

GUIDE FOR COMMUNICATING WITH WATER USERS

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**HEALTH PROTECTION BRANCH
MINISTRY OF HEALTH**

Guidance for Water Suppliers on Communicating with Water Users



**Ministry of
Health**

REVISION HISTORY

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2022-03-18	Final Draft Guideline	Ministry of Health
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PREFACE

The *Guide for Communicating with Water Users* has been developed to provide direction to water suppliers on how to communicate with their water users as required by legislation and in situations requiring communication with the public. The Ministry of Health intends for this guide to improve consistency in communications issued from water suppliers. The guide outlines expectations for public notification in case of an event that leads to a water quality advisory, a boil water notice, a do not use water notice, and a planned disturbance to the water system. It also describes how to develop a water supply system annual update report.

The guide is not prescriptive, and contents should be adapted to meet the needs of each water supplier. The guide does not describe how to develop a communication plan related to drinking water, nor does it explore the topics of public consultation and education, all of which will vary depending on the unique context of each water supplier.

The Guide for Communicating with Water Users aligns with the *Drinking Water Protection Act* (DWPA) and the *Drinking Water Protection Regulation* (DWPR). It is intended to complement the *Guide to Emergency Response and Contingency Plans for Water Supply Systems* (ERCP).

TABLE OF CONTENTS

1. INTRODUCTION	1
1.1 Contents of the Guide	1
1.2 Legislative Responsibility	2
2. COMMUNICATION GUIDANCE	5
2.1 Lines of Communication	5
2.2 Methods of Communication	5
2.3 High-Risk and High-Use Water Users	5
3. COMMUNICATION REQUIREMENTS	7
3.1 Public Notification in Case of a Drinking Water Advisory or Emergency	7
3.2 Public Notification of a Planned Disturbance to the Drinking Water System	11
3.3 Water Supply System Annual Update Report	12
4. ADDITIONAL RESOURCES	16
5. LIST OF ACRONYMS AND DEFINITIONS	18
APPENDIX A: WATER USER ANNUAL UPDATE TEMPLATE	19
APPENDIX B: PUBLIC NOTIFICATION TEMPLATES	20

1. INTRODUCTION

In alignment with the *Drinking Water Protection Act (DWPA)* and the *Drinking Water Protection Regulation (DWPR)*, water suppliers are required to communicate key information to their water users (i.e., the public), as well as the drinking water officers (DWO). Water suppliers are those who own a domestic water supply system as defined under the DWPA.

Public awareness and involvement has been identified as a key component of the multi-barrier approach to safe drinking water (CCME, 2004) (Figure 1). Communication between water suppliers and water users can offer numerous benefits, including maintaining the public's trust in water infrastructure; gaining public support for water conservation and source water protection; and appropriately conveying risk in case of a drinking water advisory or emergency.

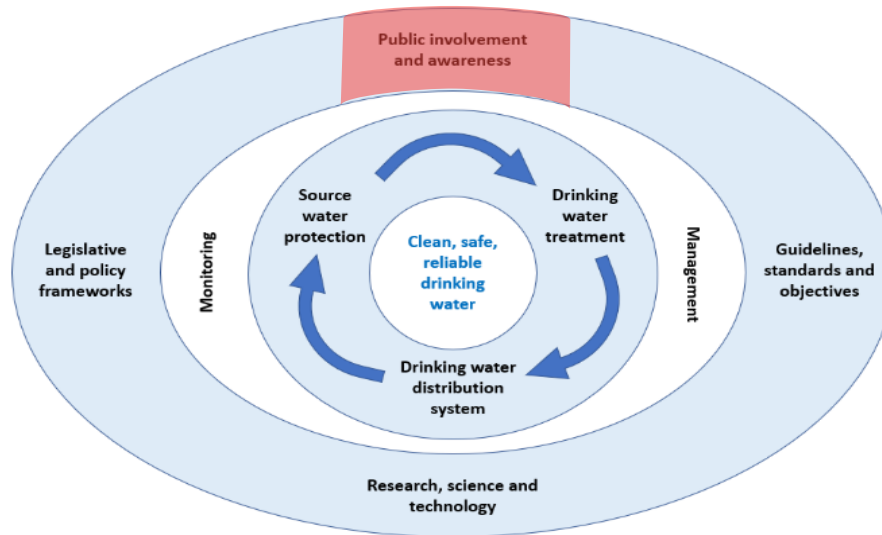


Figure 1 The multi-barrier approach to safe drinking water (CCME, 2004)

The objectives of this *Guide for Communicating with Water Users* are:

- For water suppliers
 - Outline expectations and procedures on what, when and how to communicate with water users.
 - Provide guidance and templates for public notifications and annual reporting.
- For Drinking Water Officers
 - Outline content that should be communicated with water users.
 - Assist in confirming that water suppliers have met their legislative requirement in communicating with water users.

