City of Delta

DRINKING WATER QUALITY REPORT

2025

A Message from the Manager: June 2026

City of Delta is committed to delivering sustainable, high-quality drinking water to our residents and businesses. We recognize that a safe, clean, and reliable drinking water supply is essential to the health and well-being of our community. In 2025, the City successfully supplied over 22 million cubic metres of high-quality drinking water to our community.

This Annual Water Quality Report reflects the City's commitment to protecting public health, maintaining regulatory compliance, and promoting community awareness. It presents key water quality results and highlights ongoing efforts to maintain and renew water infrastructure to ensure system reliability. The City continues to replace aging and undersized water mains to reduce the risk of service interruptions and enhance overall water quality for users.

As documented in this report, Delta residents and businesses can be assured that high-quality drinking water is being provided by the City.

Queenie Wong, P.Eng.
Manager of Utilities

ACKNOWLEDGEMENTS

Field testing was conducted by Scott Bradshaw, Water Quality Technician, Engineering Operations Division.

Lab testing was conducted by Metro Vancouver, Quality Control Division – Microbiology.

Delta source water tests were conducted by Element Labs.

DRINKING WATER QUALITY REPORT 2025

Table of Contents

EXECUTIVE SUMMARY ii

1.0 SYSTEM OVERVIEW 1

2.0 MONITORING PROGRAM 2

3.0 TESTING PROGRAM 3

4.0 TESTING PARAMETERS & RESULTS 4

5.0 WATER DISTRIBUTION SYSTEM DETAILS 12

6.0 SYSTEM MAINTENANCE 18

7.0 WATERMAIN BREAKS 22

8.0 NOTIFICATION PROTOCOL 24

9.0 UNIQUE CHARACTERISTICS OF THE SYSTEM 25

10.0 PUBLIC INQUIRIES 25

11.0 WATER SYSTEM EMERGENCY RESPONSE PLAN 26

12.0 CONCLUSION 26

13.0 REFERENCES 27

DRINKING WATER QUALITY REPORT 2025

List of Figures

Figure 1: Water Source Distribution 2

Figure 2: Water Quality Technician Sampling Water 3

Figure 3: Observed HPC at Sampling Stations 7

Figure 4: Summary of High Turbidity Events 8

Figure 5: Average Turbidity at Sampling Stations 8

Figure 6: Turbidity of Metro Vancouver Source Water 9

Figure 7: Average pH of Sampling Sites 10

Figure 8: Watermain Inventory 13

Figure 9: Pump Station on 4 Avenue at Pebble Hill Reservoir 15

Figure 10: Water Reservoir and Pump Station on 64 Avenue 16

Figure 11: Norum Road PRV Station 17

Figure 12: Fire Hydrant Undergoing Regular Annual Maintenance 20

Figure 13: Hellings Reservoir in North Delta 21

Figure 14: Well #5, Watershed Park Wells 22

Figure 15: Watermain Breaks By Pipe Material 23

Figure 16: 2025 Public Inquiries 25

DRINKING WATER QUALITY REPORT 2025

Appendices

Appendix 1	Metro Vancouver Water Distribution Map
Appendix 2	Tie-in Points to Metro Vancouver Water Transmission Mains
Appendix 3	Sampling Site Index and Location Maps
Appendix 4	Metro Vancouver Source Water and Distribution Test Parameters
Appendix 5	Metro Vancouver Physical and Chemical Analysis of Source Water
Appendix 6	Delta Source Water Test Parameters
Appendix 7	Emergency Notification Protocol
Appendix 8	Delta Source Water Test Results
Appendix 9	Delta Water Distribution System Microbiological Test Results
Appendix 10	Disinfection By-Product Results
Appendix 11	Metals Test Results
Appendix 12	Vinyl Chloride Test Results
Appendix 13	Delta Water Distribution System Free Chlorine Residual Test Results and Map
Appendix 14	Fraser Health Bulletin Information
Appendix 15	Delta Water Quality Organizational Chart

DRINKING WATER QUALITY REPORT 2025

Acronyms/Abbreviations

AC	Asbestos Cement
AO	Aesthetic Objective
CFU	Colony-Forming Units
CI	Cast Iron
DBP	Disinfection By-product
DCDA	Double Check Detector Assembly
DCVA	Double Check Valve Assembly
DI	Ductile Iron
E.coli	*Escherichia coli*
EOCP	Environmental Operators Certification Program
GCDWQ	Guidelines for Canadian Drinking Water Quality
HDPE	High Density Polyethylene
HPC	Heterotrophic Plate Count
MAC	Maximum Acceptable Concentration
MV	Metro Vancouver
mg/L	Milligram per Litre (10^{-3} g/L)
µg/L	Microgram per Litre (10^{-6} g/L)
mL	Millilitre
mm	Milimetres
MPN	Most Probable Number
ng/L	Nanograms per Litre (10^{-9} g/L)
NTU	Nephelometric Turbidity Unit
PFAS	Per- and Polyfluoroalkyl Substances
pH	Potential of Hydrogen
PVBA	Pressure Vacuum Breaker Assembly
PRV	Pressure Regulating Valve
PVC	Polyvinyl Chloride
PVCO	Molecularly Oriented Polyvinyl Chloride
RPBA	Reduced Pressure Backflow Assembly
RPDA	Reduced Pressure Detector Assembly
ST	Steel
THAAs	Total Haloacetic Acids
TTHMs	Total Trihalomethanes

EXECUTIVE SUMMARY

The 2025 Drinking Water Quality Report fulfills the requirements of the British Columbia *Drinking Water Protection Act*[1] by providing an overview of the water system, discussing individual component maintenance, describing the unique features of our system, and summarizing the results of the water quality testing program. Specifically, this annual report satisfies a requirement of the *Drinking Water Protection Regulation*, May 2003 (Amended 2025), Section 11.

In 2025, the City of Delta (herein referred to as "City") carried out the following works:

- Exercised over 6,000 flow control valves;
- Maintained approximately 3,300 fire hydrants;
- Flushed the entire water distribution system;
- Maintained 46 pressure reducing stations;
- Maintained three pump stations;
- Maintained 424 air valves;
- Conducted 140 water quality investigations initiated by residents, for water-related questions/concerns;
- Repaired 10 watermain breaks without compromising our water system;
- Replaced approximately 3.0 kilometres of watermain with new mains of superior quality material and upgraded pipe diameters, if required, to provide required fire flows;
- Collected and processed approximately 1,266 water quality samples from 33 test locations throughout the City's water distribution system;
- Conducted quarterly detailed physical and chemical analysis on the City's well water; and,
- Well #1 taken out of service due to presence of PFAS.

Responsibilities as a water purveyor are taken seriously, and the City is committed to maintaining a system that consistently meets the provincial drinking water quality standards outlined in the *Drinking Water Protection Regulation*. Consequently, residents and businesses can be assured that high-quality drinking water is being provided by the City.

This report is intended to provide valuable information to support the reliable delivery of a critical resource.

DRINKING WATER QUALITY REPORT 2025

Based on current consumption rates, the average household would spend approximately $500,000 on water annually if purchased from a supermarket.

1.0 SYSTEM OVERVIEW

Approximately 98.5% of the water distributed in the City is purchased from Metro Vancouver (MV). MV sources their water from the Capilano, Seymour, and Coquitlam Reservoirs. The water from these surface water sources can be directed to different areas within the municipality by a series of valves, pressure reducing stations, and pump stations.

Predominately, the City receives bulk, treated MV drinking water from the Seymour and Capilano watersheds but under certain conditions, the City is also supplied water from the Coquitlam watershed. **Figure 1** shows the breakdown of water sources for the City.

MV supplied water flows to the City through four submarine crossings:

1) the Lulu Island/the City Main entering Ladner;
2) the Tilbury Main entering Tilbury;
3) the Annacis No. 2 Main entering Annacis Island and continuing onto Surrey;
4) the Annacis No. 4 Main entering Annacis Island.

Appendix 1 shows MV's distribution network while **Appendix 2** lists the tie-in locations where the MV supplied water enters the City's system. **Appendix 3** lists the City's sampling stations and maps their location in the City's water distribution network.

The other 1.5% of the water distributed comes from the City's groundwater wells in Watershed Park. This water is pumped from deep wells in Sunshine Hills into the 64 Avenue Reservoir and then distributed to the lowland area south of 64 Avenue. This system is relatively inexpensive to operate as it relies on gravity to supply the area south of 64 Avenue from the reservoir.

Since 2011, MV has updated their water use restrictions on several occasions to reduce water consumption during the summer months when water use can increase up to 50%. the City's water usage has gradually decreased since 2011 and has remained relatively consistent in recent years despite its population increase.

97% of the world's water is saline. Another 2% is ice (glaciers). That leaves 1% of the water available for drinking, community needs, agriculture, and industry.

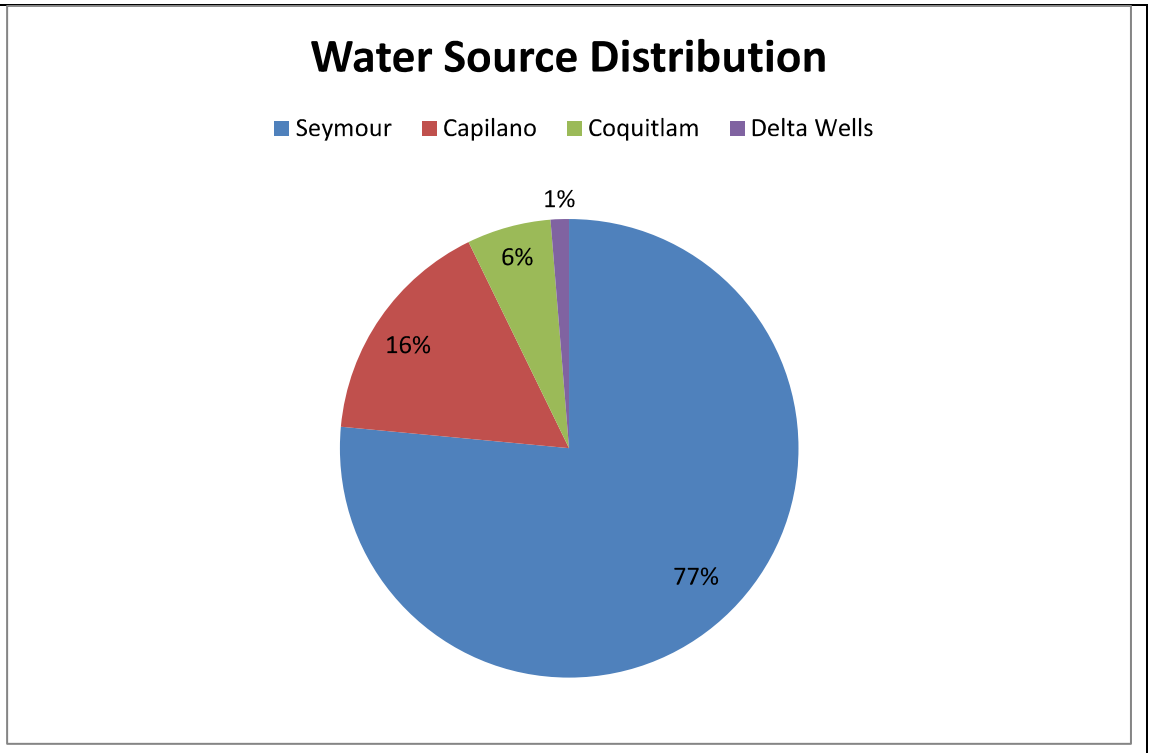


Figure 1: Water Source Distribution

2.0 MONITORING PROGRAM

Drinking water quality is a function of source water quality, water treatment, and water quality changes after treatment. As a result, monitoring of drinking water quality involves source water monitoring, monitoring after treatment, and monitoring in the distribution system. MV carries out their own source water testing and testing after treatment. The parameters and frequency for testing MV water is shown in **Appendix 4** and the test results are presented in **Appendix 5**. The City then tests the MV water at various locations within the local distribution system. The City is in a unique position, as supplemental water is introduced into the distribution system from City wells. This source originates from an aquifer at an approximate depth of 70 metres and is subject to more comprehensive testing parameters. The detailed well water testing parameters are provided in **Appendix 6**.

In mid-October 2025, a naturally occurring algae, geosmin, was detected in the Seymour water source, leading to the water emitting a musty odour. While aesthetically unpleasant, geosmin is not harmful to health and drinking water remained safe to consume throughout the entirety of the period where geosmin was detected in the water. MV responded to this issue by restricting flows from Seymour and compensating by increasing flows from Capilano while Seymour was treated. By

Less than 1% of water treated for potable use is consumed. The rest is discharged into the sewerage system for treatment, which requires costly infrastructure.

early November 2025, treated water from the Seymour water source largely tested below detectable limits for geosmin and majority of public complaints had ended.

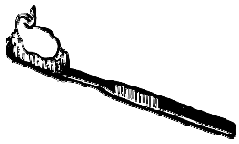
3.0 TESTING PROGRAM

The City's Water Quality Technician samples and tests water from 33 sampling sites each week. This year, three more sampling stations were installed and will begin sampling in 2026. Samples are tested on-site for microbiological characteristics to provide early indication of any issues. In accordance with the 24th Edition of Standard Methods for the Examination of Water and Wastewater, an additional sample is taken and placed in a sterile bottle. The sample is marked with the location and time of day before being placed into a cooler. At the end of each day, samples are sent to the MV laboratory where the water is tested for said characteristics. The MV laboratory is a member of the Standards Council of Canada and is an accredited laboratory with the Canadian Association of Environmental Analytical Laboratories. **Figure 2** shows the technician taking a sample at Clarence Taylor Crescent Water Sampling Station. Results are reported to the City's Water Quality Technician within seven days of submitting the samples. However, preliminary *E. coli* tests are reviewed within 24 hours and reported immediately should a positive result occur. **Appendix 7** details the reporting procedure for positive *E. coli* tests.

Supplementary to weekly testing of the MV water within the City's distribution system, quarterly tests are conducted on the water from the Watershed Park wells that contribute to the City's water supply. The test parameters are shown in **Appendix 6**. Element Labs, a laboratory accredited by the Canadian Association of Environmental Analytical Laboratories and by the Standards Council of Canada, conducts the tests, for which the results are shown in **Appendix 8**.

Figure 2: Water Quality Technician Sampling Water

Turning off the tap while brushing teeth for two minutes twice a day can save up to 700 litres of water per month.



The City works closely with Fraser Health to ensure that the testing program in place meets and exceeds the conditions set out in the Fraser Health Water Monitoring Protocol. As such, samples are taken and tested on more sites than is required. Testing of the well water source is conducted thoroughly. Additional sampling stations have been installed, as appropriate. In following these measures, the City ensures that the necessary steps are taken to provide residents with safe and healthy drinking water.

4.0 TESTING PARAMETERS & RESULTS

Based on 2025 BC Stats data, the City is a purveyor of drinking water to a population of approximately 124,000; the City is required to test a minimum of 93 samples per month, as outlined in the *Drinking Water Protection Regulation*[2]. The City's water distribution network is comprised of approximately 610 kilometres of watermain and supplies water to five distinct geographical areas: North Delta, Ladner, Tsawwassen, Tilbury, and Annacis Island. To adequately represent all areas within our network, a minimum of 99 bacterial samples are tested per month - 6 more than the guideline suggests. 33 of the 36 sites shown in **Appendix 3** are sampled on a weekly basis and tested for total coliforms, E.coli, heterotrophic plate counts, and turbidity. Samples are also tested for Aesthetic Objectives (AOs), temperature, and pH level. As it is not feasible to directly test for all pathogens in the drinking water, microbiological guidelines are based on indicator organisms outlined in the test parameters.

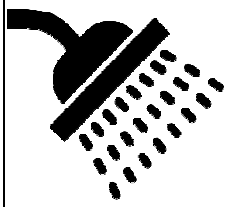
A Maximum Acceptable Concentration (MAC) level for each specific test parameter has been established by Health Canada's Guidelines for Canadian Drinking Water Quality (GCDWQ)[3]. Each MAC has been designed to safeguard health, assuming a lifelong consumption of drinking water containing the substances at the maximum concentration level.

AOs apply to characteristics of drinking water that can affect its acceptance by consumers. These include items such as taste, odour, and appearance. Some AOs, such as turbidity, could pose a health risk to some consumers if the MAC levels are exceeded.

Objectives are established as interim guidance values while more comprehensive guidance and regulatory frameworks are being developed. Unlike MACs, objective values are not health-based limits. They are provided as precautionary guidance to support monitoring, assessment, and planning activities.

The City conducts its own groundwater analysis to ensure the quality of the source water being introduced into the distribution system. Sampling sites DmDel 305 (Watershed Park Well #1) and DmDel 306 (Watershed Park Well #5), were sampled by the City Water Technicians and tested by Element Labs. DmDel 307 (Watershed Park

Reducing a shower by two minutes can save up to 460 litres of water per month.



Well #3) was not sampled since the well has been inoperable since December 2023. The extensive test parameters for this well-water analysis are outlined in **Appendix 6**.

Sampling stations DmDel 220, 225, 308, and 329 (Watershed Park Reservoir), which are directly downstream of the wells, were also analyzed against the same parameters. Complete records of all four quarterly tests can be found in **Appendix 8**.

Approximately 1,266 samples, collected weekly or bi-weekly from 33 sites, were used to test for microbiological presence in the City's local distribution system. The microbiological parameters tested are discussed below and complete test results are provided in **Appendix 9**.

Quarterly and bi-annual testing of disinfection by-products, trace metals, and vinyl chloride from select sampling sites are also discussed in the subsequent section. Full test results are attached in **Appendices 10, 11, and 12** respectively.

Total Coliforms

The presence of total coliforms in the water system is an indicator that the system is experiencing microbial re-growth, that infiltration has occurred, or that water has been poorly treated at the source. The *Drinking Water Protection Regulation* states that at least 90% of samples should have no detectable total coliform bacteria per 100 mL and no more than 10 total coliform bacteria per 100 mL. The units for measurement are *colony forming units* (CFU) or *most probable number* (MPN).

If a sample tests positive for total coliform bacteria, it is re-sampled to confirm the original result before the affected main is flushed, monitored, and tested again should the second test be positive as well. The response to another unacceptable test result is to take the main out of service, chlorinate, flush, retest, and keep it out of service until acceptable results are obtained.

Parameter Guideline: At least 90% of samples have no detectable total coliform bacteria per 100 mL and no sample has more than 10 total coliform bacteria per 100 mL

In 2025, total coliforms were not detected in any samples throughout all 33 sampling sites.

E.coli

Escherichia coli (*E.coli*) is one species in the fecal coliform group and best known because of its link to the death of seven people and illness of over 2,000 others in Walkerton, Ontario. This bacterial species is a definite indicator of the presence of feces in the distribution system. The MAC for *E.coli* is 0 CFU per 100 mL. A confirmed

When you go to a restaurant and they give you that complimentary glass of water, remember, it takes another 2 glasses to wash it. Decline it if you do not plan on drinking it.

unacceptable MAC test for *E.coli* can trigger an immediate order to boil water by the Water System Operator (City of Delta) in consultation with Fraser Health's Environmental Health Officer, which remains in effect until the problem is isolated, identified, resolved, and acceptable test results are obtained.

Parameter MAC: 0 MF/100 ml

Of the approximately 1,266 samples tested, there were no incidences of E.coli bacteria.

Heterotrophic Plate Count

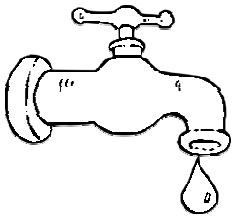
The general bacterial population is estimated by means of a background colony count referred to as a heterotrophic plate count (HPC). Although not a significant health concern on its own, the presence of a background bacterial growth indicates that pathogenic bacteria could thrive in the system should they be able to enter it. Also, excessively high HPCs can hinder the detection of coliforms.

No MAC is specified for HPC bacteria in water supplied by public drinking water systems. Instead, increases in HPC concentrations above baseline levels are considered undesirable. The City's baseline level for HPCs is 500 colonies per millilitre (mL). If a test result indicates more than 500, the water is resampled and tested. Further test results indicating HPCs above 500 require the watermains to be flushed and monitored until a decreasing trend is observed to be below the baseline.

Parameter Guideline: < the City's baseline level of 500 colonies/mL

The test results for HPC are shown in **Appendix 9**. **Figure 3** shows the average and maximum HPC at each sampling station in 2025. Throughout July to December in 2025, 3 sampling stations indicated greater than 500 colonies/ mL of HPC. These 3 sampling stations include one sampling station directly downstream of the reservoir (DmDel 225), one station near the airport (DmDel 391), and one in Ladner (DmDel 310), as shown in **Appendix 3**. Additional tests were undertaken and there were no *E. coli* or total coliforms detected in the samples. Also, the measured chlorine levels were constant during the time that the HPC spikes were observed, providing confirmation that the drinking water met all regulatory requirements and was safe for consumption. In response to the elevated HPC levels, each station was monitored for further testing.

Don't leave the water running when you shave. A tap can run at approximately 10 litres per minute. If it takes 10 minutes to shave, that's about 100 litres of water used.



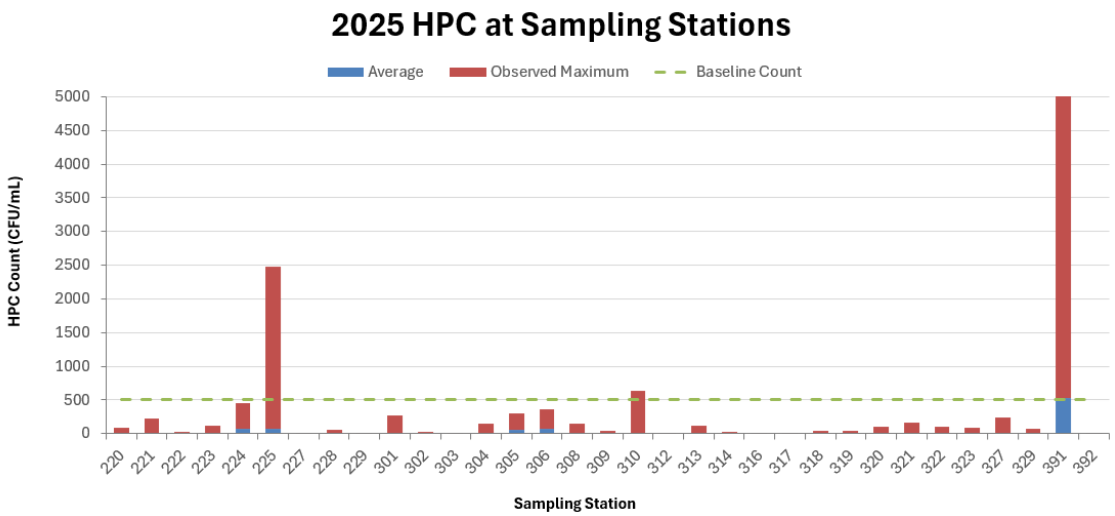


Figure 3: Observed HPC at Sampling Stations

Turbidity

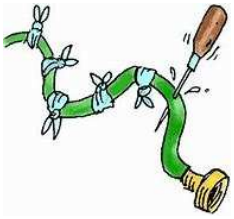
Turbidity measurements relate to the optical properties of water. Suspended matter such as clay, silt, finely divided organic and inorganic matter, soluble coloured organic compounds, plankton, and other microscopic organisms all contribute to poor turbidity levels. Excessive turbidity not only detracts from the appearance and taste of water, but it also can serve as a source of nutrients for waterborne bacteria and a surrogate for pathogens. The City regularly flushes watermains to improve long term water quality in existing water systems, particularly at dead-end watermain sections, which may temporarily increase the turbidity in the water. Other causes of turbidity may come from the MV source water, which, on rare occasions, can experience slightly higher turbidity than normal after large storms. Prolonged cases of excessively high turbidity can have a negative effect on disinfection techniques.

Turbidity tests measure the scattering and absorbing effect of suspended particles on light and are measured in nephelometric turbidity units (NTU). The GCDWQ states that the turbidity levels for filtration systems should be as low as reasonably possible with a target of less than 0.1 NTU. However, the City tests only within the local distribution system and the GCDWQ recommends an objective of <1 NTU at the point of consumption. The system is monitored and flushed, if necessary, when unacceptably high turbidity test results are recorded.

Parameter Guideline: < 1 NTU

Test results for turbidity and temperature are shown in **Appendix 9**. There was one instance of high turbidity reported at sampling station DmDel 227. **Figure 4** below

Check for leaks in your garden hose. Hoses can outflow water up to 2,700 litres per hour. If there is a leak, that can add up to a lot of wasted water.



summarizes the observed high turbidity event. The event is noted as a minor turbidity exceedance, which was monitored for further testing.

Sampling Station ID	Sampled Date	Turbidity (NTU)
DEL-227	March 6, 2025	1

Figure 4: Summary of High Turbidity Events

The average turbidity of all sampling stations remained under the guideline value of 1 NTU, as seen in **Figure 5**. The turbidity at Metro Vancouver's source waters before treatment is shown in **Figure 6**.

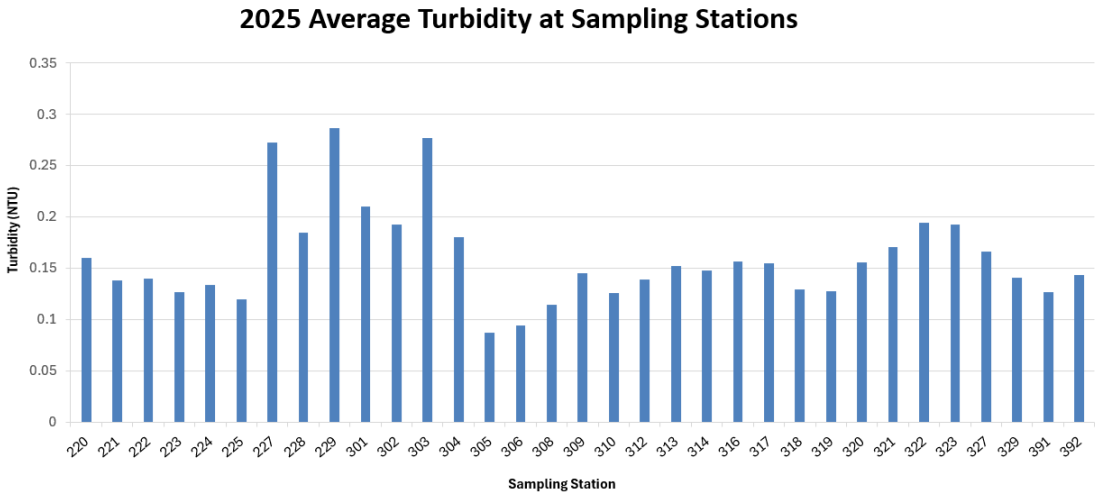


Figure 5: Average Turbidity at Sampling Stations

To see if your toilet is leaking, put a few drops of food colouring in the tank. Wait a few minutes, if the water in the bowl colours, you know you have a leak.

Average Turbidity of MV Source Water

(Source: Metro Vancouver 2025 Water Quality Control Annual Report[5])

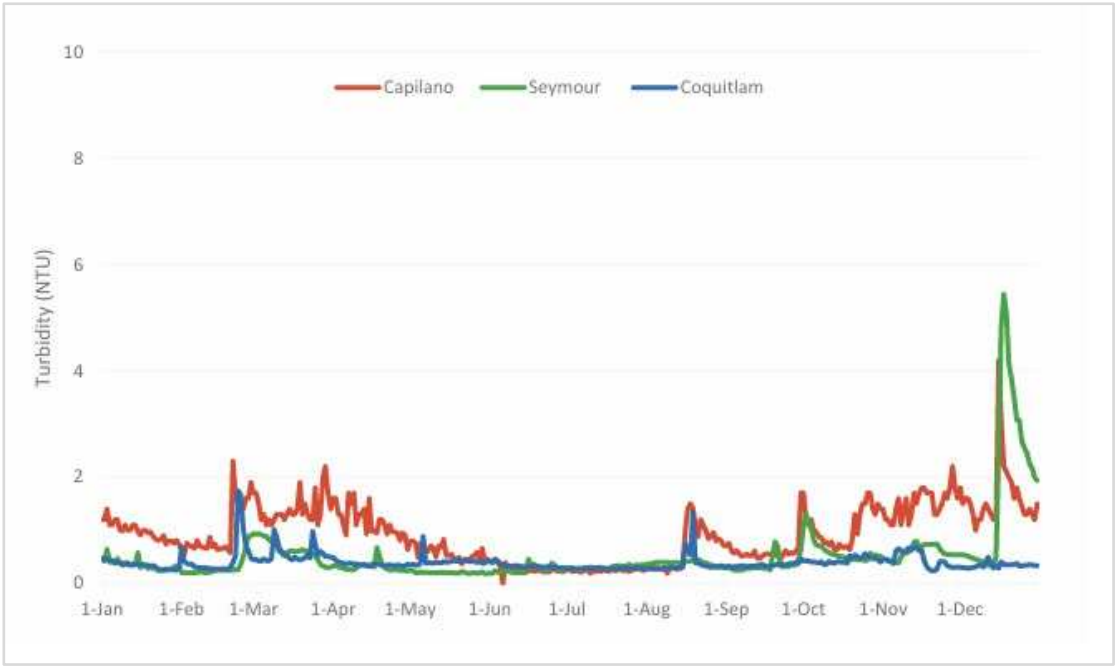


Figure 6: Turbidity of Metro Vancouver Source Water

pH

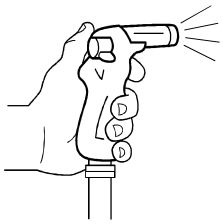
The pH of water can influence the formation of disinfection by-products and the effectiveness of treatment. An acceptable pH range for drinking water is 7 to 10.5.

To protect copper pipes and hot water tanks from the region's naturally acidic mountain-fed streams, MV has increased the pH and alkalinity of the region's drinking water using natural minerals. The target range for pH adopted in 2021 is 8.3 – 8.5 and 20.0 mg/L of calcium carbonate for alkalinity. The changes have no impact on the water's taste or smell and comply with the GCDWQ.

Parameter Guideline: 7 - 10.5

The average pH of selected sampling sites in the City serviced primarily by Metro Vancouver source water was 7.98. The average pH of station DmDel 305 (Well #1) was 7.78 and DmDel 306 (Well #5) was 7.75 before mixing with MV water at the reservoir. DmDel 307 (Well #3) was not in operation in 2025. The City also completed quarterly testing of selected sampling sites serviced primarily by well water and the pH was within the acceptable range. **Figure 7** shows the average along with the maximum and minimum accepted pH values of all sampling sites.

Garden hoses can deliver water at 45 litres per minute. Having a shut-off nozzle can save a lot of water as water runs only when you use it.



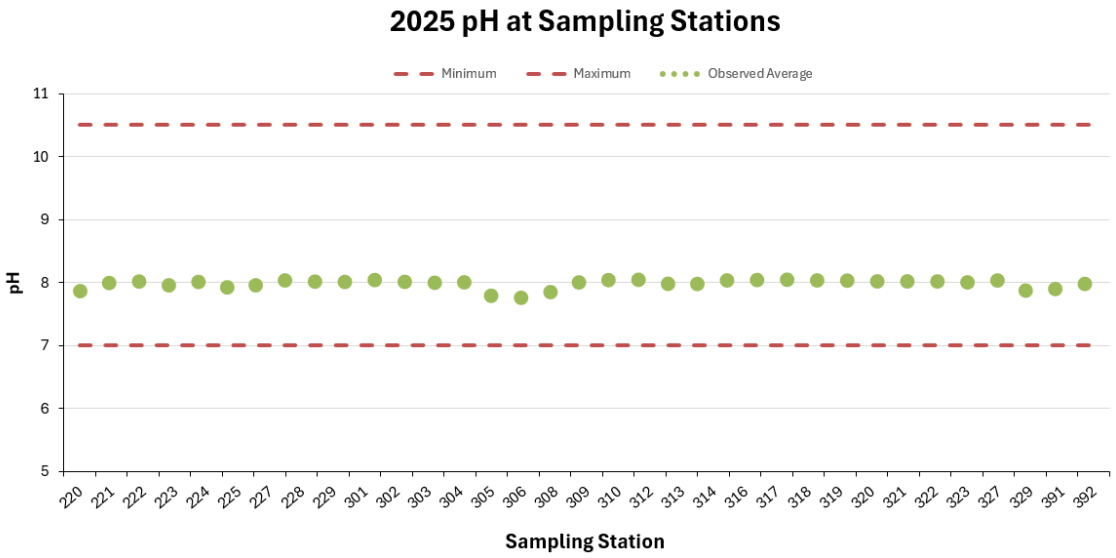


Figure 7: Average pH of Sampling Sites

Chlorine Residual

Chlorine is used as a disinfectant by MV. The purpose of maintaining a disinfectant residual, also known as free chlorine, in both MV's and the City's distribution system is to control the re-growth of bacteria. Observing a chlorine residual of approximately 0.4 to 0.7 milligrams per litre (mg/L) in the City's system is normal. However, the target minimum concentration is 0.2 mg/L, apart from the City's well water service area which is a non-chlorinated supply that ties into MV's chlorinated supply. The City's well water supply is monitored closely with a backup chlorination injection system if required.

Parameter Guideline: >0.2 mg/L

Test results for free chlorine residual are shown in **Appendix 9**, while **Appendix 13** provides average free chlorine residual results, including a map indicating sites where samples consistently tested less than 0.2 mg/L. This typically includes stations that are downstream of the well water sources where there is dilution caused by some mixing with Metro Vancouver water or at dead end mains. As such, low chlorine residual results are expected.

Stations DmDel 305, 306, 307 generally have zero chlorine residual as this water originates from the City's wells and are not chlorinated.

Water consumption can increase up to 50% in summer, largely due to lawn sprinkling and other outdoor uses.

Disinfection By-products

Reactions between chlorine used for disinfection, temperature, water pH, and dissolved natural organic matter in the water can form two major families of potentially carcinogenic by-products: Total Trihalomethanes (TTHMs) and Total Haloacetic Acids (THAAs). The GCDWQ states that the MAC for TTHMs and THAAs in drinking water is 0.100 mg/L (100 parts per billion) and 0.080 mg/L (80 parts per billion), respectively, based on a running annual average of a minimum of quarterly samples.

Parameter MAC: 100 ppb for Total Trihalomethanes; 80 ppb for Total Haloacetic Acid

Results of tests performed for disinfection by-products are summarized in **Appendix 10**. The levels of THAAs have reduced since the construction of the Seymour-Capilano Filtration Plant and subsequent reduction of chlorine required for disinfection. All results in 2025 were below the maximum allowable limit.

Metals

The guideline limits for tested metals are listed in **Appendix 5** (Physical and Chemical Analysis of Source Supply). Lead testing is completed semi-annually for MV's source water prior to and after treatment. Lead is also tested at select City sampling stations.

Parameter MAC: see Appendix 13

A total of eight samples were collected from four locations and tested biannually by MV for the presence of metals. The results of these samples are summarized in **Appendix 11**; all metal concentrations were below the relevant guidelines for 2025.

Vinyl Chloride

Vinyl chloride, a synthetic chemical, can enter drinking water through leaching from polyvinyl chloride (PVC) pipes due to the biodegradation of synthetic solvents. The MAC for vinyl chloride is 0.002 mg/L.

Parameter MAC: 0.002 mg/L

Over 50% of the City's watermain inventory consists of PVC pipe; six sampling locations with predominantly PVC pipe were selected to test for vinyl chloride. Each location was tested twice: once in April and again in November. Of the 12 samples taken, all vinyl chloride results were less than 0.001 mg/L, which is well below the GCDWQ maximum acceptable concentration of 0.002 mg/L. The test results are summarized in **Appendix 12**.

A tap that drips 2 tablespoons per minute equates to 2,600 litres of wasted water in one year. The wasted water costs taxpayers to treat before it reaches the tap, and again after it leaves the house to be treated at sewage treatment plants. So make sure to catch those leaky taps!

Per- and polyfluoroalkyl substances (PFAS)

Following Health Canada's establishment of an interim objective of 30 ng/L for the sum of 25 PFAS in drinking water in 2024, the City proactively initiated testing for per- and polyfluoroalkyl substances (PFAS) in the drinking water system. Interim objectives are established by Health Canada to provide guidance on emerging contaminants. These objective values are not health-based limits and were not established based on adverse health effects. Instead, they are precautionary targets intended to reduce PFAS exposure while more definitive health-based guidelines are being developed.

In July and August 2025, the groundwater wells in Watershed Park were sampled and tested for PFAS. Well #1 recorded PFAS concentrations of 106 ng/L and 116 ng/L, respectively, for the sum of 25 PFAS compounds. Based on these results, Well #1 was subsequently taken out of service. The test results for Well #5 were 1 ng/L and 0 ng/L, and this well continued to operate, subject to ongoing testing.[1] Results can also be found in **Appendix 8**.

Further investigations will continue and an Aquifer Protection Plan will be developed to guide long-term groundwater protection and mitigation efforts.

Any health-related inquiries regarding PFAS should be referred to Fraser Health.

5.0 WATER DISTRIBUTION SYSTEM DETAILS

The City's water system services an area of approximately 18,100 hectares. The City distributes water in pipes made of a variety of materials. The very first watermains installed in 1909 were made of wood. These wooden mains have since been replaced with asbestos cement (AC), cast iron (CI), ductile iron (DI), high density polyethylene (HDPE), polyvinyl chloride (PVC), molecularly oriented polyvinyl chloride (PVCO), or steel (ST). The majority of watermains have now been replaced with PVC pipe.

Figure 8 shows the breakdown of pipe materials that comprise the City's distribution system.

[1] At time of writing this report in July, 2026, follow up testing on multiple samples taken in June 2026 found PFAS levels between 6-8 ng/L in Well No. 5. While still being well below the objective limit and given the slight upward trend in the test results, it was also taken out of service.

Even energy efficient washing machines use up to 50 litres of water per load. To save water, you can wait until a full laundry load.

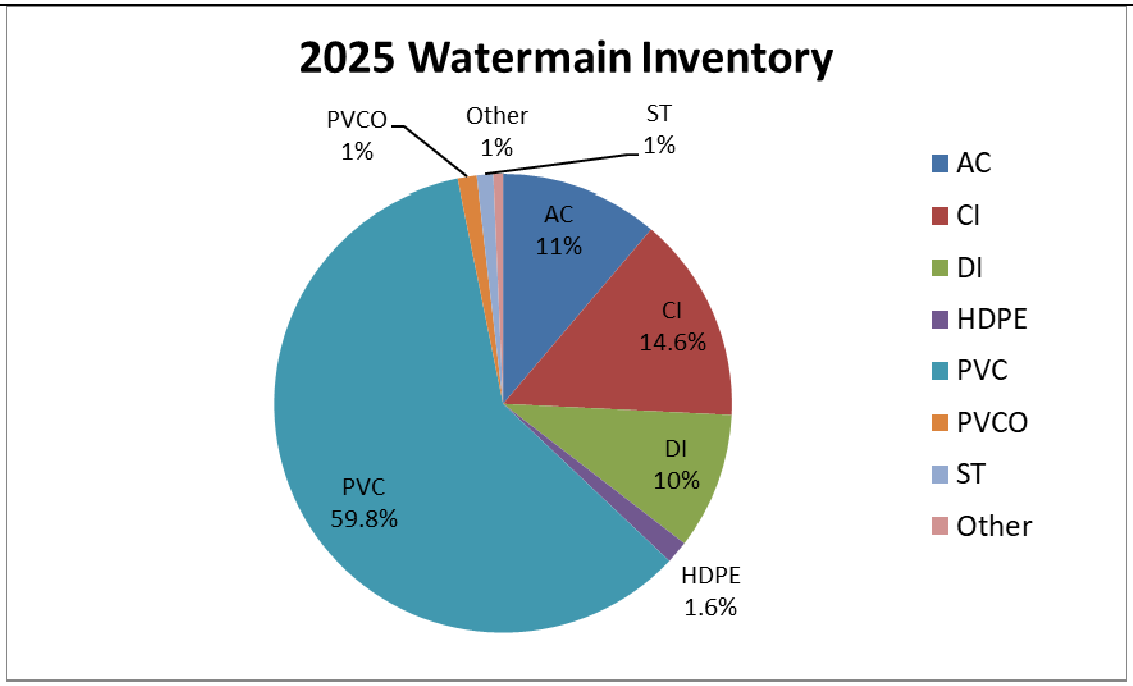


Figure 8: Watermain Inventory

5.1 Watermain Materials

Cast Iron (CI) Watermains

Approximately 14.6%, or 90 kilometres, of the City's watermain inventory consists of cast iron pipe which was majorly installed prior to 1978.

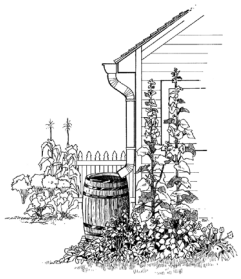
Ductile Iron (DI) Watermains

Approximately 10%, or 60 kilometres, of the City's watermain inventory consists of ductile iron pipes. While most ductile iron pipe was installed between 1969 and 1988, it is still used for some applications where additional strength is required.

