



LIVING BY THE WATER: STREAMSIDE STEWARDSHIP



With Dave Clough, Michael Recalma

Cultural significance of this place

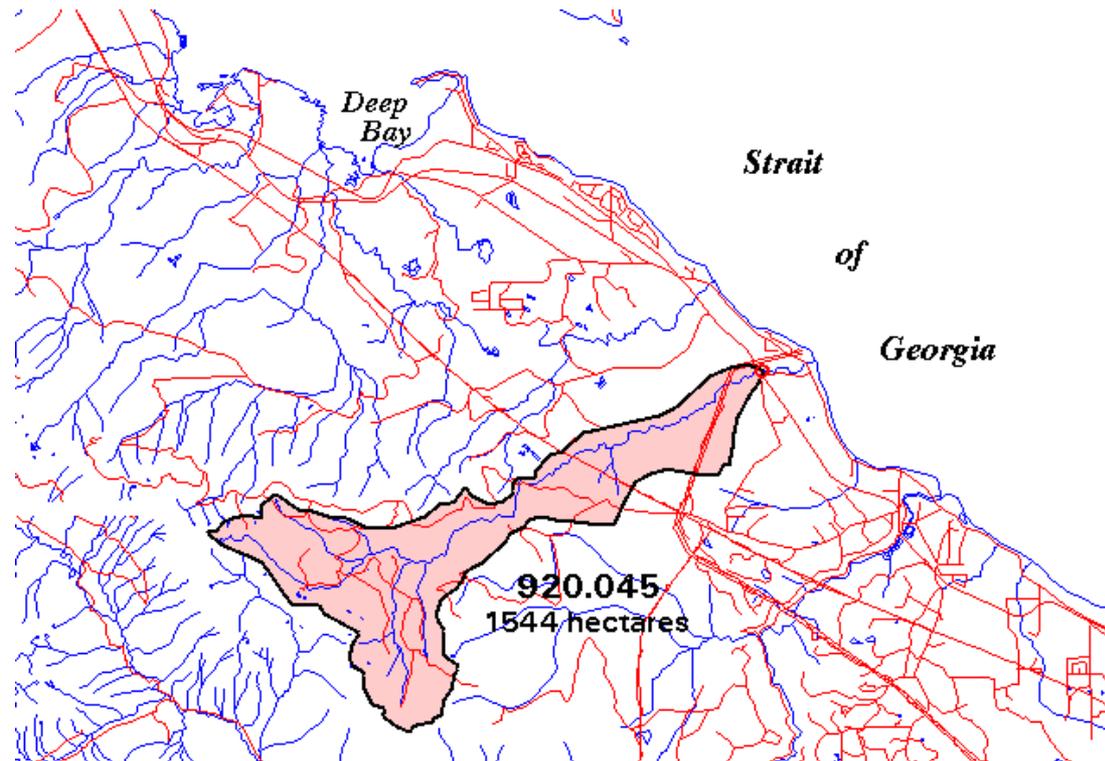


- Kwalikum First Nation Traditional Territory
- 5000+ years of First Nations use for support of their food, shelter and culture



Profile of Nile Creek

- Nile Creek is located north of the Big Qualicum River near the village of Qualicum Bay.
- Nile Creek is a 16.9 km² watershed with a mean annual discharge of 0.985 m³/s and a mean seven day average low flow of 0.154 m³/s .
- Nile Creek is a high energy system with no lakes to moderate flow rates, therefore the system is prone to quick floods. This flooding is causing minor localized scour in the lower reach inventoried.



