



**JOINT SHARED SERVICES COMMITTEE**

THURSDAY, JANUARY 20, 2022, AT 1:00 P.M.  
ROOM 530 – 5<sup>th</sup> FLOOR - ABBOTSFORD CITY HALL

**AGENDA**

---

1. CALL TO ORDER

2. ADOPTION OF MINUTES

- .1 Minutes of the Joint Shared Services Committee meeting, held November 10, 2021 *Page 2*

3. PRESENTATIONS

None.

4. DELEGATIONS

None.

5. BUSINESS OUT OF MINUTES

None.

6. REPORTS

.1 ABBOTSFORD MISSION WATER AND SEWER COMMISSION

- .1 Bi-monthly JAMES Plant Report – November/December 2021  
(JSSC 01-2022) Jamie Austin (attached) *Page 5*
- .2 Bi-monthly Water Report – November/December 2021  
(JSSC 02-2021) Jamie Austin (attached) *Page 16*
- .3 Investing in Canada Infrastructure Program – New Water Source: Vertical  
Wells Grant Application  
(JSSC 03-2022) Stella Chiu (attached) *Page 25*
- *Powerpoint Presentation* (attached) *Page 70*

.2 RECYCLING

.3 TRANSIT

7. NEW BUSINESS

8. ADJOURNMENT

Minutes of the Joint Shared Services Committee meeting held November 10, 2021, at 9:00 a.m. in Room 530 of Abbotsford City Hall

---

JSSC Members Present: Mayor Braun (Abbotsford) (Chair); Councillor Barkman (Abbotsford); Councillor Crawford (Mission); Councillor Hamilton (Mission); Councillor Plecas (Mission); and Councillor Siemens (Abbotsford)

Staff Present: City Manager – P. Sparanese (Abbotsford); General Manager Engineering & Regional Utilities – R. Isaac (Abbotsford); Director of Engineering and Public Works - T. Kyle (Mission); Director, Utility Operations - J. Austin; (Abbotsford) Director, Utilities Infrastructure - T. Bowie (Abbotsford); Director, Environmental Services – A. Mathewson (Abbotsford); General Manager, Finance and Procurement Services – K. Basatia (Abbotsford); Manager, Financial Planning and Accounting - S. Grewal (Abbotsford); Project Engineer – T. Siebert (Abbotsford); Director of Finance - D. Stewart (Mission); Chief Administrative Officer - M. Younie (Mission); Deputy Treasurer/Collector – K. Onken (Mission); Manager, Environmental Services – B. Azevedo (Mission); C. McLean - Operations Manager – Utilities (Mission); and Administrative Manager, Utilities – R. Brar (Abbotsford)

Public Present: 0

1. CALL TO ORDER

The meeting was called to order at 9:00 a.m.

2. ADOPTION OF MINUTES

.1 Minutes of the September 9, 2021 Meeting

Moved by Councillor Siemens, seconded by Councillor Crawford, that the minutes of the Joint Shared Services Committee meeting held September 9, 2021, be adopted.

3. PRESENTATIONS

None.

4. DELEGATIONS

None.

5. BUSINESS OUT OF MINUTES

None.

6. REPORTS

.1 ABBOTSFORD MISSION WATER AND SEWER COMMISSION

.1 Bi-monthly JAMES Plant Report – September/October 2021 (5500-90)

Moved by Councillor Siemens, seconded by Councillor Barkman, that Report No. JSSC 041-2021, dated November 3, 2021, from the Director, Utility Operations, regarding Bi-monthly JAMES Plant Report - September/October 2021, be received for information.

.2 Bi-monthly Water Report – September/October 2021 (5600-00)

Moved by Councillor Crawford, seconded by Councillor Siemens, that Report No. JSSC 042-2021, dated November 2, 2021, from the Director, Utility Operations, regarding Bi-monthly Water Report – September/October 2021, be received for information.

.3 Financial Statements – September 2021 (1803-03)

Moved by Councillor Siemens, seconded by Councillor Hamilton, that Report No. JSSC 044-2021, dated October 21, 2021, from the Manager, Financial Planning & Accounting, regarding Financial Statements – September 2021, be received for information.

.4 2022 -2026 Draft Financial Plan (1803-03)

S. Grewal, Manager, Financial Planning & Accounting, presented a powerpoint presentation, regarding the Abbotsford Mission Water Sewer Commission 2022-2026 Draft Financial Plan; Agenda; Budget Increase Factors; 2022-2026 Operating Budgets; Joint Water: Municipal Contribution; Joint Water: Operating Changes; Joint Water: 2022 Proposed Expenditures; Municipal Contribution: 5 Years Plan; Joint Sewer: Municipal Contribution; Joint Sewer: 2022 Proposed Expenditures \$4.9 Million; Municipal Contribution: 5 Year Plan; 2022-2026 Capital Plans; Joint Water Capital – 5 Year Detail 2022-2026; Joint Sewer Capital – 5 Year Detail 2022-2026; Summary; and Recommendation.

Moved by Councillor Barkman, seconded by Councillor Crawford, that Report No. JSSC 045-2021, dated October 29, 2021, from the Manager, Financial Planning & Accounting, regarding the attached draft water and sewer financial plans be recommended to be included with draft consolidated financial plan to the City of Abbotsford and City of Mission Councils, as required.

.5 Matsqui Dyke Sinkhole Full Repairs (JSSC 043-2021)

T. Seibert, Project Engineer, Presented a powerpoint presentation regarding, an Update on the Matsqui Dyke Sinkhole Full Repair; Agenda; Purpose; Context; Discussion; Next Steps; and Recommendation.

Moved by Councillor Hamilton, seconded by Councillor Siemens, that the verbal report from the Project Engineer, regarding the Update on the Matsqui Dyke Sinkhole Full Repair, be received for information.

.6 2022 Joint Shared Services Committee Meeting Schedule

Moved by Councillor Siemens, seconded by Councillor Plecas, that the 2022 Joint Shared Services Committee 2022 Meeting Schedule with meetings on January 13, March 10, May 12, July 14, September 8 and November 10, 2022, be approved.

.2 RECYCLING

None.

.3 TRANSIT

None.

7. NEW BUSINESS

None.

8. ADJOURNMENT

Moved by Councillor Barkman, seconded by Councillor Plecas, that the November 10, 2021, JSSC meeting, be adjourned (9:40 a.m.).

Certified Correct:

---

Mayor Henry Braun  
JSSC Chair

---

Rob Isaac  
UMC Chair

# REPORT

---

To: Abbotsford Mission Water & Sewer Commission

From: Jamie Austin, Director of Utility Operations

Date: January 4, 2022

Subject: Bi-monthly JAMES Plant Report – November/December 2021

File: 5500-90

Report No.: JSSC 01-2022

Attachments: Appendix A – Definitions of Parameters  
Appendix B – Influent Flow Graphs  
Appendix C – Influent/Effluent cBOD Graphs  
Appendix D – Influent/Effluent TSS Graphs  
Appendix E – Effluent Ammonia versus pH Graphs

---

## RECOMMENDATION

THAT Report No. JSSC 01-2022, dated January 4, 2022, from the Director of Utility Operations, regarding Bi-monthly JAMES Plant Report – November/December 2021, be received for information.

## PURPOSE

This is a bi-monthly report to provide updates to the Abbotsford Mission Water & Sewer Commission (JSSC) on the JAMES Plant performance, based on the JAMES Plant data for the months of November/December 2021.

## BACKGROUND

The JAMES Wastewater Treatment Plant is required to meet all regulatory parameters for effluent discharge. Regulatory parameters that shall not be exceeded under the Municipal Wastewater Regulations (MWR) and Wastewater Systems Effluent Regulations (WSER) include:

- Flow – 122,500 m<sup>3</sup>/d;
- Fecal Coliform – 200 CFU/100 ml (outside the IDZ);
- Carbonaceous Biochemical Oxygen Demand (cBOD) – 45 mg/L (maximum day), 25 mg/L (monthly average);
- Total Suspended Solids (TSS) – 45 mg/L (maximum day), 25 mg/L (monthly average);
- Ammonia (NH<sub>3</sub>) – Acute Toxicity Requirements;
- Total Phosphorous, less than 1 mg/l (JAMES Plant has a substitution for this requirement);
- Ortho-phosphate, less than .5 mg/l (JAMES Plant has a substitution for this requirement); and
- Unionized Ammonia – below monthly maximum of 1.25 mg/L.

Details and definitions of the above parameters are included in Appendix A.

The JAMES Plant Operations undertake sampling and analysis on a daily basis to monitor the Plant performance. All results are forwarded to the Ministry of Environment (MoE) on a quarterly and yearly basis. All non-compliance parameters are listed in the reports to the MoE.

The influent flow, cBOD and TSS data and biosolids utilization (2021 Biosolids removed from site) are also provided in this report for comparison.

## DISCUSSION / ANALYSIS

The following table summarizes the seven effluent discharge criteria and JAMES Plant performance in November/December 2021:

<b>Effluent Discharge Criteria</b>	<b>JAMES Plant Performance</b>
Influent Flow (Appendix B)	Daily flows in November/December 2021 were within the discharge limit, except on Nov.15 a flow of 138,805 m <sup>3</sup> was recorded.
Influent/Effluent cBOD (Appendix C)	The effluent cBOD in November/December 2021 was well below the regulated limit of 45 mg/L.
Influent/Effluent TSS (Appendix D)	The effluent TSS in November/December 2021 was well below the regulated limit of 45 mg/L for all samples.
Ammonia (NH <sub>3</sub> ) (Appendix E)	All tests completed in November/December 2021 were well below the toxicity curve.
Effluent Fecal Coliform	All required fecal coliform testing in November/December 2021 were below the limit of 200 counts per 100ml, outside the initial dilution zone.
Total Phosphorous	Average for the month of December was 4.70mg/L. This is above the MWR requirement of 1 mg/l. The JAMES Plant was given a substitution for this requirement and is in compliance with the Ministry at this time.
Ortho-phosphate	Average for the month of December was 3.15 mg/L. This is above the MWR requirement of .5 mg/l. The James Plant was given a substitution for this requirement and is in compliance with the Ministry at this time.
Un-ionized Ammonia	Below 1.25 mg/L Un-ionized ammonia (Monthly Maximum). All samples for November 2021 were below 1.25 mg/L. Monthly maximum for December was 0.06 mg/L.

### **Biosolids Program**

The following table summarizes the biosolids shipped off site by the contractor for 2021.

SOLIDS removed from site	TOTAL 2021
Scale (wet tonnes)	5,338

### **November Flood Event Impacts**

The rain event from November 13 to 15, 2021, resulted in approximately 172mm accumulating at Abbotsford Airport. Beyond the influent flow regulatory limit being exceeded on November 15, 2021, the JAMES Plant was able to provide full treatment and remained within all other regulatory requirements.

**FINANCIAL IMPLICATIONS**

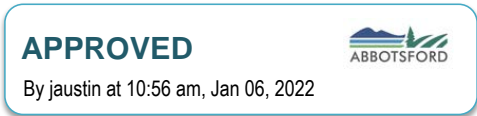
N/A

**COMMUNICATION PLAN**

N/A

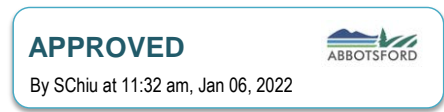
**SUMMARY**

The JAMES Plant effluent quality, throughout the months of November/December 2021, met all regulatory parameters for effluent discharge in Flow, cBOD, TSS, Fecal Coliforms and Un-ionized Ammonia, except for one high flow event on November 15, 2021. A flow of 138,805 m3 was recorded; this is above the 122,500 m3 allowable limit, which was reported to the Ministry of the Environment. A substitution for Total Phosphorous and Ortho-phosphate requirement was received from the Director of the Ministry of Environment putting the JAMES Plant back into full compliance.



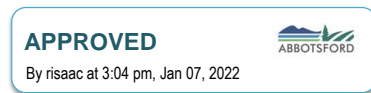
---

Jamie Austin B.Sc, A.Sc.T.  
Director, Utility Operations



---

Stella Chiu, P.Eng.  
Acting Director, Utilities Infrastructure



---

Rob Isaac, P.L.Eng.  
General Manager, Engineering and Regional Utilities

## Appendix A Definitions of Parameters

### Fecal Coliform

The fecal coliform test gives an indication that bacteria originating from the intestines of warm blooded animals may be present in the wastewater. The limit for coliforms is 200 CFU/100 ml outside the initial dilution zone. The counts recorded are end of pipe prior to dilution from the Fraser River.

### Carbonaceous Biochemical Oxygen Demand (cBOD)

cBOD is the rate at which oxygen in wastewater is used for the decomposition of organic matter in the wastewater. High cBOD rates reflect high organic content in the wastewater. Treatment plant processes reduce cBOD levels before discharge to the environment.

### Total Suspended Solids (TSS)

TSS is the total amount of solids that remain in suspension in the water. The higher the suspended solids concentration, the harder the effluent is to disinfect and the higher the BOD will be.

### Ammonia (NH<sub>3</sub>)

The effluent discharge criterium for ammonia is set based on the toxicity curve. Different levels of ammonia are allowed at different pH, i.e. at higher pH, lesser ammonia is allowed to be discharged.

### Total Phosphorous

The MWR specifies that Total Phosphorous must be below 1 mg/l. The James Plant has a substitution to this requirement.

### Ortho-phosphate

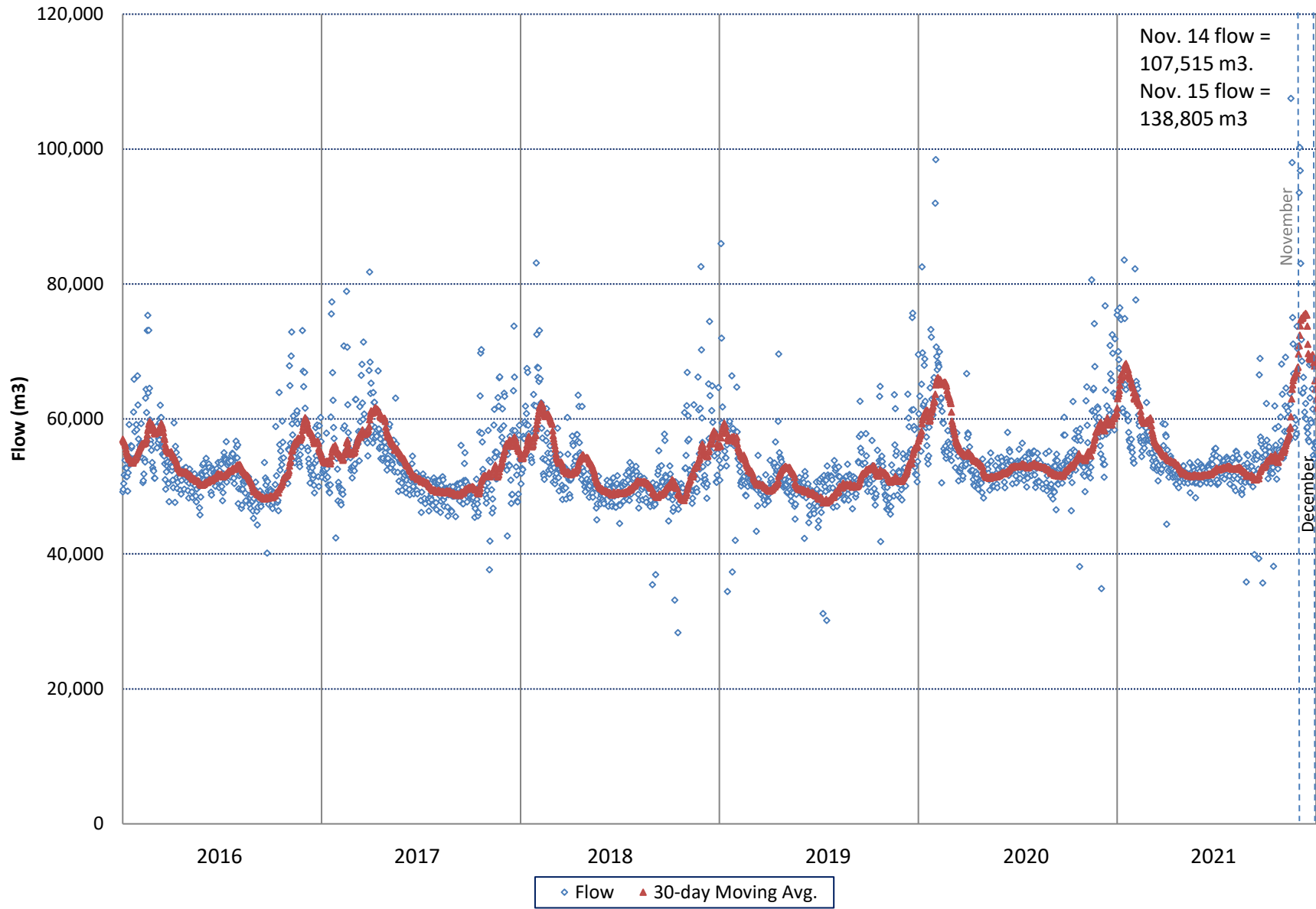
The MWR specifies that Ortho-phosphate must be below .5 mg/l. The James Plant has a substitution to this requirement.