Polyvinyl Chloride (PVC) Watermains

Approximately 60%, or 371 kilometres, of the City's watermain inventory consists of PVC pipe. Much of this pipe has been installed since 1979. Most new watermain installed in the City are PVC or PVCO. PVCO is standard PVC that has had its molecules realigned to create a material that is lighter, stronger, and more flexible than standard PVC.

Roughly 60% of a typical family household water footprint is from lawn and garden maintenance. Rain barrels, drought-tolerant gardens, and lawn watering restrictions can greatly reduce this consumption.



Steel (ST) Watermains

Approximately 1%, or 7 kilometres, of the City's watermain inventory consists of steel. These mains have a large diameter and are primarily used as transmission mains. These mains serve large areas of the City, so disruption in one of the mains can leave entire areas without water. As such, cathodic protection is utilized to protect the pipe.

Asbestos Cement (AC) Watermains

Approximately 11%, or 70 kilometres, of the City's watermain inventory consists of asbestos cement pipe which was installed prior to 1978. Workers repairing or replacing asbestos pipes are required to take special safety precautions.

High Density Polyethylene (HDPE) Watermains

Approximately 1.6%, or 10 kilometres, of the City's watermain inventory consists of high density polyethylene pipe (HDPE). This pipe material has only been in use in the City since 2000 and is mainly used for transmission mains or in specific applications. The unique construction method of fusion welding polyethylene pipe sections together provides leak tight joints and greater seismic resistance.

5.2 Other Components

Water Pumping Stations

The City water system includes three water storage and pump station facilities: Pebble Hill, Hellings, and Watershed Park. The Watershed Park pump station is the only installation that is owned and operated by the City and acts as an emergency backup water supply. The other two pump stations are operated in conjunction with Metro Vancouver. **Figure 9** shows the interior of the pump station at Pebble Hill Reservoir.

Another water saving tip is to cool a jug or pitcher of water in the fridge instead of running the tap awaiting cooler water.

Figure 9: Pump Station on 4 Avenue at Pebble Hill Reservoir

Water Services

The City has approximately 32,000 water service connections supplying water from our distribution network to individual property lines. As with the City watermains, these pipes age and require replacement. Whenever possible, service connections are to be replaced by the developers as required in the City's Subdivision & Development Standards Bylaw.

Of the approximate 32,000 service connections, about 80% are copper, being installed as early as 1940.

The remaining roughly 20% of service connections are comprised of cast iron, asbestos cement, ductile iron, PVC, or polyethylene pipe. The older industrial service pipes are made of asbestos cement and cast iron, while the newer industrial service pipes are made of ductile iron, PVC, or polyethylene.

Water Storage Facilities

Two of the three water storage facilities in the City are owned and operated by MV: the Pebble Hill Reservoir in Tsawwassen and Hellings Reservoir in North Delta. The Watershed Park Reservoir (see **Figure 10**), with a capacity of 7,500,000 litres, is owned and operated by the City and is primarily filled with water from Metro Vancouver and the City's groundwater wells. The current reservoir structure was built in 1959 and is nearing the end of its service life. The reservoir is a key facility for water supply to East Delta and plays a vital role as an emergency water supply.

Water used to rinse fruits or vegetables can be captured and re-used to water house or garden plants.

Figure 10: Water Reservoir and Pump Station on 64 Avenue

Fire Hydrants

The City has approximately 3,300 fire hydrants, some installed as early as the 1950s. The older style slide-gate hydrants, which are less efficient at providing water for fire protection, are being replaced with new compression-style hydrants that provide greater flow at a higher pressure. When a slide-gate hydrant has reached the end of its service life or a watermain is being upgraded as part of the Capital Program, slide-gate hydrants are replaced with compression hydrants.

Pressure Reducing Valve Stations

Pressure reducing valves are used to step-down pressure in the City's water distribution system to an acceptable supply pressure. The City has 46 pressure reducing valve (PRV) stations containing approximately 85 pressure regulating valves. There are 25 stations connected to the MV water supply system. The remaining 21 are internal to the City's water system. **Figure 11** shows the recently upgraded Norum Road PRV Station.

Dishwashers use much less water than handwashing. If you have a dishwasher, consider using it as your primary choice.

Figure 11: Norum Road PRV Station

Flow Control Valves

The City has approximately 6,000 flow control valves in the water distribution system, which includes zone valves, check valves, butterfly valves, and gate valves. The valves are primarily used to isolate areas of the network for inspection or repair. If a valve were to fail, water flow to the affected main would be disrupted until repaired.

Air Valves

The City's water system has about 424 air valves, installed in below-ground chambers, which "bleed" air from the pressurized system through piping that discharges above grade. Entrapped air in the distribution system could impact pipe flow capacity.

Backflow Prevention Assemblies

The City uses a proactive approach in protecting the water distribution system from harmful cross connections. The Engineering and Plumbing Departments have a municipal wide Backflow Prevention Program, which has been in place for several years.

Section 15 of the British Columbia *Drinking Water Protection Regulation* outlines that "an assessment response plan must include provisions to identify, eliminate, and prevent cross connections with non-potable water sources". In addition, Part 5 of the City's Water Service Bylaw No. 7441, 2016 (last updated October 2025)[4] also contains regulations that prevent contamination.

Within the municipality, there are 5,210 backflow prevention assemblies currently in service. All testable backflow assemblies must be tested annually. Inventory can be broken down as follows:

If you are looking to replace your toilet, consider a dual-flush toilet as it provides the options of a water saving dual-flush.

- Double Check Valve Assemblies (DCVA's) – 3,087
- Reduced Pressure Backflow Assemblies (RPBA's) – 1,806
- Pressure Vacuum Breaker Assemblies (PVBA's) – 68
- Double Check Detector Assemblies (DCDA's) – 119
- Reduced Pressure Detector Assemblies (RPDA's) – 8

Most of these assemblies are privately owned and require annual testing. They can be installed at the point of hazard, or in premise isolation. In either case, a properly maintained backflow assembly prevents non-potable water, or "spent" water, from entering the potable water system by means of back-siphonage or back pressure.

The City has partnered with BSI Online for tracking and recording backflow assembly tests. Testing companies and external owners can easily access and upload data through the BSI Online platform, while the City can monitor compliance.

Water Meters

All new construction, secondary suites, industrial properties and agricultural properties require a water meter. Single family homeowners may also apply for a voluntary water meter. 456 water meters were activated in 2025, including new builds.

The City currently meters over 10,000 water services. Approximately 33% of all services are metered. All industrial, commercial, institutional, and agricultural lots are metered.

Auto Watermain Flushers

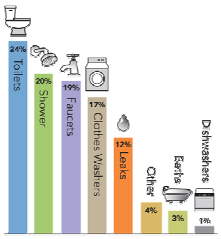
The City has installed auto flushing units at eleven locations that have experienced higher than normal heterotrophic plate counts (HPCs) in the past. These units automatically flush the watermains at regular intervals to ensure water quality is maintained.

6.0 SYSTEM MAINTENANCE

The City requires a Class III Water Distribution System operator under the Environmental Operators Certification Program (EOCP). To operate the water system, the City must have EOCP certified staff at or above the corresponding class level. Currently, the City has one Level 3 Water System Operator, two Level 2 Water System Operators, and three Level 1 Water System Operators in water utility operations team.

The City has developed a thorough and comprehensive maintenance program to extend the life expectancy of water assets. Maintenance of the City water system

In Metro Vancouver approximately 270 litres of water per person is used each day. The major use of indoor residential water consumption is flushing the toilet.



involves five key programs: valve exercising, watermain flushing, hydrant maintenance, well maintenance, and reservoir maintenance. Well maintenance is conducted when the well-yield is reduced, on an as-needed basis, and the wellheads are cleaned annually. Since replacing the entire distribution network is not practical nor best practice, system maintenance is critical to maintaining and extending the life of existing water infrastructure.

6.1 Annual Maintenance Program

Valve Maintenance

Valves are distributed along watermains and can be opened or closed to alter the flow of water. Valves that are buried or left closed cause maintenance challenges by restricting water flow through the main. In response to this issue, the City staff established a valve exercising program in 1985. Each valve is inspected annually, exposing buried valves, making repairs, and exercising every valve by turning it first to a closed position and then back to open. This process begins in January and takes approximately six weeks.

Watermain Maintenance

Watermain maintenance involves repairing damaged or leaking watermains and ensuring that watermains are operating effectively.

Watermain Upgrading

In addition to repairing watermains, the City replaces aging watermains as a preventive measure. An ongoing annual replacement program targets areas with older piping materials in susceptible conditions, areas of inadequate hydrant flow, and neighbourhood rehabilitation sites.

Watermain Flushing

The City is at the southern extreme of long transmission mains coming from the Seymour, Capilano, and Coquitlam Reservoirs. As water is transported through the transmission system, sediment can get introduced into the City's water distribution system. In addition to accumulated sediment, some areas of the water system are susceptible to water stagnation where water usage is low or watermains terminate at street ends. Sediment and stagnation can create an undesirable level of turbidity in the water. As discussed, turbidity impacts aesthetic quality and promotes bacterial growth.

Each day, residents of the Metro Vancouver region use on average 1 billion litres of water per day – enough to fill BC Place.

In response to these concerns, the City initiated a watermain flushing program in 1985. Each main is flushed annually, during daytime hours. Note that the watermain flushing schedule is impacted by seasonal water sprinkling restrictions. When flushing, a hydrant is opened causing the increase in water velocity within the main which promotes the removal of sediment. Large distribution mains, such as those found on Ladner Trunk Road, 56 Street, Scott Road, and River Road, are not flushed because velocities through these mains are routinely high enough to move sediment and prevent water stagnation.

There are a few locations throughout the City referred to as "trouble spots" where water demand is low or where watermains terminate in a dead end. These areas are flushed as required, sometimes as often as every two months. When opportunities arise, either through new development or capital upgrades, the water system is looped. The City also flushes mains within 24 hours of receiving test results from the MV Laboratory that indicate bacteria levels outside the acceptable provincial water quality guidelines.

Hydrant Maintenance

Historically, fire hydrants were only serviced when requested by the Fire Department. To ensure proper fire protection, the City implemented a fire hydrant maintenance program in 1985. The program checks the pressure on each hydrant before it is serviced and dismantled, renewing worn parts as necessary. The hydrant is then lubricated and reassembled. **Figure 12** shows a fire hydrant undergoing regular annual maintenance.

Figure 12: Fire Hydrant Undergoing Regular Annual Maintenance

Instead of washing your driveway, deck, or patio, consider sweeping to conserve water.

Reservoir Maintenance

Debris can accumulate in reservoirs requiring occasional cleaning. Fortunately, the water fed into the Watershed Park Reservoir from the wells contains almost no sediment, and therefore cleaning is scheduled only when required. Cleaning is performed with a team of divers "vacuuming" silt from the bottom of the reservoir, which eliminates the need for draining the reservoir and reduces maintenance costs.

The Hellings Reservoir (see **Figure 13**) and Pebble Hill Reservoir are owned and maintained by MV.

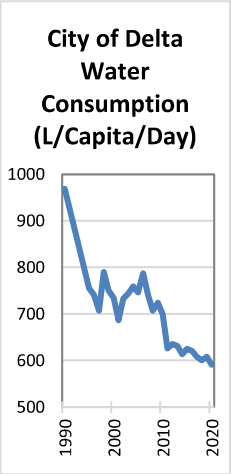
Figure 13: Hellings Reservoir in North Delta

Water Well Maintenance

Well maintenance is a critical component of our water infrastructure maintenance program. As the water from wells is introduced into the distribution network untreated, daily maintenance and monitoring is conducted. The water levels are measured and recorded daily to ensure the aquifer is not over utilized and the system checked for malfunctions.

Figure 14 shows Well #5 in the Watershed Park.

Per capita water consumption in the City has been decreasing steadily since 1990.



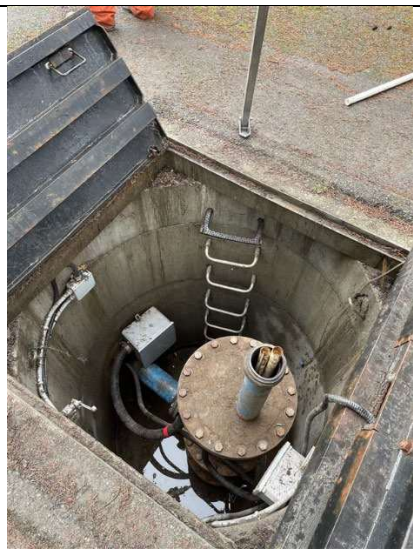


Figure 14: Well #5, Watershed Park Wells

The wells are redeveloped every three to five years which involves surging, jetting, and treating the wells with biodegradable product applications. This helps maintain production rates and avoids the costly alternative of replacing a well. All activities in the well field area are closely monitored and regulated.

7.0 WATERMAIN BREAKS

Most water utilities frequently experience minor disruptions. Pipes break, valves stick, hydrants leak, and power outages occur. Although these are not highly anticipated, they can usually be corrected with minimal disruption, and regular service can be quickly restored. This section summarizes typical actions taken by the City in the event of a service disruption. In 2025, staff responded to and repaired ten watermain breaks (**Figure 15**).

Position sprinklers to water plants and lawns, not pavement.

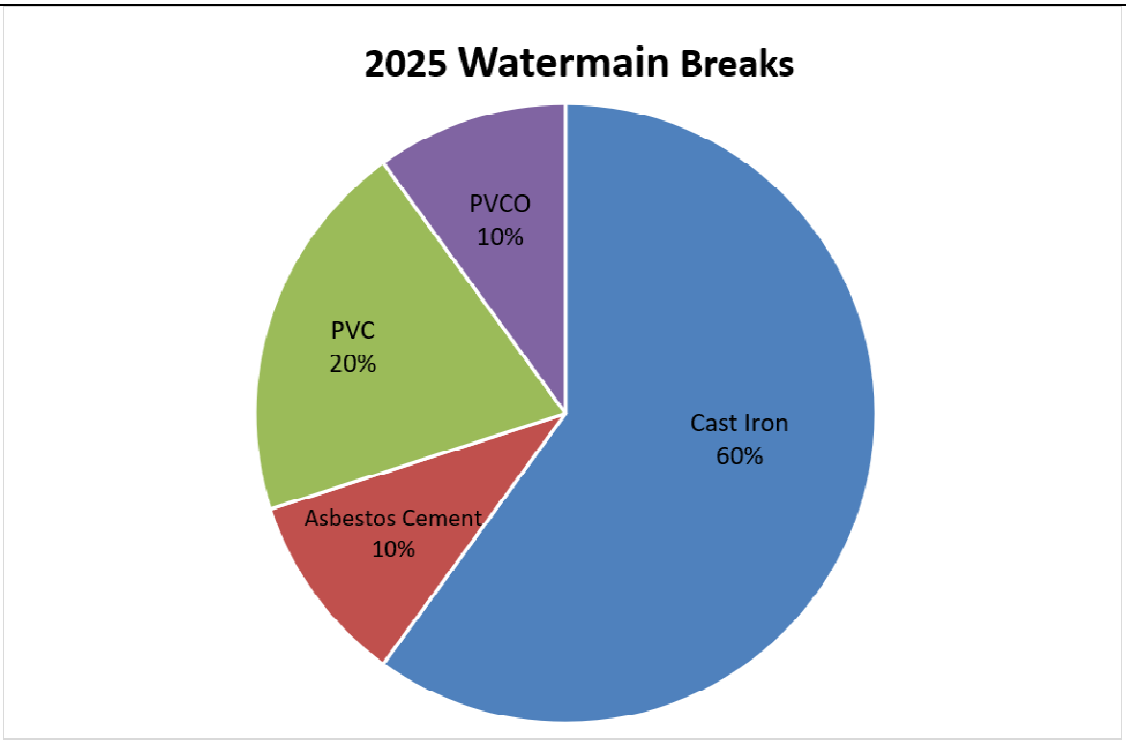


Figure 15: Watermain Breaks By Pipe Material

Procedures for Watermain Repairs or Tie-ins

Watermains require disinfection whenever they are exposed to the atmosphere. To prevent a possible introduction of contamination, crews maintain positive pressure in the system.

Repairs or Tie-ins with No Groundwater Entry

These repairs are typically the result of electrolysis holes, cracks, and splits. Provided the watermain maintains positive pressure until crews have excavated below the bottom of the pipeline, it is assumed that no contaminant can enter the system. Upon completion of the repairs, the main is flushed and put back into service.

Repairs or Tie-ins with Groundwater Entry

On occasion, breaks have occurred where it is infeasible to maintain positive pressure or to pump the groundwater below the bottom of the watermain before shutting it off. In this case, disinfection, flushing, and residual testing procedures are followed prior to re-commissioning the watermain.

Current dishwasher models use as little as 23 litres of water, even for partial loads. Full loads will save a lot more water.

Staff adhere to the procedures set out in the American Water Works Association Standard C651-14 regarding watermain chlorination, which requires that mains are completely isolated and disinfected with a chlorine concentration for a retention time between 15 minutes and 24 hours. A minimum chlorine residual must always be maintained during disinfection. After a successful disinfection, the watermain is flushed continuously until the chlorine residual is less than 1 mg/L. When the desired residual level is achieved, the main is put back into service.

E.coli Detection

If E.coli is detected in a water sample, the response protocol is followed as per the City's Drinking Water Response Plan. The testing laboratory sends an immediate notification of the positive test sample. The City immediately notifies the Fraser Health Authority and the Municipal Health Officer of any positive E.coli test. Residual chlorine levels are immediately checked in vicinity of the sampling station. Engineering Operations team is deployed to the area and the watermain is flushed. Repeat samples are taken immediately upstream and downstream of the sampling station, within the same pressure zone to determine if there is any contamination in the distribution system. If there are no other positive E.coli samples, service continues for the area. As per protocol, three consecutive days of sampling and tests are required and all must test negative for E.coli, for the response to conclude. Should any further samples detect E.coli, the watermain is isolated and a boil water advisory is issued while the watermain is disinfected, until two consecutive sampling tests prove negative for E.coli.

Waste Water Contamination

When a watermain break is accompanied by a sanitary sewer break, the watermain is throttled to maintain positive system pressure while the sanitary main is repaired. Once the sanitary main is repaired, the watermain is taken out of service, disinfected, flushed, and tested. The Fraser Health Environmental Health Officer is notified and the main is put back into service once acceptable test results are achieved.

8.0 NOTIFICATION PROTOCOL

Normally, breaks or disruption to water service are caused by conditions that can be repaired and reinstated directly by the City crews without risk to the public health. However, sometimes situations arise that require extra care to guarantee infrastructure integrity.

Using a refillable water bottle or re-using a single glass to drink water for the day will reduce the number of glasses to wash per day, conserving water.

To address these abnormal occurrences, the notification protocol, as detailed in **Appendix 7,** is followed. It describes the proper procedure to activate emergency water supply, repair watermain and water service breaks, and provide backup power to pumping stations during a power outage. It also includes a list of personnel to be notified, and flow charts of response procedures in case of emergency events. Fraser Health is also notified of watermain breaks via email. This procedure has been implemented for mains larger than 100 mm in diameter.

9.0 UNIQUE CHARACTERISTICS OF THE SYSTEM

Delta's drinking water primarily comes from the three Metro Vancouver reservoirs (Seymour, Capilano, and Coquitlam). The City has received filtered Seymour and Capilano source waters from MV's Seymour-Capilano Filtration Plant since 2010 and 2015 respectively. This has significantly reduced turbidity in the water distribution system and improved chlorine residual results. The City also receives a small portion of Coquitlam source water.

Supplementally, the groundwater wells in Watershed Park have provided the City with an emergency drinking water source. By introducing this water into the distribution system, the City offsets the rising cost of purchasing water from MV. In 2025, Well #5 was redeveloped in early 2022 which increased the production of well water. Well #1 was taken out of service after evidence of PFAS was detected in mid-August 2025. Well #3 reached the end of its service life and has been out of operation since December 2023. The potential of a new well is being investigated.

10.0 PUBLIC INQUIRIES

The City responded to 140 requests in 2025 to investigate water related issues (**Figure 16**). When we receive calls concerning water potability, the City's Water Quality Technician would take a sample of the water in question and submit it to the MV Lab for testing.

Issues	Count
Water – Quality	72
Water – Pressure	68
Total	**140**

Figure 16: 2025 Public Inquiries

Only 1 hour a week of sprinkling is needed during dry weather for a healthy lawn.

Water users are advised by Fraser Health to partake in water flushing of taps and faucets for drinking and cooking. The following message from Fraser Health details this:

"Anytime the water in a particular faucet has not been used for six hours or longer, "flush" your cold-water pipes by running the water until you notice a change in temperature. (This could take as little as five to thirty seconds if there has been recent heavy water use such as showering or toilet flushing. Otherwise, it could take two minutes or longer.) The more time water has been sitting in your home's pipes, the more lead it may contain.

Use only water from the cold-tap for drinking, cooking, and especially making baby formula. Hot water is likely to contain higher levels of lead.

The two actions recommended above are very important to the health of your family. They will probably be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not from the local water supply.

Conserving water is still important. Rather than just running the water down the drain you could use the water for things such as watering your plants."

For additional public health information from Fraser Health, please refer to **Appendix 14**.

11.0 WATER SYSTEM EMERGENCY RESPONSE PLAN

The City also maintains a Water System Emergency Response Plan that outlines key staff and their contacts, which are also outlined in **Appendix 15** of this report, as well as actionable procedures for each emergency scenario that may negatively affect the system's ability to safety and adequately distribute water to users. The Emergency Plan is distributed internally and is also submitted to Fraser Health for review.

12.0 CONCLUSION

The majority of all water consumed in the City is purchased from Metro Vancouver with a small fraction from the City's groundwater wells. The City distributes this water to the City's various users, including residents, businesses, and institutions.

The City's maintenance and monitoring programs are designed maintain the integrity of its water system and the quality of the water within it. In 2025, approximately 1,266 water samples were collected to confirm a safe drinking water supply. No major exceedance incidences warranting Fraser Health notification occurred in 2025.

Adding mulch, organic matter to soil, thicker topsoil layers, or even leaving lawn mowing clippings can improve the soil's ability to retain water from rainfall or watering, needing less drinking water.

Check out www.welovewater.ca for more water saving tips!

For any questions related to this report or requests for more specific information about the City's drinking water, please contact the Engineering Department at 604-946-3260.

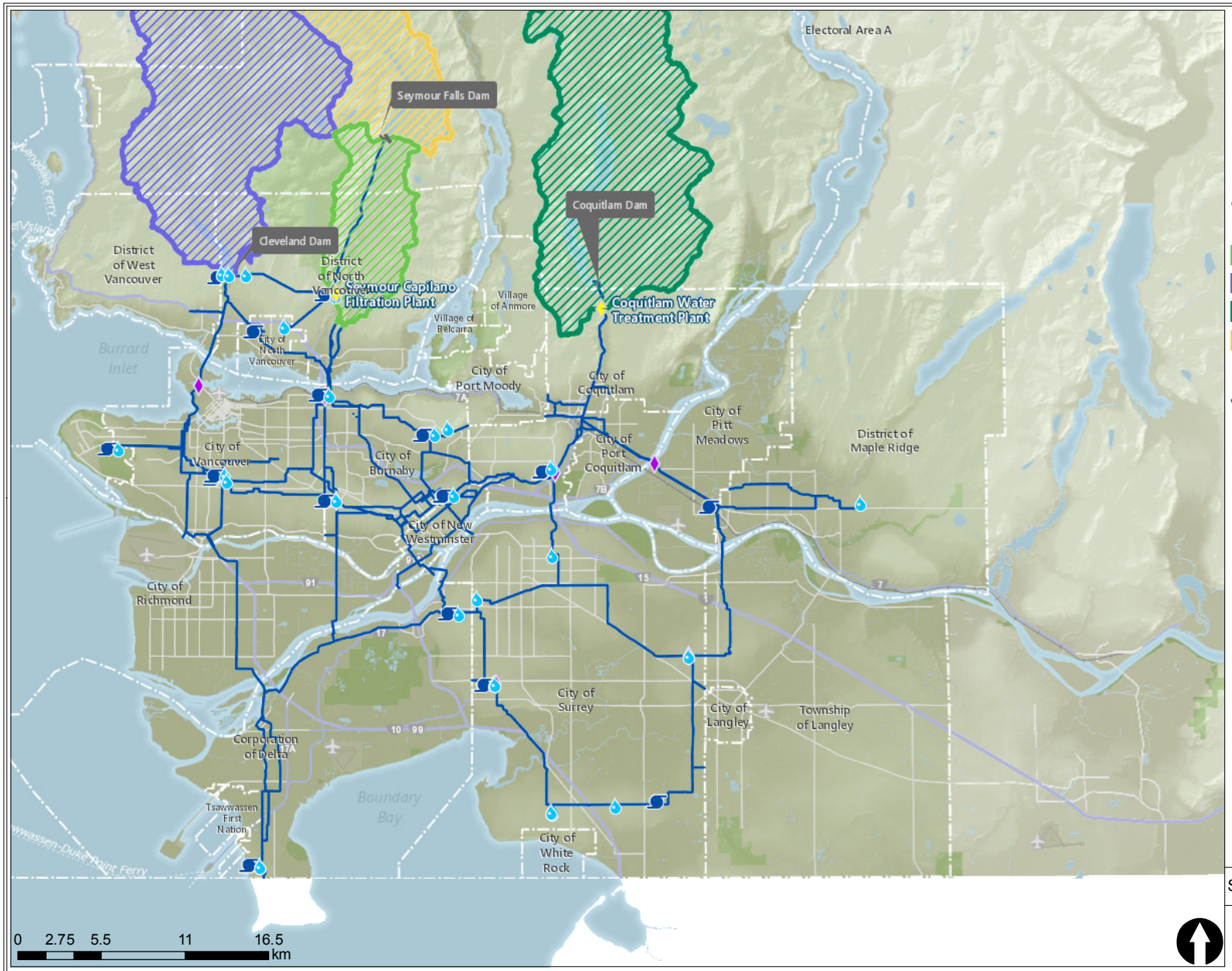
13.0 REFERENCES

1. *Drinking Water Protection Act* [SBC 2001] Chapter 9. Queen's Printer, Victoria, British Columbia
2. *Drinking Water Protection Regulation*, BC Reg.200/2003 [includes amendments up to B.C.Reg.237/2018, November 15, 2018]. Drinking Water Protection Act. Queen's Printer, Victoria, British Columbia
3. Health Canada: Guidelines for Canadian Drinking Water Quality, June 2019
4. The City's Water Service Bylaw No.7441, 2016 Amendment Bylaw No. 8537, 2025
5. Metro Vancouver 2025 Water Quality Control Annual Report
6. Metro Vancouver 2024 Water Consumption Statistics

Appendix 1

Metro Vancouver

Water Distribution Map



GVWD Distribution Map

- Municipal Labels
- Water Treatment Plants
- Chlorination Buildings
- Reservoirs
- Water Pump Stations
- Dams
- Lower Seymour Conservation Reserve
- Capilano Watershed
- Coquitlam Watershed
- Seymour Watershed
- Re-Chlorination Stations
- Water Mains

Scale 1:250,000

Coordinate System:
NAD 1983 UTM Zone 10N

Prepared By: arcgis
Date: 6/27/2016
Time: 9:27:48 AM

metrovancouver
SERVICES AND SOLUTIONS FOR
A LIVABLE REGION

Appendix 2

Tie-in Points To Metro Vancouver

Water Transmission Mains

Supply Points from Metro Vancouver to City of Delta

Location	Metro Van Main	Area Supplied	Type of Connection	PRV Name
52 Street at 12 Avenue	South Delta No.1	South Delta	Check Valve	
747 Chester Rd	Annacis Main No. 4	Annacis Island	Direct	
120 St & 64 Ave	64 Ave	North Delta	Direct	
116 St & 86 Ave	Annacis No. 2	North Delta	Hellings PS	
5870 Vasey Road	River Road West	Ladner	PRV	L-222
5236 Commodore Drive	South Delta No.1	Ladner & South Delta	PRV	L-230
Ferry Rd & Admiral Way	South Delta No.1	Ladner & South Delta	PRV	L-229
4930 Elliott Street	South Delta No.1	Ladner	PRV	L-224
4775 - 54A Street	South Delta No.2	Ladner	PRV	L-225
Mcneelys Way & River Rd	South Delta No.1	Ladner	PRV	L-228
7100 - 62B Street	River Road West	Ladner	PRV	L-221
8589 - 112 Street	Annacis Main No.2	North Delta	PRV	N-205
9550 Alaska Way	Annacis No.2	North Delta	PRV	N-200
9360 Alaska Way	Annacis No.2	North Delta	PRV	N-202
9088 Norum Road	Annacis Main No.2	North Delta	PRV	N-203
10459 Dunlop Road	River road East	North Delta	PRV	N-206
28 Avenue & 57B Street	South Delta No.2	Rural South Delta	PRV	L-231
Arthur Drive & 44 Avenue	South Delta No.1	Rural Ladner	PRV	L-223
52 St at Springs Boulevard	South Delta No.1	South Delta	PRV	S-233
5400 - 18 Avenue	South Delta No.2	South Delta	PRV	S-230
5400 - 12 Avenue	South Delta No.2	South Delta	PRV	S-231
52 Street & Imperial Gate	South Delta No.1	South Delta	PRV	S-232
52 Street & Hwy 17	South Delta No.1	South Delta	PRV	S-242
Huston Rd & 80 Street	River Road East	Tilbury & North Delta	PRV	L-220
7515 Hopcott Road	River Road West	Tilbury	PRV	L-226
Nordel Way & Swenson Way	River Road East	Tilbury	PRV	L-233
7205 McDonald Road	River Road West	Tilbury	PRV	L-234
11060 86 Avenue	Annacis No.2	North Delta	PRV	N-204
500 Derwent Way	Annacis No.2	Annacis Island	PRV	A-201
5200 - 4 Avenue	South Delta No.1	South Delta	PRV / PS	
6 Avenue at 52 Street*	South Delta No.2	South Delta	Valve Closed	
120 St & 96 Ave*	Whalley-Kennedy Link	North Delta	Direct	

(*) This connection is not currently in use.

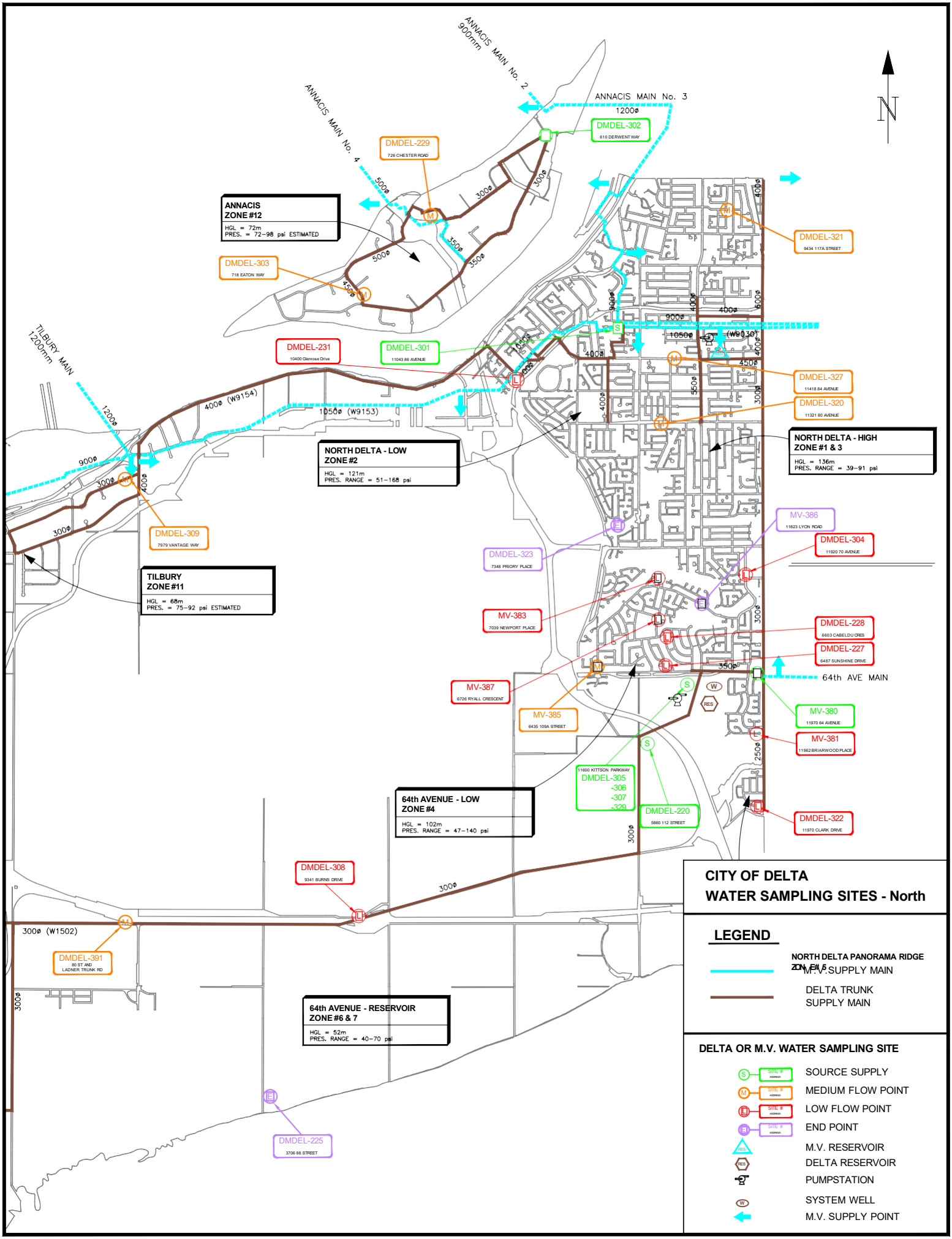
Appendix 3

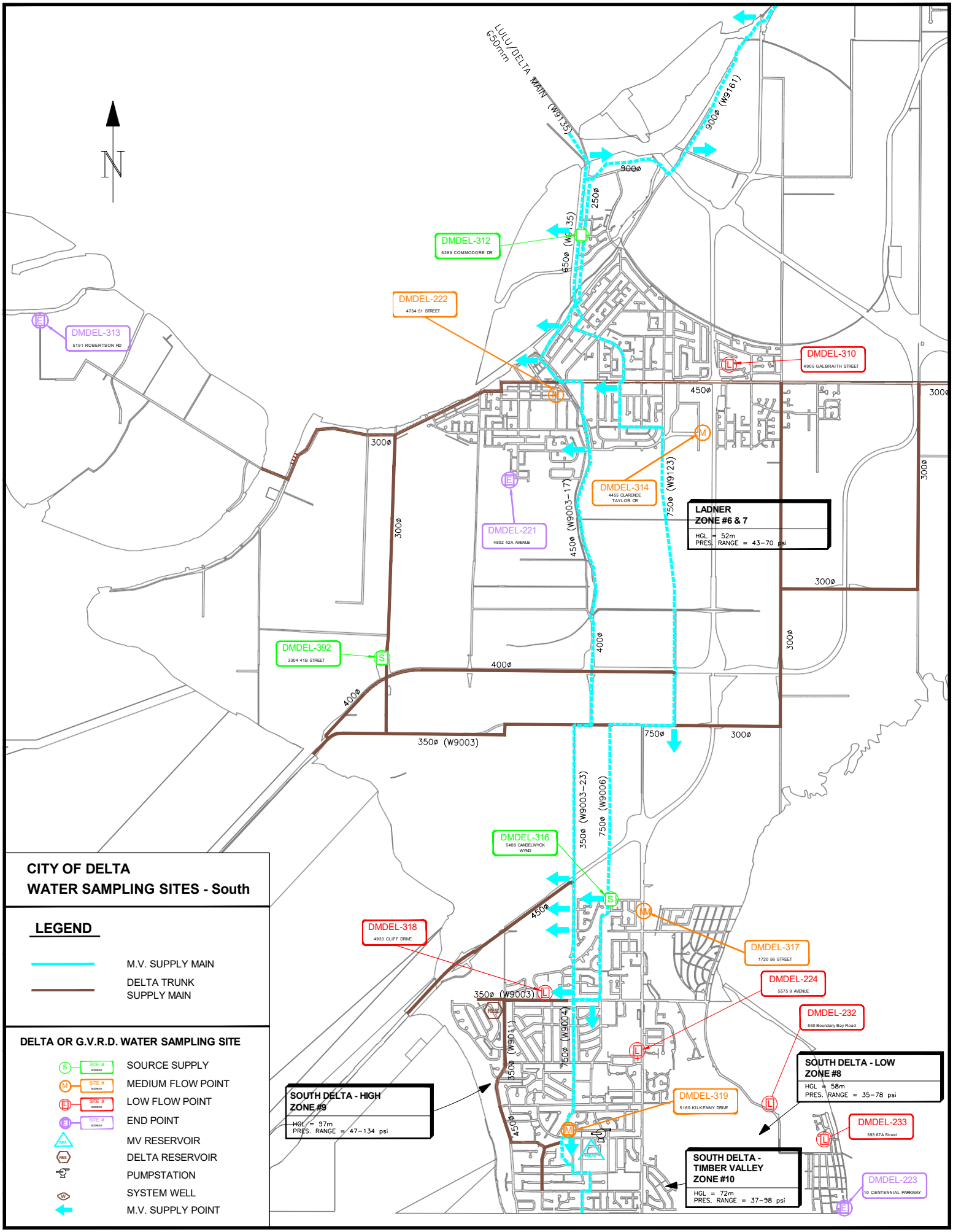
Sampling Site Index and Location Maps

CITY OF DELTA DRINKING WATER SAMPLING SITES

SAMPLE NUMBER	CIVIC ADDRESS	LOCATION	PIPE SIZE	MATERIAL	AGE	C.I. MAIN UPSTREAM	FLOW CATEGORY	FREQUENCY
DmDel **220**	5860 112th Street	East Ladner	350mm	PE	1989	No	Source	* Weekly/Annually
DmDel **221**	4802 42A Avenue	Ladner	100mm	PVC	2005	Yes	Dead End	Weekly
DmDel **222**	4734 51Street	Ladner	250mm	PVC	1995	Yes	Medium	Weekly
DmDel **223**	# 10 Centennial Parkway	Tsawwassen	150mm	PVC	2004	No	Dead End	Weekly
DmDel **224**	5575 9th Avenue	Tsawwassen	150mm	PVC	1998	Yes	Low	Weekly
DmDel **225**	3706 88th Street	Rural	150mm	PVC	1986	Yes	Dead End	* Weekly/Annually
DmDel **227**	6487 Sunshine Drive	North Delta	150mm	Cast Iron	1968	Yes	Low	Weekly
DmDel **228**	6603 Cabeldu Crescent	North Delta	200mm	PVC	1985	Yes	Low	Weekly
DmDel **229**	726 Chester Road	Annacis Island	300mm	A/C	1988	No	High	Weekly
DmDel **301**	11043 86th Avenue	North Delta	150mm	A/C	1961	Yes	Source	Weekly
DmDel **302**	610 Derwent Way	Annacis Island	300mm	A/C	1959	No	Source	Weekly
DmDel **303**	718 Eaton Way	Annacis Island	450mm	PVC	1985	No	Medium	Weekly
DmDel **304**	11920 70th Avenue	North Delta	300mm	PVC	2002	Yes	Low	Weekly
DmDel **305**	11600 64th Avenue	North Delta	Well # 1	Well Head	1999	N/A	Source	* Weekly/Annually
DmDel **306**	11600 64th Avenue	North Delta	Well # 5	Well Head	1999	N/A	Source	* Weekly/Annually
DmDel **307**	11600 64th Avenue	North Delta	Well # 3	Well Head	1999	N/A	Source	* Weekly/Annually
DmDel **308**	9341 Burns Drive	Rural	300mm	Cast Iron	1930	Yes	Low	Weekly
DmDel **309**	7979 Vantage Way	Tilbury	300mm	A/C	1978	No	Medium	Weekly
DmDel **310**	4905 Galbraith Street	Ladner	150mm	PVC	1983	Yes	Low	Weekly
DmDel **312**	5289 Commodore Drive	Ladner	200mm	PVC	1991	No	Source	Weekly
DmDel **313**	5191 Robertson Road	Westham Island	150mm	PVC	1984	Yes	Dead End	Weekly
DmDel **314**	4455 Clarence Taylor Crescent	Ladner	300mm	PVC	1992	No	Medium	Weekly
DmDel **316**	5408 Candlewyck Wynd	Tsawwassen	150mm	A/C	1976	No	Source	Weekly
DmDel **317**	1720 56th Street	Tsawwassen	200mm	PVC	1983	No	Medium	Weekly
DmDel **318**	4933 Cliff Drive	Tsawwassen	150mm	PVC	2010	Yes	Low	Weekly
DmDel **319**	5169 Kilkenny Drive	Tsawwassen	300mm	Ductile Iron	1977	No	Medium	Weekly
DmDel **320**	11321 80th Avenue	North Delta	200mm	Cast Iron	1966	Yes	Medium	Weekly
DmDel **321**	9434 117A Street	North Delta	150mm	PVC	2005	Yes	Medium	Weekly
DmDel **322**	11970 Clark Drive	North Delta	150mm	PVC	2007	No	Low	Weekly
DmDel **323**	7348 Priory Place	North Delta	100mm	Cast Iron	1971	Yes	Dead End	Weekly
DmDel **327**	11418 84th Avenue	North Delta	300mm	PVC	2002	Yes	Medium	Weekly
DmDel **329**	11600 64th Avenue	North Delta	Reservoir	Outlet	1975	N/A	Source	* Weekly/Annually
DmDel **391**	Ladner Trunk Rd - east of 80 St	Rural	350mm	PVC	2002	Yes	High	Weekly
DmDel **392**	3044 41B Street	Rural	300 mm	PVC	2011	No	Source	Weekly

Water samples are tested for the following: Coliforms, Turbidity, Chlorine Residual and Temperature.
Sample sites 220, 225, 305, 306, 307 & 329 are also tested annually for Metals, Chemicals and Methyl tert-butyl ethers.