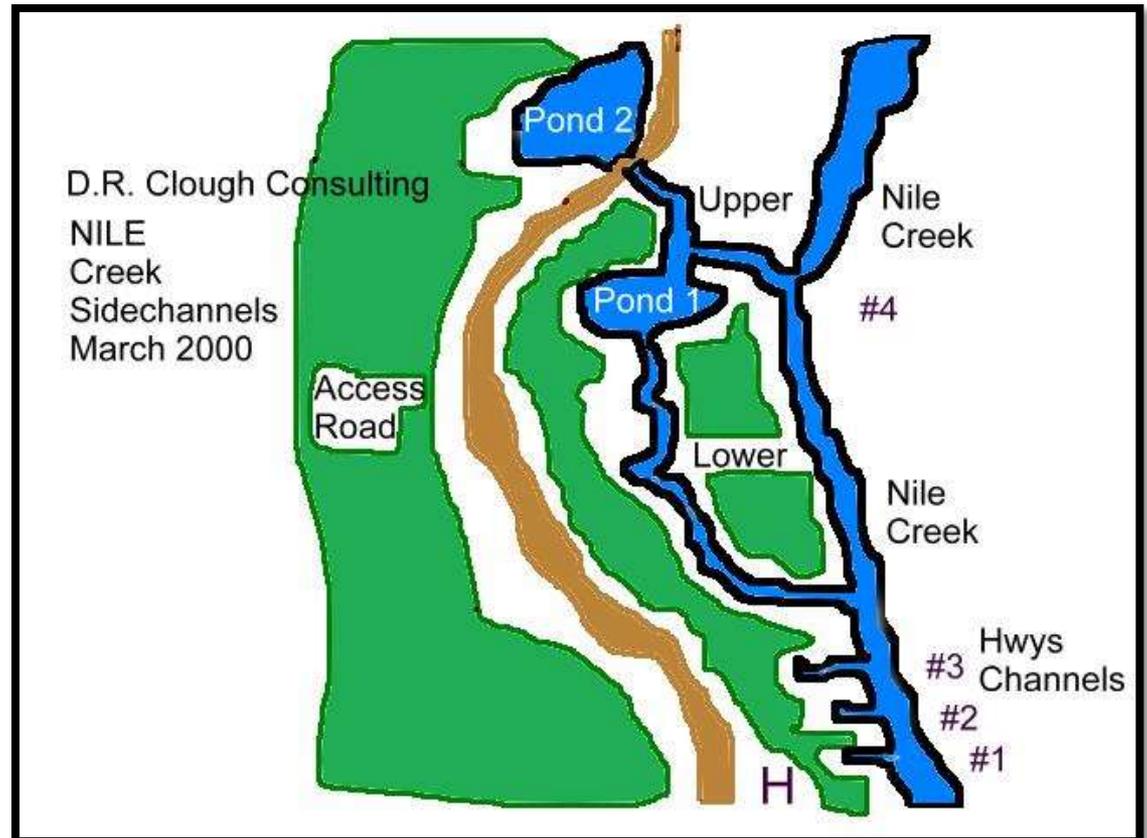
Profile of Nile Creek



- Big Qualicum hatchery has in the past periodically stocked Coho and Chum in the system. This practice started in the mid 1970's and has continued until recently.
- This practice has been discontinued until summer fry densities can be analyzed. An incubator was constructed by the Nile Creek Salmon Enhancement Society on the lower reach in 1995 to hold 1 million eye Pink eggs annually.
- This incubator runs off an old water intake that was constructed by the Qualicum Bay Water District as a municipal water supply. The intake has since been downgraded to a backup and emergency system by the Water Board. This intake has potential to be used as the intake for a side channel as well as its current use as the intake for the Pink incubator.

Nile Creek Side Channels

These channels were built in 1998 and 1999. They were built by the Nile Creek Enhancement Society in partnership with the Ministry of Transportation and Highways, the Department of Fisheries and Oceans and the Steelhead Society of B.C.



Large Woody Debris

- Some of the older headwater clear cuts are maturing and the new forest should help stabilize the system flows.
- The forest in the lower reach is maturing but the LWD recruited naturally is still predominately small and medium sized alder.
- There are some larger Cedar being recruited but not enough to produce sufficient LWD levels.
- The debris jams in the lower reach are mainly composed of one or two large Cedar logs that have captured loose alder logs and other small debris.
- These jams do create new channels and localized scour until the alder rots away an the stream re-establishes its old course.

