

File: 292-30/BCER-2023-010

June 23, 2023

VIA ELECTRONIC MAIL:

Dear

Re: Request for Access to Records – Response Freedom of Information and Protection of Privacy Act (FOIPPA)

I am writing further to your request received by the BC Energy Regulator (BCER) for:

A copy of Coastal GasLink's Construction Section 7 Supplemental Stream Crossings Submission relating to AD100082423

Please find attached an electronic copy of the records located in response to your request. These records are provided to you in their entirety. Your file is now closed. Please note, a copy of these records will be published on the BCER's website within a minimum of ten business days after release. To find out more about proactive disclosure of requests, please access the BCER website: <u>BC Energy Regulator (bc-er.ca)</u>.

Pursuant to section 52 of the FOIPPA, you may ask the Office of the Information and Privacy Commissioner (OIPC) to review any decision, act, or failure to act with regard to your request under FOIPPA. You have 30 business days to file your review with the OIPC by writing to:

Information and Privacy Commissioner PO Box 9038 Stn Prov Govt 4th Floor, 947 Fort Street Victoria BC V8W 9A4 Phone: 250.387.5629 Fax: 250.387.1696 Email: info@oipc.bc.ca

If you request a review, please provide the OIPC with a copy of your original request, a copy of the BCER's response, and the reasons or grounds upon which you are requesting the review. Further information on the complaint and review process can be found on the OIPC website: <u>https://www.oipc.bc.ca</u>. Please write <u>FOIIntake@bc-er.ca</u>, if you have any questions regarding your request or require any further clarification.

Sincerely,

D. Keough BC Energy Regulator

> Physical Address: 6534 100 Avenue Fort St. John, BC VIJ 8C5



April 1, 2021

Lori Phillips Authorization Manger BC Oil and Gas Commission 6534 Airport Road Fort St. John, B.C. V1J 4M6 Coastal GasLink 630 – 609 Granville Street Vancouver, BC, Canada V7Y 1G5

Tel: 778.328.5327 Fax: 778.328.5336 Email: tracy_young@tcenergy.com Web: <u>www.TCenergy.com</u>

CGL4703-CGP-BCOGC-REG-LTR-4552

Dear Ms. Phillips

Re: Coastal GasLink Pipeline Project (Project) Satisfaction of the Commission Section 7 Pipeline Permit AD # 100082423 – Conditions 46, 47, 50, 51, 52 and 60

Coastal GasLink Pipeline Ltd (Coastal GasLink) is requesting satisfaction of the Commission for the noted conditions in BC Oil and Gas Commission (OGC) Section 7 permit, Conditions 46, 47, 50, 51, 52 and 60 - Supplemental Stream Crossing, Addendum 3.

The structure of the Submission has been modified to include additional information, identified through ongoing construction and regulatory planning:

- this Submission includes one watercourse crossing table [Table 2: Stream Crossings List (Addendum 3) Ditchline].
- a Qualified Environmental Professional (QEP) timing window is included in each crossing table. In accordance with Condition 53, construction activities will occur during the applicable least risk windows, as specified for the Skeena Region, during the QEP window identified in these tables or in accordance with an authorization or letter of advice from Fisheries and Oceans Canada.
- documentation of beaver dam locations, for applicable crossings, for which the Commission may require in-stream works to remove beaver and beaver dams.
- the Oil and Gas Activity Application Manual (OGC 2018), identifies that a non-classified drainage (NCD) is not defined or classified as a stream. NCD s have been removed from the Submission other than those that were downgraded from streams during the 2019 Stream Screening Program.

Should you have any further questions do not hesitate to contact me at 778.328.5327 or tracy_young@tcenergy.com.

