Public Works and Government Services Canada | Travaux publics et Services gouvernementaux Canada

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Vancouver
British Columbia
V6Z 0B9
Bid Fax: (604) 775-9381

SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Public Works and Government Services Canada - Pacific Region
800 Burrard Street, Room 219
800, rue Burrard, pièce 219
Vancouver
British C
V6Z 0B9

Title - Sujet Km 568-573 (Tetsa River) Reconstruc Du km 568 au km 573 (rivière Tetsa) – Reconstruction – Phase 2	
Solicitation No. - N° de l'invitation EZ899-220517/A	**Amendment No. - N° modif.** 002
Client Reference No. - N° de référence du client	**Date** 2021-07-23
GETS Reference No. - N° de référence de SEAG PW-$PWY-031-9018	
File No. - N° de dossier PWY-1-44042 (031)	**CCC No./N° CCC - FMS No./N° VME**

Solicitation Closes - L'invitation prend fin
at - à 02:00 PM Pacific Daylight Saving Time PDT
on - le 2021-07-29 Heure Avancée du Pacifique HAP

F.O.B. - F.A.B.
Plant-Usine: ☐ **Destination:** ☑ **Other-Autre:** ☐

Address Enquiries to: - Adresser toutes questions à: Leung, Janie	**Buyer Id - Id de l'acheteur** pwy031
Telephone No. - N° de téléphone (778) 919-3273 ( )	**FAX No. - N° de FAX** ( ) -

Destination - of Goods, Services, and Construction:
Destination - des biens, services et construction:
PWGSC – Tetsa River, km 568 to km 573 – Alaska Highway, BC

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	**Delivery Offered - Livraison proposée**

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Telephone No. - N° de téléphone
Facsimile No. - N° de télécopieur

Name and title of person authorized to sign on behalf of Vendor/Firm (type or print)
Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)

Signature **Date**

Canada

Solicitation No. - N° de l'invitation	Amd. No. - N° de la modif.	Buyer ID - Id de l'acheteur
EZ899-220517/A	002	PWY031
Client Ref. No. - N° de réf. du client	**File No. - N° du dossier**	**CCC No./N° CCC - FMS No./N° VME**
R.112220.002	PWY-1-44042	

This Amendment 002 is raised to issue Addendum #2.

All other terms and conditions remain unchanged.

The following changes/clarifications in the tender documents are effective immediately. This addendum will form part of the contract documents.

Questions from Bidders and Responses

Question 1: In Section 01 11 10 – Summary of Work, Subsection 1.2 Work Covered by Contract Documents, Item .2.14, it suggests the Contractor must supply the CSP pipe. In Section 33 42 13 – Pipe Culverts, Subsection 2.1 CSP Culverts and Couplers it suggests PSPC will provide the CSP pipe. Could I get confirmation as to what it is?

Response 1: PSPC is supplying CSP culverts as described in Section 01 11 10 – Summary of Work, Subsection 2.1 Owner Supplied Materials (Outside the Limits of Work). Item .2.14 in Subsection 1.2 Work Covered by Contract Documents has been updated accordingly.

Question 2: Obviously the original start and completion dates are different from what is specified in this document. Do you have the new dates?

Response 2: The construction start date will be after the contract award date and after submittals have been submitted by the Contractor, then reviewed and accepted by the Departmental Representative. As noted in Section 01 11 10 – Summary of Work, Subsection 3.2 Work Completion, the project completion date is November 15, 2021.

Question 3: Is the bentonite plug required on both steel pipes or only the one?

Response 3: A bentonite plug is required at the inlet of the two steel pipe culverts located at Km 568.84 and Km 569.95, as shown on the Contract Drawings (sheets C201, C202, and C303).

Question 4: Have the permits for "Notification and change" been approved as of closing date?

Response 4: Two Notifications (Notices of Authorized Changes) have been received from the British Columbia Ministry of Forests, Lands, Natural Resource Operations, and Rural Development (FLNRORD) for the 9 drainage culverts and culvert installations at Km 568.84 and Km 569.95. These Notifications are attached to this Addendum No. 2. The Change Approval for inlet and outlet channel realignment, riprap erosion protection and stream diversion through the proposed culverts at Km 568.84 and Km 569.95 has been undertaken and is in process with FLNRORD. The timeline for receipt of the Change Approval is not known. The very earliest PSPC expects to receive the Change Approval is mid-September 2021.

