



Oak Bay Water Distribution 2025 Annual Water Quality Report

June 26, 2026

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1 Introduction

The purpose of this report is to fulfill the requirements of the [Drinking Water Protection Regulation \(B.C. Reg. 200/2003\)](#), under the [Drinking Water Protection Act](#). As detailed in section 11 of the regulation, a water supplier must prepare and publish an annual report of water distribution monitoring results within 6 months of the end of the calendar year.

This report outlines the monitoring results for the District of Oak Bay’s water distribution system. Immediate reporting is also required if water quality standards are not met for *Escherichia coli* (E. coli). This report will include any such instances.

Samples are required to be taken in water distribution systems to ensure potable water quality is being delivered. The number and type of samples are outlined in B.C Reg. 200/2003. The number of samples per month are prescribed by Schedule B of the regulation and can be seen below:

Table 1: Sampling requirements based on municipality population size.

Population Served by the Prescribed Water Supply System:	Number of Samples Per Month:
less than 5 000	4
5 000 to 90 000	1 per 1 000 of population
more than 90 000	90 plus 1 per 10 000 of population in excess of 90 000

Below shows Schedule A of the regulation, detailing the water quality standard for E. coli and total coliform bacteria:

Table 2: Bacteriological sampling requirements.

Parameter:	Standard:
<i>Escherichia coli</i>	No detectable <i>Escherichia coli</i> per 100 mL
Total coliform bacteria (a) 1 sample in a 30 day period (b) more than 1 sample in a 30 day period	No detectable total coliform bacteria per 100 mL 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

2 Water System Overview

The District of Oak Bay purchases bulk water from the Capital Regional District (CRD) that is supplied by CRD Main #3 at Foul Bay Road and Lansdowne Road. The annual average water usage in Oak Bay is 100 L/s among approximately 18,000 residents in the District.

The Oak Bay water distribution system is comprised of:

- 4 pump stations
- 2 pressure reducing valve (PRV) stations
- 114 km of water main
- 6,013 service connections
- 1,197 main line valves
- 497 hydrants

The water system is divided into six pressure zones, including:

- South Oak Bay, supplied by the Lansdowne and Henderson PRV at 80 m HGL
- Uplands, supplied by the Uplands Pump Station at 108 m HGL
- Foul Bay, supplied at 114 m HGL by CRD Main #3 directly when adequate pressure is available or by the Foul Bay Pump Station when needed
- CRD Water, supplied directly by CRD Main #3, which services a limited area along Lansdowne Road
- Plymouth, supplied by the Plymouth Pump Station at 136 m HGL
- Sylvan Lane, supplied by the Sylvan Lane Pump Station at 96 m HGL

3 Water Quality Monitoring

The population of the District of Oak Bay is approximately 17,990 as of the 2021 census. As per Schedule B of the Regulation, the District is required to obtain 1 sample per 1,000 population per month. An average of 23.4 samples were collected each month by CRD staff to satisfy this requirement.

In the District of Oak Bay, water samples are obtained by the Capital Regional District (CRD). In 2025, eight sampling locations were used by the CRD Water Quality Monitoring Program to monitor the District's distribution system, with 281 bacteriological and 159 water chemistry samples collection from the system in 2025. These samples are analysed for total coliforms, turbidity, chlorine residual, temperature, and other physical and chemical parameters.

The District of Oak Bay Distribution System was in full compliance with the British Columbia *Drinking Water Protection Act* and *Drinking Water Protection Regulation* for the 2025 calendar year period.

3.1 Bacteriological Results

Bacteriological samples are used as an indicator of microbiological safety of the drinking water. *E. coli* is a type of coliform bacteria naturally found in the intestines of humans and other warm-blooded animals. No detectable presence of total coliforms and *E. coli* in a 100 mL sample is the maximum acceptable concentration (MAC).

None of the 281 samples were found to contain a detectable level of total coliforms or *E. coli*.

