Emergency Response and Contingency Plan (ERCP) – Supplementary Drought Response Plan for Very Small Water Systems

Water System Name:_____ **Date:**_____

Address:_____

Legal Owner & Contact (Phone/Email):_____

Manager & Contact (Phone/Email):_____

This template is suitable for Very Small Water Systems which primarily include single connection non-residential systems, small business parks, residential systems with <10 connections, and seasonal user systems (e.g. campgrounds/summer camps).

Drought Emergency Response and Contingency Plans need to consider both a significant reduction in source capacity (e.g. surface water source is getting low, or well production is significantly diminishing) and a complete loss of source.

Current & Back-up Water System Infrastructure:

Review Appendix A for different considerations related to infrastructure to complete below.

Source Water in Use	# of These Sources	Estimated Total Normal Yield (m^3/min)
Deep Well (>50' deep)		
Shallow Well (<50' deep)		
Surface Water (lake, river, etc.)		
Rainwater		
Bulk (Hauled or Piped)		

List any back-up / alternate sources available to you (e.g. approved bulk water hauler, idle well, surface water intake, neighboring water system). (**Note**: Alternate sources must be approved ahead of use):

Storage (Reservoirs) (List all)	Total Volume (m^3)	Accessible by Water Hauler (Yes/No)	Estimated Storage Time (Hours/Days/ Etc.)

Alternate / Back-up Storage	Contact Info Name & Phone Number)	Capacity Available	Accessible by Water Hauler (Y/N)	Estimated Cost
Reservoir Rental				
Other e.g. new purchase)				

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Priority Users and Priority Uses Related to Water Conservation:

Review Appendix A for different considerations related to water users and use to complete below

Who uses the system and for what purposes? List users and intended use by priority.

Users (e.g. residential, commercial, etc.)	**Intended Use** (e.g. drinking, sanitation, lawn watering, landscaping, etc.)

Communication:

How will you communicate to users (e.g. door to door, emails, front desk check-in, social media)?

Indicators for Actioning Drought ERCP (e.g. local drought conditions, low reservoir, failing pump, etc.)**:**

Review Appendix A for different possible indicators of low or depleting sources.

Operational Drought Response:

Review Appendix A for different actions to take based on type of use.

Instructions will be specific to design of water system, but may include actions such as: Implement escalating water conservation measures, follow procedures for bringing unused water supplies online, establish delivery of bulk water supply, close inlet to reservoir, issuance of Boil Water notice, temporary discontinue service to non-essential users, temporary closure of business, etc.

Year Round Measures: **Water Loss and Maintenance Plan** (e.g. leak detection, water conservation plan, low flow fixtures)	
Action:	**Person Responsible**

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Early Signs of an Issue – Minor to Moderate Drought Impact (e.g. low rainfall, hot weather): **Water Conservation Measures** (e.g. cease outdoor use for landscaping/lawns, no car washing)	
Action:	**Person Responsible**

Significant Source Depletion – Severe Drought Impact (e.g. low reservoir, increased user demand): **Maintain Essential Services** (e.g. add supplementary source, close non-essential businesses)	
Action:	**Person Responsible**

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Loss of Primary Water Sources – Catastrophic Drought Impact (e.g. loss of source water): **Full Scale Emergency Response** (e.g. provide additional source, provide bottled water, evacuate)	
Action:	**Person Responsible**

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Appendix A: Reference of Potential Actions in Drought Response Plan – Very Small Systems

Current and Back-up Water System Infrastructure – Alternate Supply:

The system has a back-up water supply (i.e. an idle well, a river intake):

- What approvals would you need well in advance to bring unused sources online? (e.g. source approval from Island Health, water license from Ministry of Water, Lands, and Resource Stewardship (WLRS) to draw surface water, etc.
- What actions need to be taken to get this additional source online? Are these actions written down (e.g. contact DWO, electrical/pump in well so that it is ready for use)?
- Will there be a need to issue a Boil Water Notice or other Water Quality Advisory?

The system has no back-up supply:

- What options do you have for existing sources nearby or that could be contracted:
    - Back up neighbouring sources, creeks, lakes?
        - Licensed/Legal access?
    - Bulk water hauled? Self or hired? Is the hauler approved?
    - Bottled water?
    - How would water be hauled and delivered?
        - Who, how, contacts? Is the hauler approved?
    - Estimated costs per delivery?
    - How would you store the delivered water, would this include a potable reservoir rental, do you have plans how this would be accessed?
        - (Bulk water poured into well is not an effective option, and would not meet Ground Water Protection Regulation requirements.)
        - Use a bulk water hauling truck as a reservoir
    - Do you have a neighboring water system nearby that you could make a water sharing agreement with? Could you implement an emergency connection?
- Do you have the ability to drill a new well? Do you have access to a surface water supply?
- If appropriate, have you started longer-term planning to establish a back up supply?
- Do you have rainwater collection or could you implement a rainwater collection system to store water during the wet season for use during the dry season? Approvals needed for potable use.