Sincerely,

Tracy Young Senior Regulatory Analyst Coastal GasLink

Coastal GasLink



OGC Construction Section 7 Supplemental Stream Crossings Submission Addendum 3

Work Package 3

CGL4703-JEG3-ENV-RPT-0022

March 30, 2021

Revision 0

Issued for Use



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Revision Log

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Acronyms and Abbreviations

BB	Burbot (<i>Lota lota</i>)
BC	British Columbia
BC OGC	British Columbia Oil and Gas Commission
ВТ	Bull Trout (Salvelinus confluentus)
СН	Chinook Salmon (Oncorhynchus tshawytscha)
СМ	Chum Salmon (Oncorhynchus keta)
CO	Coho Salmon (Oncorhynchus kisutch)
Coastal GasLink	Coastal GasLink Pipeline Ltd.
СТ	Cutthroat Trout (Oncorhynchus clarkii)
DFO	Fisheries and Oceans Canada
DV	Dolly Varden (<i>Salvelinus malma</i>)
EMP	Environmental Management Plan
KP	Kilometre Post
LT	Lake Trout (Salvelinus namaycush)
LRW	Least Risk Window
MW	Mountain Whitefish (Prosopium williamsoni)
the Pipeline Permit	Coastal GasLink Pipeline Ltd. Pipeline Permit (Application 100082423) for British Columbia Oil and Gas Commission Construction Section 7
PK	Pink Salmon (Oncorhynchus gorbuscha)
the Project	Coastal GasLink Project
QEP	Qualified Environmental Professional
QP	Qualified Professional
RB	Rainbow Trout (Oncorhynchus mykiss)
SK	Sockeye Salmon (Oncorhynchus nerka)
SST	Summer-Run Steelhead (Oncorhynchus mykiss)
ST	Steelhead (Oncorhynchus mykiss)
UTM	universal transverse Mercator

1. Introduction

The British Columbia Oil and Gas Commission (BC OGC) issued the Coastal GasLink Pipeline Ltd. (Coastal GasLink) Pipeline Permit (Application 100082423) for BC OGC Construction Section 7 (the Pipeline Permit) for the Coastal GasLink Project (the Project) on June 29, 2015. The Pipeline Permit was reissued on November 5, 2018. Conditions 46, 47, 50, 51, 52, and 60 of the Pipeline Permit require Coastal GasLink to receive Satisfaction of the Commission for Supplemental Stream Crossings Submissions. On October 8, 2015, the BC OGC confirmed that the original submission was to the Satisfaction of the Commission in form and content.

Since that time, construction planning has progressed, including additional field surveys and desktop studies that required the preparation of further Supplemental Stream Crossings Submissions. These were submitted to the BC OGC as addendums to the original Supplemental Stream Crossings Submission. Table 1 provides a summary of submissions since Satisfaction of the Commission was received for the original Supplemental Stream Crossings Submission.

Submission Name	Date of Submission to BC OGC	Date of Satisfaction from BC OGC	Description
Addendum 1	June 30, 2020	July 22, 2020	Updates to streams and wetlands
Addendum 2	November 18, 2020	December 10, 2020	Updates to streams only

Table 1. List of Previous Supplemental Stream Crossings Submissions

Previous Supplemental Stream Crossings Submissions to the BC OGC have included effects assessments in consideration of the federal *Fisheries Act*. Bill C-68 received royal assent on June 21, 2019, and the Fish and Fish Habitat Protection Provisions and regulations of the amended federal *Fisheries Act* came into force on August 28, 2019 (Fisheries and Oceans Canada [DFO] 2019). Subsequent submissions to DFO consider amendments such as reinstating the prohibition against harmful alteration, disruption, or destruction of fish habitat, and were submitted under a separate cover to DFO.

2. Stream Crossings List

As required by the Pipeline Permit, changes to stream crossings not described in the original Supplemental Stream Crossings Submission or subsequent addendums must be identified prior to commencing construction. This addendum includes 1 new stream crossing and 74 stream crossings with the pipeline construction crossing method revised to include trenchless methods. Updates as a result of 2020 fieldwork and further desktop review, as well as updates to approximate construction timing, are included. Table 2 contains information on these streams and is provided for the Satisfaction of the Commission.

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Table 2. Stream Crossings List (Addendum 3) – Ditchline

	•	,															
Site Identifier ^a	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
Streams w	vith Updated Ir	nformation															
123C1	Unnamed tributary to Parrott Creek	506+195	655742	6005761	Implement the applicable measures identified in Sections 6, 7, and 8 of the Environmental Management Plan (EMP) (Coastal GasLink 2018).	0.66	S6	None	Not applicable	Not applicable	March 12 to 23	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
J1535.02	Unnamed tributary to Parrott Creek	507+265	654750	6006119	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.62	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
124C1	Unnamed tributary to Parrott Creek	507+557	654490	6006227	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.78	S4	Rainbow Trout (RB)	October 1 to November 30	January 1 to December 31	March 24 to July 20	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
510	Parrott Creek	509+823	652359	6006984	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	4.08	S3	Burbot (BB), Mountain Whitefish (MW), and RB	No window	June 15 to March 31	July 21 to August 1	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	Yes	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing was updated.
18C2	Unnamed tributary to Owen Creek	514+006	648292	6006947	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.83	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
129C1	Unnamed tributary to Owen Creek	515+417	646892	6006793	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.80	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.