3.2 Chlorine Residual

Chlorine is used to treat drinking water and maintain water quality while the water travels through the distribution network, in what is called secondary disinfection. It helps prevent the growth of biofilm and helps control taste and odours. It also reduces the risk of contamination in the event of an intrusion into the distribution system. Pathogens such as *E. coli* are inactivated by chlorine residuals. Monitoring the level of chlorine in the system provides data on the condition of the water. The level of chlorine that persists in the system is called the chlorine residual. Factors that can affect the chlorine residual include temperature, microbial growth or other organic matter, water age, and pipe material. The CRD's operational target for total chlorine residual is a minimum of 0.3 mg/L CL_2 in the Greater Victoria Drinking Water System.

The monthly median chlorine residual sampled was 1.71 mg/L of CL_2 . The lowest median chlorine residual was 1.4 mg/L in November, and the highest median chlorine residual was 1.84 mg/L in July. These levels represent an acceptable chlorine residual every month in 2025.

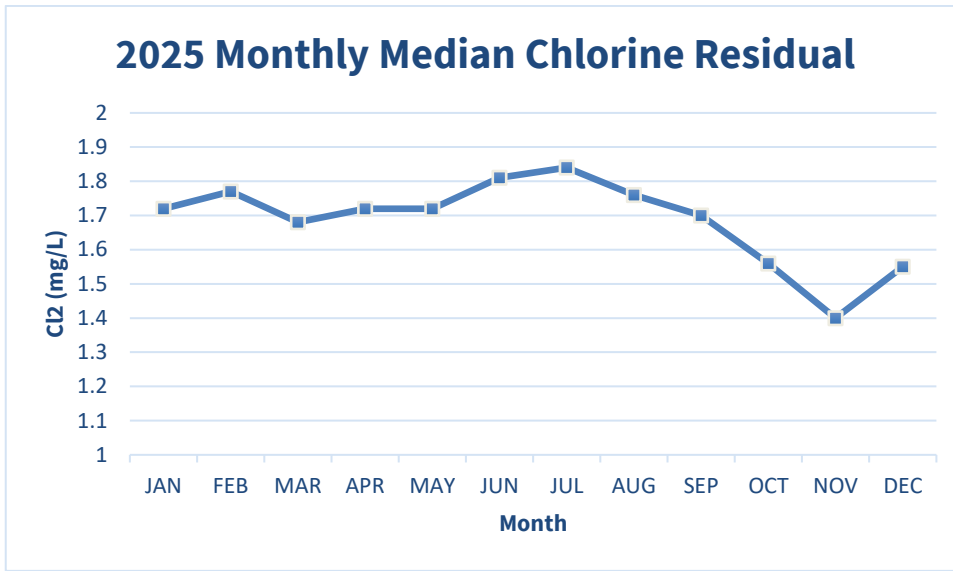


Figure 1: Chart showing monthly median chlorine residuals for the year 2025.

3.3 Water Temperature

Water temperature affects all physical, chemical, microbiological, and biochemical processes to some extent from the source through treatment and distribution to in-building plumbing. In turn, this affects water quality and can result in issues related to health-based contaminants and aesthetics. Temperature for drinking water, under the Guidelines for Canadian Drinking Water Quality, is suggested to be under 15 °C as an optimal condition. Above 15 °C chlorine residuals can decline faster, requiring more turnover of water. When water temperatures are above this point, a different management strategy may be needed if indicated by sampling parameters.

The monthly median water temperature was 12.8 °C for Oak Bay in 2025, with monthly medians ranging between 6.4°C in February, and 20.3°C in August.

