

BC Energy Regulator

6534 100th Ave, Fort St. John, B.C V1J 8C5

APPROVAL

AE-111267

Under the Provisions of the Environmental Management Act

Coastal GasLink Project Ltd. 450 1st Street SW Calgary, Alberta T2P 5H1

is authorized to discharge effluent to the environment from dewatering activities from bellholes and trenches along Section 8 of the CGL pipeline construction project. Excavation & discharge will occur along 2 km of right of way in/or near the town of Kitimat, B.C. subject to the conditions listed below. Contravention of any of these conditions is a violation of the *Environmental Management Act* and may result in prosecution.

1. **DEFINITIONS**

For the purpose of this Approval, the following definitions apply:

- 1.1. *Act* means the *Environmental Management Act*;
- 1.2. Approval Holder means Coastal GasLink Project Ltd.
- 1.3. **BCER** means BC Energy Regulator
- 1.4. *Discharge* means the total mass of a solid, liquid or gaseous material introduced into the environment;
- 1.3. *Manager* means a BCER employee authorized to exercise the powers of the BCER under Section 15 of the *Environmental Management Act*;

Date Issued: November 9^{th,} 2022 Most Recent Data Update: February 3rd, 2023 Date Authorization Expires: September 15th, 2023

Devin Scheck, P.Ag Supervisor, Environmental Stewardship

2. <u>AUTHORIZED DISCHARGES</u>

2.1 Source of the Discharge

- 2.1.1 The authorized works include bellholes, trenches, a C-ring, discharge pumps and hoses, energy dissipating devices, water diffusing equipment, erosion & sediment control and related appurtenances.
- 2.1.2 The location of the source of the discharge is described as 2 km along the pipeline right of way of Section 8, between KP 665+000 KP667+100, within the town of Kitimat, B.C, as referenced on the attached site plan.

2.2 Authorized Discharge Location

- 2.2.1 The authorized point of discharge is described as into an existing channel referred to as watercourse S1073, which is typically dry and leads to watercourse RMA 8002 which leads to the Kitimat River. Approximate location of discharge to S1073 is 54.0344 N & 128.6756 W. The site reference number for this discharge is E328871.
- 2.2.2 The maximum authorized rate of discharge is $1.6 \text{ m}^3/\text{s}$.
- 2.2.3 The Approval Holder shall measure and record the daily volumetric rate of discharge.
- 2.2.4 The authorized discharge period for all dewatering (bellhole, open trench, active trenching and active excavation) is continuous. This approval is valid to the end of day September 15th, 2023.
- 2.2.5 The effluent discharged, at the point of compliance (Transect 3), within RMA 8002A, shall not exceed the British Columbia Ambient Water Quality Guidelines for Aquatic Life with the exception of total iron, dissolved iron, and total zinc which shall not exceed the maximum background concentrations for the subject receiving environment, and TSS which shall be managed in accordance with this approval and the objectives detailed in Table 1.
- 2.2.6 The mitigation measures, as outlined within Section 3 & 4 of the "Coastal GasLink Project Section 8 West Construction- KP 665+850_R3 to KP 666+700+R0 Water Quality Assessment", dated September 30, 2022, shall be implemented by the Approval Holder and the discharge shall not exceed the following thresholds:

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Point of Compliance	Discharge Quality Objective TSS
RMA 8002A (Transect 3)	56.9 mg/L or 25 mg/L greater than the control value at any time, whichever is higher
Confluence of Kitimat River RMA 8002B (Transect 4)	50.9 mg/L or 25 mg/L greater than the control value at any time, whichever is higher

- 2.2.7 The effluent water shall not be discharged in a manner or quantity that impairs the proper ecological function or otherwise causes excessive erosion of the drainage system into which the discharge of water is conveyed.
- 2.2.8 Other than the discharge to the dry stream channel as authorized in this approval, any effluent from trench and bellhole dewatering that is discharged to land shall not enter a surface watercourse or surface water body and shall not be discharged in a location where it could reasonably be expected to enter a surface watercourse or surface water body. Discharge to land shall not cause erosion or result in measurable downward and outward movement of soil, rocks, snow, ice, mud or debris, and the discharge is on to a stable slope.

