# Port Renfrew Utility System

2024 Annual Report

Drinking Water, Wastewater, Street Lighting and Refuse

## Introduction

This report provides a summary of the Port Renfrew Utility Services for the year 2024 and includes a description of services and a summary of the water, sewer, street lighting, and refuse disposal services in terms of operations, maintenance, capital upgrades, and finances for each service.

### Port Renfrew Utility Services Committee

The Port Renfrew Utility Services Committee (PRUSC) has authority delegated by the Capital Regional District (CRD) Board for provision of water, sewer, street lighting and refuse disposal for the Port Renfrew community. Refuse disposal service is also provided to the Pacheedaht First Nation under a service delivery agreement. This Annual Report relates to the services provided under the authority of the PRUSC. Snuggery Cove Water Local Service (Debt Servicing) was created for the sole purpose of servicing debt relating to the expansion of the Port Renfrew water system to the Snuggery Cove area. The debt was paid off and the service budget was discontinued from 2021 onwards.

## WATER SERVICE

### Service Description

The community of Port Renfrew, located in the Juan de Fuca Electoral Area of the CRD, is comprised of rural residential and commercial and institutional development. The Port Renfrew water service was originally owned by a forestry company and was transferred to the CRD in 1989 to service the Beach Camp area. In 2002, the water service area was extended to include the Snuggery Cove area and again in 2016 to include the lands to the south of Beach Camp. The water service consists of approximately 300 parcels, encompassing a total area of approximately 135 hectares. Of the 300 parcels, 335 Single Family Equivalents (SFE) were customers to the water system in 2024.


*Figure 1: Map of the Water Service Area*

The Port Renfrew water system is primarily comprised of:

- One groundwater well, related pumping and control equipment, and building.
- Disinfection process equipment (chlorine) and an aeration tower/scrubber for hydrogen sulfide reduction to improve water taste and odour.
- Two steel storage tanks total combined volume is 888 cubic meters (or 235,000 US gallons).
- 7.4 kilometers of watermains. Other water system assets: 210 service connections (entities billed), 29 hydrants and an auxiliary generator.

## Water Supply

2024 data shows that the water level in the winter, when at its highest, was 24 meters above the well pump, and in the summer at its lowest point was 14 meters above the pump.

## Water Production and Demand

Referring to Figure 2, 89,543 cubic meters of water was extracted (water production) from the well in 2024; an increase of 9% over the previous year and 25% above the five-year average. The monthly comparison of treated water volumes, produced for the years 2019 to 2024 inclusive, shows that there continues to be a very high demand in August which is typically the peak of drought like conditions and tourism in the area, before trending lower for the rest of the year.

