

**DRINKING WATER SYSTEM ANNUAL REPORT**

**Reporting Period:** January 1<sup>st</sup> to December 31<sup>st</sup>, 2023 (year)

**Water System** Malaspina Firehall #1

**Water System Owner** qathet Regional District

**Primary Contact Name** (Operator or Manager) Regan Keil, Parks and Properties Supervisor

**Phone Number** (Operator or Manager) 604-485-2260 ext 408

**E-mail** (Operator or Manager) rkeil@qathet.ca

**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)

**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):**

Ensure Emergency Response Plan is reviewed at least annually and updated as required.

Submit a bacteriological sample at least very 6 months.

Sample for Nitrates annually and forward sample results to DWO.

**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?** 6

**What is the minimum required sampling frequency for this system? (#samples/month)** every 6 months

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**

| <b>Parameter:</b>   | <b>Standard:</b>   | <b>Did this system meet standard?</b>   |                             |
|---|--|---|-----------------------------|
| Escherichia coli<br>(for all samples)   | No detectable <i>Escherichia coli</i> per 100ml  | <input checked="" 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 checked="" 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 checked="" 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) 02/13/2023  Don't Know  Never

**If yes, did all water samples meet the Guidelines for Canadian Drinking Water Quality?**

Yes  No

**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.**

| Parameter | Result | Corrective Action / Treatment / Comments |
|-----------|--------|--|
| Nitrate   | 5.76   |  |
|           |        |  |
|           |        |  |
|           |        |  |

**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.

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

Click here to enter a date.  
DATE COMPLETED: April 2, 2024

COMPLETED BY: Regan Keil

# MVFD - POWELL RIVER COMMU

| DATE COLLECTED<br>YEAR DATE |        | DOWNSTAIRS WASHROOM |      |     | KITCHEN SINK |    |     |
|-----------------------------|--------|---------------------|------|-----|--------------|----|-----|
|                             |        | TC*                 | FC** | CMT | TC           | FC | CMT |
| <b>2023</b>                 |        |                     |      |     |              |    |     |
|                             | 1-Feb  | L1                  | L1   |     |              |    |     |
|                             | 8-Mar  | L1                  | L1   |     |              |    |     |
|                             | 7-Jun  | L1                  | L1   |     |              |    |     |
|                             | 26-Jul | L1                  | L1   |     |              |    |     |
|                             | 11-Oct | L1                  | L1   |     |              |    |     |
|                             | 14-Nov | L1                  | L1   |     |              |    |     |

EST: EST result indicates high colony density on membrane preventing accurate coliform counting.

BWA: Boil Water Advisory

OG: Overgrown - confluent bacterial growth on membrane preventing accurate coliform determination

~ More than 200 background colonies noted on total coliform membrane filter per 100 ml. Indicates system

# Indicates high colony density on membrane preventing accurate coliform counting

\* Total Coliform per 100 mL

\*\* E. Coli per 100 mL

CMT Comment

L Less than

## Small Water System – Emergency Response & Contingency Plan

Name of Water System: Malaspina Fire Department #1 Hall

Date Prepared: April 2, 2024

Prepared By: Regan Keil

| Contact Name(s)  | Phone #                      | Cell#        | Alternate#                        | E-mail               |
|--|------------------------------|--------------|-----------------------------------|----------------------|
| <b>OPERATOR</b><br>Name: Regan Keil<br>EOCP#: 9197                               | 604-485-2260                 | 604-223-7856 |                                   | rkeil@qathet.ca      |
| <b>OWNER(S)</b><br>Name: qathet Regional Dist.<br>Address: 202 – 4675 Marine Ave | 604-485-2260                 |              | Patrick Devereaux<br>604-483-8201 | operations@qathet.ca |
| <b>ELECTRICIAN</b><br>Name: Foxtrot Electrical                                   | 604-414-3929                 |              |                                   |                      |
| <b>PLUMBER</b><br>Name: Shorefront   | 604-483-6064                 |              |                                   |                      |
| <b>EQUIPMENT SUPPLIER</b><br>Name: Petes Plumbing<br>Fred Surridge               | 604-485-9761<br>250-954-0368 |              |                                   |                      |
| <b>OTHER</b><br>Name: Chief Dave Keiver  | 604-483-1612                 |              |                                   | mvfdchief@qathet.ca  |

