



Sooke Lake Reservoir



Monitoring forest health (left) and air patrol for wildfire prevention (right)

What is a watershed?

All the land area that drains into a river system is called a watershed. A water supply watershed is the land upstream of a water supply intake. The Greater Victoria Water Supply Area (GVWSA) is made up of the Sooke, Goldstream and Leech River watersheds.

Precipitation falling on the GVWSA watersheds is filtered through forests, soils and wetlands, and then flows into streams that feed the water supply reservoirs. The reservoirs are natural lake ecosystems that are low in nutrients and very clean and clear.

Why do we need to protect our drinking water supply area?

Good drinking water starts with healthy forest ecosystems. In order to sustain a reliable source of high-quality drinking water for the Greater Victoria area, we need to maintain healthy forest ecosystems and prevent or manage threats to the drinking water supply watersheds.

Healthy forest ecosystems are maintained by:

- Restricting development and maintaining forest cover
- Keeping contaminants away from watercourses and the watershed
- Preventing large-scale natural disturbances like wildfire, insect and disease outbreaks
- Maintaining natural drainage patterns
- Reducing the impacts of roads (source of sedimentation)
- Careful oversight of human activities (possible through land ownership)

Activities in the water supply lands in the Sooke and Goldstream watershed are regulated by CRD Bylaw 2804.

CRD Bylaw 2804

CRD Bylaw 2804 regulates access and activities in the GVWSA. All access to the GVWSA requires authorization (access permit) and activities of those authorized are restricted. Any person violating the bylaw can be charged and fined and have their access revoked. For more information on the bylaw, visit www.crd.bc.ca/gvwsa

The Greater Victoria Water Supply Area

There are three watersheds that comprise the 20,550 hectare Greater Victoria Water Supply Area. Each has a distinct role in the water supply system.

The GVWSA includes:

- Sooke Water Supply Area (8,620 hectares)
- Goldstream Water Supply Area (2,307 hectares)
- Leech Water Supply Area (9,623 hectares)

Total GVWSA - 20,550 hectares

The **Sooke Water Supply Area** feeds Sooke Lake Reservoir that has been used for water supply since 1915.

This area:

- Provides all of Greater Victoria's drinking water other than a short period for annual maintenance of the Kapoor Tunnel
- Stores 160 million m³ of water, of which 93 million m³ is available for drinking water
- Releases water to sustain fish in the Sooke River

Stewardship of the Greater Victoria Water Supply Area means caring, thoughtful, and cautious management of the watersheds, ecosystems and processes that sustain source water quality, other important ecosystem goods and services, and cultural values, to ensure a safe and sustainable water supply and healthy ecosystems for future generations.