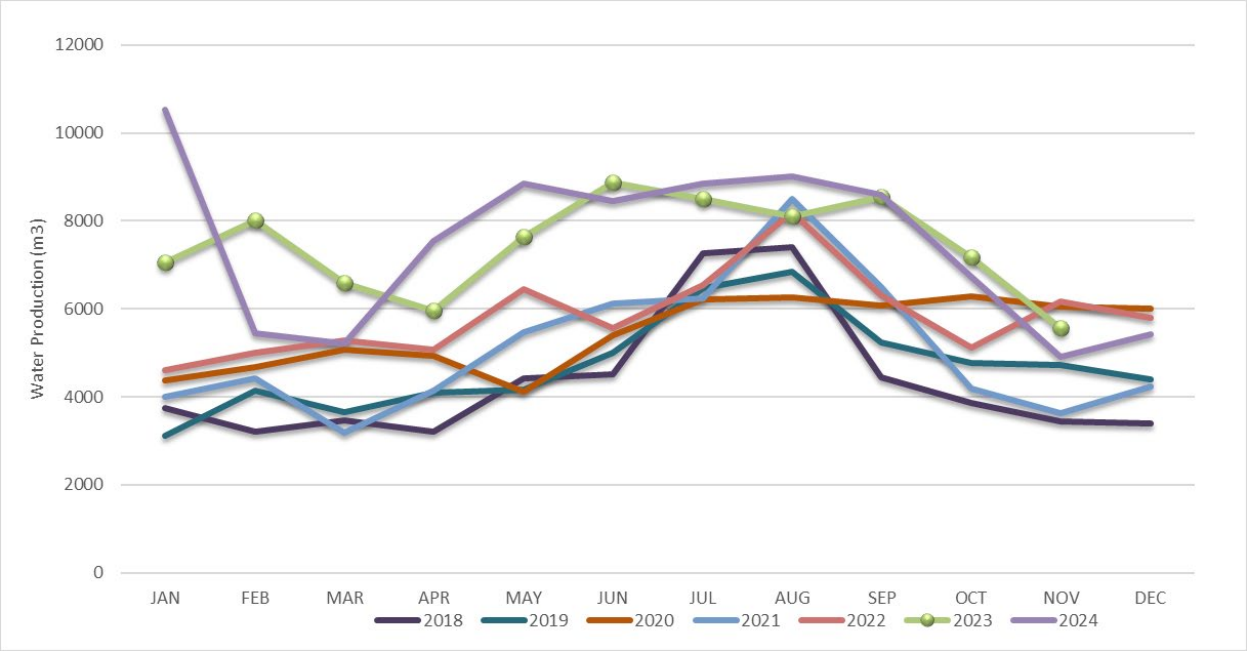


***Figure 2: Water Service Monthly Water Production***

## Drinking Water Quality

The analytical results (biological, chemical, and physical parameters) of water samples collected in 2024 from the Port Renfrew water system indicate that the drinking water was of good quality and within Guidelines for Canadian Drinking Water Quality (GCDWQ) health-related regulatory and aesthetic limits, including disinfection by-products. While the treated water temperature did exceed the aesthetic limit of 15°C during the summer months, this had no other negative impact on the drinking water quality.

Typical Port Renfrew drinking water quality characteristics for 2024 are summarized as follows:

Raw Water

- The source water from the well was free of *E. coli* and total coliform bacteria throughout 2024.
- The well water was low in iron and manganese concentrations, slightly hard (mean hardness 43.3 mg/L). pH was not tested in 2024.
- The median raw water turbidity was 0.10 Nephelometric Turbidity Units (NTU).
- The source water has consistently high concentrations of hydrogen sulfide, well above the GCDWQ aesthetic objective. This is removed successfully at the well and treatment site.

Treated Water

- The water delivered to the customers was safe to drink throughout the year. No sample out of 85 compliance samples in the distribution system tested positive for *E. coli* or total coliform bacteria in 2024.
- The mean annual free chlorine concentration in the distribution system was an acceptable 0.48 mg/L.
- The average annual disinfection by-product total concentrations for trihalomethanes (TTHM) were well below the Guidelines for Canadian Drinking Water Quality (GCDWQ) limit. Haloacetic acids (HAA) were not tested in 2024. HAA concentrations are typically low when THM concentrations are low.
- In November, iron and manganese concentrations were above the Health Canada aesthetic objectives at the end of the distribution system at Osprey Place. This is likely due to accumulation and should be addressed by regular spot flushing.

Table 1 and 2 included as attachments provide a summary of the 2024 raw and treated water test results.

Water Quality data collected from this drinking water system can also be reviewed on the CRD website:

https://www.crd.bc.ca/about/data/drinking-water-quality-reports

## Water Service Operational Highlights

The following is a summary of the major operational issues that were addressed by CRD Infrastructure and Water Services staff:

- Multiple water leaks were responded to and repaired throughout the system.
- The backup generator was serviced, and repairs were made to the fuel system.
- Repairs were made to the deep well level logger. Corroded wires were replaced.
- Annual maintenance was completed on all hydrants, standpipes, and system valves. A failed standpipe was replaced.

## Water Service Capital Projects Update

The Capital Projects in progress or completed in 2024 include the initiation of the Water Master Plan Study.

## SEWER SERVICE

### Service Description

The Port Renfrew sewer system serves 88 properties in the Beach Camp and localized residential area below and has continued to operate reliably in the past year, although the wastewater treatment plant (WWTP) occasionally had difficulty processing peak flow events. The treatment process consists of an extended aeration facility and a steel outfall which discharges treated effluent to the San Juan River estuary under a Ministry of Environment permit. The 88 properties are comprised of 97.77 SFE's.