Explanation of Addendum Presentation: Changes to the Specifications and Changes to the Contract Drawings section of this Addendum have been presented as follows:

- *New text has been underlined for ease of identification*
- *Removed text has a "strikethough" and is to be deleted from the text*

Changes to the Specifications:

1. Appendices

Insert:

O British Columbia Ministry of Forests, Lands, Natural Resource Operations, and Rural Development (FLNRORD) Notice of Authorized Changes – 9 Drainage Culverts (File 9000650) – June 24, 2021

P British Columbia Ministry of Forests, Lands, Natural Resource Operations, and Rural Development (FLNRORD) Notice of Authorized Changes – Km 568.84 & Km 569.95 Culverts (File 9000644) – June 24, 2021

2. Section 01 11 10 – Summary of Work

Delete:

1.2 Work Covered by Contract Documents, Item .2.14

Insert:

1.2 Work Covered by Contract Documents, Item .2.14

.2.14 Install drainage infrastructure, including: ~~Supply and install drainage infrastructure including Corrugated Steel Pipe (CSP) Culverts and Steel Pipe Culverts, fish baffles, bentonite, natural substrate, culvert inlet and outlet riprap protection, inlet and outlet channel realignment, and ditch construction.~~

.1 Corrugated Steel Pipe (CSP) Culverts (supplied by PSPC), culvert inlet and outlet riprap protection, inlet and outlet channel realignment, and ditch construction.

.2 Steel pipe culverts (supplied by the Contractor), fish baffles, bentonite, natural substrate, culvert inlet and outlet riprap protection, inlet and outlet channel realignment, and ditch construction.

Delete:

3.2 Work Completion, Item .1.4

Insert:

3.2 Work Completion, Item .1.4

.1.4 The project Notification and Change Approval permitting under the Provincial Water Sustainability Act for instream work has been submitted to the applicable regulatory authorities and is in process. The Notifications have been received and are included in Appendix O and Appendix P. The timeline for receipt of the ~~Notification and~~ Change Approval is not known. ~~The very earliest PSPC expects to receive the Notification is early June 2021.~~ The very earliest PSPC expects to receive the Change Approval is mid-September 2021. See Section 01 35 43 – Environmental Protection for further details.

3. Section 01 14 00 – Work Restrictions, Access Development, Construction Staging, and Restoration

Delete:

1.9 Construction Staging, Item .1

Insert:

1.9 Construction Staging, Item .1

.1 Onsite project work within 30 m of waterways, including removal and replacement of existing culverts, may not start until the applications for Notification and Change Approval under the provincial Water Sustainability Act, and all other environmental permits applied for by the Departmental Representative have been approved by the applicable regulatory authorities, and the necessary documentation has been received by the Departmental Representative. The Notifications have been received and are included in Appendix O and Appendix P. The timeline for receipt of the ~~Notification and~~ Change Approval is not known. ~~The very earliest PSPC expects to receive the Notification is early June 2021.~~ The very earliest PSPC expects the Change Approval to be received is mid-September 2021.

.1 Culvert Inlet and Outlet Riprap Protection for the steel pipe culvert installations at Km 568.84 (1650 mm dia.) and Km 569.95 (2500 mm dia.) shall not commence until the Change Approval under the Provincial Water Sustainability Act has been received from FLNRORD. See Section 01 35 43 – Environmental Protection for further details.

4. Section 01 35 00 – Traffic Management

Delete:

2.1 Temporary Traffic Control Devices, Item .1.3

Insert:

2.1 Temporary Traffic Control Devices, Item .1.3

.1.3 Not used. This Item has been intentionally omitted. ~~Automated Flagger Assistance Devices (AFADs) shall not be used on the project.~~

Delete:

2.1 Temporary Traffic Control Devices, Item .1.3

Insert:

2.1 Temporary Traffic Control Devices, Item .1.3

.1.3 Not used. This Item has been intentionally omitted. ~~Automated Flagger Assistance Devices (AFADs) shall not be used on the project.~~

Insert:

3.2 Traffic Management, Item .1.5.8.3

.1.5.8.3 ~~During non-work hours~~ Temporary traffic signals or Automated Flagger Assistance Devices (AFAD's), controlled by the Pilot Car Driver may be used to replace the traffic control persons. If this traffic control arrangement is used, the traffic control signage layout plan shall be revised to include applicable signage from 7.9 Lane Closure with AFADs – Short and Long Duration or 7.10 Lane Closure with Temporary Signals – Single Lane Alternating Traffic – Short and Long Duration (as applicable) and submitted as part of the Traffic Management Plan. A custom sign stating "wait for pilot vehicle, maximum wait 15 minutes" (or similar) must be displayed at the AFADs or temporary traffic signals.