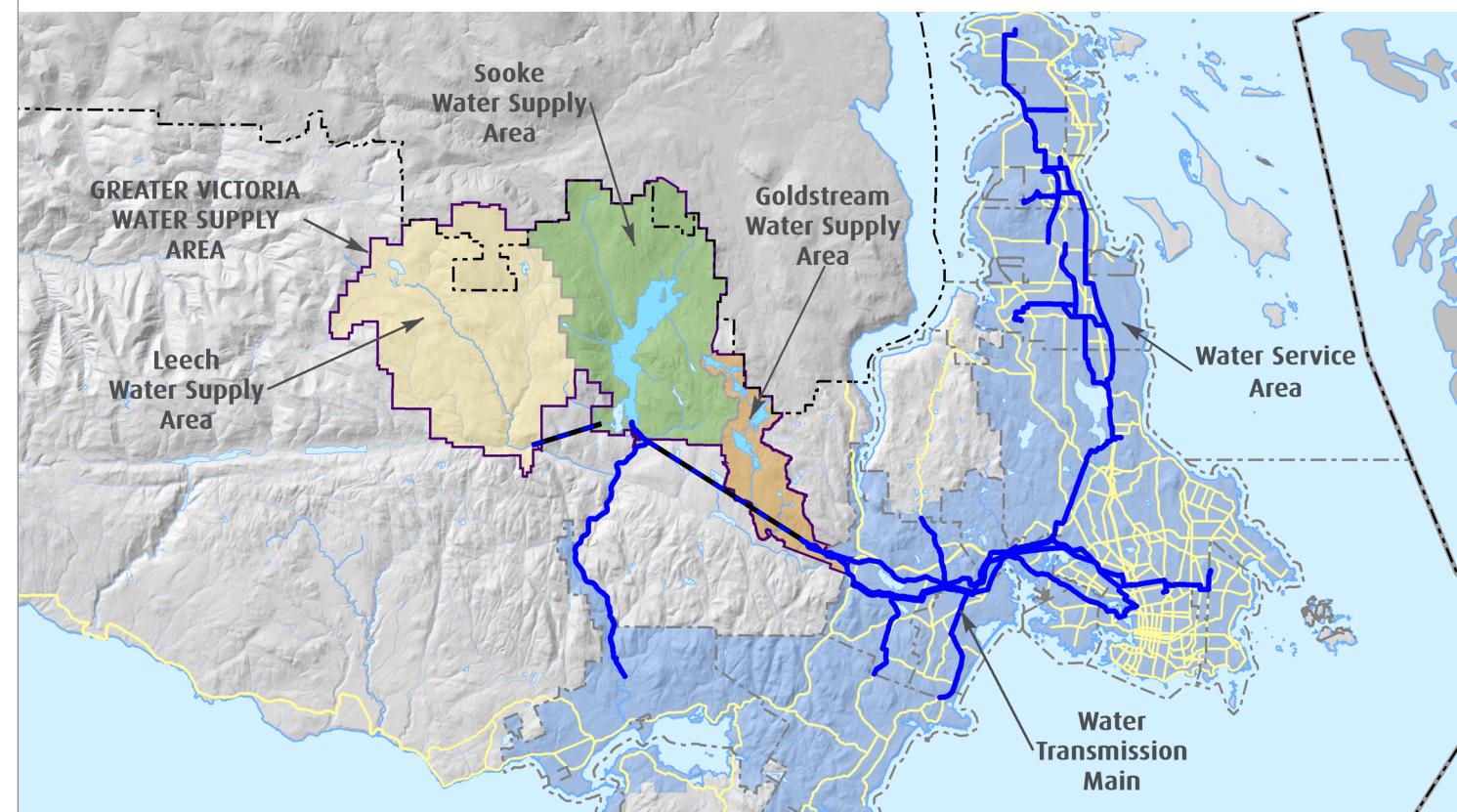
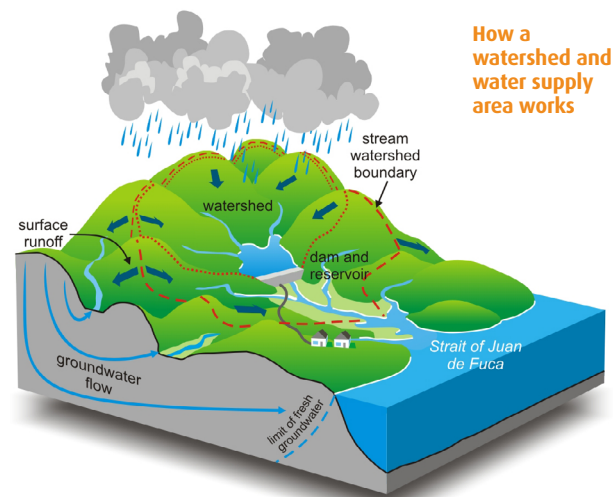
2012 Strategic Plan for the Greater Victoria Water Supply System

The **Goldstream Water Supply Area** feeds a series of four reservoirs that have been used for water supply since 1905. This area:

- Provides backup water supply when Sooke Lake Reservoir is taken off line for annual maintenance
- Stores 10 million m³ or two months of winter water supply for Greater Victoria
- Releases water to sustain fish in the Goldstream River

The **Leech Water Supply Area** feeds the Leech River which will supplement Sooke Lake Reservoir through a tunnel. This area:

- Will serve as additional water supply for Greater Victoria when required in the future
- Is undergoing a significant multi-year rehabilitation of the harvested forest ecosystems and restoration of road and drainage structures





Invasive animal species: American Bullfrog

What are some threats to our watersheds & water quality?

Wildfire

Large wildfires in the Greater Victoria Water Supply Area are a significant risk to our watersheds and the ability to supply drinking water. A wildfire could increase the amount of suspended sediment in our drinking water that the existing water disinfection facilities would not be able to filter out.

Access & Human Activity

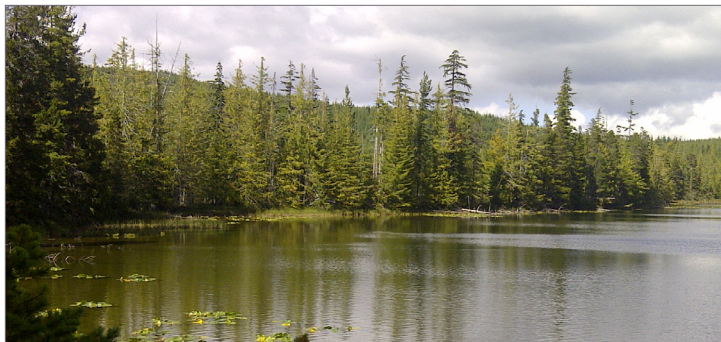
Humans and human activities have the potential for causing some of the greatest threats to water quality. Some examples of damage potentially caused by human activity:

- Wildfires started inadvertently or by careless use of fire
- Introduction of contaminants into the watersheds
- Vandalism to water supply infrastructure
- Contamination of reservoir source water
- Introduction and spread of undesirable plants or animal species into the watersheds

Other Threats

Other threats to water quality include:

- Disease-causing organisms introduced by wildlife such as beaver and Canada geese
- Forest insects and diseases and other forest damage
- Impacts associated with changes to climate
- Large blooms of naturally-occurring algae in reservoirs



Jarvis Lake in the Leech Water Supply Area

Watershed Protection

Almost all of the lands within the watersheds that supply our drinking water are owned and managed by the CRD. The protection of water quality was the primary reason for purchasing the lands and is the focus of management.