1.1 CONTENTS OF THE GUIDE

The Guide for Communicating with Water Users has been developed to provide direction to water suppliers on how to communicate with their water users as required by legislation and in situations

requiring communication with the public. The guide contains the following tools to aid in developing communications with water users:

- An overview of legislative responsibilities with respect to communicating with water users, and guidance on how to meet those legislative requirements.
- Guidance and templates for public notification in case of a drinking water advisory or emergency.
- Guidance and a template for developing a water supply system annual update report, to be made public for water users.
- Callout boxes with tips and key items to be considered when developing communication materials.

Tips: Blue boxes contain editorial suggestions for communications

Legislative Responsibility: Yellow boxes contain key references to the DWPA and DWPR

1.2 LEGISLATIVE RESPONSIBILITY

Water suppliers are required to provide specified information to their water users, per the DWPA and DWPR. **Table 1** outlines the water supplier’s legislative responsibility to communicate and how the requirements of the legislation can be met.

Table 1 Legislative responsibilities of water suppliers with respect to communication with water users

Legislation		Guidance on Meeting Legislative Requirements
Drinking Water Protection Act 14 Public notice of threats to drinking water	<p>14 (1) The drinking water officer may request or order a water supplier to <u>give public notice</u> in a manner approved by the drinking water officer, or in accordance with the directions of the drinking water officer, if</p> <p>(a) the drinking water officer has received a report under section 12 <i>[notice if immediate reporting standard not met],</i></p> <p>(b) the drinking water officer has received a report under section 13 <i>[water supplier must report threats],</i> or</p> <p>(c) the drinking water officer considers that there is, was or may be a threat to</p>	<p>Refer to guidance on issuing a public notification in this document.</p>

	Legislation	Guidance on Meeting Legislative Requirements
	<p>the drinking water provided by a water supply system.</p> <p>14 (2) In addition to any requirement under subsection (1), if a water supplier</p> <p>(a) has received a report under section 12 or considers that there may otherwise be a drinking water health hazard in relation to its water supply system, and</p> <p>(b) is not able to immediately notify the drinking water officer, the water supplier must <u>immediately give notice of the possible hazard to the users</u> of drinking water from that water supply system.</p>	<p>Refer to the Emergency Response and Contingency Plan to determine next steps on how to respond</p>
<p>Drinking Water Protection Regulation 13 (4) and (5) Emergency response and contingency plan</p>	<p>13 (4) A water supplier must make a summary of the emergency response and contingency plan accessible to the users served by its water supply system.</p> <p>13 (5) A water supplier must not include in the summary referred to in subsection (4) any information that may reasonably pose a risk to the water supply system.</p>	<p>Develop an Emergency Response and Contingency Plan and include a summary of the plan in the annual update report.</p>
<p>Drinking Water Protection Act 15 Publication of other information</p>	<p>15 A water supplier must ensure that the following information is made public in accordance with the regulations and any requirements of the drinking water officer:</p> <p>(a) the water supplier's emergency response and contingency plan;</p> <p>(b) the results of the monitoring required by the regulations, its operating permit or the drinking water officer, subject to any applicable time limits established by the regulations;</p>	<p>Develop an Emergency Response and Contingency Plan and include a summary of the plan in the annual update report.</p> <p>Complete the annual update report and include water quality sampling program results.</p>

