

From: [Andrew Wheeler](#)
To: [Matthew Miller](#)
Cc: [Wendy Bidwell](#); [Shannon Allerston](#); [Leslie Wiltzen](#); [Robert Walker](#); [Norman McCowan](#); [Andrew Ellis](#); [Brian Dixon](#); [Eddie Smith](#); [Deanna McLure](#); [Kumar Balachandran](#); [Alex Love](#); [Belinda Whitford](#)
Subject: RE: Taltson Camp Water Supply- Alternative Option
Date: Friday, March 12, 2021 12:59:00 PM
Attachments: [image007.png](#)

Hi Matt,

Thank you for your email. We have reviewed NTPC's project description against the Waters Regulations, specifically Schedule H, 2(2)(d). We have determined that the work as described constitutes watercourse training as a channel and bank alteration, and that the 100m3 licence trigger is in relation to all material involved in the work. Our determination is based on 2(2)(d) stating "including channel and bank" and the *Waters Act* definition of the "use" of water: "means a direct or indirect use of any kind, including, but not limited to,... (c) an alteration of the bed or banks of a river, stream, lake or other body of water..."

The 200m3 volume specified in the project description triggers a Type B Water Licence under Schedule H, 2(2)(d). Please note this is in addition to the permit amendment you mentioned in your email.

Please feel free to contact me via email or my office line (867.766.7467) if you have any questions.

Regards,

Andrew Wheeler
Regulatory Specialist
Mackenzie Valley Land and Water Board



From: Matthew Miller <MMiller@ntpc.com>
Sent: Friday, March 5, 2021 3:12 PM
To: Andrew Wheeler <awheeler@mvlwb.com>; Shannon Allerston <sallerston@mvlwb.com>; Wendy_Bidwell@gov.nt.ca; Leslie Wiltzen <Leslie_Wiltzen@gov.nt.ca>
Cc: Robert Walker <Robert_Walker@gov.nt.ca>; Norman McCowan <Norman_McCowan@gov.nt.ca>; Andrew Ellis <AEllis@ntpc.com>; Brian Dixon <BDixon@ntpc.com>; Eddie Smith <ESmith@ntpc.com>; Deanna McLure <Deanna.McLure@ghd.com>; Kumar Balachandran <KBalachandran@ntpc.com>; Alex Love <ALove@ntpc.com>; Belinda Whitford <Bwhitford@ntpc.com>
Subject: RE: Taltson Camp Water Supply- Alternative Option

Hello Shannon, Andy, Wendy and Leslie,

As discussed in the meeting NTPC will submit a Land-Use permit amendment to amend Taltson Overhaul - Type A Land Use Permit- MV2020X0004 as required by the MVLWB and Inspectors. The amendment will include the new water intake design outlined in the attached mark up and discussed in the attached correspondence.

NTPC was pushing to avoid a formal amendment since the fall of 2020 but both the MVLWB and Inspectors have advised NTPC that an amendment is required as the proposed works do not comply with Condition 30 of MV2020X0004. Condition 30 of MV2020X0004 does not provide the ability for inspectors to approve the works and therefore NTPC was informed that an amendment is required.

A few points on next steps below:

- The new water intake is a relatively minor change in overall scope of the permit.
- NTPC will complete engagement with stakeholders via email and phone calls if requested from March 8 -26, 2021 but engagement will be less intensive than for large scale amendments or new permits.
- NTPC will submit the amendment application on March 26, 2021.
- For efficiency the outstanding submission of the 4 management plans required under the Type A Land Use Permit- MV2020X0004 will be included in the amendment application although only the ESC plan may require public review.
 - Updated Construction, Wildlife Management and Reclamation Plan
 - Updated Spill Contingency Plan
 - Updated Waste Management Plan
 - Erosion and Sediment Control Plan for all activities under the Taltson LUP

Using an elevation of 241m as the high water mark (water was 240.5 at its highest this year so this a conservative value) the amount of excavation below high water mark or within the watercourse is 63m3. The amount of fill will be approximately 63m3 as well.

Given that the amount of removal and placement of material within the watercourse is below the 100m3 threshold provided in the Water Licence trigger table presented in the LWB Guide to the Water Licensing Process document (Power Undertaking table attached but information is the same for this item for Industrial Undertaking) NTPC maintains that a Type B Water Licence will not be required for the intake.