Insert:

3.2 Traffic Management, Item .1.5.11

.1.5.11 7.9 Lane Closure with AFADs – Short and Long Duration can be used subject to the following:

.1 AFADs shall only be used when the distance between the AFADs is less than or equal to 150 m and a direct line of site is available, or where the Contractor utilizes a Pilot Car in accordance with Item 3.2.1.5.8 of this specification section.

.2 The signal timing and signal head locations shall be established / designed in accordance with Section 4.8 Portable Traffic Signals of the BC Ministry of

Transportation Traffic Management Manual for Work on Roadways – 2020 Office Edition with the details included in the submitted and accepted Traffic Management Plan.

.4 A sign shall be installed on or near the temporary traffic signal indicating the maximum wait time (as determined by the signal timing plan).

.5 The traffic control signage layout shall include the Men Working (C-004) sign in advance of the Construction Ahead (C-018-1A) sign using the applicable Construction Sign Spacing (Dimension A as defined in Table B of Section 7 of the BC Ministry of Transportation Traffic Management Manual for Work on Roadways – 2020 Office Edition) for the applicable speed (adjust all other sign spacing as required).

.6 The Contractor shall check the temporary AFAD's regularly, at a minimum of every two (2) hours.

5. Section 01 35 43 – Environmental Protection

Insert:

1.3 References, Item .8

.8 FLNRORD Notice of Authorized Changes – 9 Drainage Culverts (File 9000650) – June 24, 2021 (Appendix O).

.9 FLNRORD Notice of Authorized Changes – Km 568.84 & Km 569.95 Culverts (File 9000644) – June 24, 2021 (Appendix P).

Delete:

1.4 Regulatory Overview, Item .2

Insert:

1.4 Regulatory Overview, Item .2

.2 The following permitting has been undertaken by PSPC / is in process ~~required~~ under the Provincial Water Sustainability Act: ~~on the project comprises of the following:~~

.1 Permitting still in process includes: ~~Change Approval: culvert replacements / instream works at Sta. 568+840 and Sta. 569+950.~~

.1 Change Approval: inlet and outlet channel realignment, riprap erosion protection and stream diversion through proposed culverts at Km 568.84 and Km 569.95. The timeline for receipt of the Change Approval is not known. The very earliest PSPC expects to receive the Change Approval is mid-September 2021.

.2 Permitting received includes: ~~Notification: culvert replacements / instream works at all other locations~~.

.1 Notice of Authorized Changes (Notification): 9 drainage culverts (see Appendix O).

.2 Notice of Authorized Changes (Notification): culverts installations at Km 568.84 and Km 569.95 (see Appendix P).

.3 Not used. This Item has been intentionally omitted. ~~The project Notification and Change Approval permitting under the Provincial Water Sustainability Act for instream work has been submitted to the applicable regulatory authorities and is in process. The timeline for receipt of the Notification and Change Approval is not known. The very earliest PSPC expects to receive the Notification is early June 2021. The very earliest PSPC expects to receive the Change Approval is mid-September 2021.~~

6. Section 31 05 16 – Aggregates: General

Insert:

2.5 Select Subgrade Fill Material, Item .1.1

.1.1 Materials designated to be excavated within the limits of the work, excluding pulverized BST.

7. Section 31 24 14 – Roadway Excavation, Embankment, and Compaction

Delete:

1.1 Measurement and Payment Procedures, Item .4

Insert:

1.1 Measurement and Payment Procedures, Item .4

.1 Measurement for Payment for completion of Embankment will be made on the volume of material surveyed in cubic metres incorporated into the finished highway embankment (at the completion of compaction) and accepted by the Departmental Representative. No separate measurement or payment for excavation or hauling of the Embankment material

will be made. If surplus excavation after achieving the Embankment design lines and grades, the surplus excavation shall be placed on the Embankment sideslopes in locations directed by the Departmental Representative, and measured and paid as Embankment. ~~Excess Embankment material resulting from excavation completed within the design lines and grades shown on the Contract Drawings will be placed as surplus excavation and counted as Embankment.~~

Insert:

2.1 Embankment Material, Item .2.3

.2.3 Once the Contractor exhausts suitable material from onsite excavations (Items 2.1.2.1 and 2.1.2.2 above), existing material (i.e. shale) stockpiled at PSPC's existing pit at Km 565.9 designated for use by the Departmental Representative as Embankment.

.2.4 Once the Contractor exhausts suitable material from onsite excavations and suitable material located in PSPC's existing pit at Km 565.9 (Items 2.1.2.1, 2.1.2.2, and 2.1.2.3 above), in-situ materials excavated at the existing cut slope between Km 572.3 and Km 572.5 of the Alaska Highway (see Subsection 2.1 Owner Supplied Materials (Outside Limits of Work) in Section 01 11 10 – Summary of Work for further details).