ANNACIS MAIN No. 2
900mm
ANNACIS MAIN No. 4
ANNACIS MAIN No. 3
1200ø
DMDEL-302
610 DERWENT WAY
DMDEL-229
726 CHESTER ROAD
ANNACIS
ZONE #12
HGL = 72m
PRES. = 72-98 psi ESTIMATED
DMDEL-303
718 EATON WAY
DMDEL-321
9434 117A STREET
TILBURY MAIN
1200mm
DMDEL-231
10400 Glenrose Drive
DMDEL-301
11043 86 AVENUE
400ø (W9154)
1050ø (W9153)
DMDEL-327
11418 84 AVENUE
DMDEL-320
11321 80 AVENUE
NORTH DELTA - LOW
ZONE #2
HGL = 121m
PRES. RANGE = 51-168 psi
NORTH DELTA - HIGH
ZONE #1 & 3
HGL = 136m
PRES. RANGE = 39-91 psi
DMDEL-309
7979 VANTAGE WAY
TILBURY
ZONE #11
HGL = 68m
PRES. = 75-92 psi ESTIMATED
MV-386
11623 LYON ROAD
DMDEL-323
7348 PRIORY PLACE
DMDEL-304
11920 70 AVENUE
MV-383
7039 NEWPORT PLACE
DMDEL-228
6603 CABELDU CRES
DMDEL-227
6487 SUNSHINE DRIVE
64th AVE MAIN
MV-387
6726 RYALL CRESCENT
MV-385
6435 109A STREET
MV-380
11970 64 AVENUE
MV-381
11962 BRIARWOOD PLACE
11600 KITTSON PARKWAY
DMDEL-305
-306
-307
-329
DMDEL-220
5860 112 STREET
DMDEL-322
11970 CLARK DRIVE
64th AVENUE - LOW
ZONE #4
HGL = 102m
PRES. RANGE = 47-140 psi
DMDEL-308
9341 BURNS DRIVE
300ø (W1502)
DMDEL-391
80 ST AND
LADNER TRUNK RD
64th AVENUE - RESERVOIR
ZONE #6 & 7
HGL = 52m
PRES. RANGE = 40-70 psi
DMDEL-225
3706 88 STREET
CITY OF DELTA
WATER SAMPLING SITES - North
LEGEND
NORTH DELTA PANORAMA RIDGE
ZONE #5
M.V. SUPPLY MAIN
DELTA TRUNK
SUPPLY MAIN
DELTA OR M.V. WATER SAMPLING SITE
SOURCE SUPPLY
MEDIUM FLOW POINT
LOW FLOW POINT
END POINT
M.V. RESERVOIR
DELTA RESERVOIR
PUMPSTATION
SYSTEM WELL
M.V. SUPPLY POINT
F:\Eng\1_Active Capital Projects\Active Drawings\2024\Delta Water Sampling Sites 2023.dwg


LULU/DELTA MAIN (W9135)
650mm
900ø (W9161)
900ø
250ø
650ø (W9135)
DMDEL-312
5289 COMMODORE DR
DMDEL-222
4734 51 STREET
DMDEL-313
5191 ROBERTSON RD
DMDEL-310
4905 GALBRAITH STREET
450ø
300ø
300ø
DMDEL-314
4455 CLARENCE TAYLOR CR
750ø (W9123)
LADNER
ZONE #6 & 7
HGL = 52m
PRES. RANGE = 43-70 psi
DMDEL-221
4802 42A AVENUE
450ø (W9003-17)
300ø
300ø
300ø
DMDEL-392
3304 41B STREET
400ø
400ø
400ø
350ø (W9003)
750ø
300ø
350ø (W9003-23)
750ø (W9006)
DMDEL-316
5408 CANDELWYCK WYND
450ø
DMDEL-318
4933 CLIFF DRIVE
DMDEL-317
1720 56 STREET
DMDEL-224
5575 9 AVENUE
350ø (W9003)
DMDEL-232
550 Boundary Bay Road
350ø (W9011)
750ø (W9004)
SOUTH DELTA - LOW
ZONE #8
HGL = 58m
PRES. RANGE = 35-78 psi
SOUTH DELTA - HIGH
ZONE #9
HGL = 97m
PRES. RANGE = 47-134 psi
DMDEL-319
5169 KILKENNY DRIVE
450ø
DMDEL-233
393 67A Street
SOUTH DELTA -
TIMBER VALLEY
ZONE #10
HGL = 72m
PRES. RANGE = 37-98 psi
DMDEL-223
10 CENTENNIAL PARKWAY
N
CITY OF DELTA
WATER SAMPLING SITES - South
LEGEND
M.V. SUPPLY MAIN
DELTA TRUNK SUPPLY MAIN
DELTA OR G.V.R.D. WATER SAMPLING SITE
SOURCE SUPPLY
MEDIUM FLOW POINT
LOW FLOW POINT
END POINT
MV RESERVOIR
DELTA RESERVOIR
PUMPSTATION
SYSTEM WELL
M.V. SUPPLY POINT
F:\Eng\1_Active Capital Projects\Active Drawings\2024\Delta Water Sampling Sites 2023.dwg

Appendix 4

Metro Vancouver

Source Water and Distribution System

Test Parameters

Water Type	Parameter	Minimum Frequency
Untreated, Source Water	Total coliform and *E. coli*	Daily
	HPC	Daily
	pH	Daily
	Turbidity	Daily
	Giardia and *Cryptosporidium*	Monthly
	Alkalinity, Ammonia, colour, iron, organic carbon	Weekly
	Calcium, chloride, fluoride, hardness, magnesium, manganese, nitrate, nitrite, phosphorus, sulphate	Monthly
	Aluminum, residue, silica, sodium	Bi-monthly
	TTHM, HAA5	Quarterly
	Antimony, arsenic, barium, boron, cadmium, chromium, copper, cyanide, lead, mercury, nickel, phenols, potassium, selenium, silver, uranium. zinc	Semi-annually
	Pesticides and herbicides	Annually
	PAHs, BTEX	Annually
	PFOS, PFOA, PFAS (sum of 25 compounds)	Annually
	VOCs	Annually
	Radionuclides	Annually
Treated Water before Transmission	Total coliform and *E. coli*	Daily
	Free chlorine, pH, temperature	Daily
	Turbidity	Daily
	Alkalinity, Ammonia, colour, conductivity, iron, organic carbon, aluminum at SCFP only	Weekly
	Aluminum, sodium, total and suspended solids (residue)	Bi-Monthly
	TTHM, HAA5	Quarterly at selected sites
	Antimony, arsenic, barium, boron, cadmium, chromium, copper, cyanide, lead, mercury, nickel, phenols, selenium, silver, zinc	Semi-annually
GVWD Water Mains	Total coliform and *E. coli,* HPC	Weekly
	Free chlorine, pH, temperature	Weekly
	TTHM, HAA5	Quarterly at selected sites
	PAHs, BTEX, vinyl chloride	Semi-annually at selected sites
GVWD Reservoirs	Total coliform and *E. coli,* HPC	Weekly
	Turbidity	Weekly
GVWD Supplied Distribution Systems	Total coliform and *E. coli,* HPC	Weekly
	Free chlorine, temperature	Weekly
	Turbidity	Weekly
	TTHM, HAA5, pH	Quarterly at selected sites
	Aluminum, antimony, arsenic, barium, boron, cadmium, calcium, chromium, copper, iron, lead, magnesium, manganese, mercury, selenium, silver, sodium, zinc, vinyl chloride	Semi-annually at selected sites

Appendix 5

Metro Vancouver

Physical and Chemical Analysis

Of Source Water

Metro Vancouver Physical and Chemical Analysis of Water Supply

2025 – Capilano Water System

Analyte	Untreated[1]	Treated[2]			Canadian Guideline	
	Average	Average	Range	Days Exceeded	Limit[3]	Reason Established
Alkalinity as $CaCO_3$ (mg/L)	3.1	21	17-23	N/A	None	N/A
Aluminum Dissolved (µg/L)	64	25	17-37	N/A	None	N/A
Aluminum Total (µg/L)	109	28	18-50	0	2,900/100	Health/Operational
Antimony Total (µg/L)	<0.5	<0.5	<0.5	0	6	Health
Arsenic Total (µg/L)	<0.5	<0.5	<0.5	0	10 (ALARA)	Health
Barium Total (µg/L)	2.6	3.0	2.6 - 3.4	0	2,000	Health
Boron Total (µg/L)	<10	<10	<10	0	5,000	Health
Bromate (µg/L)	<10	<10	<10	0	10	Health
Bromide (µg/L)	<10	<10	<10	N/A	None	N/A
Cadmium Total (µg/L)	<0.2	<0.2	<0.2	0	7	Health
Calcium Total (µg/L)	1,180	7,910	7,180 - 8,880	N/A	None	N/A
Carbon Organic - Dissolved (mg/L)	1.7	0.7	0.5-1.1	N/A	None	N/A
Carbon Organic - Total (mg/L)	1.8	0.7	0.5-1.1	N/A	None	N/A
Chlorate (µg/L)	<10	42	20-110	0	1,000	Health
Chloride (mg/L)	<0.6	2.7	2.4 - 3.5	0	≤250	Aesthetic
Chromium Total (µg/L)	<0.07	<0.05	<0.05 - 0.06	0	50	Health
Cobalt Total (µg/L)	<0.5	<0.5	<0.5	N/A	None	N/A
Colour - Apparent (ACU)	14	<2	<2-2	N/A	None	N/A
Colour - True (TCU)	10	<1	<1 - 1	0	≤15	Aesthetic
Conductivity (µmhos/cm)	11	52	47 - 58	N/A	None	N/A
Copper Total (µg/L)	3.0	<0.5	<0.5	0	2,000/1,000	Health/Aesthetic
Cyanide Total (mg/L)	<0.002	<0.002	<0.002	0	0.2	Health
Cyanobacterial Toxins – Microcystin – LR (µg/L)	<0.20	N/A	N/A	0	1.5	Health
1,4-Dioxane (µg/L)	<1	N/A	N/A	N/A	50	Health
Formaldehyde (µg/L)	N/A[4]	N/A[4]	N/A[4]	N/A[4]	None	N/A
Fluoride (mg/L)	<0.05	<0.05	<0.05	0	1.5	Health
Haloacetic Acid 5 (HAA5) (µg/L)	<3	16	10 - 20	0	80 (ALARA)	Health
Hardness as $CaCO_3$ (mg/L)	3.6	20.5	18.8 - 22.2	N/A	None	N/A
Iron Dissolved (µg/L)	30	<5	<5	N/A	None	N/A
Iron Total (µg/L)	89	<8	<5-15	0	≤100	Aesthetic
Lead Total (µg/L)	<0.5	<0.5	<0.5	0	5 (ALARA)	Health
Magnesium Total (µg/L)	164	216	157 - 296	N/A	None	N/A
Manganese Dissolved (µg/L)	3.7	2.0	0.9 - 4.1	N/A	None	N/A
Manganese Total (µg/L)	4.6	4.2	2.0 - 10.2	0	120/20	Health/Aesthetic
Mercury Total (µg/L)	<0.05	<0.05	<0.05	0	1	Health
Molybdenum Total (µg/L)	<0.5	<0.5	<0.5	N/A	88[5]	N/A
Nickel Total (µg/L)	<0.5	<0.5	<0.5	N/A	80[5]	N/A
Nitrilotriacetic acid (NTA) (µg/L)	<50	N/A	N/A	N/A	400	Health
Nitrogen - Ammonia as N (mg/L)	<0.02	<0.02	<0.02	N/A	None	N/A
Nitrogen - Nitrate as N (mg/L)	0.07	0.06	0.02 - 0.09	0	10	Health
Nitrogen - Nitrite as N (mg/L)	<0.01	<0.01	<0.01	0	1	Health
***N*-Nitrosodimethylamine (NDMA) (ng/L)**	<1.9	N/A	N/A	N/A	40	Health
pH (pH units)	6.6	8.3	7.9 - 8.5	0	7.0 - 10.5	Aesthetic
Phenol (mg/L)	<0.004	<0.004	<0.002 - <0.005	N/A	None	N/A
Potassium Total (µg/L)	156	154	140 - 166	N/A	None	N/A
Residue Total Dissolved (TDS) (mg/L)	14	32	28 - 37	0	≤500	Aesthetic
Selenium Total (µg/L)	<0.5	<0.5	<0.5	0	10[5]	Health
Silica as SiO_2 (mg/L)	3.5	3.5	3.2 - 3.8	N/A	None	N/A
Silver Total (µg/L)	<0.5	<0.5	<0.5	N/A	None	N/A
Sodium Total (µg/L)	575	1,660	1,340 - 2,120	0	≤200,000	Aesthetic
Strontium (µg/L)	5.7	21.5	20.5 – 22.4	0	7000	Health
Total Trihalomethanes (TTHM) (µg/L)	<4	22.5	19 - 26	0	100	Health
Turbidity (NTU)	0.93	0.15	0.07 - 0.40	N/A	None[6]	N/A
Uranium Total (µg/L)	<0.5	<0.5	<0.5	0	20	Health
UV Absorbance 254 nm (Abs/cm)	0.067	0.011	0.007 - 0.015	N/A	None	N/A
Zinc Total (µg/L)	<3	<3	<3	0	≤5,000	Aesthetic

[1]Untreated water is sampled prior to the Seymour Capilano Filtration Plant.

[2]Treated water is sampled prior to entering the Capilano transmission system.

[3]Limits are taken from *the Guidelines for Canadian Drinking Water Quality*, unless otherwise indicated.

[4]Not applicable (N/A) because formaldehyde is a by-product of disinfection with ozone and ozone is not used at SCFP.

[5]A more strict guideline exists in the *Source Drinking Water Quality Guidelines*, BC Ministry of Environment & Climate Change Strategy (2020).

[6]*Guidelines for Canadian Drinking Water Quality* recommends that water entering the distribution system have turbidity levels of 1.0 NTU or less.

Metro Vancouver Physical and Chemical Analysis of Water Supply

2025 – Coquitlam Water System

Analyte	Untreated[1]	Treated[2]			Canadian Guideline	
	Average	Average	Range	Days Exceeded	Limit[3]	Reason Established
Alkalinity as $CaCO_3$ (mg/L)	1.9	20	9.5 - 23	N/A	None	N/A
Aluminum Dissolved (µg/L)	55	61	44 - 74	N/A	None	N/A
Aluminum Total (µg/L)	74	75	58 - 85	0	2,900/100	Health/Operational
Antimony Total (µg/L)	<0.5	<0.5	<0.5	0	6	Health
Arsenic Total (µg/L)	<0.5	<0.5	<0.5	0	10 (ALARA)	Health
Barium Total (µg/L)	2.6	2.4	2.2 - 2.7	0	2,000	Health
Boron Total (µg/L)	<10	<10	<10	0	5,000	Health
Bromate (µg/L)	<10	<10	<10	0	10	Health
Bromide (µg/L)	<10	<10	<10	N/A	None	N/A
Cadmium Total (µg/L)	<0.2	<0.2	<0.2	0	7	Health
Calcium Total (µg/L)	828	824	738 - 914	N/A	None	N/A
Carbon Organic - Dissolved (mg/L)	1.6	1.6	1.3 - 2.1	N/A	None	N/A
Carbon Organic - Total (mg/L)	1.7	1.6	1.3 - 2.1	N/A	None	N/A
Chlorate (µg/L)	<10	110	45 - 160	0	1,000	Health
Chloride (mg/L)	<0.5	2.3	2.0 - 2.7	0	≤250	Aesthetic
Chromium Total (µg/L)	<0.05	<0.05	<0.05	0	50	Health
Cobalt Total (µg/L)	<0.5	<0.5	<0.5	N/A	None	N/A
Colour - Apparent (ACU)	12	<2	<2 - 2	N/A	None	N/A
Colour - True (TCU)	8	<1	<1 - 2	0	≤15	Aesthetic
Conductivity (µmhos/cm)	8	48	31 - 53	N/A	None	N/A
Copper Total (µg/L)	<0.5	<0.5	<0.5	0	2,000/1,000	Health/Aesthetic
Cyanide Total (mg/L)	<0.002	<0.002	<0.002	0	0.2	Health
Cyanobacterial Toxins – Microcystin – LR (µg/L)	<0.20	N/A	N/A	0	1.5	Health
1,4-Dioxane (µg/L)	<1	<1	<1	0	50	Health
Formaldehyde (µg/L)	N/A	19	19	N/A	None	N/A
Fluoride (mg/L)	<0.05	<0.05	<0.05	0	1.5	Health
Haloacetic Acid 5 (HAA5) (µg/L)	<3	7	5 - 10	0	80 (ALARA)	Health
Hardness as $CaCO_3$ (mg/L)	2.4	2.4	2.2 - 2.7	N/A	None	N/A
Iron Dissolved (µg/L)	15	17	10 - 29	N/A	None	N/A
Iron Total (µg/L)	44	43	28 - 97	0	≤100	Aesthetic
Lead Total (µg/L)	<0.5	<0.5	<0.5	0	5 (ALARA)	Health
Magnesium Total (µg/L)	92	92	80 - 102	N/A	None	N/A
Manganese Dissolved (µg/L)	3.4	2.4	0.8 - 3.5	N/A	None	N/A
Manganese Total (µg/L)	3.8	3.2	2.2 - 4.2	0	120/20	Health/Aesthetic
Mercury Total (µg/L)	<0.05	<0.05	<0.05	0	1	Health
Molybdenum Total (µg/L)	<0.5	<0.5	<0.5	N/A	88[4]	N/A
Nickel Total (µg/L)	<0.5	<0.5	<0.5	N/A	80[4]	N/A
Nitrilotriacetic acid (NTA) (µg /L)	<50	<50	<50	0	400	Health
Nitrogen - Ammonia as N (mg/L)	<0.02	<0.02	<0.02	N/A	None	N/A
Nitrogen - Nitrate as N (mg/L)	0.07	0.07	0.05 - 0.09	0	10	Health
Nitrogen - Nitrite as N (mg/L)	<0.01	<0.01	<0.01	0	1	Health
N-Nitrosodimethylamine (NDMA) (ng/L)	<1.9	<1.9	<1.9	0	40	Health
pH (pH units)	6.3	8.3	7.7 - 9.2	0	7.0 - 10.5	Aesthetic
Phenol (mg/L)	<0.004	<0.004	<0.002 - <0.005	N/A	None	N/A
Potassium Total (µg/L)	115	114	104 - 122	N/A	None	N/A
Residue Total Dissolved (TDS) (mg/L)	11	33	30 - 35	0	≤500	Aesthetic
Selenium Total (µg/L)	<0.5	<0.5	<0.5	0	10[4]	Health
Silica as SiO_2 (mg/L)	2.6	2.6	2.5 - 2.8	N/A	None	N/A
Silver Total (µg/L)	<0.5	<0.5	<0.5	N/A	None	N/A
Sodium Total (µg/L)	463	10,100	8,910 - 11,200	0	≤200,000	Aesthetic
Strontium (µg/L)	3.8	3.8	3.5 – 4.0	0	7000	Health
Total Trihalomethanes (TTHM) (µg/L)	<4	5.5	4 - 7	0	100	Health
Turbidity (NTU)	0.39	0.33	0.13 - 2.0	N/A	None[5]	N/A
Uranium Total (µg/L)	<0.5	<0.5	<0.5	0	20	Health
UV Absorbance 254 nm (Abs/cm)	0.060	0.018	0.015 - 0.031	N/A	None	N/A
Zinc Total (µg/L)	<3	<3	<3	0	≤5,000	Aesthetic

[1]Untreated water is sampled from the source intake.

[2]Treated water is sampled prior to entering the Coquitlam transmission system.

[3]Limits are taken from the *Guidelines for Canadian Drinking Water Quality*, unless otherwise indicated.

[4]A more strict guideline exists in the *Source Drinking Water Quality Guidelines*, BC Ministry of Environment & Climate Change Strategy (2020).

[5]*Guidelines for Canadian Drinking Water Quality* recommends that water entering the distribution system have turbidity levels of 1.0 NTU or less.

Metro Vancouver Physical and Chemical Analysis of Water Supply

2025 – Seymour Water System

Analyte	Untreated[1]	Treated[2]			Canadian Guideline	
	Average	Average	Range	Days Exceeded	Limit[3]	Reason Established
Alkalinity as $CaCO_3$ (mg/L)	4.1	20	17 - 23	N/A	None	N/A
Aluminum Dissolved (µg/L)	49	25	15 - 37	N/A	None	N/A
Aluminum Total (µg/L)	76	28	16 - 48	0	2,900/100	Health/Operational
Antimony Total (µg/L)	<0.5	<0.5	<0.5	0	6	Health
Arsenic Total (µg/L)	<0.5	<0.5	<0.5	0	10 (ALARA)	Health
Barium Total (µg/L)	3.4	2.8	2.4 - 3.0	0	2,000	Health
Boron Total (µg/L)	<10	<10	<10	0	5,000	Health
Bromate (µg/L)	<10	<10	<10	0	10	Health
Bromide (µg/L)	<10	<10	<10	N/A	None	N/A
Cadmium Total (µg/L)	<0.2	<0.2	<0.2	0	7	Health
Calcium Total (µg/L)	1,670	7,810	6,930 - 8,760	N/A	None	N/A
Carbon Organic - Dissolved (mg/L)	1.6	0.7	0.5 - 1.0	N/A	None	N/A
Carbon Organic - Total (mg/L)	1.6	0.7	0.5 - 1.0	N/A	None	N/A
Chlorate (µg/L)	<10	43	20 - 110	0	1,000	Health
Chloride (mg/L)	<0.5	2.8	2.3 - 3.5	0	≤250	Aesthetic
Chromium Total (µg/L)	<0.05	<0.05	<0.05	0	50	Health
Cobalt Total (µg/L)	<0.5	<0.5	<0.5	N/A	None	N/A
Colour - Apparent (ACU)	14	<2	<2 - 3	N/A	None	N/A
Colour - True (TCU)	9	<1	<1 - 1	0	≤15	Aesthetic
Conductivity (µmhos/cm)	14	52	47 - 56	N/A	None	N/A
Copper Total (µg/L)	24.9	<0.5	<0.5	0	2,000/1,000	Health/Aesthetic
Cyanide Total (mg/L)	<0.002	<0.002	<0.002	0	0.2	Health
Cyanobacterial Toxins – Microcystin – LR (µg/L)	<0.20	N/A	N/A	0	1.5	Health
1,4-Dioxane (µg/L)	<1	<1	<1	0	50	Health
Formaldehyde (µg/L)	N/A[4]	N/A[4]	N/A[4]	N/A[4]	None	N/A
Fluoride (mg/L)	<0.05	<0.05	<0.05	0	1.5	Health
Haloacetic Acid 5 (HAA5) (µg/L)	<3	12	9 - 14	0	80 (ALARA)	Health
Hardness as $CaCO_3$ (mg/L)	4.8	20.2	18.1 - 22.1	N/A	None	N/A
Iron Dissolved (µg/L)	59	<5	<5	N/A	None	N/A
Iron Total (µg/L)	147	<9	<5 - 20	0	≤100	Aesthetic
Lead Total (µg/L)	<0.5	<0.5	<0.5	0	5 (ALARA)	Health
Magnesium Total (µg/L)	147	213	154 - 302	N/A	None	N/A
Manganese Dissolved (µg/L)	4.1	2.6	0.9 - 5.6	N/A	None	N/A
Manganese Total (µg/L)	5.8	4.6	2.4 - 10.6	0	120/20	Health/Aesthetic
Mercury Total (µg/L)	<0.05	<0.05	<0.05	0	1	Health
Molybdenum Total (µg/L)	<0.5	<0.5	<0.5	N/A	88[5]	N/A
Nickel Total (µg/L)	<0.5	<0.5	<0.5	N/A	80[5]	N/A
Nitrilotriacetic acid (NTA) (µg/L)	<50	<50	<50	0	400	Health
Nitrogen - Ammonia as N (mg/L)	<0.02	<0.02	<0.02	N/A	None	N/A
Nitrogen - Nitrate as N (mg/L)	0.05	0.06	0.02 - 0.09	0	10	Health
Nitrogen - Nitrite as N (mg/L)	<0.01	<0.01	<0.01	0	1	Health
***N*-Nitrosodimethylamine (NDMA) (ng/L)**	<1.9	<1.9	<1.9	0	40	Health
pH (pH units)	6.6	8.1	7.8 - 8.5	0	7.0 - 10.5	Aesthetic
Phenol (mg/L)	<0.004	<0.004	<0.002 - <0.005	N/A	None	N/A
Potassium Total (µg/L)	156	149	127 - 165	N/A	None	N/A
Residue Total Dissolved (TDS) (mg/L)	15	32	29 - 37	0	≤500	Aesthetic
Selenium Total (µg/L)	<0.5	<0.5	<0.5	0	10[5]	Health
Silica as SiO_2 (mg/L)	3.4	3.5	3.1 - 3.8	N/A	None	N/A
Silver Total (µg/L)	<0.5	<0.5	<0.5	N/A	None	N/A
Sodium Total (µg/L)	554	1650	1,310 - 2,100	0	≤200,000	Aesthetic
Strontium (µg/L)	7.2	20.4	18.6 – 21.8	0	7000	Health
Total Trihalomethanes (TTHM) (µg/L)	<4	18.5	15 - 20	0	100	Health
Turbidity (NTU)	0.56	0.17	0.08 - 0.52	N/A	None[6]	N/A
Uranium Total (µg/L)	<0.5	<0.5	<0.5	0	20	Health
UV Absorbance 254 nm (Abs/cm)	0.061	0.011	0.007 - 0.016	N/A	None	N/A
Zinc Total (µg/L)	<3	<3	<3	0	≤5,000	Aesthetic

[1]Untreated water is sampled prior to the Seymour Capilano Filtration Plant.
[2]Treated water is sampled prior to entering the Seymour transmission system.
[3]Limits are taken from *the Guidelines for Canadian Drinking Water Quality*, unless otherwise indicated.
[4]Not applicable (N/A) because formaldehyde is a by-product of disinfection with ozone and ozone is not used at SCFP.
[5]A more strict guideline exists in the *Source Drinking Water Quality Guidelines*, BC Ministry of Environment & Climate Change Strategy (2020).
[6]*Guidelines for Canadian Drinking Water Quality* recommends that water entering the distribution system have turbidity levels of 1.0 NTU or less.

Appendix 6

Delta Source Water

Test Parameters

Delta Source Water Monitoring Frequency

Weekly	Quarterly		Annually				
Chlorine	Aluminum	Turbidity	1,4-Dioxane	Chlorfenson	Endosulfan sulfate	Nitrite	Sulfide
Escherichia Coli	Alkalinity	Uranium	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	Chlorfenvinphos	Endrin	N-nitrosodimethylamine (NDMA)	Sulfotep
HPC	Ammonia	Vanadium	3-Hydroxycarbofuran	Chlormephos	Eptam	Norflurazon	Tecnazene
Temperature	Antimony	Zinc	4-Bromofluorobenzene	Chlorothalonil	Ethalfluralin	Organochlorine	Terbacil
Total Coliforms	Arsenic		4-Bromofluorobenzene	Chlorpropham	Ethion	Organophosphate	Terbufos
Turbidity	Barium		Alachlor	Chlorpyrifos	Ethylbenzene	Oxamyl	Terbuthylazine
pH	Boron		Aldicarb	Chlorpyrifos-methyl	Fenamiphos	P-Alkalinity	Terbutryn
	Cadmium		Aldicarb sulfone	Chlorthal-dimethyl	Fenchlorphos	Parathion	Tetrachloroethylene
	Calcium		Aldicarb sulfoxide	Chlorthiophos	Fenitrothion	Pebulate	Tetrachlorvinphos
	Chloride		Aldrin	Cobalt	Fenoxaprop-ethyl	Pentachlorophenol	Tetradifon
	Chromium		Aspon	Cyanide	Fenthion	Permethrin-cis	Toluene
	Colour		Atrazine + Metabolites	Cyanophos	Fenvalerate	Permethrin-trans	Toluene-d8
	Copper		Azinphos-ethyl	DDD-o,p'	Fluazifop-p-butyl	Per- and polyfluoroalkyl substances	Tolyfluanid
	Cyanobacterial toxins*		Azinphos-methyl	DDD-p,p'	Folpet	pH Holding Time	Total Dissolved Solids
	Digestion		BDMC	DDE-o,p'	Fonofos	Phorate	Total Xylenes (m,p,o)
	Electrical Conductivity		Bendiocarb	DDE-p,p'	Heptachlor	Phosalone	TPP
	Escherichia Coli		Benfluralin	DDT-o,p'	Heptachlor Epoxide	Phosmet	Triadimefon
	Fluoride		Benzene	DDT-p,p'	Heterotrophic Count - Aerobic	Phosphamidon	Triallate
	Hardness		Benzo(a)Pyrene	Deltamethrin	Hexachlorobenzene	Pirimicarb	Trichloroethylene
	Heterotrophic Count - Aerobic		BHC (alpha isomer)	Demeton	Hexazinone	Pirimiphos-ethyl	Trichlorophenol, 2,4,6-
	Iron		BHC (beta isomer)	Diallate	Hydrogen Sulfide	Pirimiphos-methyl	Trifluralin
	Lead		BHC (delta isomer)	Diazinon	Hydroxide	Procymidone	Xylenes (Total)
	Magnesium		Bicarbonate	Dibromofluoromethane	Imidacloprid	Profluralin	Vernolate
	Manganese		Bifenox	Dicamba	Isofenphos	Promecarb	Vinclozolin
	Mercury		BPMC	Dichlobenil	Lindane	Prometon	
	Nitrate - N		Bromide	Dichlofenthion	Malaoxon	Prometryn	
	Nitrite - N		Bromophos	Dichlofluanid	Malathion	Propachlor	
	pH		Bromophos-ethyl	Dichlorobenzene, 1,4-	Metalaxyl	Propargite	
	Phosphate		Bromoxynil	Dichloroethane, 1,2-	Methiocarb	Propazine	
	Potassium		Butylate	Dichloroethylene, 1,1-	Methomyl	Propiconazole	
	Selenium		Captan	Dichloromethane	Methoprene	Propoxur	
	Silicon		Carbaryl	Dichlorophenoxyacetic Acid 2,4 (2,4-D)	Methoxychlor	Propyzamide	
	Sodium		Carbofuran	Diclofop-methyl	Methyl Parathion	Pyrazophos	
	Strontium		Carbon Tetrachloride	Dieldrin	Methyl t-Butyl Ether	Quinalophos	
	Sulfate (SO4)		Carbonate	Dimethoate	Metolachlor	Quintozene	
	T-Alkalinity		Carbophenothion	Diphenylamine	Metribuzin	Quizalofop-ethyl	
	Total Coliforms		Carboxin	Diquat	Mevinphos	Radionuclides (Gross Alpha and Beta)	
	Total Dissolved Solids		Chlorbenside	Disulfoton	Mirex	Simetryn	
	Total Organic Carbon		Chlordane-cis	Endosulfan I	Nickel	Styrene	
	Total Suspended Solids		Chlordane-trans	Endosulfan II	Nitrate	Sulfate	

Appendix 7

Emergency Notification Protocol

NOTIFICATION REQUIREMENTS

Event	Notifying Agency	Agency Notified	Response Parameter
Delta E.coli Positive sample	MV Laboratory	Delta, Environmental Health Officer	Immediate
Delta system pressure loss due to high demand	Delta	MV, Environmental Health Officer	Immediate
Delta turbidity > 5 NTU	MV Laboratory	Delta, Environmental Health Officer	Immediate
Delta watermain break with contamination suspected	Delta	Environmental Health Officer, MV Laboratory	Immediate
Delta watermain break with no contamination	Delta	Environmental Health Officer	As required
MV chemical contamination	MV Laboratory	MV, Delta, Environmental Health Officer	Immediate
MV E.coli. Positive sample	MV Laboratory	MV, Delta, Environmental Health Officer	Immediate
MV chlorination failure	MV Laboratory	MV, Delta, Environmental Health Officer	Immediate
MV source water disinfection failure	MV Laboratory	MV, Delta, Environmental Health Officer	Immediate
MV turbidity > 5 NTU	MV Laboratory	MV, Delta, Environmental Health Officer	Immediate
MV watermain break with contamination suspected	MV	MV Laboratory, Delta, Environmental Health Officer	Immediate
MV watermain break with no contamination	MV	MV, Delta, Environmental Health Officer	As required

City of Delta Engineering Operations

DISINFECTION PROCEDURES - WATERMAIN REPAIRS OR TIE-INS

Watermains are to be disinfected whenever the system has been exposed to atmosphere. The following procedures are based on AWWA Standards C651-92.

5.4.3.1 REPAIRS OR TIE-INS WITH NO GROUNDWATER ENTRY INTO WATERMAIN:

These typically consist of electrolysis holes, cracked or split watermains which are repaired using robar repair clamps. Assuming that the watermain will have a positive outflow of water until the trench is excavated below the invert of the pipe, we can determine that no contaminant has entered the watermain.

a) Under these circumstances the only disinfection required is to swab the area to be repaired and the repair clamp with 6% chlorine solution. (household bleach)
b) No bacterial tests are required.
c) After repairs have been completed, it is recommended to flush the watermain.
d) If positive pressure cannot be achieved, more disinfection is required.
See 5.4.3.2.

5.4.3.2 REPAIRS OR TIE-INS WITH GROUNDWATER CONTAMINATION OF THE WATERMAIN:

These are cases where large blowouts have occurred, or it has been impossible to maintain continual outflow from the watermain, or impossible to pump down below watermain before shutting it off. We would then assume that ground water has entered the watermain. These cases require disinfection and bacterial testing. Results of bacterial test are required before putting watermain back in service.
In these cases, a written notice shall be given to affected residents and bottled water shall be provided.

a) Valves feeding each side of break should be left cracked open.
b) Once repairs begin, groundwater must be kept below the main. (Pumps, vactor etc.)
c) Ground water and debris in main should be flushed out if possible.
d) All repair pieces must be swabbed with 6% chlorine solution before installation.
e) Bacterial samples shall be taken from the repaired area as well as one up and one downstream from the isolated break area. In addition, one test shall be taken from a nearby hose bib to compare as the source.
f) These bacterial samples are to be taken to a certified bacterial lab for total and fecal coliform analysis.
g) These tests are taken as a precautionary measure. However, if samples come back positive (coliform present) then further disinfection and testing is required. See 5.4.3.3.

5.4.3.3 E.COLI DETECTED:

If E.coli is detected, that section of main must be shutdown until disinfection and proper re-testing is completed. Any case where a test comes back positive, the waterworks engineer, and the Environmental Health Officer from Fraser Health must be notified.

Chlorination of the watermain may require complete isolation of the main. Disinfection of the watermain requires a minimum concentration of 200 ppm for a retention time of 2 hours. At the end of this time the chlorine residual must be a minimum of 100 ppm. If this is not met re-chlorination must take place. After chlorination, the watermain must be flushed until chlorine residual is less than 1 ppm.

Individual services should also be flushed to remove chlorine that may have entered these connections.

5.4.3.4 WASTEWATER OR OTHER SERIOUS CONTAMINATION:

In any case where a watermain break is accompanied by a broken sanitary sewer, the procedures for 5.4.3.3 should be followed.

The watermain must not be put back into service until 2 consecutive successful samples, 24 hours apart, have been obtained for E.coli.