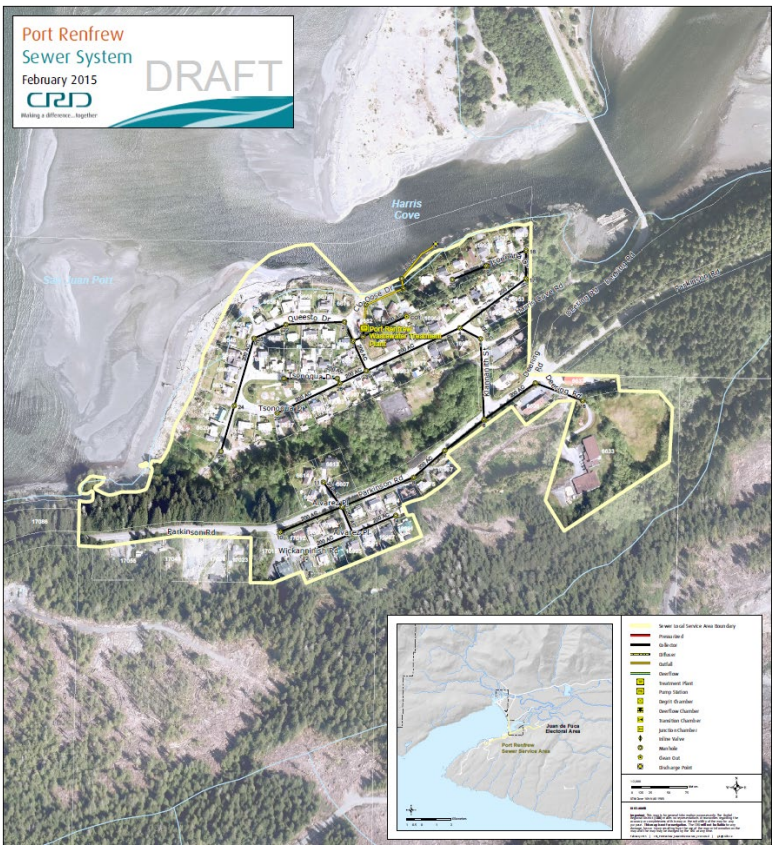


***Figure 3: Map of the Sewer Service Area***

A sewage volume of 17,816 cubic meters was treated and discharged in 2024 which equates to an average of 182 cubic meters/SFE. Sewage flows in Port Renfrew went up by 24% from 2023 which can be influenced by annual rainfall and tourist numbers. This annual total is closer to the average of previous years. During the rainy season, inflow and infiltration water enters the sewer system through cracks and defects in the pipes and manholes that were installed in the 1960's.

Figure 4 shows Port Renfrew sewer flow trends over the last 10 years.