### Un-ionized Ammonia NH<sub>3</sub>

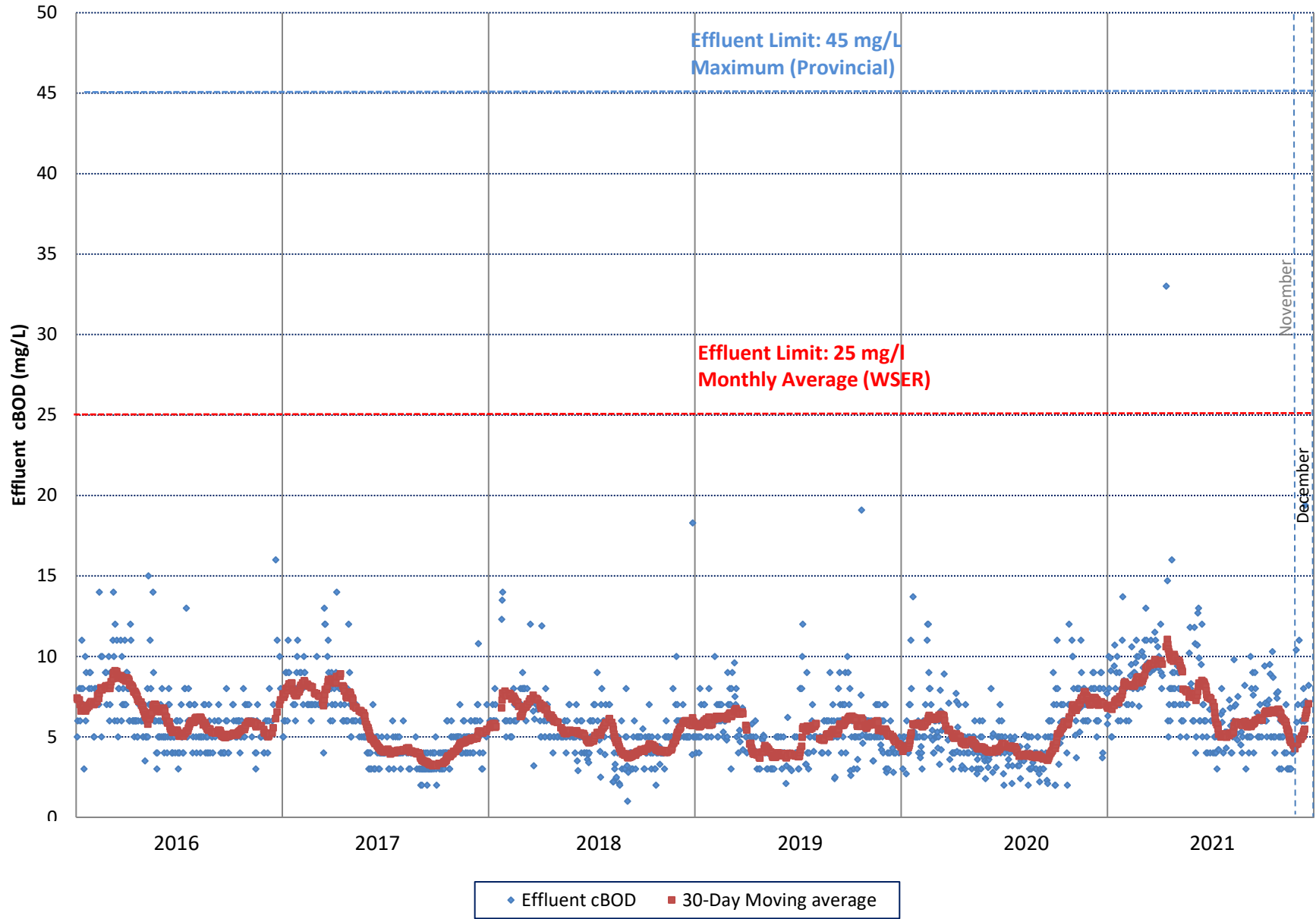
Un-ionized ammonia must be below 1.25 mg/l (Monthly Maximum). This is a combination of Ammonium NH<sub>4</sub><sup>+</sup> and pH. The higher the pH the more likely the ammonia will be in the Un-ionized form NH<sub>3</sub>.



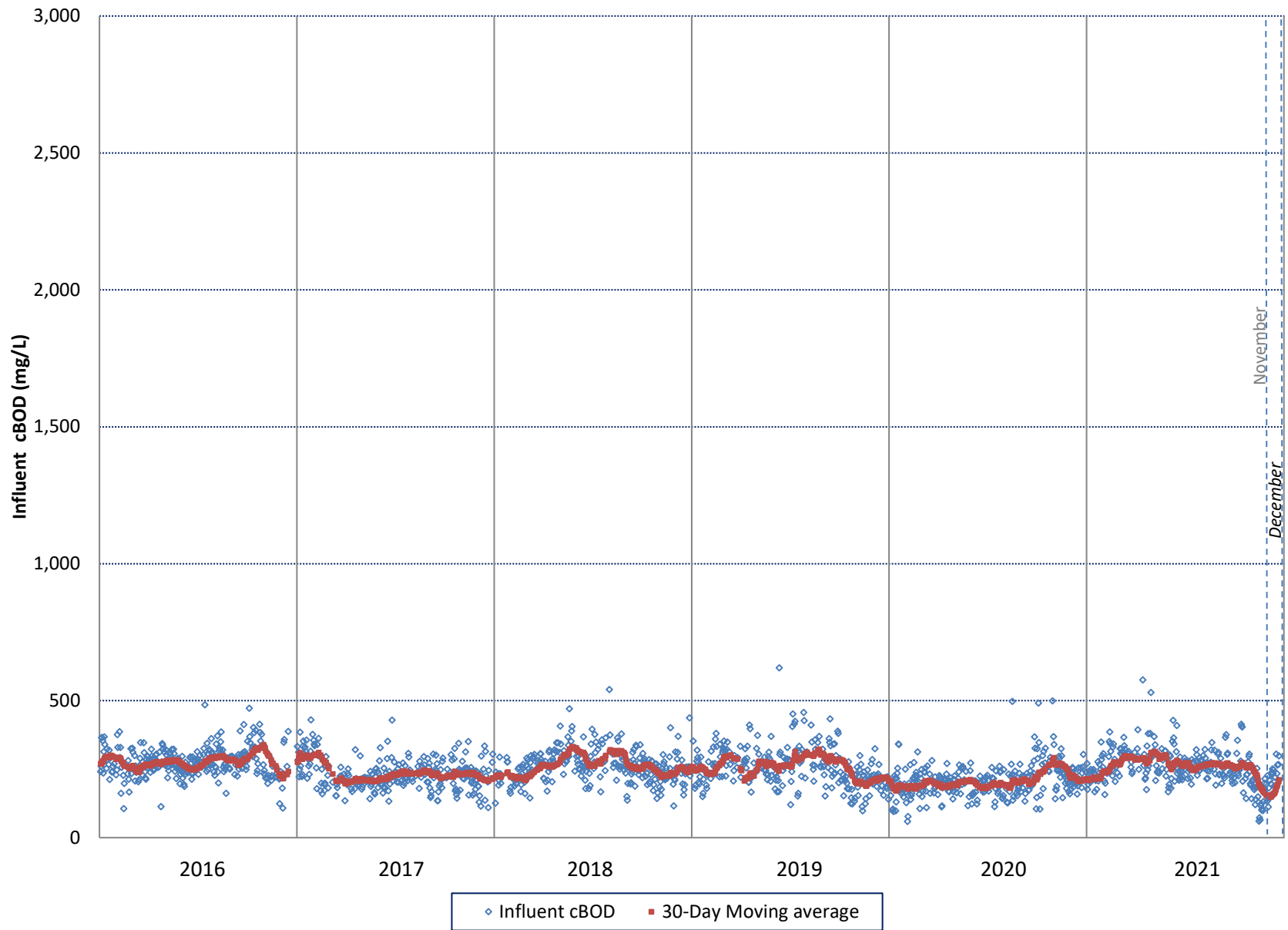
# Appendix B - Flow



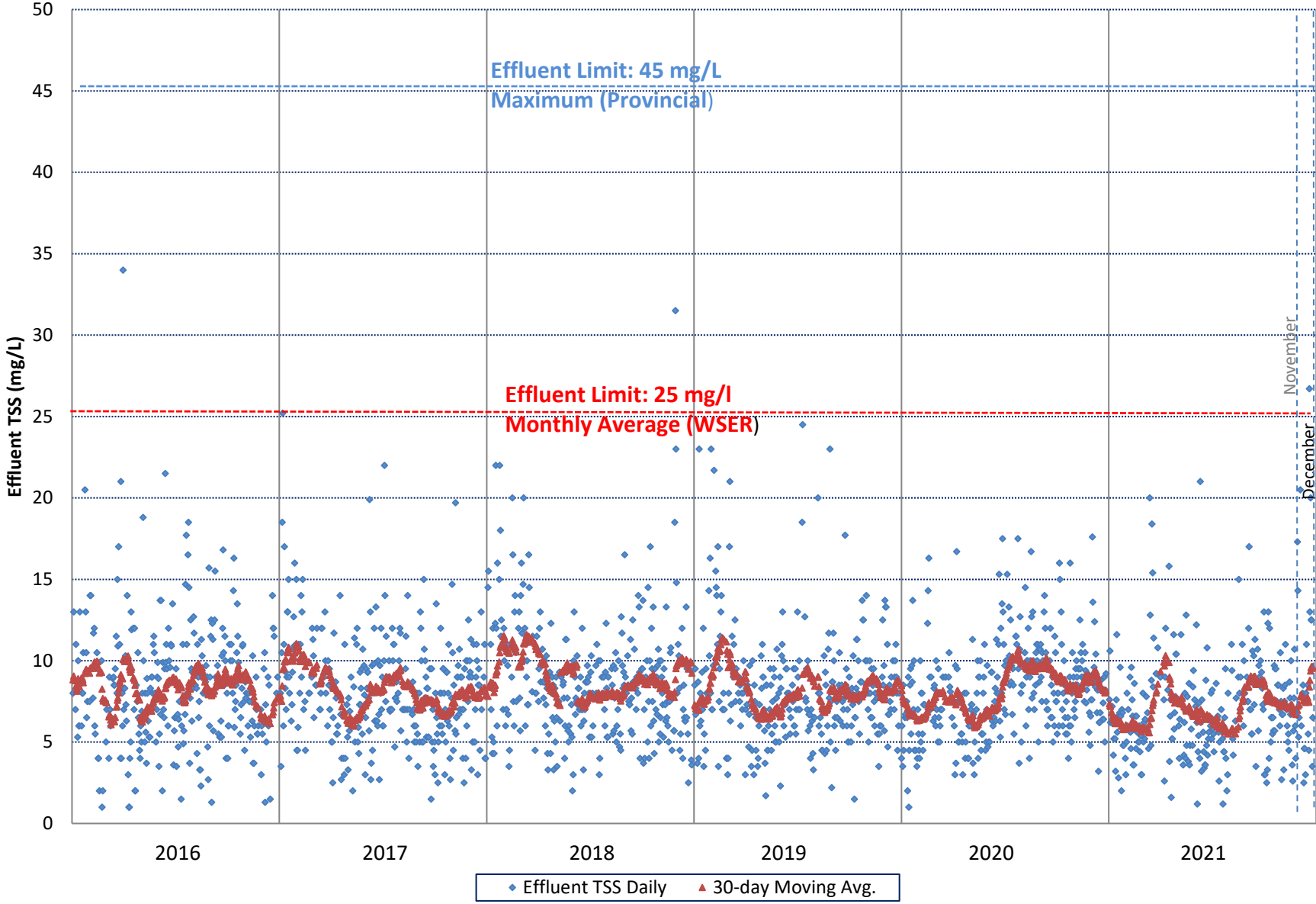
# Appendix C - Effluent cBOD



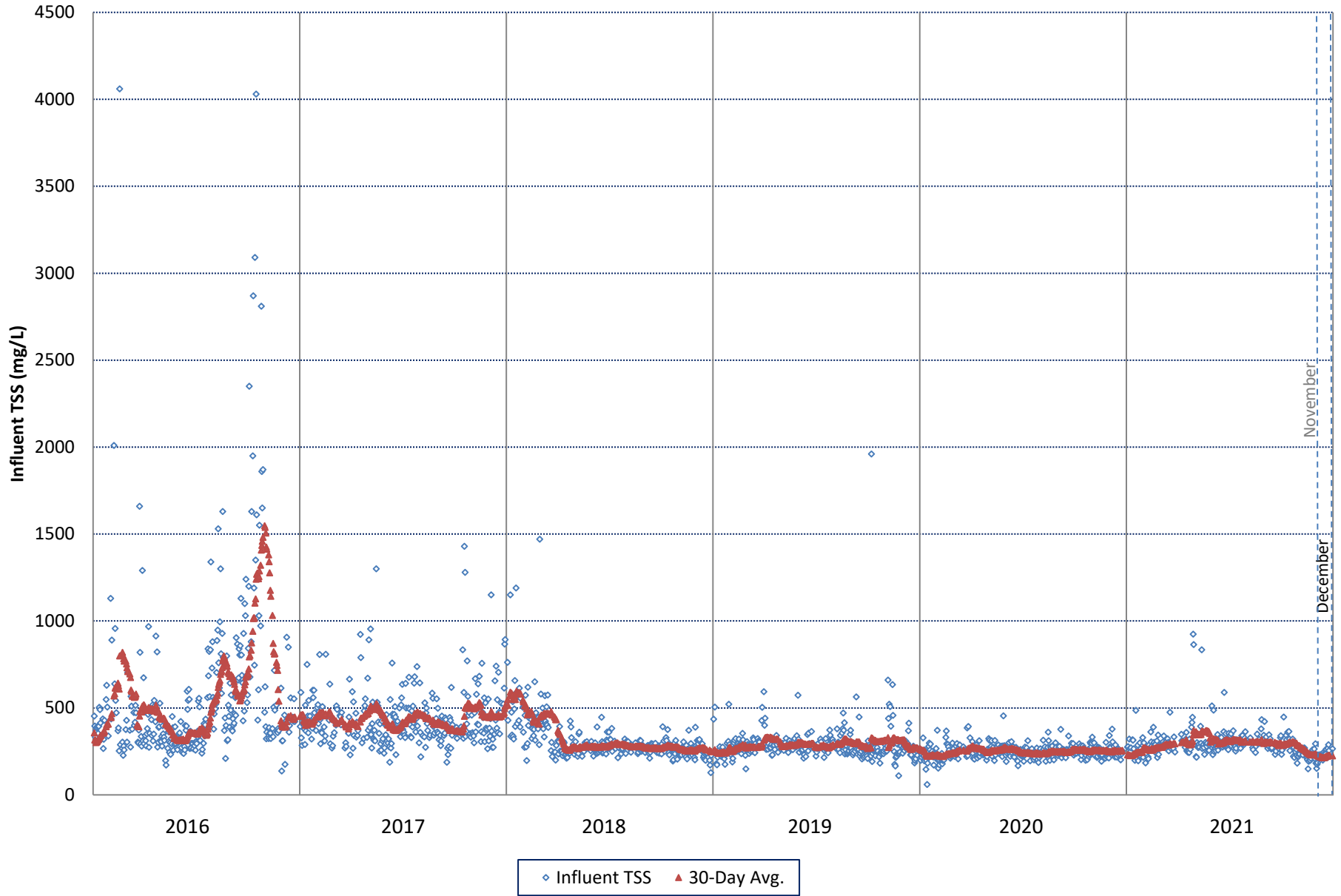
## Appendix C - Influent cBOD



# Appendix D - Effluent TSS



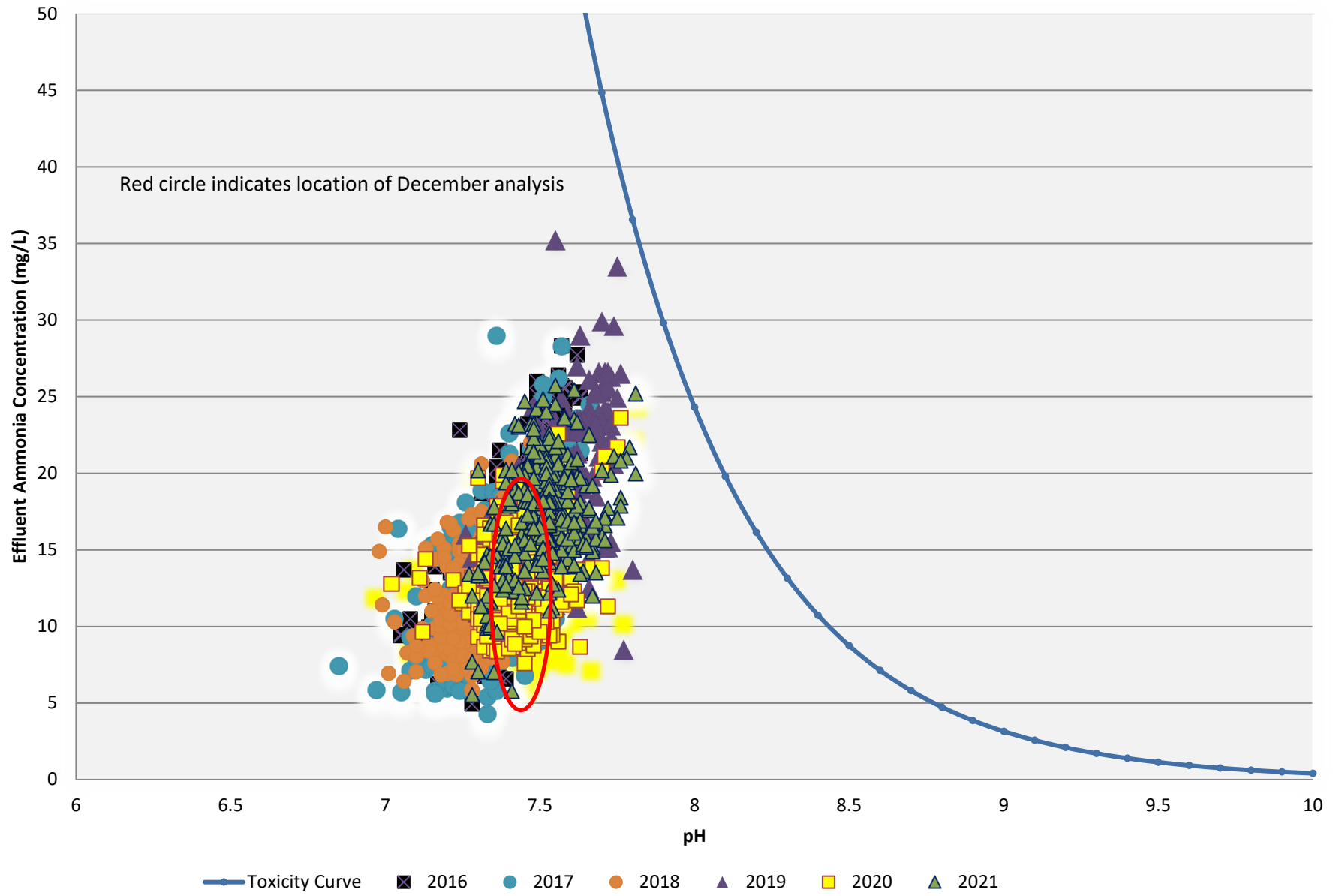
# Appendix D - Influent TSS



## Appendix E - Effluent Ammonia and pH



## Appendix E - Effluent Ammonia vs pH



# REPORT

---

To: Abbotsford Mission Water & Sewer Commission

From: Jamie Austin, Director, Utility Operations

Date: January 4, 2022

Subject: Bi-monthly Water Report – November/December 2021

File: 5600-00

Report No.: JSSC 02-2022

Attachments: Appendix A – Daily Demands Graph  
Appendix B – Daily Demands Table  
Appendix C – Average Monthly Water Demands (10-Year Comparison)  
Appendix D – Year-to-Date Demand Distribution (5-Year Comparison)  
Appendix E – Dickson Lake Level Graph  
Appendix F – Cannell Lake Level Graph

---

## RECOMMENDATION

THAT Report No. JSSC 02-2022, dated January 4, 2022, from the Director, Utility Operations, regarding Bi-Monthly Water Report - November/ December 2021, be received for information.