3. <u>GENERAL REQUIREMENTS</u>

3.1 Maintenance of Works and Emergency Procedures

The Approval Holder shall inspect the authorized works regularly and maintain them in good working order. Records of inspection shall be maintained and provided to BCER upon request.

In the event of an emergency or condition beyond the control of the Approval Holder, which prevents continuing operation of the authorized works, the Approval Holder shall immediately notify the Manager and take appropriate remedial action.

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Instances of approval noncompliance shall be self-disclosed upon discovery, as outlined within Chapter 3 of the BCER Compliance & Enforcement Manual; Waste.Management@bc-er.ca shall also be informed of the self-disclosure.

For spills which meet the Spill Reporting Regulation reporting criteria, a report shall be made immediately to the Provincial Emergency Program telephone 1-800-663-3456.

3.2 Bypasses

The discharge of contaminants, which have bypassed the authorized works, is prohibited unless the consent of the Manager is obtained and confirmed in writing.

3.3 Process Modifications

The Approval Holder shall notify the Manager prior to implementing changes to any process that may affect the quality and/or quantity of the discharge.

3.4 Post Disposal

The Approval Holder shall ensure that all equipment associated with the discharge is removed from the work area in a manner as to minimize environmental impact.

4. MONITORING AND REPORTING REQUIREMENTS

The Manager may alter the monitoring and reporting program as needed. The need for changes to the program will be based upon the results submitted as well as any other information obtained by the BCER and the Ministry of Environment in connection with the discharges.

4.1 Discharge and Compliance Monitoring

- 4.1.1 The Approval Holder shall maintain information, analytical data and flow measurements as described in Section 2 for inspection by BCER.
- 4.1.2 The Approval Holder shall retain a qualified professional to implement the monitoring and sampling program. The monitoring and sampling program must demonstrate the discharge quality meets the discharge quality defined in Section 2 and that increased flows to the drainage system do not impact water quality or the receiving environment. Water quality monitoring shall be conducted in accordance with the document "Water Quality Monitoring and Mitigation Plan for the Kitimat River Proposed Waste Discharge Authorization" dated September 30, 2022.

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Description	nd Monitoring Program Sampling Location	Sampling	Parameters
Description		Frequency	
	Bellholes, trenches and C-ring	Daily	-In situ field parameters- turbidity, dissolved oxygen (mg/L and percent), pH, temperature (°C), electrical conductivity (μS/cm), visible sheen (visual)
		Weekly	-General parameters, dissolved and total metals, dissolved organic carbon (DOC)
	Point of entry to the receiving	Daily	-In situ field parameters
	environment. Transect 1, 3 & 4	Weekly	-General parameters, DOC, dissolved and total metals
	Upstream of the receiving environment discharge location. Transect 0A & other background locations as required	Daily	-In situ field parameters
During Discharge Operations*		Weekly	-General parameters, DOC, dissolved and total metals
	Downstream of the receiving	Daily	-In situ field parameters
	environment discharge location. Transect 5	Weekly	-General parameters, DOC, dissolved and total metals
	In-situ transects identified in Section 7.2 of the Water Quality Monitoring and Mitigation Plan	Every 10 minutes during active discharge operations	-In situ field parameters
	Side Channel S1073 & RMA 8002	Daily	Fish mortality survey Fish stranding survey
	Side Channel S1073 & RMA 8002	Weekly	Visual inspection for sediment accumulation, erosion &

Table 2. Sampling and Monitoring Program

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			scour. Sediment removal as practicable.
Toxicity Testing	Point of entry to receiving environment. Transect 3	Every two weeks	96-h LC50 rainbow trout toxicity test
Project Closure	Receiving environment discharge location. Transect 3 &4	Once within two weeks of discharge completion	-General parameters, DOC, dissolved and total metals -In situ field parameters

*Additional sampling may occur at the discretion of the qualified professional.