The temporary water line will require no heavy equipment or vegetation clearing and may be installed before the amendment is in place (intake screen will meet DFO standards).

Thanks for your time and let us know if there is any additional information we can provide at this time.

Cheers and have a good weekend,

Matt

From: Matthew Miller

Sent: Friday, March 5, 2021 3:55 PM

To: Andrew Wheeler <awheeler@mvlwb.com>; Shannon Allerston <sallerston@mvlwb.com>; Wendy_Bidwell@gov.nt.ca

Cc: Leslie Wiltzen <Leslie_Wiltzen@gov.nt.ca>; Robert Walker <Robert_Walker@gov.nt.ca>; Norman McCowan <Norman_McCowan@gov.nt.ca>; Andrew Ellis <AEllis@ntpc.com>; Brian Dixon <BDixon@ntpc.com>; Eddie Smith <ESmith@ntpc.com>; Deanna McLure

<Deanna.McLure@ghd.com>

Subject: RE: Taltson Camp Water Supply- Alternative Option

Hello Shannon, Andy and Wendy,

Here is a draft drawing of the water intake. Using an elevation of 241m as the high water mark (water was 240.5 at its highest this year so this a conservative value) the amount of excavation below high water mark is 63m³

For discussion in our meeting

Thanks,

Matt

From: Matthew Miller

Sent: Friday, February 19, 2021 3:23 PM

To: Andrew Wheeler <awheeler@mvllwb.com>

Cc: Shannon Allerston <sallerston@mvllwb.com>; Leslie Wiltzen <Leslie_Wiltzen@gov.nt.ca>; Robert Walker <Robert_Walker@gov.nt.ca>; Norman McCowan <Norman_McCowan@gov.nt.ca>; Wendy_Bidwell@gov.nt.ca; Andrew Ellis <AEllis@ntpc.com>; Brian Dixon <BDixon@ntpc.com>; Eddie Smith <ESmith@ntpc.com>; Deanna McLure <Deanna.McLure@ghd.com>

Subject: RE: Taltson Camp Water Supply- Alternative Option

Thanks for your response Andy,

We will follow up and obtain responses to your inquiries below. We provided a submission on this subject in September 2020 and we spoke on the phone on September 30 after some back and forth. At that time it was advised that the water intake would not require an amendment just a formal submission to the MVLWB that would also be reviewed and approved by ENR and DFO.

NTPC proceeded with task planning under LUP- MV2020X0004 since Sept 2020 based on this guidance that a full amendment would not be required. The regulatory updates provided in December 2020 and January 2021 include reference to the submission of updated plans and an ESC plan under the permit but no amendment as this was not planned for based on discussions in September 2020.

We would like to work with yourself, the board, ENR and DFO to review the designs under the current permit without obtaining an amendment as was advised in September 2020.

I will work to get the requested information and then hopefully we can set up a quick meeting to discuss.

Thanks for your time and let me know if there is any other information I can provide at this point.

Cheers,

Matt

From: Andrew Wheeler <awheeler@mvllwb.com>

Sent: Friday, February 19, 2021 10:57 AM

To: Matthew Miller <MMiller@ntpc.com>

Cc: Shannon Allerston <sallerston@mvllwb.com>; Leslie Wiltzen <Leslie_Wiltzen@gov.nt.ca>; Robert

Walker <Robert_Walker@gov.nt.ca>; Norman McCowan <Norman_McCowan@gov.nt.ca>;
Wendy_Bidwell@gov.nt.ca; Andrew Ellis <AEllis@ntpc.com>; Brian Dixon <BDixon@ntpc.com>; Eddie
Smith <ESmith@ntpc.com>; Deanna McLure <Deanna.McLure@ghd.com>

Subject: RE: Taltson Camp Water Supply- Alternative Option

Email originated outside NTPC.

Hi Matt,

Thank you for the updated information on the Taltson Camp Water Supply. We note that you intend on updating the Construction, Wildlife Management and Reclamation Plan and Sediment and Erosion Control Management Plan to address these proposed works more directly. We have a few questions of clarification on the information provided to help determine whether or not a Water Licence and/or Land Use Permit amendment might be required.

