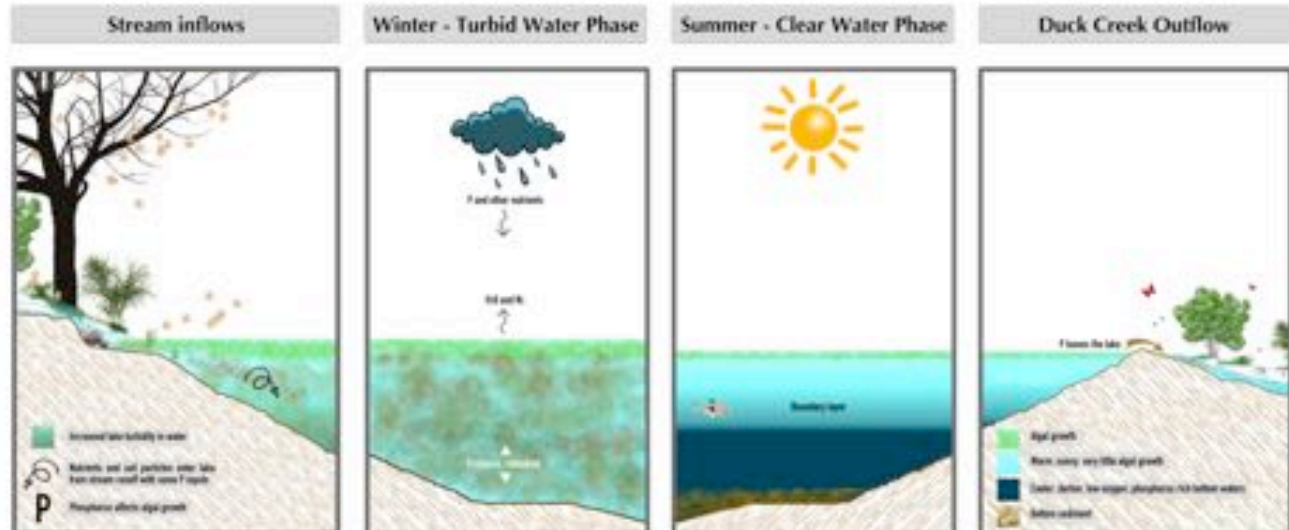


# St. Mary Lake "Tl'elhum Xatsu"

## The largest freshwater lake in the Gulf Islands

The lake and its surrounding watershed landscape are connected: they act as a living sponge to filter, collect, store and recycle water and nutrients. It is home to a diverse abundance of plants, animals and microscopic life.

Historically, this watershed is a special place, revered by indigenous and colonial cultures alike. Today, it is the source of drinking water for many islanders and visitors, and a delicate ecosystem that deserves our respect and protection.