- 4.1.3 If, in the opinion of the qualified professional responsible for the monitoring program, the discharge is or is likely causing adverse effects to the environment, the discharge shall be halted immediately.
- 4.1.4 If, in the opinion of the qualified professional responsible for the monitoring program, the discharge is or is likely causing adverse effect to the environment, the Manager shall be notified immediately at (250) 794-5232.
- 4.1.5 Photographs of the authorized works and authorized discharge shall be taken prior to, during and after the discharge. These shall be submitted with the weekly report.
- 4.1.6 At the end of discharge activities, the Approval Holder shall ensure that an Aquatics Qualified Professional (QP) conducts an assessment of potential effects on fish habitat and provides site-specific mitigation measures as needed, to restore habitat function. A follow-up assessment shall be conducted following the implementation of any recommended remedial measures and a record of such will be made available upon request.

4.2 Notification

Prior to the commencement of discharge, notification shall be given to the BCER. Notification shall be given with as much time in advance of the discharge as possible, and shall be communicated to <u>Waste.Management@bcer.ca</u>.

4.3 Reporting

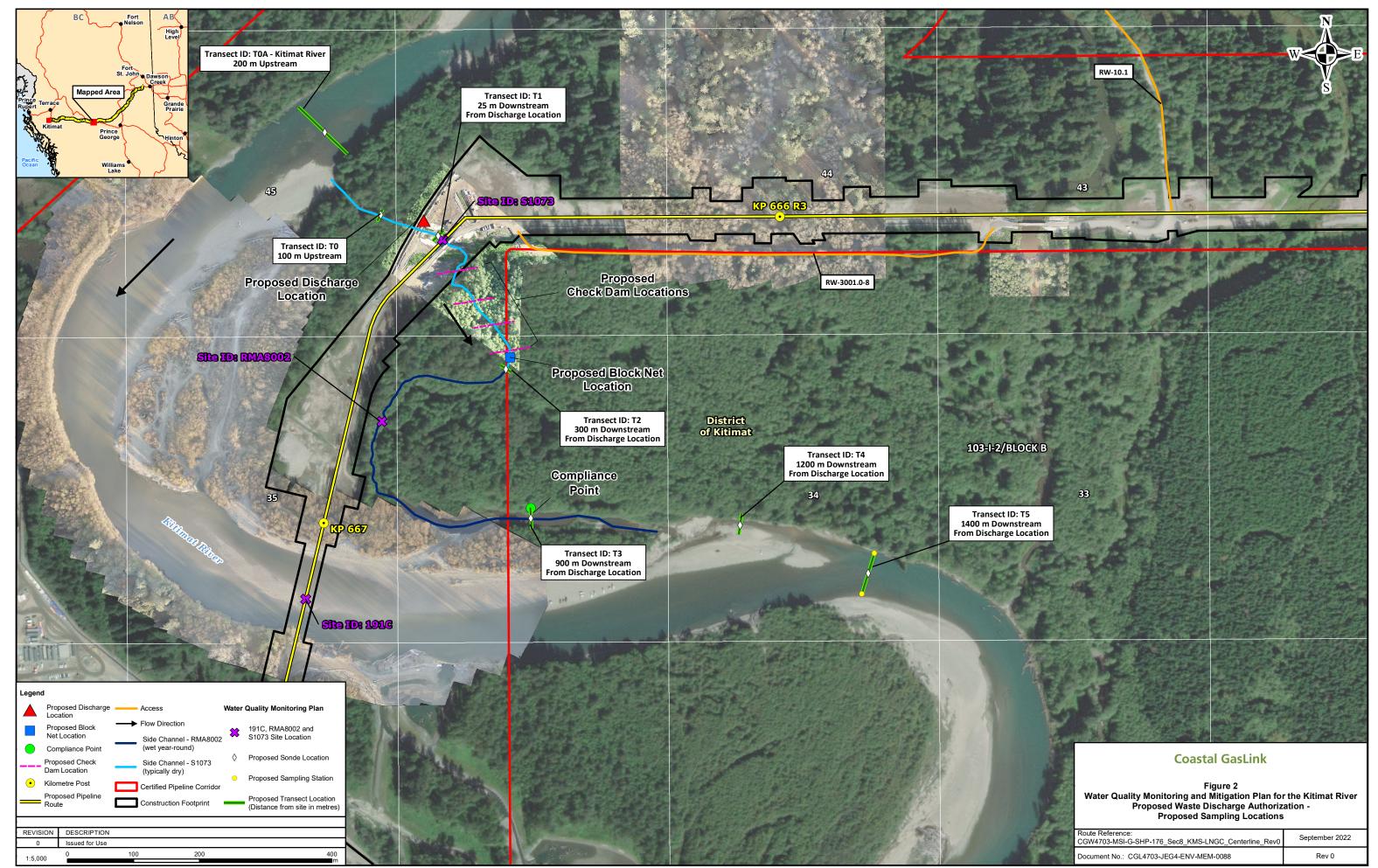
4.3.1 The Approval Holder shall summarize the results of the monitoring and sampling program in a report that shall be submitted to the BCER every