The presence of large woody debris is important in the formation of pools which serve as salmon habitat in the Pacific Northwest



Connection to the sea

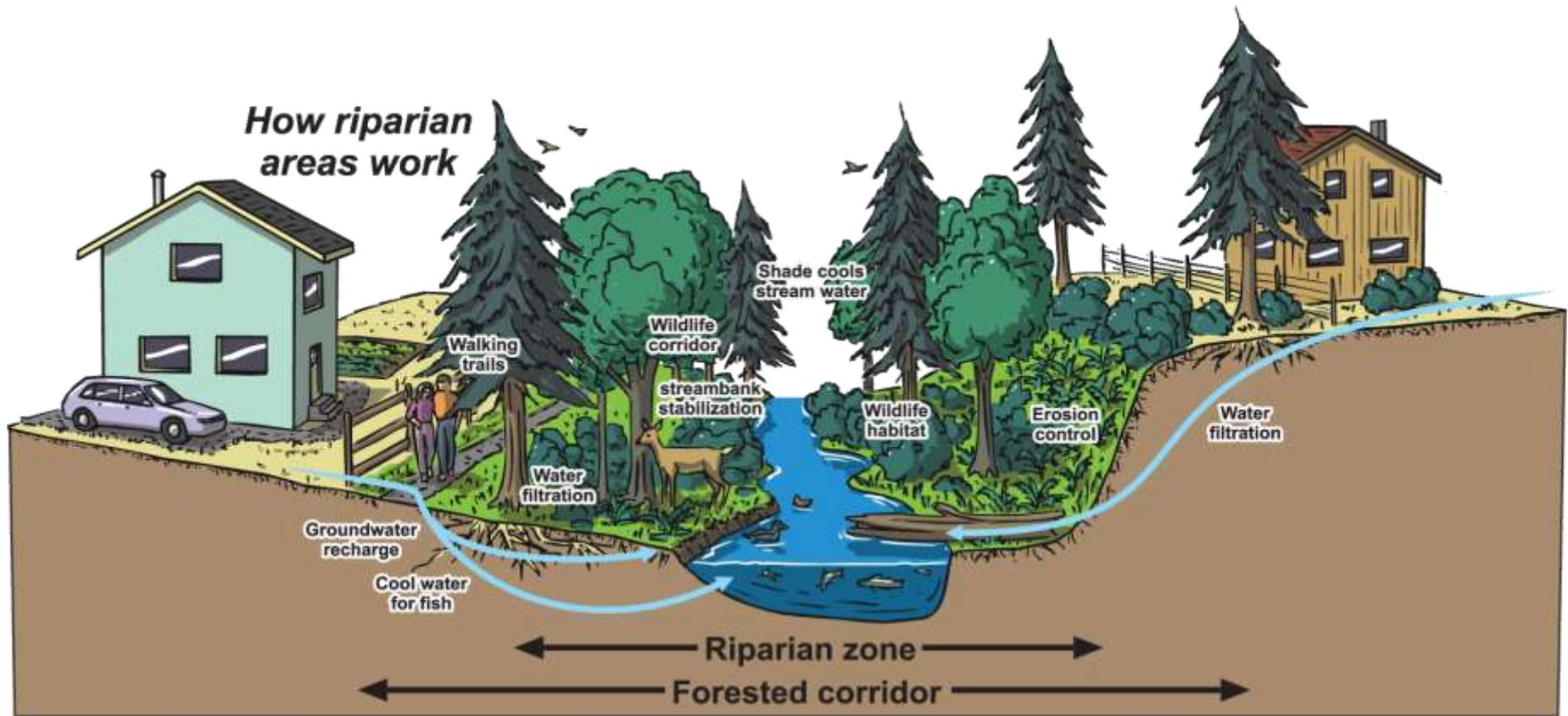


Signs of a healthy creek

- ❑ No disturbance along riparian areas
- ❑ Abundant Native Trees.
- ❑ Clear clean water with year round flow
- ❑ Deep pools with abundant cover
- ❑ Clean gravel beds for spawning
- ❑ No garbage, no pollution,
- ❑ A healthy stream has Stewards looking after the watershed.

👍 Water quality in Nile Creek is regarded as a benchmark for healthy streams in our region, based on results from the Community Watershed Monitoring Network water sampling.

A corridor of habitat through our communities...



Importance of vegetation

- Plant communities feed the watershed through leaf litter, shrubs including salmonberry are especially important forage plants to bears, birds and deer.
- Trees along the banks prevent erosion
- Trees provide cover habitat for the fish
- Trees are the homes for many wildlife species especially important to cavity nesters from bears to owls.
- Dead and down trees provide food and cover for insects, birds and amphibians.

What lives in/around the creek?