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	Site Identifierª	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
	130C1	Unnamed tributary to Owen Creek	517+256	645126	6006457	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.78	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	Yes	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
	131C1	Unnamed tributary to Owen Creek	518+479	643939	6006652	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.82	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	Yes	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
	133C1	Owen Creek	521+706	641170	6005231	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018). Within the construction footprint, cover potential spawning habitat prior to construction (if water levels and velocity allow) to prevent fish from spawning in areas potentially affected by Project construction. Install spawning deterrents in advance of the species spawning timing and remove them after the spawning period has concluded, before freeze-up (if applicable) and prior to construction. For use in spring, the feasibility of using spawning deterrents will be assessed.	10.37	S2	Bull Trout (BT), Chinook Salmon (CH), Coho Salmon (CO), Cutthroat Trout (CT), Dolly Varden (DV), MW, Pink Salmon (PK), RB, Sockeye Salmon (SK), Summer-Run Steelhead (SST), and Steelhead (ST)	No window	December 1 to March 31 The QEP window is dependent on the successful implementation of spawning deterrents prior to the fall spawning season	August 29 to September 12	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Site-specific design	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method was updated to include trenchless crossing methods. The approximate construction timing was updated.
	134C1	Unnamed tributary to Owen Creek	522+527	640375	6005130	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.64	S4	DV and RB	No window	January 1 to December 31	August 2 to 12	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.

Table 2. Stream Crossings List (Addendum 3) – Ditchline

Site Identifier ^a	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
J383.01	Unnamed tributary to Fenton Creek	524+302	638662	6004798	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.74	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
137C1	Unnamed tributary to Fenton Creek	525+140	637826	6004762	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.68	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	Yes	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing was updated.
J385.01	Unnamed tributary to Fenton Creek	525+676	637297	6004733	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.86	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing was updated.
138C1	Unnamed tributary to Fenton Creek	525+718	637256	6004741	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.33	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
139C1	Unnamed tributary to Fenton Creek	526+007	636974	6004782	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.07	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
140C1	Fenton Creek	527+784	635343	6005427	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	3.64	S3	BT, CO, CT, DV, RB, and ST	No window	July 15 to August 15 and December 1 to March 31	August 13 to 24	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Site-specific design	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method was updated to include trenchless crossing methods. The approximate construction timing and KP were updated.

Id	Site dentifier ^a	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
14	41C1	Unnamed tributary to Morice River	529+918	633276	6005325	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	19.74	S5	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, ice bridge, or snowfill	Typical	Yes	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing was updated.
J	390.01	Unnamed tributary to Morice River	531+084	632211	6005601	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.23	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
20	0C2	Unnamed tributary to Morice River	531+291	632015	6005642	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.97	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
53	31	Unnamed tributary to Morice River	533+123	630271	6005892	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.76	S3	BT, CH, CO, CT, DV, RB, SK, SST, and ST	No window	January 1 to December 31	August 25 to September 6	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, ice bridge, or snowfill	Typical	Yes	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated. The fish presence was updated to include the species listed in the Stream Reports (Government of British Columbia [BC] 2021b) for this tributary and the Morice River. MW and Chum Salmon (CM) were excluded based on location and habitat preferences.

Table 2. Stream Crossings List (Addendum 3) – Ditchline

			Universal Transverse			Average				Qualified Environmental	Approximate			Vehicle Crossing Method	Vehicle Crossing		
Site Identifier ^a	Site Name ^b	Kilometre Post (KP)	Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Professional (QEP) Window ^f	Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	(Frozen and Non-Frozen Conditions)	Method Drawing Type	Beaver Dam	Comments
532	Unnamed tributary to Morice River	533+697	629706	6005891	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018). Within the construction footprint, cover potential spawning habitat prior to construction (if water levels and velocity allow) to prevent fish from spawning in areas potentially affected by Project construction. Install spawning deterrents in advance of the species spawning timing and remove them after the spawning period has concluded, before freeze-up (if applicable) and prior to construction. For use in spring, the feasibility of using spawning deterrents will be assessed.	4.82	S3	BT, CH, CO, CT, DV, PK, RB, SK, SST, and ST	No window	December 1 to March 31 The QEP window is dependent on the successful implementation of spawning deterrents prior to the fall spawning season	August 15 to 27	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Site-specific design	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method was updated to include trenchless crossing methods. The approximate construction timing was updated.
533	Unnamed tributary to Morice River	533+717	629686	6005886	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	3.32	S3	BT, CH, CO, CT, DV, PK, RB, SK, SST, and ST	No window	July 15 to August 15 and December 1 to March 31	September 7 to 17	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Site-specific design	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method was updated to include trenchless crossing methods. The approximate construction timing and KP were updated. The fish species code for SK was corrected.
536	Unnamed tributary to Lamprey Creek	537+568	625989	6005227	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	2.60	S3	BB, CH, CO, CT, DV, PK, RB, and ST	No window	January 1 to December 31	September 19 to 29	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
538	Lamprey Creek	538+701	625091	6004801	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	13.40	S2	BB, CH, CO, CT, DV, MW, PK, RB, and ST	No window	July 15 to August 15 and December 1 to March 31	July 15 to 28	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Site-specific design	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method was updated to include trenchless crossing methods. The approximate construction timing and KP were updated.