## PURPOSE

This is a bi-monthly report to provide updates to the Abbotsford Mission Water & Sewer Commission on the water system performance (water demands & quality), based on data up until December 31, 2021.

## BACKGROUND

### Water Consumption

The water system is supplied by Norrish Creek, Cannell Lake and several groundwater wells. The water available to consumers is a function of Provincial licenses and infrastructure hydraulics.

### Water Quality

System water quality requirements are set through the BC Drinking Water Protection Act & Regulation and the Guidelines for Canadian Drinking Water Quality. Operations monitor water quality through weekly, monthly, quarterly and annual programs. All water quality results are reported annually to the Ministry of Health. Any non-compliant results are immediately reported to the Ministry.



## **DISCUSSION / ANALYSIS**

### Water Flows

- Appendices A and B present November/December 2021 daily water demands with a comparison to the same time period in the previous year. Appendix C compares the last quarter's average monthly demands to those from the same time period over the prior 10 years;
- the November average demand was approximately 2% higher this year relative to the last;
- the December average demand was approximately 6% higher this year relative to the last;
- Appendix D presents cumulative water consumption since the start of the year to the end of the noted month, broken out by source and municipality and compares values to those from the prior 5 years;
- Appendices E and F illustrate Dickson and Cannell Lake levels, respectively, for the current year, the prior year and the year during which their greatest drawdowns occurred. Dickson Lake and Cannell Lake levels are at 100% and 71% of storage capacity, respectively; and

### Water Quality

- Water quality results for November/December 2021 met regulatory requirements, with the exception of Schedule A of the Drinking Water Protection Regulation for Total Coliform presence: a) 1 sample in a 30 day period and b) more than 1 sample in a 30 day period. Corrective actions were implemented with regular communication with Fraser Health.

### November Flood Event Impacts

The rain event from November 13 to 15 resulted in approximately 172mm accumulating at Abbotsford Airport. Estimated rainfall at Cannell Lake was 200mm and 410mm at Dickson Lake for the same time period. Impacts due to flooding were as follows:

- Norrish Water Treatment Plant
  - Partial forest service road failure at 2.2km (status: partial repair)
  - Landslide across forest service road at 5.5km (status: partial repair)
  - Transmission main air release valve damage at 5.5km (status: repaired)
  - Coanda intake buried under rock and rubble (status: repaired)
  - Minor slides between Norrish WTP and Dickson Lake (status: repaired)
  - No damage to Dickson Lake Dam or infrastructure
- Cannell Water Treatment Plant
  - Transmission line exposed due to culvert washout (status: repaired)
  - No damage to Cannell Lake Dam or infrastructure
  - Provided additional supply while Norrish was offline (re. low lake level)
- Well System
  - No impacts

## **FINANCIAL IMPLICATIONS**

Flood event damages are still being worked on; as such, total costing is not available. At this time, emergency repairs have been submitted to EMBC for full recovery.

**COMMUNICATION PLAN**

N/A

**SUMMARY**

Average day demands in November/December 2021 were 2% higher and 6% higher, respectively, compared to the same months last year. Water quality results for November/December 2021 met regulatory requirements, with the exception of Schedule A of the Drinking Water Protection Regulation for Total Coliform presence. Dickson Lake and Cannell Lake levels are at 100% and 71% of storage capacity, respectively.

**APPROVED**

By jaustin at 12:26 pm, Jan 06, 2022

---

Jamie Austin, B.Sc, ASc.T.  
Director, Utility Operations

**APPROVED**

By risaac at 3:07 pm, Jan 07, 2022

---

Rob Isaac, P.L.Eng.  
General Manager, Engineering & Regional  
Utilities

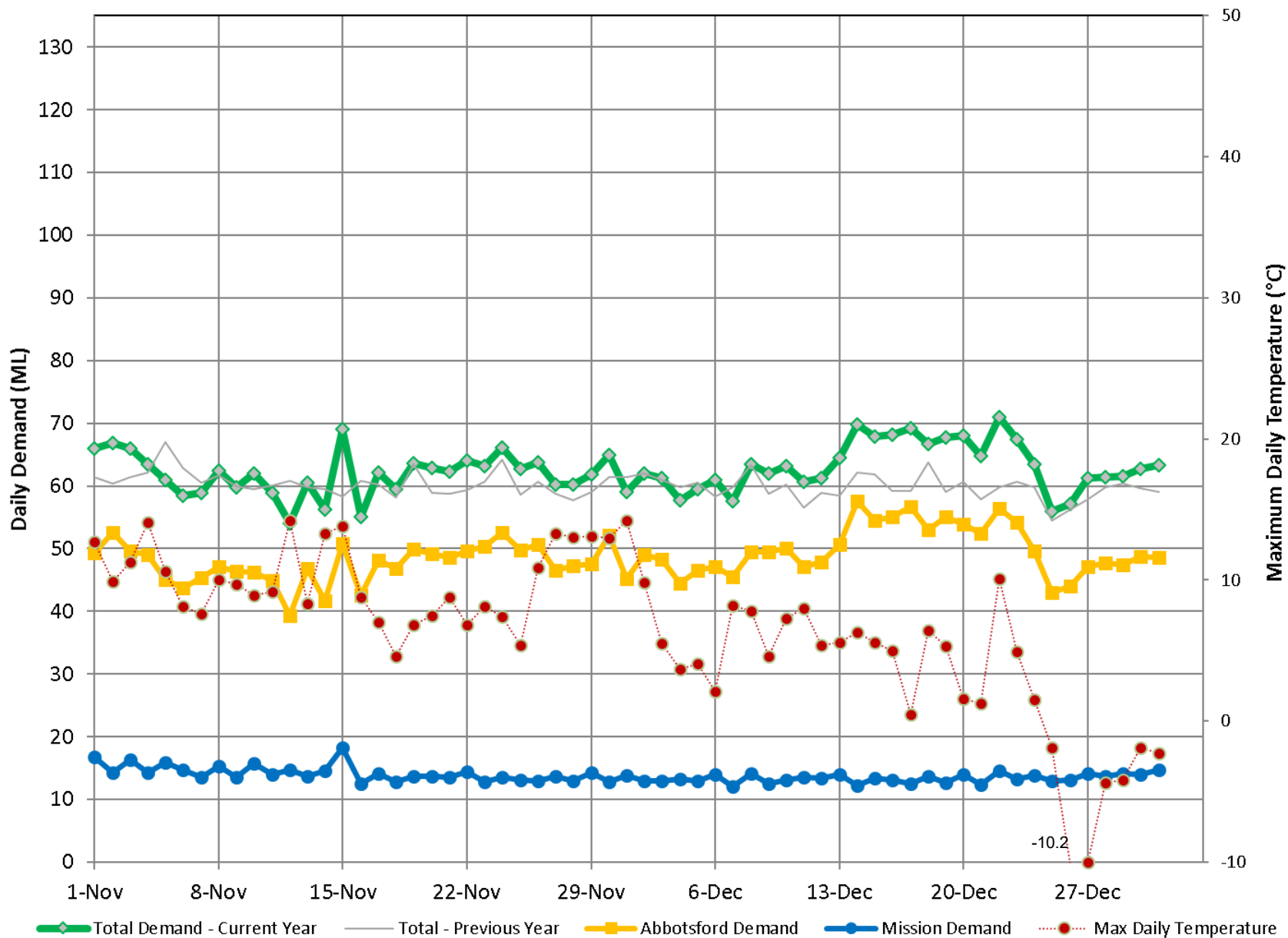
**APPROVED**

By SChiu at 1:00 pm, Jan 06, 2022

---

Stella Chiu, P.Eng.  
Acting Director, Utilities  
Infrastructure

### APPENDIX A – DAILY DEMANDS (GRAPHICAL)

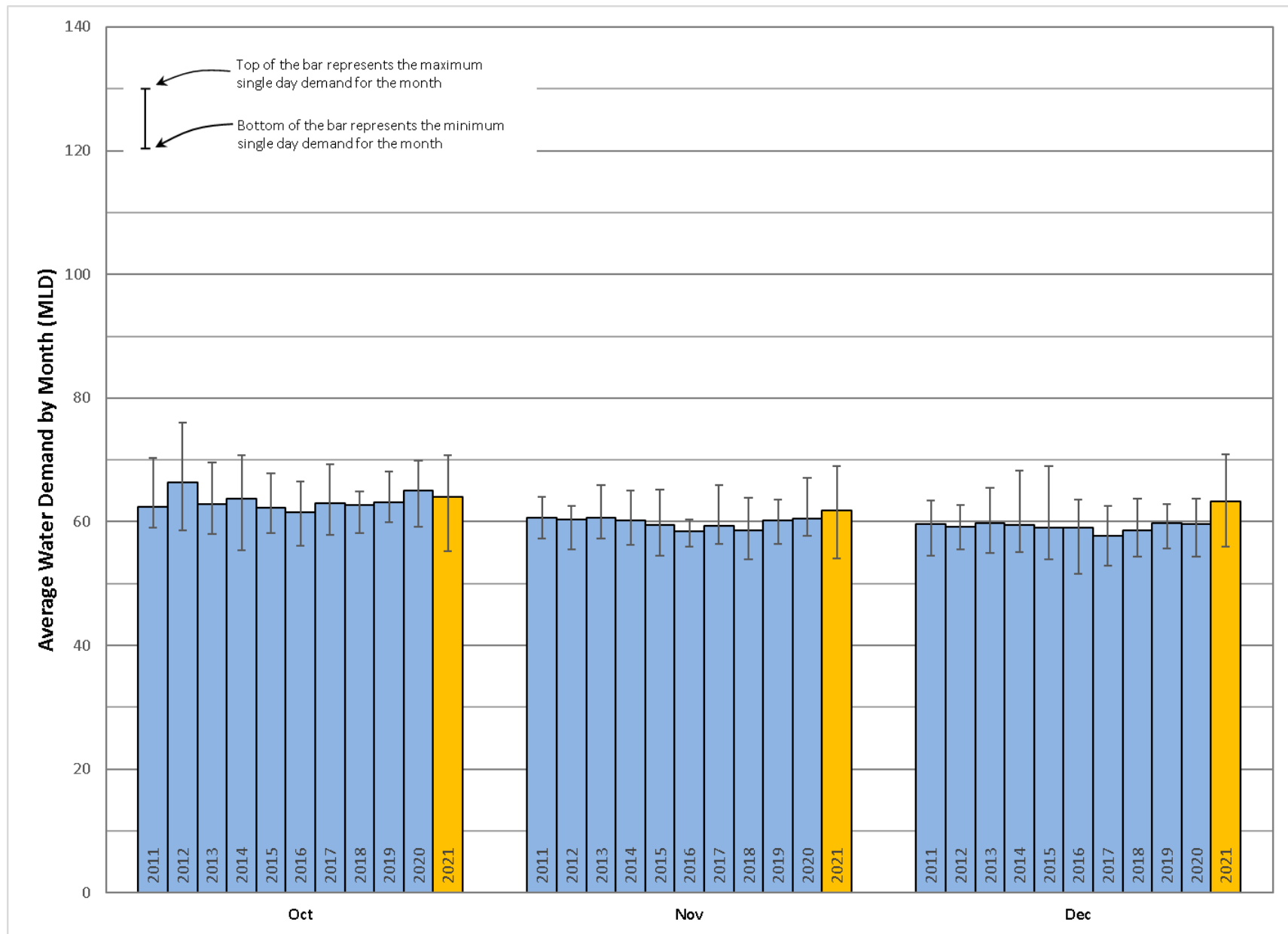


**APPENDIX B – DAILY DEMANDS (TABULAR)**

	November													
	2021							2020						
	Total MLD	Mission MLD	Abbotsford MLD	FVRD MLD	Mission % of Total	Abbotsford % of Total	FVRD % of Total	Total MLD	Mission MLD	Abbotsford MLD	FVRD MLD	Mission % of Total	Abbotsford % of Total	FVRD % of Total
1-Nov	66.0	16.7	49.3	0.000	25.32%	74.68%	0.00%	61.4	15.3	46.1	0.000	24.97%	75.03%	0.00%
2-Nov	66.9	14.3	52.6	0.000	21.43%	78.57%	0.00%	60.4	15.5	44.9	0.000	25.72%	74.28%	0.00%
3-Nov	66.0	16.4	49.6	0.000	24.86%	75.14%	0.00%	61.4	14.1	47.3	0.000	22.96%	77.04%	0.00%
4-Nov	63.4	14.3	49.1	0.000	22.62%	77.38%	0.00%	62.1	15.4	46.7	0.000	24.79%	75.21%	0.00%
5-Nov	60.9	15.9	45.0	0.000	26.18%	73.82%	0.00%	67.0	16.7	50.3	0.000	24.92%	75.08%	0.00%
6-Nov	58.5	14.8	43.7	0.000	25.26%	74.74%	0.00%	62.8	16.2	46.6	0.000	25.76%	74.24%	0.00%
7-Nov	59.0	13.5	45.4	0.000	22.95%	77.05%	0.00%	60.5	15.7	44.8	0.000	26.01%	73.99%	0.00%
8-Nov	62.4	15.3	47.1	0.000	24.53%	75.47%	0.00%	61.7	16.4	45.3	0.000	26.63%	73.37%	0.00%
9-Nov	59.9	13.5	46.3	0.000	22.56%	77.44%	0.00%	60.0	15.1	44.9	0.000	25.21%	74.79%	0.00%
10-Nov	62.0	15.8	46.3	0.000	25.41%	74.59%	0.00%	59.5	14.2	45.3	0.000	23.81%	76.19%	0.00%
11-Nov	58.9	14.0	44.9	0.000	23.81%	76.19%	0.00%	60.0	14.8	45.2	0.000	24.69%	75.31%	0.00%
12-Nov	54.0	14.7	39.4	0.000	27.13%	72.87%	0.00%	60.9	14.2	46.6	0.000	23.39%	76.61%	0.00%
13-Nov	60.6	13.7	46.9	0.000	22.64%	77.36%	0.00%	59.8	14.5	45.3	0.000	24.19%	75.81%	0.00%
14-Nov	56.2	14.5	41.7	0.000	25.88%	74.12%	0.00%	59.5	14.2	45.3	0.000	23.89%	76.11%	0.00%
15-Nov	69.1	18.2	50.9	0.000	26.36%	73.64%	0.00%	58.4	14.8	43.5	0.000	25.37%	74.63%	0.00%
16-Nov	55.1	12.5	42.6	0.000	22.65%	77.35%	0.00%	60.8	14.2	46.6	0.000	23.41%	76.59%	0.00%
17-Nov	62.2	14.1	48.1	0.000	22.68%	77.32%	0.00%	60.2	13.1	47.1	0.000	21.72%	78.28%	0.00%
18-Nov	59.5	12.7	46.8	0.000	21.39%	78.61%	0.00%	58.1	13.6	44.5	0.000	23.36%	76.64%	0.00%
19-Nov	63.7	13.7	50.0	0.000	21.55%	78.45%	0.00%	63.4	15.4	48.0	0.000	24.30%	75.70%	0.00%
20-Nov	62.9	13.7	49.2	0.000	21.75%	78.25%	0.00%	58.8	14.2	44.6	0.000	24.19%	75.81%	0.00%
21-Nov	62.2	13.6	48.6	0.000	21.84%	78.16%	0.00%	58.8	14.6	44.2	0.000	24.77%	75.23%	0.00%
22-Nov	64.0	14.4	49.6	0.000	22.54%	77.46%	0.00%	59.4	15.0	44.4	0.000	25.22%	74.78%	0.00%
23-Nov	63.2	12.8	50.4	0.000	20.20%	79.80%	0.00%	60.7	14.4	46.2	0.000	23.79%	76.21%	0.00%
24-Nov	66.2	13.6	52.6	0.000	20.54%	79.46%	0.00%	64.2	14.6	49.6	0.000	22.77%	77.23%	0.00%
25-Nov	62.8	13.0	49.7	0.000	20.79%	79.21%	0.00%	58.5	14.0	44.6	0.000	23.83%	76.17%	0.00%
26-Nov	63.7	13.0	50.7	0.000	20.40%	79.60%	0.00%	60.7	14.9	45.8	0.000	24.59%	75.41%	0.00%
27-Nov	60.3	13.7	46.6	0.000	22.75%	77.25%	0.00%	58.8	14.2	44.7	0.000	24.07%	75.93%	0.00%
28-Nov	60.3	13.0	47.3	0.000	21.57%	78.43%	0.00%	57.7	14.2	43.5	0.000	24.54%	75.46%	0.00%
29-Nov	61.9	14.3	47.6	0.000	23.09%	76.91%	0.00%	59.1	14.9	44.2	0.000	25.20%	74.80%	0.00%
30-Nov	65.0	12.8	52.2	0.000	19.73%	80.27%	0.00%	61.5	14.1	47.4	0.000	22.90%	77.10%	0.00%
Total	1856.6	426.7	1429.9	0.000				1816.3	442.6	1373.7	0.003			
Max	69.1	18.2	52.6	0.000	27.13%	80.27%	0.00%	67.0	16.7	50.3	0.000	26.63%	78.28%	0.00%
Min	54.0	12.5	39.4	0.000	19.73%	72.87%	0.00%	57.7	13.1	43.5	0.000	21.72%	73.37%	0.00%
Avg	61.9	14.2	47.7	0.000	22.98%	77.02%	0.00%	60.5	14.8	45.8	0.000	24.37%	75.63%	0.00%