8. Section 31 26 13 – Pulverization of Existing BST

Delete:

1.3 Definitions, Item .1

Insert:

1.3 Definitions, Item .1

.1 Pulverization ~~Base Preparation~~: in place reclamation procedure in which the existing BST and a predetermined portion of the underlying granular materials are scarified, mixed, and blended into a homogeneous material and incorporated into the road base. Re-grade as necessary.

Delete:

2.1 Equipment, Item .1

Insert:

2.1 Equipment, Item .1

.1 The pulverization ~~base preparation~~ process shall be completed using a pulvi-mixer or other equipment, included on the General Contractor & Sub-Contractor Construction Equipment List (see Appendix G) and acceptable to the Departmental Representative.

9. Section 31 37 00 – Riprap

Insert:

1.3 Environmental, Item .3

.3 Culvert Inlet and Outlet Riprap Protection for the steel pipe culvert installations at Km 568.84 (1650 mm dia.) and Km 569.95 (2500 mm dia.) shall not commence until the Change Approval under the Provincial Water Sustainability Act has been received from FLNRORD. See Section 01 35 43 – Environmental Protection for further details.

10. Section 33 42 13 – Pipe Culverts

Insert:

3.7 Culvert Ditching and End Protection, Item .3

.3 Culvert Inlet and Outlet Riprap Protection for the steel pipe culvert installations at Km 568.84 (1650 mm dia.) and Km 569.95 (2500 mm dia.) shall not commence until the Change Approval under the Provincial Water Sustainability Act has been received from FLNRORD. See Section 01 35 43 – Environmental Protection for further details.

R.112220.002
Appendix O

British Columbia Ministry of Forests, Lands, Natural Resource Operations, and Rural Development (FLNRORD) Notice of Authorized Changes – 9 Drainage Culverts (File 9000650) – June 24, 2021

BRITISH COLUMBIA

June 24, 2021

Job Number: 117931
vFCBC Tracking Number: 100345659

Public Services and Procurement Canada
219-800 Burrard ST
Vancouver, BC V6Z 0B9

Dear Public Services and Procurement Canada,

Notice of Authorized Changes - Changes In and About a Stream (File 9000650)

Thank you for your Authorized Change Application for changes in and about a stream regarding the road crossing culvert construction/maintenance/removal activities for the project along km 566+900 to km 570+200 of the Alaska Highway, at the following stream crossing locations:

Stream Name	Site ID	Latitude	Longitude
Unmapped Drainage 1	km 567+24	58.6540610	-124.2082950
Unmapped Drainage 2	km 567+52	58.6539550	-124.2129450
Unmapped Drainage 3	km 567+70	58.6537820	-124.2160240
Unmapped Drainage 4	km 567+82	58.6536270	-124.2182070
Unmapped Drainage 5	km 568.08	58.6532250	-124.2226230
Unmapped Drainage 6	km 568.64	58.6535500	-124.2319410
Unmapped Drainage 7	km 569.10	58.6526490	-124.2396470
Unmapped Drainage 8	km 569.57	58.6535700	-124.2475560
Unmapped Drainage 9	km 570.11	58.6543610	-124.2567540

This letter acknowledges that the proposed activities meet the requirements as identified for Authorized Changes under the *Water Sustainability Act*.

As per Section 39(1)(a), you may make changes as per the regulation.

Should the work plan or scope of work change, you must notify the Habitat Officer. If the proposal is outside the authorized changes as described by Section 39 of the *Water Sustainability Regulation*, you will be directed to obtain an Approval under Section 11 of the *Water Sustainability Act*.

All works shall be completed in accordance with the:

Ministry of Forests, Lands, Natural Resource Operations, and Rural Development
Water Management

Mailing Address: 400-10003 110th Avenue, Fort St John BC V1J 6M7

Location: 400-10003 110th Avenue, Fort St John BC V1J 6M7

Phone: (250) 787-3415
Fax: (250) 261-2084
Web: http://www.gov.bc.ca/water

- Notification submitted on April 19, 2021 (tracking number 100345659).
- Environmental Overview Assessment Alaska Highway Realignment & Reconstruction KM 566+900 to KM 570+200 prepared for Public Services and Procurement Canada by Tetra Tech Canada Inc. (File 704-TRN. VHWY03172-02 Revision 1) on April 16, 2021. This includes the various management and protection plans attached as appendices in the assessment.
- Provincial "Standards and Best Practices for In-stream Works 2004" http://www.env.gov.bc.ca/wld/documents/bmp/iswstdsbpsmarch2004.pdf and "A Users' Guide to Working In and Around Water" https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/working_around_water.pdf.