Legislation		Guidance on Meeting Legislative Requirements
	(c) if applicable, its current assessment under section 18 [water source and system assessments];	If a water system assessment has been completed – as required under the discretion of a DWO - it must be made public. Include a summary of the water system assessment in the annual update report.
	(d) if applicable, its current plan under section 22 [assessment response plans];	See above.
	(e) other information required to be made public by the regulations, its operating permit, or the drinking water officer.	Include any information required by conditions of the operating permit in the annual update report. Refer to your drinking water officer for further direction.
Drinking Water Protection Regulation 10 Public notification	10 If water provided by a domestic water system is not or may not be potable water, the <u>owner of a public premises</u> that is served by the domestic water system must do both of the following: (a) notify the public that the water is not potable water by posting a sign at every sink or drinking water fountain accessible to the public; (b) if normal business practices provide an opportunity, verbally advise any person who may use the domestic water system for a domestic purpose that the water is not potable water.	Refer to guidance on issuing a public notification.
Drinking Water Protection Regulation 11 Time limits for publication	11 For the purposes of section 15 (b) of the Act, a water supplier must prepare and make public, within six (6) months of the end of the calendar year, an annual report of the results of the monitoring required by this regulation, its operating permit or the drinking water officer.	Refer to guidance on preparing an annual update report. Complete the annual update report and include water quality sampling program results.

2. COMMUNICATION GUIDANCE

This section outlines high-level considerations for communicating with water users, including lines of communication, methods of communication, and identification of key water user groups.

2.1 LINES OF COMMUNICATION

There are three general lines of communication between water supply system stakeholders (Figure 2):

- between the Health Authority (represented by the drinking water officer) and the water supplier
- between the water supplier and water users
- between the Health Authority (represented by the drinking water officer) and water users

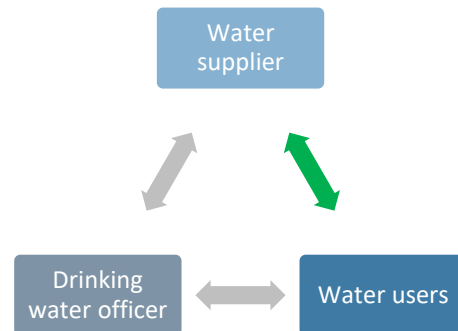


Figure 2 Lines of communication

This guide primarily focuses on how the **water supplier can communicate with water users** through public notices and annual update reports.

In many cases, communications will be straightforward. Where topics are more complex or controversial, water suppliers should consult with their drinking water officer to confirm the content of communication materials prior to issuing to water users.

2.2 METHODS OF COMMUNICATION

Water suppliers should use multiple communication methods to issue notifications to a variety of water users, including the general public, and high-use and high-risk water users. The selection of communication methods will depend on the situation, with options including:

- Traditional media (e.g., radio, television, newspapers)
- Internet (e.g., email, websites, social media)
- Phone calls
- Text messaging
- Door-to-door communication, including pamphlets and mail-outs

2.3 HIGH-RISK AND HIGH-USE WATER USERS

The guide is designed to inform communication with the general public. Other groups of water users may require special consideration when developing communications materials, particularly high-risk and high-use water users.

High-risk water users are those that may face additional challenges or health-related risks should there be an issue with water quality.

High-use water users are those that draw significant quantities of water from the drinking water system.

During a drinking water advisory or emergency, the water supplier may be required to provide a minimum level of service to these user groups. E.g. Minimum flow volume, pressure, quality, alternative supply. The water supplier should work with the Health Authority, through the drinking water officer, to identify these user groups throughout the community being served. Examples from both user groups are provided in **Table 2**.

Developing a list of high-risk and high-use users being served can allow a water supplier to confirm the most effective methods of communication in the event that water quality is compromised, with methods varying by user group. It is suggested that this consultation process occur in co-operation with or through the drinking water officer. During an emergency, the water supplier may notify these groups directly or communicate through the health authority and drinking water officer. The specifics of this notification arrangement will depend on the capacity of the water supplier and should be formalized through the creation of an *Emergency Response and Contingency Plan*.