	December													
	2021							2020						
	Total MLD	Mission MLD	Abbotsford MLD	FVRD MLD	Mission % of Total	Abbotsford % of Total	FVRD % of Total	Total MLD	Mission MLD	Abbotsford MLD	FVRD MLD	Mission % of Total	Abbotsford % of Total	FVRD % of Total
1-Dec	59.0	13.9	45.1	0.000	23.54%	76.46%	0.00%	61.4	14.3	47.1	0.0	23.36%	76.64%	0.00%
2-Dec	62.0	13.0	49.0	0.000	20.93%	79.07%	0.00%	62.0	14.0	48.0	0.0	22.57%	77.43%	0.00%
3-Dec	61.3	13.0	48.3	0.000	21.17%	78.83%	0.00%	60.9	13.9	47.1	0.0	22.78%	77.22%	0.00%
4-Dec	57.8	13.3	44.5	0.000	22.98%	77.02%	0.00%	59.8	13.6	46.2	0.0	22.73%	77.27%	0.00%
5-Dec	59.5	13.0	46.5	0.000	21.86%	78.14%	0.00%	60.6	14.1	46.5	0.0	23.26%	76.73%	0.00%
6-Dec	61.0	13.9	47.1	0.000	22.82%	77.18%	0.00%	58.4	14.1	44.3	0.0	24.16%	75.84%	0.00%
7-Dec	57.6	12.1	45.5	0.000	20.96%	79.04%	0.00%	59.8	13.5	46.3	0.0	22.53%	77.47%	0.00%
8-Dec	63.5	14.1	49.5	0.000	22.13%	77.87%	0.00%	63.3	12.9	50.4	0.0	20.41%	79.59%	0.00%
9-Dec	62.0	12.5	49.5	0.000	20.13%	79.87%	0.00%	58.8	13.2	45.6	0.0	22.40%	77.60%	0.00%
10-Dec	63.2	13.1	50.1	0.000	20.72%	79.28%	0.00%	60.3	12.6	47.7	0.0	20.90%	79.10%	0.00%
11-Dec	60.7	13.5	47.2	0.000	22.31%	77.69%	0.00%	56.5	13.8	42.8	0.0	24.34%	75.66%	0.00%
12-Dec	61.3	13.4	47.9	0.000	21.93%	78.07%	0.00%	58.9	13.4	45.5	0.0	22.74%	77.26%	0.00%
13-Dec	64.5	13.9	50.6	0.000	21.56%	78.44%	0.00%	58.4	13.8	44.6	0.0	23.67%	76.33%	0.00%
14-Dec	69.7	12.2	57.5	0.000	17.50%	82.50%	0.00%	62.2	13.2	48.9	0.0	21.30%	78.70%	0.00%
15-Dec	67.8	13.4	54.4	0.000	19.73%	80.27%	0.00%	61.8	13.3	48.5	0.0	21.47%	78.53%	0.00%
16-Dec	68.1	13.1	55.1	0.000	19.15%	80.85%	0.00%	59.2	13.0	46.2	0.0	21.94%	78.06%	0.00%
17-Dec	69.2	12.5	56.6	0.000	18.12%	81.88%	0.00%	59.2	13.2	46.1	0.0	22.24%	77.76%	0.00%
18-Dec	66.7	13.7	53.0	0.000	20.58%	79.42%	0.00%	63.8	12.7	51.1	0.0	19.89%	80.11%	0.00%
19-Dec	67.8	12.7	55.1	0.000	18.77%	81.23%	0.00%	59.0	13.2	45.8	0.0	22.40%	77.59%	0.00%
20-Dec	68.0	14.0	53.9	0.000	20.65%	79.35%	0.00%	60.7	13.8	46.9	0.0	22.72%	77.28%	0.00%
21-Dec	64.8	12.4	52.5	0.000	19.09%	80.91%	0.00%	57.8	12.2	45.6	0.0	21.10%	78.90%	0.00%
22-Dec	70.9	14.6	56.4	0.000	20.53%	79.47%	0.00%	59.8	12.8	46.9	0.0	21.48%	78.52%	0.00%
23-Dec	67.4	13.2	54.2	0.000	19.60%	80.40%	0.00%	60.7	13.3	47.4	0.0	21.83%	78.17%	0.00%
24-Dec	63.4	13.8	49.7	0.000	21.69%	78.31%	0.00%	59.8	13.4	46.4	0.0	22.38%	77.62%	0.00%
25-Dec	55.9	13.0	42.9	0.000	23.25%	76.75%	0.00%	54.4	12.9	41.5	0.0	23.69%	76.31%	0.00%
26-Dec	57.2	13.2	44.0	0.000	23.02%	76.98%	0.00%	56.2	13.0	43.3	0.0	23.03%	76.97%	0.00%
27-Dec	61.3	14.2	47.1	0.000	23.14%	76.86%	0.00%	57.9	13.2	44.6	0.0	22.85%	77.15%	0.00%
28-Dec	61.4	13.7	47.7	0.000	22.30%	77.70%	0.00%	59.8	13.5	46.3	0.0	22.58%	77.42%	0.00%
29-Dec	61.6	14.1	47.4	0.000	22.97%	77.03%	0.00%	60.4	12.8	47.7	0.0	21.11%	78.89%	0.00%
30-Dec	62.7	14.0	48.7	0.000	22.31%	77.69%	0.00%	59.6	13.0	46.6	0.0	21.79%	78.21%	0.00%
31-Dec	63.3	14.7	48.5	0.000	23.26%	76.74%	0.00%	59.0	13.5	45.5	0.0	22.93%	77.07%	0.00%
Total	1960.5	415.1	1545.5	0.000				1850.2	413.0	1437.3	0.0			
Max	70.9	14.7	57.5	0.000	23.54%	82.50%	0.00%	63.8	14.3	51.1	0.0	24.34%	80.11%	0.00%
Min	55.9	12.1	42.9	0.000	17.50%	76.46%	0.00%	54.4	12.2	41.5	0.0	19.89%	75.66%	0.00%
Avg	63.2	13.4	49.9	0.000	21.17%	78.83%	0.00%	59.7	13.3	46.4	0.0	22.32%	77.68%	0.00%

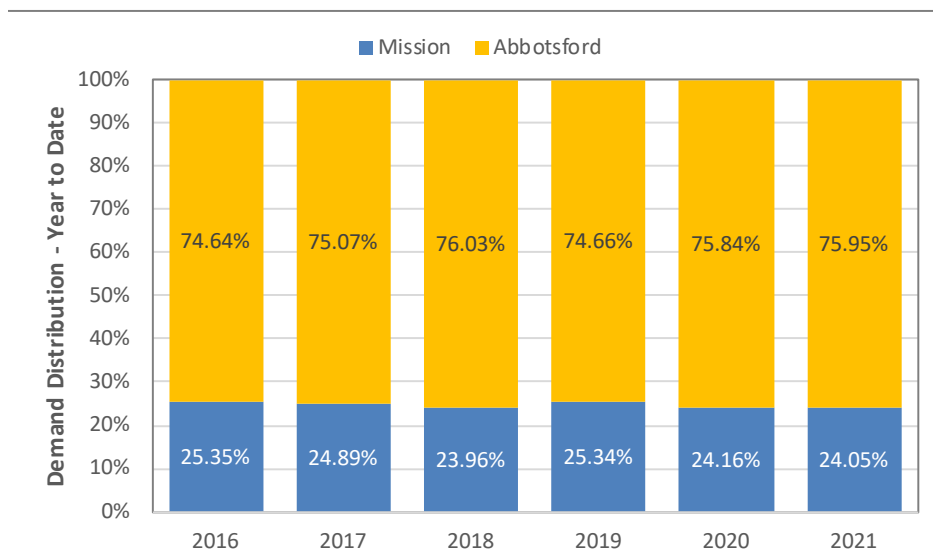
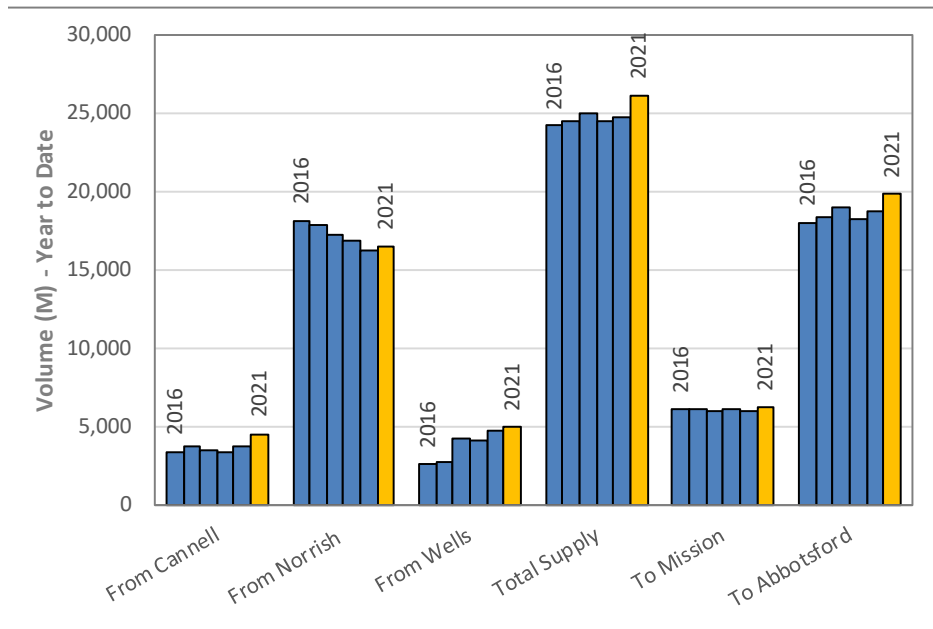
### APPENDIX C – AVERAGE MONTHLY WATER DEMANDS (10-YEAR COMPARISON)



### APPENDIX D – YEAR TO DATE DEMAND DISTRIBUTION (5-YEAR COMPARISON)

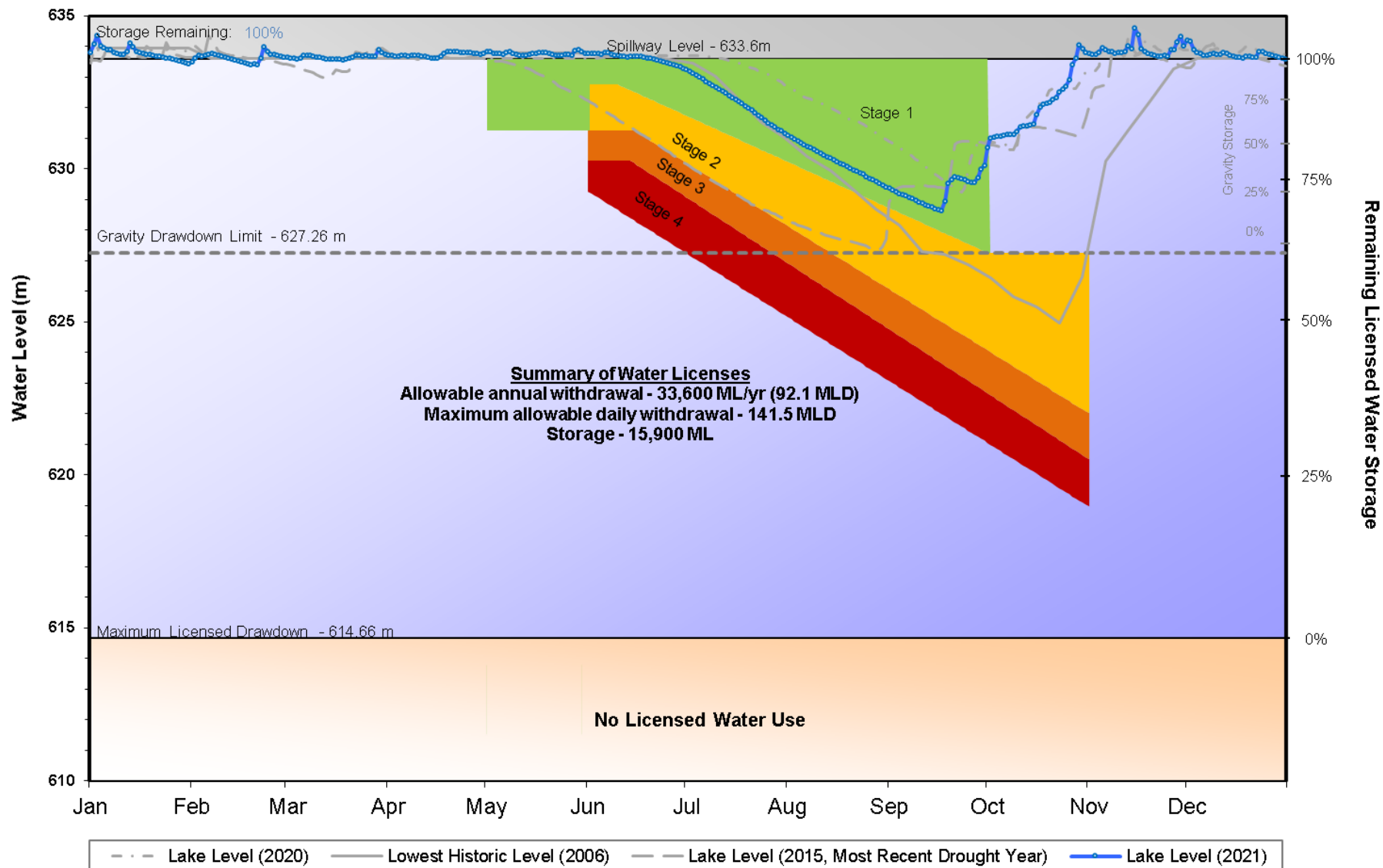
Data Up Until Dec-31 for all years

Year	ML Supplied				ML Consumed		Historic Annual Totals
	From Cannell	From Norrish	From Wells	Total Supply	To Mission	To Abbotsford	
2016	3,431	18,138	2,612	24,181	6,130	18,048	24,239
2017	3,802	17,897	2,774	24,473	6,091	18,372	24,473
2018	3,463	17,302	4,213	24,978	5,984	18,992	24,978
2019	3,385	16,864	4,195	24,444	6,193	18,250	24,444
2020	3,739	16,261	4,783	24,783	5,987	18,796	24,842
2021	4,575	16,530	4,994	26,100	6,276	19,823	



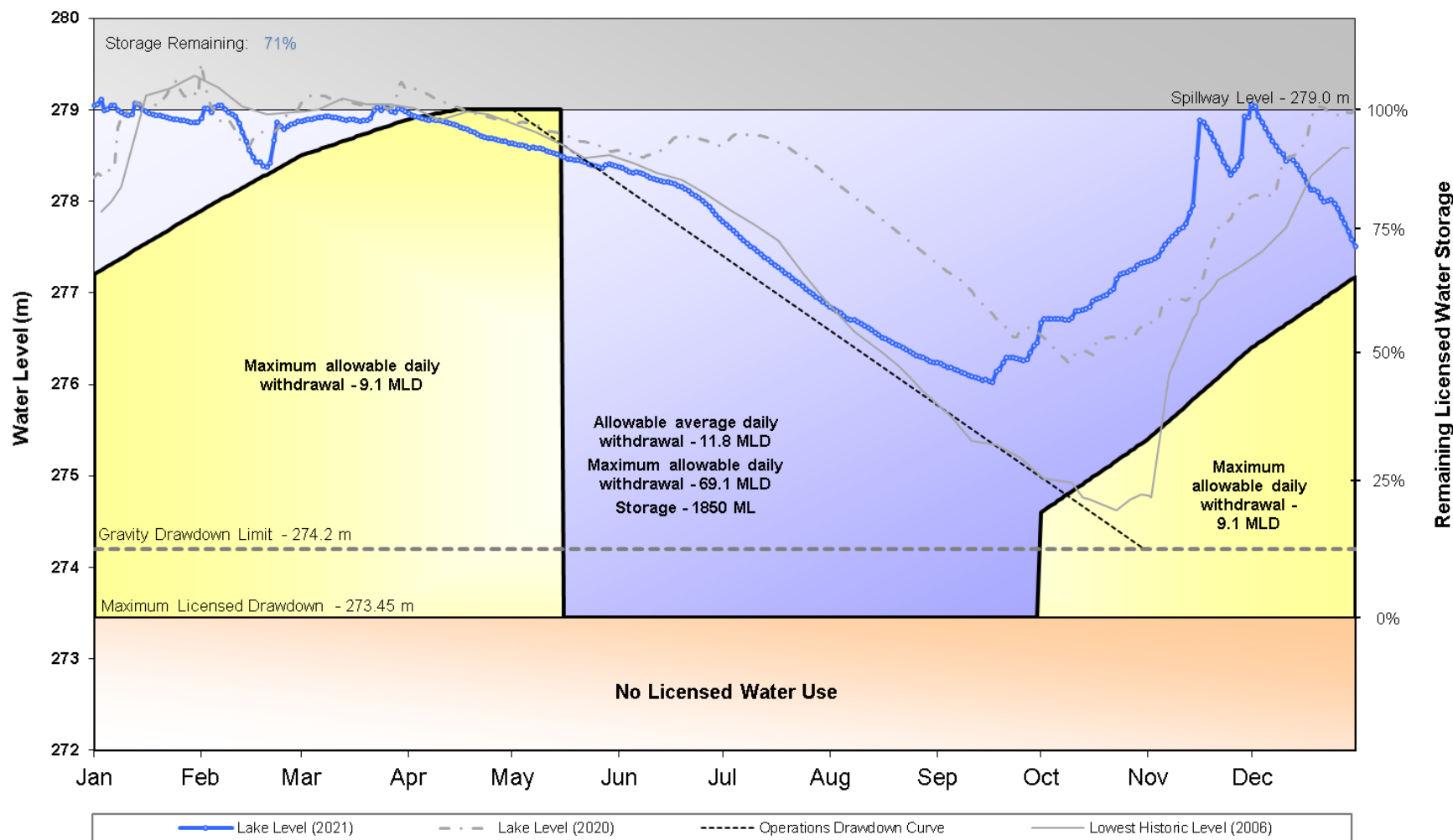
The values in the chart represent the demand distribution based on five bulk water supply meters. The operations cost sharing ratio is adjusted annually based on comparison to the flow meters at the water supply take-off points in Mission.

### APPENDIX E – DICKSON LAKE LEVEL



Gravity discharge from the lake is only available when the lake level is above an elevation of 627.56 m. The significance of the 'Gravity Drawdown' elevation is that pumping from the lake may be required at certain times of the year, to ensure sufficient flow in Norrish Creek downstream. While a significant amount of the licensed storage volume is below the 'Gravity Drawdown' elevation, pumping of this water would require ongoing operation of pumps, a generator, and re-fueling of the system. Relative to releasing the water by gravity, pumping results in an increased risk and cost for the discharge of water from Dickson Lake.

### APPENDIX F – CANNELL LAKE LEVEL



The majority of the Cannell Lake licensed water storage can be discharged by gravity from the lake. Approximately 88% of the storage volume is above an elevation of 274 m. The remaining 12% of storage volume, down to a lake level of 273.25 m, is available with the use of pumps. Historically, the lake level has never dropped to a level requiring use of pumps, but reached a low of 16% storage volume remaining in 2006. The 'Operations Drawdown Curve' is a tool used to predict whether the lake pumps will be required in the latter part of the year, when the lake is generally at its lowest level. When the actual lake level drops below the 'Operations Drawdown Curve' it is anticipated that pumping from the lake may be required.