Appendix 8

Delta Source Water

Test Results

First Quarter Reporting

April 8, 2025

Physical and Chemical analysis of Water Supply

Analyte	Units	Guideline Limit	Station 225		Station 308		Station 220	
			Result	Comments	Result	Comments	Result	Comments
Hydrogen Sulfide	mg/L		<0.002		<0.002		<0.002	
Sulfide	mg/L	0.05	<0.002	Below AO	<0.002	Below AO	<0.002	Below AO
Mercury	mg/L	0.001	<0.000005	Below MAC	<0.000005	Below MAC	<0.000005	Below MAC
Arsenic	mg/L	0.01	0.0009	Below MAC	0.001	Below MAC	0.0013	Below MAC
Barium	mg/L	2	0.005	Below MAC	0.005	Below MAC	0.005	Below MAC
Boron	mg/L	5	0.004	Below MAC	0.003	Below MAC	0.004	Below MAC
Cadmium	mg/L	0.007	<0.00001	Below MAC	<0.00001	Below MAC	<0.00001	Below MAC
Chromium	mg/L	0.05	<0.0005	Below MAC	<0.0005	Below MAC	0.0007	Below MAC
Cobalt	mg/L		<0.0001		<0.0001		<0.0001	
Copper	mg/L	1 AO / 2 MAC	0.001	Below AO	0.0051	Below AO	0.0009	Below AO
Lead	mg/L	0.005	<0.0001	Below MAC	<0.0001	Below MAC	<0.0001	Below MAC
Selenium	mg/L	0.05	<0.0002	Below MAC	<0.0002	Below MAC	<0.0002	Below MAC
Strontium	mg/L	7	0.038	Below MAC	0.039	Below MAC	0.05	Below MAC
Uranium	mg/L	0.02	0.001	Below MAC	0.001	Below MAC	0.0015	Below MAC
Zinc	mg/L	5	<0.001	Below AO	<0.001	Below AO	<0.001	Below AO
Colour	Colour Units		<5		<5		<5	
Calcium - Total	mg/L		27.2		29.4		34.9	
Magnesium - Total	mg/L		6		7		9.8	
Sodium - Total	mg/L	200	6.9	Below AO	7.6	Below AO	9.1	Below AO
Potassium - Total	mg/L		1.26		1.47		1.81	
Iron - Total	mg/L	0.1	<0.006	Below AO	<0.01	Below AO	<0.02	Below AO
Manganese - Total	mg/L	0.02 AO / 0.12 MAC	<0.007	Below AO	<0.006	Below AO	<0.008	Below AO
Hardness - Dissolved CaCO3	mg/L		53		53		66	
Hardness - Extractable CaCO3	mg/L		42		50		62	
pH		7.0-10.5	7.67	Within Range	7.59	Within Range	7.65	Within Range
Conductivity	µS/cm		119		120		149	
Bicarbonate	mg/L		52		53		66	
Carbonate	mg/L		<6		<6		<6	
Hydroxide	mg/L		<5		<5		<5	
P-Alkalinity	mg/L		<5		<5		<5	
T-Alkalinity	mg/L		43		43		54	
Bromide	mg/L		<0.02		<0.02		<0.02	
Chloride	mg/L	250	5.67	Below AO	5.84	Below AO	7.13	Below AO
Fluoride	mg/L	1.5	0.01	Below MAC	0.02	Below MAC	0.02	Below MAC
Nitrate-N	mg/L	10	0.34	Below MAC	0.35	Below MAC	0.48	Below MAC
Nitrite-N	mg/L	1	<0.01	Below MAC	<0.01	Below MAC	<0.01	Below MAC
Sulfate (SO4)	mg/L	500	4.1	Below AO	4.1	Below AO	5.5	Below AO
Total Dissolved Solids	mg/L	500	56	Below AO	59	Below AO	74	Below AO

Physical and Chemical analysis of Water Supply

Analyte	Units	Guideline Limit	Station 305		Station 306		Station 329	
			Result	Comments	Result	Comments	Result	Comments
Hydrogen Sulfide	mg/L		<0.002		<0.002		<0.002	
Sulfide	mg/L	0.05	<0.002	Below AO	<0.002	Below AO	<0.002	Below AO
Mercury	mg/L	0.001	<0.000005	Below MAC	<0.000005	Below MAC	<0.000005	Below MAC
Arsenic	mg/L	0.01	0.004	Below MAC	0.0034	Below MAC	0.0013	Below MAC
Barium	mg/L	2	0.005	Below MAC	0.011	Below MAC	0.005	Below MAC
Boron	mg/L	5	0.007	Below MAC	0.007	Below MAC	0.004	Below MAC
Cadmium	mg/L	0.007	<0.00001	Below MAC	<0.00001	Below MAC	<0.00001	Below MAC
Chromium	mg/L	0.05	0.0021	Below MAC	0.0018	Below MAC	0.0007	Below MAC
Cobalt	mg/L		<0.0001		<0.0001		<0.0001	
Copper	mg/L	1 AO / 2 MAC	0.0013	Below AO	0.0101	Below AO	0.0012	Below AO
Lead	mg/L	0.005	<0.0001	Below MAC	0.0005	Below MAC	<0.0001	Below MAC
Selenium	mg/L	0.05	0.0005	Below MAC	0.0007	Below MAC	<0.0002	Below MAC
Strontium	mg/L	7	0.103	Below MAC	0.117	Below MAC	0.05	Below MAC
Uranium	mg/L	0.02	0.0034	Below MAC	0.004	Below MAC	0.0014	Below MAC
Zinc	mg/L	5	0.002	Below AO	0.006	Below AO	<0.001	Below AO
Colour	Colour Units		<5		<5		<5	
Calcium - Total	mg/L		60.9		64.9		34.9	
Magnesium - Total	mg/L		22.7		26.5		9.7	
Sodium - Total	mg/L	200	18	Below AO	18.2	Below AO	9.1	Below AO
Potassium - Total	mg/L		4.5		4.8		1.9	
Iron - Total	mg/L	0.1	<0.02	Below AO	<0.02	Below AO	<0.02	Below AO
Manganese - Total	mg/L	0.02 AO, 0.12 MAC	0.015	Below AO	0.024	Below AO	<0.009	Below AO
Hardness - Dissolved CaCO3	mg/L		128		140		65	
Hardness - Extractable CaCO3	mg/L		117		130		62	
pH		7.0-10.5	7.87	Within Range	7.88	Within Range	7.68	Within Range
Conductivity	µS/cm		281		303		149	
Bicarbonate	mg/L		123		136		65	
Carbonate	mg/L		<6		<6		<6	
Hydroxide	mg/L		<5		<5		<5	
P-Alkalinity	mg/L		<5		<5		<5	
T-Alkalinity	mg/L		101		136		54	
Bromide	mg/L		0.09		0.05		<0.02	
Chloride	mg/L	250	14.6	Below AO	14.8	Below AO	7.11	Below AO
Fluoride	mg/L	1.5	0.03	Below MAC	0.04	Below MAC	0.03	Below MAC
Nitrate-N	mg/L	10	1.34	Below MAC	1.15	Below MAC	0.48	Below MAC
Nitrite-N	mg/L	1	<0.01	Below MAC	<0.01	Below MAC	<0.01	Below MAC
Sulfate (SO4)	mg/L	500	12	Below AO	13.5	Below AO	5.5	Below AO
Total Dissolved Solids	mg/L	500	144	Below AO	155	Below AO	74	Below AO

Analysis of Source Waters for Herbicides, Pesticides, and other Organic Compounds

Analyte	Units	Detection Limit	Station 225		Station 308		Station 220	
			Result	Comments	Result	Comments	Result	Comments
Pesticides								
Organochlorine Pesticides*	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Organophosphate Pesticides*	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Multiresidue Pesticides	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Herbicides								
Neutral Herbicides*	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Organic Compounds								
Carbamates	µg/L	0.1	<0.1	Passed	<0.1	Passed	<0.1	Passed

*Multiple detection limits in group; most common limit displayed. All analytes are within acceptable range.
Contact the City for further information

Analysis of Source Waters for Herbicides, Pesticides, and other Organic Compounds

Analyte	Units	Detection Limit	Station 305		Station 306		Station 329	
			Result	Comments	Result	Comments	Result	Comments
Pesticides								
Organochlorine Pesticides*	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Organophosphate Pesticides*	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Multiresidue Pesticides	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Herbicides								
Neutral Herbicides*	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Organic Compounds								
Carbamates	µg/L	0.1	<0.1	Passed	<0.1	Passed	<0.1	Passed

*Multiple detection limits in group; most common limit displayed. All analytes are within acceptable range.
Contact the City for further information

Analysis of Source Waters for Aromatic Hydrocarbons

Analyte	Units	Detection Limit	Station 225		Station 308		Station 220	
			Result	Comments	Result	Comments	Result	Comments
Mono-Aromatic Hydrocarbons								
Benzene	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Ethylbenzene	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Methyl t-Butyl Ether	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Styrene	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Toluene	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Total Xylenes (m,p,o)	µg/L	1	<1.0	Passed	<1.0	Passed	<1.0	Passed
4-Bromofuorobenzene	%	70-130	96	Within Range	94	Within Range	97	Within Range
Dibromofuoromethane	%	70-130	98	Within Range	98	Within Range	97	Within Range
Toluene-d8	%	70-130	110	Within Range	100	Within Range	110	Within Range
Volatile Petroleum Hydrocarbons								
VHw6-10	µg/L	100	<100	Passed	<100	Passed	<100	Passed
VPHw (VHw6-10 minus BTEX)	µg/L	100	<100	Passed	<100	Passed	<100	Passed

Analysis of Source Waters for Aromatic Hydrocarbons

Analyte	Units	Detection Limit	Station 305		Station 306		Station 329	
			Result	Comments	Result	Comments	Result	Comments
Mono-Aromatic Hydrocarbons								
Benzene	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Ethylbenzene	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Methyl t-Butyl Ether	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Styrene	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Toluene	µg/L	0.5	<0.5	Passed	<0.5	Passed	<0.5	Passed
Total Xylenes (m,p,o)	µg/L	1	<1.0	Passed	<1.0	Passed	<1.0	Passed
4-Bromofuorobenzene	%	70-130	98	Within Range	95	Within Range	98	Within Range
Dibromofuoromethane	%	70-130	99	Within Range	99	Within Range	97	Within Range
Toluene-d8	%	70-130	110	Within Range	110	Within Range	110	Within Range
Volatile Petroleum Hydrocarbons								
VHw6-10	µg/L	100	<100	Passed	<100	Passed	<100	Passed
VPHw (VHw6-10 minus BTEX)	µg/L	100	<100	Passed	<100	Passed	<100	Passed

Second Quarter Reporting

July 3, 2025

Physical and Chemical analysis of Water Supply

Analyte	Units	Guideline Limit	Station 225		Station 308		Station 220	
			Result	Comments	Result	Comments	Result	Comments
Silicon	mg/L		3.69		3.64		4.9	
Aluminum	mg/L	0.1 OG / 2.9 MAC	0.032	Below OG	0.034	Below OG	0.032	Below OG
Antimony	mg/L	0.001	<0.0002	Below MAC	<0.0002	Below MAC	<0.0002	Below MAC
Arsenic	mg/L	0.01	0.0009	Below MAC	0.001	Below MAC	0.0015	Below MAC
Barium	mg/L	2	0.005	Below MAC	0.006	Below MAC	0.005	Below MAC
Boron	mg/L	5	0.003	Below MAC	0.003	Below MAC	0.004	Below MAC
Cadmium	mg/L	0.007	<0.00001	Below MAC	<0.00001	Below MAC	<0.00001	Below MAC
Chromium	mg/L	0.05	<0.0005	Below MAC	<0.0005	Below MAC	0.0007	Below MAC
Copper	mg/L	1 AO / 2 MAC	0.003	Below AO	0.007	Below AO	0.002	Below AO
Lead	mg/L	0.005	<0.0001	Below MAC	<0.0001	Below MAC	<0.0001	Below MAC
Selenium	mg/L	0.05	<0.0002	Below MAC	<0.0002	Below MAC	0.0002	Below MAC
Strontium	mg/L	7	0.039	Below MAC	0.04	Below MAC	0.053	Below MAC
Uranium	mg/L	0.02	0.0009	Below MAC	0.0009	Below MAC	0.0013	Below MAC
Vanadium	mg/L		0.0015		0.0016		0.0025	
Zinc	mg/L	5	<0.001	Below AO	0.002	Below AO	0.002	Below AO
Mercury	mg/L	0.001	<0.00001	Below MAC	<0.00001	Below MAC	<0.00001	Below MAC
Colour	Colour Units		<5		<5		<5	
Calcium - Total	mg/L		11		11.1		14	
Magnesium - Total	mg/L		3.1		3		4.5	
Sodium - Total	mg/L	200	6.7	Below AO	6.2	Below AO	6.7	Below AO
Potassium - Total	mg/L		0.7		0.7		0.9	
Iron - Total	mg/L	0.1	<0.01	Below AO	<0.01	Below AO	<0.01	Below AO
Manganese - Total	mg/L	0.02 AO / 0.12 MAC	<0.005	Below AO	<0.005	Below AO	0.008	Below AO
Hardness - as CaCO3	mg/L		40		40		53	
pH		7.0-10.5	7.37	Within Range	7.4	Within Range	7.46	Within Range
Conductivity	µS/cm		112		112		146	
T-Alkalinity	mg/L		41		41		52	
Chloride	mg/L	250	5.48	Below AO	5.47	Below AO	7.53	Below AO
Fluoride	mg/L	1.5	<0.01	Below MAC	<0.01	Below MAC	<0.01	Below MAC
Nitrate-N	mg/L	10	0.31	Below MAC	0.3	Below MAC	0.45	Below MAC
Nitrite-N	mg/L	1	<0.01	Below MAC	<0.01	Below MAC	<0.01	Below MAC
Sulfate (SO4)	mg/L	500	3.5	Below AO	3.5	Below AO	5.1	Below AO

Physical and Chemical analysis of Water Supply

Analyte	Units	Guideline Limit	Station 305		Station 306		Station 329	
			Result	Comments	Result	Comments	Result	Comments
Silicon	mg/L		11.2		11.6		4.93	
Aluminum	mg/L	0.1 OG / 2.9 MAC	<0.002	Below OG	<0.002	Below OG	0.032	Below OG
Antimony	mg/L	0.001	<0.0002	Below MAC	<0.0002	Below MAC	<0.0002	Below MAC
Arsenic	mg/L	0.01	0.0047	Below MAC	0.0041	Below MAC	0.0015	Below MAC
Barium	mg/L	2	0.005	Below MAC	0.01	Below MAC	0.005	Below MAC
Boron	mg/L	5	0.007	Below MAC	0.007	Below MAC	0.004	Below MAC
Cadmium	mg/L	0.007	<0.00001	Below MAC	<0.00001	Below MAC	<0.00001	Below MAC
Chromium	mg/L	0.05	0.0025	Below MAC	0.0021	Below MAC	0.0007	Below MAC
Copper	mg/L	1 AO / 2 MAC	0.002	Below AO	0.012	Below AO	0.003	Below AO
Lead	mg/L	0.005	<0.0001	Below MAC	0.0003	Below MAC	<0.0001	Below MAC
Selenium	mg/L	0.05	0.0006	Below MAC	0.0005	Below MAC	0.0002	Below MAC
Strontium	mg/L	7	0.118	Below MAC	0.128	Below MAC	0.053	Below MAC
Uranium	mg/L	0.02	0.0032	Below MAC	0.0037	Below MAC	0.0013	Below MAC
Vanadium	mg/L		0.0081		0.0067		0.0025	
Zinc	mg/L	5	<0.001	Below AO	0.006	Below AO	0.001	Below AO
Mercury	mg/L	0.001	<0.00001	Below MAC	<0.00001	Below MAC	<0.00001	Below MAC
Colour	Colour Units		<5		<5		<5	
Calcium - Total	mg/L		29.4		31.3		14.1	
Magnesium - Total	mg/L		10.7		12.4		4.6	
Sodium - Total	mg/L	200	8.4	Below AO	8.8	Below AO	6.8	Below AO
Potassium - Total	mg/L		2.1		2.3		0.9	
Iron - Total	mg/L	0.1	<0.01	Below AO	<0.01	Below AO	<0.01	Below AO
Manganese - Total	mg/L	0.02 AO / 0.12 MAC	0.007	Below AO	0.013	Below AO	0.007	Below AO
Hardness - as CaCO3	mg/L		118		129		54	
pH		7.0-10.5	7.66	Within Range	7.64	Within Range	7.48	Within Range
Conductivity	µS/cm		279		305		144	
T-Alkalinity	mg/L		99		109		51	
Chloride	mg/L	250	14.3	Below AO	15.9	Below AO	7.05	Below AO
Fluoride	mg/L	1.5	0.02	Below MAC	0.02	Below MAC	<0.01	Below MAC
Nitrate-N	mg/L	10	1.36	Below MAC	1.16	Below MAC	0.45	Below MAC
Nitrite-N	mg/L	1	<0.01	Below MAC	<0.01	Below MAC	<0.01	Below MAC
Sulfate (SO4)	mg/L	500	11.8	Below AO	13.3	Below AO	5.1	Below AO

Third Quarter Reporting

September 25, 2025

Physical and Chemical analysis of Water Supply

Analyte	Units	Guideline Limit	Station 225		Station 308		Station 220	
			Result	Comments	Result	Comments	Result	Comments
Aluminum	mg/L	0.1 OG / 2.9 MAC	0.039	Below OG	0.034	Below OG	0.03	Below OG
Antimony	mg/L	0.001	0.00005	Below MAC	0.00006	Below MAC	0.00007	Below MAC
Arsenic	mg/L	0.01	0.0007	Below MAC	0.0007	Below MAC	0.0012	Below MAC
Barium	mg/L	2	0.0045	Below MAC	0.0049	Below MAC	0.0055	Below MAC
Boron	mg/L	5	0.002	Below MAC	0.004	Below MAC	0.004	Below MAC
Cadmium	mg/L	0.007	<0.00001	Below MAC	<0.00001	Below MAC	<0.00001	Below MAC
Chromium	mg/L	0.05	0.00034	Below MAC	0.00041	Below MAC	0.00062	Below MAC
Copper	mg/L	1 AO / 2 MAC	0.001	Below AO	0.0037	Below AO	<0.0005	Below AO
Lead	mg/L	0.005	0.00001	Below MAC	0.00009	Below MAC	0.00003	Below MAC
Selenium	mg/L	0.05	<0.0002	Below MAC	<0.0002	Below MAC	<0.0002	Below MAC
Strontium	mg/L	7	0.033	Below MAC	0.036	Below MAC	0.046	Below MAC
Uranium	mg/L	0.02	0.00068	Below MAC	0.00076	Below MAC	0.0013	Below MAC
Vanadium	mg/L		0.0012		0.0014		0.0023	
Zinc	mg/L	5	<0.0005	Below AO	0.0014	Below AO	<0.0005	Below AO
Mercury	mg/L	0.001	<0.00001	Below MAC	<0.00001	Below MAC	<0.00001	Below MAC
Colour	Colour Units		<5		<5		<5	
pH		7.0-10.5	7.51	Within Range	7.52	Within Range	7.57	Within Range
Conductivity	µS/cm		99		104		136	
Calcium - Total	mg/L		9.2		10		12	
Iron - Total	mg/L	0.1	0.006	Below AO	0.009	Below AO	0.009	Below AO
Magnesium - Total	mg/L		2		2.1		3.5	
Manganese - Total	mg/L	0.02 AO / 0.12 MAC	0.002	Below AO	0.003	Below AO	0.006	Below AO
Potassium - Total	mg/L		0.56		0.57		0.86	
Silicon	mg/L		2.7		2.9		3.9	
Sodium - Total	mg/L	200	5.2	Below AO	4.7	Below AO	6.3	Below AO
T-Alkalinity	mg/L		35		37		48	
Chloride	mg/L	250	5.28	Below AO	5.31	Below AO	6.91	Below AO
Fluoride	mg/L	1.5	<0.01	Below MAC	<0.01	Below MAC	<0.01	Below MAC
Nitrate-N	mg/L	10	0.22	Below MAC	0.24	Below MAC	0.38	Below MAC
Nitrite-N	mg/L	1	<0.01	Below MAC	<0.01	Below MAC	<0.01	Below MAC
Sulfate (SO4)	mg/L	500	2.7	Below AO	3	Below AO	4.5	Below AO
Hardness - as CaCO3	mg/L		31		34		45	
Total Dissolved Solids	mg/L	500	54	Below AO	57	Below AO	75	Below AO

Physical and Chemical analysis of Water Supply

Analyte	Units	Guideline Limit	Station 306		Station 329	
			Result	Comments	Result	Comments
Aluminum	mg/L	0.1 OG / 2.9 MAC	<0.001	Below OG	0.03	Below OG
Antimony	mg/L	0.001	0.00016	Below MAC	0.00007	Below MAC
Arsenic	mg/L	0.01	0.0036	Below MAC	0.0012	Below MAC
Barium	mg/L	2	0.01	Below MAC	0.0054	Below MAC
Boron	mg/L	5	0.008	Below MAC	0.004	Below MAC
Cadmium	mg/L	0.007	<0.00001	Below MAC	<0.00001	Below MAC
Chromium	mg/L	0.05	0.0019	Below MAC	0.00066	Below MAC
Copper	mg/L	1 AO / 2 MAC	0.015	Below AO	0.001	Below AO
Lead	mg/L	0.005	0.00041	Below MAC	0.00003	Below MAC
Selenium	mg/L	0.05	0.0006	Below MAC	<0.0002	Below MAC
Strontium	mg/L	7	0.11	Below MAC	0.045	Below MAC
Uranium	mg/L	0.02	0.0039	Below MAC	0.0013	Below MAC
Vanadium	mg/L		0.0065		0.0022	
Zinc	mg/L	5	0.006	Below AO	0.002	Below AO
Mercury	mg/L	0.001	<0.00001	Below MAC	<0.00001	Below MAC
Colour	Colour Units		<5		<5	
pH		7.0-10.5	7.71	Within Range	7.6	Within Range
Conductivity	µS/cm		306		136	
Calcium - Total	mg/L		29		12	
Iron - Total	mg/L	0.1	<0.004	Below AO	0.013	Below AO
Magnesium - Total	mg/L		11		3.6	
Manganese - Total	mg/L	0.02 AO / 0.12 MAC	0.014	Below AO	0.006	Below AO
Potassium - Total	mg/L		2.3		0.82	
Silicon	mg/L		10		4.1	
Sodium - Total	mg/L	200	8.1	Below AO	6.3	Below AO
T-Alkalinity	mg/L		109		48	
Chloride	mg/L	250	16.3	Below AO	6.83	Below AO
Fluoride	mg/L	1.5	0.01	Below MAC	<0.01	Below MAC
Nitrate-N	mg/L	10	1.15	Below MAC	0.38	Below MAC
Nitrite-N	mg/L	1	<0.01	Below MAC	<0.01	Below MAC
Sulfate (SO4)	mg/L	500	13.3	Below AO	4.5	Below AO
Hardness - as CaCO3	mg/L		118		46	
Total Dissolved Solids	mg/L	500	178	Below AO	76	Below AO

Fourth Quarter Reporting

December 18, 2025

Physical and Chemical analysis of Water Supply

Analyte	Units	Guideline Limit	Station 225		Station 308		Station 220	
			Result	Comments	Result	Comments	Result	Comments
Aluminum	mg/L	0.1 OG / 2.9 MAC	0.025	Below OG	0.025	Below OG	0.024	Below OG
Antimony	mg/L	0.001	0.00005	Below MAC	0.00005	Below MAC	0.00005	Below MAC
Arsenic	mg/L	0.01	0.001	Below MAC	0.001	Below MAC	0.0013	Below MAC
Barium	mg/L	2	0.0049	Below MAC	0.005	Below MAC	0.0053	Below MAC
Boron	mg/L	5	0.003	Below MAC	0.003	Below MAC	0.002	Below MAC
Cadmium	mg/L	0.007	<0.00001	Below MAC	<0.00001	Below MAC	<0.00001	Below MAC
Chromium	mg/L	0.05	0.00044	Below MAC	0.00062	Below MAC	0.00053	Below MAC
Copper	mg/L	1 AO / 2 MAC	0.0013	Below AO	0.0049	Below AO	0.0013	Below AO
Lead	mg/L	0.005	0.00001	Below MAC	0.00009	Below MAC	0.00004	Below MAC
Selenium	mg/L	0.05	<0.0002	Below MAC	<0.0002	Below MAC	<0.0002	Below MAC
Strontium	mg/L	7	0.045	Below MAC	0.047	Below MAC	0.051	Below MAC
Uranium	mg/L	0.02	0.001	Below MAC	0.0011	Below MAC	0.0013	Below MAC
Vanadium	mg/L		0.0019		0.0019		0.0022	
Zinc	mg/L	5	<0.0005	Below AO	0.0011	Below AO	<0.0005	Below AO
Mercury	mg/L	0.001	<0.00001	Below MAC	<0.00001	Below MAC	<0.00001	Below MAC
Colour	Colour Units		<5		<5		<5	
pH		7.0-10.5	7.12	Within Range	7.05	Within Range	7.13	Within Range
Conductivity	µS/cm		121		123		142	
Calcium - Total	mg/L		14		15		16	
Iron - Total	mg/L	0.1	<0.004	Below AO	0.013	Below AO	<0.004	Below AO
Magnesium - Total	mg/L		3.3		3.4		4	
Manganese - Total	mg/L	0.02 AO / 0.12 MAC	<0.001	Below AO	0.002	Below AO	0.004	Below AO
Potassium - Total	mg/L		0.58		0.48		0.77	
Silicon	mg/L		3.6		3.6		4.3	
Sodium - Total	mg/L	200	3.6	Below AO	3.7	Below AO	4.3	Below AO
T-Alkalinity	mg/L		45		45		49	
Chloride	mg/L	250	6.09	Below AO	6.11	Below AO	7.95	Below AO
Fluoride	mg/L	1.5	<0.01	Below MAC	<0.01	Below MAC	<0.01	Below MAC
Nitrate-N	mg/L	10	0.33	Below MAC	0.37	Below MAC	0.4	Below MAC
Nitrite-N	mg/L	1	<0.01	Below MAC	<0.01	Below MAC	<0.01	Below MAC
Sulfate (SO4)	mg/L	500	3.9	Below AO	4	Below AO	4.6	Below AO
Hardness - as CaCO3	mg/L		49		50		56	
Total Dissolved Solids	mg/L	500	70	Below AO	71	Below AO	80	Below AO

Physical and Chemical analysis of Water Supply

Analyte	Units	Guideline Limit	Station 306		Station 329	
			Result	Comments	Result	Comments
Aluminum	mg/L	0.1 OG / 2.9 MAC	<0.001	Below OG	0.024	Below OG
Antimony	mg/L	0.001	0.00014	Below MAC	0.00005	Below MAC
Arsenic	mg/L	0.01	0.0038	Below MAC	0.0012	Below MAC
Barium	mg/L	2	0.01	Below MAC	0.0054	Below MAC
Boron	mg/L	5	0.006	Below MAC	0.003	Below MAC
Cadmium	mg/L	0.007	<0.00001	Below MAC	<0.00001	Below MAC
Chromium	mg/L	0.05	0.0019	Below MAC	0.00057	Below MAC
Copper	mg/L	1 AO / 2 MAC	0.013	Below AO	0.0016	Below AO
Lead	mg/L	0.005	0.00049	Below MAC	0.00004	Below MAC
Selenium	mg/L	0.05	0.0006	Below MAC	<0.0002	Below MAC
Strontium	mg/L	7	0.11	Below MAC	0.05	Below MAC
Uranium	mg/L	0.02	0.0039	Below MAC	0.0012	Below MAC
Vanadium	mg/L		0.006		0.0022	
Zinc	mg/L	5	0.0071	Below AO	0.0006	Below AO
Mercury	mg/L	0.001	<0.00001	Below MAC	<0.00001	Below MAC
Colour	Colour Units		<5		<5	
pH		7.0-10.5	7.56	Within Range	7.21	Within Range
Conductivity	µS/cm		305		138	
Calcium - Total	mg/L		32		16	
Iron - Total	mg/L	0.1	<0.004	Below AO	0.013	Below AO
Magnesium - Total	mg/L		13		4.1	
Manganese - Total	mg/L	0.02 AO / 0.12 MAC	0.016	Below AO	0.005	Below AO
Potassium - Total	mg/L		2.3		0.79	
Silicon	mg/L		11		4.3	
Sodium - Total	mg/L	200	9	Below AO	4.2	Below AO
T-Alkalinity	mg/L		109		49	
Chloride	mg/L	250	152	Below AO	6.75	Below AO
Fluoride	mg/L	1.5	<0.01	Below MAC	<0.01	Below MAC
Nitrate-N	mg/L	10	1.17	Below MAC	0.4	Below MAC
Nitrite-N	mg/L	1	<0.01	Below MAC	<0.01	Below MAC
Sulfate (SO4)	mg/L	500	13.5	Below AO	4.8	Below AO
Hardness - as CaCO3	mg/L		131		57	
Total Dissolved Solids	mg/L	500	184	Below AO	80	Below AO

Water Fountain Samples

2025

2025 Watershed Fountain HPC Sampling Data

Date	Analyte	Units	Result
17-Jan-25	HPC - SimPlate	MPN/mL	6.0
28-Feb-25	HPC - SimPlate	MPN/mL	53.0
21-Mar-25	HPC - SimPlate	MPN/mL	23.0
25-Apr-25	HPC - Pour Plate	CFU/mL	2.0
29-May-25	HPC - Pour Plate	CFU/mL	2.0
12-Jun-25	HPC - Pour Plate	CFU/mL	<1.0
25-Jul-25	HPC - Pour Plate	CFU/mL	<1.0
29-Aug-25	HPC - SimPlate	MPN/mL	<2.0
19-Sep-25	HPC - Pour Plate	CFU/mL	<1.0
31-Oct-25	HPC - Pour Plate	CFU/mL	6.0
14-Nov-25	HPC - SimPlate	MPN/mL	<2.0
05-Dec-25	HPC - SimPlate	MPN/mL	<2.0

PFAS Samples

2025

Analysis of Wells for Polyfluoroalkyl substances (PFAS)

Analyte	Units	July 4, 2025		August 13, 2025	
		Well #1	Well #5	Well #1	Well #5
PFBA	µg/L	0.010	0.001	0.009	ND
PFPeA	µg/L	0.034	ND	0.035	ND
PFHxA	µg/L	0.021	ND	0.024	ND
PFHpA	µg/L	0.006	ND	0.006	ND
PFOA	µg/L	0.002	ND	0.002	ND
PFNA	µg/L	ND	ND	ND	ND
PFDA	µg/L	ND	ND	ND	ND
PFUdA	µg/L	ND	ND	ND	ND
PFDoA	µg/L	ND	ND	ND	ND
PFTrDA	µg/L	ND	ND	ND	ND
PFTeDA	µg/L	ND	ND	ND	ND
HFPO-DA	µg/L	ND	ND	ND	ND
ADONA	µg/L	ND	ND	ND	ND
9Cl-PF3ONS	µg/L	ND	ND	ND	ND
11Cl-Pf3OUdS	µg/L	ND	ND	ND	ND
PFBS	µg/L	0.005	ND	0.007	ND
PFPeS	µg/L	0.004	ND	0.004	ND
PFHxS	µg/L	0.024	ND	0.029	ND
PFHpS	µg/L	ND	ND	ND	ND
PFOS	µg/L	ND	ND	ND	ND
PFNS	µg/L	ND	ND	ND	ND
PFDS	µg/L	ND	ND	ND	ND
4:2 FtS	µg/L	ND	ND	ND	ND
6:2 FtS	µg/L	ND	ND	ND	ND
8:2 FtS	µg/L	ND	ND	ND	ND
Sum of 25 PFAS	µg/L	0.106	0.001	0.116	0

Glyphosates Analysis

2025

2025 Well and Reservoir Analysis for Glyphosates

Sample type	Analysis Date	Analyte	Units	Result	RDL	SPK Value	Ref Value	%REC	RPD	Limits	Passed
Blank	25-Sep-25	Glyphosate	ng	<10	10					15	yes
Blank	25-Sep-25	AMPA	ng	<10	10					15	yes
Calibration Check	25-Sep-25	Glyphosate	ng	20.4		20		102		80-120%	yes
Calibration Check	25-Sep-25	AMPA	ng	20.7		20		103.5		80-120%	yes
Matrix Spike	25-Sep-25	Glyphosate	µg/L	92		100	<10	91.6		70-130%	yes
Replicate	25-Sep-25	Glyphosate	µg/L	<10		0	<10		0	30% or 20 Abs	yes
Replicate	25-Sep-25	AMPA	µg/L	<10		0	<10		0	30% or 20 Abs	yes

Analyte	Units	Well #5 Results	Reservoir Results	Nominal Detection Limit
Glyphosate	mg/L	<0.01	<0.01	0.01

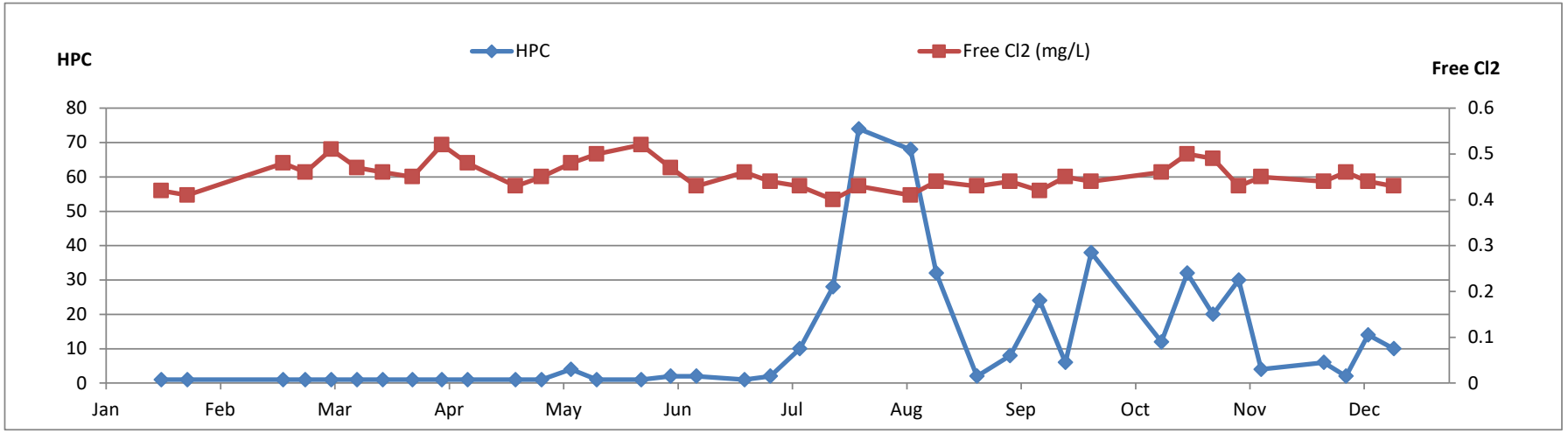
SPK Value = Spike Value
Ref Value = Reference Value
%REC = Percent Recovery
RPD = Relative Percent Difference
Abs = Absolute Difference

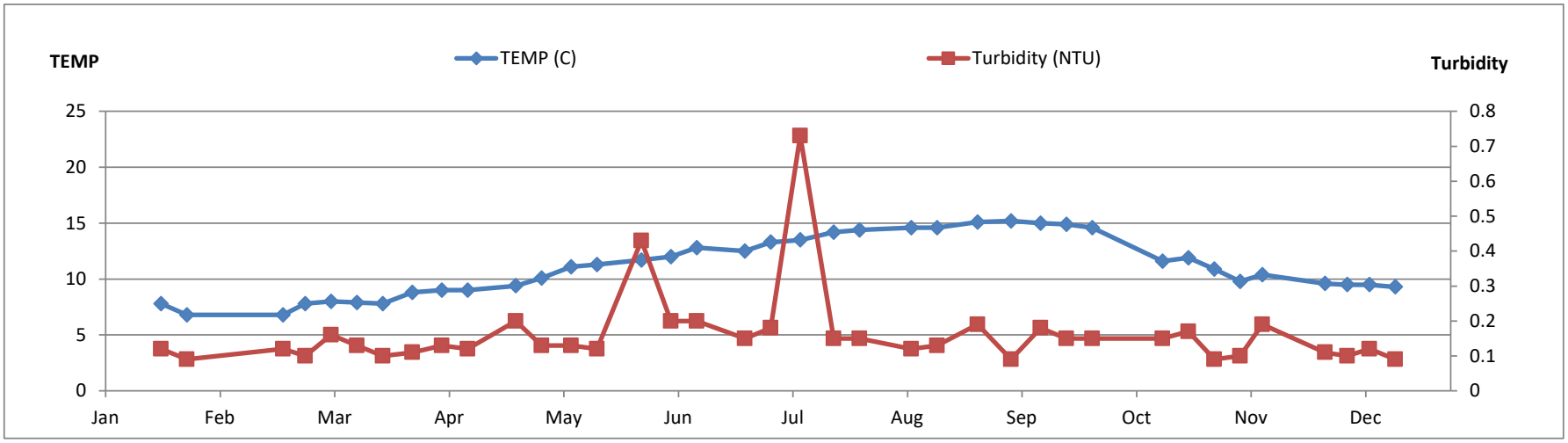
Appendix 9

Delta Water Distribution System

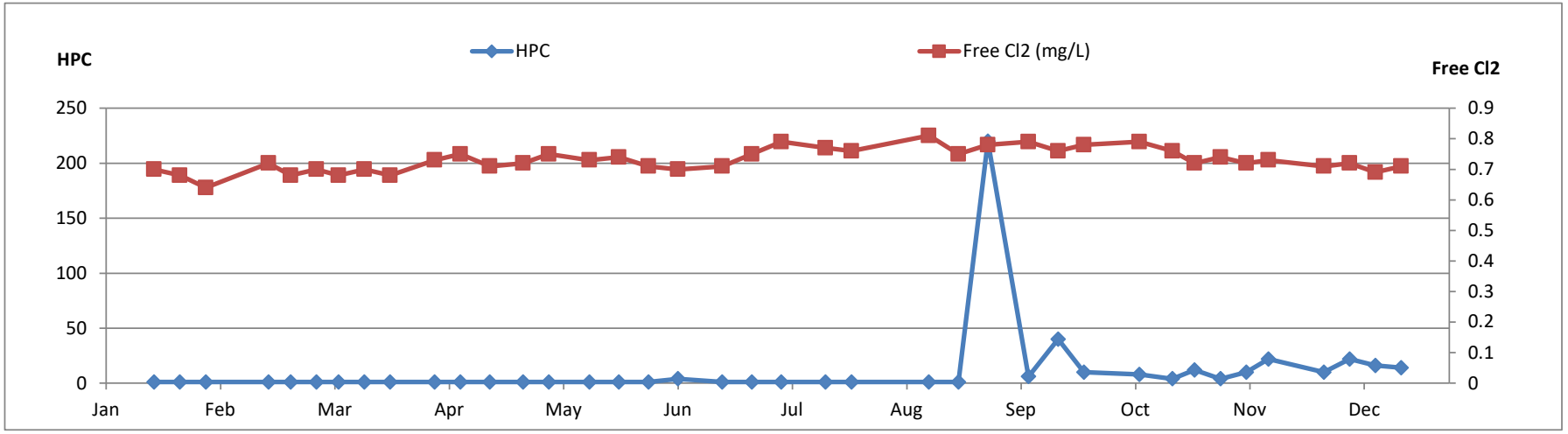
Microbiological Test Results

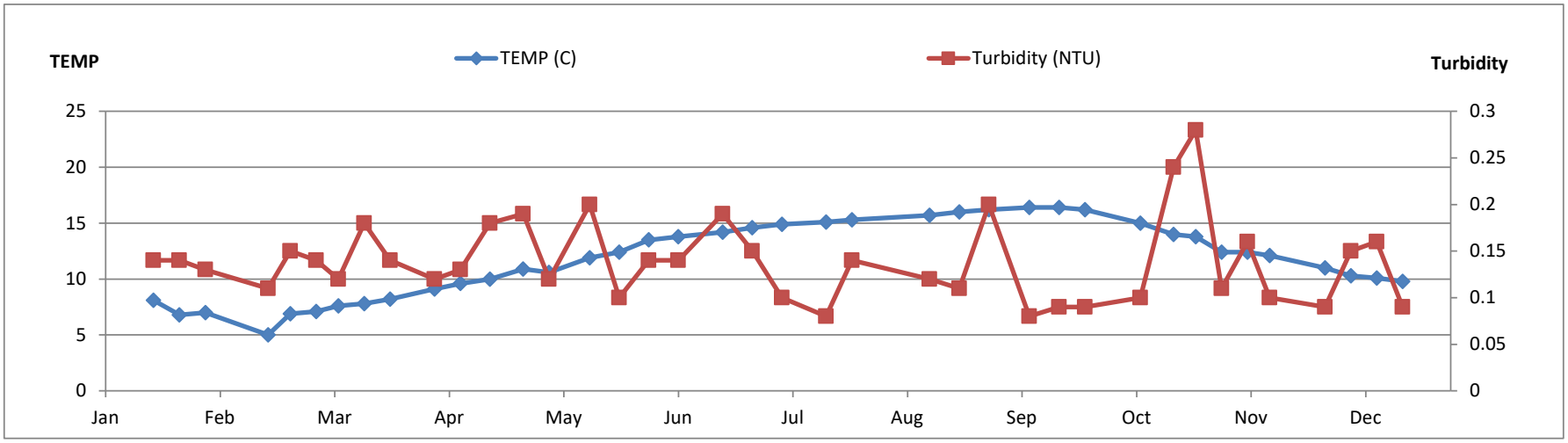
Sample Site DmDel 220
5860 112 Street - Ladner



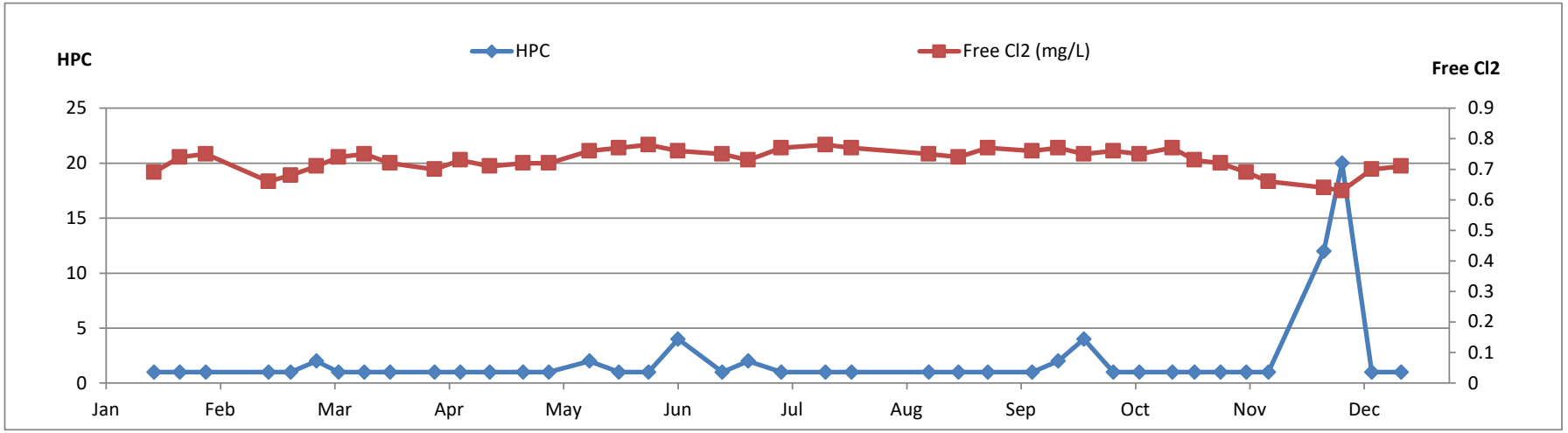


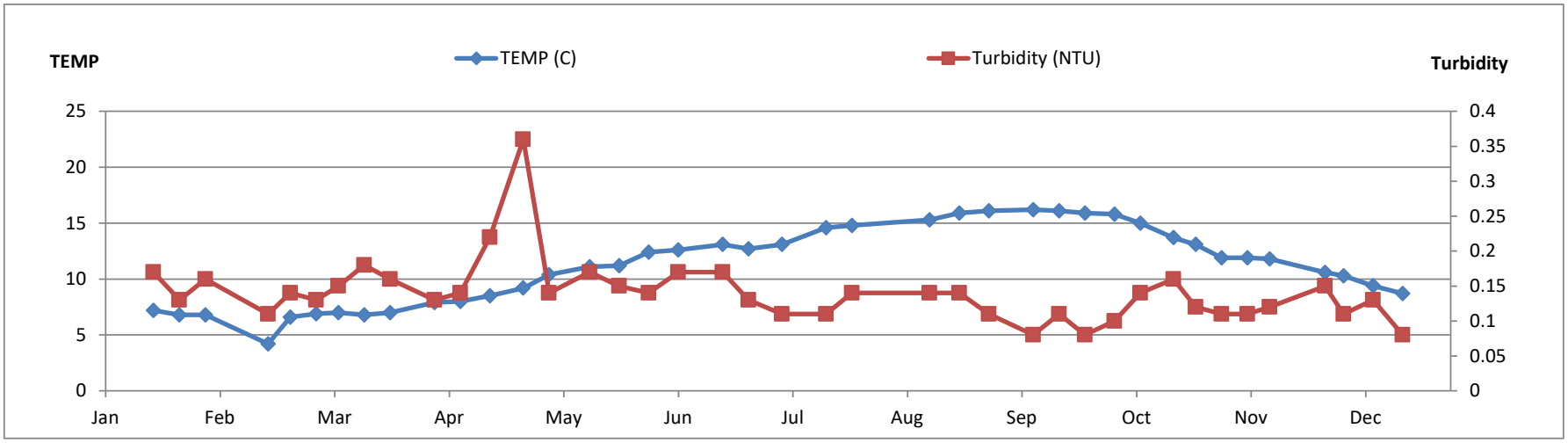
Sample Site DmDel 221
4802 42A Avenue - Ladner