Table 2 Examples of high-risk and high-use water users

<p>High-Risk Water Users</p>	<ul style="list-style-type: none"> — Healthcare and Public Health Sector e.g., patient services, sterilization, laboratory services, kidney dialysis — Educational Sector e.g., public, independent schools and childcare — Emergency Services Sector e.g., fire protection, shelter operations, hazardous materials response — Vulnerable Populations e.g., people with chronic health conditions, people who are unsheltered, older adults
<p>High-Use Water Users</p>	<ul style="list-style-type: none"> — Food and Agriculture Sector e.g., irrigation, food processing, sanitation — Chemical Sector e.g., heating/cooling, vacuum creation, steam production — Transportation System Sector e.g., heating/cooling, cleaning operations, sanitation — Industrial and Technology Sector e.g., heating/cooling, cleaning operations, sanitation — Energy Sector e.g., mining, fuel production, power plant cooling

3. COMMUNICATION REQUIREMENTS

Water suppliers are required to communicate key information to their water users, per the DWPA and DWPR. This section provides guidance for both emergency and non-emergency communications. Three types of communication may be required:

1. Public notification in case of a drinking water advisory or emergency
2. Public notification of a planned disturbance to the drinking water system
3. Water supply system annual update report for water users

3.1 PUBLIC NOTIFICATION IN CASE OF A DRINKING WATER ADVISORY OR EMERGENCY

Water suppliers are required to communicate with water users in the event that their drinking water quality may be compromised. Providing public notification allows water users to better protect their health during a drinking water advisory or emergency.

When there is a threat to the water supply system, the drinking water officer can request or order the water supplier to issue a notification to water users. The drinking water officer will provide direction to the water supplier on which type of public notification is appropriate for the emergency.

The same notification requirements are outlined in the *Guide to Emergency Response and Contingency Plans for Water Supply Systems*.

The water supplier is required to notify the public in the following situations:

1. The immediate reporting standard, as defined in the DWPR Schedule A, is not met;
2. There are threats to the drinking water; or
3. The drinking water officer considers that there may be a threat to the drinking water.

If any of the above occurs, the water supplier must contact the drinking water officer and work collaboratively to determine which type of public notification is appropriate for the water advisory or emergency. If the drinking water officer cannot be reached, the water supplier must immediately give notice to water users of the possible threat.

This process should be outlined in the water supplier's Emergency Response and Contingency Plan and followed in the event of an emergency.

3.1.1 TYPES OF NOTIFICATION

There are three different notices that may be issued to the water users depending on the threat or emergency:

1. Water Quality Advisory
2. Boil Water Notice
3. Do Not Use Water Notice

Appendix B includes templates that can be customized by the water supplier and posted at a public water source and/or distributed through other methods of communication (e.g., traditional media, internet, text messaging).

An overview of these three notifications can be found below.

WATER QUALITY ADVISORY

A Water Quality Advisory must be used when a drinking water officer determines some level of risk associated with water use but the circumstances do not warrant a Boil Water Notice or Do Not Use Notice.

A Water Quality Advisory should specify the nature of the risk, steps that the water supplier is taking or is required to take to address them, and steps that water users may take in the meanwhile to minimize the risk associated with that water.



BOIL WATER NOTICE

A Boil Water Notice must be used when a drinking water officer determines that there is a risk associated with water consumption that can be adequately addressed by boiling the water before human consumption. The notice should specify the nature of the risk, contain specific instructions regarding boiling requirements and the steps that the water supplier is taking or is required to take to address the risks that exist, apart from using the Boil Water Notice. **Table 3** provides examples of appropriate water uses during a Boil Water Notice.

Table 3 Examples of water uses during a Boil Water Notice (CDC, 2016)

Use Tap Water	Use Boiled Water	Use Caution
<ul style="list-style-type: none"> - Washing clothes (unless the water is cloudy) - Washing hands - Taking showers (for adults and older children) - Flushing toilets 	<ul style="list-style-type: none"> - Drinking - Brushing teeth - Preparing food - Washing fruits and vegetables - Mixing baby formula - Making ice - Giving water to pets 	<ul style="list-style-type: none"> - Most kitchen and other household water filters do not remove bacteria or viruses - Coffee makers, vending machines, and soda dispensers with a direct connection to the water supply should not be used - Bathing babies and young children (give sponge bath; use boiled water that has cooled) - Use clean, sanitized containers for storing boiled water

If the Boil Water Notice is issued due to a turbidity event, the risks of the turbidity event should be communicated to water users. The Boil Water Notice should indicate if sampling has confirmed the presence of potential indicator organism (e.g., E. coli) or if the Boil Water Notice is based on other evidence or a lack of information.

The *Decision Tree for Responding to a Turbidity Event in Unfiltered Drinking Water* from the Drinking Water Officer's Guide recommends that the water supplier's ERCP include a communication plan to be employed during a turbidity event.