The original water licenses for Cannell Lake allowed for average day withdrawals from the lake of 9.1 MLD, with no increase for maximum day withdrawals. An additional water license obtained in 2012 allows for an increase in the average day withdrawal of 2.7 MLD, bringing the total allowable average day withdrawal to 11.8 MLD. The new license also provided an increase in the allowable maximum day withdrawal by 60.0 MLD, thus when added to the original licenses, provides a total licensed maximum day withdrawal amount of 69.1 MLD. However, the license issued in 2012 is contingent on the lake level being above a certain elevation in the months of October through May (as outlined on the graph). If the lake level is below this line, the allowable withdrawal rate is limited to the 9.1 MLD of the original water licenses.



# REPORT

---

To: Abbotsford Mission Water & Sewer Commission (WSC)  
From: Stella Chiu, Acting Director, Utilities Infrastructure  
Date: January 4, 2022  
Subject: Investing in Canada Infrastructure Program –  
New Water Source: Vertical Wells grant application  
File: 1820-01  
Report No.: JSSC 03-2022  
Attachments: Appendix A – Program and Application Guide

---

## RECOMMENDATIONS

1. THAT staff be directed to prepare a grant application for the New Water Source: Vertical Wells under the Investing in Canada Infrastructure Program – Green Infrastructure – Environmental Quality Sub-Stream; and
2. THAT it be forwarded to Abbotsford and Mission councils for consideration and approval.

## PURPOSE

The purpose of this report is to outline a new intake opportunity under the Investing in Canada Infrastructure Program (ICIP) – Green Infrastructure – Environmental Quality Sub-Stream, and recommend next steps.

## BACKGROUND

On October 8, 2021, the Canadian and British Columbian governments committed up to \$270M towards the third intake of the ICIP – Green Infrastructure – Environmental Quality Sub-Stream to support cost-sharing of infrastructure projects in communities across the Province.

Funding under the first and second intakes is fully allocated and represented a commitment of up to \$399 million by the Canadian and British Columbian governments.

The program will assist communities in developing well planned community infrastructure that will:

- protect public health and environment;
- promote climate change resilience; and
- support broad public benefits and service sustainability.

This intake is designed to target projects starting in 2023 and completing by 2026.

The proposed project must meet at least one of the following outcomes to be eligible:

- Increase the capacity to treat and/or manage wastewater;
- Increase the capacity to treat and/or manage stormwater;
- Increase access to potable water;
- Increase the capacity to divert or manage solid waste (including landfill gases);
- Increase capacity to reduce and/or remediate soil and/or air pollutants through remediation.

Municipalities may submit one application per funding stream per intake. Deadline for this grant application is February 23, 2022. Applications not approved from an earlier intake may be revised and submitted as a new application.

A copy of the program and application guide for this funding stream is included in Appendix A.

## **DISCUSSION**

During 2017/2018, the Joint Shared Service Committee (JSSC) embarked on a Water Source Supply Study, to determine the future needs for the Regional System. The purpose of the study was to review and prioritize known water sources and develop a solution set that included conservation, optimization and source expansion. In considering the preferred option, it was important to consider that the solution needed to be phaseable, incremental, affordable, resilient and flexible.

During the Water Supply Study, both the future demand forecasts and systems resiliency were reviewed, based on both Abbotsford's and Mission's Official Community Plans (OCPs). By 2041, the system's Maximum Day Demand (MDD), including conservation efforts, would be approximately 135 MLD. The current sustainable system capacity is estimated at approximately 123 MLD, leaving a supply gap of approximately 12 MLD.

In terms of resiliency, a supply gap of 25 MLD for Average Day Demand (ADD) is required to be provided by 2041 with one of the existing sources off for a long duration. The supply gap is projected to emerge between 2024 and 2027.

Since completion of the Water Supply Study, the need of a new water source has become increasingly urgent to:

- Enhance safety (public health, fire flows);
- Bolster environmental resiliency/ redundancy (climate change, forest fires, landslides); and
- Advance partnerships (Mission, Abbotsford, First Nations, Fraser Valley Regional District (FVRD)).

A new water source by way of collector wells was previously recommended to be the most favourable solution. Grant applications were submitted for the first two intakes of the ICIP program, seeking funding for Phase 1 of the collector well project (25 MLD). (Reports JSSC 041-2018 and JSSC 005-2020) The applications were both denied as the program was over-subscribed; however, staff met with the Province for feedback and advice on how to improve the application.

Recently, additional hydrogeotechnical and geotechnical work have been completed which include:

- Geotechnical and seismic analysis at the proposed project locations;
- Additional test wells and monitoring wells installation, and pump tests;

- Analysis of water quality data at various levels; and
- Aquifer modelling updates.

Based on the findings from the technical work, alternative mitigation options were reviewed. In addition, cost estimates were also updated due to COVID supply chain impacts and material costs adjustments. Vertical wells offer the following benefits, and are recommended:

- It is a more phaseable solution - the vertical wells and treatment equipment can be phased over time;
- More contractors are able to install traditional vertical well, versus specialized contractor for collector wells;
- Risks due to seismic events potentially reduced, decreasing repair time;
- Can likely be installed at higher elevation in aquifer where water quality is better;
- More cost-effective than the collector wells.

The Proposed Vertical Wells Project (Project) will provide 25 MLD capacity, with scope as outlined below:

- Installation of eight Vertical wells (including electrical building, standby generator, 3-phase power extension), and 4.2km of 900mm diameter of watermain; and
- Construction of a water treatment Plant and High Lift Pump Station.

Staff reviewed the ICIP program guideline, and consider the Vertical Wells Project a good candidate for the application. Assuming a grant announcement by July 2022, and proceeding with the piloting work (within current budget) in advance of grant announcement, design work and approval process are to follow with estimated construction start of July 2023 and estimated project completion in 2025.

Based on the above, it is recommended that staff be directed to prepare a grant application for the New Water Source: Vertical Wells under the Investing in Canada Infrastructure Program – Green Infrastructure – Environmental Quality Sub-Stream; and that it be forwarded to Abbotsford and Mission councils for consideration and approval.

## **FINANCIAL IMPLICATIONS**

The ICIP can fund up to 73.33% of the eligible costs, with 40% coming from the Federal Government and 33.33% from the Provincial Government.

The proposed project cost for Vertical Wells (25MLD) is estimated \$77M. A budget of \$73M (Project AUTO – 2886 – New Supply – Construction, Engineering Services and Commissioning) has been included in the approved 2022 5-year Financial Plan. If the funding application is successful, JSSC can expect the project to be funded up to \$56M.

## **COMMUNICATION PLAN**

N/A

## **SUMMARY**

On October 8, 2021, the Canadian and British Columbian governments committed up to \$270M towards the third intake of the ICIP – Green Infrastructure – Environmental Quality Sub-Stream to support cost-sharing of infrastructure projects in communities across the Province. A new water source by way of collector wells was previous recommended to be the most favourable solution. Grant applications were submitted for the first two intakes of the ICIP program, seeking funding

for Phase 1 of the collector well project (25 MLD). The applications were both denied as the program was over-subscribed. Based on recent additional findings from the hydrogeotechnical and geotechnical work, alternative mitigation options were reviewed with updated cost estimates. Vertical wells offer additional benefits over the collector wells, and are recommended as a new water source. Staff reviewed the ICIP program guideline, and consider the Vertical Wells Project a good candidate for the application. It is recommended that staff be directed to prepare a grant application for the New Water Source: Vertical Wells under the Investing in Canada Infrastructure Program – Green Infrastructure – Environmental Quality Sub-Stream; and that it be forwarded to Abbotsford and Mission councils for consideration and approval.

**APPROVED**



By SChiu at 10:14 am, Jan 17, 2022

Stella Chiu, P.Eng  
Acting Director, Utilities Infrastructure

**APPROVED**



By kbasatia at 10:28 am, Jan 17, 2022

Komal Basatia, CPA, CGA  
General Manager, Finance and Procurement  
Services

**APPROVED**



By risaac at 1:23 pm, Jan 17, 2022

Rob Isaac, P.L.Eng.  
General Manager, Engineering and  
Regional Utilities

Canada



***Canada-British Columbia  
Investing in Canada Infrastructure Program***

***Green Infrastructure – Environmental Quality Sub-Stream  
Program Guide***

## Foreword

This Program Guide provides an overview of the Investing in Canada Infrastructure Program (ICIP) Green Infrastructure – Environmental Quality (EQ) Sub-Stream requirements (ICIP-EQ). This Guide will illustrate how to fill out an application, what the Ministry is looking for in a project, provide a walk-through of the application process and additional helpful information to assist in preparing and submitting an application under ICIP-EQ.

The ICIP's main goal is to create long-term economic growth, build inclusive, sustainable communities and support a low carbon, green economy. The EQ Sub-Stream is focused on infrastructure that will support quality and management improvements for drinking water, wastewater, and stormwater, as well as reductions to soil and/or air pollutants through solid waste diversion and remediation. Projects must meet related outcomes to be eligible. Eligible projects will support public infrastructure, defined as tangible capital assets primarily for public use and benefit.

The Program Guide contains references to the Canada – British Columbia ICIP Integrated Bilateral Agreement which can be found at <http://www.infrastructure.gc.ca/prog/agreements-ententes/2018/2018-bc-eng.html>.

In the event of a conflict between the Program Guide and the ICIP Integrated Bilateral Agreement, the Agreement prevails.

It is important for applicants to familiarize themselves with the requirements described in this guide prior to preparing their application.

**The Program Guide has been revised for the Third Intake and published on October 08, 2021.**

## Contents

<b>1. INTRODUCTION.....</b>	<b>5</b>
1.1 PROGRAM GOAL AND OBJECTIVES .....	5
1.3 APPLICATION DEADLINE.....	6
1.4 LIMIT ON NUMBER OF APPLICATIONS .....	7
1.5 COST-SHARING, STACKING AND LIMITS TO FUNDING AWARD .....	7
<b>2. APPLICANTS .....</b>	<b>9</b>
2.1 ELIGIBLE APPLICANTS .....	9
2.2 INELIGIBLE APPLICANTS .....	9
<b>3. PROJECTS.....</b>	<b>10</b>
3.1 PROGRAM OUTCOMES.....	10
3.2 ELIGIBLE PROJECTS .....	10
3.3 INELIGIBLE PROJECTS .....	11
3.5 PROJECT SIZE AND PHASING PROJECTS.....	12
<b>4. COSTS.....</b>	<b>14</b>
4.1 ELIGIBLE COSTS.....	14
4.2 INELIGIBLE COSTS .....	15
<b>5. GENERAL REQUIREMENTS.....</b>	<b>17</b>
5.1 FUNDING.....	17
5.2 APPLICATION PROCESS .....	18
5.3 SELECTION PROCESS AND CRITERIA .....	18
5.4 APPROVAL IN PRINCIPLE - REQUIREMENTS.....	20
<b>6. MANDATORY DOCUMENTS.....</b>	<b>22</b>
6.1 COUNCIL/BOARD/BAND COUNCIL RESOLUTION .....	23
6.2 EVIDENCE OF SECURED FUNDS .....	23
6.3 DETAILED COST ESTIMATE.....	24
6.4 SITE PLAN/MAP .....	25
6.5 PRELIMINARY DESIGN REPORT .....	25
6.6 LIST OF REQUIRED LICENSES, PERMITS AND APPROVALS .....	25
6.7 WATER CONSERVATION PLAN .....	26
6.8 CONTACT INFORMATION.....	26
6.9 IMPACT ASSESSMENT ACT, 2019 REQUIREMENTS.....	26
6.10. HOW TO DETERMINE IF A FEDERAL ENVIRONMENTAL ASSESSMENT (FEA) IS REQUIRED .....	27
6.11 TIME AND COST CONSIDERATIONS .....	27
6.12 DIALOGUE WITH ENVIRONMENTAL AGENCIES.....	27
6.13 OTHER REGULATORY CONSIDERATIONS.....	28
6.14 B.C. ENVIRONMENTAL ASSESSMENT PROCESS.....	28
<b>7. INDIGENOUS CONSULTATION .....</b>	<b>30</b>
<b>8. APPROVED APPLICATIONS .....</b>	<b>31</b>
8.1 ASSETS.....	31

8.2	SHARED COST AGREEMENT .....	31
8.3	CONTRACT PROCEDURES AND PROVISIONS .....	31
8.4	CHANGES OR VARIATIONS TO AN APPROVED PROJECT .....	33
8.5	COST OVERRUNS .....	33
8.6	REPORTING.....	33
8.7	CLAIMS .....	35
8.8	ACCOUNTING RECORDS .....	36
8.9	COMMUNICATIONS.....	36
	<b>APPENDIX A – FEDERAL PROGRAM OUTCOMES &amp; TARGETS.....</b>	<b>37</b>
	<b>APPENDIX B – EXAMPLES OF ELIGIBLE COSTS AND INELIGIBLE COSTS .....</b>	<b>38</b>



# 1. INTRODUCTION

## 1.1 PROGRAM GOAL AND OBJECTIVES

Canada and British Columbia governments are investing up to \$270 million in the third intake of the ICIP Environmental Quality Program (ICIP-EQ) to support infrastructure projects in communities across the province. Funding under the first and second intake, which represents a commitment of \$399 million by the Canadian and British Columbian governments, is fully allocated.

The ICIP-EQ program will assist communities in developing well planned community infrastructure that will protect public health and environment, promote climate change resilience, and support broad public benefits and service sustainability.

A project must meet at least one of the following outcomes to be eligible:

- increase the capacity to treat and/or manage wastewater;
- increase the capacity to treat and/or manage stormwater;
- increase access to potable water;
- increase the capacity to divert or manage solid waste (including landfill gases);
- increase capacity to reduce and/or remediate soil and/or air pollutants through remediation.

[Guidance on Aligning Projects with Outcomes](#) is available on the [Environmental Quality Program Website](#).

The Program encourages applicants to consider infrastructure to capture added value as described in Section 5.3. Projects that support more than one of the following program goals have a better chance of success:

- improve services to existing residents;
- provide clean drinking water;
- reduce air, soil and water pollution;
- reduce resource consumption;
- increase adaptation and mitigation to climate change;
- enhance natural systems and ecological services; and
- support resource recovery and reuse.

Some [example projects](#) are provided for your reference on the [Program Website](#).

Eligible projects will be subject to technical evaluation and ranked according to the extent to which they meet the program's eligibility criteria and program goals. Funding programs are highly competitive, and it is anticipated that there will be more projects that qualify for funding than the allocated program funds. The amount of funding requests should be reasonable in comparison to the allocated funding. Wherever feasible, applicants are encouraged to phase

their project to reduce funding ask, while ensuring the phased project independently meets the program outcome.

Projects with total estimated eligible expenditures of \$10 million or more will be subject to [climate lens assessments](#) (including a greenhouse gas emissions assessment that includes a cost-per-ton calculation and a climate change resilience assessment) to be completed to British Columbia and Canada's satisfaction prior to Canada's approval of a project for funding.

The approved projects will be subject to [reporting requirements](#) as the projects progress. Details are provided in Section 8.6. The program targets projects that can be completed within three years following approval. An Oversight Committee consisting of representatives from the federal and provincial governments will be responsible for administration of the Agreement.

Local Governments\* and Indigenous applicants are eligible ultimate recipients for this merit-based funding.

*\*Local government refers to Regional Districts and Municipalities throughout this Guide. See Section 2.1 on Eligible Applicants for details.*

### 1.3 APPLICATION DEADLINE

The deadline for the application intake is **February 23, 2022 (4:00 pm PST)**.

Applicants must follow a two-step process to obtain access to Local Government Information System (LGIS) to submit online application.

- A Business BCeID credential and password are required to access the online application. The deadline to submit your BCeID credentials is **three weeks** prior to the submission deadline (**February 02, 2022**).
- After obtaining a BCeID you are required to request access to the Local Government Information System (LGIS). It is essential to have access to LGIS to be able to submit your [online application](#). We strongly encourage you to apply for BCeID access as soon as you can so that access to LGIS can be received in a timely manner.

See [Accessing the Online Application](#) for more details.

## 1.4 LIMIT ON NUMBER OF APPLICATIONS

Municipalities may submit **one** application per intake.

Regional Districts may submit **one** application for each community\* in their area. A community is defined as a settlement area within a regional district electoral area or an established or proposed service area.

Indigenous Ultimate Recipients may submit **one** application per intake.

Applications not approved from an earlier intake may be revised and submitted as a new application. This will count towards the limit on the number of applications submitted. Prior to revising the previous application, applicants are encouraged to contact program staff for feedback on unsuccessful application and advice on how to improve their application.

*\*A community is considered as a settlement area within a regional district electoral area which may coincide with a service area boundary*

## 1.5 COST-SHARING, STACKING AND LIMITS TO FUNDING AWARD

The funding provided by the federal government towards infrastructure projects is cost-shared by other partners, such as provinces, municipalities, regional districts, and Indigenous groups. The levels of federal and provincial contribution are:

<i>Ultimate Recipient</i>	<i>Government of Canada Contribution (up to)</i>	<i>Province of British Columbia Contribution (up to)</i>	<i>Total Senior Government Contribution (up to)</i>
Local government	40%	33.33%	73.33%
Indigenous (off-reserve projects)	75%	15%	90%
Indigenous (on-reserve* projects)	75%	-	75%

*\*Application must demonstrate benefits and services extended beyond the reserve community for projects partially or fully located on reserve lands.*

The remaining eligible project costs, ineligible projects costs and cost overruns are the responsibility of the applicant.

Where applicants plan to use or have applied for funds from other federal or provincial programs, the source of these funds must be indicated on the application form. The disclosure of other funding sources must be provided by the successful recipient up to the completion of the project. The same project will not be considered for funding under more than one ICIP sub-stream.

Applicants who have other senior government funding or grants in place for their project should note that the program is subject to stacking rules\*. Total senior government funding will be reduced to the maximum commitments under this program or may affect funding under other senior government funding programs. Note that Canada Community-Building Funds are a federal contribution for these purposes and cannot be utilized for the ultimate recipient's funding contribution to the project.

Indigenous ultimate recipients may be eligible to access additional funding from federal sources subject to approval from Canada.

*\* Federal stacking rules are subject to Canada's interpretation.*

## 2. APPLICANTS

### 2.1 ELIGIBLE APPLICANTS

A local or regional government established by or under British Columbia statute (*municipality or regional district for the purposes of this funding*).

- Applications from improvement districts, water utilities, societies or private water systems must be made by the sponsoring regional district or municipality. Such an application will count towards the limit on number of applications described in section 1.4. If the application is successful in obtaining program funding, the ownership of the infrastructure and associated assets must be transferred to the sponsoring regional district or municipality.