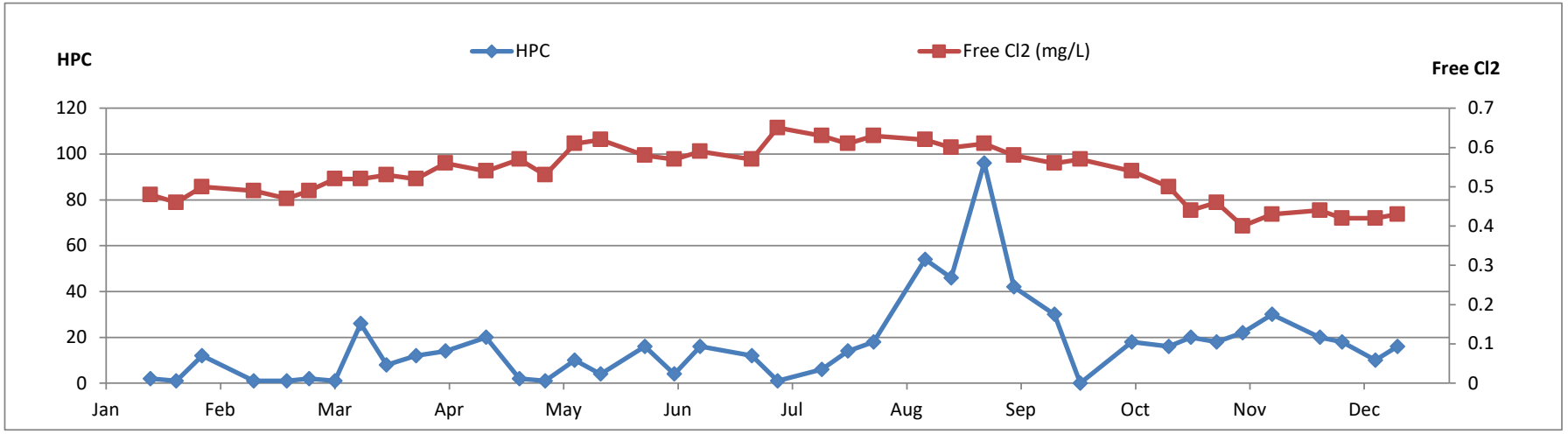


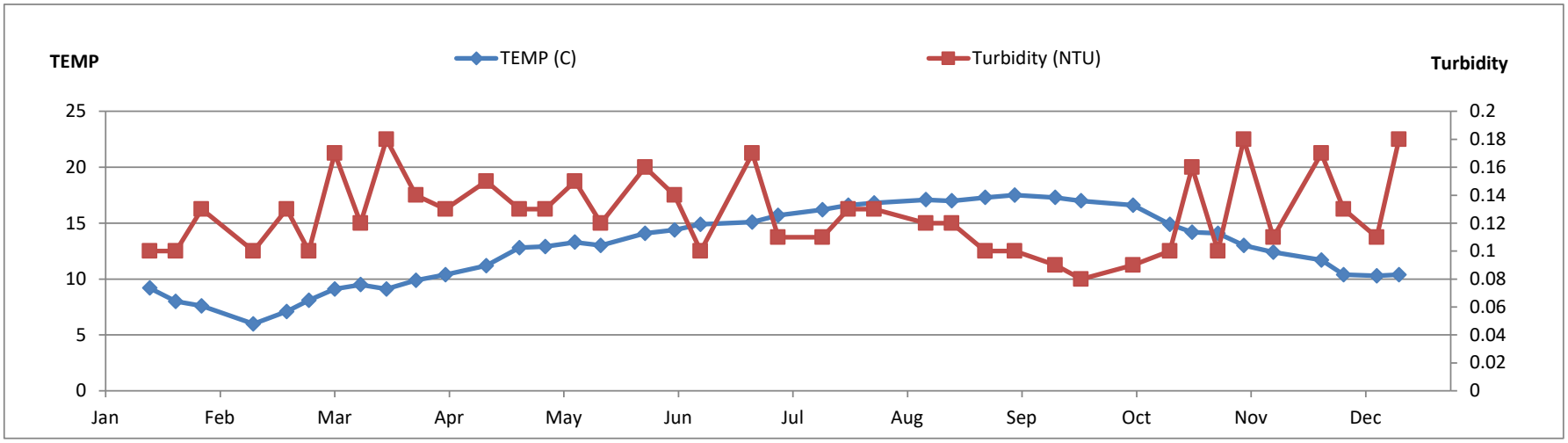
Sample Site DmDel 222
4734 51 Street - Ladner



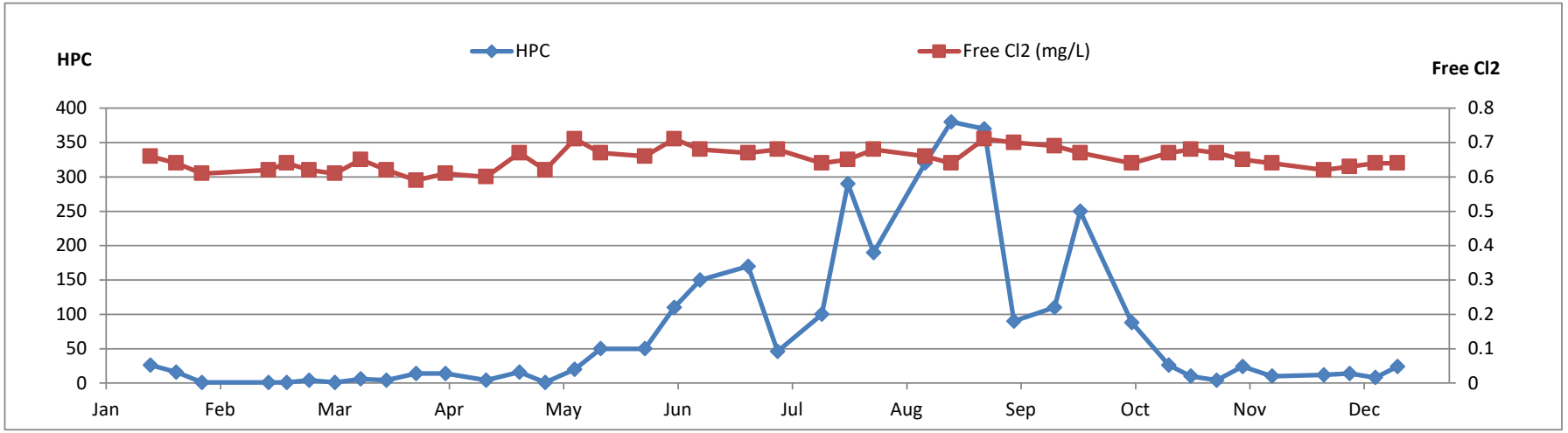


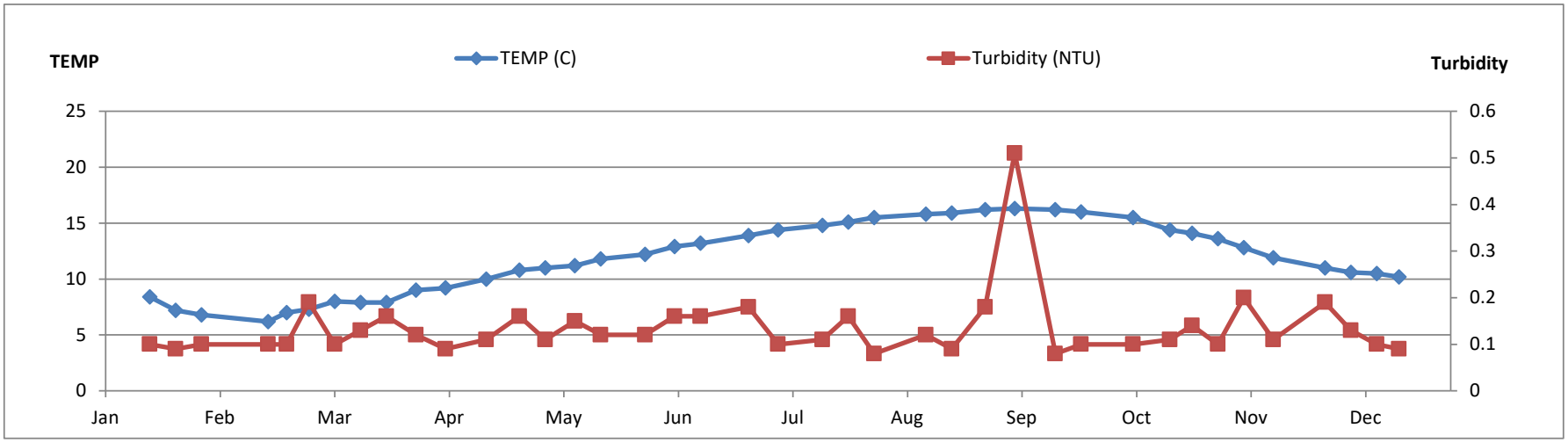
Sample Site DmDel 223
#10 Centennial Parkway - Tsawwassen



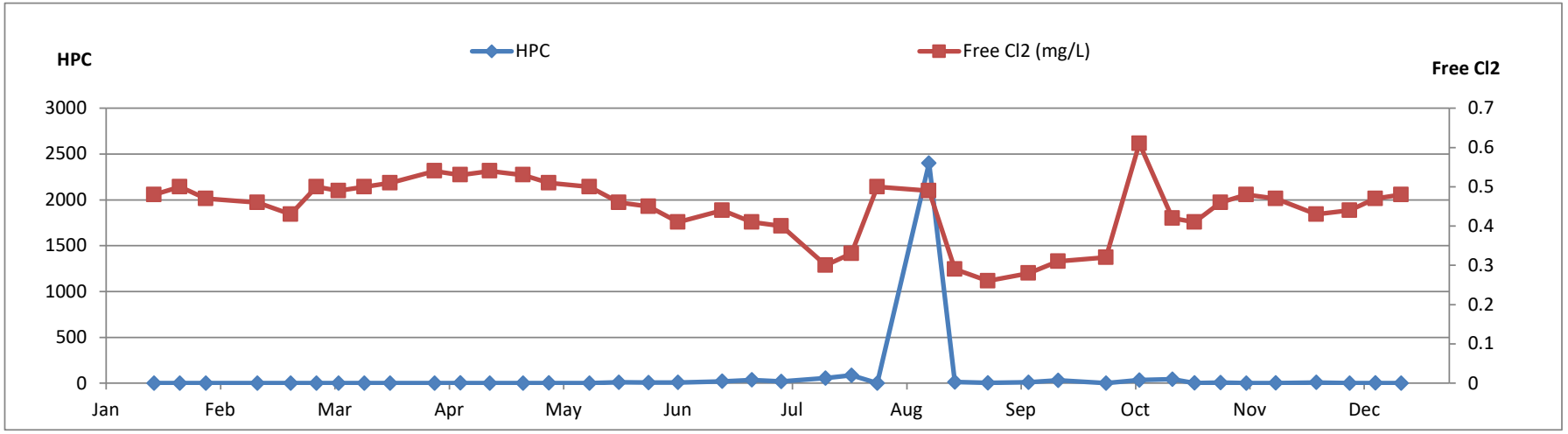


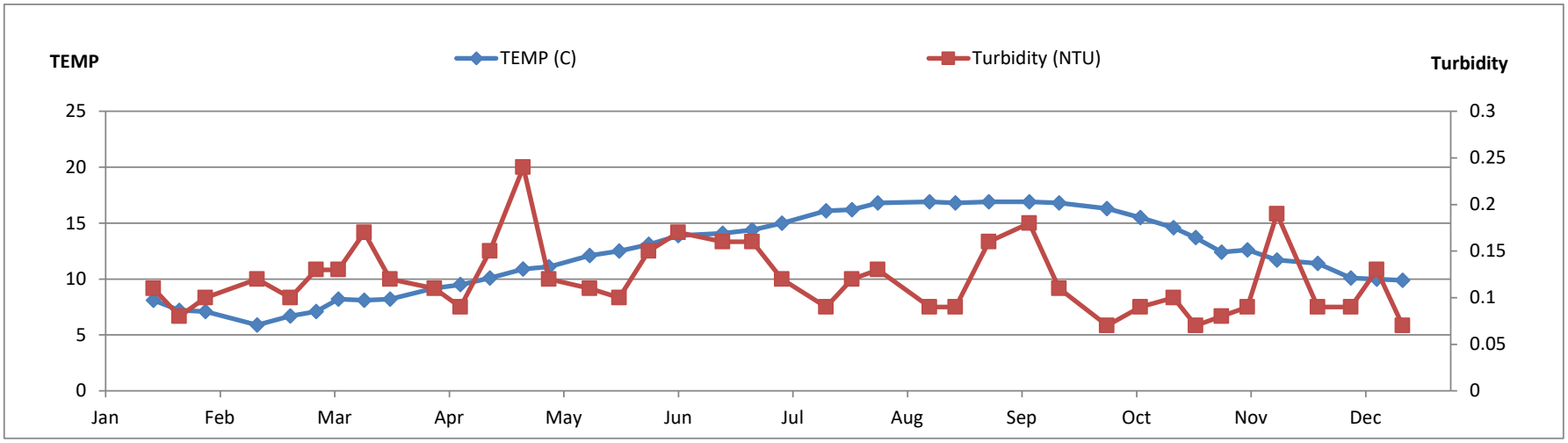
Sample Site DmDel 224
5575 9 Avenue - Tsawwassen



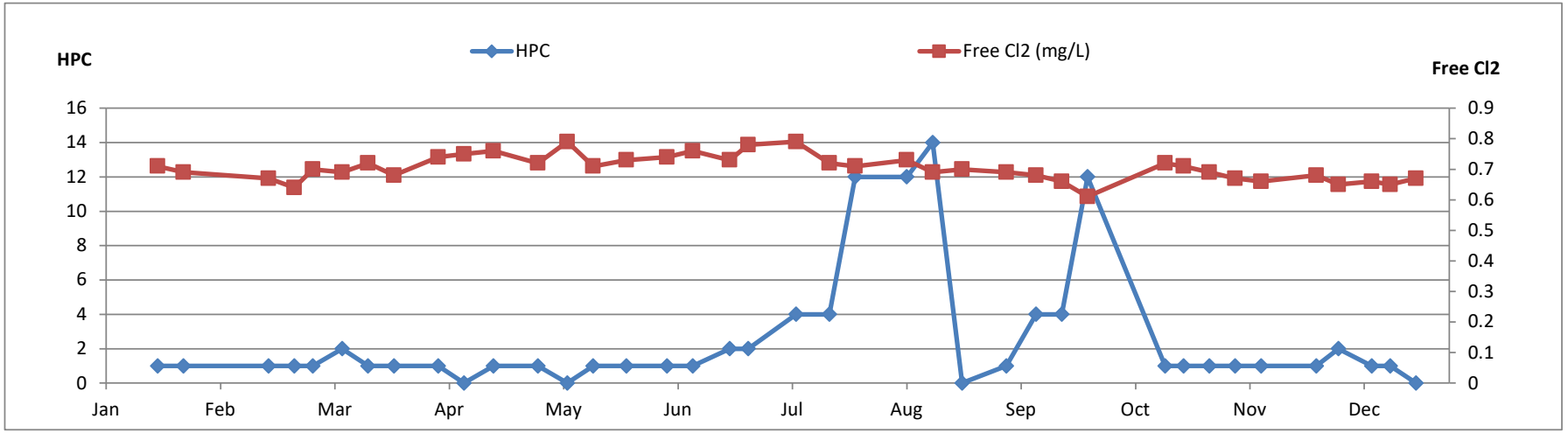


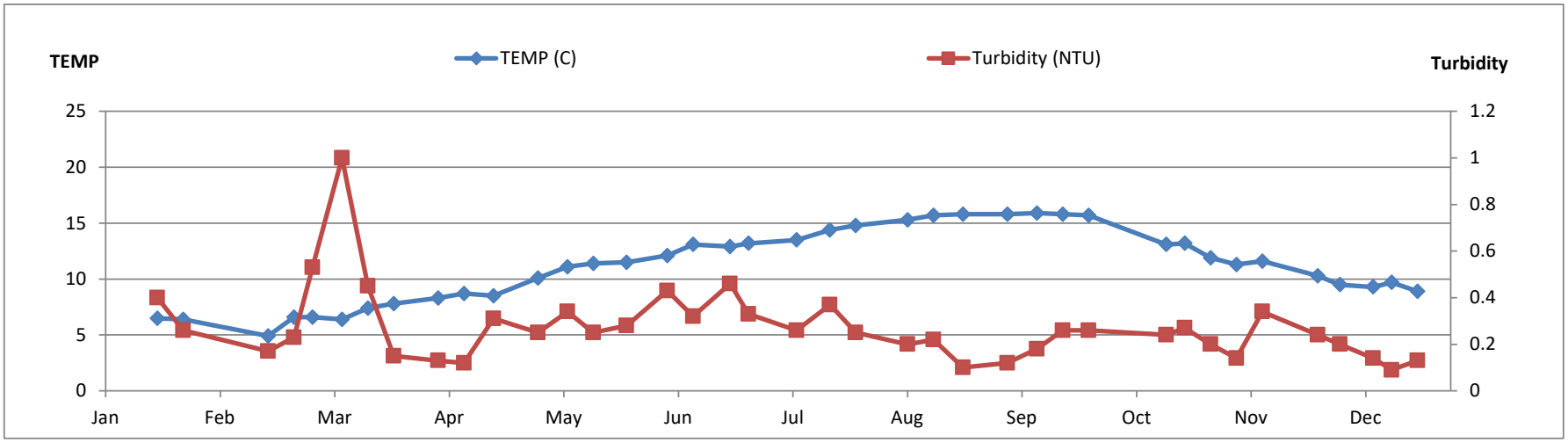
Sample Site DmDel 225
3706 88 Street - Ladner



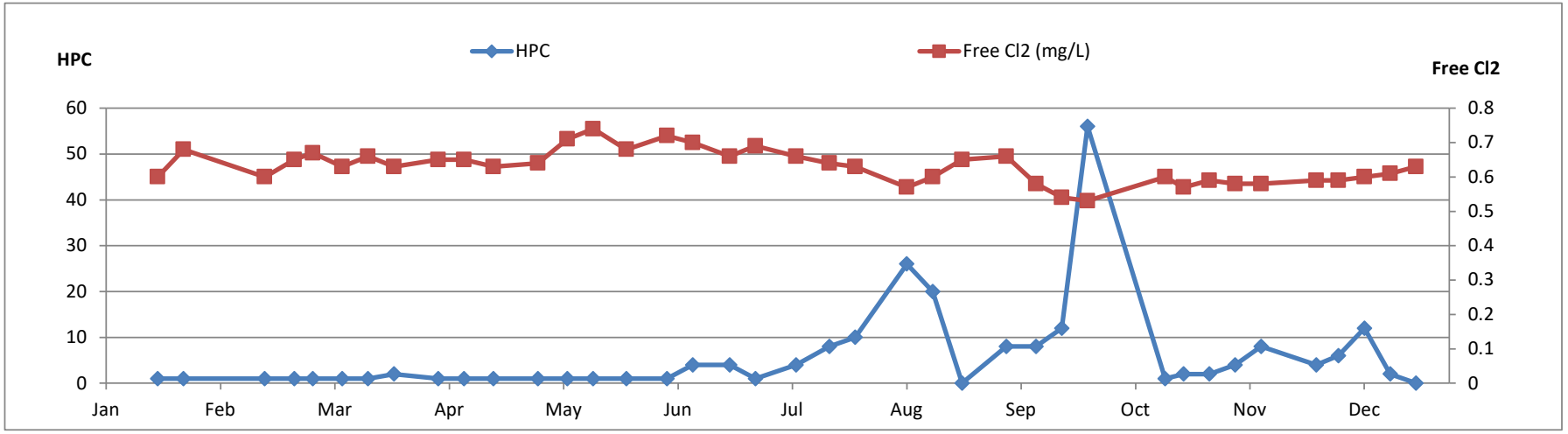


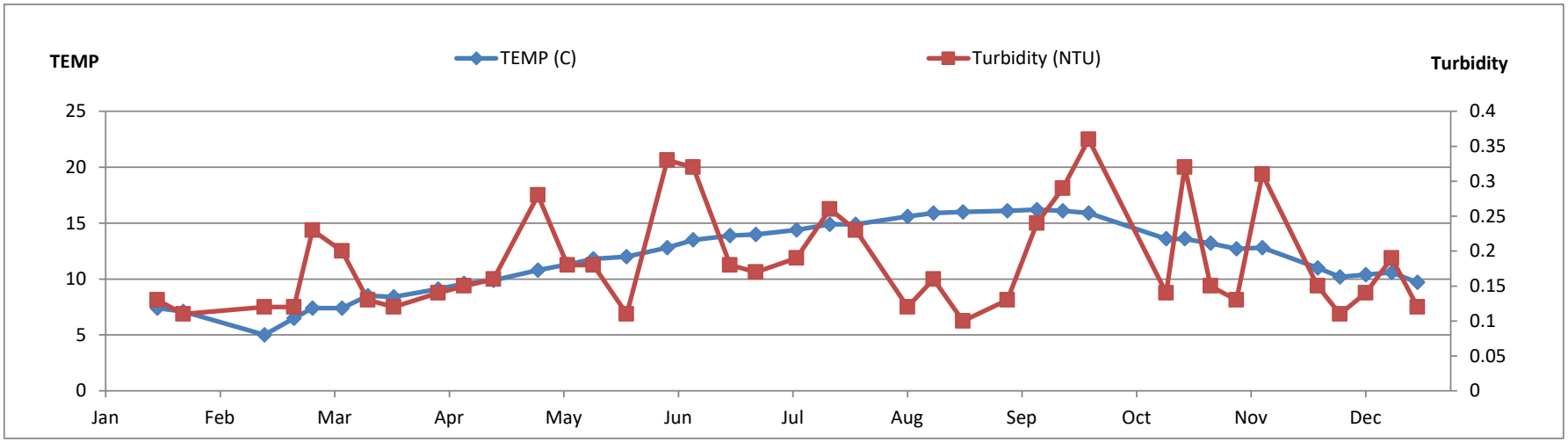
Sample Site DmDel 227
6487 Sunshine Drive - North Delta



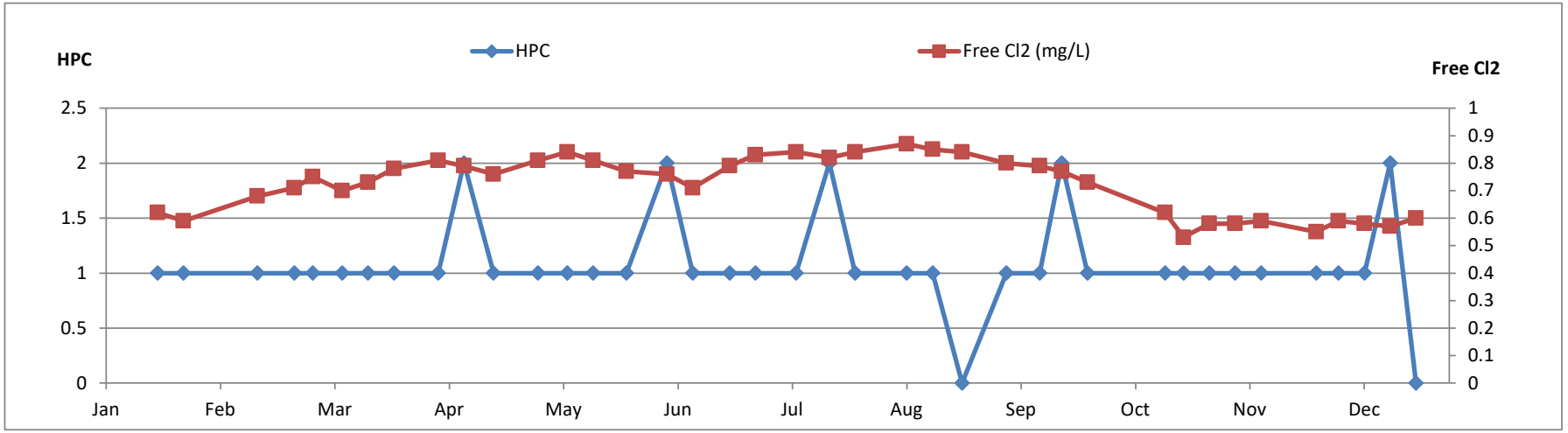


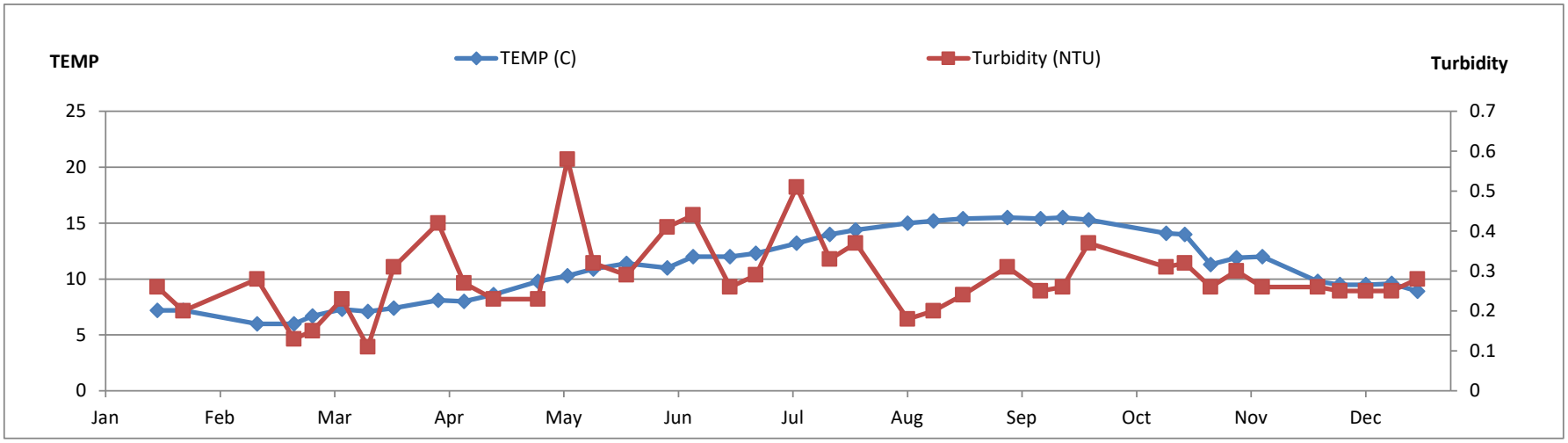
Sample Site DmDel 228
6603 Cabeldu Crescent - North Delta



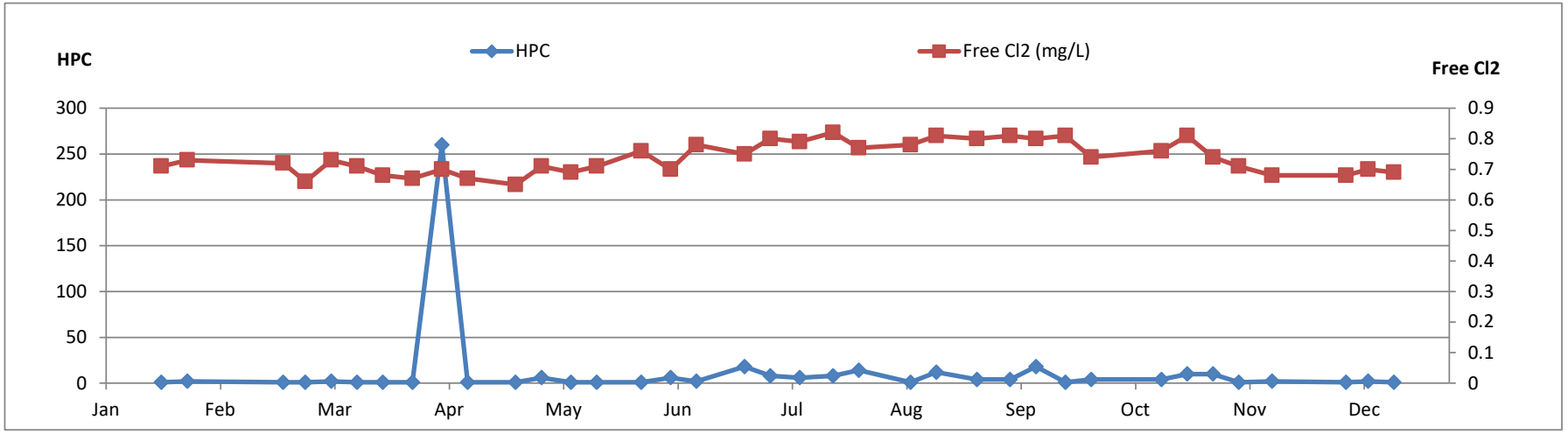


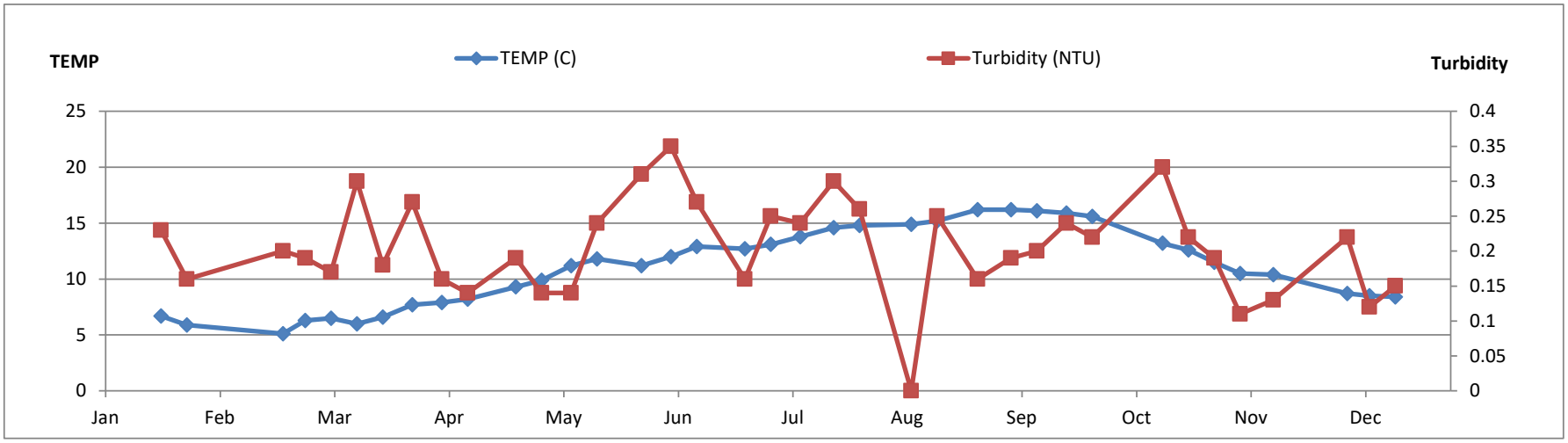
Sample Site DmDel 229
726 Chester Road - Annacis Island



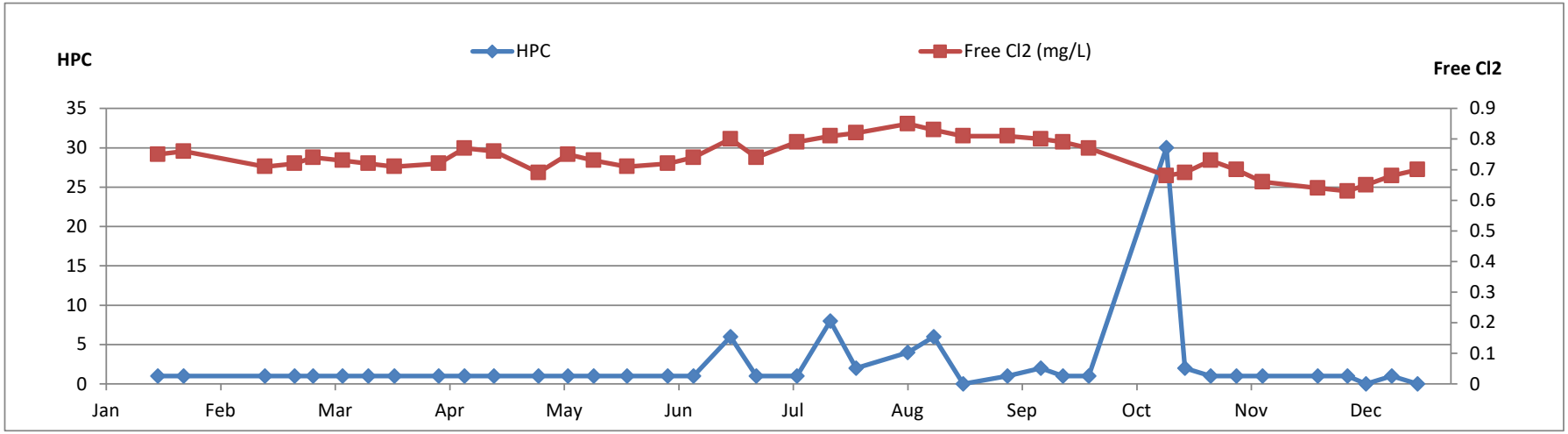


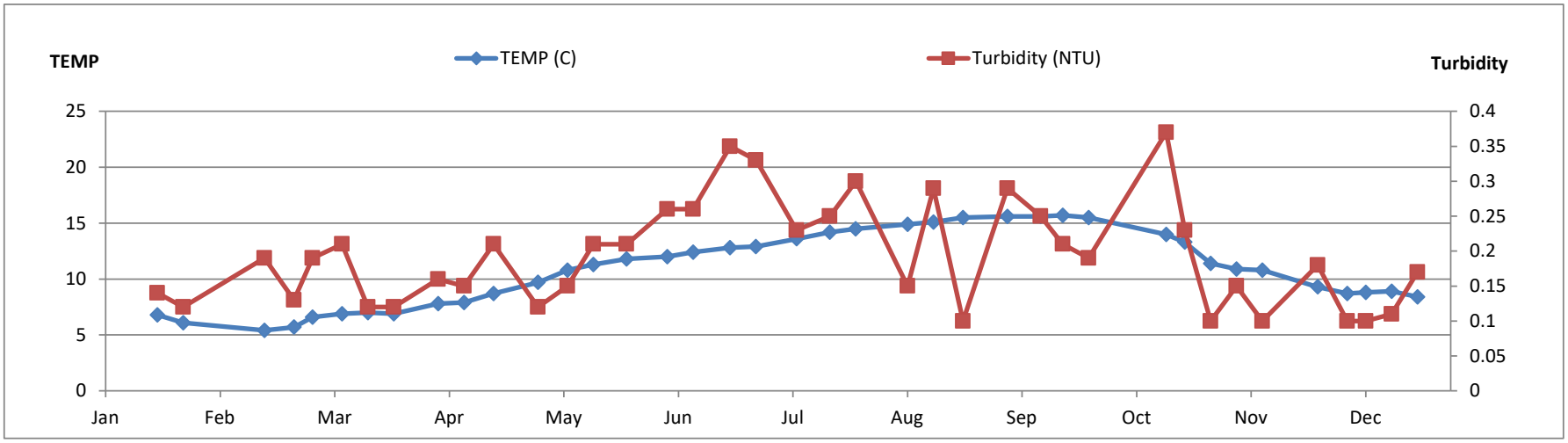
Sample Site DmDel 301
11043 86 Avenue - North Delta



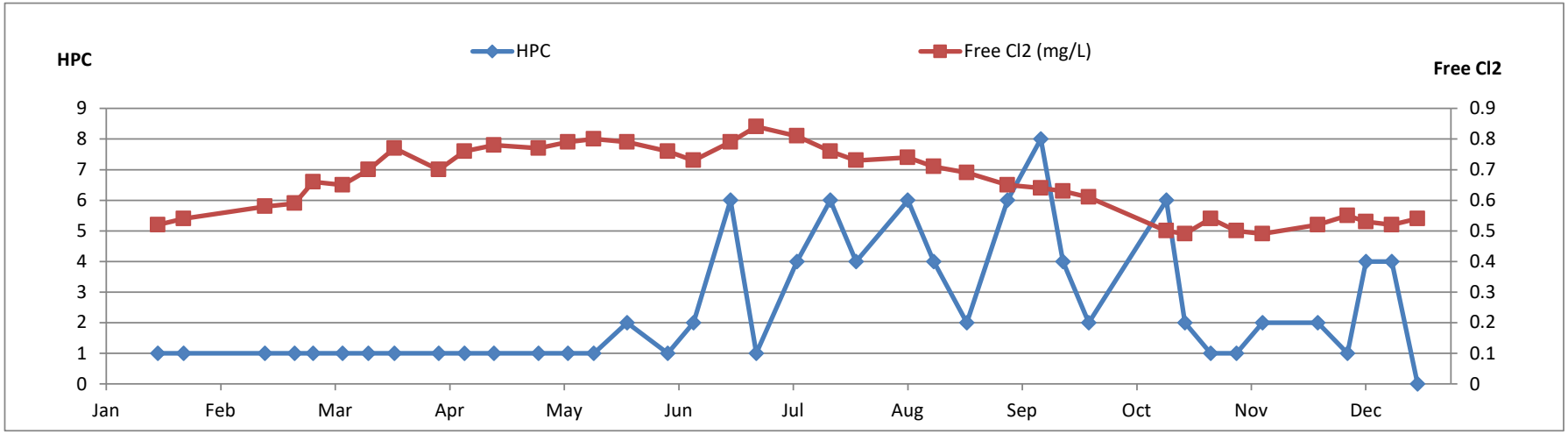


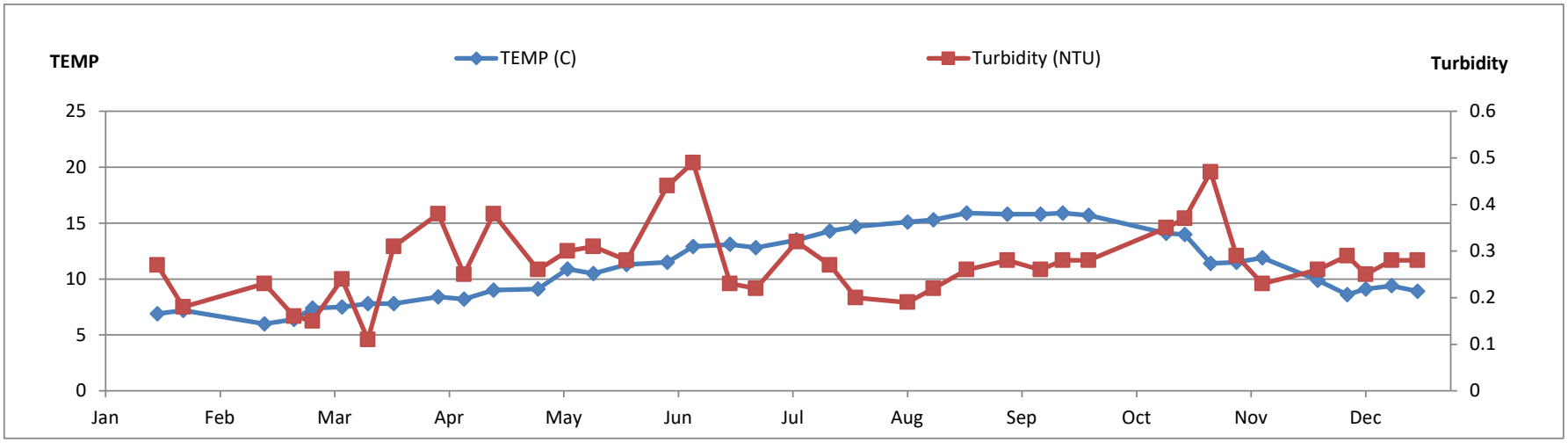
Sample Site DmDel 302
610 Derwent Way - Annacis Island