### PUBLIC HEALTH CONTACT INFORMATION

| PRIMARY CONTACT  |              |              |              |  |
|--|--------------|--------------|--------------|--|
| Jack Davidson <b>DWO</b>                                 | 604-485-3335 | 604-483-1981 | 604-314-0596 | <a href="mailto:jack.davidson@vch.ca">jack.davidson@vch.ca</a>         |
| BACK-UP HEALTH CONTACTS                                  |              |              |              |  |
| 1. Darren Molder <b>DWO</b>                              | 604-885-8711 | 604-989-1357 | 604-989-7678 | <a href="mailto:darren.molder@vch.ca">darren.molder@vch.ca</a>         |
| 2. Michael Nguyen <b>DWO</b>                             | 604-485-3324 | 604-414-5545 | 778-317-8567 | <a href="mailto:michael.nguyen@vch.ca">michael.nguyen@vch.ca</a>       |
| 3. Dan Glover <b>DWO</b>                                 | 604-815-6846 | 604-815-3128 | n.a.         | <a href="mailto:dan.glover@vch.ca">dan.glover@vch.ca</a>               |
| 4. Phil Muirhead <b>DWO</b>                              | 604-983-6756 | 604-306-2717 | n.a.         | <a href="mailto:phil.muirhead@vch.ca">phil.muirhead@vch.ca</a>         |
| 5. Moliehi Khaketla <b>MHO*</b>                          | 604-984-5070 | 604-612-9433 | n.a.         | <a href="mailto:moliehi.khaketla1@vch.ca">moliehi.khaketla1@vch.ca</a> |
| 6. Mark Ritson <b>DWO</b><br>(Manager Health Protection) | 604-983-6813 | 604-219-7359 | 604-988-6516 | <a href="mailto:mark.ritson@vch.ca">mark.ritson@vch.ca</a>             |

\*Note: For the purpose of the Drinking Water Protection Act and Regulation, Dr. Moliehi Khaketla is both a Medical Health Officer and a Drinking Water Officer.

**DWO; Drinking Water Officer**

**MHO; Medical Health Officer**

### Location of Water Source(s)

Directions to Site: Well is located on right side of the fire hall in a cement well ring in the paved area.

Attach photo's (Optional)

GPS settings: (if Known) 49 46" 19.8 N 124 23" 38.31W

### IN CASE OF EMERGENCY: Enter name of the person responsible for tasks.

If the water in the water system becomes contaminated or you receive an unsatisfactory water result, or in the event of an interruption in the treatment process:

1. Shut off water supply, if appropriate.
2. Regan Keil will notify DWO or back-up health contact.
3. Contact other appropriate person(s) from the list of emergency numbers.
4. Dave Keiver will notify any affected water users. Please keep a phone and address list of users and warning signs handy. May need to phone or hand deliver the notice (and water disinfection procedures) to the users.
5. Dave Keiver will post warning signs.
6. Regan Keil will coordinate repair.
7. Organize alternate source of safe drinking water (if available).

### Start-up Procedure

1. Identify and correct source of contamination.
2. Entire system should be flushed and disinfected. Follow attached guideline.
3. Submit water sample(s) to appropriate approved Lab for testing. For bacteriological contamination three negative successive samples are usually required. Contact your DWO to confirm the number of samples necessary.
4. Contact DWO for approval to resume use of water supply.

### Posting the Emergency Response Plan

**The ERP must be posted in a conspicuous location that is easily accessible to the operator and management of the water supply.**

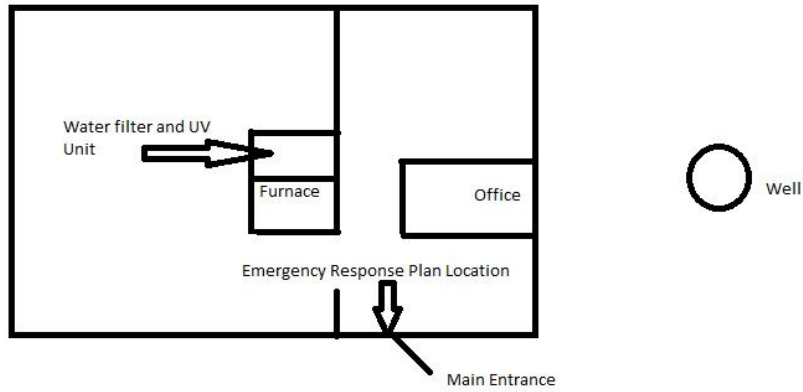
Location of ERP: Hanging on the wall in the radio room.

### Additional Information

1. **Include a schematic drawing of the water supply system; from the source to the tap. Include all sources, storage, reservoirs, and treatment and distribution system.**
2. **Include public notices which may be required in the event of a "boil advisory" or "do not consume" notice. Templates are attached.**



### Malaspina Volunteer Fire Department Water System



Highway 101



# **DO NOT USE WATER NOTICE**

MVFD (qathet Regional District)

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**IS ADVISING ALL USERS  
THAT THE DOMESTIC  
WATER SUPPLY IS NOT  
SAFE FOR DRINKING OR  
DOMESTIC USE.**

**\*\*DUE TO THE NATURE OF THE  
CONTAMINATION, BOILING MAY NOT**



# BOIL WATER ADVISORY

MVFD (qathet Regional District)

## Water System

**is advising all users to boil their water before using it for drinking, cooking, washing food, or brushing teeth, due to a potential problem with the water system.**

**The water can be made safe by boiling it for one minute at a rolling boil. Boiled water should be stored in a clean container in the refrigerator.**

**Alternatively, bottled water can be used.**

**You will be notified when service is returned to normal and the water is again safe to drink. Thank you for your co-operation in this matter.**