DO NOT USE WATER NOTICE

A Do Not Use Water Notice must be used when there is a risk associated with water consumption that cannot be adequately addressed by boiling the water or issuing a Water Quality Advisory. Examples include a chemical spill near a water intake, a situation where the water system may have been subject to vandalism, or natural events such as a mudslide or earthquake. In some cases, it may be appropriate for the notice to specify types of water use that are not acceptable (**Table 4**). For example, it may be acceptable to use water for showering but not for human consumption.

In addition to the formal notice to water users, information should be available to address frequently asked questions, including where the water users can find an alternative source.

If the Do Not Use Water Notice is being issued due to the presence of cyanobacteria, the *Decision Protocols for Cyanobacterial Toxins in BC Drinking Water and Recreational Water* in the Drinking Water Officer's Guide should be referenced.



Table 4 Examples of water use specifications during a Do Not Use Water Notice (CDC, 2016)

Use Tap Water	Use an Alternative Source	Use Caution
<p>Approved actions will depend on the chemical or toxin present. A preliminary assessment of the contaminant must be completed before recommendations can be developed. In some instances, actions such as washing hands, flushing toilets, and showering with the contaminated tap water will be considered safe. In other instances, none or only a few of these actions will be permissible.</p>	<ul style="list-style-type: none"> - Drinking - Brushing teeth - Preparing food - Washing fruits and vegetables - Mixing baby formula - Making ice - Giving water to pets - Bathing babies and young children 	<p>With appliances that use water. Do not use coffee makers, refrigerator water dispensers, vending machines, and soda dispensers that are connected to the water supply.</p>

3.1.2 PREPARING TO ISSUE A PUBLIC NOTIFICATION

Water suppliers should work with the drinking water officer in advance of a threat or emergency to establish which type of notice is appropriate in which situation and confirm the information that will be shared with the public. Water suppliers should develop templates as part of the Emergency Response and Contingency Plan, which can be updated as needed and quickly distributed to water users through various methods of communication.

Public notice templates are available to be customized in Appendix B of this guide.

It is important to clearly identify the areas where users may be affected by adverse water quality to appropriately convey risk in case of a drinking water advisory or emergency.

The water supplier, in cooperation with the drinking water officer, should consider including the following information when issuing a public notice:

1. Background information:
 - a. The parameter of concern
 - b. When the situation occurred
 - c. The cause of the exceedance or how the parameter gets into the water
 - d. Map showing affected area
 - e. Drinking water quality guideline
 - f. Possible health risks
 - g. Number of exceedances
 - h. Expression of empathy for affected water users
 - i. Identification of high-risk or high-use users that may be disproportionately affected by the exceedance
2. Recommended actions for the water users:
 - a. Steps that water users should take to reduce exposure to exceedances (e.g., boiling water, flushing plumbing, using bottled water)

- b. Recommendation that recipients share the notice with others that may be affected
- c. Recommendations for high-risk populations
- d. Contact information for questions from water users

3. Current mitigation steps:

- a. How the water supplier is working to resolve the water quality issue
- b. Expected timeframe until the water the issue can be resolved
- c. Confirmation that the water supplier is working to rectify the issue as quickly as possible and continue to serve the public

4. Future water system upgrades (if required):

- a. Planned upgrades for the water system to reduce future risk, including both capital upgrades and operations and maintenance upgrades.

The Guidelines on Evaluating and Mitigating Lead in Drinking Water Supplies, Schools, Daycares and Other Buildings provide communication guidance for lead events.

The Guidance on Manganese in Drinking Water provides communication guidance for manganese events.

The Decision Protocols for Cyanobacterial Toxins in BC Drinking Water and Recreational Water guidance document provides communication guidance for cyanobacteria events.

3.1.3 FOLLOWING A PUBLIC NOTIFICATION

Once the water is again safe to drink, the drinking water officer and water supplier should confirm that water use restrictions can be rescinded. The water supplier can then communicate to water users that restrictions have been lifted, through a notification that details the following:

- When the water quality event was resolved
- How the water quality event was resolved
- Any steps that water users should take before returning to their regular water use

It is recommended that water suppliers use the same methods of communication as were used to issue the initial notice.