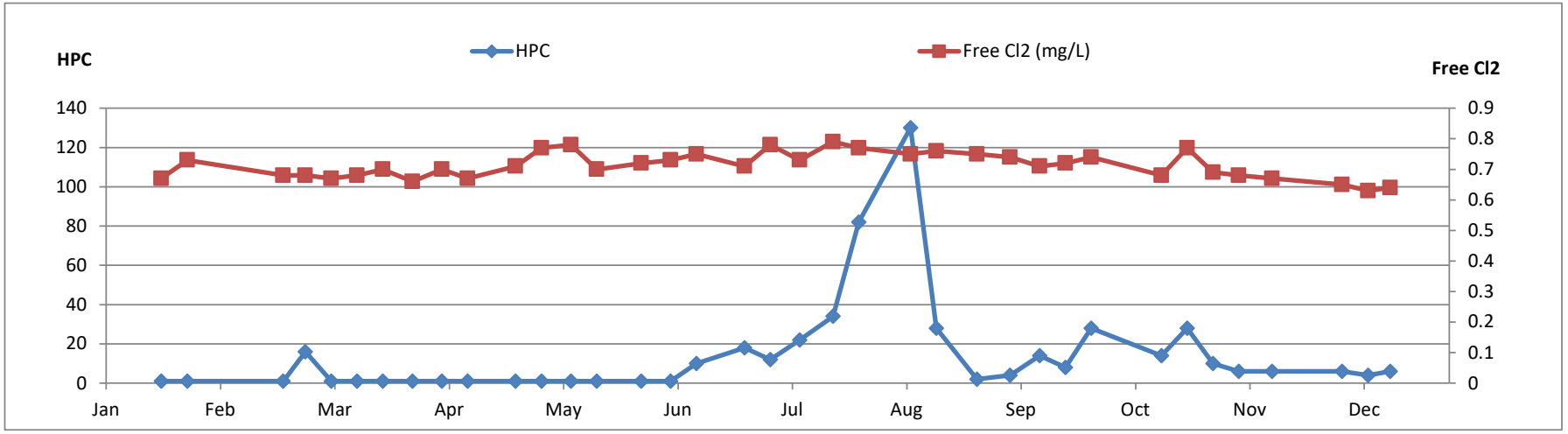


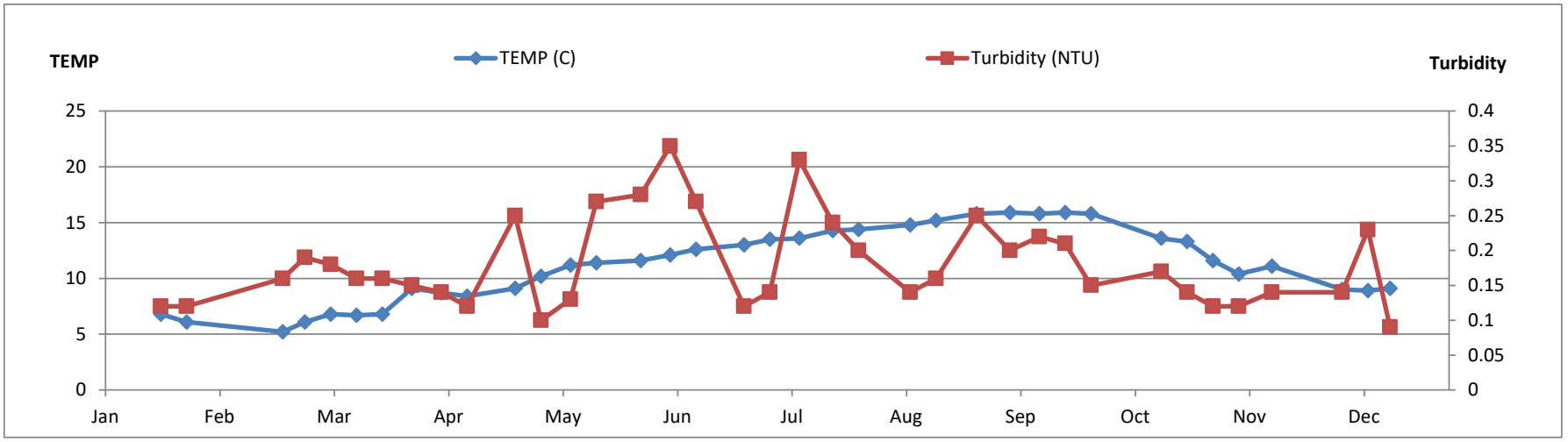
Sample Site DmDel 303
718 Eaton Way - Annacis Island



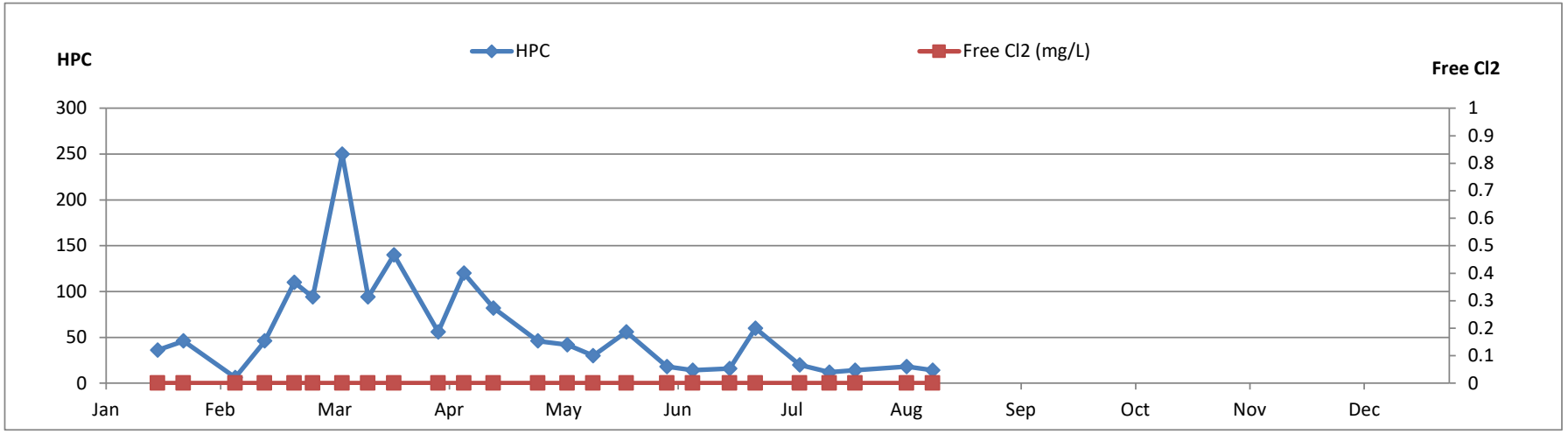


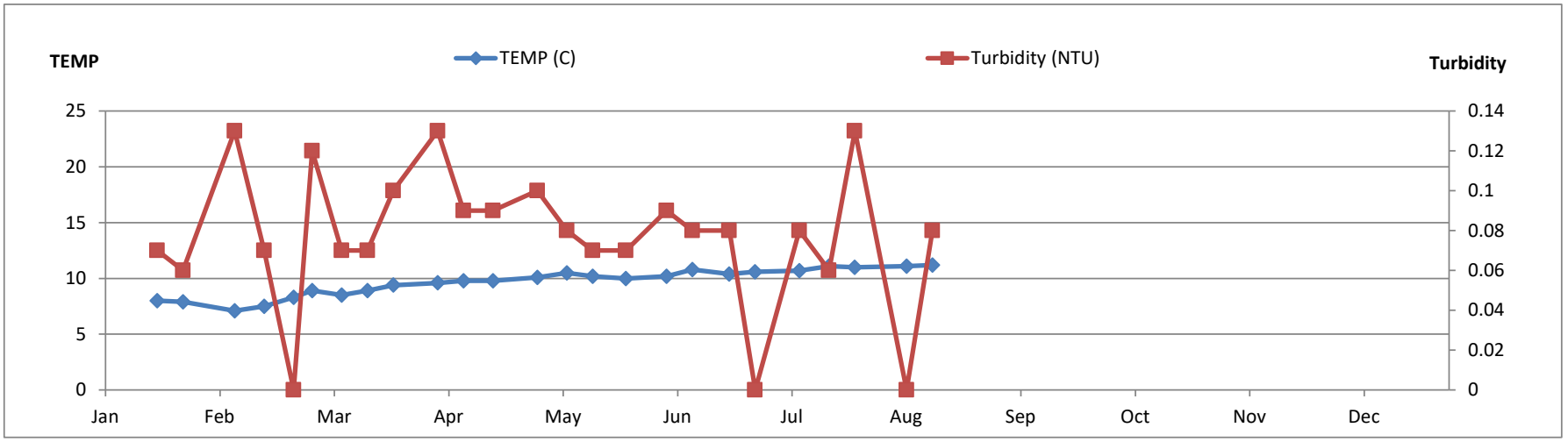
Sample Site DmDel 304
11920 70 Avenue - North Delta



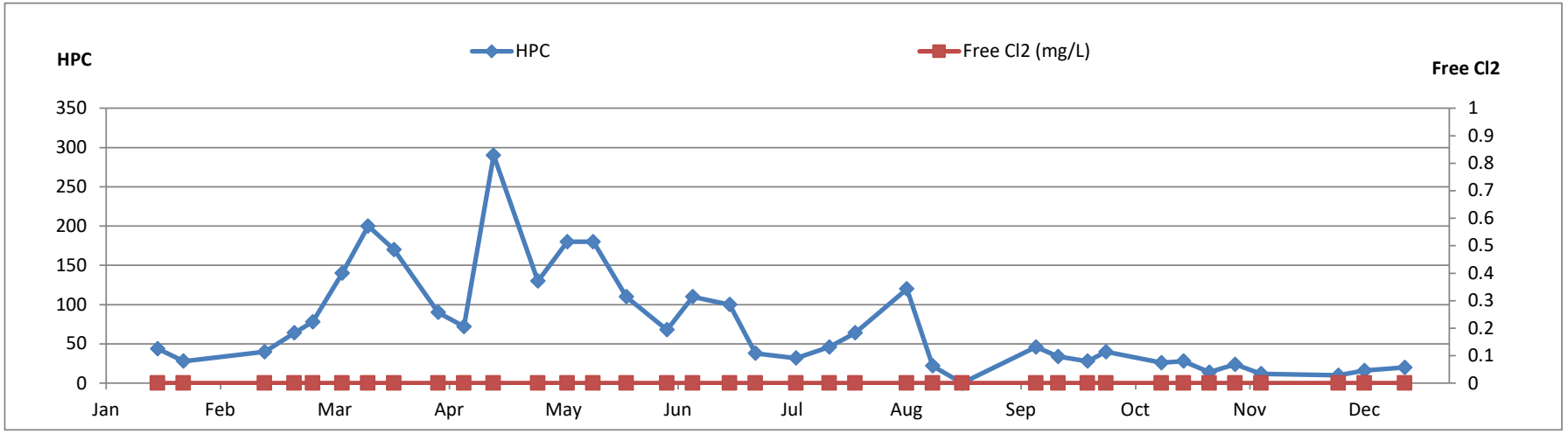


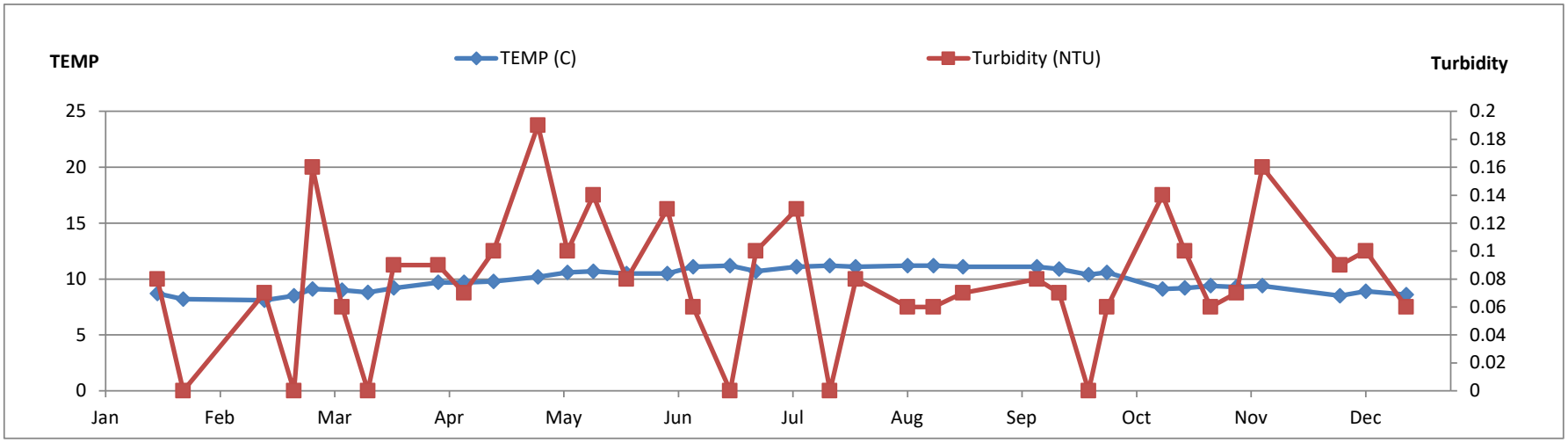
Sample Site DmDel 305
Well #1 Watershed Park 11600 Kittson Parkway - North Delta



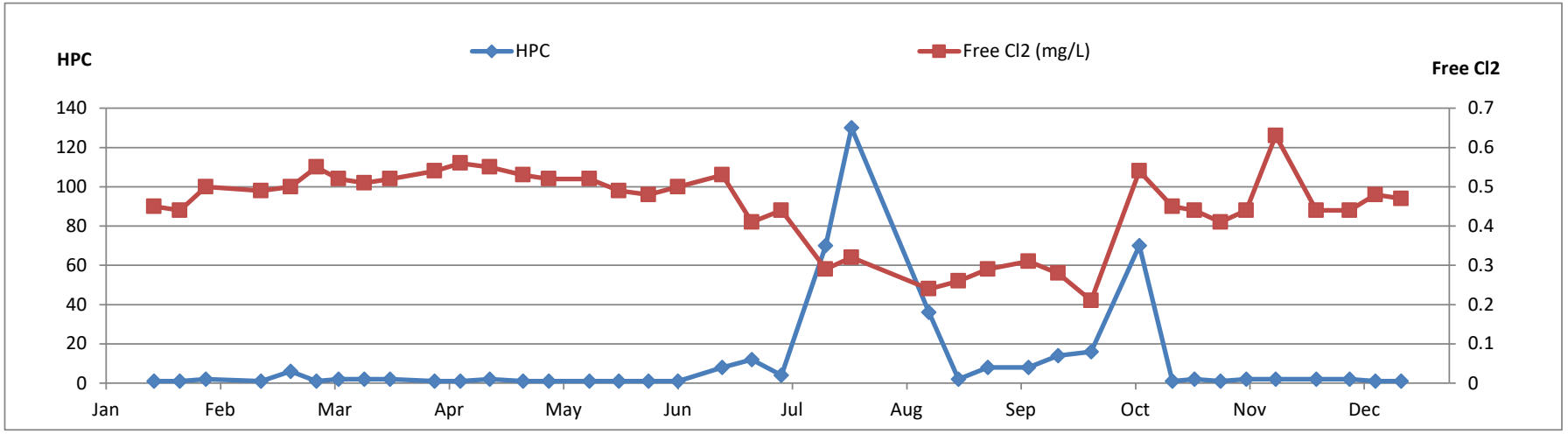


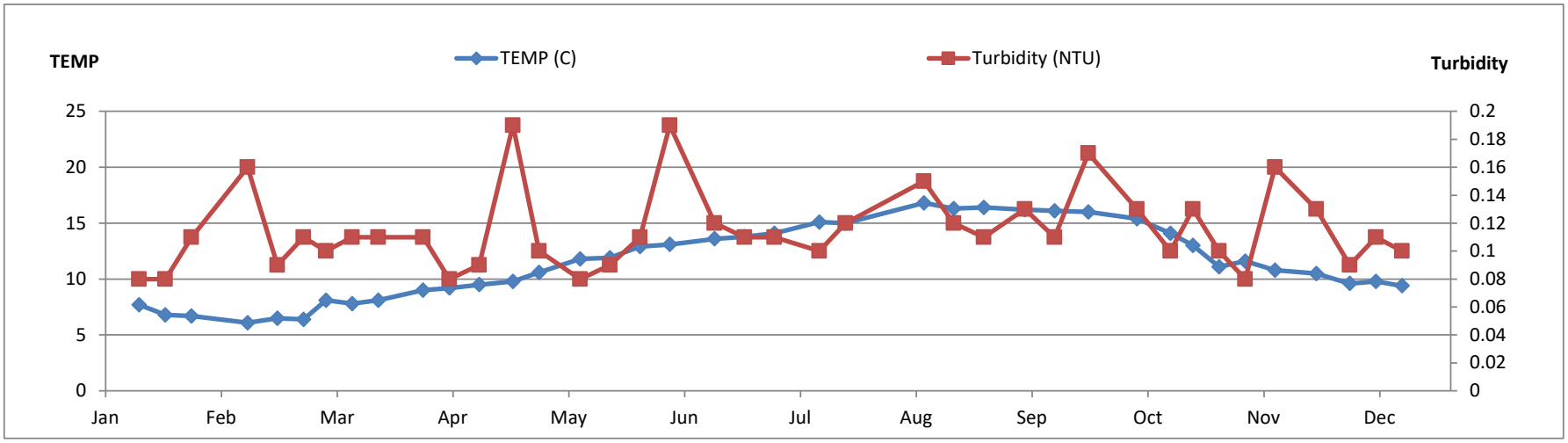
Sample Site DmDel 306
Well #5 Watershed Park 11600 Kittson Parkway - North Delta



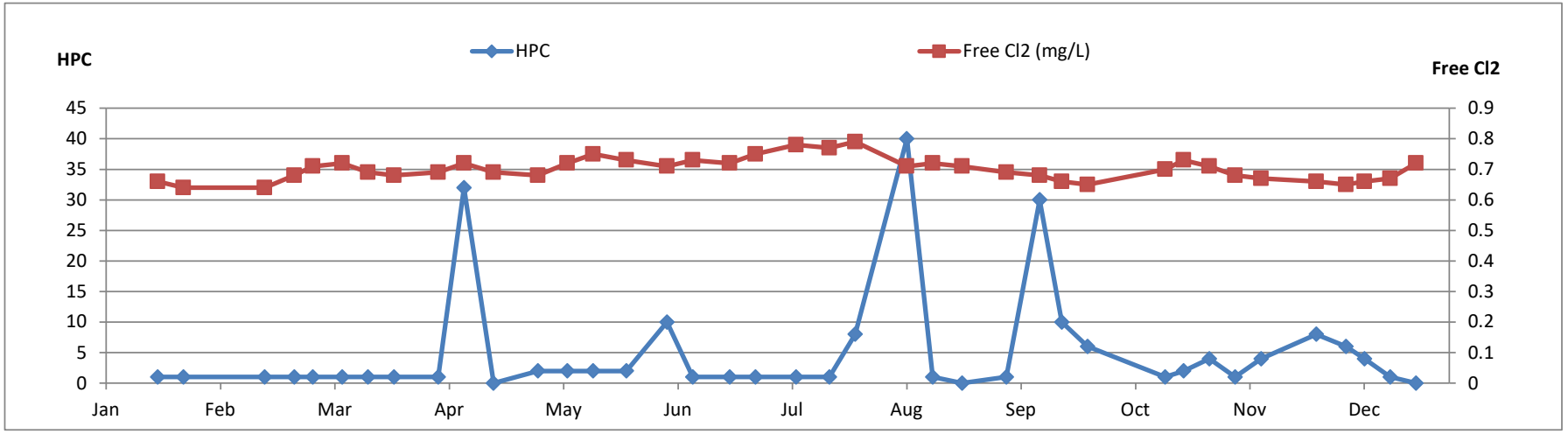


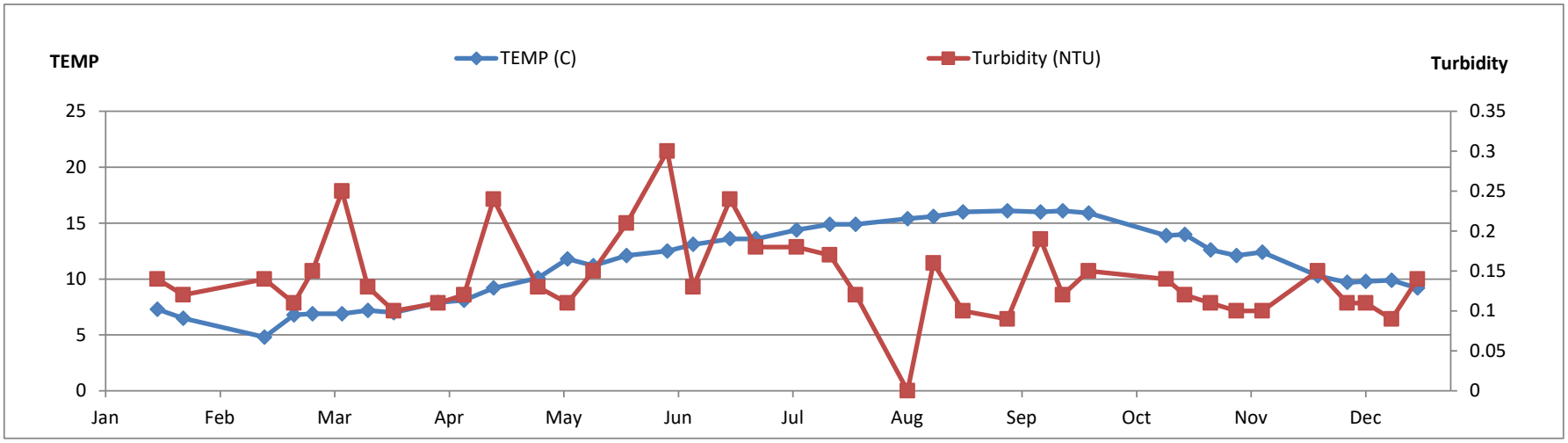
Sample Site DmDel 308
9341 Burns Drive - Ladner



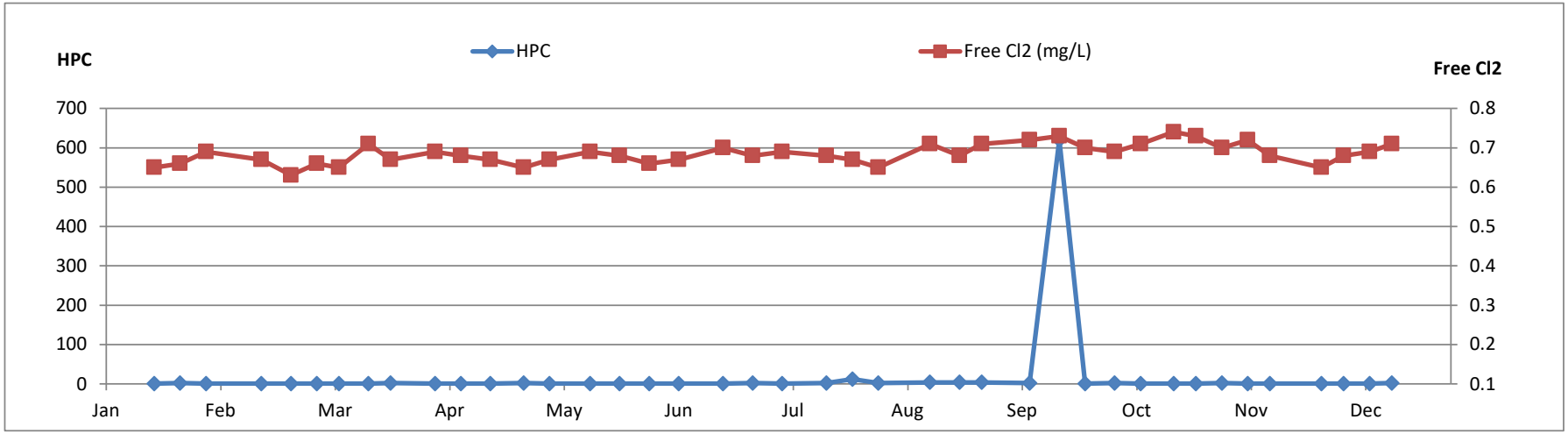


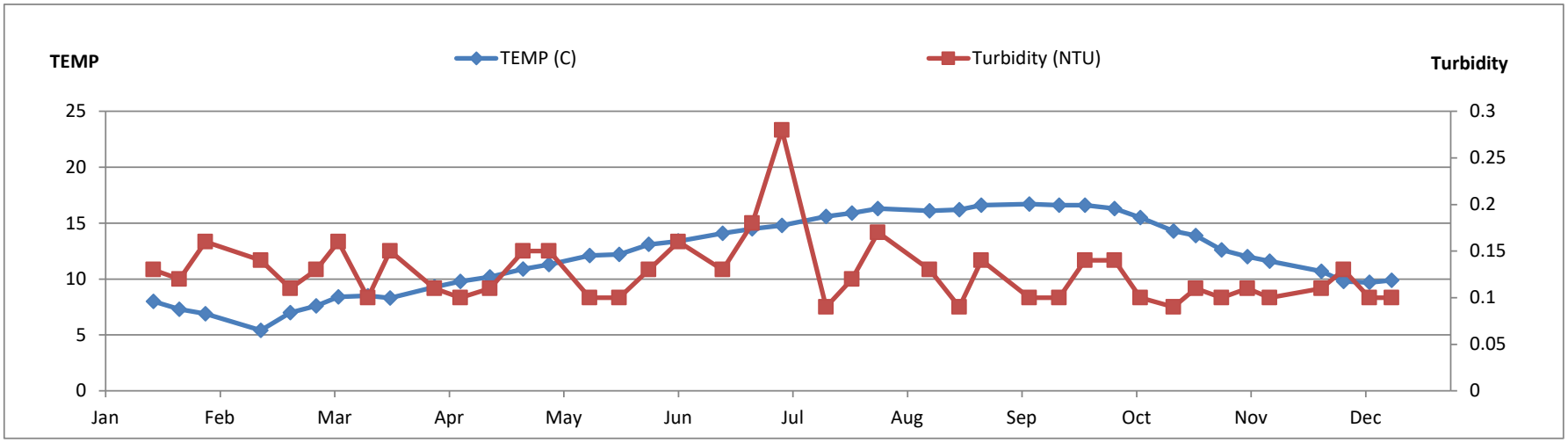
Sample Site DmDel 309
7979 Vantage Way - Tilbury Industrial Park



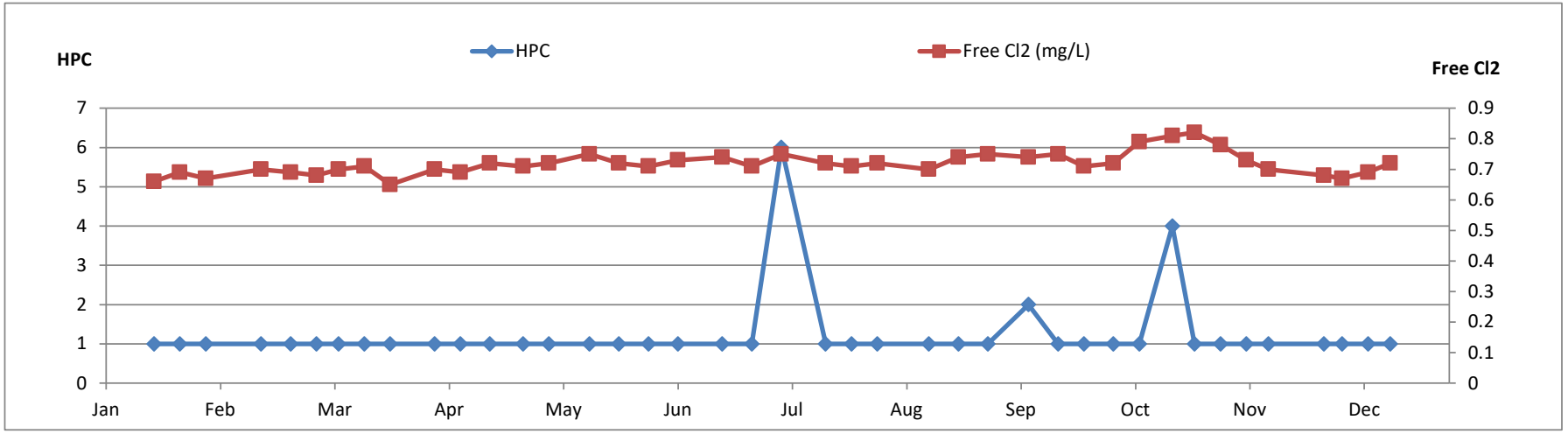


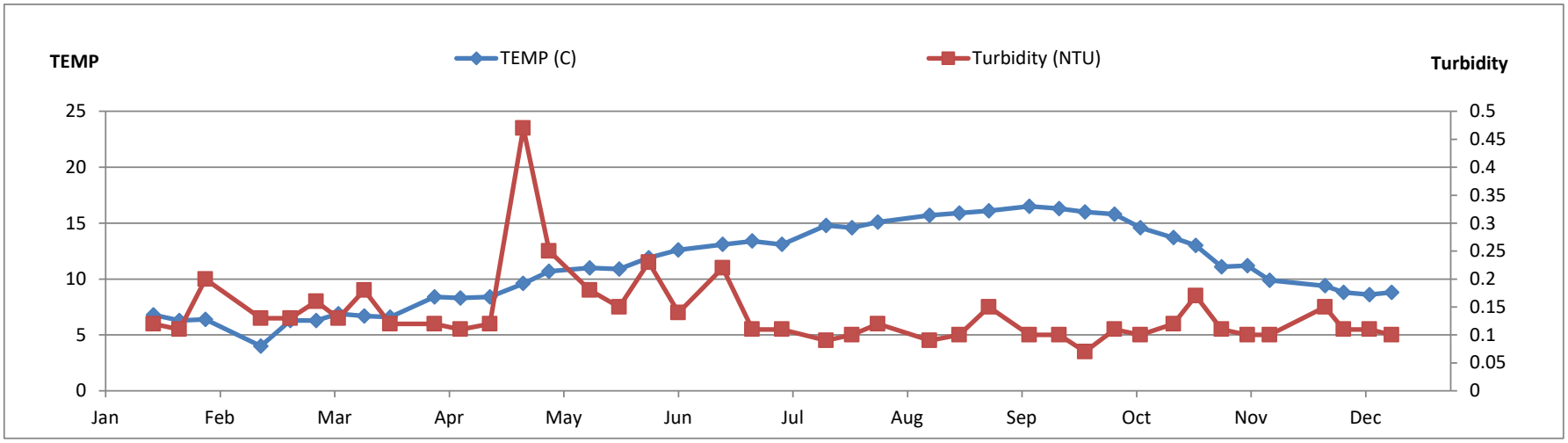
Sample Site DmDel 310
4905 Galbraith Street - Ladner



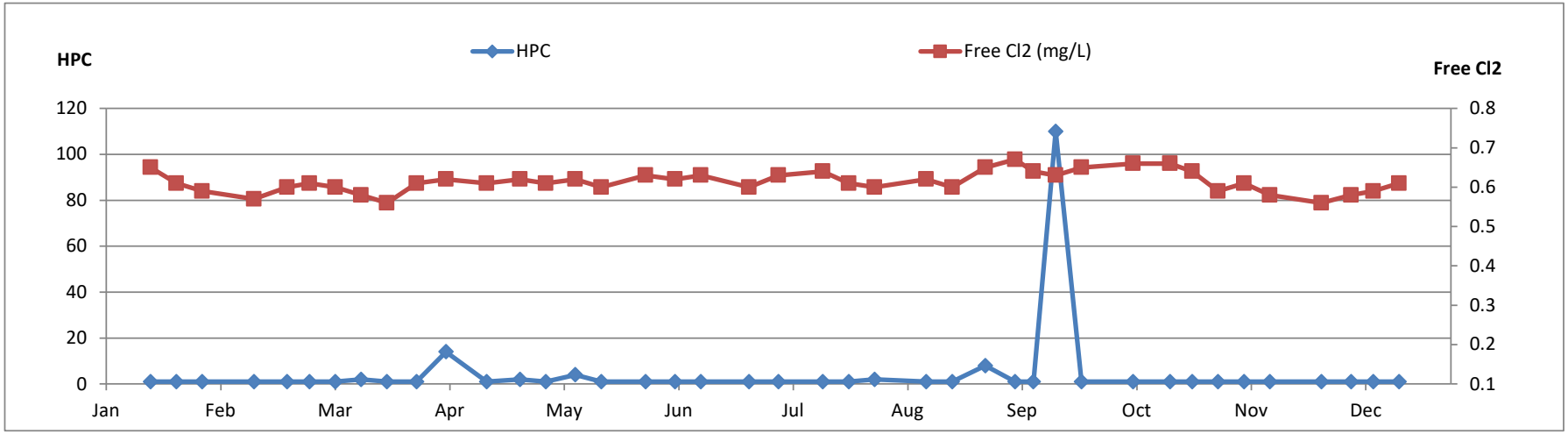


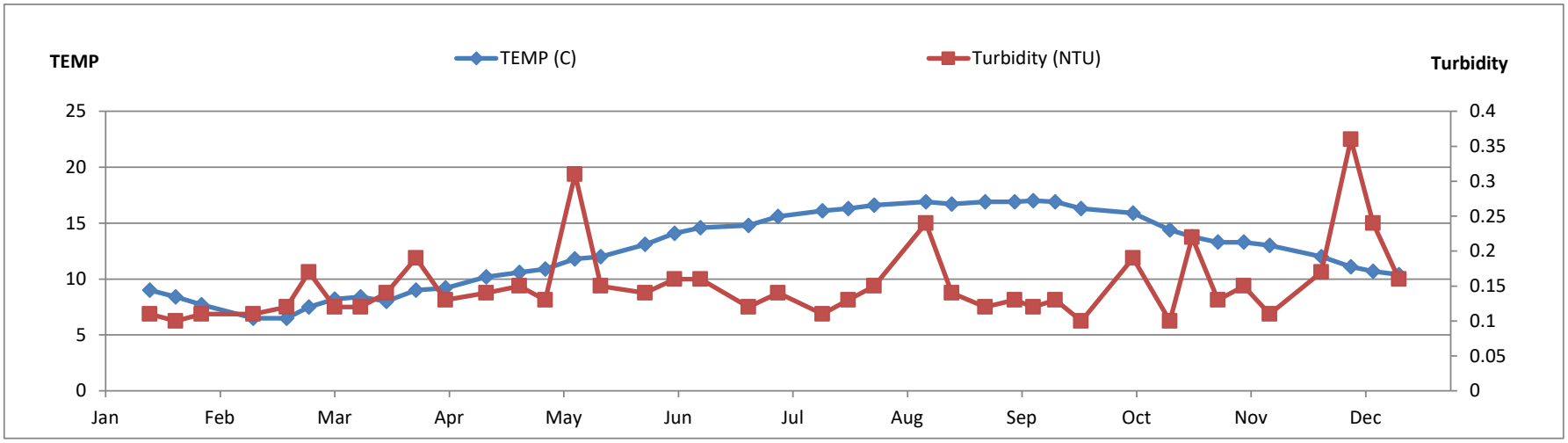
Sample Site DmDel 312
5289 Commodore Drive - Ladner



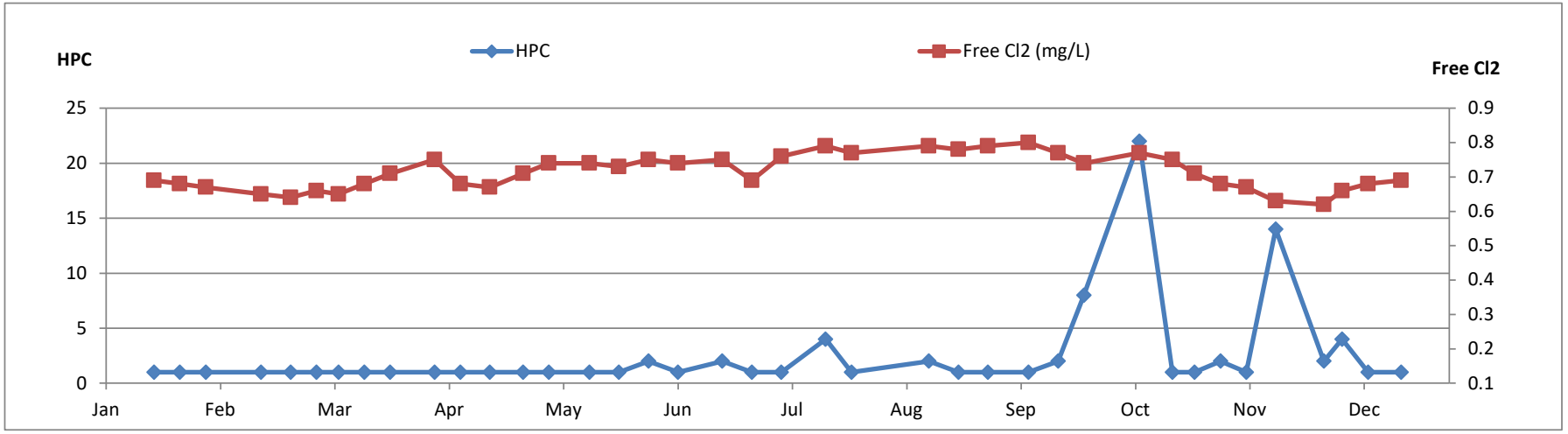


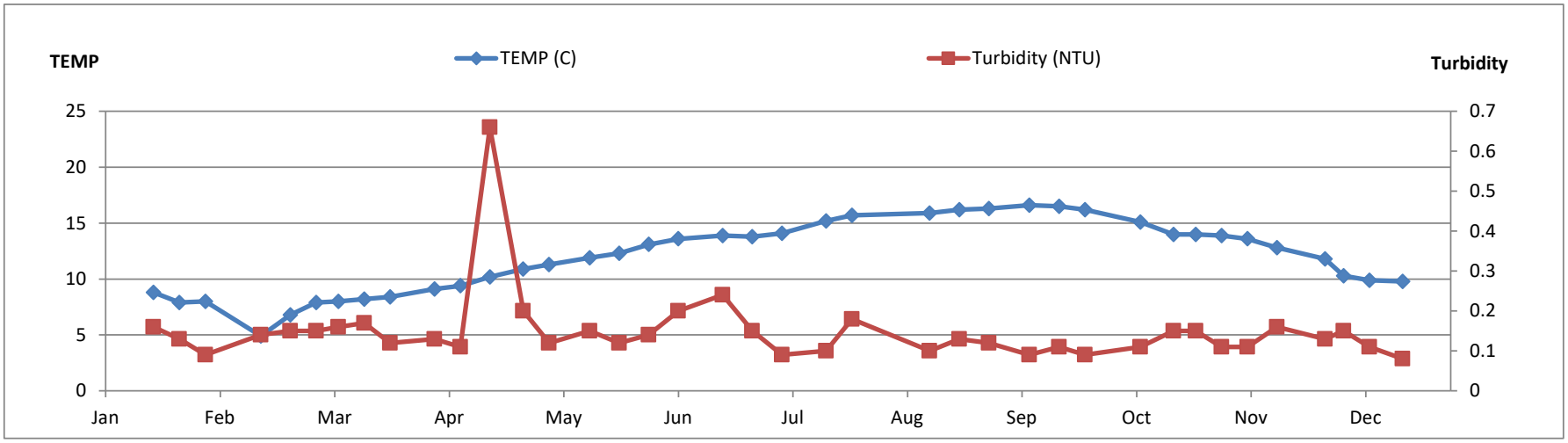
Sample Site DmDel 313
5191 Robertson Road - Westham Island