Appendix B of the existing Construction, Wildlife Management and Reclamation Plan, which accounted for a portion of the Project Description component of the LUP Application (MV2020X0004), states that the initially intended water supply structure would consist of “a submersible pump encased in an exposed stainless steel casing mounted to the concrete inlet structure of the penstock feed to the hydroelectric facility... installed above grade and within culvert sleeves at road crossings from the submersible pump at the reservoir intake to the work camp facilities potable water and recirculating system.” Earthworks involved included some site grading. The updated plans require the installation of poles, grounding plates, and dug trenches to support a new pumphouse, which appear to be within 100 m of the Ordinary High Water Mark. Condition 30 of Permit MV2020X0004 limits work within 100 m of the water mark to that which was described in the Application. This condition is not subject to Inspector’s approval. Upon review of the Application, it does not appear that activities, including potential impacts and mitigations, described for the construction of the new water supply pumphouse have been previously provided for review. To this end, we suspect an amendment to the Permit may be needed. Before coming to this conclusion, however, can you provide some more information on the following:

- What is the proposed timing of construction for the new water supply infrastructure?
- What is the difference between the temporary water supply location and infrastructure and the permanent water supply location and infrastructure and the relative timing of works required for both activities? Can NTPC provide a full description of the construction activities associated with the temporary intake and the permanent intake?
- Noting the very high water levels, will construction involve the removal of sediment below the water surface?
- How much material will be removed or placed to support the construction and installation of the water supply infrastructure?
- What considerations have been given to the proposed water supply location’s proximity to the float plane dock? Has NTPC considered the potential contamination of the supply system from the relative high-use of this area?

Thank you,
Andy

Andrew Wheeler

Regulatory Specialist
Mackenzie Valley Land and Water Board



From: Matthew Miller <MMiller@ntpc.com>
Sent: Monday, February 15, 2021 6:00 PM
To: Andrew Wheeler <awheeler@mvlwb.com>; Shannon Allerston <sallerston@mvlwb.com>
Cc: Leslie Wiltzen <Leslie_Wiltzen@gov.nt.ca>; Robert Walker <Robert_Walker@gov.nt.ca>; Norman McCowan <Norman_McCowan@gov.nt.ca>; Wendy_Bidwell@gov.nt.ca; Andrew Ellis <AEllis@ntpc.com>; Brian Dixon <BDixon@ntpc.com>; Eddie Smith <ESmith@ntpc.com>; Deanna McLure <Deanna.McLure@ghd.com>
Subject: RE: Taltson Camp Water Supply- Alternative Option

Hello Shannon and Andy,

I have attached draft design drawings for the alternative water supply discussed in the email chain below. This information and further details will be provided in the updated Construction, Wildlife Management and Reclamation Plan and ESC measures will be included in the Sediment and Erosion Control Management Plan that will be submitted at the end of the month.

The temporary water line will be put in place in the spring to run the camp until the permanent water line can be installed later in the summer. The temporary line will be 120/208V electric pump and the line will be an insulated 2 x 1" pex flex line see link for product info, http://www.urecon.com/systems/flexible_systems.html and a rough mark up attached for location. The permanent intake design is outlined in the draft document. Both intakes will meet the [Interim code of practice: End-of-pipe fish protection screens for small water intakes in freshwater \(dfo-mpo.gc.ca\)](https://www2.gov.bc.ca/gov2/content/safety/interim_code_of_practice_end-of-pipe_fish_protection_screens_for_small_water_intakes_in_freshwater_dfo-mpo.gc.ca)

As discussed this design has been updated slightly from the initially proposed design but should not require a full amendment. Andy suggestion preparing a formal submission but before we do I just wanted to reach out for some initial input.

Andy provided some points below which I have prepared initial responses to:

- Whether the work is within the scope of the existing Permit, specifically looking at Part A 1 a) and d);
 - The work is within the scope of Part A 1 a) The use of vehicles and machines and d) Construction and replacement of structures.
- Any impacts and how they will be mitigated
 - Impacts will managed by the mitigation measures presented in the updated Construction, Wildlife Management and Reclamation Plan and Sediment and Erosion Control Management Plan.
- Whether the proposed work does or does not fit into the Permit's existing Conditions, specifically 13, 19, 25, 30, and 31.
 - The work fits into the existing conditions for conditions 13, 19 and 25
 - Conditions 30 and 31 would require Inspector approval
 -

30.	The Permittee shall not remove vegetation or operate heavy equipment within 100 metres of the Ordinary High Water Mark of any Watercourse, except as described in the application.	EQUIPMENT: WATERCOURSE BUFFER
31.	The Permittee shall not excavate land within 100 metres of the Ordinary High Water Mark of any Watercourse, except as described in the application, unless otherwise authorized in writing by an Inspector.	EXCAVATION SETBACK

As mentioned this design would be submitted to ENR and DFO for review.