Supporting documents about intent to transfer ownership should be provided with the application. An Improvement District Conversion Guide can be found here:

[http://www.cscd.gov.bc.ca/lgd/gov\\_structure/library/improvement\\_district\\_conversion\\_guide.pdf](http://www.cscd.gov.bc.ca/lgd/gov_structure/library/improvement_district_conversion_guide.pdf)

Indigenous Ultimate Recipients:

- A band council within the meaning of Section 2 of the *Indian Act*.
- A First Nation, Inuit or Métis government or authority established pursuant to a self-government agreement or a comprehensive land claim agreement between Her Majesty the Queen in Right of Canada and an Indigenous people of Canada, that has been approved, given effect, and declared valid by federal legislation;
- A First Nation, Inuit or Métis government that is established by or under legislation whether federal or provincial that incorporates a governance structure; and
- An Indigenous development corporation.

### 2.2 INELIGIBLE APPLICANTS

- Federal entities, including federal Crown Corporations.
- Applicants not defined in Section 2.1.
- Applicants not established within the Province of British Columbia.

## 3. PROJECTS

### 3.1 PROGRAM OUTCOMES

The Program supports an outcome-based rather than a project category-based approach. In addition to meeting regulatory requirements and demonstrating public benefit an eligible project must meet following **outcomes** set out by Infrastructure Canada:

- Increased capacity to treat and/or manage wastewater.
- Increased capacity to treat and/or manage stormwater.
- Increased access to potable water.
- Increased capacity to reduce and/or remediate solid waste pollutants (including landfill gases).
- Increased capacity to reduce and/or remediate soil and/or air pollutants.

### 3.2 ELIGIBLE PROJECTS

The Program supports primarily public infrastructure, which is defined as “tangible capital assets in British Columbia primarily for public use and/or benefit”.

To be eligible for funding, a Project must:

- a) be put forward by an eligible applicant who demonstrates that they will own and be able to operate and maintain the resulting infrastructure over the long term;
- b) meet one or more of the Program outcomes (see Section 3.1);
- c) be for the construction, renewal, rehabilitation, or material enhancement of infrastructure, excluding normal maintenance or operation;
- d) be supported by all requirements set out in Section 5;
- e) stipulate project completion date of no later than December 31, 2026;
- f) be duly authorized or endorsed by, as applicable:
  - in the case of a local government applicant, a resolution from its council/board; or in the case of an Indigenous applicant, a resolution from its band council; or council/board;
- g) be for broad public use or benefit and clearly demonstrate this within the application;
- h) meet or exceed any applicable energy efficiency standards for buildings outlined as below:

- exceed by 25% the energy efficiency requirements of the National Energy Code of Canada for Buildings; or
  - the building will rank in the equivalent of top 25% of its building type under ENERGY STAR;
- i) for publicly accessible buildings, meet or exceed the requirement of the highest published accessibility standard in a jurisdiction;
- j) for First Nations applicants, a project must demonstrate that direct benefits extend beyond the reserve community and result in services being delivered to land off-reserve; and,
- k) be located in the Province of British Columbia.

In addition, projects must meet these requirements:

- a) Wastewater Projects must result in wastewater effluent that meets the Wastewater Systems Effluent Regulations, or provincial regulations where there is a federal equivalency agreement in place.
- b) Drinking water projects must meet or exceed provincial requirements and standards.
- c) Solid waste diversion Projects must result in an increase in the quantity of material diverted from disposal as measured against a baseline using the *Generally Accepted Principles for Calculating Municipal Solid Waste System Flow*.
- d) Projects that reduce or remediate soil pollutants must be undertaken on properties that are contaminated, as confirmed by a Phase II Environmental Site Assessment.

### **3.3 INELIGIBLE PROJECTS**

A project will be deemed ineligible if:

- a) the construction began or a tender has been awarded prior to the final project approval;
- b) the estimated project start date is more than 2 years after the date of application;
- c) the project will be completed after December 31, 2026;
- d) the project deals with assets owned by the Government of Canada including federal Crown Corporations;
- e) it is eligible under the federal Low Carbon Economy Fund;

- f) it is an energy retrofit project, unless the energy retrofit project is on an asset that would be considered eligible for funding under the ICIP IBA or under the National Housing Strategy;
- g) it includes investment in emergency services infrastructure;
- h) it involves relocation of whole communities; or
- i) it relates to seismic risks.

Projects may not be funded if they present risks to program funders, for example if any of the following are deemed likely:

- a high probability of the project not being able to be completed within the program timeline;
- potential for the project to not proceed due to applicant funding difficulties;
- a high probability that the project will require a significant change in scope to proceed due to limited planning being undertaken prior to application;
- the project may not provide the level of service identified;
- the project does not have public support;
- First Nations within 5 km\* of the project site haven't been identified;
- the project has the potential to cause environmental or social issues;
- the applicant does not demonstrate they are able to manage, maintain and finance the project over the long term;
- Projects that has not considered climate change and its consequences such as flood, fire, drought, etc.;
- Project has a class C or D cost estimate and does not include sufficient contingency costs; and
- The application does not demonstrate that risks related to the project have been considered and mitigation measures are identified. Risk associated with implementation of value-added components in the project will not be viewed negatively.

*\*Applicants should use Aboriginal and Treaty Rights Information System (ATRIS) website to locate indigenous communities within 5 km of the project site.*

### **3.5 PROJECT SIZE AND PHASING PROJECTS**

Applicants should be aware that there are [reporting requirements](#) for this Program that must be met (see Section 9.6 for requirements).

There is no cap on the maximum allowable funding amount per project; however, consideration will be given to a fair distribution of funding. Applicants should consider whether phasing is an option where project funding would represent more than 10% of



the total funding available for the intake. Applicants should submit the project that will give them the best value for the given cost.

Where a phase is submitted for funding consideration, the phase should independently meet program outcomes.

If applying for a phase of a larger project, identify how the project will be phased. This should be demonstrated in the accompanying [Detailed Cost Estimate Template](#), and the project descriptions must be organized to easily describe each of the distinct phases of the project, highlighting which phase is the subject of the funding request.

It is important to note that the approval of one phase of a project does not guarantee that other phases will receive funding.

## 4. COSTS

See Appendix B for examples of eligible and ineligible costs.

### 4.1 ELIGIBLE COSTS

Eligible costs will include the following:

- a) all costs considered to be direct and necessary for the successful implementation of an eligible project, in the opinion of Canada and British Columbia, excluding those identified under Section 4.2 (Ineligible Costs).
- b) the capital costs of constructing or renovating a tangible asset, as defined, and determined according to generally accepted accounting principles in Canada.
- c) all planning (including plans and specifications), assessment and design costs specified in the agreement such as the costs of environmental planning, surveying, engineering, architectural supervision, testing and management consulting services, to a maximum of 15% of total funding award.
- d) costs related to meeting specific Program requirements, including completing climate lens assessments (as outlined in Section 6) and creating community employment benefit plans (costs for climate lens assessments can be incurred prior to project approval, but can only be paid if and when a project is approved by both the Province and Canada for contribution funding).
- e) the costs of engineering and environmental reviews, including environmental assessments and follow-up programs and the costs of remedial activities, mitigation measures and follow-up identified in any environmental assessment.
- f) the costs of Indigenous consultation, and where appropriate, accommodation.
- g) the costs directly associated with joint federal and provincial communication activities (press releases, press conferences, translation, etc.) and with federal and provincial project signage.
- h) the incremental costs of the eligible recipient's employees related to construction of the project may be included as eligible costs under the following conditions:
  - i. The recipient is able to demonstrate that it is not economically feasible to tender a contract;
  - ii. The employee or equipment is engaged directly in respect of the work that would have been the subject of the contract; and
  - iii. The arrangement is approved in advance and in writing by the Province and by Canada.

Eligible costs are limited to the following:

- a) costs incurred between the project approval date and the project completion date set out in the Shared Cost Agreement, except for costs associated with completing climate lens assessments and creating community employment benefit plans, which are eligible before project approval, but can only be paid if and when a project is

approved by the Province and Canada and a signed Shared Cost Agreement is in place.

## 4.2 INELIGIBLE COSTS

The following are deemed ineligible costs:

- a) costs incurred prior to the approval of the project, except for expenditures associated with completing climate lens assessments and creating community employment benefit plans as required (but can only be paid if and when a project is approved by the Province and Canada and a signed Shared Cost Agreement is in place);
- b) costs incurred after the project completion date set out in the Shared Cost Agreement with the exception of expenditures related to audit and evaluation requirements pursuant to the agreement;
- c) costs related to developing a funding application and application supporting documentation;
- d) costs incurred for cancelled projects;
- e) costs of relocating entire communities;
- f) land acquisition;
- g) real estate and other fees related to purchasing land and buildings;
- h) financing charges, legal fees, and interest payments on loans, including those related to easements (e.g., associated surveys);
- i) costs associated with operating expenses and regularly scheduled maintenance work;
- j) leasing land, buildings and other facilities;
- k) leasing of equipment other than equipment directly related to the construction of the project;
- l) overhead costs, including salaries and other employment benefits, direct or indirect costs associated with operating expenses, administration and regularly scheduled maintenance work, and more specifically any costs related to planning, engineering, architecture, supervision, management and other activities normally carried out by staff, except those indicated in Eligible Expenditures;
- m) costs related to furnishing and non-fixed assets which are not essential for the operation of the asset/project;
- n) any goods and services costs which are received through donations or in kind;
- o) taxes for which the ultimate recipient is eligible for a tax rebate and all other costs eligible for rebates;
- p) all capital costs, including site preparation, vegetation removal and construction costs, until Canada has been satisfied that the federal requirements under the *Impact Assessment Act, 2019* (IAA, 2019), other applicable federal environmental assessment legislation that is or may come into force during the term of the Agreement, and other applicable agreements between Canada and Indigenous groups have been met to the extent possible and continue to be met; and

- q) all capital costs, including site preparation, vegetation removal and construction costs, until Canada is satisfied that any legal duty to consult, and where appropriate, to accommodate Indigenous groups or other federal consultation requirement, has been met and continues to be met.

## 5. GENERAL REQUIREMENTS

### 5.1 FUNDING

The applicant must demonstrate that their share of funding has been, or is being secured, and that a plan is in place to recover any cost overruns beyond budgeted contingencies. Further, the application must demonstrate that funds have been committed to operate, maintain, and plan for replacement. Also see the “Evidence of Secured Funds”, “Confirmation of Funds” and “Council/Board Resolution” sub-sections under Section 6.

#### Local Government Recipients

- If a local government has accumulated funds in a statutory reserve to finance a share of project costs, please submit evidence of these funds as at application date and supporting information directing the use of reserve funds.
- If a local government intends to borrow a share of costs, a bylaw to authorize the borrowing of funds should receive third reading by a local government prior to submitting an application to the program. A copy of that bylaw should accompany the application.
- Municipalities that intend to borrow should also submit a Liability Servicing Limit Certificate for the amount authorized in the bylaw. Please also submit information about any sources of applicant share of project costs other than reserves or borrowing. Please note that submission of a loan authorization bylaw and supporting information as evidence under the program is separate from submission for approval by the Inspector of Municipalities. That is a separate process that must be completed when approval by the Inspector is desired. **A preference may be given to projects that demonstrate secured funding.**
- A financial analysis will be completed as part of the application review. Local government applicants should recognize that the success of applications may reflect the extent to which applicants have met financial criteria such as having:
  - met the deadlines for legislated financial reporting, including the financial plan, audited financial statements, Local Government Data Entry (LGDE) forms and Statement of Financial Information (SOFI);
  - submitted the financial plan to the Ministry to meet requirements of s 165 of the Community Charter for municipalities and Section 374 of the *Local Government Act* for regional districts; and
  - measures of financial stability and sustainability which may include property tax structures and development costs charge structure.

### **Indigenous Ultimate Recipients**

- On-reserve applicants must demonstrate that their share of the funding is secured, and there is a plan in place to cover any cost overruns, ineligible costs and also for operation and maintenance.
- The applicant must provide source and amount of funding if funding from senior government is going to be used for the project.
- Off-reserve Indigenous ultimate recipients must show the “Evidence of Secured Funds”, “Confirmation of Funds” and “Council/Band Resolution” and demonstrate that their share of funding has been secured and there is a plan in place to cover any cost overruns, ineligible costs and also for operation and maintenance.

## **5.2 APPLICATION PROCESS**

All proponents must complete and submit an [online application](#) via the Local Government Information System (LGIS). [Sample application questions](#) are available on the [program website](#).

A Business BCeID is required to set up access in LGIS. This can take up to 15 business days. New users are encouraged to start the process of requesting a BCeID as early as possible. See [Accessing the Online Application](#) for more details.

## **5.3 SELECTION PROCESS AND CRITERIA**

The Program is merit based and projects are subject to a comprehensive technical ranking assessment and internal provincial review, with a list provided to the Oversight Committee and recommendations submitted to Canada for final approval.

Applicants must ensure that their application demonstrates:

- how the project will be eligible for funding (Section 3.2);
- how the project benefits align with one or more of the outcomes (Section 3.1);
- how the project is supported by community’s long-term planning and management;
- how the project provides value for money during lifecycle of the infrastructure; and
- how the project is supported by sustainable management and planning.

Projects that support more than one program goals have a better chance of success; program goals are:

- Improve services to existing residents;
- provide clean drinking water;
- reduce air, soil, and water pollution;
- reduce resource consumption;

- increase adaptation and mitigation to climate change;
- enhance natural systems and ecological services; and
- support resource recovery and reuse.

The following will be considered for added value:

- **Environmental Protection:**  
Protecting the environment is reducing the impact or damage caused by human activity.
- **Enhancing the environment - support for natural systems and ecological services:**  
Natural assets, such as wetlands, forests and streams can provide ecological benefits that serve the community and support the environment, by storing rainwater and reducing flooding. Supporting, enhancing, and accounting for natural systems will support sustainable infrastructure delivery. It is important to undertake urban and industrial development in a way that does not negatively impact the environment, such as freshwater ecosystems and air and soil quality.

Natural assets can also provide opportunities to increase community resilience to the impacts of climate change and carbon storage to mitigate the changing climate. The BC Framework Primer on Climate Change and Asset Management ([AMBC Primer](#)) introduces an approach for integrating climate change considerations throughout the asset management process.

- **Resource Recovery and Reuse:**  
Rather than losing valuable resources to the landfill or flushing them towards the ocean, resources should be recovered and reused. For example, solid and liquid waste can be reused to conserve water, recover nutrients, capture, and reuse heat (please see [Closing the Loop](#) document for further information).
- **Energy Generation and Reuse:**  
Renewable energy supports a sustainable community and includes energy generated from waste as well as other sources such as hydropower, sunlight, wind, rain, tides, waves, etc.
- **Climate Change Adaptation:**  
Adaptation solutions can be incorporated into a project to lessen the impacts and potential damages of expected climate effects, or to benefit from opportunities associated with such effects, making a community or ecosystem more resilient to climate change. For example, an adaptation solution could be to use stormwater to restore and protect a wetland area, incorporate flood defense into a wastewater facility, or modify a drinking water intake for drought conditions.

- **Climate Change Mitigation - Reduce greenhouse gases:**  
To reduce causal sources and the rate and depth of climate change effects, the amount and concentration of greenhouse gases released to the atmosphere must be decreased. Efforts to reduce emissions and enhance sinks are referred to as “mitigation”.

Internal provincial review may include consideration of factors such as regional distribution of funding, previous funding, communities in need, and unmitigated project risks.

## 5.4 APPROVAL IN PRINCIPLE - REQUIREMENTS

Shortlisted projects will be given initial ‘approval in principle’ by the Province, which provides some assurance to applicants that funding will be received prior to having to complete these additional requirements

The following will be required to be completed to BC and Canada’s satisfaction prior to Canada’s approval of a project into the program:

- For all projects with total estimated eligible expenditures of \$10 million or more, a [climate lens](#) - greenhouse gas emissions assessment that includes a cost-per-tonne calculation as required by Canada.\*
- For all projects with total estimated eligible expenditures of \$10 million or more, a [climate lens](#) - climate change resilience assessment.\*\*
- A federal form to determine if there are any federal environmental assessment requirements that could apply to the project and if there is a requirement to consult with Indigenous Groups.
- For all projects with total estimated eligible expenditures of \$25 million or more, the expected results for community employment benefits as required by Canada, unless waived at the discretion of British Columbia (see Section 8.6 for additional information).\*\*\*

The following may be required on a case-by-case basis at the discretion of British Columbia:

- For projects with total estimated eligible expenditures of \$15 million or more and a sufficiently complex nature, a Value Engineering assessment

Projects that request a contribution of more than \$50 million from federal sources, involve federal assets, or involve sole source contracting (construction contracts over \$40,000 or, for the acquisition of architectural and/or engineering services, over



\$100,000), if shortlisted, will be subject to a request for further information to support a federal Treasury Board submission.

*\*Note that costs associated with greenhouse gas emissions and climate change resilience climate lens assessments will be considered as eligible as part of the funding.*

*\*\*Information on the requirements for climate lens assessments can be found at:*

*<https://www.infrastructure.gc.ca/pub/other-autre/cl-occ-eng.html>.*

*\*\*\*Information on the requirements for community employment benefits reporting can be found at: <http://www.infrastructure.gc.ca/pub/other-autre/ceb-ace-eng.html>.*

## **5.5 FINAL APPROVAL REQUIREMENTS**

- Projects with total estimated eligible expenditures of \$10 million or more will be subject to climate lens assessments (including a greenhouse gas emissions assessment that includes a cost-per-ton calculation and a climate change resilience assessment) to be completed to British Columbia and Canada's satisfaction prior to Canada's approval of a project for funding.
- Canada will determine requirements for Environmental/Impact Assessment and Indigenous Consultation. After Approval in Principle, proponent will be required to fill out a form to provide necessary information.
- Projects with total eligible costs of \$25 million or more are expected to provide community employment benefit as required by Canada. Rationale will be required for consideration of waiver at the discretion of the Province.

## 6. MANDATORY DOCUMENTS

The following **mandatory documents** (15 MB limit per document) must be clearly labeled and uploaded to LGIS as part of your [online application](#) by the application deadline:

- a) [Council/Board/Band Council Resolution](#)
- b) Project Location [.KML file](#)
- c) [Detailed Cost Estimate](#)
- d) Site Plan / Map
- e) Feasibility Study/Preliminary Design Report
- f) List and status of required licenses, permits and approvals (or indicate if not applicable); All applicable legislative or regulatory requirements will or have been met:
  - a. This includes requirements for:
    1. Federal Environmental Assessment (FEA) process, provincial Environmental Assessment process; and
    2. Requirements for Indigenous Consultation.
- g) Evidence of [Secured Funds](#)
- h) For all projects related to drinking water or wastewater: Water Conservation Plan and a copy of Council/Board/Band Council endorsement for the plan

Where attachments are longer in length, specific reference should be made to the sections of documents you wish to be included in the review.

