

## DRINKING WATER SYSTEM ANNUAL REPORT

**Reporting Period:** January 1<sup>st</sup> to December 31<sup>st</sup>, (year)

**Water System**

**Water System Owner**

**Primary Contact Name** (Operator or Manager)

**Phone Number** (Operator or Manager)

**E-mail** (Operator or Manager)

## DESCRIBE YOUR WATER SUPPLY SYSTEM

**What is the Source(s) of Raw Water?**

☐ Deep Well ☐ Shallow Well ☐ Surface Water ☐ Other

If other, specify details:

**Does the Drinking Water System have Primary Disinfection?**

☐ Yes ☐ No

☐ Chlorination ☐ Ultraviolet Light ☐ Ozone ☐ Other

If other, specify details:

**Does the Drinking Water System have Secondary Disinfection?**

☐ Yes ☐ No

☐ Chlorination ☐ Other

If other, specify details:

**Does the Drinking Water System have Filtration?**

☐ Yes ☐ No

Check all boxes that apply

☐ Cartridge Filter(s) ☐ Carbon Filter ☐ Sand Filtration ☐ Reverse Osmosis ☐ Other

If other, specify details:

## PUBLIC REPORTING

**Emergency Response & Contingency Plan (ERCP)**

**Is your ERCP up to Date?** ☐ Yes ☐ No

**How do you Inform the System Users of the ERCP?**

☐ Hand Delivered ☐ Bulletin Board ☐ Newspaper ☐ Utility Bill Insert ☐ Website

☐ Other (specify details) Radio, Social Media

**Drinking Water System Annual Report**

**How do you Inform the System Users of the Annual Report?**

☐ Hand Delivered ☐ Bulletin Board ☐ Newspaper ☐ Utility Bill Insert ☐ Website

☐ Other (specify details)

### COMPLIANCE WITH OPERATING PERMIT

**List the conditions of your Operating Permit (Contact the DWO for a copy if needed):**

**Are you in compliance with your Operating Permit?**

☐ Yes

☐ No

### BACTERIOLOGICAL TESTING AND DRINKING WATER PROTECTION REGULATION WATER QUALITY STANDARDS

**How many bacteriological samples were collected during this reporting period?**

**What is the minimum required sampling frequency for this system? (#samples/month)**

Additional sampling details:

**Was the minimum required sampling frequency achieved?**

☐ Yes

☐ No

Comments:

**Bacteriological summary attached to this report?**

☐ Yes

☐ No

**If no, how do the users of the system view the results?**

### WATER QUALITY STANDARDS FOR POTABLE WATER

| Parameter:  | Standard:  | Did this system meet standard? |                             |
|---|--|--------------------------------|-----------------------------|
| Escherichia coli<br>(for all samples)   | No detectable <i>Escherichia coli</i> per 100ml  | <input type="checkbox"/> Yes   | <input type="checkbox"/> No |
| Total Coliform Bacteria<br>(if only 1 sample collected in a 30 day period)      | No detectable total coliform bacteria per 100ml  | <input type="checkbox"/> Yes   | <input type="checkbox"/> No |
| Total Coliform Bacteria<br>(if more than 1 sample collected in a 30 day period) | No more than 10% of samples contain total coliform bacteria, <b>and</b> No sample has more than 10 total coliform bacteria per 100ml | <input type="checkbox"/> Yes   | <input type="checkbox"/> No |

**If the system did not meet any of above Drinking Water Protection Regulation standards, record the results in the table below; attach additional sheets if necessary.**

| Date | TC/100ml | E.coli/100ml | Reason | Corrective Action |
|------|----------|--------------|--------|-------------------|
|      |          |              |        |                   |
|      |          |              |        |                   |
|      |          |              |        |                   |
|      |          |              |        |                   |
|      |          |              |        |                   |

**CHEMICAL SAMPLING COMPLETED DURING THIS REPORTING PERIOD**

**Was any chemical sampling conducted during reporting period?** ☐ Yes ☐ No

**If no, when were the last chemical samples conducted for this system? (date)** ☐ Don't know

**If yes, attach a list of the chemical results**

**If any water samples did not meet the Guidelines for Canadian Drinking Water Quality, record the results in the table below; attach additional sheets if necessary.**