Site Identifier ^a	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
21C2	Unnamed tributary to Morice River	540+749	623128	6004521	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	2.80	S3	BT, CH, CO, CT, DV, PK, RB, SK, SST, and ST	No window	January 1 to December 31	August 1 to 13	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated. The fish presence was updated to include species listed in the Stream Reports (Government of BC 2021b) for this tributary and the Morice River. MW and CM were excluded based on location and habitat preferences.
23C2	Unnamed tributary to Morice River	542+384	621545	6004209	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.00	S6	None	Not applicable	Not applicable	October 13 to 24	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
26C2	Unnamed tributary to Morice River	543+681	620255	6004117	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.57	S6	None	Not applicable	Not applicable	October 25 to November 4	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing was updated.
27C2	Unnamed tributary to Morice River	543+876	620062	6004116	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.00	S6	None	Not applicable	Not applicable	November 5 to 17	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
28C2	Unnamed tributary to Morice River	544+015	619926	6004110	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.13	S6	None	Not applicable	Not applicable	March 1 to 11	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.

Table 2. Stream Crossings List (Addendum 3) – Ditchline

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Site Identifierª	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
36D1	Unnamed tributary to Morice River	544+956	619127	6004592	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.80	S3	BT, CH, CO, CT, DV, PK, RB, SK, SST, and ST	No window	January 1 to December 31	September 13 to 26	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated. The fish presence was updated to include species listed in the Stream Reports
																	(Government of BC 2021b) for this tributary and the Morice River. MW and CM were excluded based on location and habitat preferences.
29C2	Unnamed tributary to Morice River	545+107	618993	6004658	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.32	S6	None	Not applicable	Not applicable	March 12 to 23	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
549	Cedric Creek	545+922	618212	6004779	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	4.18	S3	BT, CH, CO, CT, DV, PK, RB, SK, SST, and ST	No window	July 15 to August 15 and December 1 to March 31	March 24 to July 20	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Site-specific design	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method was updated to include trenchless crossing methods. The approximate construction timing and KP were updated. The fish presence was updated to include species listed in the Stream Reports (Government of BC 2021b) for Cedric Creek and the Morice River. MW and CM were excluded based on location and habitat preferences.
J417.99	Unnamed tributary to Morice River	549+233	615108	6004035	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.93	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing was updated.

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Site Identifier ^a	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
39D1	Unnamed tributary to Morice River	549+759	614594	6003975	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.72	S6	None	Not applicable	Not applicable	August 25 to September 6	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
40D1	Unnamed tributary to Morice River	550+116	614236	6003934	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.22	S6	None	Not applicable	Not applicable	September 7 to 17	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
150C1	Unnamed tributary to Morice River	550+303	614049	6003910	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.36	S4	BT, CH, CO, CT, DV, PK, RB, SK, SST, and ST	No window	January 1 to December 31	September 19 to 29	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
																	The vehicle crossing methods were updated to include engineered bridge. The fish presence was updated to include species listed in the Stream Reports (Government of BC 2021b) for this tributary and the Morice River. MW and CM were excluded based on location and habitat preferences.

