

Subject: FW: Feedback on Mitigation measures LOA 21-HCAA-02514
Date: Wednesday, July 5, 2023 at 2:52:02 PM Mountain Daylight Saving Time
From: Kelly Bourassa
To: Benjamin Roy
CC: Bonnie Bergsma
Attachments: image001.png, image002.png

Hi Ben,

This email will also be good to upload with the DFO LOA.

Much appreciated!

Thanks,

Kelly

From: Peat, Tyler (he, him | il, lui) (DFO/MPO) <Tyler.Peat@dfo-mpo.gc.ca>
Sent: June 29, 2023 12:46 PM
To: Kelly Bourassa <Kelly_Bourassa@gov.nt.ca>
Cc: Derlukewich, Shona (she, her | elle, la) (DFO/MPO) <Shona.Derlukewich@dfo-mpo.gc.ca>
Subject: RE: Feedback on Mitigation measures LOA 21-HCAA-02514

Hi Kelly,

I spoke with my supervisor today and it is our preference you proceed with the alternative option of stabilizing the banks at Hellava Creek (as described below), in order to minimize impacts to fish habitat and maintain fish passage during periods of low flow. Given works will involve the excavation of the channel to bury the toe of the revetment, we would advise that the following mitigation, in addition to those listed in the Letter of Advice, is also implemented into the project design:

- Restore stream geomorphology (i.e., restore the bed and banks, gradient and contour of the waterbody) to its natural state.

The Fisheries Act provides a legal basis for conserving and protecting fish and fish habitat, with provisions included to ensure the free passage of fish and/or the protection of fish/fish habitat with respect to obstructions. Given the potential presence of migrating species within this watercourse, it is important that fish passage is maintained. Assuming the riprap is installed in such a way that allows for fish passage under low flow conditions (as indicated in the information below), then DFO would have no additional concerns.

As noted in the Letter of Advice, it remains your responsibility to remain in compliance with the *Fisheries Act*, the *Species at Risk Act*, and the Aquatic Invasive Species Regulations. Please be reminded it is also your Duty to Notify DFO if you have caused, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat. Such notifications should be directed to DFO.OPHabitat.MPO@dfo-mpo.gc.ca.

Please notify this office at least 10 days before starting any in-water works. Send your notification to the DFO 10 notification mailbox: DFO.OP.10DayNotification-Notification10Jours.OP.MPO@dfo-mpo.gc.ca. We recommend that a copy of the original Letter of Advice and **this email** be kept on site while the work is in

progress.

Finally, I would like to bring attention to the mitigation measures listed on the DFO website at <https://dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html>. Please ensure that the contractor reviews these measures and implements those measures necessary to avoid harmful alteration, disruption or destruction of fish and/or fish habitat. It remains your responsibility to meet all other federal, territorial, provincial, and municipal requirements that apply to your proposal.

Regards,

Tyler Peat

Biologist, Fish and Fish Habitat Protection Program
Fisheries and Oceans Canada
Cell phone: (613) 213 - 0293

From: Peat, Tyler (he, him | il, lui) (DFO/MPO)
Sent: Thursday, June 29, 2023 8:31 AM
To: Kelly Bourassa <Kelly_Bourassa@gov.nt.ca>
Subject: RE: Feedback on Mitigation measures LOA 21-HCAA-02514

Hi Kelly,

Just got your voicemail so I thought I'd follow up.

Thanks for following up with the consultants. I'll take this back to my supervisor today hopefully to gauge their thoughts. Based on the drawings below, our preference will likely be the second option of apron as it minimizes encroachment into the creek and maintains some form of low flow channel. As the consultant states, "During significantly low-level water periods, the riprap may cause an obstruction it's hard to predict and its likely the creek/channel would move around naturally to maintain flow.", which is what the concern was with the first option.

Stay tuned. I'll try to get an update for you as soon as I can.