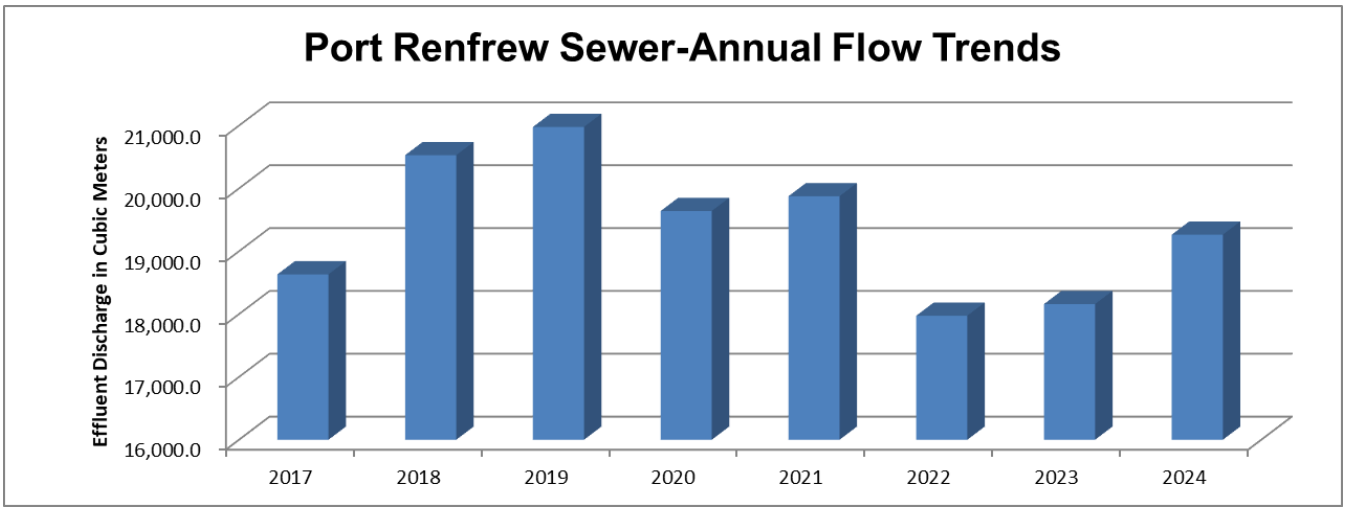


***Figure 4: Port Renfrew Sewer Flow Trends***

## Treated Effluent Discharge Quality

Regulatory Compliance – Wastewater

Flow and effluent quality are assessed for compliance with the provincial discharge permit on a daily and monthly basis, respectively. Mean daily flows in 2023 were similar to flow rates recorded since 2007; flow exceeded the permitted daily maximum one time in December 2023, due to heavy rains. There was one total suspended solids (TSS) exceedance in September of the permitted effluent quality limits, as a result of a blockage in the Return Activated Sludge (RAS) line.

Receiving Water

Routine receiving water monitoring was last required for the Port Renfrew Wastewater Treatment Plant in 2020 (delayed until 2021) and will be next required in 2024 unless there are planned bypasses, plant failures/overflows, or wet weather overflows that exceed three days duration in the winter or one day duration in the summer. Bypass or overflow sampling is only required once per season for events that are similar in nature as long as the first seasonal sampling confirms results were within guidelines set to protect human primary contact for recreation.

There was no overflow/emergency receiving water sampling conducted in 2024.

## Sewer Service Operational Highlights

The following is a summary of the major operational issues that were addressed by CRD Infrastructure and Water Services staff:

- Annual maintenance was completed on both lift pumps with some minor corrective maintenance performed.
- Repairs were made to a leaking RAS line.
- The entire plant was cleaned with the majority of solids removed via a vac truck back in July due to a compliance issue.
- The site's small hot water tank was replaced due to failure.
- Minor repairs were made by operations on the outfall pipe.

## Sewer Service Capital Projects Update

The Capital Projects that were in progress or completed in 2024 included:

- Generator Upgrade – replacement generator installed and commissioned in 2024.
- Sewer Master Plan initiated.

## Street Lighting Service

Street lighting service is provided in the area of Port Renfrew known as Beach Camp. The streetlights are operated and maintained by BC Hydro, and costs are recovered through a parcel tax and user charge on parcels in the area where the service is provided. There were no significant issues with this service in 2024.

## Refuse Disposal Service

The Port Renfrew Refuse Disposal service serves 379 taxable folios including 330 residential folios within the service area and is funded through direct tax requisition based on the value of each property. The Pacheedaht First Nation also utilizes the service through a fee-for-service agreement. The tonnages of materials received and transferred from the Port Renfrew Garbage and Recycling Depot in 2024 are as follows:

**Port Renfrew Garbage & Recycling Depot**
(tonnes)

| | 2024 | 2023 |
|---|---|---|
| Garbage | 245 | 201 |
| Recyclables | | |
| • Scrap metal and large appliances | 60 | 66 |
| • Packaging and printed paper | 30 | 32 |
| • Tires/electronics | 4 | 3 |
| Note: Beverage containers, paint, used motor oil and used cooking oil are also accepted at the depot – quantities are not available due to the hauling and processing arrangements in place for these products. | | |

In 2024, the facility transitioned from being operated by an on-site caretaker to a staff operator model under set hours. In conjunction with this transition upgrades to the facility were begun that are continuing in 2025. This included repairing the site entrance and cleaning the site of debris left by the former caretaker. Design work to upgrade the power supply to the site to allow waste compactor bins to be installed was begun and is expected to be completed in 2025.

## Financial Report

Please refer to the attached 2024 Statement of Operations and Reserve Balances for Port Renfrew Water, Sewer, Street Lighting and Refuse Disposal services.

Revenue includes taxes (Transfers from Government), fixed user fees (User Charges), Water Sales, interest on savings (Interest earnings), and miscellaneous revenue such as late payment charges (Other revenue).

Expenses include all costs for providing the services. General Government Services include budget preparation, financial management, utility billing and risk management services. CRD Labour and Operating Costs include CRD staff time as well as the cost of equipment, tools, and vehicles. Debt servicing costs are interest and principal payments on long term debt. Other Expenses include all other costs to administer and operate the services, for example, insurance, supplies, water testing and electricity etc.