The Watershed Protection division includes programs for protecting and managing threats to the watersheds and water quality within the Greater Victoria Water Supply Area (GVWSA). Some of these include:

- Legal protection: The Sooke and Goldstream watersheds are protected by Bylaw 2804 which prohibits unauthorized entry and use of the water supply area
- Wildfire management program: Prevention, detection and suppression activities and forest fuel reduction in strategic areas to reduce the risk associated with wildfire
- Watershed security: Access management, gatekeeper, security patrols and video surveillance in critical areas
- Spill prevention: Preparedness and emergency response
- Ecosystem health: No broad use of chemicals, management of access roads and stream crossings, forest health management
- Management to control or prevent establishment of plant or animal species of concern to water quality or ecosystem health



Canada Goose



Water Supply Intake at Sooke Lake Reservoir

How can I help protect our water supply?

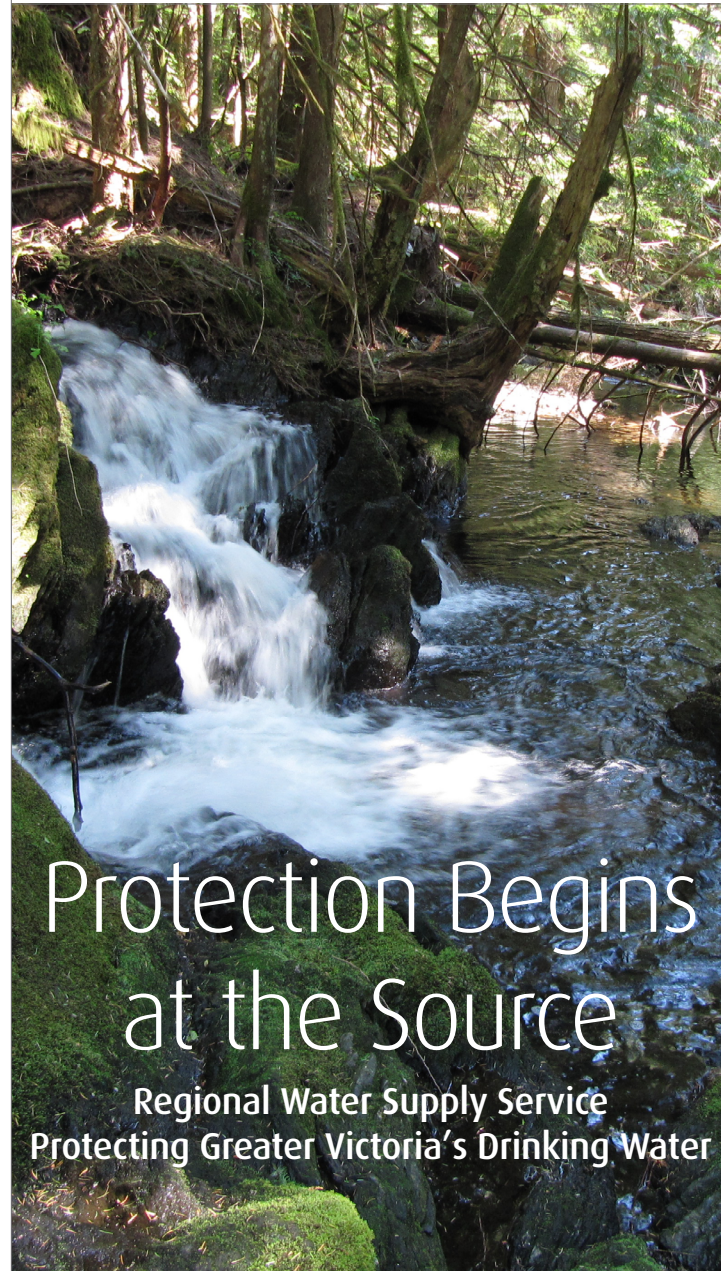
- Respect the bylaw and rules regulating public access and human activities in the Greater Victoria Water Supply Area (GVWSA)
- Talk to your friends and family about the importance of the protection and stewardship of our water supply lands
- Consider the water supply when recreating on adjacent lands. Be aware of the wildfire danger rating, ensure campfires are completely extinguished and immediately report any fire start. Do not let pets wander and clean up after them. If using an off-road vehicle, do not damage watercourses or wetlands
- Use water efficiently. In general, the more water that is in the water supply reservoirs, the better the quality of the water
- Report occurrences of invasive plants and problem wildlife (such as beaver) on lands that are near the water supply area
- Take a tour of the water supply area when they are offered annually to learn more about the importance of the protection and stewardship of the GVWSA in maintaining high-quality drinking water



Capital Regional District | Integrated Water Services
479 Island Highway, Victoria, BC V9B 1H7
T: 250.474.9601 | F: 250.474.4012
www.crd.bc.ca/gvwsa

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Watershed Protection of the Greater Victoria Water Supply Area



Protection Begins at the Source

Regional Water Supply Service
Protecting Greater Victoria's Drinking Water