3.2 PUBLIC NOTIFICATION OF A PLANNED DISTURBANCE TO THE DRINKING WATER SYSTEM

If there is a planned disturbance to drinking water quality or distribution (e.g., watermain repairs, watermain flushing), the water supplier should notify affected users in advance of the interruption. The level of communication with water users may be dictated by the magnitude of the planned disturbance and the water supplier’s internal communication policies. At a minimum, the following information should be provided to water users:

1. Location of affected water users, including a map showing the affected area
2. Cause of the disturbance and how the water supplier is working to improve the drinking water system

3. Expected date and time of the disturbance and the expected duration of the disturbance
4. Steps that water users should take to prepare for the disturbance and protect their health, including any steps that should be taken once service resumes
5. Contact information for questions from water users

Depending on the type of disturbance, notices could be provided in writing to the affected water users through a door-to-door handout. Notices should also be posted at any affected publicly used water source. Additionally, the notice should be on the water supplier’s website for water all users to access.

If possible, water suppliers should notify affected water users with sufficient time to allow water users to make alternative arrangements.

3.3 WATER SUPPLY SYSTEM ANNUAL UPDATE REPORT

The water supplier is required through section 15 of the DWPA to prepare and issue an annual update report of the results of the monitoring required by the DWPR, the operating permit or the drinking water officer. The report must be made public and should thus be written in plain language for a public audience.

A template is provided to help complete the annual update report.

The annual update report can also be used to provide water users with other important information about the water system.

The annual update report template (Appendix A) suggests nine sections that *may* be included in the annual update report to help water users understand the functioning of their drinking water system. Not all sections are required by the DWPA and DWPR but are noted as ‘Best Practice’. Each of the nine sections are described below.

Section 1: Introduction *BEST PRACTICE* This section may include acknowledgement of the local First Nation(s) whose territory the source water comes from.

Section 2: Drinking Water System Description

BEST PRACTICE

This section is recommended as a best practice and should provide a high-level overview of the drinking water system. For example

Source Water: Simple description of the location of the water source, including the following:

- The type of water (i.e., surface water, groundwater, or groundwater at risk of containing pathogens) and any source water protection measures in place
- Map showing the location of the water source and backup source, if applicable

Treatment System: A description of the processes that are used to treat the water. This can include a simple schematic for easy visualization of the water system. Reference should be made to how the provincial treatment objectives¹ for each type of source water, are achieved.

Distribution System: A general description of the water distribution network, which may include the size, material, length, year installed and typical life span of the assets. By explaining the typical life span of the water distribution system assets, water users may develop an appreciation for the need to plan and budget for upgrades and replacements of water system assets. This could include a simple table and figure showing the water distribution system.

Section 3: Water Quality Sampling Program and Results

***REQUIRED ***

This information must be reported annually. Water suppliers must share a summary of the water quality samples analyzed over the past year with the water users. The summary should be in table format and should reference both the Health Canada *Guidelines for Canadian Drinking Water Quality* and Schedule A of the DWPR. It should describe the significance of each water quality parameter in terms that the general public may understand. Any exceedances of water quality parameters listed in Schedule A of the DWPR or the operating permit should be identified. This may include describing potential risks associated with each parameter and the treatment method currently being employed to mitigate risks.

As per section 11 of the DWPR, the water supplier must prepare and make public within six (6) months of the end of the calendar year, an annual update report of the results of the monitoring required by this regulation, its operating permit or the drinking water officer.

Reference may be made to the appropriate HealthFile from HealthLinkBC for a description of the health considerations for parameters of concern. HealthLinkBC provides easy to understand fact sheets about public health and safety on various drinking water issues including disinfection, effects of wildfires, arsenic, chlorination, lead, and manganese. Additionally, the Health Canada *Guidelines for Canadian Drinking Water Quality* are a detailed resource for information on each parameter.

Operating permit conditions and reference to Schedules A and B of the Drinking Water Protection Regulation should also be included in this section.

Section 4: Evolving Guidelines

BEST PRACTICE

This section is recommended as a best practice and should provide a description of how relevant guidelines, objectives or standards have changed in the past year through progress in science and knowledge, and how the change will affect the water system.