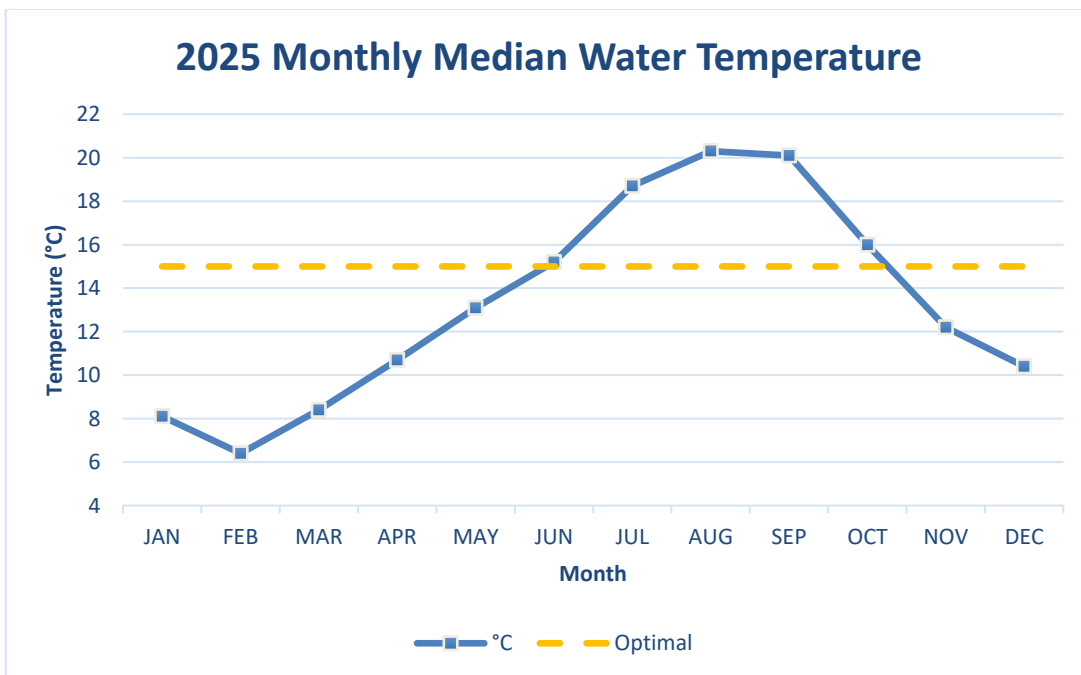


Figure 2: Chart showing monthly median water temperatures sampled in the year 2025.

3.4 Physical and Chemical Parameters

The drinking water in Oak Bay’s Distribution System had the following physical and chemical characteristics for the 2025 sampling period:

- Median pH: 7.9
- Median Alkalinity: 18.50 mg/L
- Median Turbidity: 0.25 NTU
 - One routine grab sample in November showed a turbidity level of >1 NTU for the whole year.
- Median Conductivity at 25°C: 57.70 µS/cm
- Median Colour: 5.0 TCU
- Metals: See [Appendix C](#)

In 2021, the Greater Victoria pH & Corrosion Study was completed which concluded that metal corrosion and lead leaching is not an issue in the Greater Victoria Drinking Water System public piping system or the vast majority of private plumbing systems. Additionally, CRD collects samples at Lansdowne and Foul Bay Road that are analyzed for metals, with the data for 2025 viewable in [Appendix C](#).

3.5 Annual Sample Results

Table 3: Summary report of 2025 bacteriological sampling.

Bacteriological Summary Report for 2025										
Month	Sample Collected	Total Coliforms					Turbidity		Chlorine Residual	Water Temp.
		Samples TC > 0 CFU/100m	Percent Samples TC > 0 CFU/100m	Resamples TC > 0 CFU/100mL	Samples TC > 10 CFU/100m	E. coli Samples > 0 CFU/100mL	Samples Collected	Adverse > 1 NTU	Monthly Median mg/L as CL2	Monthly Median Degrees C.
JAN	24	0	0	0	0	0	3	0	1.72	8.1
FEB	22	0	0	0	0	0	2	0	1.77	6.4
MAR	23	0	0	0	0	0	2	0	1.68	8.4
APR	24	0	0	0	0	0	2	0	1.72	10.7
MAY	23	0	0	0	0	0	2	0	1.72	13.1
JUN	24	0	0	0	0	0	2	0	1.81	15.2
JUL	25	0	0	0	0	0	3	0	1.84	18.7
AUG	23	0	0	0	0	0	2	0	1.76	20.3
SEP	23	0	0	0	0	0	2	0	1.7	20.1
OCT	26	0	0	0	0	0	3	0	1.56	16
NOV	22	0	0	0	0	0	4	1	1.4	12.2
DEC	22	0	0	0	0	0	3	0	1.55	10.4
Total:	281	0	0	0	0	0	30	1	1.71	12.8

Notes:

TC = Total Coliforms, *E. coli* = *Escherichia coli*, Cl₂ = chlorine, NTU = Nephelometric turbidity unit
 > = Greater than, mg/L = milligrams per litre, °C = degrees Celsius