Current and Back-up Water System Infrastructure – Storage (Reservoirs):

The system has a reservoir (Existing Storage):

- What is the capacity to operate using ONLY what you have in the reservoir? How many hours or days will the reservoir provide supply for? Is this at normal usage levels/reduced usage/summer vs. winter demand levels?
- Where could you get an alternate source of approved water to have the reservoir filled? Do you have contact information for more than one approved water hauler? Have you contacted them to ensure that they may actually be able to supply you with water?
- Can the approved water hauler easily access your reservoirs?
- Do you have funds available to buy bulk water? For how long?
- **Note** – a dug well or well cannot be used as a reservoir (i.e. water from an approved water hauler cannot be placed into a well).

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The system does not have a reservoir (Alternate/Back-up Storage):

- Could you rent a reservoir? Where from? Is it made from appropriate material (food grade)? Do you have that contact information?
- Do you have reserve funds available for renting a reservoir and buying bulk water?
- How would you connect the temporary reservoir into your system? (Fittings, hoses, pumps? – these all need to be food grade and single use for water only.)

Communication:

Contact information for every user is available:

- How will you communicate water conservation efforts?
- How will you communicate loss of source? Do you have direct contact information? Sandwich board signage? Door-to-door messaging? Social media? Call out systems?
- Do you have up to date contact names / phone numbers for government agencies? Island Health? WLRS? Others?

Potential Indicators for Actioning Drought ERCP:

- Difficulty in refilling storage tank(s) / Inability to refill storage tank(s)
- Draining of storage tank under peak demand conditions
- Daily well production at 30% / 50% of Previous Month Average Range
- Well Run Log that exceeds 2x Daily Average
- Monthly water use that is 30% over average / 50% over average
- Drop in static well level > 5 feet
- Drawdown Interference noted when running wells in combination (if multiple wells)
- Low pressure complaints from users / Difficulty maintaining pressure
- User complaints of 'dirty' or 'coloured' water / turbidity levels exceed 1 NTU
- Areas in distribution system with pressure below 20 psi
- Deterioration in water quality
- No measurable precipitation for extended periods (mostly for surface water sources)
- Local drought levels elevated

Water Conservation:

- Do you have a water conservation plan/requirements/guidelines/bylaws?
- Are these plans/requirements readily available to the users and communicated out routinely?
- Do your water conservation measures line up regionally?
    - It is recommended that you follow the local government water conservation levels to prevent confusion.
- When will you communicate changes to water conservation levels? How? Do you have the standard messaging already drafted?
- How do you monitor users to ensure the conservation levels are being followed?
- Do you have water meters to monitor flows? Could you install water meters, even as a long term project?
- How will you manage users not following water conservation levels? What ways can you compel compliance? Do you have someone available to do water conservation follow-up with users?
- What other infrastructure could be added to your system to help with this? Could this be included in some of the long range financial planning for the system?

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Specific Actions for Businesses:

The system services a restaurant or personal service establishment (i.e. tattoo/piercing shop):

- You are not permitted to operate without an adequate supply of potable water, you will need to close if you lose your water source.

The system services a business with staff or public that attend the site (i.e. office, industrial site):

- You will need to provide alternative options for washrooms and general sanitation (e.g. porta-potties, hand sanitizer)

The system services a campground:

- Are users expecting water services? If yes, how can you communicate to users before they attend the site that you have no water available? Do you have to provide bottled water?
- Do you have long term tenants? Will you provide hauled water to each unit if they have a tank? Have you contacted Residential Tenancy Branch to determine what your responsibilities are in emergency situations?
- Do you have flush toilets and showers?
    - You will need to close showers and provide porta-potties if the flush toilets are not available.
    - You may have to cancel registrations if you cannot provide basic sanitation services.

The system services a summer camp:

- Do you have non-flush toilets and hand hygiene options that can support all of your camp registrants?
- You are not permitted to operate any food services without access to potable water; you will need to cancel the camp session.
- Short-term camp usage where the location is set-up for "non-serviced camping" may be able to operate. Users will need to be notified about need for bringing in water for their own food preparation.

The system services a swimming pool or hot tub:

- Can you bring water in from an alternate supply?
    - Pools and hot tubs should be closed where source water is depleting and no alternate source is available (i.e. hauled water from external water source)

The system services a daycare:

- Have you contacted your Licensing Officer to determine what is required?
- If you provide food services, you will not be able to continue this if you have no access to water.
- Hand hygiene is crucial in child care settings, you are unlikely to be able to continue operating without access to hand wash stations.

Financial Planning:

Part of your financial planning for your water system should include an emergency fund to cover incurred costs during an emergency. The funds should also include improving infrastructure to better endure emergencies (i.e. installation of a reservoir to provide storage capacity).

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