Cheers,

Tyler Peat

Biologist, Fish and Fish Habitat Protection Program
Fisheries and Oceans Canada
Cell phone: (613) 213 - 0293

From: Kelly Bourassa <Kelly_Bourassa@gov.nt.ca>
Sent: Tuesday, June 27, 2023 4:09 PM
To: Peat, Tyler (he, him | il, lui) (DFO/MPO) <Tyler.Peat@dfo-mpo.gc.ca>
Subject: RE: Feedback on Mitigation measures LOA 21-HCAA-02514

Hi Tyler,

I have had the consultant prepare a response. They feel that in their current design, the natural flow would move to naturally maintain flow. They have also suggested a second, alternate design which would have the rip rap below the current creek bottom which would reduce the possibility for obstruction.

Let me know if you have any additional questions or concerns.

Kelly

From: Kefalas, Dennis <Dennis.Kefalas@stantec.com>

Sent: June 27, 2023 1:56 PM

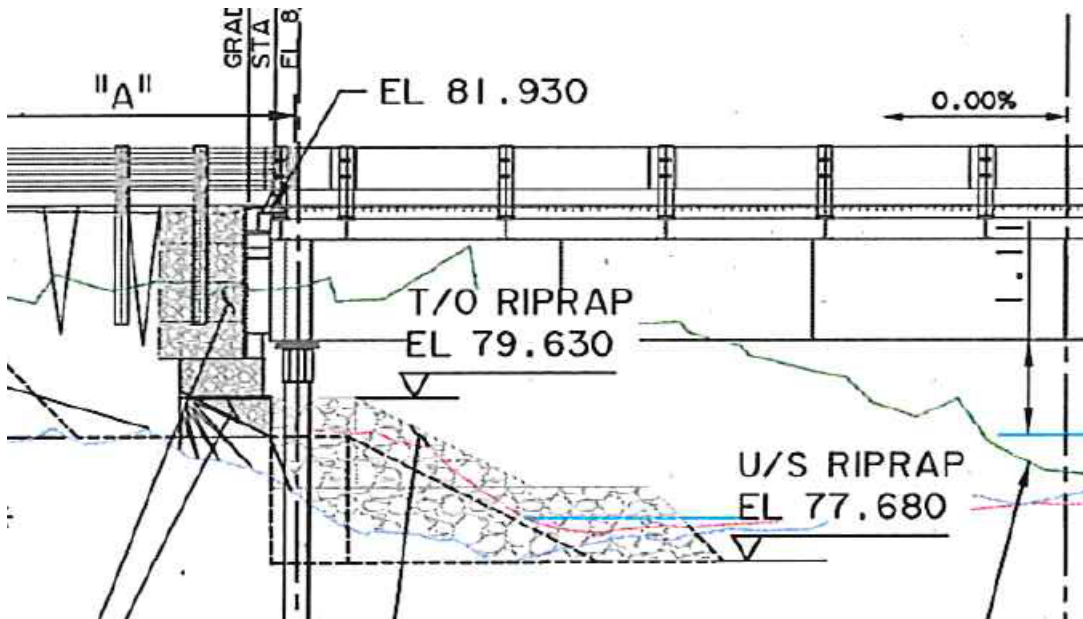
To: Kelly Bourassa <Kelly_Bourassa@gov.nt.ca>

Cc: McLeod, Warren <Warren.McLeod@stantec.com>; Bonhomme, Erica <Erica.Bonhomme@stantec.com>

Subject: RE: which document? RE: Feedback on Mitigation measures LOA 21-HCAA-02514