**Next scheduled full chemical test** (date)

| Parameter | Result | Corrective Action / Treatment / Comments |
|-----------|--------|--|
|           |        |  |
|           |        |  |
|           |        |  |
|           |        |  |

**ADDITIONAL TESTING**

**Does the system have analyzers for continuous monitoring?** ☐ Yes ☐ No

**If yes, check all boxes that apply:**

☐ Chlorine ☐ Turbidity ☐ Other (details)

**Are the results available on request?**

**If any additional testing or sampling was conducted, record results in the table below; attach additional sheets if necessary.**

| Additional Testing & Reason for Sampling | Corrective Action Taken |
|--|-------------------------|
|  |                         |
|  |                         |
|  |                         |

**WATER QUALITY COMPLAINTS**

**Were there any water quality complaints in this reporting period? (e.g. taste, odour, colour etc.)** ☐ Yes ☐ No

**If yes, complete the table below; attach additional sheets if necessary.**

| Date | Water Quality Complaint | Corrective Action / Treatment |
|------|-------------------------|-------------------------------|
|      |                         |                               |
|      |                         |                               |
|      |                         |                               |

### OPERATIONAL PROBLEMS

**Were there any operational problems during this reporting period? (e.g. insufficient water supply, malfunction of disinfection equipment, line breaks, elevated turbidity etc.).**

☐ Yes

☐ No

**If yes, complete the table below; attach additional sheets if necessary.**

| Incident Date | Type of Operational Problem | Corrective Action Taken |
|---------------|-----------------------------|-------------------------|
|               |                             |                         |
|               |                             |                         |
|               |                             |                         |

### MAJOR UPGRADES/REPAIRS & EXPENSES

**Were there any major upgrades/repairs or any major costs incurred during this reporting period?**

☐ Yes

☐ No

**If yes, complete the table below; attach additional sheets if necessary.**

| Major Upgrades/Expenses           | Details |
|-----------------------------------|---------|
| Improvements required by DWO      |         |
| Additions/changes to system       |         |
| Purchase or install new equipment |         |
| Equipment repair or replacement   |         |
| Annual maintenance of system      |         |
| Specialist report                 |         |
| Other                             |         |

### FUTURE IMPROVEMENTS

**Are there any plans for future improvements?**

☐ Yes

☐ No

**If yes, complete the table below; attach additional sheets if necessary.** New system commissioned in 2021

| Future Upgrades or Improvements | Estimated Date of Completion |
|---------------------------------|------------------------------|
|                                 |                              |
|                                 |                              |

**Click here to enter a date.**

**DATE COMPLETED:**

**COMPLETED BY:**

# Malahat Forest

## Facility Information

Location 175 Ingram Street Duncan

Type 2-14 Connections

## Facility Sampling History

| Location                  | Date        | Total Coliform | E. Coli/Enterococci |
|---------------------------|-------------|----------------|---------------------|
| S2 MF WTP Treated Water   | 16-Dec-2024 | LT1            | LT1                 |
| S2 MF WTP Treated Water   | 18-Nov-2024 | LT1            | LT1                 |
| S1 MF WTN 95694 RAW Water | 21-Oct-2024 | LT1            | LT1                 |
| S1 MF WTN 95694 RAW Water | 17-Sep-2024 | LT1            | LT1                 |
| S1 MF WTN 95694 RAW Water | 20-Aug-2024 | LT1            | LT1                 |
| S1 MF WTN 95694 RAW Water | 23-Jul-2024 | LT1            | LT1                 |
| S1 MF WTN 95694 RAW Water | 24-Jun-2024 | LT1            | LT1                 |
| S1 MF WTN 95694 RAW Water | 17-Jun-2024 | QRWRT          | QRWRT               |
| S1 MF WTN 95694 RAW Water | 21-May-2024 | LT1            | LT1                 |
| S1 MF WTN 95694 RAW Water | 22-Apr-2024 | LT1            | LT1                 |
| S1 MF WTN 95694 RAW Water | 18-Mar-2024 | LT1            | LT1                 |
| S1 MF WTN 95694 RAW Water | 20-Feb-2024 | LT1            | LT1                 |
| S1 MF WTN 95694 RAW Water | 23-Jan-2024 | LT1            | LT1                 |