The difference between Revenue and Expenses is reported as Net revenue (expenses). Any transfers to or from capital or reserve funds for the service (Transfers to own funds) are deducted from this amount and it is then added to any surplus or deficit carry forward from the prior year, yielding an Accumulated Surplus (or deficit). In alignment with *Local Government Act* Section 374 (11), any deficit must be carried forward and included in next year's financial plan.

For questions related to this Annual Report please email IWSAdministration@crd.bc.ca

## Table 1

| Table 1: 2024 Summary of Raw Water Test Results, Port Renfrew Water System | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER** | | **2024 ANALYTICAL RESULTS** | | | | **CANADIAN GUIDELINES** | **2014 - 2023 ANALYTICAL RESULTS** | | | |
| Parameter Name | Units of Measure | Annual Median | Samples Analyzed | Range Minimum | Range Maximum | ≤ = Less than or equal to | Median | Samples Analyzed | Range Minimum | Range Maximum |
| ND means Not Detected by analytical method used | | | | | | | | | | |
| **Physical Parameters/Non-Metallic Inorganics** | | | | | | | | | | |
| Carbon, Total Organic | mg/L | **2.55** | 4 | 0.8 | 5.3 | | 1.28 | 30 | 0.2 | 43 |
| Hydrogen Sulfide | mg/L | **0.32** | 4 | 0.19 | 0.36 | <0.05 AO | 0.3 | 9 | 0.21 | 0.47 |
| Hardness as CaCO3 | mg/L | **43.3** | 4 | 41 | 44.7 | No Guideline Required | 42.1 | 31 | 36.3 | 47.8 |
| pH | pH units | Not tested in 2024 | | | | 6.5 - 8.5 AO | 7.3 | 50 | 6.6 | 8.48 |
| Turbidity | NTU | **0.1** | 9 | 0.05 | < 0.14 | | < 0.14 | 48 | 0.05 | < 1.4 |
| Water Temperature | °C | **8.75** | 10 | 5.2 | 10.2 | >15 AO | 8.6 | 118 | 5 | 12.1 |
| **Microbial Parameters** | | | | | | | | | | |
| **Indicator Bacteria and Turbidity** | | | | | | | | | | |
| Coliform, Total | CFU/100 mL | **< 1** | 12 | < 1 | < 1 | | < 1 | 121 | <1 | 2 |
| *E. coli* | CFU/100 mL | **< 1** | 12 | < 1 | < 1 | | < 1 | 121 | <1 | < 2 |
| **Metals** | | | | | | | | | | |
| Aluminum | ug/L as Al | **6.55** | 4 | 6.3 | 7.4 | 2900 MAC / 100 OG | 7 | 31 | 5.4 | 13.5 |
| Antimony | ug/L as Sb | **< 0.5** | 4 | < 0.5 | < 0.5 | 6 MAC | < 0.5 | 31 | < 0.5 | < 0.5 |
| Arsenic | ug/L as As | **0.11** | 4 | < 0.1 | 0.13 | 10 MAC | 0.12 | 31 | < 0.1 | < 0.5 |
| Barium | ug/L as Ba | **1.2** | 4 | 1.2 | 1.4 | 1000 MAC | 1.2 | 31 | < 1 | < 9 |
| Beryllium | ug/L as Be | **< 0.1** | 4 | < 0.1 | < 0.1 | | < 0.1 | 31 | < 0.1 | < 3 |