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week for the term of the approval. These reports shall be submitted to Waste.Management@bc-er.ca.

4.3.2 The Approval Holder shall submit a final report summarizing all monitoring and sampling activities within 60 days of the termination of the discharge. The final report will include the details of the end of discharge Aquatics QP's assessment of potential effects on fish habitat and any proposed sitespecific mitigation measures. The final report shall be submitted to Waste.Management@bc-er.ca.

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Oil and Gas Commission

6534 100th Ave, Fort St. John, B.C V1J 8C5

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- 1.2. *Discharge* means the total mass of a solid, liquid or gaseous material introduced into the environment;
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- 1.4. *OGC* means the B.C Oil and Gas Commission;

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2. <u>AUTHORIZED DISCHARGES</u>

2.1 Source of the Discharge

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- 2.2.4 The authorized discharge period for all dewatering (bellhole, open trench, active trenching and active excavation) is continuous. This approval is valid for 8 months from the date of issuance and may be extended with the written approval of the Manager.
- 2.2.5 The effluent discharged, at the point of compliance (Transect 3), within RMA 8002A, shall not exceed the British Columbia Ambient Water Quality Guidelines for Aquatic Life with the exception of total iron, dissolved iron, and total zinc which shall not exceed the maximum background concentrations for the subject receiving environment, and TSS which shall be managed in accordance with this approval and the objectives detailed in Table 1.
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be implemented by the Approval Holder and the discharge shall not exceed the following thresholds:

Table 1. Discharge Quality Objective

Point of Compliance	Discharge Quality Objective	
	TSS	
RMA 8002A	56.9 mg/L or 25 mg/L greater than the control value at any time, whichever is higher	
(Transect 3)		
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Description	Sampling Location	Sampling Frequency	Parameters
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	Upstream of the receiving	Daily	-In situ field parameters
During Discharge Operations*	environment discharge location. Transect 0A & other background locations as required	Weekly	-General parameters, DOC, dissolved and total metals
	Downstream of the receiving	Daily	-In situ field parameters
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- 4.1.6 At the end of discharge activities, the Approval Holder shall ensure that an Aquatics Qualified Professional (QP) conducts an assessment of potential effects on fish habitat and provides site-specific mitigation measures as needed, to restore habitat function. A follow-up assessment shall be conducted following the implementation of any recommended remedial measures and a record of such will be made available upon request.

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QP's assessment of potential effects on fish habitat and any proposed sitespecific mitigation measures. The final report shall be submitted to OGCWaste.Management@bcogc.ca.

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Figure 2. Actual/Current Transect Setup

Jacobs



Oil and Gas Commission

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Description	Sampling Location	Sampling Frequency	Parameters
			LOLL

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r	r	1	
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Toxicity Testing	Point of entry to receiving	Every two weeks	96-h LC50 rainbow trout toxicity test

LOLL

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	environment. Transect 3		
Project Closure	Receiving environment discharge location. Transect 3 &4	Once within two weeks of discharge completion	-General parameters, DOC, dissolved and total metals -In situ field parameters