Applicants are responsible for ensuring full and accurate information is submitted.

**Applications will not be reviewed** unless all necessary information has been submitted, including mandatory documents.

The following documents may be used to support the application; however, the relevant information should be referenced within the application:

- Partnership agreement/Letter of Support/MOU between project partners if applicable
- Options Assessment
- Business Plan
- Cost Benefit Analysis or Other Study
- Design Drawings or Details
- Letters of Support
- Record of consultation with indigenous communities if applicable

Letters of support, partnership agreements, or memorandums of understanding from the other partners are recommended for projects done in partnership with others or that will have joint ownership. Letters from health officers are useful for projects that support public health objectives.

Applicants should use [Aboriginal and Treaty Rights Information System](#) (ATRIS) website to locate indigenous communities within 5 km of the project site and determine the consultation needs.

Where a project is excluded from a review under the *Impact Assessment Act*, it may require permits or approvals from local, regional, or provincial government agencies. It is the applicant's responsibility to ensure that any additional approvals and permits are identified and/or obtained.

- The energy efficiency requirements of the [National Energy Code of Canada for Buildings 2017](#) will be met for newly constructed or materially rehabilitated infrastructure intended for use by the public, where applicable (describe the variances and plans to achieve compliance).
- For newly constructed or materially rehabilitated infrastructure intended for use by the public, the project will provide appropriate access for persons with disabilities.

Projects that are selected for funding will be required to provide additional information as outlined in Section 5.4 to British Columbia and Canada's satisfaction prior to Canada's approval of a project.

## 6.1 COUNCIL/BOARD/BAND COUNCIL RESOLUTION

A [council/board/band council resolution](#) or by-law, committing the proponent to contribute its share of the eligible project costs and all the ineligible costs, is required.

The resolution/bylaw must identify the source of the proponent's share of the project's costs. The resolution should show support for the project from a municipality's Council, a regional district Board, or an Indigenous applicant's band council (or other appropriate authorized body).

Where possible, the resolution should be submitted as part of the application package. Where the applicant is unable to submit the resolution with the application (e.g., due to timing considerations with when the Council/Board meets), it must be submitted within one month after the submission deadline. Please indicate on the application form when submission of the resolution will be expected to occur.

**Projects not supported by an appropriate resolution will not be considered.**

## 6.2 EVIDENCE OF SECURED FUNDS

Evidence that the applicant's full share of funding has been or will be secured is required. This evidence may be in the form of:

- recent bank statements showing that the amount is on hand;
- a line of credit letter of approval (for non-local government entities);
- staff reports and/or resolutions of board/council directing the use of reserve funds.

Local governments who are recovering their share of funding through borrowing, this evidence may be in the form of:

- a Liability Servicing Limit Certificate indicating that borrowing is within a local government's assent free borrowing limit;
- a loan authorization bylaw that has received third reading; and/or
- a date that borrowing has been approved through a formal public approval process and a copy of the related bylaw.

Other evidence may be accepted at the discretion of the Director or Program Lead.

A [confirmation of secured funds](#) template is available on the [Program Website](#).

## 6.3 DETAILED COST ESTIMATE

A [detailed cost estimate template](#) has been provided on the [Environmental Quality Program](#) website and submission of a completed cost estimate is a **mandatory document**. Detailed costs estimates must include but are not limited to: an itemized description, cost per unit of measure, number of units, as well as design, engineering, contingency costs, and tax rebate breakdowns. Applicants are to identify which costs are eligible and which are ineligible and to state what class or confidence level the estimates are (e.g., class B or the level of confidence of the proposed cost). Cost estimates must be dated.

The preference is that submitted projects are planned to the degree that required works are identified, generally represented by a cost estimate of Class C (representing +/- 25-40% variability in costs) or better (Class A or B). A Class A or B cost estimate creates more certainty of the estimated costs involved.

Applicants are advised to ensure that plans are in place to cover potential cost overruns and that adequate contingencies are included within the cost estimate. Otherwise, there may be additional risk linked to the proposed project given the potential cost uncertainties

If the project is part of a larger project, the detailed cost estimate should only include the costs for the project being applied for. If a project can be broken into phases, while still meeting a program outcome, each distinct phase should be clearly broken out in the detailed cost estimate that is submitted.

It is important to note that projects will be reviewed in the context of the *Impact Assessment Act* (IAA) 2019 and regulations as discussed in Section 7. Where applicable, project cost estimates should include costs to conduct an IAA study.

Projects requiring climate lens assessments as outlined in Section 5.4 should include costs to complete these and have them attested to by a qualified assessor.

**IMPORTANT:** It is necessary to provide **up-to-date, detailed, and complete cost estimates** and identify and account for inflation, increasing construction costs and possible delays in start and completion dates. Factors that may delay construction include: the timing of the grant announcement date, fisheries window, public consent, weather and construction seasons, delays in the IAA process, right of way negotiations, regulatory applications, Indigenous consultation, etc. It is important to plan your project to start following final project approvals which are anticipated in Spring 2023.

## 6.4 SITE PLAN/MAP

A site plan/map should include the location and the general layout of the works to be included in the proposed project.

## 6.5 PRELIMINARY DESIGN REPORT

This report should be completed by a professional with expertise relevant to the subject area (i.e., an engineer, architect, etc.) and should identify what the solution is, why it is being recommended and should address capital and lifecycle expenditures, annual operating costs, emerging technologies, environmental considerations, and societal impacts.

## 6.6 LIST OF REQUIRED LICENSES, PERMITS AND APPROVALS

All applicants are required to investigate and submit a list of licenses, permits and approvals which are required for the project to proceed and they must advise on the status of any that have been applied for. This demonstrates that a project is on track and/or that the proponent has considered and commenced applications for these required items.

Note that there is now a requirement under the *Water Sustainability Act* for a water license for all users who divert and use **groundwater** from a well or dugout for non-domestic purposes. The Ministry of Environment & Climate Change's brochure provides information: [https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/laws-rules/gw\\_licensing\\_brochure.pdf](https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/laws-rules/gw_licensing_brochure.pdf).

## 6.7 WATER CONSERVATION PLAN

A current, Council, Board, or Band Council endorsed Water Conservation Plan will be required for any project application related to Drinking Water or Wastewater. To meet the requirement, the plan will need to have been updated within the last five years. Please attach or provide a link to the plan and provide a copy of the Council or Board endorsement of the plan. The plan should be relevant to the area which will be served by the project.

Where a water or wastewater system is being transferred to a local government, a commitment should be included to extend the water conservation activities to the transferred system.

Drinking Water or Wastewater projects which create new infrastructure should consider how water can be used efficiently or reduced as part of the project design. Advice on creating a water conservation plan can be found here: <http://www.obwb.ca/water-conservation-guide-for-bc-now-available/>. An additional tool for exploring water conservation options is: <http://waterconservationcalculator.ca>.

BC landscape water calculator tool is: <https://bcwatercalculator.ca/landscape/irrigation>

## 6.8 CONTACT INFORMATION

Applications and mandatory documents will be submitted through the online LGIS application. Questions can be directed to:

**Ministry of Municipal Affairs**

**Phone: 250-387-4060**

**Email: [infra@gov.bc.ca](mailto:infra@gov.bc.ca)**

## 6.9 IMPACT ASSESSMENT ACT, 2019 REQUIREMENTS

The *Impact Assessment Act 2019* (the Act) and its regulations are the legislative basis for the federal practice of environmental assessment. A Federal Environmental Assessment (FEA) is a process to evaluate the environmental effects and identify measures to mitigate potential adverse effects of a proposed project. The Act ensures that the environmental effects of a project are carefully reviewed before a federal department/agency decides to allow the proposed project to proceed.

Detailed information on the *Impact Assessment Act* and regulations can be found at the Impact Assessment Agency of Canada's website: [www.canada.ca/en/impact-assessment-agency.html](http://www.canada.ca/en/impact-assessment-agency.html)

All projects that receive funding through the Agreement must comply with the Act. However, since not all projects are on federal lands or affect the environment in a significant way, many projects may not require an environmental assessment under the Act. It is the responsibility of the Proponent to determine the FEA requirements and contact the relevant Federal departments, as indicated below.

## **6.10. HOW TO DETERMINE IF A FEDERAL ENVIRONMENTAL ASSESSMENT (FEA) IS REQUIRED**

An FEA will be required under *Impact Assessment Act* 2019 if the project meets the definition of a designated project and or it is located on federal lands.

### ***Is it a designated project?***

The Project List (Also known as the *Physical Activities Regulation*) identifies types of projects that may require an assessment under the Act: <http://laws-lois.justice.gc.ca/eng/regulations/SOR-2012-147/page-1.html#docCont>.

Only projects on the designated project list require FEA or projects designated by the Minister due to potential for environmental effects or public concerns. Should the Project meet the definition of a designated project, proponents must provide to the Impact Assessment Agency of Canada a description of their proposed project to initiate the process.

### ***Is the project on federal lands?***

Projects on federal lands are subject to an assessment of environmental effects. Information must be provided to program staff on whether the project will be located on federal lands. Proponents must engage with the federal lands' owner to establish the process and requirements to meet the *Impact Assessment Act*, 2019.

For more information refer to the Impact Assessment Process Overview:

<https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/impact-assessment-process-overview.html>

## **6.11 TIME AND COST CONSIDERATIONS**

Time and Costs involved in completing the FEA and associated studies will depend on site accessibility and the availability of local expertise, the nature and complexity of the project, potential environmental implications, and the level of public/First Nations interest. When developing the project cost estimates, please consider the potential expenses involved in preparing a FEA.

## **6.12 DIALOGUE WITH ENVIRONMENTAL AGENCIES**

For projects that require a FEA, proponents are encouraged to contact relevant federal departments or provincial ministries (e.g., Fisheries & Oceans Canada, Environment Canada - Canadian Wildlife Service or BC Ministry of Environment). A proactive discussion with such agencies during the project-planning phase will assist in identifying potential environmental impacts and necessary mitigation measures.

**IMPORTANT NOTE:**

- Where necessary, ICIP funding is conditional upon completion of an environmental assessment review of the project under the Act with a satisfactory outcome.
- Starting BC and Canada environmental assessments early in the planning of a project will assist British Columbia and the Government of Canada in discharging the legal duty to consult and, if appropriate, accommodate Indigenous peoples when the Crown contemplates conduct that might adversely impact established or potential Indigenous or Treaty rights.
- Successful applicants must agree to adhere to mitigation requirements as may be specified in the FEA and/or recommended by federal departments and agencies participating in the review process.
- Any changes to the scope of the project while it is underway could re-open the FEA review and cause the project to have construction delays. In addition, project scope changes need to be brought to the ICIP program staff immediately as they need the Province's approval prior to going forward with any changes to the original approved scope.

## **6.13 OTHER REGULATORY CONSIDERATIONS**

Projects must meet all applicable federal and provincial environmental legislation and standards. Even though a project is excluded from a review under the *Impact Assessment Act*, it may require permits or approvals from local, regional, or provincial government agencies. It is the applicant's responsibility to ensure that any additional approvals and permits are obtained.

## **6.14 B.C. ENVIRONMENTAL ASSESSMENT PROCESS**

Proposed projects or modifications to existing projects that are subject to the *British Columbia Environmental Assessment Act* (BCEAA) are specified in the Environmental Assessment Reviewable Project Regulations by project type, design capacity, and diversion or extraction rate. All applicants should review a copy of the regulations for information on projects that may be subject to the BCEAA. Information must be provided to EQ program staff on whether the project will be subject to BC Environmental Assessment.



Refer to BC Environmental Assessment Office's website at [www.eao.gov.bc.ca](http://www.eao.gov.bc.ca) or contact their office at:

**2nd Floor 836 Yates Street  
PO Box 9426 Stn Prov Govt  
Victoria, BC V8W 9V1  
Email: [eaoinfo@gov.bc.ca](mailto:eaoinfo@gov.bc.ca)**

## 7. INDIGENOUS CONSULTATION

Proponents may be required to consult with Indigenous groups if the project is located in an area where Indigenous communities have potential or established Indigenous or Treaty rights. It is the responsibility of the Proponent to determine whether or not the project requires consultation with Indigenous groups. Applicants should check the [Aboriginal and Treaty Rights Information System](#) (ATRIS) to determine the presence of Indigenous communities within 5 km of the project site.

Information must be provided to program staff on whether or not the project will be subject to Indigenous Consultation. If required, Canada must be satisfied that for each Project:

- a) Indigenous groups have been notified and, if applicable, consulted;
- b) If applicable, a summary of consultation or engagement activities has been provided, including a list of Indigenous groups consulted, concerns raised, and how each of the concerns have been addressed, or if not addressed, an explanation as to why not;
- c) Accommodation measures, where appropriate, are being carried out by British Columbia or Ultimate Recipient at their own cost; and
- d) Any other information such as consultation records has been provided that Canada may deem appropriate.

No site preparation, vegetation removal or construction will occur for a Project and Canada has no obligation to pay any Eligible Expenditures that are capital costs, as determined by Canada, until Canada is satisfied that any legal duty to consult, or other federal consultation requirement, and where appropriate, to accommodate Indigenous groups has been met and continues to be met.

For more information on British Columbia's consultation resources and consultation policy:

<https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations>

[https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations/legal\\_obligations\\_when\\_consulting\\_with\\_first\\_nations.pdf](https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations/legal_obligations_when_consulting_with_first_nations.pdf)

## 8. APPROVED APPLICATIONS

Successful recipients will be notified in writing if their application is approved.

The Province of British Columbia will provide a Shared Cost Agreement\* to those proponents approved for funding. The Shared Cost Agreement will outline the terms and conditions associated with the funding. Funding is conditional upon the recipient signing a Shared Cost Agreement with the Province.

Shared Cost Agreements will be prepared only after the requirements described in Section 5.4 have been deemed as met by Canada.

All projects will be expected to be substantially complete within the dates set out in their Shared Cost Agreement. The third intake of the Program will support projects that can be completed within three years of the approval. Where extenuating circumstances outside the proponent's control cause project delays, an approval for extension may be considered (with projects ultimately having to be completed before December 31, 2026).

*\*Shared Cost Agreement or "Ultimate Recipient Agreement" means an agreement between British Columbia and the Ultimate Recipient under the ICIP.*

*\*\*\*"Ultimate Recipient" means an entity identified under sections A.1 a) of Schedule A in Canada – British Columbia ICIP Integrated Bilateral Agreement and identified within this guide as an eligible applicant.*

### 8.1 ASSETS

Within the Shared Cost Agreement, ultimate recipients will need to maintain ongoing operations and retain title to and ownership of an asset for at least five years after substantial completion, except to Canada, British Columbia or a municipal or regional government, or with Canada and the Province's consent.

### 8.2 SHARED COST AGREEMENT

**"Shared Cost Agreement"** means an agreement between the Province of British Columbia and a Recipient whereby the Province agrees to contribute financially to an approved project.

### 8.3 CONTRACT PROCEDURES AND PROVISIONS

**"Contract"** means a Contract between a Recipient and a Third Party whereby the latter agrees to contribute a product or service to a project in return for financial consideration which may be claimed as an Eligible Cost.

**All contracts will be awarded in a way that is fair, transparent, competitive, and consistent with value for money principles.**

The following objectives for procurement activity for goods, services and construction are based on the principles of fair and open public sector procurement competition, demand aggregation, value for money, transparency, and accountability:

- proponents receive the best value for money spent on contracts;
- vendors have fair access to information on procurement opportunities, processes and results;
- acquisition opportunities are competed, wherever practical;
- proponents only engage in a competitive process with the full intent to award a contract at the end of that process;
- proponents are accountable for the results of their procurement decisions and the appropriateness of the processes followed;
- the cost of the procurement process, to both vendors and proponents, is appropriate in relation to the value and complexity of each procurement;
- contracts are awarded in accordance with the Canadian Free Trade Agreement and international trade agreements if applicable; and
- acquisitions are managed consistent with the policy of the Province of British Columbia (The Province of British Columbia Policies can be accessed at: <https://www2.gov.bc.ca/gov/content/governments/policies-for-government/core-policy/policies/procurement>).

**Proponents are responsible for:**

- planning, managing and fully documenting the process to acquire goods, services and construction;
- managing solicitation and contract award processes in a prudent and unbiased manner that fairly treats all potential vendors and bidders;
- ensuring that contracts for goods, services and construction are designed to provide the best value; and
- ensuring that all acquisitions are consistent with policy and applicable legislation.

**It is expected that all contracts for works associated with projects that are approved for funding will be publicly tendered. Where this is not feasible or practicable, recipients must inform, in writing, the Ministry for approval before proceeding with the project.**

**The Province reserves the right to review a Recipient's procurement and tendering policies relating to contracts for works associated with projects funded through this program at any time from project approval to a date three years after project completion.**

Two resources are available to help applicants to achieve excellence in the awarding of contracts in a way that is transparent, competitive, and consistent with value for money principles:

- The Master Municipal Construction Documents Association (MMCD) provides its members with standardized contract documents and training programs to maximize the benefits of the documents. The Province of British Columbia encourages British Columbia Municipalities to use the Master Municipal Construction Documents for the construction of municipal services. Many B.C. local governments have been, and continue to, subscribe to the MMCD documents, certification, training, and procedures. For further information about MMCD access its website at: [www.mmcd.net/](http://www.mmcd.net/).
- BC Bid, the e-Procurement site of the Province of British Columbia can be accessed at: [www.bcbid.gov.bc.ca/open.dll/welcome](http://www.bcbid.gov.bc.ca/open.dll/welcome).

## 8.4 CHANGES OR VARIATIONS TO AN APPROVED PROJECT

Applicants need to advise the Ministry, **in writing**, of any variation from the approved project. **Before** any changes are implemented, they must be approved by the Ministry. Changes that require written approval are those that deviate from the Shared Cost Agreement, general project description/scope or project completion date. Costs that are outside of the current terms of the contract may not be able to be reimbursed.

Program staff will adjust future claims and/or require the provincial government to be reimbursed if any costs that have been reimbursed are subsequently found to be ineligible.

## 8.5 COST OVERRUNS

The Program will be fully allocated and oversubscribed. Recipients of grant funding will be responsible for managing project risks, including cost increases, as the Program is not designed to deal with cost overruns. Any project cost increases will be the responsibility of the Ultimate Recipient.