Section 5: Water System Risks

BEST PRACTICE

¹ Refer to the *Drinking Water Treatment Objectives (Microbiological) for Surface Water Supplies in British Columbia*, the *Drinking Water Treatment Objectives (Microbiological) for Ground Water Supplies in British Columbia* or the *Guidance for Treatment of Rainwater Harvested for Potable Use In British Columbia*

This section is recommended as a best practice and should provide a clear summary of potential risks to the water system. This can help water users to make informed decisions about their water systems when they provide input to local decision makers, such as local government councils. The summary should align with the Emergency Response and Contingency Plan.

This section should address the following three key issues:

Source-to-Tap Risks: Summary of the chronic risks of each component of the water system from a source-to-tap perspective. Examples of potential ongoing risks to the water systems include but are not limited to the following:

- Not having a plan for source water protection
- Low water volume/capacity in the summer
- Aspects of the treatment system that do not meet recommended drinking water treatment objectives or drinking water design guidelines
- Not having a cross-connection control program or by-law
- Not having a corrosion control program

In cooperation with the Health Authority and drinking water officer, water suppliers should also note where appropriate vulnerable water user groups that may be at particular risk, such as healthcare facilities, older adults, and people without adequate shelter.

Mitigation Measures: Summary of how the water supplier is managing potential risks to the water system. This section should also include any actions that water users can undertake to mitigate the risks. Such actions might include:

Water supplier's mitigation measures:

- Developing emergency response procedure
- Implementing a corrosion control program
- Implementing a cross-connection control program or by-law
- Implementing water conservation measures
- Planning for system upgrades

Water user's mitigation measures:

- Following rules designed to protect water sources, reporting any activities that could contaminate the watershed, and not engaging in any activities that could contaminate the watershed
- Following water conservation recommendations
- Conserving water at home with low flow fixtures and low water demand gardens
- Avoiding cross-connections on private property

System Improvements and Next Steps: Summary of steps that the water supplier may take to further mitigate risks to the water system. Such steps could include implementing a source water protection program, implementing a corrosion control program, or upgrading the treatment system to include filtration.

Section 6: Water Use and Water Conservation

BEST PRACTICE

This section is recommended as a best practice.

Water Use: This section could include a graph showing the average daily demand and the maximum day demand throughout the year, and projections of future demand based on community growth patterns. It can also provide a summary of the change in water use over the years.

Water Conservation Program: This section should summarize measures being implemented to reduce water consumption throughout the water supply system. Examples could include a leak detection program or lawn watering restrictions. This section could also provide a summary of any impacts that a changing climate may have on the water source and any climate change adaptation projects that have been developed to help mitigate those impacts.

Section 7: Source Water Protection

BEST PRACTICE

This section is recommended as a best practice and may provide a description of the how source water is being protected by the water supplier, as well as a description of the partners who work to protect the watershed. This section can include a list of activities that are not permitted within the watershed, regulated activities taking place in the watershed, bylaws, programs and recommendations for additional steps that the public can take in assisting with protecting their watershed.

Section 8: Emergency Response & Contingency Plan Summary

REQUIRED

This section is required according to the DWPR and DWPA.

Water suppliers must make available to water users a summary of the Emergency Response and Contingency Plan.

This section *may* also include a high-level description of water system emergencies that have taken place over the past year and how the water supplier successfully addressed the emergency. It can also highlight areas of improvement that the water supplier intends to undertake.

Section 15(a) of the DWPA and 13 of the DWPR state that the water supplier must make a summary of the ERCP accessible to the users served by its water system. A water supplier must not include in the summary any information that may reasonably pose a risk to the water supply system.

Section 9: Water System Management

BEST PRACTICE

This section is recommended as a best practice and may include additional information on water system management, including but not limited to the following four items:

Asset Management Program: Description of the expected lifespan of infrastructure and how the water supplier plans to budget for maintenance, repair, and replacement of these assets over time.

Operations and Maintenance Program: Summary of day-to-day water system operations and ongoing preventative maintenance activities. .

Capital Program: Summary of the previous year's capital works projects and projected future projects, including how the projects are improving the water system.

Financial Review: Summary of the water system's financials so that the water users can understand projected future projects and expenses.

