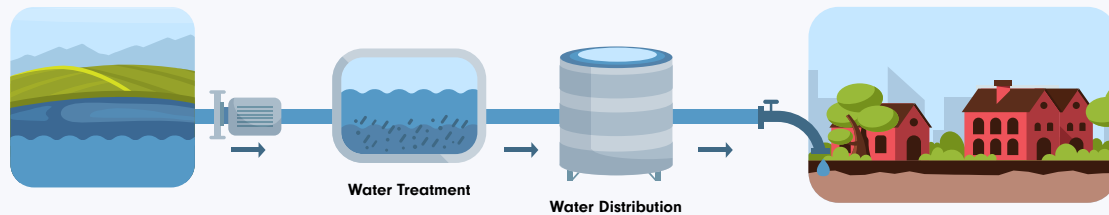


Drinking Water (potable water)

Drinking Water Protection Act



Drinking Water Systems

Background:

Community drinking water systems are important to make resilient to wildfire. Communities of all sizes rely on drinking water systems to provide their residents with clean water. From urban to rural, water systems are a key and critical piece of infrastructure in every community. The FireSmart BC program supports wildfire preparedness, prevention, and mitigation in BC through a variety of programs and guidelines. We have worked with Interior Health Authority to produce recommendations to help support communities mitigate the risks to their drinking water systems. Taking the time to mitigate the wildfire risk ahead of fire season can reduce costly damage, contamination, and maintain functioning systems for residents to return to.

Key tips:

1. Assess reservoirs and critical water systems buildings (chemical storage, water treatment plants, pump stations, exposed meters and pump and pressure reducing stations) with the FireSmart Critical Infrastructure Assessment
 - [FireSmart Critical Infrastructure Assessment | FireSmart BC](#)
2. Assess greens spaces and areas surrounding reservoirs using the FireSmart Culturally Significant Sites and Green Spaces Assessment
 - [Culturally Significant Sites and Green Spaces Guide & Assessment | FireSmart BC](#)
3. Reservoirs and critical water system buildings have clear identification markings for aerial identification ex. Painting a large water drop on the roof.
4. Have GIS maps of reservoirs and critical water systems buildings available to response and recovery agencies.
 - Mapping resources are up to date and include all relevant information for the location of critical water infrastructure.

5. Consider depth of buried pipes and components. The Master Municipal Construction Documents (MMCD) stipulate that water pipes be buried at least 1.5 m deep. Pipes are typically located at this depth in B.C. due to frost depth.
6. Consider purchasing backup generators or having some on contract.
7. Plan for access to back up water sources (wells, interconnections with nearby water supply)
 - Use agreements where applicable.
 - Necessary infrastructure in place and ready for use
8. Surface water intakes have sediment traps or other debris barriers (ie plan to deal with increased sediment/debris during wildfire events)
9. Essential records and data are backed up and stored in a fireproof safe, offsite facility, or with secure cloud-based storage.
10. A system designed to be flushed from one end to the other (e.g. valves and how the system is branched out). A plan in place for how to do this post fire to flush out contaminants.
11. Review and update your utilities Emergency Response Plan to include but not limited to:
 - Updated emergency contacts
 - Current GIS maps of all system components
 - Steps for shut down and startup of system.
 - Steps for manual operation of all facilities
 - Annual / periodic run through of ERP roles, responsibilities and procedures with all applicable parties
12. A fire-specific sampling plan that can be adjusted during the incident based on the location and extent of the fire relative to your system. Include any groundwater wells as exceedances of nitrates and arsenic have been observed in systems with a groundwater source following wildfires.
13. It is important to protect riparian areas. Keep in mind provincial and federal riparian protection regulations when working to FireSmart critical drinking water infrastructure.
 - For more information visit: [Riparian Areas Protection Regulation \(RAPR\) - Province of British Columbia \(gov.bc.ca\)](https://www2.gov.bc.ca/gov/content/safety/riparian_areas_protection_regulation_rapr)