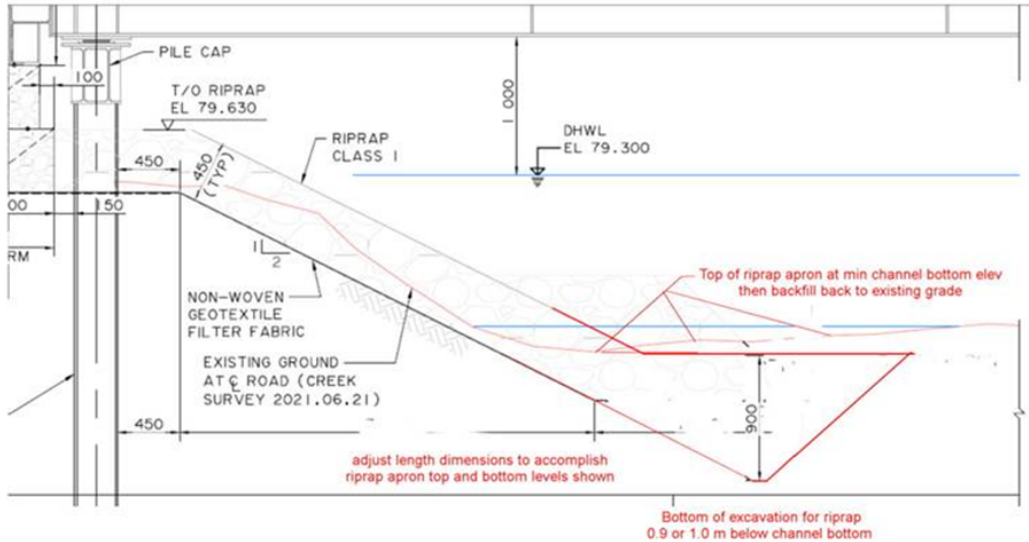
Good afternoon Kelly,

Below is the existing cross section of the erosion protection under the Norman Wells side of the bridge, the area in question.



Under normal circumstances in terms of surveyed water levels there should not be an issue. During significantly low-level water periods, the riprap may cause an obstruction it's hard to predict and it's likely the creek/channel would move around naturally to maintain flow.

During the design stage, we discussed the use of a different apron, please see sketch below. The bottom of the excavation for the riprap would be 0.9m to 1.0m below channel bottom. This design would reduce the possibility of any obstruction by the riprap during low water levels. This change should address DFO's concerns.



After you discuss this with Fisheries and if they believe this is a better option, we can provide the content for a site instruction.

Please let us know.

Kind regards,

Dennis Kefalas, P. Eng.

Senior Project Manager

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From: Peat, Tyler <Tyler.Peat@dfo-mpo.gc.ca>

Sent: June 23, 2023 6:37 AM

To: Kelly Bourassa <Kelly_Bourassa@gov.nt.ca>

Cc: Andrew Lirette <Andrew_Lirette@gov.nt.ca>

Subject: RE: Feedback on Mitigation measures LOA 21-HCAA-02514

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Hi Kelly – sorry for the delay.

I was able to speak with management yesterday and are requesting some follow up information.

In your email below, you state “...fish passage must be maintained. We have since confirmed with the

consultants that *prepared the design that this criteria has been accounted for in the structure design and can be observed at further detail in the PCAR Hydrotechnical Assessments*”.

The PCAR technical analysis states that “*Riprap should extend to approximately the design high water levels presented in Table 6-3 but is less necessary at the top of slope because of infrequent exposure to floodwater and lower flow velocities than the more critical toe.*” However, drawings suggest riprap extends the entire wetted channel for a small stretch of Hellava Creek (see attached photo; area circled in green). It’s likely that I missed it, but are you able to highlight where in the PCAR document it states fish passage will be maintained at this location? If possible, are you able to show on the drawings (i.e. plan and sectional views) where the edge of water will be post-construction/rock placement? We just want to ensure the low flow channel is maintained in this watercourse to sure passage during sensitive periods.

Regards,

Tyler Peat

Biologist, Fish and Fish Habitat Protection Program
Fisheries and Oceans Canada
Cell phone: (613) 213 - 0293

From: Kelly Bourassa <Kelly_Bourassa@gov.nt.ca>
Sent: Tuesday, June 20, 2023 3:10 PM
To: Peat, Tyler <Tyler.Peat@df-mpo.gc.ca>
Cc: Andrew Lirette <Andrew_Lirette@gov.nt.ca>
Subject: Feedback on Mitigation measures LOA 21-HCAA-02514

Hi Tyler,

I am just wondering if you have had any feedback on our proposed mitigations for Francis and Helava Creek?

Thanks in advance.

Kelly

Mársi | Kinanāskomitin | Thank you | Merci | Hǎj’ | Quana | Qujannamiik | Quyanainni | Máhsı | Máhsı | Mahsi

Kelly Bourassa

Senior Environmental Analyst

Department of Infrastructure | Ministère de l’Infrastructure
Government of the Northwest Territories | Gouvernement des Territoires du Nord-Ouest

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