As the Habitat Officer under the *Water Sustainability Act*, I am requiring that the proposed changes in and about a stream be made in accordance with the following terms and conditions to protect fish, fish habitat, and/or water quality as per Section 42(2) of the *Water Sustainability Regulation*.

TERMS AND CONDITIONS:

a) THE TIMING WINDOW DURING WHICH THE CHANGE MAY BE MADE

The least risk fish window is between July 15 and August 15 to accommodate both spring and fall spawning fish species that may be present.

As a Habitat Officer I authorize a variance for your instream works; permitting works from June 24, 2021 to October 31, 2023 with conditions:

- instream works are to be undertaken during the least risk window of July 15-August 15, 2021, July 15-August 15, 2022 and July 15-August 15, 2023 or

- when the worksite stream channel is naturally dry (no flow) or completely frozen to the bottom at the time of construction. A QEP must be onsite to make a determination whether or not the stream is dry or frozen to the bottom prior to the commencement of the project works to ensure the instream activity will not adversely impact fish or fish habitat (e.g. result in the introduction of sediment into fish habitat) or

- other times of the year when the worksite stream channel contains flow. A QEP must be onsite to provide oversight and ensure satisfactory implementation of mitigation outlined in the project EMP (e.g. isolation, fish salvage, etc.).

Ministry of Forests, Lands, Natural Resource Operations, and Rural Development
Water Management

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- PSPC's contractor is strongly encouraged to undertake instream works during the least risk window or when streams are naturally dry (no flow)/ completely frozen to the bottom.

Minimize the amount of time the work site is in a disturbed state by completing work as quickly as possible, while considering worker safety and minimizing environmental risk.

b) THE MINIMUM INSTREAM FLOW OR THE MINIMUM FLOW OF WATER THAT MUST REMAIN IN THE STREAM WHILE THE CHANGE IS BEING MADE

The natural rate of water flow must be maintained upstream and downstream of the worksite during all phases of instream activity.

c) THE REMOVAL OF MATERIAL FROM THE STREAM OR STREAM CHANNEL IN CONNECTION WITH THE CHANGE

The removal of material must not lead to stream channel instability or increase the risk of sedimentation into the watercourse.

Minimize the removal of stable, functioning woody debris. Retain, where possible, existing instream and riparian vegetation and other habitat features. These include trees, bushes, shrubs, weeds, or tall grasses along any stream bank, mats of floating vegetation, overhanging vegetation, natural, large woody debris that does not appear to be causing damage to the bottom, and large boulders.

Any spoil materials must be placed in a location which ensures that sediment or debris does not enter the watercourse.

d) THE ADDITION OF SUBSTANCE, SEDIMENT, DEBRIS OR MATERIAL TO THE STREAM OR STREAM CHANNEL IN CONNECTION WITH THE CHANGE

Instream activities must be conducted in the dry and the worksite must be isolated from water flowing in the stream channel.

All equipment must be located and operated in the dry, outside the wetted perimeter of the stream.

Measures must be taken to ensure that no harmful material (e.g. fuel and other hydrocarbons, soil, road fill, or sediment) which could adversely impact water quality, fish and other aquatic life, and/or fish habitat, be allowed to enter the wetted perimeter as a result of the project activities.

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Water Management

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Equipment used in close proximity to the wetted perimeter must be free of deleterious material (e.g. hydrocarbons) and in good mechanical condition (e.g. no fuel or hydraulic leaks).

Ensure all hydraulic machinery working near a stream uses environmentally sensitive hydraulic fluids that are non-toxic to aquatic life and that are readily or inherently biodegradable.

Fuelling and servicing of vehicles and equipment must occur a minimum of 30 metres away from all streams, lakes and waterbodies. Keep a spill containment kit on site and train onsite staff in its use. Immediately report any spill of a substance that is toxic, polluting, or deleterious to aquatic life of reportable quantities to the Provincial Emergency Program 24-hour phone line at **1-800-663-3456**.

All rock used in the works shall be clean and free of sediment producing material, durable, non-acid generating and suitably graded.

Ensure that all works involving the use of concrete, cement, mortars, and other Portland cement or lime-containing construction materials will not deposit, directly or indirectly, sediments, debris, concrete, concrete fines, wash or contact water into or about any watercourse. Concrete materials cast in place must remain inside sealed formed structures.