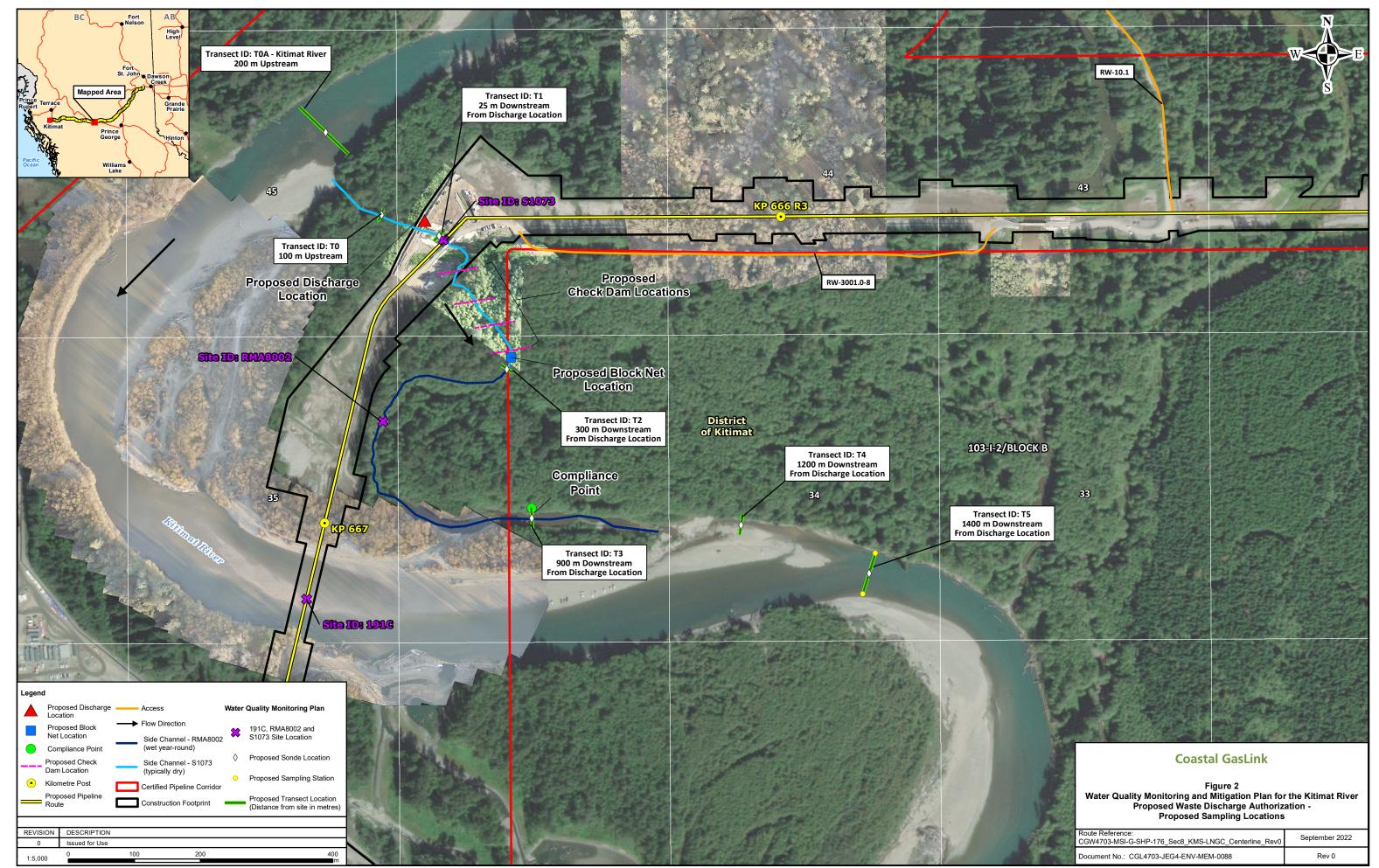
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Coastal GasLink Project Ltd. 450 1st Street SW Calgary, Alberta T2P 5H1

is authorized to discharge effluent to the environment from dewatering activities from bellholes and trenches along Section 8 of the CGL pipeline construction project. Excavation & discharge will occur along 2 km of right of way in/or near the town of Kitimat, B.C. subject to the conditions listed below. Contravention of any of these conditions is a violation of the *Environmental Management Act* and may result in prosecution.

