiving Environment** – the natural environment that, directly or indirectly, receives any deposit of Waste from the Project.

**Remediation** – the removal, reduction or neutralization of substances, Wastes or hazardous materials from a site so as in order to prevent or minimize any adverse effects on the environment and public safety, now or in the future.

**Response Framework** – a systematic approach to responding to the results of a monitoring program through adaptive management actions.

**Response Plan** – a document describing the actions that will be taken by a licensee in response to an Action Level exceedance.

**Runoff** – the overland flow of Water or Wastewater that occurs when precipitation, meltwater, or other Water is not absorbed by the land, and instead drains downslope towards a Watercourse.

**Seepage** – any Water or Waste that drains, passes through, or escapes from any structure designed to contain, withhold, divert, or retain Water or Waste.

~~**Sewage** – all Toilet Wastes and Greywater.~~

**Spill Contingency Plan (SCP)** – a document, developed in accordance with INAC's *Guidelines for Spill Contingency Planning*.

**Sump** – a human-made pit, trench, hollow, or natural depression used for the purpose of depositing Water and/or Waste.

**Temporary Closure** – a state of care and maintenance, with the intent of resuming activities in the near future.

~~**Toilet Wastes** – all human excreta and associated products, not including Greywater.~~

### Defined Terms

**Unauthorized Discharge** – a ~~release of~~ Discharge of any Waters or Waste not authorized under this Licence.

**Waste** – any substance defined as Waste by section 1 of the *Waters Act*.

**Waste Management Plan (WMP)** – a document, developed in accordance with the MVLWB *Guidelines for Developing a Waste Management Plan*, that describes the methods of Waste management from Waste generation to final disposal.

**Wastewater** – any Water that is generated by Project activities or originates on-site, and which contains Waste, and may include, but is not limited to, Runoff, Seepage and Discharge Water, ~~and Sewage~~.

**Water** – any Water as per section 1 of the *Waters Act*.

**Watercourse** – a natural watercourse, body of Water or Water supply, whether usually containing Water or not, and includes Groundwater, springs, swamps, and gulches.

**Water Management Area** – a geographical area of the Northwest Territories established by section 2 and Schedule A of the Waters Regulations.

**Waters Regulations** – the regulations proclaimed pursuant to section 63 of the *Waters Act*.

**Water Use** – a use of Water as per section 1 of the *Waters Act*.

Environmental Protection Operations Directorate  
Prairie & Northern Region  
5019 52<sup>nd</sup> Street, 4<sup>th</sup> Floor  
P.O. Box 2310  
Yellowknife, NT X1A 2P7

ECCC File: 5420 000 001/013  
MVLWB File: MV2019L1-0001



August 13, 2019

via online review system

Jen Potten  
Regulatory Coordinator  
Mackenzie Valley Land and Water Board  
7th Floor, 4922 48th Street  
P.O. Box 2130  
Yellowknife, NT X1A 2P6

Dear Jen Potten:

**RE: MV2019L1-0001 - Northwest Territories Power Corporation – Jackfish Lake  
Generating Facility – Draft Type A Water License**

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Mackenzie Valley Land and Water Board (MVLWB) regarding the above-mentioned Draft Water Licence. This letter and the attached comments provides ECCC's specialist advice based on our mandate, in the context of the *Canadian Environmental Protection Act*, the pollution prevention provisions of the *Fisheries Act*.

Please contact Eva Walker at (867) 669-4744 or [eva.walker@canada.ca](mailto:eva.walker@canada.ca) should you require more information.

Sincerely,

*[original signed by]*

Eva Walker  
Environmental Assessment Coordinator

Attachment(s): ECCC Comments Excel Sheet

cc: Georgina Williston, Head, Environmental Assessment North (NT and NU)