Let me know if you see any info that is missing or have any questions and I will proceed with a formal submission for the water intake.

Cheers,

Matt

From: Andrew Wheeler <awheeler@mvlwb.com>
Sent: Wednesday, September 30, 2020 8:18 AM
To: Matthew Miller <MMiller@ntpc.com>
Cc: Shannon Allerston <sallerston@mvlwb.com>
Subject: RE: Taltson Camp Water Supply- Alternative Option

Email originated outside NTPC.

I think the first step would be to formalize the information in a letter describing the work/reasoning for the alteration and address the points below:

- Whether the work is within the scope of the existing Permit, specifically looking at Part A 1 a) and d);
- Any impacts and how they will be mitigated; and
- Whether the proposed work does or does not fit into the Permit's existing Conditions, specifically 13, 19, 25, 30, and 31.

I notice you included the Inspectors on your email – I recommend circling back with them for input once the information is prepared. We certainly support sending the information to ENR as you mentioned and also recommend contacting Fisheries and Oceans Canada considering the work would occur on the shoreline.

I'm free via my office line or cell (403.816.3452) to discuss. Just FYI I will be on vacation October 5-13, returning to work October 14.

Thanks,
 Andy

Andrew Wheeler
 Regulatory Specialist
 Mackenzie Valley Land and Water Board

ph 867.766.7467



From: Matthew Miller <MMiller@ntpc.com>
Sent: Monday, September 28, 2020 9:56 AM
To: Andrew Wheeler <awheeler@mvlwb.com>
Cc: Shannon Allerston <sallerston@mvlwb.com>
Subject: RE: Taltson Camp Water Supply- Alternative Option

Hey Andy,

This would have no impact on the water source for the existing camp which is drawn from the penstock and will not change. This water source is only for the new staff accommodations.

Let me know if there is any other info we can provide

Thanks for your time,

Matt

From: Andrew Wheeler <awheeler@mvlwb.com>
Sent: Monday, September 28, 2020 9:26 AM
To: Matthew Miller <MMiller@ntpc.com>
Cc: Shannon Allerston <sallerston@mvlwb.com>
Subject: RE: Taltson Camp Water Supply- Alternative Option

Email originated outside NTPC.

Would this also alter the water source location for the existing camp, or would the source locations for the existing camp and the facility being constructed be separate?

Thanks,
Andy

Andrew Wheeler
Regulatory Specialist
Mackenzie Valley Land and Water Board
ph 867.766.7467



From: Matthew Miller <MMiller@ntpc.com>

Sent: Friday, September 25, 2020 10:42 AM

To: Andrew Wheeler <awheeler@mvlwb.com>; Shannon Allerston <sallerston@mvlwb.com>; Leslie Wiltzen <Leslie_Wiltzen@gov.nt.ca>; Wendy Bidwell <Wendy_Bidwell@gov.nt.ca>

Cc: Andrew Ellis <AEllis@ntpc.com>; Brian Dixon <BDixon@ntpc.com>; Alex Love <ALove@ntpc.com>; Lloyd Courage <courageprojects@shaw.ca>; Eddie Smith <ESmith@ntpc.com>

Subject: Taltson Camp Water Supply- Alternative Option

Hello Andy, Shannon, Leslie and Wendy,

Our Interim Dam Safety Engineer has advised NTPC that there are some risks to running the new waterline for the Taltson camp along the top of the dam. This proposed design is outlined the "Current Design Waterline route" markup and the Proposed Taltson Facility figure.