1. **DEFINITIONS**

For the purpose of this Approval, the following definitions apply:

- 1.1. Act means the Environmental Management Act;
- 1.2. *Discharge* means the total mass of a solid, liquid or gaseous material introduced into the environment;
- 1.3. *Manager* means an OGC employee authorized to exercise the powers of the OGC under Section 14 of the *Environmental Management Act*;
- 1.4. *OGC* means the B.C Oil and Gas Commission;
- 1.5. Approval Holder means Coastal GasLink Project Ltd.

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2. <u>AUTHORIZED DISCHARGES</u>

2.1 Source of the Discharge

- 2.1.1 The authorized works include bellholes, trenches, a C-ring, discharge pumps and hoses, energy dissipating devices, water diffusing equipment, erosion & sediment control and related appurtenances.
- 2.1.2 The location of the source of the discharge is described as 2 km along the pipeline right of way of Section 8, between KP 665+000 KP667+100, within the town of Kitimat, B.C, as referenced on the attached site plan.

2.2 Authorized Discharge Location

- 2.2.1 The authorized point of discharge is described as into an existing channel referred to as watercourse S1073, which is typically dry and leads to watercourse RMA 8002 which leads to the Kitimat River. Approximate location of discharge to S1073 is 54.0344 N & 128.6756 W. The site reference number for this discharge is E328871.
- 2.2.2 The maximum authorized rate of discharge is $1.6 \text{ m}^3/\text{s}$.
- 2.2.3 The Approval Holder shall measure and record the daily volumetric rate of discharge.
- 2.2.4 The authorized discharge period for bellhole & open trench dewatering is continuous. The authorized discharge period for active excavation or active trenching dewatering is limited to daytime operations from sunrise to sunset. This approval is valid for 8 months from the date of issuance and may be extended with the written approval of the Manager.
- 2.2.5 The effluent discharged, at the point of compliance (Transect 3), within RMA 8002A, shall not exceed the British Columbia Ambient Water Quality Guidelines for Aquatic Life with the exception of total iron, dissolved iron, and total zinc which shall not exceed the maximum background concentrations for the subject receiving environment, and TSS which shall be managed in accordance with this approval and the objectives detailed in Table 1.
- 2.2.6 The mitigation measures, as outlined within Section 3 & 4 of the "Coastal GasLink Project Section 8 West Construction- KP 665+850_R3 to KP 666+700+R0 Water Quality Assessment", dated September 30, 2022, shall be implemented by the Approval Holder and the discharge shall not exceed the following thresholds:

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Point of Compliance	Discharge Quality Objective TSS		
RMA 8002A (Transect 3)	56.9 mg/L or 25 mg/L greater than the control value at any time, whichever is higher		
Confluence of Kitimat River RMA 8002B (Transect 4)	50.9 mg/L or 25 mg/L greater than the control value at any time, whichever is higher		

Table 1.	Discharge	Ouality	Ob	iective
Labic 1.	Discharge	Quanty	ΟŊ	jeeuve

- 2.2.7 The effluent water shall not be discharged in a manner or quantity that impairs the proper ecological function or otherwise causes excessive erosion of the drainage system into which the discharge of water is conveyed.
- 2.2.8 Other than the discharge to the dry stream channel as authorized in this approval, any effluent from trench and bellhole dewatering that is discharged to land shall not enter a surface watercourse or surface water body and shall not be discharged in a location where it could reasonably be expected to enter a surface watercourse or surface water body. Discharge to land shall not cause erosion or result in measurable downward and outward movement of soil, rocks, snow, ice, mud or debris, and the discharge is on to a stable slope.

3. <u>GENERAL REQUIREMENTS</u>

3.1 Maintenance of Works and Emergency Procedures

The Approval Holder shall inspect the authorized works regularly and maintain them in good working order. In the event of an emergency or condition beyond the control of the Approval Holder, which prevents continuing operation of the authorized works, the Approval Holder shall immediately notify the Manager and take appropriate remedial action.

Instances of approval noncompliance shall be self-disclosed upon discovery, as outlined within Chapter 3 of the OGC Compliance & Enforcement Manual; OGCWaste.Management@bcogc.ca shall also be informed of the self-disclosure.

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3.2 Bypasses

The discharge of contaminants, which have bypassed the authorized works, is prohibited unless the consent of the Manager is obtained and confirmed in writing.