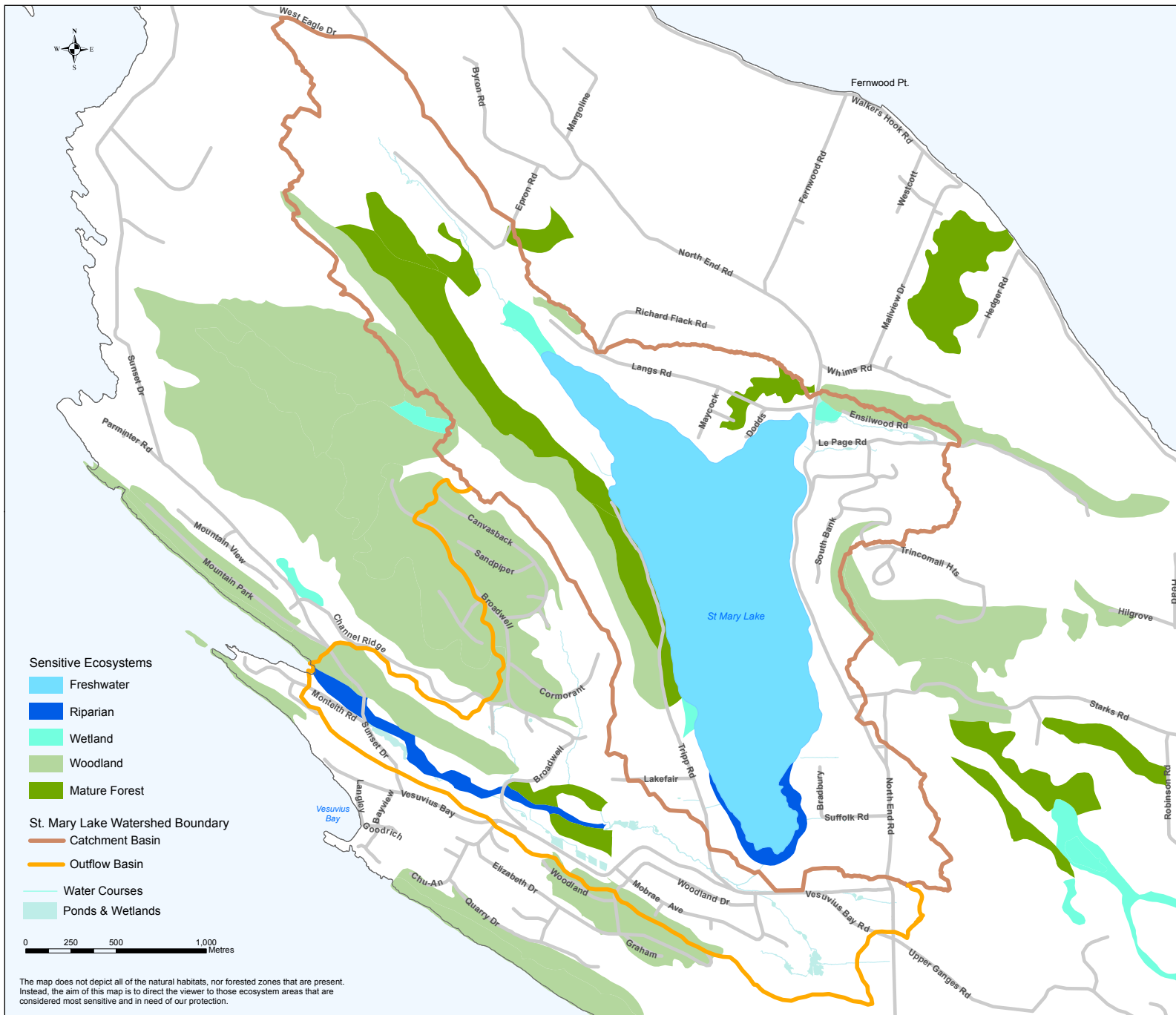


## Seasonal Nutrient Cycles Explained

✓ **Good Practice Guide**
Salt Spring Island Watershed Protection Authority

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<p><b>Visitors:</b></p>	<p><b>Homeowners:</b></p> <ul style="list-style-type: none"> <li>• Use alternatives for outdoor non-potable uses.</li> <li>• Implement/inspect native plants, shrubs, and trees in riparian zones (10-20m apart to the shoreline).</li> <li>• Monitor/inspect for tree changed signs across front-lotline.</li> <li>• Staff soil erosion into ditches and streams.</li> <li>• Conduct regular water system inspection and maintenance.</li> </ul>		
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The map does not depict all of the natural habitats, nor forested zones that are present. Instead, the aim of this map is to direct the viewer to those ecosystem areas that are considered most sensitive and in need of our protection.

**Sensitive Ecosystem Definitions**

**Riparian:** Areas adjacent to water bodies, which are influenced by factors such as erosion, sedimentation, flooding and/or subterranean irrigation. This zone on the southern edge of St. Mary Lake is a partly treed low bench floodplain that is dominated by black cottonwood, willow and grasses.

**Wetland:** Areas saturated with water for long periods of time, which develop vegetation suited to saturated soils that contain little oxygen. They are sensitive, and specialized, exhibiting high biodiversity and rare habitats. In the northeastern corner of St. Mary Lake, the wetland is dominated by a western red cedar and slough sedge community. In the northwestern corner of the lake, the wetland is dominated by a 70% western red cedar, red alder, skunk cabbage and 30% spirea-Sitka sedge community.

**Woodland:** Dry, open forests with 10-30% tree cover, shallow soils and rocky outcroppings. Rare and fragmented, these zones support high plant species diversity, which supports high diversity of insects, reptiles and birds. It is important to protect them from development. This zone to the west of the lake is dominated by Douglas fir - shore pine / grand fir with some arbutus and Oregon grape.

**Mature Forest:** Similar to the woodland class, mature forests are treed at a stage between young forest and old forest (i.e. old growth). These zones on the map are generally dominated by western red cedar, and grand fir - foamflower communities.

**What can be done to protect sensitive ecosystems?**

- Maintain water quality
- Retain or create native vegetated buffers around them, to isolate them from disturbances
- Control land and water access
- Control invasive species
- If development must occur, conduct an ecological inventory and avoid disturbance to the sensitive ecosystem features of the site.

**Acknowledgements:**

Sensitive Ecosystem Mapping is derived from the Salt Spring Island Terrestrial Ecosystem Mapping (Madrone Environmental Services Ltd., 2008) done at a scale of 1:20,000, based on 2005 aerial photography. Minimum polygon size is limited to 1/2 ha and the average polygon size is 10.8 ha.

Water courses were mapped by P. Grange and K. Reimer.

More detailed sensitive ecosystem information can be found at the Islands Trust website, under the link to "Trust Area Mapping": <http://www.islandstrust.bc.ca/maps/trust-area-mapping/ecosystem-mapping>