Concrete leachate is alkaline and highly toxic to fish and other aquatic life. A CO2 tank with regulator, hose and gas diffuser must be readily available during concrete work to neutralize pH levels should a spill occur. On-site staff must be trained to use this equipment.

Erosion and sediment control structures are to be available onsite and utilized as necessary.

Do not work in weather conditions likely to contribute to sediment production to the stream.

e) THE SALVAGE OR PROTECTION OF FISH OR WILDLIFE WHILE THE CHANGE IS BEING MADE OR AFTER THE CHANGE HAS BEEN MADE

If dewatering of the worksite is necessary, fish salvage must occur on a fish-bearing stream prior to commencing works. A fish salvage permit must be obtained http://www.env.gov.bc.ca/pasb/.

Do not disturb wildlife and/or their residences (e.g. beaver lodges) within the project area.

Ministry of Forests, Lands, Natural Resource Operations, and Rural Development
Water Management

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Phone: (250) 787-3415
Fax: (250) 261-2084
Web: http://www.gov.bc.ca/water

Measures must be taken to ensure that equipment (e.g. water pumps) does not harm aquatic life.

f) THE PROTECTION OF NATURAL MATERIALS AND VEGETATION THAT CONTRIBUTE TO THE AQUATIC ECOSYSTEM OR STREAM CHANNEL STABILITY

Minimize disturbance to natural materials (e.g. embedded logs) and vegetation that contribute to habitat or stream channel stability.

Minimize the disturbance to existing vegetation on and adjacent to the stream banks.

g) THE RESTORATION OF THE WORKSITE AFTER THE CHANGE HAS BEEN MADE

Protect disturbed soil areas on the banks and areas adjacent to the stream from surface erosion.

Revegetate any disturbed areas using appropriately selected species, as required. Riparian areas which are disturbed by the works shall be restored to their original condition and protected from erosion.

Remove any remaining sediment and erosion control measures.

Complete post-construction multi-year monitoring to ensure your revegetation meets full survival.

h) THE REQUIREMENT TO OBTAIN AN APPROVAL FROM THE FEDERAL DEPARTMENT OF FISHERIES AND OCEANS IN CONNECTION WITH THE CHANGES

Proponents are responsible for complying with the federal *Fisheries Act*. No serious harm to fish is authorized by this document, where serious harm is the death of fish or any permanent alteration to, or destruction of, fish habitat.

Proponents are responsible for determining whether Fisheries and Oceans Canada (FOC) must be consulted and whether an authorization from FOC is required prior to making the change.

i) OTHER

To ensure protection of fish, fish habitat and aquatic resources, an Environmental Monitor must be on site while instream operations take place for the scenarios described in the Environmental Overview Assessment (including its management plans which are attached as appendices to the assessment).

Ministry of Forests, Lands, Natural Resource Operations, and Rural Development
Water Management

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Fax: (250) 261-2084
Web: http://www.gov.bc.ca/water

This Notification **does not** constitute a ***Wildlife Act* Authorization**.

This letter does not cover works previously conducted without Authority.

This document does not supersede the requirements of the *Water Sustainability Act* and Regulations, *Federal Fisheries Act* or any other related legislation. The proponent is obligated to comply with all applicable federal, provincial or municipal enactments. For more information on the *Water Sustainability Act*, Section 11 Change Approval and Authorization for "Changes In and About a Stream" can be found at: http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-licensing-rights/working-around-water.

Retain a copy of this document on site during construction of the works.

If you have any questions or concerns, please contact Kerry.Harvey@gov.bc.ca who can also be reached at 778-576-1136.

Sincerely,

Kerry Harvey
Senior Ecosystems Biologist

Cc:
Enclosure(s)

Ministry of Forests, Lands, Natural Resource Operations, and Rural Development
Water Management

Mailing Address: 400-10003 110th Avenue, Fort St John BC V1J 6M7

Location: 400-10003 110th Avenue, Fort St John BC V1J 6M7

Phone: (250) 787-3415
Fax: (250) 261-2084
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R.112220.002
Appendix P

British Columbia Ministry of Forests, Lands, Natural Resource Operations, and Rural Development (FLNRORD) Notice of Authorized Changes – Km 568.84 & Km 569.95 Culverts (File 9000644) – June 24, 2021

June 24, 2021

Job Number: 117734
vFCBC Tracking Number: 100345651

Public Services and Procurement Canada
219-800 Burrard ST
Vancouver, BC V6Z 0B9

Dear Public Services and Procurement Canada,

Notice of Authorized Changes - Changes In and About a Stream (File 9000644)

Thank you for your Authorized Change Application for changes in and about a stream regarding the road crossing culvert construction/maintenance/removal activities, for the project on the unnamed streams at Km 568+840 (Lat.: 58.6532910, Long.: -124.2354650) and Km 569+950 (Lat.:58.6543730, Long.: -124.2540480). This letter acknowledges that the proposed activities meet the requirements as identified for Authorized Changes under the *Water Sustainability Act*.