| Bismuth | ug/L as Bi | **< 1** | 4 | < 1 | < 1 | | < 1 | 30 | < 1 | < 1 |
| Boron | ug/L as B | **115** | 4 | 101 | 148 | 5000 MAC | 111 | 31 | < 50 | 131 |
| Cadmium | ug/L as Cd | **< 0.01** | 4 | < 0.01 | < 0.01 | 7 MAC | < 0.01 | 31 | < 0.01 | 0.19 |
| Calcium | mg/L as Ca | **7.64** | 4 | 7.3 | 7.99 | No Guideline Required | 7.54 | 31 | 6.3 | 8.73 |
| Chromium | ug/L as Cr | **< 1** | 4 | < 1 | < 1 | 50 MAC | < 1 | 31 | < 1 | < 10 |
| Cobalt | ug/L as Co | **< 0.2** | 4 | < 0.2 | < 0.2 | | < 0.2 | 31 | < 0.2 | < 20 |
| Copper | ug/L as Cu | **0.295** | 4 | < 0.2 | 2.8 | 2000 MAC / ≤ 1000 AO | < 0.2 | 31 | < 0.2 | < 8 |
| Iron | ug/L as Fe | **< 5** | 4 | < 5 | 6.2 | ≤ 100 AO | < 5 | 31 | < 5 | 24.4 |
| Lead | ug/L as Pb | **< 0.2** | 4 | < 0.2 | < 0.2 | 5 MAC | < 0.2 | 31 | < 0.2 | < 0.5 |
| Lithium | ug/L as Li | **< 2** | 4 | < 2 | < 2 | | < 2 | 16 | < 2 | < 5 |
| Magnesium | mg/L as Mg | **5.875** | 4 | 5.53 | 6 | No Guideline Required | 5.64 | 31 | 4.94 | 6.62 |
| Manganese | ug/L as Mn | **9.55** | 4 | 9.2 | 9.9 | 120 MAC / ≤ 20 AO | 9.9 | 31 | < 4 | 12.1 |
| Molybdenum | ug/L as Mo | **< 1** | 4 | < 1 | < 1 | | < 1 | 31 | < 1 | < 20 |
| Nickel | ug/L as Ni | **< 1** | 4 | < 1 | < 1 | | < 1 | 31 | < 1 | < 50 |
| Potassium | mg/L as K | **3.33** | 4 | 3.24 | 3.36 | | 3.39 | 31 | 2.81 | 3.73 |
| Sulphur | mg/L as S | **3.15** | 4 | < 3 | 4.1 | | < 3 | 30 | < 3 | 5.8 |
| Selenium | ug/L as Se | **0.835** | 4 | 0.31 | 4.64 | 50 MAC | 0.13 | 31 | < 0.1 | 3.04 |
| Silicon | mg/L | **4660** | 4 | 4340 | 5170 | | 4460 | 31 | 1400 | 5400 |
| Silver | ug/L as Ag | **< 0.02** | 4 | < 0.02 | < 0.02 | No Guideline Required | < 0.02 | 31 | < 0.02 | < 10 |
| Sodium | mg/L as Na | **27.5** | 4 | 26.8 | 30.3 | ≤ 200 AO | 28.2 | 31 | 23.5 | 32.2 |
| Strontium | ug/L as Sr | **52.45** | 4 | 51.9 | 56.9 | 7000 MAC | 55.6 | 31 | 43 | 66.4 |
| Tin | ug/L as Sn | **< 5** | 4 | < 5 | < 5 | | < 5 | 31 | < 5 | < 20 |
| Titanium | ug/L as Ti | **< 5** | 4 | < 5 | < 5 | | < 5 | 31 | < 5 | < 10 |
| Thallium | ug/L as Tl | **< 0.01** | 4 | < 0.01 | < 0.01 | | < 0.01 | 30 | < 0.01 | < 0.05 |
| Uranium | ug/L as U | **< 0.1** | 4 | < 0.1 | < 0.1 | 20 MAC | < 0.1 | 30 | < 0.1 | < 0.1 |
| Vanadium | ug/L as V | **< 5** | 4 | < 5 | < 5 | | < 5 | 31 | < 5 | < 10 |
| Zinc | ug/L as Zn | **< 5** | 4 | < 5 | 23.7 | ≤ 5000 AO | < 5 | 31 | < 5 | 136 |
| Zirconium | ug/L as Zr | **< 0.1** | 4 | < 0.1 | < 0.1 | | < 0.1 | 30 | < 0.1 | < 0.5 |