The risks that our Interim Dam Safety Engineer identified include:

- It is not recommended to run waterlines, irrespective of size, on dams since if it ruptures the extent of wash-out damage is an unknown
- The waterline may be in the way of required upgrades to the dam

To mitigate these risks NTPC has looked at an alternative option shallow well option for the water intake for the new Taltson Camp. This shallow well option would include:

- Excavating the area where the floatplane dock is from the shoreline roughly 20ft back from the shoreline
 - Shoreline would remain relatively undisturbed
 - Silt curtain would be used during construction
- Filling this area with permeable gravel (located on site)
- Placing a culvert down into the gravel
- Placing a small structure with heat traces over the well to avoid it freezing up
- Running the water line from this location to the camp

This option would be preferable for the following reasons:

- No concerns of the effects of a water line break on the dam
- No earthworks for the waterline would be required on the dam
- Significantly shorter water line to construct, operate and maintain

We wanted to check in to see what the regulatory requirements would be for this design change. Given that this would be a relatively small design change in relation to all of the work contained in the permit we were hoping that we could provide some more detailed drawings outlining the proposed design, update our site figures and submit an erosion and control plan for the work and that would be sufficient. We could send the design to ENR for input if required as well.

Please advise if this would be sufficient to cover the regulatory requirements for this minor adjustment.

On a more general note we are going to work on preparing a site wide erosion and sediment control plan in response to the conformity review of the Sediment and Erosion Control Management Plan against Condition 19 of the Permit that Andy sent to us in the end of June.

Please let us know if there is any other information we can provide at this point and let me know if you would like to set up a meeting to discuss.

Thanks for your time,

Matt

From: Andrew Ellis <AEllis@ntpc.com>
Sent: Monday, September 21, 2020 4:27 PM
To: Matthew Miller <MMiller@ntpc.com>
Cc: John Davenport <JDavenport@ntpc.com>; Clement Longpre <CLongpre@ntpc.com>; Brian Dixon <BDixon@ntpc.com>; Alex Love <ALove@ntpc.com>
Subject: FW: Taltson Camp water supply (alternative option)

Hi Matt

Looking for what may be required for regulatory approval if we were to go with this alternative approach.

Andrew

From: LLOYD COURAGE <courageprojects@shaw.ca>
Sent: September 7, 2020 9:58 AM
To: Andrew Ellis <AEllis@ntpc.com>
Cc: Clement Longpre <CLongpre@ntpc.com>; John Davenport <JDavenport@ntpc.com>; Brian Dixon <BDixon@ntpc.com>; Bradley Harrison <bharrison@ntpc.com>
Subject: Re: Taltson Camp water supply

Email originated outside NTPC.

Andrew.

I had a chat with John D on site last Sat.

He said that there is a very suitable shoreline a little further upstream where float planes / boats can be accommodated.

Have a look at the attached photo showing details for a well.

I removed the floating Dock in the photo.

Instead of extending a gravel berm into the lake it will be much easier and cheaper to excavate an Inlet into the existing pad.

This bit of work can be done in a couple of days.

A curtain will be required to contain any turbulence. There is a curtain at Snare Forks and a unused section in the Quanset Hut at the Snare Airstrip.

These can also be ordered from Nilex in Edmonton.

A Box should be installed over the culvert as described on the photo.

The excavated material should be hauled to spoil.

From: "Andrew Ellis" <AEllis@ntpc.com>
To: "Clement Longpre" <CLongpre@ntpc.com>, "John Davenport" <JDavenport@ntpc.com>
Cc: "Brian Dixon" <BDixon@ntpc.com>, "courageprojects@shaw.ca courageprojects@shaw.ca" <courageprojects@shaw.ca>, "Bradley Harrison" <bharrison@ntpc.com>
Sent: Thursday, September 3, 2020 11:37:27 AM

Subject: Taltson Camp water supply

Good Morning All

While Lloyd Courage was on site just before the shutdown. I had him take a look at the possibility of a shallow well near the float dock instead of running the new camp water line to the intake. A test pit was dug and while Lloyd was on site and the option is viable.

Attached is a sketch of what he is proposing.

At a high level (there are probably more) the main pros/cons of this approach are:

Pros

1. Significantly shorter water line to operate and maintain,
2. easier to protect a much shorter water line,
3. easier to construct than running the line to the intake..
4. No concerns of the effects of a water line break on the dam

Cons

1. cost to install could be more
2. may slightly alter float plane access

Your thoughts would be appreciated, we can also have a meeting to discuss post shutdown.

Regards,

Andrew Ellis
Project Manager
Northwest Territories Power Corporation

Cell: (867) 876-1085

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