Table 2. Stream Crossings List (Addendum 3) – Ditchline

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Site Identifier ^a	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
553	Unnamed tributary to Morice River	551+973	612403	6003741	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	3.36	S3	BT, CH, CO, CT, DV, PK, RB, SK, SST, and ST	No window	July 15 to August 15 and December 1 to March 31	September 30 to October 12	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods.
														snowfill			construction timing was updated.
																	updated to include species listed in the Stream Reports (Government of BC 2021b) for this tributary and the Morice River. MW and CM were excluded based on location and habitat preferences.
151C1	Unnamed tributary to Morice River	553+593	610864	6003937	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.58	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
J422.99	Unnamed tributary to Morice River	553+907	610562	6003841	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.98	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
556	Unnamed tributary to Morice River	555+568	608960	6003947	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.28	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
557	Unnamed tributary to Morice River	555+777	608763	6003982	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.28	S4	BT, CH, CO, CT, DV, PK, RB, SK, and ST	No window	January 1 to December 31	July 16 to November 30	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods.
														snowfill			construction timing and KP were updated. The fish species code for SK was corrected.
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	Site Identifierª	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
	561	Unnamed tributary to Morice River	560+053	604885	6005678	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.58	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
	565	Crystal Creek	564+025	601054	6006617	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	20.01	S1B	BT, CH, CO, CT, DV, MW, PK, RB, SST, and ST	No window	July 15 to August 15 and December 1 to March 31	December 1 to 14	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Site-specific design	Clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method was updated to include trenchless crossing methods. The site name, KP, and approximate construction timing were updated.
																		No potential spawning habitat was documented within the construction footprint, so a summer QEP window was added to avoid the potential spring and fall migration periods.
	573B	Unnamed tributary to Gosnell Creek	567+131	598350	6007698	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018). Within the construction footprint, cover potential spawning habitat prior to construction (if water levels and velocity allow) to prevent fish from spawning in areas potentially affected by Project construction. Install spawning deterrents in advance of the species spawning timing and remove them after the spawning period has concluded, before freeze-up (if applicable) and prior to	5.28	S2	CH, CO, CT, DV, and RB	No window	December 1 to March 31 The QEP window is dependent on the successful implementation of spawning deterrents prior to the fall spawning season	September 27 to October 11	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	Νο	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing was updated. The fish presence was updated based on the species that were observed during the 2020 fieldwork.
						construction. For use in spring, the feasibility of using spawning deterrents will be assessed.												

Table 2. Stream Crossings List (Addendum 3) – Ditchline

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Site Identifier ^a	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
574B	Unnamed tributary to Gosnell Creek	569+028	596568	6008269	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.33	S4	BT, CO, CT, DV, RB, SST, and ST	No window	January 1 to December 31	November 5 to 17	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
575B	Gosnell Creek	570+941	594846	6008808	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018). Within the construction footprint, cover potential spawning habitat prior to construction (if water levels and velocity allow) to prevent fish from spawning in areas potentially affected by Project construction. Install spawning deterrents in advance of the species spawning timing and remove them after the spawning period has concluded, before freeze-up (if applicable) and prior to construction. For use in spring, the feasibility of using spawning deterrents will be assessed.	24.00	S1B	BT, CH, CO, CT, DV, MW, PK, RB, SST, and ST	No window	No window	October 12 to 25	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Site-specific design	Clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method was updated to include trenchless crossing methods. The approximate construction timing and KP were updated. The QEP window was updated to no window due to the potential for spring spawning (that is, emergence) overlapping with the start of the fall spawning period, including broadcast spawning MW.
578B	Unnamed tributary to Gosnell Creek	574+193	591867	6009008	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	2.96	S3	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	July 15 to August 15 and December 1 to March 31	July 30 to August 10	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.

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Site Identifier ^a	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
579B	Unnamed tributary to Gosnell Creek	575+160	590977	6008689	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018). Within the construction footprint, cover potential spawning habitat prior to construction (if water levels and velocity allow) to prevent fish from spawning in areas potentially affected by Project construction. Install spawning deterrents in advance of the species spawning timing and remove them after the spawning period has concluded, before freeze-up (if applicable) and prior to construction. For use in spring, the feasibility of	5.83	S2	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	December 1 to March 31 The QEP window is dependent on the successful implementation of spawning deterrents prior to the fall spawning season	October 26 to November 8	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated. Spawning habitat was identified within the construction footprint during the 2020 fieldwork, so spawning deterrents were added to the Project mitigation and the summer QEP window was removed. The December 1 to March 31 QEP window avoids potential spawning migration periods and is dependent on the successful
J440.01	Unnamed tributary to	575+552	590628	6008496	deterrents will be assessed.	0.68	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open	Typical (site-specific if	Open bottom structure,	Typical	No	spawning deterrents prior to the fall spawning season. The pipeline crossing method and drawing type
	GosnelÍ Creek				identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).							cut if dry or frozen, or trenchless at any time	trenchiess)	closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill			were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
J440.02	Unnamed tributary to Gosnell Creek	575+706	590494	6008434	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.53	S4	BT, CT, DV, and RB	No window	January 1 to December 31	July 16 to November 30	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
580B	Unnamed tributary to Gosnell Creek	575+740	590466	6008416	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.80	S4	BT, CT, DV, and RB	No window	January 1 to December 31	August 11 to 22	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing was updated.