- Nile Creek fish population includes Pink, Chum, Coho, Steelhead, Cutthroat as well as Sculpins, Stickleback and other occasional species.
- Nile Creek also supports Black Bear, Beaver, River Otter, Mink, Martin, and Shrews
- There are Garter Snakes, Alligator Lizards, Red Legged Frogs, Tree Frogs, Salamanders and Newts.
- Invertebrates in the stream include Mayfly, Stonefly, Caddisfly, Dragonfly, Crayfish, and Worms.
- Common Birds include Great Blue Heron, Bald Eagle, Mergansers, Dippers, and Pileated Woodpecker



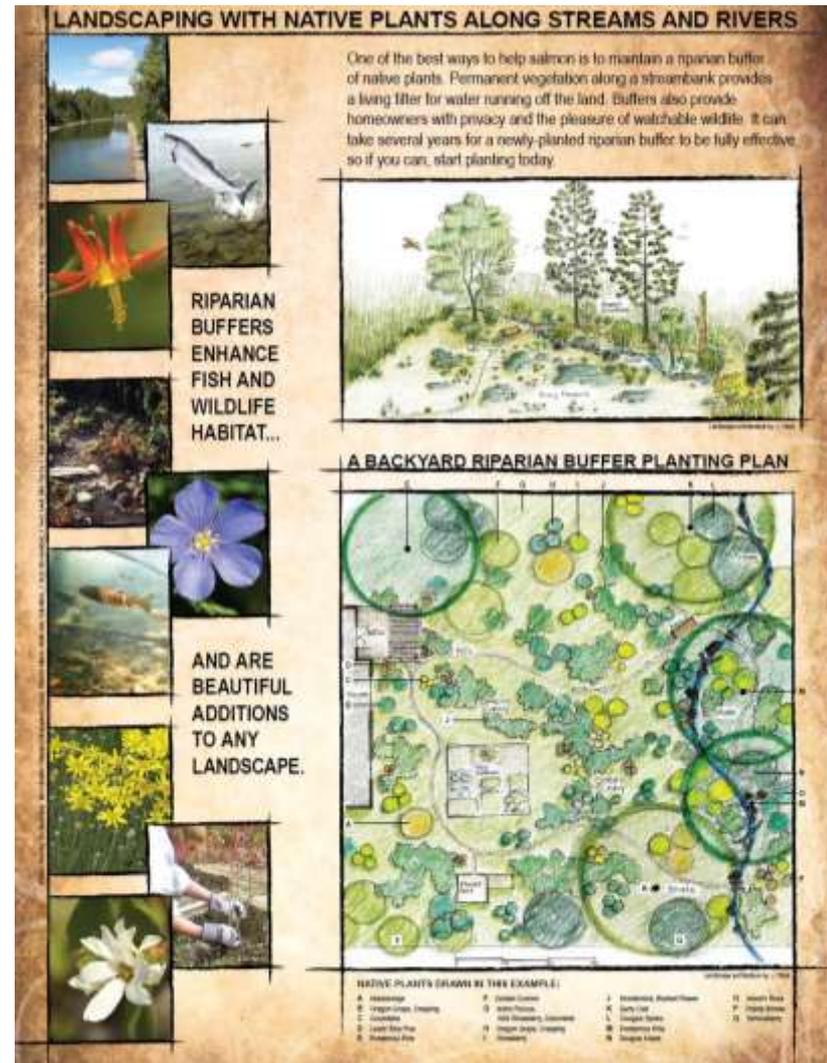
Impacts of backyard activities

- Removal of trees can reduce shade and increase erosion.
- Burning barrels and compost piles on creek banks release toxic oxygen robbing leachates into the creek.
- Crossings for RV's cause significant damage to stream beds
- Drainage pipes directly into the stream cause increased run off and pollution.

In your backyard...

Alternative practices that are better for stream health:

- Leave a buffer along the creek edge.
- Keep your back yard clean along the creek edge
- Encourage native plants or plant your own.
- Ensure foot entry points to the creek are limited and do not erode banks or remove significant plants.
- Control/avoid property runoff towards streams by alternate routes and in-ground treatment areas.
- Consider adding wildlife friendly plants or nesting boxes.



Beyond your backyard...

- Walking dogs – keep them out of the creek (especially during salmon spawning), pick up after them
- Helping with stream monitoring, clean-up, enhancement initiatives
- Pass on stewardship ethic to neighbours, children, visitors



Together we can keep it healthy!