3.3 Process Modifications

The Approval Holder shall notify the Manager prior to implementing changes to any process that may affect the quality and/or quantity of the discharge.

3.4 Post Disposal

The Approval Holder shall ensure that all equipment associated with the discharge is removed from the work area in a manner as to minimize environmental impact.

4. MONITORING AND REPORTING REQUIREMENTS

The Manager may alter the monitoring and reporting program as needed. The need for changes to the program will be based upon the results submitted as well as any other information obtained by the OGC and the Ministry of Environment in connection with the discharges.

4.1 Discharge and Compliance Monitoring

- 4.1.1 The Approval Holder shall maintain information, analytical data and flow measurements as described in Section 2 for inspection by OGC.
- 4.1.2 The Approval Holder shall retain a qualified professional to implement the monitoring and sampling program. The monitoring and sampling program must demonstrate the discharge quality meets the discharge quality defined in Section 2 and that increased flows to the drainage system do not impact water quality or the receiving environment. Water quality monitoring shall be conducted in accordance with the document "Water Quality Monitoring and Mitigation Plan for the Kitimat River Proposed Waste Discharge Authorization" dated September 30, 2022.

Table 2. Sampling an	nd Monitoring Program

Description	Sampling Location	Sampling Frequency	Parameters
During Discharge Operations*	Bellholes, trenches and C-ring	Daily	-In situ field parameters- turbidity, dissolved oxygen (mg/L and percent), pH, temperature (°C), electrical

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			conductivity (µS/cm), visible sheen (visual)
		Weekly	-General parameters, dissolved and total metals, dissolved organic carbon (DOC)
	Point of entry to the receiving environment. Transect 1, 3 & 4	Daily	-In situ field parameters
		Weekly	-General parameters, DOC, dissolved and total metals
	Upstream of the receiving	Daily	-In situ field parameters
	environment discharge location. Transect 0, 0A & other background locations as required	Weekly	-General parameters, DOC, dissolved and total metals
	Downstream of the receiving	Daily	-In situ field parameters
	environment discharge location. Transect 5	Weekly	-General parameters, DOC, dissolved and total metals
	In-situ transects identified in Section 7.2 of the Water Quality Monitoring and Mitigation Plan	Every 10 minutes during active discharge operations	-In situ field parameters
	Side Channel S1073 & RMA 8002	Daily	Fish mortality survey Fish stranding survey
	Side Channel S1073 & RMA 8002	Weekly	Visual inspection for sediment accumulation, erosion & scour. Sediment removal as practicable.
Toxicity Testing	Point of entry to receiving environment. Transect 3	Every two weeks	96-h LC50 rainbow trout toxicity test
Project Closure	Receiving environment	Once within two weeks of	-General parameters, DOC, dissolved and total metals

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discharge location. Transect 3 &4	discharge completion	-In situ field parameters

*Additional sampling may occur at the discretion of the qualified professional.

