



# WATER & WATERSHEDS







**ALMOST ALL OF OUR WATER COMES FROM RAIN.** This section is intended to introduce students to the Greater Victoria Water Supply Area and the watersheds that provide our water. The water cycle, plants and animals of local watersheds, and how water affects our lives in a variety of ways are also explored.

Most of the precipitation that falls within our water supply watershed is taken up by plants, evaporates, or flows into streams and then into the ocean. Some of it also ends up as groundwater. Because the Greater Victoria area does not have tall mountains with deep winter snow pack, water is not stored as snow and then released during the warmer spring and summer months. Rain that drains within the Sooke catchment is stored in Sooke Reservoir – a large dammed lake deep within the watershed.

Sooke Reservoir is located northwest of the City of Victoria in the Sooke Hills and supplies much of the water for our homes, schools and businesses. This watershed area supplies water to approximately 340,000 people in Greater Victoria. Sooke Reservoir lies within the boundaries of the Greater Victoria Water Supply Area, land that is owned and protected by the Capital Regional District (CRD). In 2007, the CRD added 8,791 hectares from the Leech River watershed – nearly doubling the Greater Victoria Water Supply Area to a total of nearly 20,000 hectares. In spite of the large watershed area, storage in Sooke Reservoir is limited and we depend on winter water stored in the reservoir to supply our needs throughout the year. Because of variation in winter rainfall, the probability that the reservoir will fill to capacity is only 6 out of every 10 winters.

The Greater Victoria Water Supply Area contains ecosystems and habitats that also depend on water that falls within the Sooke Reservoir and Leech River watersheds. Coniferous forests predominate: you will find trees such as Douglas-fir, Western Red Cedar, and Western Hemlock in these forests. Animals that call it home include the Black Bear, Columbia Black-tailed Deer, Pileated Woodpecker, and Roosevelt Elk, among many others. For example, scattered throughout the Sooke Reservoir watershed there are a number of old growth Douglas-fir trees –potential nesting sites for the threatened Marbled Murrelet.

“Green infrastructure” is the term used to define how natural systems such as forests and wetlands perform services for us. Often, infrastructure means things like roads, power lines, and water line systems – these systems provide a service to humans. Likewise, green infrastructure provides a service by filtering and storing water, recharging groundwater, preventing soil erosion, providing critical habitat, and other functions.

Local First Nations have relied on freshwater resources for thousands of years using Traditional Ecological Knowledge (TEK) to ensure the protection and stewardship of these resources. TEK is an important part of First Nations culture and should be included as an integral aspect of today’s water resource management – utilizing best practices for water resource stewardship from diverse perspectives.

Water plays a role in our lives for spiritual, recreational, or aesthetic reasons. It also plays a role in First Nation creation stories – with the belief that all life arose out of water. Water is important in many other types of cultural and spiritual practices from baptism to bird watching on the shore of a quiet lake to swimming with friends at a local lake. Water and watersheds – the source of the water we use everyday – are an important part of life in Greater Victoria.

**THIS SECTION CONTAINS FIVE ACTIVITIES FOR STUDENT LEARNING:**

- Water Wise in Greater Victoria
- The Ways of Water
- The Water Cycle in Greater Victoria
- Plants and Animals of the Sooke Reservoir Watershed
- The Clean Water Factory: Green Infrastructure