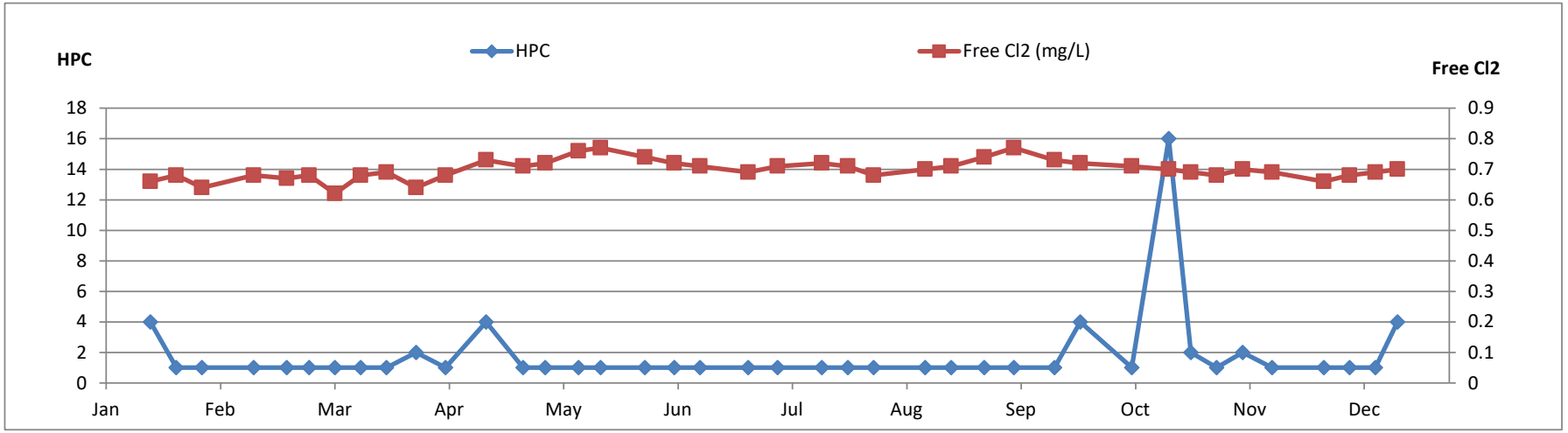


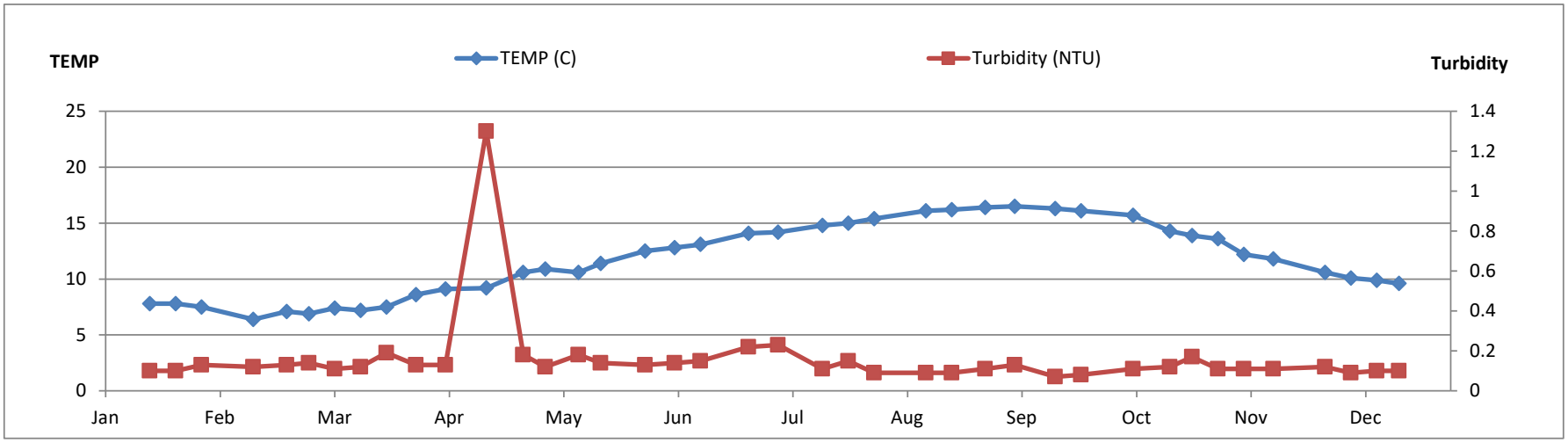
Sample Site DmDel 314
4455 Clarence Taylor Crescent - Ladner



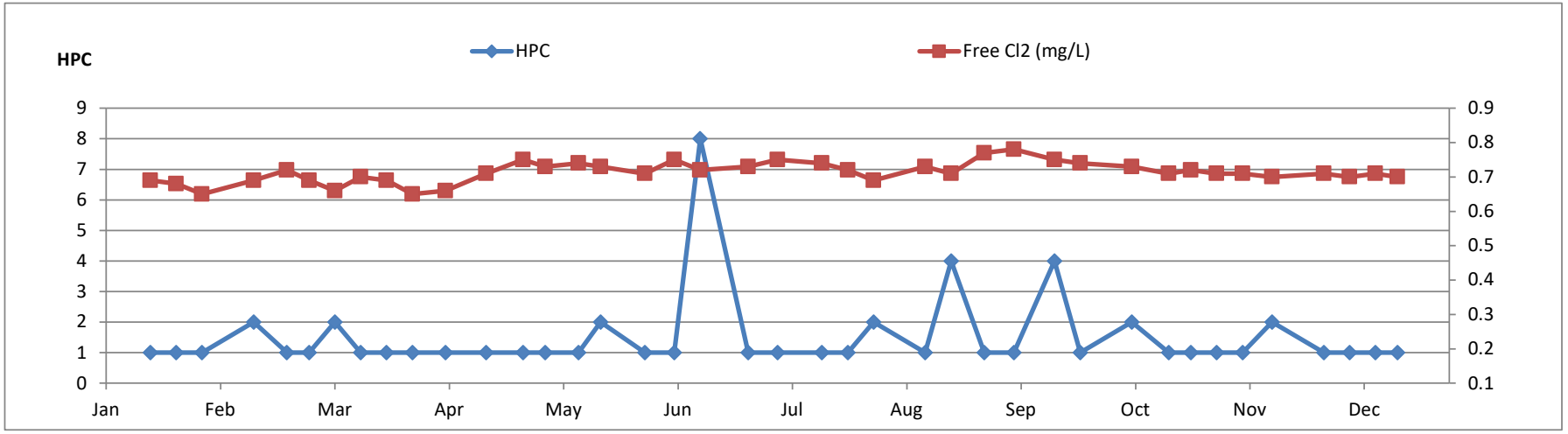


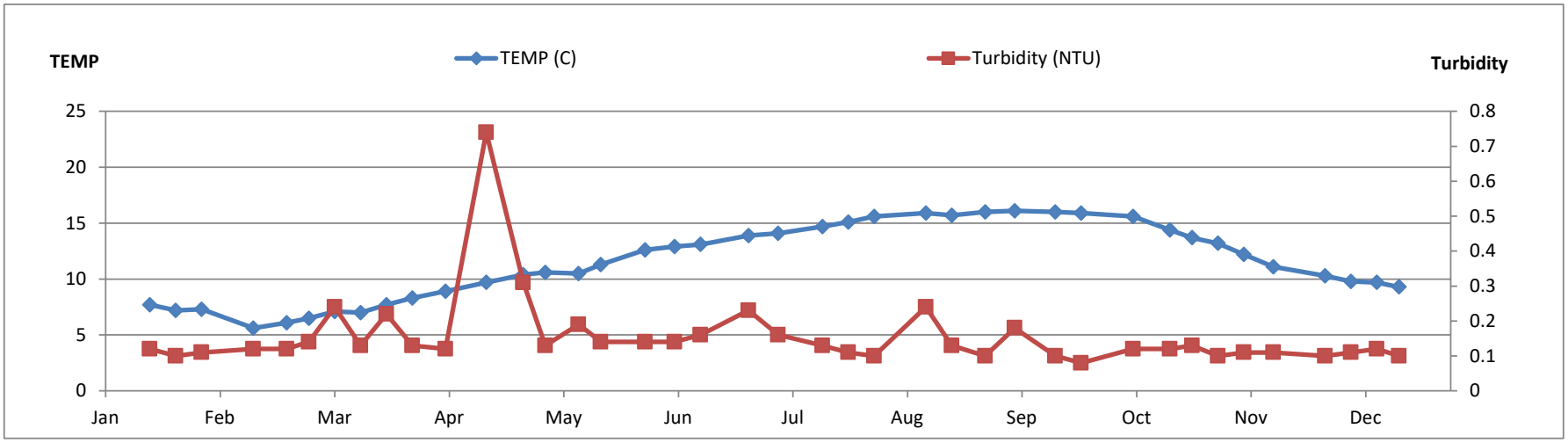
Sample Site DmDel 316
5408 Candlewyck Wynd - Tsawwassen



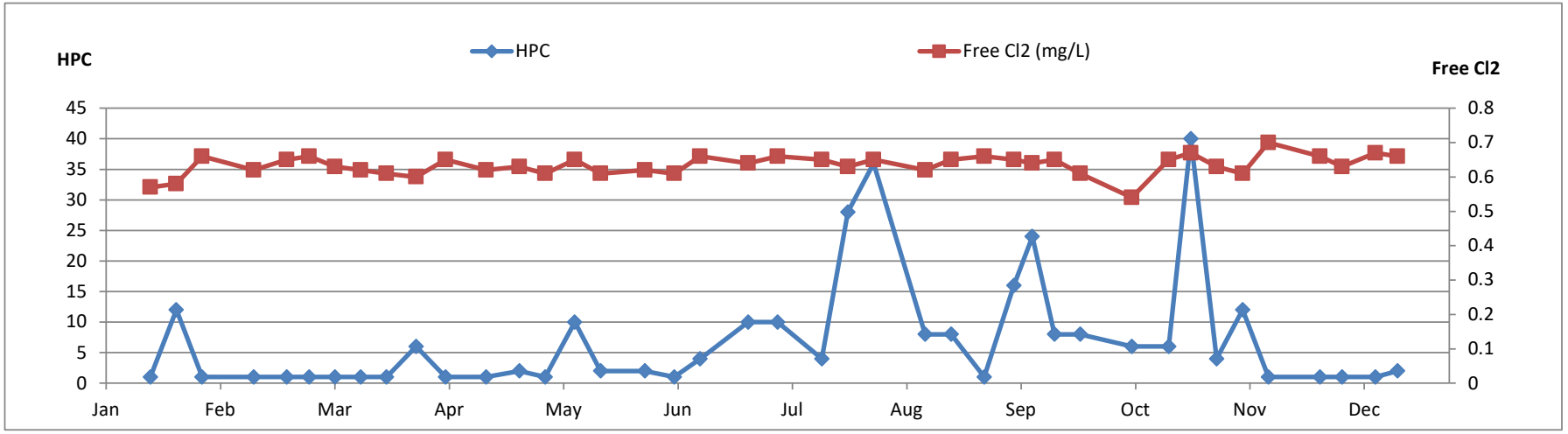


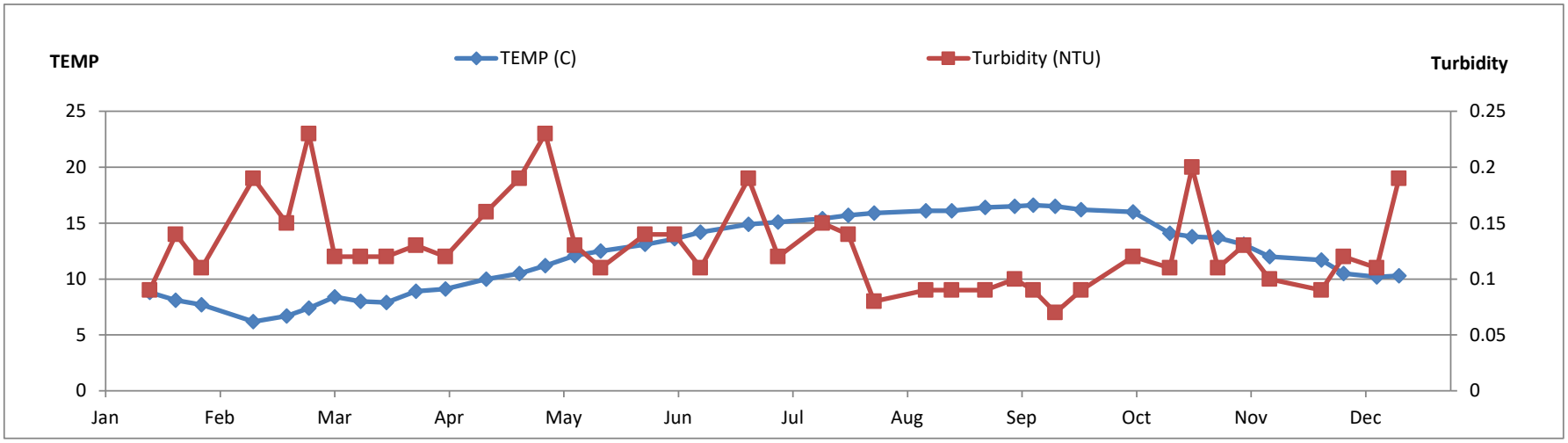
Sample Site DmDel 317
1720 56 Street - Tsawwassen



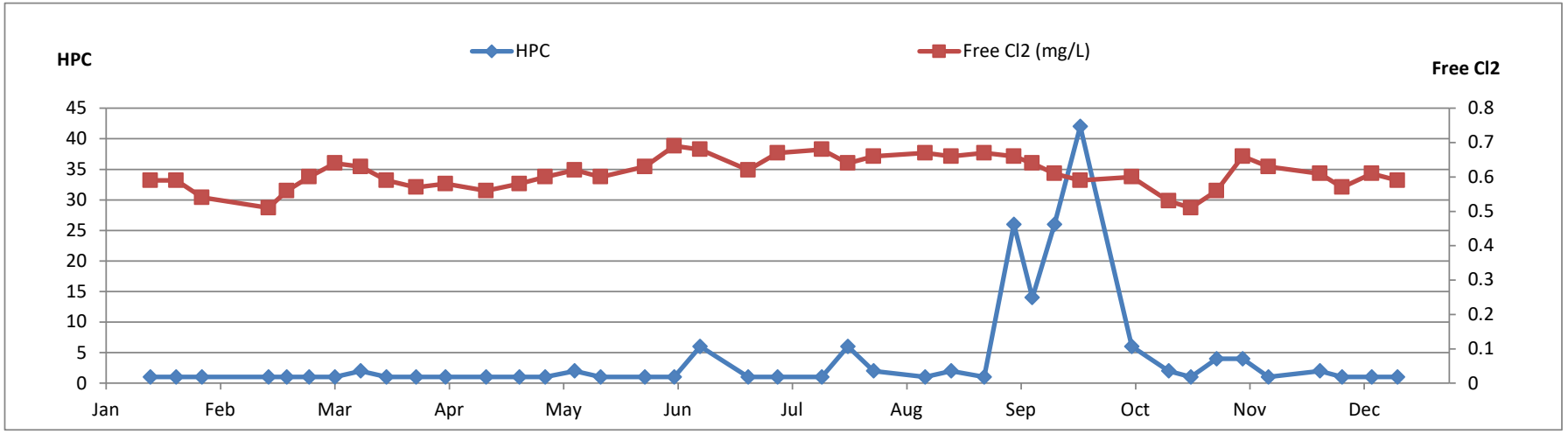


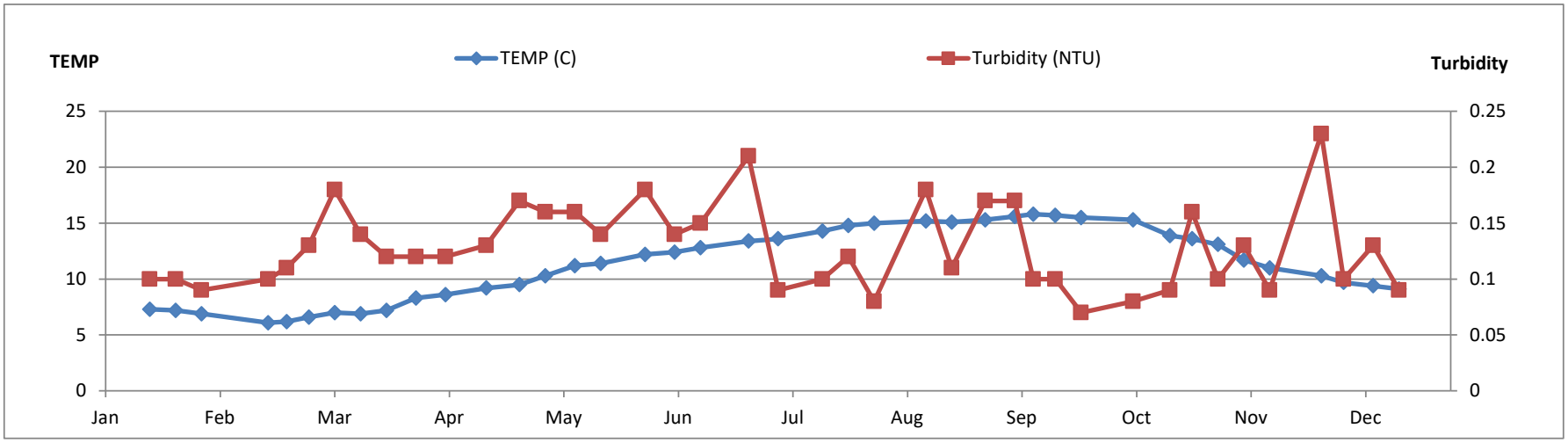
Sample Site DmDel 318
4933 Cliff Drive - Tsawwassen



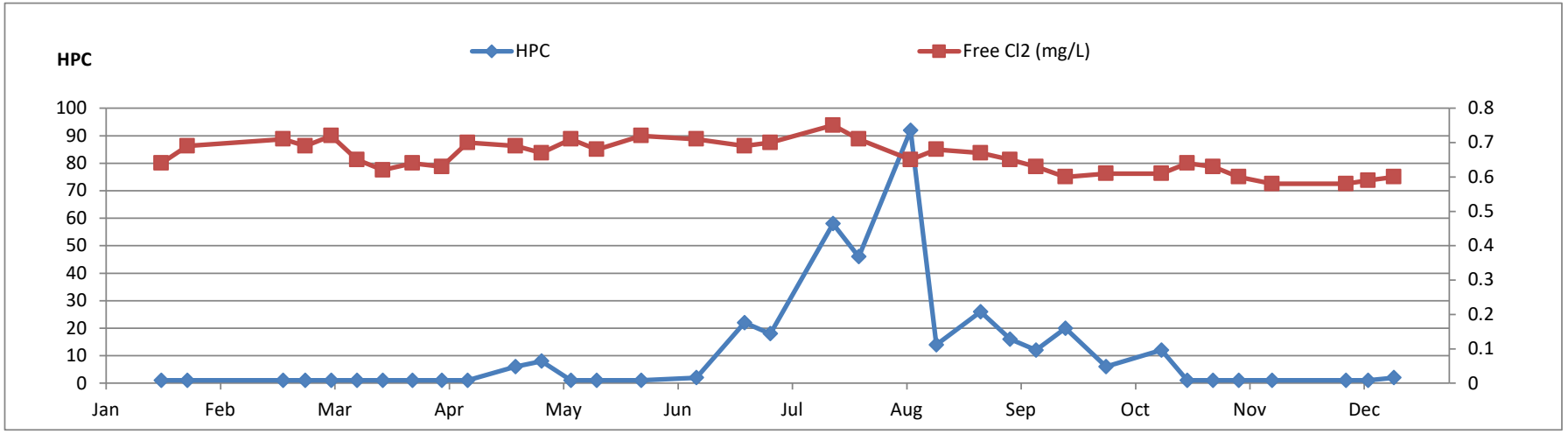


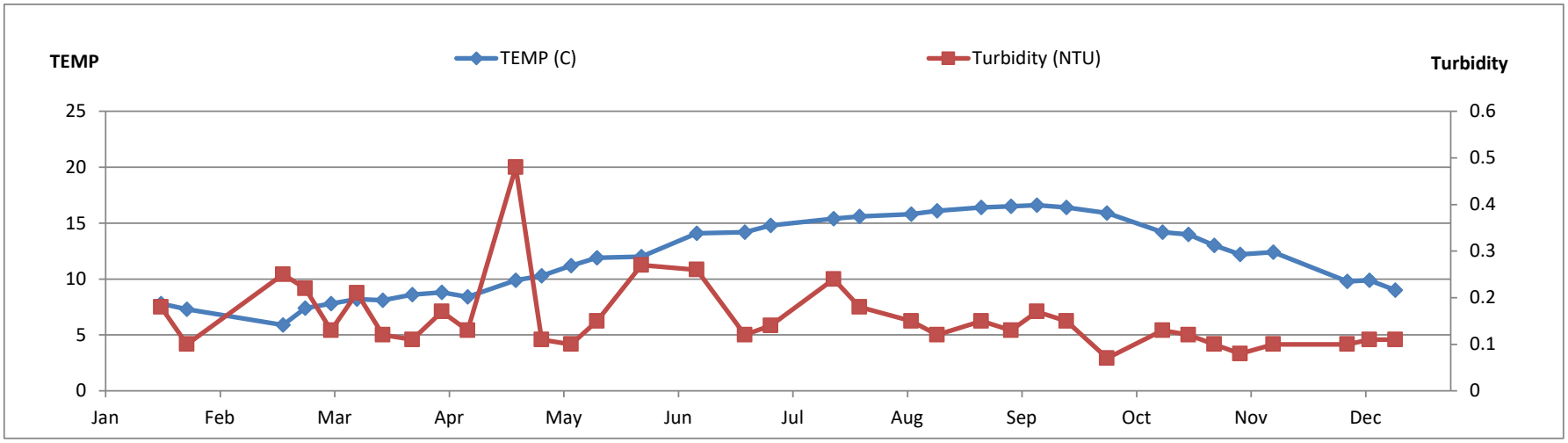
Sample Site DmDel 319
5169 Kilkenny Drive - Tsawwassen



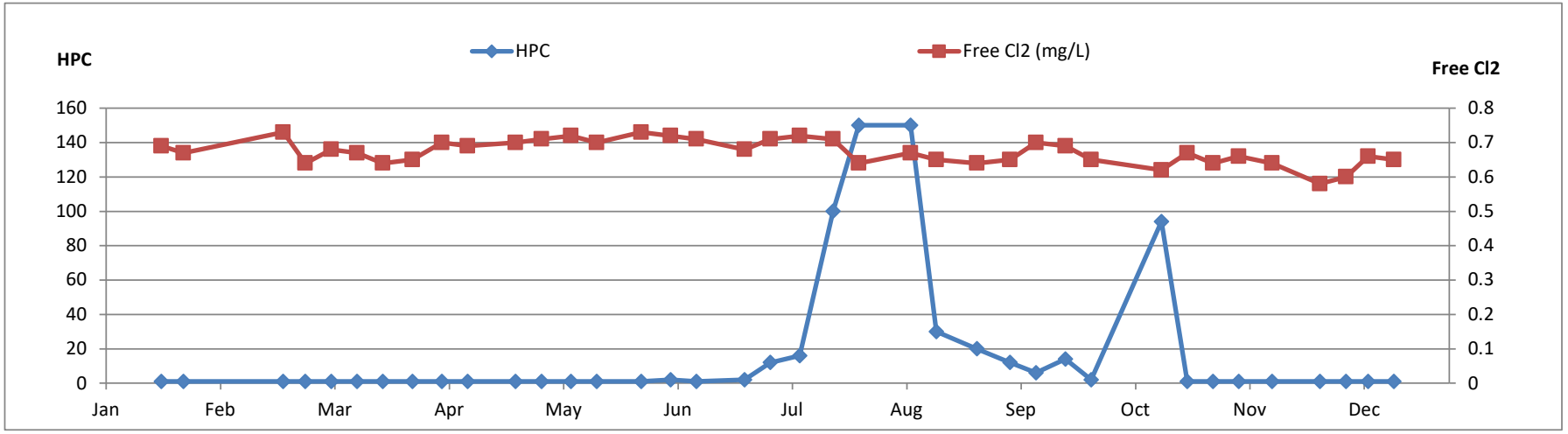


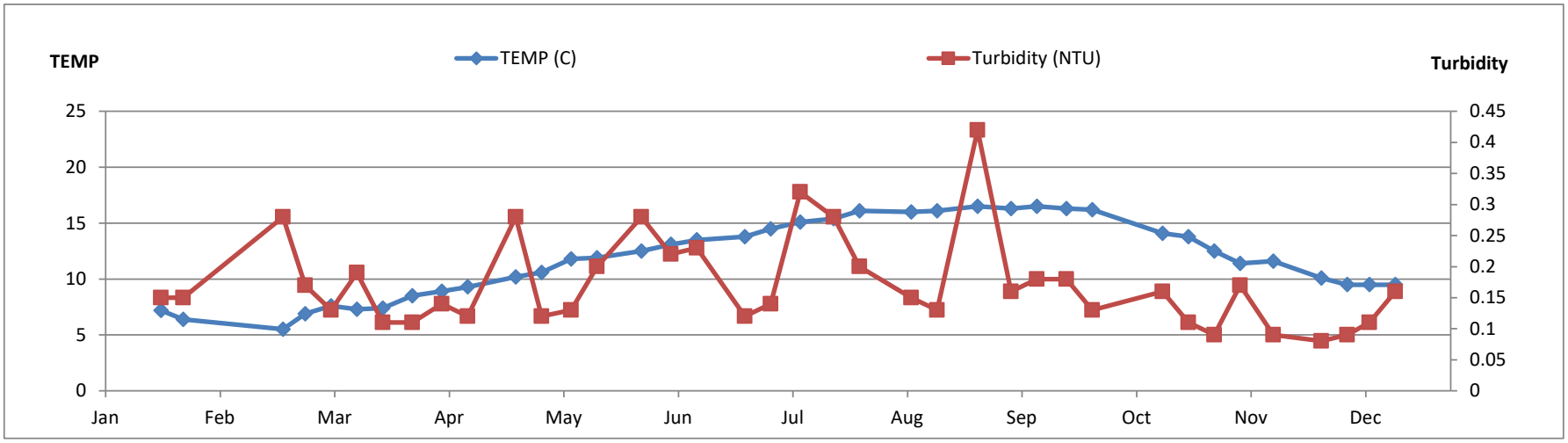
Sample Site DmDel 320
11321 80 Avenue - North Delta



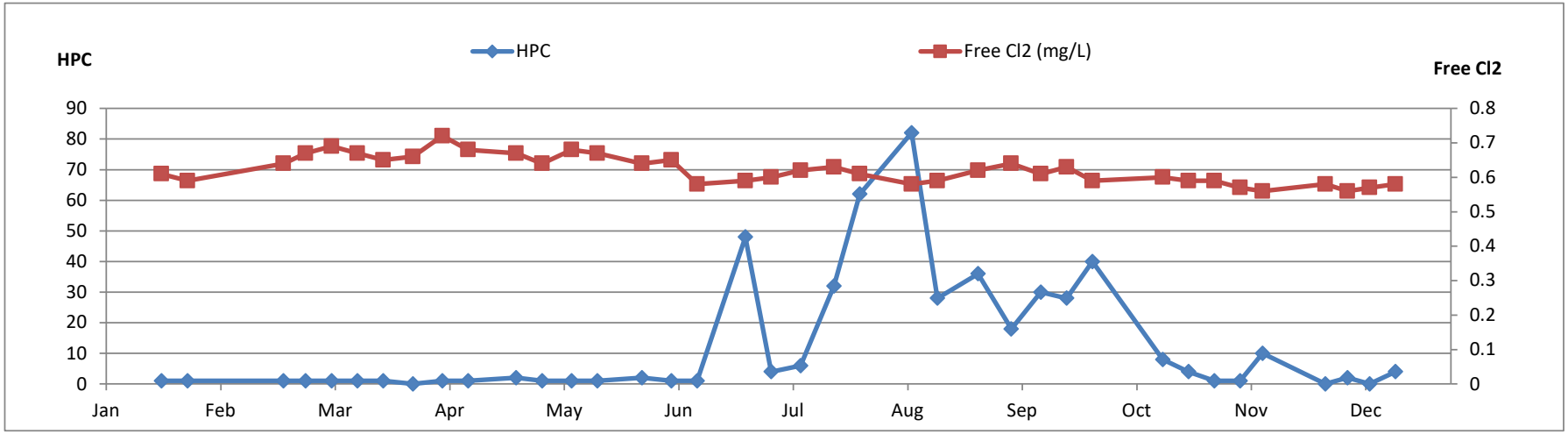


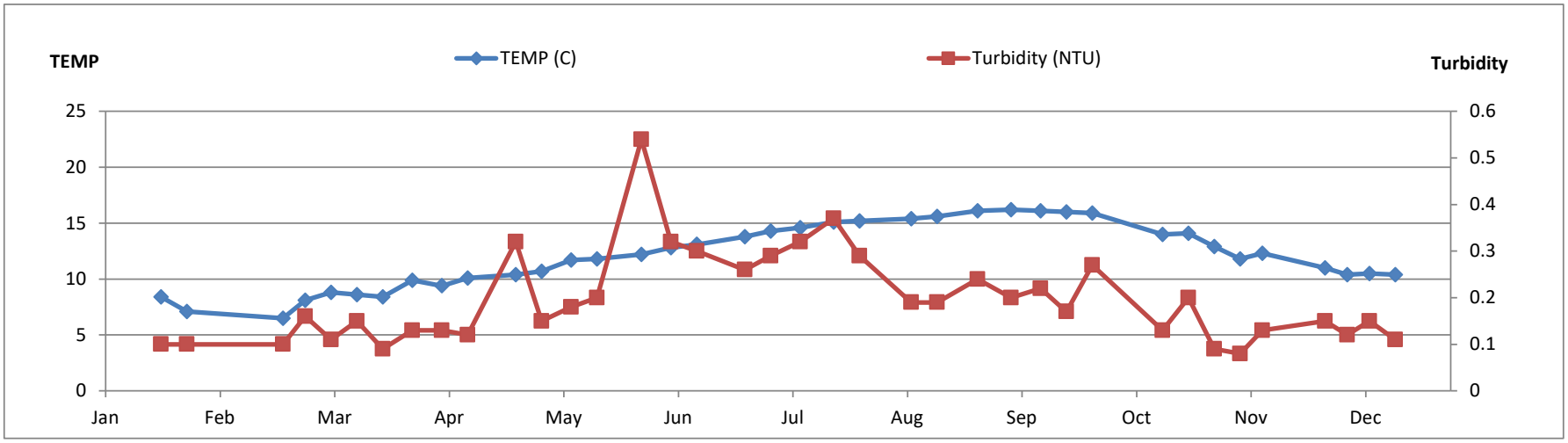
Sample Site DmDel 321
9434 117A Street - North Delta



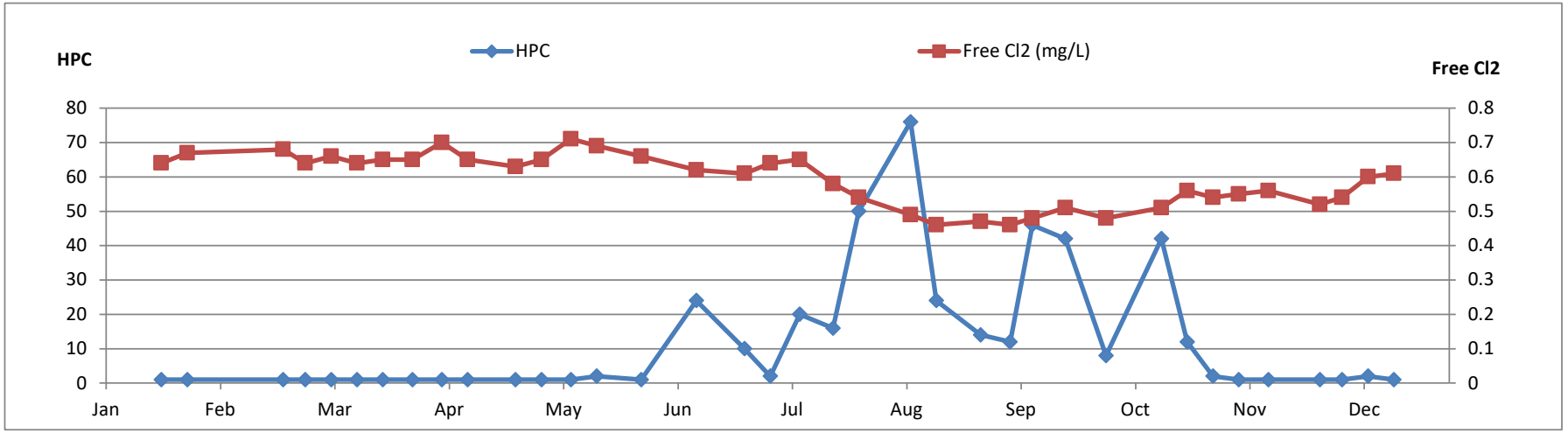


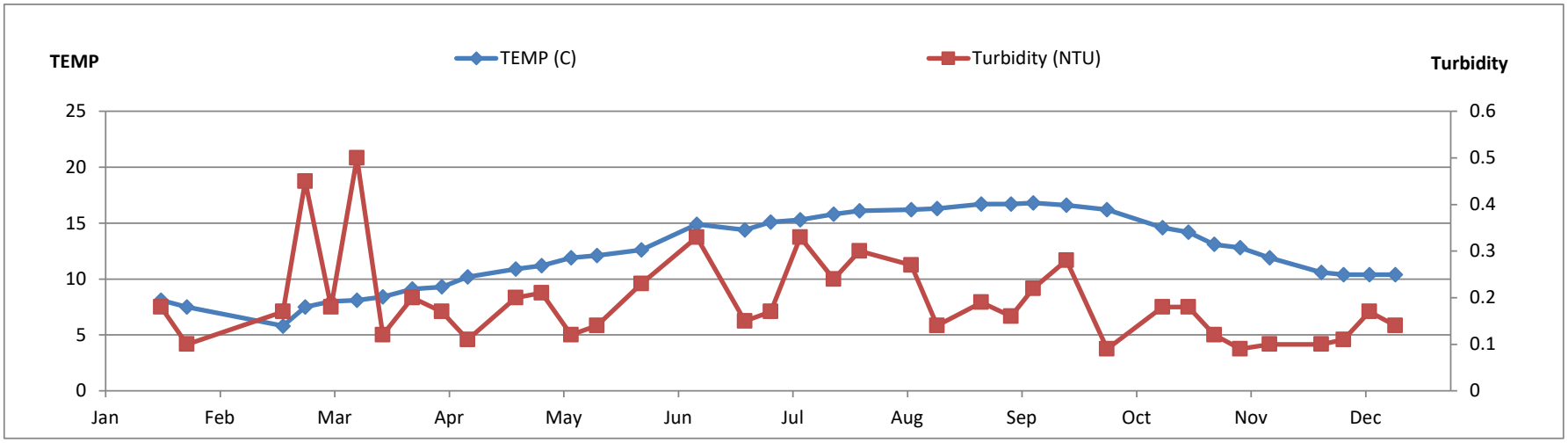
Sample Site DmDel 322
11970 Clark Drive - North Delta



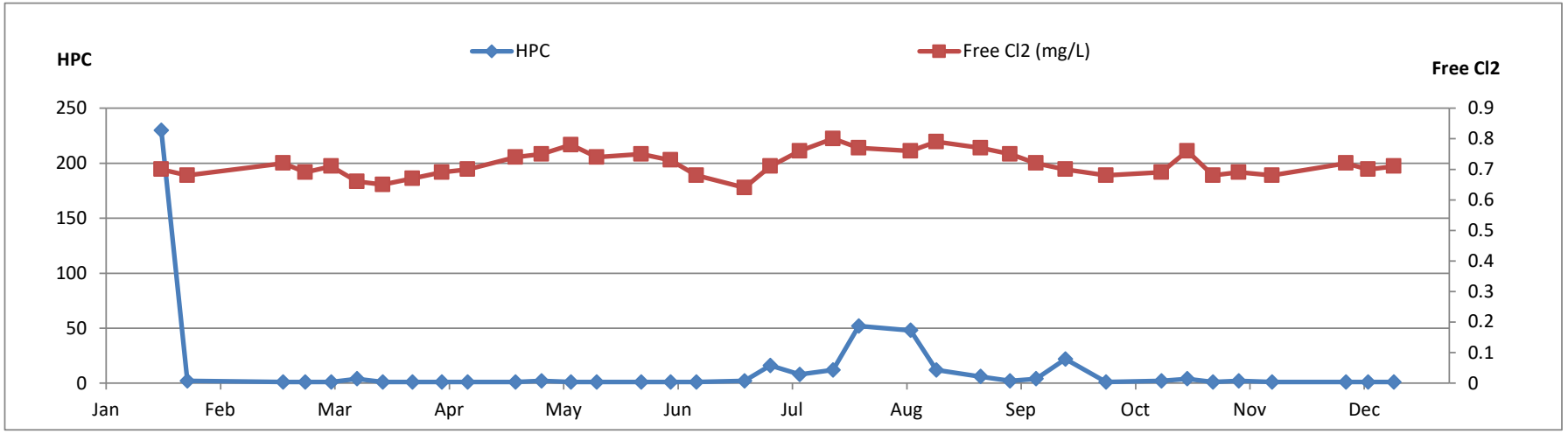


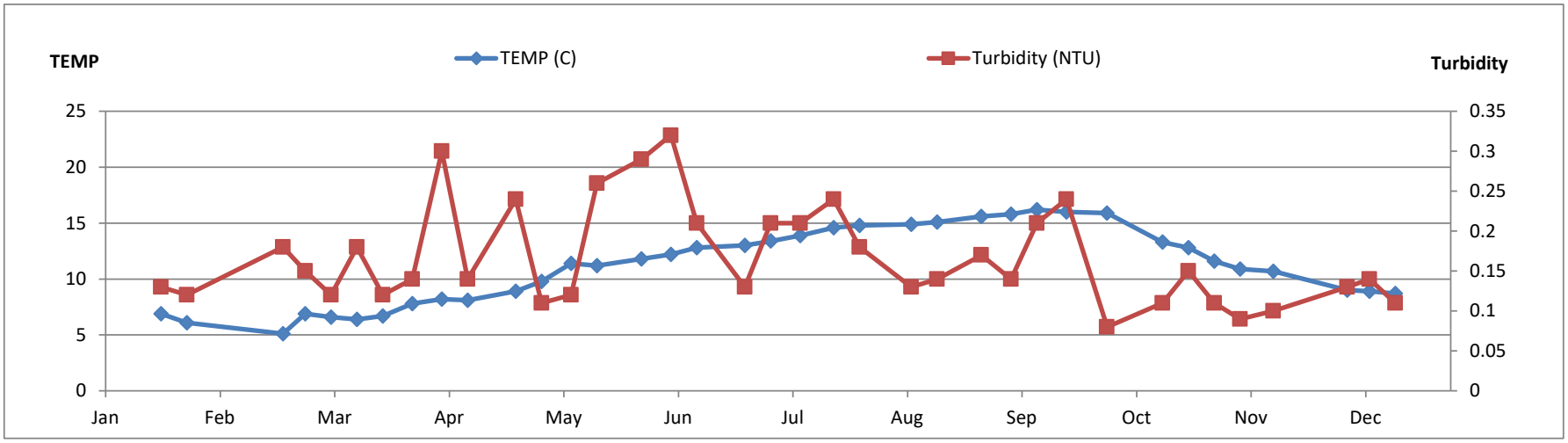
Sample Site DmDel 323
7348 Priory Place - North Delta



