

**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):*

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**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?**

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**WATER QUALITY STANDARDS FOR POTABLE WATER**

<b>Parameter:</b>	<b>Standard:</b>	<b>Did this system meet standard?</b>	
Escherichia coli (for all samples)	No detectable <i>Escherichia coli</i> per 100ml	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Total Coliform Bacteria (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 (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.**

<b>Date</b>	<b>TC/100ml</b>	<b>E.coli/100ml</b>	<b>Reason</b>	<b>Corrective Action</b>

**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

<p><b>Click here to enter a date.</b> DATE COMPLETED:</p>	<p>COMPLETED BY:</p>
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# Malahat Forest

## Facility Information

Location 175 Ingram Street Duncan

Type 2-14 Connections

## Facility Sampling History

Location	Date	Total Coliform	E. Coli/Enterococci
Water Treatment Plant Malahat Forest - 1 Trail Head Road	04-Dec-2023	LT1	LT1
Water Treatment Plant Malahat Forest - 1 Trail Head Road	30- Oct-2023	LT1	LT1
Water Treatment Plant Malahat Forest - 1 Trail Head Road	04- Oct-2023	LT1	LT1
Water Treatment Plant Malahat Forest - 1 Trail Head Road	05-Sep-2023	LT1	LT1
Water Treatment Plant Malahat Forest - 1 Trail Head Road	01-Aug-2023	LT1	LT1
Water Treatment Plant Malahat Forest - 1 Trail Head Road	04-Jul-2023	LT1	LT1
Water Treatment Plant Malahat Forest - 1 Trail Head Road	05-Jun-2023	LT1	LT1
Water Treatment Plant Malahat Forest - 1 Trail Head Road	01-May-2023	LT1	LT1
Water Treatment Plant Malahat Forest - 1 Trail Head Road	03-Apr-2023	LT1	LT1
Water Treatment Plant Malahat Forest - 1 Trail Head Road	01-Mar-2023	LT1	LT1
Water Treatment Plant Malahat Forest - 1 Trail Head Road	31-Jan-2023	LT1	LT1
Water Treatment Plant Malahat Forest - 1 Trail Head Road	03-Jan-2023	LT1	LT1

# MALAHAT FOREST WATER SYSTEM

## SOURCE - Well 1

			<i>Sample ID</i>	TRAIL HEAD WELL 1 (WTX TBD)
			<i>Sampling Date</i>	03/28/23
			<i>Sampling Time</i>	10:25 AM
<i>Parameter Name</i>	<i>MAC</i>	<i>AO</i>	<i>Units</i>	<i>Result</i>
Nitrite (N)	1		mg/L	<0.0050
Nitrate (N)	10		mg/L	0.435
Conductivity			uS/cm	180
pH			pH	7.95
Total Dissolved Solids		500	mg/L	92
Alkalinity (PP as CaCO3)			mg/L	<1.0
Alkalinity (Total as CaCO3)			mg/L	78
Bicarbonate (HCO3)			mg/L	95
Carbonate (CO3)			mg/L	<1.0
Hydroxide (OH)			mg/L	<1.0
Chloride (Cl)		250	mg/L	1.4
Sulphate (SO4)		500	mg/L	8.3
True Colour		15	Col. Unit	<5.0
Nitrate plus Nitrite (N)			mg/L	0.435
Langelier Index (@ 20C)			N/A	-0.118
Langelier Index (@ 4C)			N/A	-0.368
Saturation pH (@ 20C)			N/A	8.07
Saturation pH (@ 4C)			N/A	8.32
Dissolved Fluoride (F)	1.5		mg/L	0.066
Tannins and Lignins			mg/L	<0.2
Turbidity	see remark	see remark	NTU	0.1
Total Hardness (CaCO3)			mg/L	83.3
Total Aluminum (Al)	2900		ug/L	<3.0
Total Antimony (Sb)	6		ug/L	<0.50
Total Arsenic (As)	10		ug/L	0.33
Total Barium (Ba)	2000		ug/L	5.1
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	2.4
Total Iron (Fe)		300	ug/L	<5.0
Total Lead (Pb)	5		ug/L	<0.20
Total Manganese (Mn)	120	20	ug/L	<1.0
Total Molybdenum (Mo)			ug/L	1.2

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Total Nickel (Ni)			ug/L	<1.0
Total Selenium (Se)	50		ug/L	0.17
Total Silicon (Si)			ug/L	9830
Total Silver (Ag)			ug/L	<0.020
Total Strontium (Sr)	7000		ug/L	234
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	0.58
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	24.1
Total Magnesium (Mg)			mg/L	5.61
Total Potassium (K)			mg/L	0.229
Total Sodium (Na)		200	mg/L	5.4
Total Sulphur (S)			mg/L	<3.0
Total Mercury (Hg)	1		ug/L	0.0076
Total Total Kjeldahl Nitrogen (Calc)			mg/L	<0.020
Total Organic Carbon (C)			mg/L	<0.50
Total Nitrogen (N)			mg/L	0.444
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
Fecal Coliforms			CFU/100mL	<1
Non-Coliform (Background)			CFU/100mL	<1
Iron Bacteria			CFU/mL	25
Sulphate reducing bacteria			CFU/mL	<75