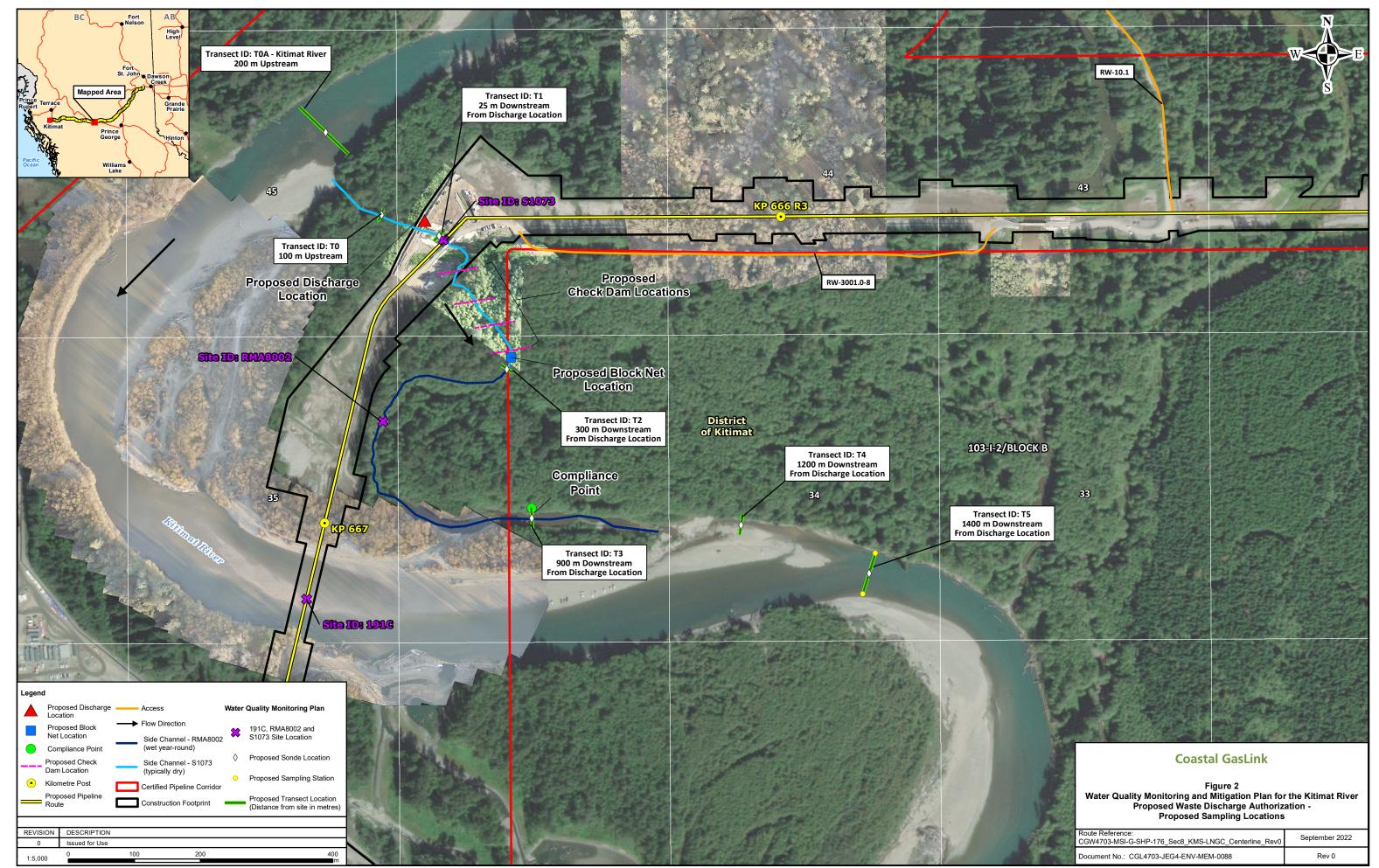
- 4.1.3 If, in the opinion of the qualified professional responsible for the monitoring program, the discharge is or is likely causing adverse effects to the environment, the discharge shall be halted immediately.
- 4.1.4 If, in the opinion of the qualified professional responsible for the monitoring program, the discharge is or is likely causing adverse effect to the environment, the Manager shall be notified immediately at (250) 794-5232.
- 4.1.5 Photographs of the authorized works and authorized discharge shall be taken prior to, during and after the discharge. These shall be submitted upon request from the OGC and included within the final report.
- 4.1.6 At the end of discharge activities, the Approval Holder shall ensure that an Aquatics Qualified Professional (QP) conducts an assessment of potential effects on fish habitat and provides site-specific mitigation measures as needed, to restore habitat function. A follow-up assessment shall be conducted following the implementation of any recommended remedial measures and a record of such will be made available upon request.

4.2 Reporting

- 4.2.1 The Approval Holder shall summarize the results of the monitoring and sampling program in a report that shall be submitted to the OGC every two (2) weeks for the term of the approval. These reports shall be submitted to OGCWaste.Management@bcogc.ca.
- 4.2.2 The Approval Holder shall submit a final report summarizing all monitoring and sampling activities within 60 days of the termination of the discharge. The final report will include the details of the end of discharge Aquatics QP's assessment of potential effects on fish habitat and any proposed sitespecific mitigation measures. The final report shall be submitted to <u>OGCWaste.Management@bcogc.ca.</u>

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