Table 2. Stream Crossings List (Addendum 3) – Ditchline

Site Identifier ^a	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
J441.02	Unnamed tributary to Gosnell Creek	576+103	590170	6008204	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.50	56	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	l ypical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Турісаї	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
582B	Unnamed tributary to Gosnell Creek	576+699	589691	6007862	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.15	S4	BT, CT, DV, and RB	No window	January 1 to December 31	August 23 to September 2	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
J443.01	Unnamed tributary to Gosnell Creek	576+705	589684	6007852	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.00	S4	BT, CT, DV, and RB	No window	January 1 to December 31	July 16 to November 30	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
J443.02	Unnamed tributary to Gosnell Creek	576+738	589651	6007832	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.47	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
J443.05	Unnamed tributary to Gosnell Creek	576+907	589530	6007740	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	2.90	S3	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	January 1 to December 31	July 16 to November 30	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.

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Site Identifierª	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
583B	Unnamed tributary to Gosnell Creek	577+681	588914	6007272	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018). Within the construction footprint, cover potential spawning habitat prior to construction (if water levels and velocity allow) to prevent fish from spawning in areas potentially affected by Project construction. Install spawning deterrents in advance of the species spawning timing and remove them after the spawning period has concluded, before freeze-up (if applicable) and prior to construction. For use in spring, the feasibility of using spawning deterrents will be assessed.	8.02	S2	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	December 1 to March 31 The QEP window is dependent on the successful implementation of spawning deterrents prior to the fall spawning season	November 9 to 23	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Site-specific design	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method was updated to include trenchless crossing methods. The approximate construction timing and KP were updated. Spawning habitat was identified within the construction footprint during the 2020 fieldwork, so spawning deterrents were added to the Project mitigation and the summer QEP window was removed. The December 1 to March 31 QEP window avoids potential spawning migration periods and is dependent on the successful implementation of spawning deterrents prior to the fall spawning season.
585B	Unnamed tributary to Gosnell Creek	578+391	588352	6006845	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	2.20	S3	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	January 1 to December 31	September 16 to 27	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
587B	Unnamed tributary to Gosnell Creek	579+094	587817	6006405	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.03	S4	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	January 1 to December 31	September 28 to October 8	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
J449.09	Unnamed tributary to Gosnell Creek	579+438	587561	6006166	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.50	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.

Table 2. Stream Crossings List (Addendum 3) – Ditchline

Site Identifier ^a	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
588B	Unnamed tributary to Gosnell Creek	579+777	587316	6005931	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.20	S4	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	January 1 to December 31	October 11 to 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and
588F1	Unnamed tributary to Gosnell Creek	579+860	587264	6005876	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.53	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	KP were updated. The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
J451.04	Unnamed tributary to Gosnell Creek	579+892	587240	6005854	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.40	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
J451.01	Unnamed tributary to Gosnell Creek	579+931	587213	6005826	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.46	S4	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	January 1 to December 31	July 16 to November 30	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
J452.01	Unnamed tributary to Gosnell Creek	579+971	587180	6005804	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.68	S4	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	January 1 to December 31	November 5 to January 22	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
588F4	Unnamed tributary to Gosnell Creek	580+031	587147	6005753	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.60	S4	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	January 1 to December 31	July 16 to November 30	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.

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Site Identifier ^a	Site Name ^ь	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
J453.02	Unnamed tributary to Gosnell Creek	580+151	587062	6005665	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.64	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
589B	Unnamed tributary to Gosnell Creek	580+350	586935	6005528	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.17	S4	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	January 1 to December 31	July 16 to November 30	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, clear span bridge, engineered bridge, ice bridge, or snowfill	Typical (design if engineered bridge)	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing was updated.
590B	Unnamed tributary to Gosnell Creek	580+489	586838	6005416	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.43	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
J456.01	Unnamed tributary to Gosnell Creek	580+526	586818	6005395	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.62	S6	None	Not applicable	Not applicable	March 10 to October 21	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, logfill, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
J459.97	Unnamed tributary to Gosnell Creek	582+126	585860	6004171	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.00	S4	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	January 1 to December 31	July 16 to November 30	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
J459.98	Unnamed tributary to Gosnell Creek	582+139	585851	6004162	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.23	S4	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	January 1 to December 31	July 16 to November 30	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.