As per Section 39(1)(a), you may make changes as per the regulation.

Should the work plan or scope of work change, you must notify the Habitat Officer. If the proposal is outside the authorized changes as described by Section 39 of the *Water Sustainability Regulation*, you will be directed to obtain an Approval under Section 11 of the *Water Sustainability Act*.

All works shall be completed in accordance with the:

- Notification submitted on April 16, 2021 (tracking number 100345651).
- Environmental Overview Assessment Alaska Highway Realignment & Reconstruction KM 566+900 to KM 570+200 prepared for Public Services and Procurement Canada by Tetra Tech Canada Inc. (File 704-TRN. VHWY03172-02 Rev. 1) on April 16, 2021. This includes the various management and protection plans attached as appendices in the assessment.
- Provincial "Standards and Best Practices for In-stream Works 2004" http://www.env.gov.bc.ca/wld/documents/bmp/iswstdsbpsmarch2004.pdf and "A Users' Guide to Working In and Around Water" https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/working_around_water.pdf.

Ministry of Forests, Lands, Natural Resource Operations, and Rural Development
Water Management

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As the Habitat Officer under the *Water Sustainability Act*, I am requiring that the proposed changes in and about a stream be made in accordance with the following terms and conditions to protect fish, fish habitat, and/or water quality as per Section 42(2) of the *Water Sustainability Regulation*.

TERMS AND CONDITIONS:

a) THE TIMING WINDOW DURING WHICH THE CHANGE MAY BE MADE

The least risk fish window is between July 15 and August 15 to accommodate both spring and fall spawning fish species that may be present.

As a Habitat Officer I authorize a variance for your instream works; permitting works from September 1, 2021 to October 31, 2023 with conditions:

- instream works are to be undertaken during the least risk window of July 15-August 15, 2022 and July 15-August 15, 2023 or

- when the worksite stream channel is naturally dry (no flow) or completely frozen to the bottom at the time of construction. A QEP must be onsite to make a determination whether or not the stream is dry or frozen to the bottom prior to the commencement of the project works to ensure the instream activity will not adversely impact fish or fish habitat (e.g. result in the introduction of sediment into fish habitat) or

- other times of the year when the worksite stream channel contains flow. A QEP must be onsite to provide oversight and ensure satisfactory implementation of mitigation outlined in the project EMP (e.g. isolation, fish salvage, pre-construction Bull Trout redd survey etc.).

- PSPC's contractor is strongly encouraged to undertake instream works during the least risk window or when streams are naturally dry (no flow)/ completely frozen to the bottom.

Minimize the amount of time the work site is in a disturbed state by completing work as quickly as possible, while considering worker safety and minimizing environmental risk.

b) THE MINIMUM INSTREAM FLOW OR THE MINIMUM FLOW OF WATER THAT MUST REMAIN IN THE STREAM WHILE THE CHANGE IS BEING MADE

The natural rate of water flow must be maintained upstream and downstream of the worksite during all phases of instream activity.

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c) THE REMOVAL OF MATERIAL FROM THE STREAM OR STREAM CHANNEL IN CONNECTION WITH THE CHANGE

The removal of material must not lead to stream channel instability or increase the risk of sedimentation into the watercourse.

Minimize the removal of stable, functioning woody debris. Retain, where possible, existing instream and riparian vegetation and other habitat features. These include trees, bushes, shrubs, weeds, or tall grasses along any stream bank, mats of floating vegetation, overhanging vegetation, natural, large woody debris that does not appear to be causing damage to the bottom, and large boulders.

Any spoil materials must be placed in a location which ensures that sediment or debris does not enter the watercourse.

d) THE ADDITION OF SUBSTANCE, SEDIMENT, DEBRIS OR MATERIAL TO THE STREAM OR STREAM CHANNEL IN CONNECTION WITH THE CHANGE

Instream activities must be conducted in the dry and the worksite must be isolated from water flowing in the stream channel.

All equipment must be located and operated in the dry, outside the wetted perimeter of the stream.

Measures must be taken to ensure that no harmful material (e.g. fuel and other hydrocarbons, soil, road fill, or sediment) which could adversely impact water quality, fish and other aquatic life, and/or fish habitat, be allowed to enter the wetted perimeter as a result of the project activities.