## 8.6 REPORTING

Successful applicants will be required to submit the following reporting documents:

- Periodic Progress Report
- Budget Forecast Report
- Claim
- Final report

A Periodic Progress Report will be required quarterly, and a Budget Forecast Report will be required monthly or upon request by the Province. These reports update the federal and provincial agencies regarding timelines, percentage completion, milestones, forecasting and other information regarding the project.

These reports must be completed and submitted online using the Local Government Information System (LGIS). To access the online reporting users must have a Business BCeID credential and password.

For more information on BCeID access requirements, see [Accessing the Online Application](#).

Conditions will be included in the Shared Cost Agreement which will require the Ultimate Recipient of the grant to conduct activities or prepare documentation related to best practice and sustainable infrastructure management. Claim payments will be conditional on meeting these requirements.

Examples of condition requirements that have been included in past programs include\*:

- Confirmation that required permits have been received and/or that the design and construction meets associated regulatory requirements;
- A list of energy efficient features and equipment used in the project;
- For projects that develop a new groundwater source, use of best practices as detailed in the Province's Well Head Protection Toolkit, including a Wellhead Protection Plan;
- A summary of the state of asset management practice within the organization in reference to the Asset Management BC Roadmap and/or AssetSMART 2.0
- Confirmation that the system and operators are or will be certified under the BCEOCP;
- Completion of a council or board endorsed Water Conservation Plan;
- A plan demonstrating how the community is working towards and planning for sustainable wastewater management;
- Confirmation that a new building exceeds the energy requirements under the National Energy Code for Buildings by at least 25%;
- Confirmation that bylaws are in place regarding the decommissioning of on-site sewage on properties connected to the community sewage collection system and requiring community sewer for smaller properties or a Liquid Waste Management Plan that identifies decentralized wastewater management;
- A plan or strategy to manage stormwater/rainwater;
- An asset renewal profile for the asset group related to the project.

*\* This is not a comprehensive list of all potential condition requirements and others may be added or substituted at the discretion of the Province.*

Applicants will be required to report on the following federal targets which are applicable to the project:

- Reduce by forty percent (40%) the number of long-term drinking water advisories in non-reserve communities
- Increase the number of wastewater systems achieving compliance with federal effluent regulations: from ninety-eight percent (98%) to one hundred percent (100%) for high-risk wastewater systems, and from ninety percent (90%) to one hundred percent (100%) for medium-risk wastewater systems
- Contribute to a national ten mega-tonne (10 mT) reduction of greenhouse gas emissions

Projects with total estimated eligible expenditures of \$25 million or more will need to report on community employment benefits provided to at least three (3) federal target groups (apprentices, Indigenous peoples, women, persons with disabilities, veterans, youth, new Canadians, or small- medium-sized enterprises and social enterprises). This requirement may be waived at the discretion of British Columbia for applicants with lower capacity to capture this information with specific rationale.

Applicants must ensure that they collect and are able to provide data on the applicable performance indicators related to Outcomes and associated Targets (listed in Appendix A).

A Final Report detailing project performance must be completed and submitted with the final claim upon project completion.

## 8.7 CLAIMS

To receive both the federal and provincial governments' contributions for approved projects, claims must be submitted for eligible costs to the Ministry. Only costs incurred, paid and consistent with and comparable to those identified in the signed shared cost agreement are eligible for reimbursement. Where multiple projects are ongoing (e.g., through different grant funding programs or through a phased approach), please ensure that claims are specific to the approved project only.

Claims must be completed and submitted online using the Local Government Information System (LGIS). The online claim form requires summary of expenditures information, including name of payee, date paid, work rendered start/end dates, invoice number, invoice date, etc. Current progress reports must be submitted online to the Ministry via LGIS for claim reimbursement. All projects are subject to site visits and audit at any time during the project and up to the later of the end date of the Integrated Bilateral Agreement for ICIP between Canada and British Columbia or up to three years after the final settlement of accounts.

To access LGIS, users must have a Business BCeID credential and password. For more information on BCeID access requirements, see [Accessing the Online Application](#).

## 8.8 ACCOUNTING RECORDS

Applicants must maintain acceptable accounting records that clearly disclose the nature and amounts of the different items of cost pertaining to the project. These records should include both the records of original entry and supporting documents of the applicant, divisions, or related parties, and any third party, named in the application or contract, as appropriate to the project. Applicants must retain accounting records for a minimum of six years after the end date of the Integrated Bilateral Agreement for ICIP between Canada and British Columbia.

Failure to keep acceptable accounting records and tender documents may result in a cessation or interruption in funding and impact future funding.

The Province can require applicants to provide details of the types and amounts of all fees for consultants and contractors.

## 8.9 COMMUNICATIONS

### Procedures for Communications

An important aspect of the program is to communicate its impact in helping improve the quality of life in British Columbia communities. The purpose of joint communications activities is to provide information on the Program to the public in a well-planned, appropriate, timely and consistent manner that recognizes the benefits of the initiative and the contribution of all parties.

A [communications protocol](#) will be set out within the Shared Cost Agreement. Signage recognizing funding contributions should be prepared according to [ICIP signage guidelines](#).

### Timeline for Public Events

Please contact the provincial Ministry for your project at least **20 working days** prior to any scheduled public events. The federal and provincial Ministers, or their designated representatives, regularly participate in the events, thus need time to schedule for such an occasion.



## APPENDIX A – Federal Program Outcomes & Targets

Ultimate recipients are required to report on outcomes and associated targets through the Province to Canada for the ICIP – Green Infrastructure – Environmental Quality Sub-Stream projects completed in BC. Below are the federal outcomes and targets that are associated with this program for ease of reference.

<b>Environmental Quality <u>Outcomes</u>:</b>
Increased capacity to treat and/or manage wastewater
Increased capacity to treat and/or manage stormwater
Increased access to potable water
Increased capacity to divert or manage solid waste (including landfill gases)
Increased capacity to reduce and/or remediate soil and/or air pollutants

<b><u>Targets</u> Relevant to the Environmental Quality Sub-Stream*:</b>
Reduce by forty percent (40%) the number of long-term drinking water advisories in non-reserve communities.
Increase the number of wastewater systems achieving compliance with federal effluent regulations: from ninety-eight percent (98%) to one hundred percent (100%) for high-risk wastewater systems, and from ninety percent (90%) to one hundred percent (100%) for medium-risk wastewater systems.
Contribute to a national ten mega-tonne (10 mT) reduction of greenhouse gas emissions.
Ensure one hundred percent (100%) of federally funded public-facing infrastructure meets the highest published applicable accessibility standard in a respective jurisdiction.

*\*Not all targets will be applicable to every project. Some projects that are eligible under the program outcomes may not have a corresponding target (i.e., soil remediation).*

## APPENDIX B – Examples of Eligible Costs and Ineligible Costs

**Please note:** The following are examples only and are based on staff knowledge of past federal-provincial programs and program criteria. The determination of whether costs are eligible will ultimately rest with program staff. If a cost is not listed below, contact program staff prior to undertaking associated work. (See Section 6.8 for contact information)

### General

ELIGIBLE	INELIGIBLE
<ul style="list-style-type: none"> <li>Costs paid under contract for goods or services considered to be direct and necessary to implement the project</li> </ul>	<ul style="list-style-type: none"> <li>Any unpaid costs including invoices or holdbacks</li> <li>Accrued costs</li> <li>Any goods or services costs which are received through donations or in kind</li> </ul>
<ul style="list-style-type: none"> <li>Costs incurred after approval and on or before the project completion date stipulated in the Shared Cost Agreement and deemed properly and reasonably incurred</li> </ul>	<ul style="list-style-type: none"> <li>Costs incurred prior to approval date and after project completion date as stipulated in the Shared Cost Agreement (with the exception of costs to complete climate lens assessments which are eligible prior to grant award if the project is successful in obtaining funding through the program)</li> </ul>
<ul style="list-style-type: none"> <li>Capital costs as defined by Generally Accepted Accounting Principles (except capital costs included in <b>INELIGIBLE COSTS</b>)</li> </ul>	<ul style="list-style-type: none"> <li>Services or works normally provided by the Recipient, including:                             <ul style="list-style-type: none"> <li>overhead costs</li> <li>salaries and other employment benefits of any employees of the Recipient <u>unless pre-approved by the Ministry and specifically related to the project</u></li> <li>leasing of equipment except that directly related to the construction of the project</li> <li>purchasing equipment</li> <li>accounting fees incurred in the normal course of operation</li> <li>auditing fees incurred in the normal course of operation</li> <li>operating expenses and regularly scheduled maintenance</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Land acquisition and real estate fees:                             <ul style="list-style-type: none"> <li>leasing land, buildings and other facilities and related costs</li> </ul> </li> </ul>

ELIGIBLE	INELIGIBLE
	<ul style="list-style-type: none"> <li>Financing charges, loan interest payments legal fees (including those related to easements)</li> </ul>
	<ul style="list-style-type: none"> <li>Taxes for which the Recipient is eligible for a tax rebate and all other costs eligible for rebates</li> </ul>

### Environmental Assessment/Indigenous Consultation Costs

ELIGIBLE	INELIGIBLE
<ul style="list-style-type: none"> <li>Environmental reviews</li> <li>Environmental costs</li> <li>Remedial activities</li> <li>Mitigation measures</li> <li>Indigenous consultation</li> </ul>	

### Climate Change Lens Assessment Costs

ELIGIBLE	INELIGIBLE
<ul style="list-style-type: none"> <li>Greenhouse Gas Emissions Assessment when indicated required in Section 5 of the Guide</li> <li>Climate Resilience Assessment when indicated required in Section 5 of the Guide</li> </ul>	

### Design / Engineering Costs

ELIGIBLE	INELIGIBLE
<ul style="list-style-type: none"> <li>Fees paid to professionals, technical personnel, consultants, and contractors specifically engaged to undertake the surveying, design, and engineering of a project</li> </ul>	
<ul style="list-style-type: none"> <li>Accommodation costs included in consulting fees or disbursement for out of town/province professionals</li> </ul>	<ul style="list-style-type: none"> <li>Any legal fees including those for land transfers (easements, Right of Way)</li> </ul>

## Construction/Materials Costs

ELIGIBLE	INELIGIBLE
	<ul style="list-style-type: none"> <li>• Cost of purchasing land and associated real estate and other fees</li> <li>• Value of donated land</li> <li>• Interim financing and interest costs</li> <li>• Appraisal fees</li> <li>• Land title fees</li> <li>• Leasing of land or facilities</li> </ul>
	<ul style="list-style-type: none"> <li>• Building permit charged by proponent to itself</li> <li>• Development cost charges</li> </ul>
<ul style="list-style-type: none"> <li>• Insurance related to construction</li> </ul>	<ul style="list-style-type: none"> <li>• Liability insurance for directors</li> </ul>
<ul style="list-style-type: none"> <li>• Project management fees</li> </ul>	
<ul style="list-style-type: none"> <li>• Material testing necessary to prove suitability of soils and specified structural elements</li> </ul>	
<ul style="list-style-type: none"> <li>• Fencing for the construction site</li> <li>• Permanent fencing</li> </ul>	
<ul style="list-style-type: none"> <li>• Towing heavy equipment to and from the construction site</li> </ul>	<ul style="list-style-type: none"> <li>• Towing vehicles</li> </ul>
<ul style="list-style-type: none"> <li>• Security guard &amp; First Aid attendant (contracted for construction project)</li> </ul>	<ul style="list-style-type: none"> <li>• Ambulance for workplace accidents</li> <li>• First aid courses</li> </ul>
<ul style="list-style-type: none"> <li>• Furniture and/or equipment essential for operation of the project</li> </ul>	<ul style="list-style-type: none"> <li>• Tools (e.g. hammer, saw, shovel, rakes, gloves)</li> <li>• Furnishing and non-fixed assets which are not essential for the operation of the asset/project</li> </ul>
<ul style="list-style-type: none"> <li>• Utility, electrical, sanitary sewer, and storm sewer set-up/connection services to the site property line</li> </ul>	<ul style="list-style-type: none"> <li>• General repairs and maintenance of a project and related structures</li> </ul>
<ul style="list-style-type: none"> <li>• Safety equipment to be kept at the project site (e.g., safety goggles, beakers, eye wash bottles, latex gloves, UV lamp, vacuum hand pump, forceps, etc.)</li> </ul>	
<ul style="list-style-type: none"> <li>• Fire protection equipment as required by the fire department</li> </ul>	
<ul style="list-style-type: none"> <li>• Third party (contractor) rental of a trailer/site office</li> </ul>	
<ul style="list-style-type: none"> <li>• Permanently installed 2-way radios, phone system for facility</li> </ul>	<ul style="list-style-type: none"> <li>• Monthly bills for utilities and phone/internet</li> </ul>
	<ul style="list-style-type: none"> <li>• Contributions in kind</li> </ul>
<ul style="list-style-type: none"> <li>• Fuel costs for rental equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Vehicle maintenance and fuel costs</li> </ul>

ELIGIBLE	INELIGIBLE
<ul style="list-style-type: none"> <li>Temporary construction or permanent signage, specific to the project</li> </ul>	<ul style="list-style-type: none"> <li>General construction signs (e.g., detour, street closed)</li> </ul>
<ul style="list-style-type: none"> <li>Relocation/renovation kiosk signs for public information</li> </ul>	<ul style="list-style-type: none"> <li>Temporary “Hours of Business” signs</li> </ul>
<ul style="list-style-type: none"> <li>Surveys necessary to determine the site’s suitability for the intended purpose</li> </ul>	<ul style="list-style-type: none"> <li>Any other surveys except to determine the site’s suitability</li> </ul>
<ul style="list-style-type: none"> <li>Demolition of unwanted structures from the site</li> </ul>	
<ul style="list-style-type: none"> <li>Landscaping to restore construction site to original state following construction</li> <li>Installation of landscaping</li> </ul>	<ul style="list-style-type: none"> <li>Maintaining landscaping</li> </ul>
<ul style="list-style-type: none"> <li>Newspaper/radio ads related to contract tenders and contract award notifications; or public safety, road closure or service interruption notices related to the project</li> </ul>	
<ul style="list-style-type: none"> <li>Printing and distribution costs for public information materials regarding the project</li> </ul>	
<ul style="list-style-type: none"> <li>Printing costs for preparing contract documents or tenders, blueprints, plans/drawings</li> </ul>	
<ul style="list-style-type: none"> <li>Courier services, specific to project e.g., delivering drawings/designs</li> </ul>	
<ul style="list-style-type: none"> <li>Paving of access and curb cuts</li> </ul>	

### Communication Activities Costs

ELIGIBLE	INELIGIBLE
<ul style="list-style-type: none"> <li>Any costs reasonably incurred to undertake joint federal and provincial communication activities, such as, but not limited to:                             <ul style="list-style-type: none"> <li>- federal or provincial funding recognition signage</li> <li>- permanent commemorative plaques</li> <li>- A/V rental and set up costs</li> <li>- event equipment rental and set up costs, such as stage and podium for joint events</li> <li>- event photography</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Media consultant</li> <li>Event planners</li> <li>Gifts</li> <li>Hospitality costs, such as, but not limited to:                             <ul style="list-style-type: none"> <li>- food/beverages</li> <li>- liquor</li> <li>- entertainment</li> </ul> </li> </ul>



**JSSC 03-2022**

**Investing in Canada Infrastructure Program –  
New Water Source: Vertical Wells  
grant application**

JSSC  
January 20, 2022

**ABBOTSFORD | MISSION**

Joint Shared Services Committee<sup>70</sup>

# Agenda

- Purpose
- Context
- Discussion
- Recommendations

# Purpose

To outline a new intake opportunity under the Investing in Canada Infrastructure Program (ICIP) – Green Infrastructure – Environmental Quality Sub-Stream, and recommend next steps





# Investing in Canada Infrastructure Program (ICIP) Grant Application

- Assists communities in developing infrastructure that will:
  - protect public health and environment;
  - promote climate change resilience; and
  - support broad public benefits and service sustainability.
- New (third) intake opened on October 8, 2021 and closes on February 23, 2022
- Applications not approved from an earlier intake may be revised and submitted as a new application. (New Water source via Collector wells previously submitted for the first two intakes)

# Discussion

## Findings from 2017 Water Source Supply Study:

### Supply *Max Daily Demand*

- 2016 @ 102 MLD
- 2041 @ 135 MLD

### Supply *Average Daily Demand*

- with one source out of service → 1-6 months
- e.g. turbidity, drought → achieves redundancy
- 2016 @ 67 MLD
- 2041 @ 86 MLD

2016	2041	2051
✓	+12MLD	+29MLD

Emerging gap  
To meet source supply service levels with redundancy requires a new source for up to 25MLD before 2041.

2016	2041	2051
✓	+25MLD	+32MLD

# Discussion

- New Water Source is needed to:
  - **Enhance Safety** (public health, fire flows)
  - **Bolster Environmental Resiliency/ Redundancy** (climate change, forest fires, landslides)
  - **Advance Partnerships** (Mission, Abbotsford First Nations, FVRD)
- New Water Source meets program eligibility by:
  - Increasing access to potable water

# Discussion

- Since submission of last intake, additional technical work have been completed, and alternative mitigation options were reviewed with updated cost estimates
- Vertical wells offer the following benefits vs Collector wells:
  - More phaseable solution;
  - More contractors are able to install traditional vertical well;
  - Risks due to seismic events potentially reduced, decreasing repair time;
  - Can likely be installed at higher elevation in aquifer where water quality is better;
  - More cost-effective.

# Project Timing

	Approximate Duration	Approximate Timing
<b>Piloting</b> (To proceed before grant announcement)	6 months	Feb to July 2022
<b>Pre-Design</b>	4 months	Aug 2022 to Dec 2022
<b>Detailed Design and Approvals</b>	8-12 months	Jan to Dec 2023
<b>Construction</b>	18-24 months	Jan 2024 to Dec 2025

*Schedule is dependent on environmental/ water license approvals (can take 2+years to achieve)*

*Assume Grant Announcement in July 2022*

# Financials

- The ICIP can fund up to 73.33% of the eligible costs, with 40% coming from the Federal Government and 33.33% from the Provincial Government.
- The proposed project cost for Vertical Wells (25MLD) is estimated \$77M. If the funding application is successful, JSSC can expect the project to be funded up to \$56M.

# Recommendations

- THAT staff be directed to prepare a grant application for the New Water Source: Vertical Wells under the Investing in Canada Infrastructure Program – Green Infrastructure – Environmental Quality Sub-Stream; and
- THAT it be forwarded to Abbotsford and Mission councils for consideration and approval.

# Questions/Comments