Table 2. Stream Crossings List (Addendum 3) – Ditchline

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Site Identifierª	Site Name ^b	Kilometre Post (KP)	Universal Transverse Mercator (UTM) Easting ^c	UTM Northing ^c	Project Mitigation	Average Channel Width (metres)	Stream Classification ^d	Fish Presence ^e	Least Risk Window (LRW)	Qualified Environmental Professional (QEP) Window ^f	Approximate Pipeline Construction Timing	Pipeline Crossing Method	Pipeline Crossing Drawing Type	Vehicle Crossing Method (Frozen and Non-Frozen Conditions)	Vehicle Crossing Method Drawing Type	Beaver Dam	Comments
J459.99	Unnamed tributary to Gosnell Creek	582+325	585727	6004029	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.14	S4	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	January 1 to December 31	July 16 to November 30	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, ice bridge, or snowfill	Typical	No	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
592B	Unnamed tributary to Gosnell Creek	582+344	585712	6004017	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	1.82	S3	BT, CH, CO, CT, DV, PK, RB, SST, and ST	No window	July 15 to August 15 and December 1 to March 31	November 3 to 15	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, ice bridge, or snowfill	Typical	Yes	The pipeline crossing method and drawing type were updated to include trenchless crossing methods. The approximate construction timing and KP were updated.
Newly Iden	ntified Stream																
J426.98	Unnamed tributary to Morice River	558+514	606267	6005032	Implement the applicable measures identified in Sections 6, 7, and 8 of the EMP (Coastal GasLink 2018).	0.80	S4	BT, CH, CM, CO, CT, DV, LT, MW, PK, RB, SK, and ST	No window	January 1 to December 31	March 24 to July 20	Isolate if flowing, open cut if dry or frozen, or trenchless at any time	Typical (site-specific if trenchless)	Open bottom structure, closed bottom structure, clear span bridge, ice bridge, or snowfill	Typical	Νο	This site was previously identified as a side channel of the Morice River, but is now identified as a crossing of a separate tributary stream. No barriers were identified between this site and the Morice River.

^a Sites were assessed using the Route G Construction Footprint.

^b Located in the Skeena Region.

° UTM Zone 9.

^d If a vehicle crossing installation is required at an S6 stream that has not been listed in permit applications filed with the BC OGC, Coastal GasLink will:

- Confirm the stream classification with a Fish and Fish Habitat Resource Specialist prior to crossing activities
- Apply appropriate mitigation and crossing methods for S6 streams, per the EMP (Coastal GasLink 2018) and the crossing methods identified in this table
- Maintain downstream water quality if surface water is present, verify that drainage paths are maintained, reduce the disturbance footprint, and use winter (that is, frozen ground) construction (if practical)
- Add the stream crossings to the Master Watercourse Crossing List and to the postconstruction plans for as-built record keeping

^e Fish species that have the potential to be present, based on McPhail (2007), connectivity, habitat conditions, and queries from *Fish Inventories Data Queries* (Government of BC 2021a) and *HabitatWizard* (Government of BC 2021b). ^f See Section 3 for more information on the QEP timing windows to meet Condition 53(b) of the Construction Section 7 Pipeline Permit.



3. Qualified Environmental Professional Timing Windows and Additional Mitigation

3.1 Overview

Several factors were considered when determining QEP alternative timing windows and associated mitigation recommended by a Qualified Professional (QP) (the Pipeline Permit Condition 53[b]) for BC OGC Construction Section 7, including:

- Provincial LRWs for the Skeena Region
- Proposed construction activities
- Fish presence and habitat potential near the stream crossing

Site-specific mitigation, recommended by a QP, is provided in addition to the standard measures identified in the EMP (Coastal GasLink 2018).

3.2 Qualified Environmental Professional Timing Windows

Fish stream crossings were assigned a provincial LRW for the Skeena Region based on expected species presence (BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development 2018). Expected species presence was based on information from previous fish sampling and fish habitat suitability assessments, *Fish Inventories Data Queries* (Government of BC 2021a), *HabitatWizard* (Government of BC 2021b), and species distribution information (David Bustard and Associates Ltd. 1999, McPhail 2007). Field study and desktop review results were used to develop and recommend alternative, site-specific reduced risk timing windows termed as QEP timing windows.