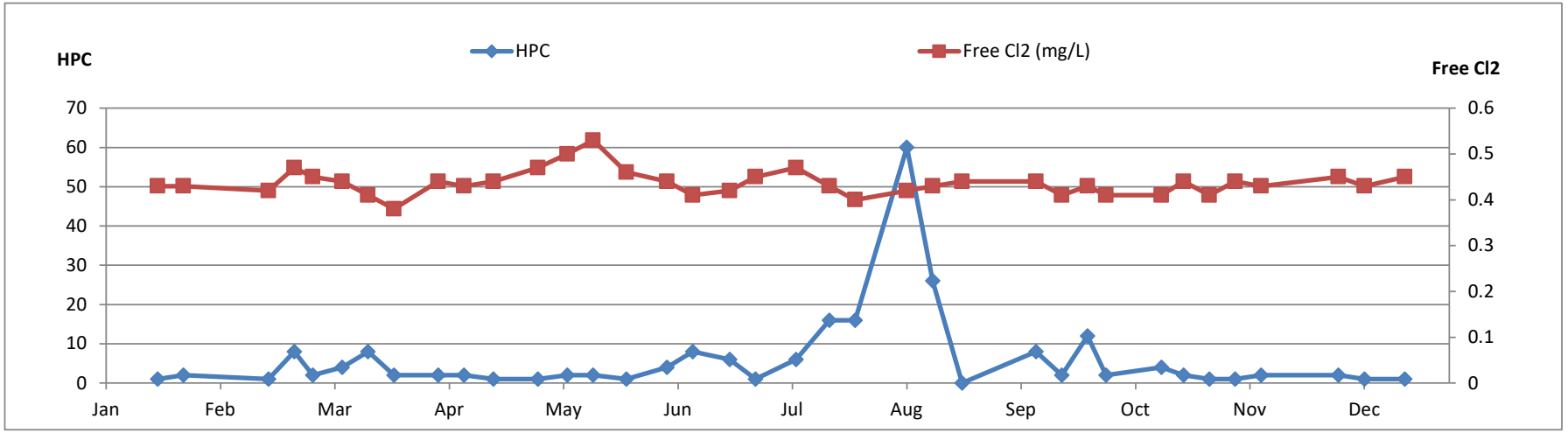


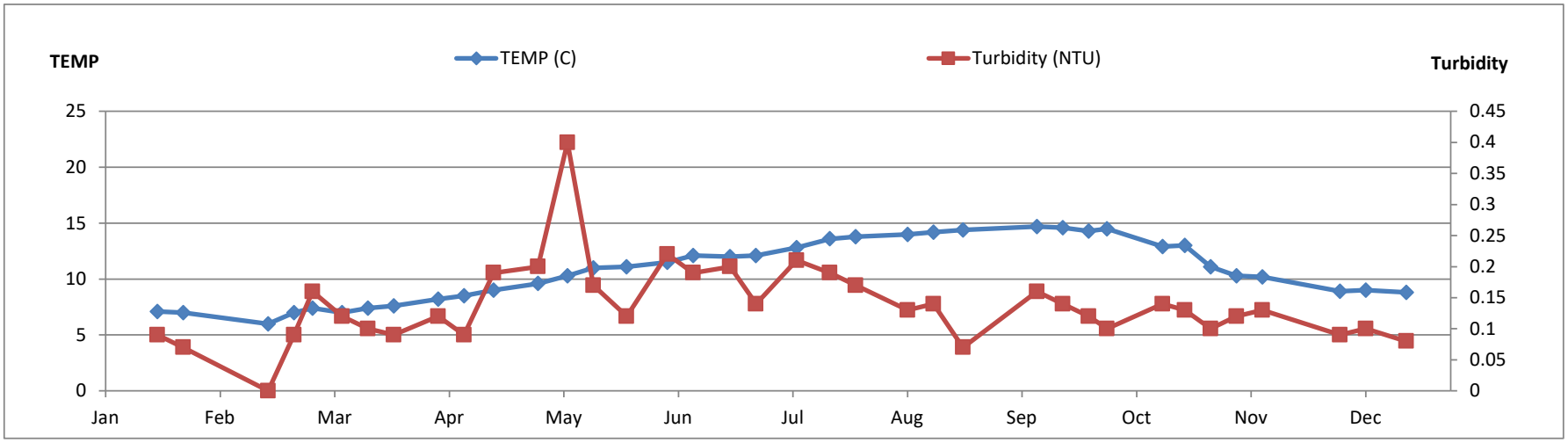
Sample Site DmDel 327
11405 84 Avenue - North Delta



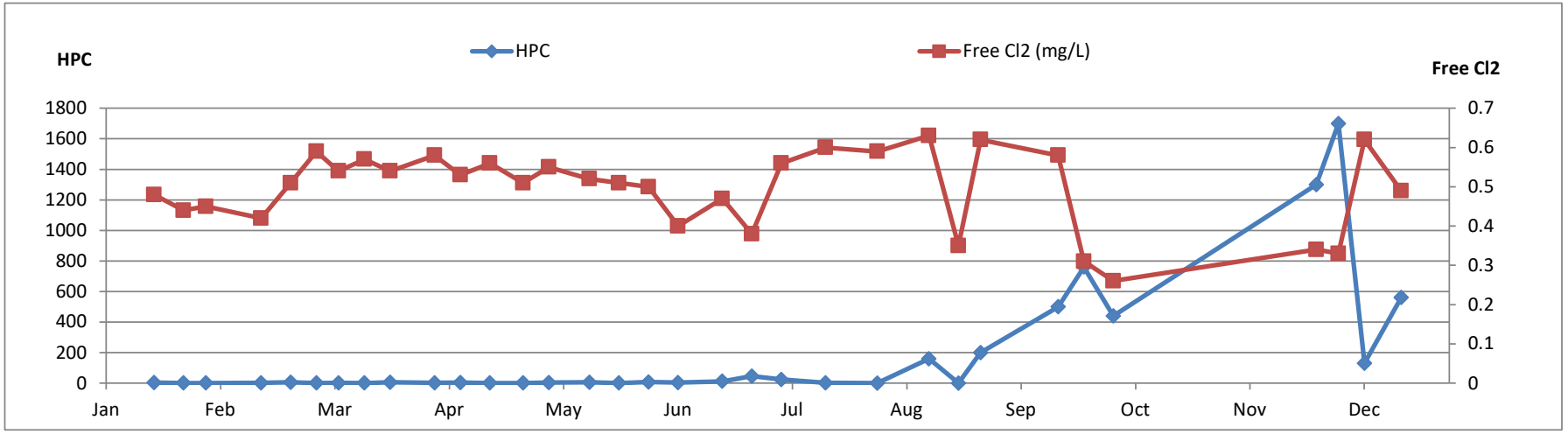


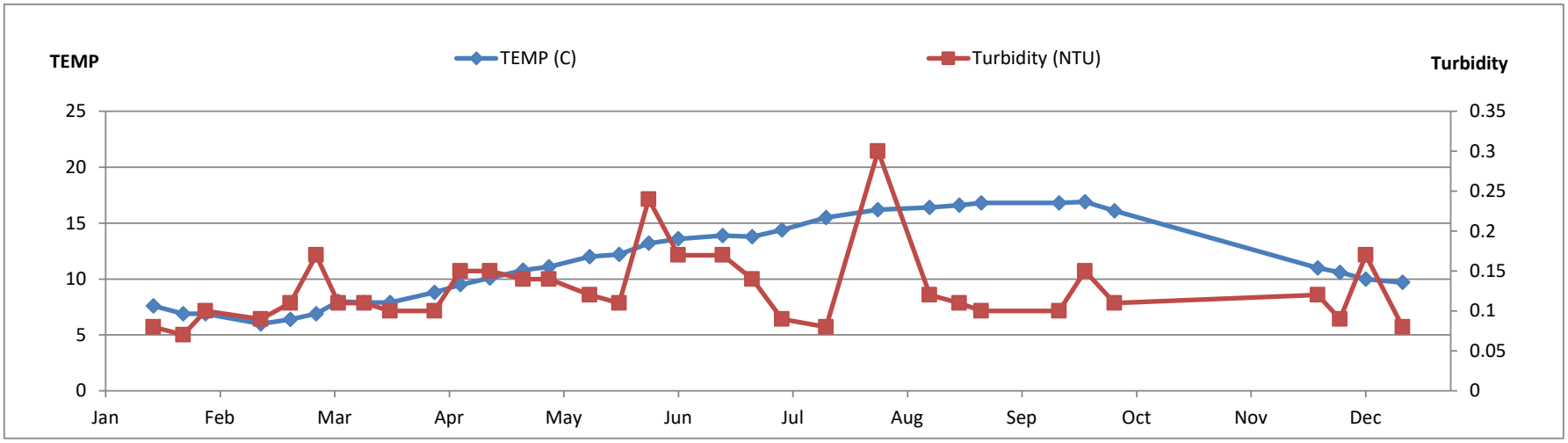
Sample Site DmDel 329
Watershed Park Reservoir 11600 Kittson Parkway - North Delta



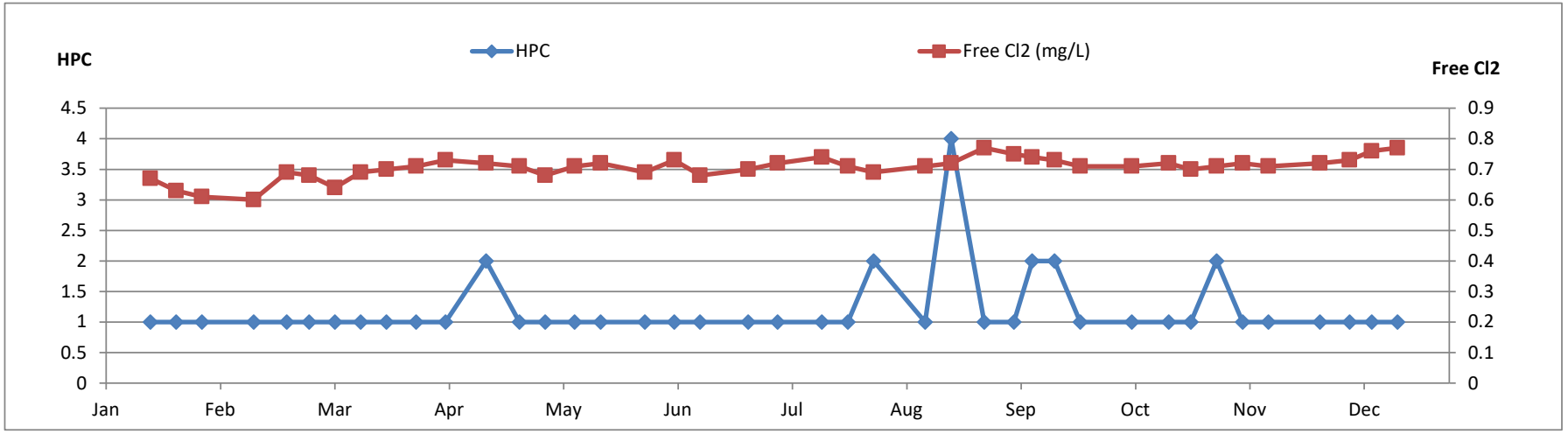


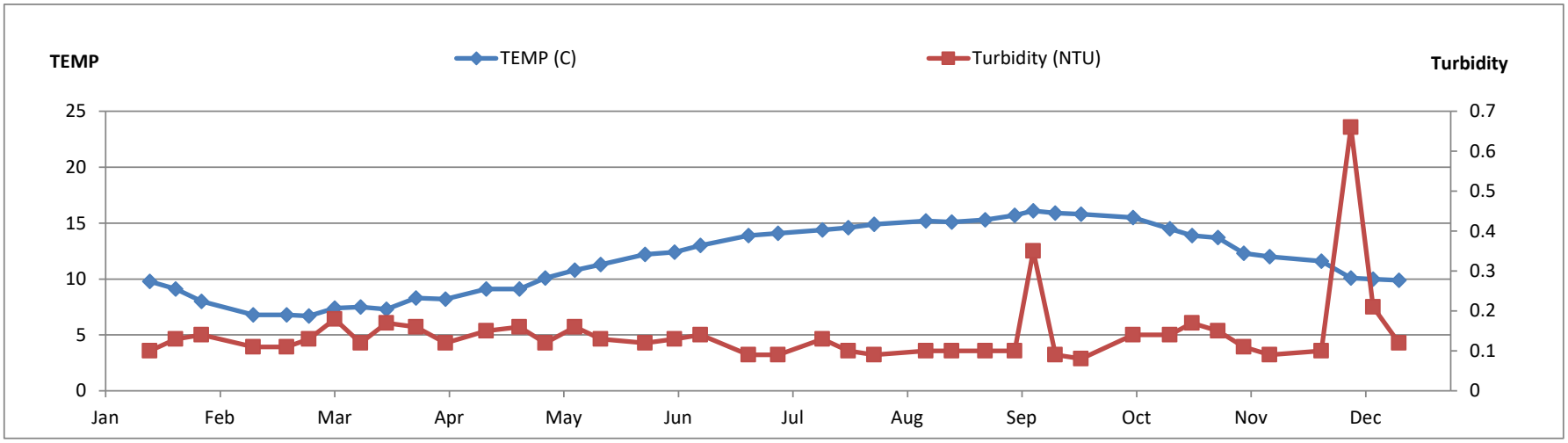
Sample Site DmDel 391
Ladner Trunk Road East of 80 Street - Ladner





Sample Site DmDel 392
3044 41B Street - Ladner





Appendix 10

Disinfection By-Product Results

2017 - 2025 THM & HAA results
DEL-222

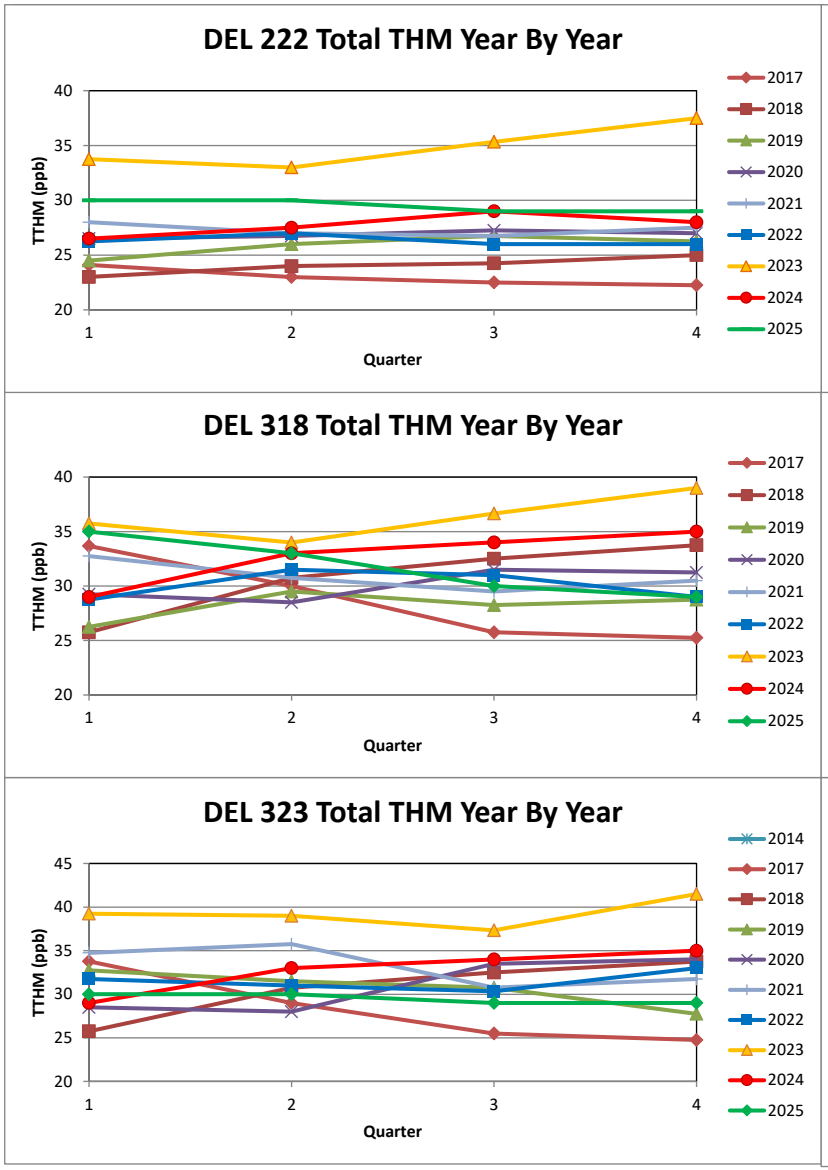
		THM (ppb)							HAA (ppb)						
Sample	Date Sampled	Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroform	Total Trihalomethanes	Total THM Quarterly Average		Dibromoacetic Acid	Dichloroacetic Acid	Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid	Total Haloacetic Acid	Total HAA Quarterly Average
DEL-222	Mar 02 2017	<1	<1	<1	17	19.0	**24**		<0.5	7	<1	<2	8.6	18.0	**26**
DEL-222	May 18 2017	<1	<1	<1	18	18.0	**23**		<0.5	15	<1	<2	13	30.5	**27**
DEL-222	Aug 22 2017	<1	<1	<1	24	25.0	**23**		<0.5	8	<1	<2	6.3	15.1	**25**
DEL-222	Dec 01 2017	<1	<1	<1	27	27.0	**22**		<0.5	14	<1	<2	14.1	30.7	**24**
DEL-222	Feb 16 2018	<1	<1	<1	20	22	**23**		<0.5	11	<1	<2	9.8	22.5	**25**
DEL-222	May 29 2018	<1	<1	<1	21	22	**24**		<0.5	14	<1	<2	14.5	31.1	**25**
DEL-222	Aug 7 2018	<1	<1	<1	25	26	**24**		<0.5	14	<1	2	12.2	28.7	**28**
DEL-222	Nov 22 2018	1	<1	<1	27	30	**25**		<0.5	15	<1	<2	12.4	29.8	**28**
DEL-222	Feb 22 2019	<1	<1	<1	18	20	**25**		<0.5	10	<1	<2	9.5	20.9	**28**
DEL-222	May 16 2019	<1	<1	<1	28	28	**26**		<0.5	12	<1	<2	10	23.7	**26**
DEL-222	Aug 21 2019	1	<1	<1	27	29	**27**		<0.5	12	<1	<2	10.3	23.9	**25**
DEL-222	Dec 3 2019	<1	<1	<1	26	28	**26**		<0.5	7	<1	<2	10.4	19	**22**
DEL-222	Feb 26 2020	<1	<1	<1	19	21	**27**		<0.5	8	<1	<2	7	15.3	**20**
DEL-222	May 27 2020	<1	<1	<1	27	29	**27**		<0.5	12	<1	<2	7.7	20.3	**20**
DEL-222	Aug 13 2020	1	<1	<1	29	31	**27**		<0.5	12	<1	<2	7.2	19.6	**19**
DEL-222	Dec 03 2020	<1	<1	<1	26	27	**27**		<0.5	13	<1	2	14.2	30	**21**
DEL-222	Mar 26 2021	<1	<1	<1	24	25	**28**		<0.5	8	<1	<2	7.4	16.7	**22**
DEL-222	Jun 03 2021	<1	<1	<1	23	25	**27**		<0.5	13	<1	<2	8.8	24.5	**23**
DEL-222	Aug 25 2021	1	<1	<1	28	30	**27**		<0.5	16	<1	<2	9.7	26	**24**
DEL-222	Nov 25 2021	<1	<1	<1	30	30	**28**		<0.5	11	<1	<2	9.1	20	**22**
DEL-222	Feb 17 2022	<1	<1	<1	20	20	**26**		<0.5	11	<5.0	<5.0	7.8	19	**22**
DEL-222	May 11 2022	<1	<1	<1	25	28	**27**		<0.5	12	<0.5	1	7.5	21	**22**
DEL-222	Aug 25 2022	<1	<1	<1	26	26	**26**		<0.5	11	<0.5	0.9	6.7	19	**20**
DEL-222	Nov 16 2022	2	<1	<1	28	31	**26**		<0.5	10	<0.5	<5.0	8	20	**20**
DEL-222	Jan 30 2023	<1	<1	<1	49	50	**34**		<0.5	11	<0.5	<0.5	7.4	18	**20**
DEL-222	May 31 2023	<1	<1	<1	23	25	**33**		<0.5	9.8	<0.5	0.8	7.7	18	**19**
DEL-222	Aug 28 2023	1	<1	<1	27	29	**35**		<0.5	12	<0.5	0.6	7.1	19	**19**
DEL-222	Nov 30 2023	<1	<1	<1	29	30	**38**		<0.5	14	<0.5	2	10	26	**18**
DEL-222	Jan 24 2024	<1	<1	<1	22	22	**27**		<0.5	12	<0.5	<0.5	8.8	21	**21**
DEL-222	Apr 25 2024	<1	<1	<1	28	29	**28**		<0.5	12	<0.5	0.9	8.1	21	**22**
DEL-222	Sep 10 2024	<1	<1	<1	32	33	**29**		<0.5	14	<0.5	1.7	6.7	22	**23**
DEL-222	Nov 27 2024	<1	<1	<1	34	34	**28**		<0.5	14	<0.5	0.7	11	25	**21**
DEL-222	Jan 29 2025	<1	<1	<1	25	22	**30**		<0.5	12	<0.5	<0.5	10	25	**23**
DEL-222	Apr 10 2025	<1	<1	<1	27	29	**30**		<0.5	15	<0.5	<0.5	10	25	**24**
DEL-222	Sep 10 2025	<1	<1	<1	31	32	**29**		<0.5	13	<0.5	<5.0	7.9	21	**24**
DEL-222	Nov 12 2025	<1	<1	<1	32	33	**29**								
DEL-222	Dec 02 2025								<0.5	11	<0.5	<5.0	8.6	19	**23**

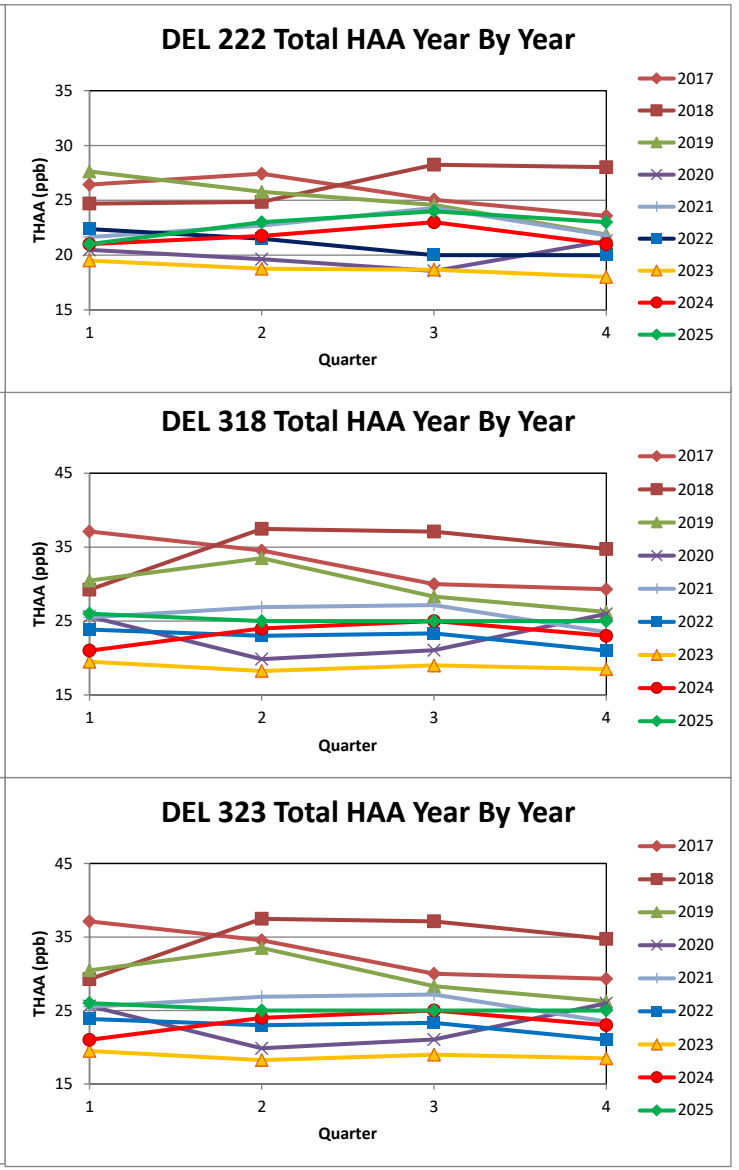
2017 - 2025 THM & HAA results
DEL-318

		THM (ppb)							HAA (ppb)						
Sample	Date Sampled	Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroform	Total Trihalomethanes	Total THM Quarterly Average		Dibromoacetic Acid	Dichloroacetic Acid	Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid	Total Haloacetic Acid	Total HAA Quarterly Average
DEL-318	Mar 02 2017	<1	<1	<1	20	22.0	**34**		<0.5	9	<1	<2	13.4	24.6	**37**
DEL-318	May 18 2017	<1	<1	<1	25	25.0	**30**		<0.5	20	<1	2	20.8	44.0	**35**
DEL-318	Aug 22 2017	<1	<1	<1	21	22.0	**26**		<0.5	7	<1	<2	5.5	13.2	**30**
DEL-318	Dec 01 2017	<1	<1	<1	32	32.0	**25**		<0.5	16	<1	<2	17.6	35.4	**29**
DEL-318	Feb 16 2018	<1	<1	<1	22	23	**26**		<0.5	14	<1	<2	20.2	35.9	**32**
DEL-318	May 29 2018	<1	<1	<1	19	20	**24**		<0.5	14	<1	<2	14.9	30.8	**29**
DEL-318	Aug 7 2018	<1	<1	<1	30	31	**27**		<0.5	17	<1	<2	17.5	36.8	**35**
DEL-318	Nov 22 2018	<1	<1	<1	27	29	**26**		<0.5	12	<1	<2	10.8	25.3	**32**
DEL-318	Feb 22 2019	<1	<1	<1	23	25	**26**		<0.5	12	<1	<2	14.4	29	**30**
DEL-318	May 16 2019	<1	<1	<1	33	33	**30**		<0.5	18	<1	<2	23.1	42.9	**34**
DEL-318	Aug 21 2019	1	<1	<1	24	26	**28**		<0.5	8	<1	<2	7	16	**28**
DEL-318	Dec 3 2019	<1	<1	<1	30	31	**29**		<0.5	7	<1	<2	9.7	17	**26**
DEL-318	Feb 26 2020	<1	<1	<1	26	27	**29**		<0.5	11	<1	<2	15.2	26.5	**26**
DEL-318	May 27 2020	<1	<1	<1	28	30	**29**		<0.5	10	<1	<2	8.8	19.9	**20**
DEL-318	Aug 13 2020	1	<1	<1	36	38	**32**		<0.5	10	<1	<2	10.8	20.8	**21**
DEL-318	Dec 03 2020	<1	<1	<1	29	30	**31**		<0.5	14	<1	2	19.5	36.7	**26**
DEL-318	Mar 26 2021	<1	<1	<1	32	33	**33**		<0.5	10	<1	3	10.7	24.6	**26**
DEL-318	Jun 03 2021	<1	<1	<1	20	22	**31**		<0.5	11	<1	<2	12.1	25.4	**27**
DEL-318	Aug 25 2021	1	<1	<1	30	33	**30**		<0.5	12	<1	<2	9.3	22	**27**
DEL-318	Nov 25 2021	<1	<1	<1	33	34	**31**		<0.5	9	<1	<2	11.7	22	**24**
DEL-318	Feb 17 2022	<1	<1	<1	25	26	**29**		<0.5	13	<0.5	<5.0	12	26	**24**
DEL-318	May 11 2022	<1	<1	<1	30	33	**32**		<0.5	12	<0.5	0.8	9	22	**23**
DEL-318	Aug 25 2022	<1	<1	<1	26	26	**31**		<0.5	8.6	<0.5	<5.0	6.4	16	**23**
DEL-318	Nov 16 2022	2	<1	<1	30	32	**29**		<0.5	11	<0.5	0.9	8.3	20	**21**
DEL-318	Jan 30 2023	<1	<1	<1	51	52	**36**		<0.5	11	<0.5	<0.5	9.4	20	**20**
DEL-318	May 31 2023	<1	<1	<1	24	26	**34**		<0.5	9.6	<0.5	1.3	6.3	17	**18**
DEL-318	Aug 28 2023	1	<1	<1	32	34	**37**		<0.5	3.8	<0.5	0.6	10	15	**19**
DEL-318	Nov 30 2023	<1	<1	<1	30	32	**39**		<0.5	15	<0.5	2.7	10	28	**19**
DEL-318	Jan 30 2024	<1	<1	<1	23	24	**29**		<0.5	13	<0.5	<0.5	9.8	23	**21**
DEL-318	Apr 25 2024	<1	<1	<1	39	40	**33**		<0.5	15	<0.5	0.7	14	29	**24**
DEL-318	Sep 10 2024	1	<1	<1	40	41	**34**		<0.5	6	<0.5	0.5	11	18	**25**
DEL-318	Nov 27 2024	<1	<1	<1	35	36	**35**		<0.5	12	<0.5	0.7	12	25	**23**
DEL-318	Jan 29 2025	<1	<1	<1	30	24	**35**		<0.5	11	<0.5	<0.5	12	31	**26**
DEL-318	Apr 10 2025	<1	<1	<1	29	30	**33**		<0.5	15	<0.5	<0.5	12	27	**25**
DEL-318	Sep 10 2025	<1	<1	<1	29	30	**30**		<0.5	8.6	<0.5	<5.0	6.2	15	**25**
DEL-318	Nov 12 2025	<1	<1	<1	31	32	**29**								
DEL-318	Dec 02 2025								<0.5	12	<0.5	<5.0	12	25	**25**

2017 - 2025 THM & HAA results
DEL-323

		THM (ppb)							HAA (ppb)						
Sample	Date Sampled	Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroform	Total Trihalomethanes	Total THM Quarterly Average		Dibromoacetic Acid	Dichloroacetic Acid	Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid	Total Haloacetic Acid	Total HAA Quarterly Average
DEL-323	Mar 02 2017	<1	<1	<1	17	19.0	**34**		<0.5	7	<1	<2	8.3	16.5	**43**
DEL-323	May 18 2017	<1	<1	<1	18	18.0	**29**		<0.5	13	<1	<2	10.8	25.5	**37**
DEL-323	Aug 22 2017	<1	<1	<1	27	27.0	**26**		<0.5	10	<1	<2	13.2	25.1	**30**
DEL-323	Dec 01 2017	<1	<1	<1	34	35.0	**25**		<0.5	13	<1	<2	24.2	38.9	**27**
DEL-323	Feb 16 2018	<1	<1	<1	21	23	**26**		<0.5	12	<1	<2	13.2	27.5	**29**
DEL-323	May 29 2018	<1	<1	<1	36	38	**31**		0.5	24	<1	2	31.9	58.4	**37**
DEL-323	Aug 7 2018	<1	<1	<1	33	34	**33**		<0.5	11	<1	<2	11	23.7	**37**
DEL-323	Nov 22 2018	<1	<1	<1	37	40	**34**		<0.5	8	<1	<2	20.6	29.4	**35**
DEL-323	Feb 22 2019	<1	<1	<1	17	19	**33**		<0.5	9	<1	<2	7.4	17.8	**32**
DEL-323	May 16 2019	<1	<1	<1	33	33	**32**		<0.5	18	<1	2	25	45.9	**29**
DEL-323	Aug 21 2019	1	<1	<1	28	31	**31**		<0.5	10	<1	<2	10.9	21.4	**29**
DEL-323	Dec 03 2019	<1	<1	<1	27	28	**28**		<0.5	5	<1	<2	6.9	12.8	**24**
DEL-323	Feb 26 2020	<1	<1	<1	20	22	**29**		<0.5	8	<1	<2	7.7	16	**24**
DEL-323	May 27 2020	<1	<1	<1	29	31	**28**		<0.5	12	<1	<2	12.5	24.7	**19**
DEL-323	Aug 13 2020	1	<1	<1	51	53	**34**		<0.5	20	<1	2	28.7	51	**26**
DEL-323	Dec 03 2020	<1	<1	<1	29	30	**34**		<0.5	12	<1	2	22.4	37.6	**32**
DEL-323	Mar 26 2021	<1	<1	<1	24	25	**35**		<0.5	7	<1	<2	5.2	14	**32**
DEL-323	Jun 03 2021	<1	<1	<1	33	35	**36**		<0.5	18	<1	2	28.3	49.1	**38**
DEL-323	Aug 25 2021	1	<1	<1	31	33	**31**		<0.5	11	<1	<2	21.6	33	**33**
DEL-323	Nov 25 2021	<1	<1	<1	32	34	**32**		<0.5	4	<1	<2	13.5	18	**29**
DEL-323	Feb 17 2022	<1	<1	<1	24	25	**32**		<0.5	11	<5.0	<5.0	9.6	22	**31**
DEL-323	May 11 2022	<1	<1	<1	30	32	**31**		<0.5	10	<0.5	0.9	6.8	18	**23**
DEL-323	Aug 25 2022	1	<1	<1	43	44	**30**		<0.5	7.7	<0.5	0.6	22	30	**19**
DEL-323	Nov 16 2022	2	<1	<1	27	29	**33**		<0.5	2.7	<0.5	<0.5	7.1	9.8	**20**
DEL-323	Jan 30 2023	<1	<1	<1	52	52	**39**		<0.5	9.9	<0.5	<0.5	6.7	17	**19**
DEL-323	May 31 2023	<1	<1	<1	29	31	**39**		<0.5	14	<0.5	<0.5	18	33	**22**
DEL-323	Aug 28 2023	1	<1	<1	29	30	**37**		<0.5	4.4	<0.5	<0.5	14	18	**20**
DEL-323	Nov 30 2023	<1	<1	<1	28	29	**42**		<0.5	4.3	<0.5	<0.5	8	12	**25**
DEL-323	Jan 30 2024	<1	<1	<1	22	23	**28**		<0.5	11	<0.5	<0.5	7.9	19	**21**
DEL-323	Apr 25 2024	<1	<1	<1	30	31	**28**		<0.5	15	<0.5	<0.5	16	31	**20**
DEL-323	Sep 10 2024	<1	<1	<1	39	40	**31**		<0.5	3.5	<0.5	<0.5	20	24	**22**
DEL-323	Nov 27 2024	<1	<1	<1	35	35	**31**		<0.5	6.9	<0.5	0.6	12	20	**25**
DEL-323	Jan 29 2025	<1	<1	<1	25	22	**30**		<0.5	12	<0.5	<0.5	9.3	26	**25**
DEL-323	Apr 10 2025	<1	<1	<1	27	29	**30**		<0.5	13	<0.5	<0.5	9.4	23	**23**
DEL-323	Sep 10 2025	1	<1	<1	31	32	**29**		<0.5	2.3	<0.5	<5.0	18	20	**22**
DEL-323	Nov 12 2025	<1	<1	<1	33	33	**29**								
DEL-323	Dec 02 2025								<0.5	5.1	<0.5	<5.0	8.5	14	**21**


DEL 222 Total THM Year By Year
TTHM (ppb)
Quarter
2017
2018
2019
2020
2021
2022
2023
2024
2025


DEL 222 Total HAA Year By Year
THAA (ppb)
Quarter
2017
2018
2019
2020
2021
2022
2023
2024
2025

DEL 318 Total THM Year By Year
TTHM (ppb)
Quarter
2017
2018
2019
2020
2021
2022
2023
2024
2025

DEL 318 Total HAA Year By Year
THAA (ppb)
Quarter
2017
2018
2019
2020
2021
2022
2023
2024
2025

DEL 323 Total THM Year By Year
TTHM (ppb)
Quarter
2014
2017
2018
2019
2020
2021
2022
2023
2024
2025

DEL 323 Total HAA Year By Year
THAA (ppb)
Quarter
2017
2018
2019
2020
2021
2022
2023
2024
2025

Appendix 11

Metals Test Results

Metals	Sample Name	DEL-222 : 4734 51st Street		DEL-227 : Sunshine Drive		DEL-313 : 5191 Robertson Road		DEL-319 : Kilkenny Drive		Canadian Guideline Limit	Reason Guideline Established
	Date	2025-06-25	2025-12-10	2025-06-25	2025-12-10	2025-06-25	2025-12-10	2025-06-25	2025-12-10		
Aluminum Total	µg/L	24	32	70	34	25	35	26	30	2900	Health
Antimony Total	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	6	Health
Arsenic Total	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	10	Health
Barium Total	µg/L	2.6	3.3	1.8	3.5	3.1	3.3	2.7	3.2	2000	Health
Boron Total	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	5000	Health
Cadmium Total	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	7	Health
Calcium Total	µg/L	7150	8900	1950	9290	7270	8850	7100	9150	none	Operational
Chromium Total	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	<0.05	50	Health
Cobalt Total	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	none	
Copper Total	µg/L	9.8	7.6	2.5	0.8	1.1	0.8	1.2	0.6	2000	Health
Iron Total	µg/L	10	<5	50	5	21	26	25	<5	≤ 100	Aesthetic
Lead Total	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5	Health
Magnesium Total	µg/L	155	177	79	180	165	173	154	178	none	Operational
Manganese Total	µg/L	4	2.1	11	1.6	2.6	9.1	11.7	1.6	120	Health
Mercury Total	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.0	Health
Molybdenum Total	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	none	
Nickel Total	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	none	
Potassium Total	µg/L	145	156	117	160	143	159	142	163	none	
Selenium Total	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	50	Health
Silver Total	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	none	
Sodium Total	µg/L	2250	1750	8350	1580	2150	2970	2080	1930	≤ 200,000	Aesthetic
Zinc Total	µg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	≤ 5000	Aesthetic

Appendix 12

Vinyl Chloride Test Results

2025 Vinyl Chloride Test Results

Sample Site Number	Sample Reported Name	1st Half of 2025	Vinyl Chloride	2nd Half of 2025	Vinyl Chloride
		Sampled Date	(mg/L)	Sampled Date	(mg/L)
DEL-223	#10 Centennial Parkway	10-Apr-25	<0.001	26-Nov-25	<0.001
DEL-310	4905 Galbraith Street	10-Apr-25	<0.001	26-Nov-25	<0.001
DEL-313	5191 Robertson Road	10-Apr-25	<0.001	26-Nov-25	<0.001
DEL-319	5169 Kilkenny Drive	10-Apr-25	<0.001	26-Nov-25	<0.001
DEL-321	9434 117A Street	10-Apr-25	<0.001	26-Nov-25	<0.001
DEL-323	7348 Priory Place	10-Apr-25	<0.001	26-Nov-25	<0.001

Notes:

Canadian Guideline Limit For Vinyl Chloride is 0.002 mg/L

Appendix 13

Delta Water Distribution System Free Chlorine Residual Test Results and Map

City of Delta
Free Chlorine Residual Sample Results

Sample Site	Civic Address	Location	Min Free Cl_2 (mg/L)	Max Free Cl_2 (mg/L)	Average Free Cl_2 (mg/L)
DmDel 220	5860 112 Street	Ladner	0.4	0.52	0.45
DmDel 221	4802 42A Avenue	Ladner	0.64	0.81	0.73
DmDel 222	4734 51 Street	Ladner	0.63	0.78	0.73
DmDel 223	10 Centennial Parkway	Tsawwassen	0.4	0.65	0.53
DmDel 224	5575 9 Avenue	Tsawwassen	0.59	0.71	0.65
DmDel 225	3706 88 Avenue	Ladner	0.26	0.61	0.45
DmDel 227	6487 Sunshine Drive	North Delta	0.61	0.79	0.70
DmDel 228	6603 Cabeldu Crescent	North Delta	0.53	0.74	0.63
DmDel 229	726 Chester Road	Annacis Island	0.53	0.87	0.72
DmDel 301	11043 86 Avenue	North Delta	0.65	0.82	0.74
DmDel 302	610 Derwent Way	Annacis Island	0.63	0.85	0.74
DmDel 303	718 Eaton Way	Annacis Island	0.49	0.84	0.65
DmDel 304	11920 70 Avenue	North Delta	0.63	0.79	0.71
DmDel 305	Watershed Park WELL HEAD 1	North Delta	0	0	0.00
DmDel 306	Watershed Park WELL HEAD 5	North Delta	0	0	0.00
DmDel 308	9341 Burns Drive	Ladner	0.21	0.63	0.45
DmDel 309	7979 Vantage Way	Tilbury	0.64	0.79	0.70
DmDel 310	4905 Galbraith Street	Ladner	0.63	0.74	0.68
DmDel 312	5289 Commodore Drive	Ladner	0.65	0.82	0.72
DmDel 313	5191 Robertson Road	Westham Island	0.56	0.67	0.61
DmDel 314	4455 Clarence Taylor Crescent	Ladner	0.62	0.8	0.71
DmDel 316	5408 Candlewyck Wynd	Tsawwassen	0.62	0.77	0.70
DmDel 317	1720 56 Street	Tsawwassen	0.65	0.78	0.71
DmDel 318	4933 Cliff Drive	Tsawwassen	0.54	0.7	0.63
DmDel 319	5169 Kilkenny Drive	Tsawwassen	0.51	0.69	0.61
DmDel 320	11321 80 Avenue	North Delta	0.58	0.75	0.66
DmDel 321	9434 117A Street	North Delta	0.58	0.73	0.67
DmDel 322	11970 Clark Drive	North Delta	0.56	0.72	0.62
DmDel 323	7348 Priory Place	North Delta	0.46	0.71	0.59
DmDel 327	11405 84 Avenue	North Delta	0.64	0.8	0.72
DmDel 329	Watershed Reservoir	North Delta	0.38	0.53	0.44
DmDel 391	80 Street and Ladner Trunk	Ladner	0.26	0.63	0.49
DmDel 392	3044 41B Street	Ladner	0.6	0.77	0.71

Appendix 14

Fraser Health Bulletin Information

fraserhealth Better health. Best in health care.

February 1, 2024

Water System Operators

Re: Metals in Drinking Water – "Flush" Message in Annual Reports

Fraser Health has recently revised its metals at the tap "Flush" message and we are asking all water systems to please include the following health message with your next annual reports to your users.

Anytime the water in a particular faucet has not been used for six hours or longer, "flush" your cold-water pipes by running the water until you notice a change in temperature. (This could take as little as five to thirty seconds if there has been recent heavy water use such as showering or toilet flushing. Otherwise, it could take two minutes or longer.) The more time water has been sitting in your home's pipes, the more lead it may contain.

Use only water from the cold-tap for drinking, cooking, and especially making baby formula. Hot water is likely to contain higher levels of lead.

The two actions recommended above are very important to the health of your family. They will probably be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not from the local water supply.

Conserving water is still important. Rather than just running the water down the drain you could use the water for things such as watering your plants.

If you have any questions, please contact our Drinking Water Program at 604-870-7903.

Sincerely,

Drinking Water Program
Fraser Health Authority
HPLand@fraserhealth.ca

Appendix 15

Delta Water Quality

Organizational Chart

Delta Water Quality Organization Chart