# MALAHAT FOREST WATER SYSTEM

## DISTRIBUTION

|                             |            |            | <b>Sample ID</b>     | 101 TRAIL HEAD<br>ROAD WTP<br>(WTXTBD) |
|-----------------------------|------------|------------|----------------------|--|
|                             |            |            | <b>Sampling Date</b> | 06/06/24                               |
|                             |            |            | <b>Sampling Time</b> | 1:35 PM                                |
| <b>Parameter Name</b>       | <b>MAC</b> | <b>AO</b>  | <b>Units</b>         | <b>Result</b>                          |
| Nitrite (N)                 | 1          |            | mg/L                 | <0.0050                                |
| Nitrate (N)                 | 10         |            | mg/L                 | 0.505                                  |
| Conductivity                |            |            | uS/cm                | 190                                    |
| pH                          |            |            | pH                   | 8                                      |
| Total Dissolved Solids      |            | 500        | mg/L                 | 120                                    |
| Alkalinity (PP as CaCO3)    |            |            | mg/L                 | <1.0                                   |
| Alkalinity (Total as CaCO3) |            |            | mg/L                 | 76                                     |
| Bicarbonate (HCO3)          |            |            | mg/L                 | 93                                     |
| Carbonate (CO3)             |            |            | mg/L                 | <1.0                                   |
| Hydroxide (OH)              |            |            | mg/L                 | <1.0                                   |
| Chloride (Cl)               |            | 250        | mg/L                 | 3                                      |
| Sulphate (SO4)              |            | 500        | mg/L                 | 8.8                                    |
| True Colour                 |            | 15         | Col. Unit            | 12.7                                   |
| Nitrate plus Nitrite (N)    |            |            | mg/L                 | 0.505                                  |
| Langelier Index (@ 20C)     |            |            | N/A                  | -0.367                                 |
| Langelier Index (@ 4C)      |            |            | N/A                  | -0.617                                 |
| Saturation pH (@ 20C)       |            |            | N/A                  | 8.37                                   |
| Saturation pH (@ 4C)        |            |            | N/A                  | 8.62                                   |
| Dissolved Fluoride (F)      | 1.5        |            | mg/L                 | <0.050                                 |
| Tannins and Lignins         |            |            | mg/L                 | <0.2                                   |
| Turbidity                   | see remark | see remark | NTU                  | <0.10                                  |
| Total Hardness (CaCO3)      |            |            | mg/L                 | 44.6                                   |
| Total Aluminum (Al)         | 2900       |            | ug/L                 | 4.7                                    |
| Total Antimony (Sb)         | 6          |            | ug/L                 | <0.50                                  |
| Total Arsenic (As)          | 10         |            | ug/L                 | 0.11                                   |
| Total Barium (Ba)           | 2000       |            | ug/L                 | 5.8                                    |
| Total Beryllium (Be)        |            |            | ug/L                 | <0.10                                  |
| Total Bismuth (Bi)          |            |            | ug/L                 | <1.0                                   |
| Total Boron (B)             | 5000       |            | ug/L                 | <50                                    |
| Total Cadmium (Cd)          | 7          |            | ug/L                 | <0.010                                 |
| Total Chromium (Cr)         | 50         |            | ug/L                 | <1.0                                   |
| Total Cobalt (Co)           |            |            | ug/L                 | <0.20                                  |
| Total Copper (Cu)           | 2000       | 1000       | ug/L                 | 1.1                                    |
| Total Iron (Fe)             |            | 300        | ug/L                 | 301                                    |
| Total Lead (Pb)             | 5          |            | ug/L                 | <0.20                                  |
| Total Manganese (Mn)        | 120        | 20         | ug/L                 | 11.9                                   |
| Total Molybdenum (Mo)       |            |            | ug/L                 | <1.0                                   |