## Table 2

| Table 2: 2024 Summary of Treated Water Test Results, Port Renfrew Water System | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER** | | **2024 ANALYTICAL RESULTS** | | | | **CANADIAN GUIDELINES** | **2014 - 2023 ANALYTICAL RESULTS** | | | |
| Parameter Name | Units of Measure | Annual Median | Samples Analyzed | Range Minimum | Range Maximum | ≤ = Less than or equal to | Median | Samples Analyzed | Range Minimum | Range Maximum |
| ND means Not Detected by analytical method used | | | | | | | | | | |
| **Physical Parameters/Non-Metallic Inorganics** | | | | | | | | | | |
| Carbon, Total Organic | mg/L as C | **0.77** | 4 | 0.67 | 0.95 | | 0.65 | 34 | < 0.3 | 15 |
| Hydrogen Sulfide | mg/L | **< 0.002** | 4 | < 0.002 | 0.003 | <0.05 AO | < 0.002 | 9 | < 0.002 | 0.0069 |
| Hardness as CaCO3 | mg/L | **43.85** | 4 | 41.9 | 44.6 | No Guideline Required | 42.35 | 28 | 37.1 | 48 |
| pH | pH units | **7.2** | 3 | 7.1 | 7.6 | 6.5 - 8.5 AO | 7.2 | 39 | 6.9 | 7.96 |
| Turbidity | NTU | Not tested in 2024 | | | | | 0.15 | 13 | 0.1 | 0.25 |
| Water Temperature | degrees C | **9.55** | 92 | 0.3 | 16.2 | | 10.4 | 1753 | 0.7 | 24.1 |
| **Microbial Parameters** | | | | | | | | | | |
| **Microbial Parameters** | | | | | | | | | | |
| Coliform, Total | CFU/100 mL | **< 1** | 85 | < 1 | < 1 | 0 MAC | < 1 | 554 | <1 | 26 |
| *E. coli* | CFU/100 mL | **< 1** | 85 | < 1 | < 1 | 0 MAC | < 1 | 554 | <1 | 2 |
| Hetero. Plate Count, 7 day | CFU/1 mL | **50** | 1 | 50 | 50 | No Guideline Required | 50 | 17 | < 10 | 450 |
| **Disinfectants** | | | | | | | | | | |
| Chlorine, Free Residual | mg/L as Cl2 | **0.475** | 368 | 0.06 | 1.4 | No Guideline Required | 0.41 | 2137 | < 0.02 | 68 |
| Chlorine, Total Residual | mg/L as Cl2 | Not tested in 2024 | | | | No Guideline Required | 0.51 | 641 | 0.05 | 2.14 |
| **Disinfection By-Products** | | | | | | | | | | |
| **Trihalomethanes (THMs)** | | | | | | | | | | |
| Bromodichloromethane | ug/L | **13.5** | 4 | 9.9 | 18 | | 16 | 32 | 7.9 | 26.7 |
| Bromoform | ug/L | **8.45** | 4 | 7.5 | 13 | | 9.3 | 32 | < 0.1 | 20.7 |
| Chloroform | ug/L | **8.15** | 4 | 6.4 | 11 | | 9.05 | 32 | 1.84 | 16.7 |
| Chlorodibromomethane | ug/L | **19.5** | 4 | 18 | 23 | | 22 | 32 | <0.1 | 40.3 |
| Total Trihalomethanes | ug/L | **50.5** | 4 | 46 | 59 | 100 MAC | 56.5 | 32 | 3.78 | 98.8 |
| **Haloacetic Acids (HAAs)** | | | | | | | | | | |
| HAA5 | ug/L | Not tested in 2024 | | | | 80 MAC | 8.4 | 4 | < 5 | 12 |
| **Metals** | | | | | | | | | | |
| Aluminum | ug/L as Al | **6.85** | 4 | 6.3 | 11.2 | 2900 MAC / 100 OG | 7.6 | 28 | 5.9 | 23.4 |
| Antimony | ug/L as Sb | **< 0.5** | 4 | < 0.5 | < 0.5 | 6 MAC | < 0.5 | 28 | < 0.5 | < 0.5 |