Equipment used in close proximity to the wetted perimeter must be free of deleterious material (e.g. hydrocarbons) and in good mechanical condition (e.g. no fuel or hydraulic leaks).

Ensure all hydraulic machinery working near a stream uses environmentally sensitive hydraulic fluids that are non-toxic to aquatic life and that are readily or inherently biodegradable.

Fuelling and servicing of vehicles and equipment must occur a minimum of 30 metres away from all streams, lakes and waterbodies. Keep a spill containment kit on site and train onsite staff in its use. Immediately report any spill of a substance that is toxic, polluting, or deleterious to aquatic life of reportable quantities to the Provincial Emergency Program 24-hour phone line at **1-800-663-3456**.

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All rock used in the works shall be clean and free of sediment producing material, durable, non-acid generating and suitably graded.

Ensure that all works involving the use of concrete, cement, mortars, and other Portland cement or lime-containing construction materials will not deposit, directly or indirectly, sediments, debris, concrete, concrete fines, wash or contact water into or about any watercourse. Concrete materials cast in place must remain inside sealed formed structures.

Concrete leachate is alkaline and highly toxic to fish and other aquatic life. A CO2 tank with regulator, hose and gas diffuser must be readily available during concrete work to neutralize pH levels should a spill occur. On-site staff must be trained to use this equipment.

Erosion and sediment control structures are to be available onsite and utilized as necessary.

Do not work in weather conditions likely to contribute to sediment production to the stream.

e) THE SALVAGE OR PROTECTION OF FISH OR WILDLIFE WHILE THE CHANGE IS BEING MADE OR AFTER THE CHANGE HAS BEEN MADE

If dewatering of the worksite is necessary, fish salvage must occur on a fish-bearing stream prior to commencing works. A fish salvage permit must be obtained http://www.env.gov.bc.ca/pasb/.

Do not disturb wildlife and/or their residences (e.g. beaver lodges) within the project area.

Measures must be taken to ensure that equipment (e.g. water pumps) does not harm aquatic life.

Given the potential for Bull Trout (a species at risk) to be present in these watersheds, prior to the commencement of instream works, an Aquatic Biologist must evaluate each culvert construction site to ensure no Bull Trout or their spawning habitat (redds) are present.

f) THE PROTECTION OF NATURAL MATERIALS AND VEGETATION THAT CONTRIBUTE TO THE AQUATIC ECOSYSTEM OR STREAM CHANNEL STABILITY

Minimize disturbance to natural materials (e.g. embedded logs) and vegetation that contribute to habitat or stream channel stability.

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Minimize the disturbance to existing vegetation on and adjacent to the stream banks.

g) THE RESTORATION OF THE WORKSITE AFTER THE CHANGE HAS BEEN MADE

Protect disturbed soil areas on the banks and areas adjacent to the stream from surface erosion.

Revegetate any disturbed areas using appropriately selected species, as required. Riparian areas which are disturbed by the works shall be restored to their original condition and protected from erosion.

Remove any remaining sediment and erosion control measures.

Complete post-construction multi-year monitoring to ensure your revegetation meets full survival.

h) THE REQUIREMENT TO OBTAIN AN APPROVAL FROM THE FEDERAL DEPARTMENT OF FISHERIES AND OCEANS IN CONNECTION WITH THE CHANGES

Proponents are responsible for complying with the federal *Fisheries Act*. No serious harm to fish is authorized by this document, where serious harm is the death of fish or any permanent alteration to, or destruction of, fish habitat.

Proponents are responsible for determining whether Fisheries and Oceans Canada (FOC) must be consulted and whether an authorization from FOC is required prior to making the change.

i) OTHER

To ensure protection of fish, fish habitat and aquatic resources, an Environmental Monitor must be on site while instream operations take place for the scenarios described in the Environmental Overview Assessment (including its management plans which are attached as appendices to the assessment).

This Notification **does not** constitute a ***Wildlife Act* Authorization**.

This letter does not cover works previously conducted without Authority.

This document does not supersede the requirements of the *Water Sustainability Act* and Regulations, *Federal Fisheries Act* or any other related legislation. The proponent is obligated to comply with all applicable federal, provincial or municipal enactments. For more information on the *Water Sustainability Act*, Section 11 Change Approval and Authorization for "Changes In and About a Stream" can be found at:

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http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-licensing-rights/working-around-water.

Retain a copy of this document on site during construction of the works.

If you have any questions or concerns, please contact Kerry.Harvey@gov.bc.ca who can also be reached at 778-576-1136.

Sincerely,

Kerry Harvey
Senior Ecosystems Biologist

Cc:
Enclosure(s)

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End of Addendum No. 2