4. ADDITIONAL RESOURCES

The following resources provide information that can be of assistance when communicating with water users:

- **Communication and Customer Relations AWWA G420:** provides guidance on effectively managing communication and customer relations.
- **Decision Protocols for Cyanobacterial Toxins in BC Drinking Water and Recreational Water:** From Part B of the Drinking Water Officer's Guide, provides suggested messaging if a Do Not Use Water Notice is issued due to an algae bloom.
 - **Website:** https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/how-drinking-water-is-protected-in-bc/dwog_part_b_-_8_cyanobacteria.pdf
- **Decision Tree for Responding to a Turbidity Event in Unfiltered Drinking Water:** From Part B of the Drinking Water Officer's Guide, provides direction on communicating when the turbidity of the drinking water exceeds 1 NTU.
 - **Website:** https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/how-drinking-water-is-protected-in-bc/dwog_part_b_-_9_turbidity_decision_tree.pdf
- **Developing Risk Communication Plans for Drinking Water Contamination Incidents:** The US EPA had developed this document to assist drinking water utilities with developing and implementing an effective Risk Communication Plan (RCP) to respond to drinking water contamination incidents.
 - **Website:** https://www.epa.gov/sites/production/files/2015-07/documents/developing_risk_communication_plans_for_drinking_water_contamination_incidents.pdf
- **Drinking Water Advisory Communication Toolbox:** The US Center for Disease Control (CDC) provides templates, and tools that can be used to communicate drinking water advisories.
 - **Website:** <https://www.cdc.gov/healthywater/emergency/dwa-comm-toolbox/index.html>
- **DrinkTap.org by AWWA:** contains public outreach material for water suppliers to easily share with their Water users.
 - **Website:** <https://drinktapi.org/>
- **Drinking Water Protection Act and Regulation:** Sets out certain requirements and minimum communication expectations for water suppliers to ensure the provision of safe drinking water to their customers.

- **Website:** https://www.bclaws.ca/civix/document/id/complete/statreg/01009_01
- **Website:** https://www.bclaws.ca/civix/document/id/complete/statreg/200_2003
- **Drinking Water Officer’s Guide:** Supplies templates for boil water notices and do not use advisories.
 - **Website:** <https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-quality/drinking-water-quality/drinking-water-officers-guide>
- **Guidelines for Canadian Drinking Water Quality:** Health Canada provides the drinking water treatment guidelines including the maximum allowable concentration and aesthetic objectives. Contained within the GCDWQ are also sources of the parameters and health considerations for each parameter.
 - **Website:** <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/guidelines-canadian-drinking-water-quality-summary-table.html#t2>
- **Guidelines on Evaluating and Mitigating Lead in Drinking Water Supplies, Schools, Daycares and Other Buildings:** Provides guidance to drinking water officers on the roles and responsibilities of stakeholders in the reduction of lead in drinking water at the tap.
 - **Website:** https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/how-drinking-water-is-protected-in-bc/dwog_part_b_-_12_evaluating_and_mitigating_lead.pdf
- **Guidance on Manganese in Drinking Water:** Provides supplemental guidance for drinking water officers on manganese in drinking water based on the 2019 Guidelines for Canadian Drinking Water Quality.
 - **Website:** https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/how-drinking-water-is-protected-in-bc/dwog_part_b_-_13_manganese.pdf
- **HealthLinkBC:** Provides easy-to-understand fact sheets about public health and safety. The 49 series provides information on drinking water related issues.
 - **Website:** <https://www.healthlinkbc.ca/services-and-resources/healthlinkbc-files>
- **Strategic Communication Planning: A Guide for Water Utilities:** AWWA Research Foundation has developed a guide for water utilities to develop a communication plan.
 - **Website:** <https://www.waterrf.org/research/projects/strategic-communication-planning-guide-water-utilities>
- **Talking to Your Customers about Chronic Contaminants in Drinking Water:** The US EPA provides simple tips for water suppliers on communicating about chronic contaminants.
 - **Website:** <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=60000LWL.txt>

5. LIST OF ACRONYMS AND DEFINITIONS

DWO	Drinking Water Officer
DWOG	Drinking Water Officer's Guide
DWPA	Drinking Water Protection Act
DWPR	Drinking Water Protection Regulation
ERCPC	Emergency Response and Contingency Plan
Water supplier	Owner of a water supply system
Water user	User of a water system, the public

APPENDIX A: WATER USER ANNUAL UPDATE TEMPLATE

APPENDIX B: PUBLIC NOTIFICATION TEMPLATES