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|                                      |            |           | <b>Sampling Date</b> | 06/06/24                               |
|                                      |            |           | <b>Sampling Time</b> | 1:35 PM                                |
| <b>Parameter Name</b>                | <b>MAC</b> | <b>AO</b> | <b>Units</b>         | <b>Result</b>                          |
| Total Nickel (Ni)                    |            |           | ug/L                 | <1.0                                   |
| Total Selenium (Se)                  | 50         |           | ug/L                 | <0.10                                  |
| Total Silicon (Si)                   |            |           | ug/L                 | 11400                                  |
| Total Silver (Ag)                    |            |           | ug/L                 | <0.020                                 |
| Total Strontium (Sr)                 | 7000       |           | ug/L                 | 83.7                                   |
| Total Thallium (Tl)                  |            |           | ug/L                 | <0.010                                 |
| Total Tin (Sn)                       |            |           | ug/L                 | <5.0                                   |
| Total Titanium (Ti)                  |            |           | ug/L                 | <5.0                                   |
| Total Uranium (U)                    | 20         |           | ug/L                 | <0.10                                  |
| Total Vanadium (V)                   |            |           | ug/L                 | <5.0                                   |
| Total Zinc (Zn)                      |            | 5000      | ug/L                 | <5.0                                   |
| Total Zirconium (Zr)                 |            |           | ug/L                 | <0.10                                  |
| Total Calcium (Ca)                   |            |           | mg/L                 | 12.8                                   |
| Total Magnesium (Mg)                 |            |           | mg/L                 | 3.09                                   |
| Total Potassium (K)                  |            |           | mg/L                 | 1.1                                    |
| Total Sodium (Na)                    |            | 200       | mg/L                 | 10.7                                   |
| Total Sulphur (S)                    |            |           | mg/L                 | <3.0                                   |
| Total Mercury (Hg)                   | 1          |           | ug/L                 | 0.0086                                 |
| Total Total Kjeldahl Nitrogen (Calc) |            |           | mg/L                 | 0.051                                  |
| Total Organic Carbon (C)             |            |           | mg/L                 | <0.50                                  |
| Total Nitrogen (N)                   |            |           | mg/L                 | 0.555                                  |
| Total Ammonia (N)                    |            |           | mg/L                 | <0.015                                 |
| Sulphide (as H <sub>2</sub> S)       |            | 0.05      | mg/L                 | <0.0020                                |
| Total Sulphide                       |            | 0.05      | mg/L                 | <0.0018                                |
| Total Coliforms                      | 0          |           | CFU/100mL            | 0                                      |
| E. coli                              | 0          |           | CFU/100mL            | 0                                      |
| Heterotrophic Plate Count            |            |           | CFU/mL               | <1.0                                   |
| Fecal Coliforms                      |            |           | CFU/100mL            | 0                                      |
| Non-Coliform (Background)            |            |           | CFU/100mL            | <1                                     |
| Iron Bacteria                        |            |           | CFU/mL               | <25                                    |
| Sulphate reducing bacteria           |            |           | CFU/mL               | <75                                    |
| Total Trihalomethanes                | 100        |           | ug/L                 | <1.0                                   |
| Bromodichloromethane                 |            |           | ug/L                 | <1.0                                   |
| Bromoform                            |            |           | ug/L                 | <1.0                                   |
| Dibromochloromethane                 |            |           | ug/L                 | <1.0                                   |
| Chloroform                           |            |           | ug/L                 | <1.0                                   |
| Dalapon                              |            |           | ug/L                 | <5.0                                   |

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|                        |            |           |                      |                                       |
|------------------------|------------|-----------|----------------------|---------------------------------------|
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|                        |            |           | <b>Sampling Date</b> | 06/06/24                              |
|                        |            |           | <b>Sampling Time</b> | 1:35 PM                               |
| <b>Parameter Name</b>  | <b>MAC</b> | <b>AO</b> | <b>Units</b>         | <b>Result</b>                         |
| Monochloroacetic Acid  |            |           | ug/L                 | <5.0                                  |
| Monobromoacetic Acid   |            |           | ug/L                 | <5.0                                  |
| Dichloroacetic Acid    |            |           | ug/L                 | <5.0                                  |
| Trichloroacetic Acid   |            |           | ug/L                 | <5.0                                  |
| Bromochloroacetic Acid |            |           | ug/L                 | <5.0                                  |
| Dibromoacetic Acid     |            |           | ug/L                 | <5.0                                  |
| Total Haloacetic Acids | 80         |           | ug/L                 | <5.0                                  |