4 Appendix A – Permit to Operate Oak Bay Municipality Water Supply System



ENVIRONMENTAL PUBLIC HEALTH

PERMIT
to OPERATE
A WATER SUPPLY SYSTEM

Water System Name: Oak Bay Municipality
Premises Number: 64000763
Premises Address: 2167 Oak Bay Avenue
Victoria, BC V8R 1G2
Water System Owner: The Corporation of the District of Oak Bay

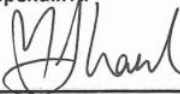
This system is hereby permitted to operate the above potable water supply system and is required to operate this system in accordance with the *Drinking Water Protection Act* and in accordance with the conditions set out in this operating permit and conditions established as part of any construction permit.

The water supply system for which this operating permit applies is generally described as:

Service Delivery Area: Oak Bay
Source Water: Bulk - piped
Water Treatment methods are: None
Water Disinfection methods are: Chlorine and Ultraviolet
Number of Connections: 301 - 10,000 Connections

Operating conditions specific to this water supply system are in Appendix A.

Date: March 21, 2018

Issued By: 
Environmental Health Officer

This permit must be displayed
in a conspicuous place and is not transferable



5 Appendix B – References

BC Drinking Water Protection Regulation:

https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/200_2003

BC Drinking Water Protection Act:

https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/01009_01

Guidelines for Canadian Drinking Water Quality - Guideline Technical Document, Chlorine:

<https://www.canada.ca/content/dam/canada/health-canada/migration/healthy-canadians/publications/healthy-living-vie-saine/water-chlorine-chlore-eau/alt/water-chlorine-chlore-eau-eng.pdf>

Guidelines for Canadian Drinking Water Quality - Summary Tables:

<https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/guidelines-canadian-drinking-water-quality-summary-table.html>

Guidelines for Canadian Drinking Water Quality - Guideline on the Temperature Aspects of Drinking Water:

<https://www.canada.ca/content/dam/hc-sc/documents/services/publications/healthy-living/guidelines-canadian-drinking-water-quality-guideline-technical-document-temperature/27-21-2998-Guidance-Temp-Aspects-Drinking-Water-EN.pdf>

6 Appendix C – 2025 CRD Metals Report for Oak Bay



Making a difference...together

CRD Environmental Sustainability
Water Quality Information System
Inquiries at 250-474-9680

Mean/Min/Max Counts by Location Without Labs

Reporting Period: January 01, 2025 to December 31, 2025

Page: 1 of 1

Printed: 2026-03-31

Report Criteria as Follows:

Locations: r5

Start Date: 2025-01-01 **to End Date:** 2025-12-31

Test Codes: All parameters associated with entered stations/results for given date range

Result State Codes: All result state codes associated with entered stations/results for given date range

Parameter (Description)	Unit of Measure	Result State	Median	Count	Minimum	Maximum	Mean Value
Alkalinity Alkalinity As Caco3 As Per Sm-2320	mg/L	NoRs	18.45	26	17.5	21.1	18.6538
COLTR Colour, True (DR6000V)	TCU	NoRs	5	27	3	8	5.51852
COND25 Conductivity @ 25 C (Lab)	µS/cm	NoRs	57.65	26	52.5	63.9	58.0538
ECOLI E. coli (Quantitative)	CFU/100 mL	NoRs	< 1	281	< 1	< 1	< 1
FCL2T Total CL2 Res (Field)	mg/L	TOT	1.73	232	0.88	2.06	1.68784
FCL2TS Total Chlorine, Field (SL 1000)	mg/L	TOT	1.56	50	0.98	1.89	1.5448
FNH2CLS Monochloramine, Field (SL 1000)	mg/L	NoRs	1.48	51	0.77	1.85	1.44137
NHCL2 NHCl2 (Calculation)	mg/L	TOT	0.07	50	0	0.31	0.1088
pH pH	No Units	NoRs	7.9	50	6.97	8.5	7.8998
TC Total Coliforms	CFU/100 mL	NoRs	< 1	281	< 1	< 1	< 1
TURB Turbidity	NTU	NoRs	0.25	30	0.15	2.2	0.32833
WTEMP Water Temp (Field)	°C	NoRs	12.75	282	4.4	22.6	13.3596