| Arsenic | ug/L as As | **0.125** | 4 | < 0.1 | 0.14 | 10 MAC | 0.14 | 28 | 0.11 | 0.17 |
| Barium | ug/L as Ba | **1.6** | 4 | 1.5 | 4 | 1000 MAC | 1.5 | 28 | 1 | 6.4 |
| Beryllium | ug/L as Be | **< 0.1** | 4 | < 0.1 | < 0.1 | | < 0.1 | 28 | < 0.1 | < 0.1 |
| Bismuth | ug/L as Bi | **< 1** | 4 | < 1 | < 1 | | < 1 | 28 | < 1 | < 1 |
| Boron | ug/L as B | **117.5** | 4 | 103 | 139 | 5000 MAC | 114 | 28 | 100 | 131 |
| Cadmium | ug/L as Cd | **< 0.01** | 4 | < 0.01 | < 0.01 | 7 MAC | < 0.01 | 28 | < 0.01 | 0.038 |
| Calcium | mg/L as Ca | **7.97** | 4 | 7.75 | 8.38 | No Guideline Required | 7.755 | 28 | 6.88 | 8.81 |
| Chromium | ug/L as Cr | **< 1** | 4 | < 1 | < 1 | 50 MAC | < 1 | 28 | < 1 | < 1 |
| Cobalt | ug/L as Co | **< 0.2** | 4 | < 0.2 | < 0.2 | | < 0.2 | 28 | < 0.2 | < 0.2 |
| Copper | ug/L as Cu | **1.96** | 4 | 1.44 | 2.3 | 2000 MAC / ≤ 1000 AO | 2.07 | 28 | 0.2 | 5.61 |
| Iron | ug/L as Fe | **11.95** | 4 | 9.9 | 117 | ≤ 100 AO | 10.2 | 28 | < 5 | 221 |
| Lead | ug/L as Pb | **< 0.2** | 4 | < 0.2 | 0.26 | 5 MAC | < 0.2 | 28 | < 0.2 | 0.35 |
| Lithium | ug/L as Li | **< 2** | 4 | < 2 | < 2 | | < 2 | 15 | < 2 | < 2 |
| Magnesium | mg/L as Mg | **5.77** | 4 | 5.48 | 5.85 | No Guideline Required | 5.555 | 28 | 4.82 | 6.33 |
| Manganese | ug/L as Mn | **10.2** | 4 | 4.9 | 87.9 | 120 MAC / ≤ 20 AO | 6.25 | 28 | 2.7 | EXG 217 |
| Molybdenum | ug/L as Mo | **< 1** | 4 | < 1 | < 1 | | < 1 | 28 | < 1 | 1.1 |
| Nickel | ug/L as Ni | **< 1** | 4 | < 1 | < 1 | | < 1 | 28 | < 1 | < 1 |
| Potassium | mg/L as K | **3.325** | 4 | 3.24 | 3.36 | | 3.395 | 28 | 3.1 | 3.72 |
| Selenium | ug/L as Se | **< 0.1** | 4 | < 0.1 | < 0.1 | 50 MAC | < 0.1 | 28 | < 0.1 | < 0.1 |
| Sulphur | mg/L as S | **< 3** | 4 | < 3 | < 3 | | < 3 | 28 | < 3 | < 3 |
| Silver | ug/L as Ag | **< 0.02** | 4 | < 0.02 | < 0.02 | No Guideline Required | < 0.02 | 28 | < 0.02 | < 0.02 |
| Sodium | mg/L as Na | **32.4** | 4 | 31.6 | 33.8 | ≤ 200 AO | 31.4 | 28 | 24.8 | 36 |
| Silicon | mg/L | **4530** | 4 | 4470 | 5200 | | 4445 | 28 | 4050 | 5420 |
| Strontium | ug/L as Sr | **53.85** | 4 | 53.6 | 57.4 | 7000 MAC | 56 | 28 | 48.2 | 67.9 |
| Tin | ug/L as Sn | **< 5** | 4 | < 5 | < 5 | | < 5 | 28 | < 5 | < 5 |
| Thallium | ug/L as Tl | **< 0.01** | 4 | < 0.01 | < 0.01 | | < 0.01 | 28 | < 0.01 | < 0.01 |
| Titanium | ug/L as Ti | **< 5** | 4 | < 5 | < 5 | | < 5 | 28 | < 5 | 5.7 |
| Uranium | ug/L as U | **< 0.1** | 4 | < 0.1 | < 0.1 | 20 MAC | < 0.1 | 28 | < 0.1 | < 0.1 |
| Vanadium | ug/L as V | **< 5** | 4 | < 5 | < 5 | | < 5 | 28 | < 5 | < 5 |
| Zinc | ug/L as Zn | **5.05** | 4 | < 5 | 7.3 | ≤ 5000 AO | < 5 | 28 | < 5 | 17.2 |
| Zirconium | ug/L as Zr | **< 0.1** | 4 | < 0.1 | < 0.1 | | < 0.1 | 28 | < 0.1 | 0.12 |