3.2.1 No Timing Restrictions (Open Qualified Environmental Professional Timing Windows)

The QP recommended no timing restrictions where there was an absence of suitable spawning habitat within the construction footprint and low potential for migration to upstream locations. These streams were generally small, had poor or nil habitat potential, were located high in the upper watershed, or had drop structures or other impediments to fish migration. Implementation of the applicable mitigation described in the EMP (Coastal GasLink 2018) is anticipated to avoid negative effects to fish and fish habitat at these stream crossings. In this addendum, 25 sites have QEP timing windows for instream work that are open all year, from January 1 to December 31.

3.2.2 Qualified Environmental Professional Timing Windows to Avoid Potential Fish Migration Periods

QEP timing windows that avoid potential fish migration periods are recommended, based on a literature review (David Bustard and Associates Ltd. 1999, McPhail 2007), previous inventory information, and the potential presence of spring or fall spawners, or both. In this addendum, there are 14 sites that have QEP windows to avoid potential spawning migration periods. Of these, 9 sites (that is, Sites 510, 140C1, 533, 538, 549, 553, 565, 578B, and 592B) had no potential spawning habitat documented within the construction footprint and 5 sites (that is, Sites 133C1, 532, 573B, 579B, and 583B) had potential spawning habitat documented within the construction footprint. There was 1 QEP timing window recommended for Site 510, from June 15 to March 31, and 1 for Sites 133C1, 532, 573B, 579B, and 583B, from December 1 to March 31. There were 2 QEP timing windows recommended for Sites 140C1, 533, 538, 549, 553, 565, 578B, and 592B, with the first from July 15 to August 15 and the second from December 1 to March 31. These windows are intended to avoid impeding fish passage with instream work. Implementing the applicable mitigation in the EMP (Coastal GasLink 2018) and adhering to the recommended QEP timing windows are expected to avoid negative effects to fish and fish habitat at these stream crossings.

3.2.2 Instream Work Outside Qualified Environmental Professional Timing Windows

Additional mitigation is recommended where instream construction occurs outside of the QEP timing windows and during a period of potential fish migration. If the stream channel is obstructed (for example, for an isolated, trenched crossing installation), an Aquatic Biologist will monitor for fish congregations upstream and downstream of the isolation dams. If fish congregations are observed, the Aquatic Biologist will transport fish around the isolated area so that fish migration is not impeded.

Capture methods used to facilitate migration may include backpack electrofishing, minnow traps, seine netting, dip netting, or a combination of these techniques. Backpack electrofishing will only be used after other sampling methods are exhausted in order to reduce potential harm to fish during sensitive time periods. Fish will be handled and transported in an appropriate manner to reduce the risk of injuries or casualties. Transportation efforts will continue until fish congregations are no longer observed or until fish migration is no longer impeded, as determined by the Aquatic Biologist.

3.3 Spawning Deterrents

At some stream crossings, potential spawning habitat was documented within, or immediately adjacent to, the construction footprint. Where feasible and practical, Coastal GasLink will potentially shift the alignment of the construction footprint and construct within the LRW or QEP windows to avoid negative effects to potential spawning habitat; however, this may not be feasible because of flow regime, terrain, and construction and permitting limitations. The use of spawning deterrents as a mitigation measure could help to avoid potential negative impacts to spawning fish, redds, and incubating eggs, and were used on other projects (for example, the Trans Mountain Pipeline Project). Where approved for use, spawning deterrents would be installed and secured on the streambed within the construction footprint, prior to the start of the spawning period for a given species and before the start of construction. Spawning deterrent installation, inspections, maintenance, and removal would be completed by, or under the direction of, a QP.

In this addendum, there are six sites where potential spawning habitat was identified within the construction footprint (that is, Sites 133C1, 532, 573B, 575B, 579B, and 583B). Spawning deterrents could be used at these locations, should any instream work be proposed during the spawning and incubation period, and pending installation feasibility (for example, depth and flow considerations during freshet).

In locations where potential spawning habitat was documented and construction may occur during the spawning or incubation period, additional spawning surveys may be conducted prior to construction to provide a better understanding of fish use, least risk work timing, and spatial context. Deterrents will be proposed where alternate spawning locations exist for redd-building species outside of the construction footprint and where the deterrent mats can be physically installed, considering water depth and flow.

4. References

British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development. 2018. *Terms and Conditions for Water Sustainability Act Changes In and about a Stream as specified by Ministry of Forests, Lands, Natural Resource Operations, and Rural Development (FLNRORD) Habitat Officers, Skeena Region.* Accessed February 2021. <u>https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/water/water/terms_conditions_skeena.pdf</u>.

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