

MEMO

From: Karen Iwachow, Environmental Technician

Date: March 27, 2019

RE: Clearwater Ancient Swamp and Wildlife Corridor



Ancient swamps conjure fairy tale images of dark, wet, spooky places but in reality are an oasis to the plants and animals which are symbols of Canada's wild features, such as the beaver and moose. Much like Canada, the natural history of the Clearwater Ancient Swamp and Wildlife Corridor is rich too. The Clearwater River Valley has endured dramatic changes over millennia from hibernating under thick glacier ice to seismic and volcanic action (which still occurs today) and is what gives this swamp mythical-like powers: staving the wildfire which broke out in Wells Gray Provincial Park in 1926 from traveling further south to the town of Clearwater.

A swamp is a type of wetland which develops beautiful nutrient rich soils over hundreds or even thousands of years to create unique ecosystems and provide habitat for a diverse array of plants and animals. Swamps are dominated by woody vegetation which is submerged in water for part of the year. Swamplands in the Clearwater River Valley, Wells Gray Provincial Park and surrounding areas are unusual due to the topography of the area, wetlands such as bogs and fens are typical in low lying areas. To add to the uniqueness of this occurrence, it is likely that this is the most ancient low-elevation forested ecosystem in the area due the presence of a large patch of old swamp forest with ancient conifers.

Connectivity, the ability for wildlife to move freely from one habitat to another, is a necessity for the function of ecosystems.

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Yes! I want to protect the Clearwater Ancient Swamp!

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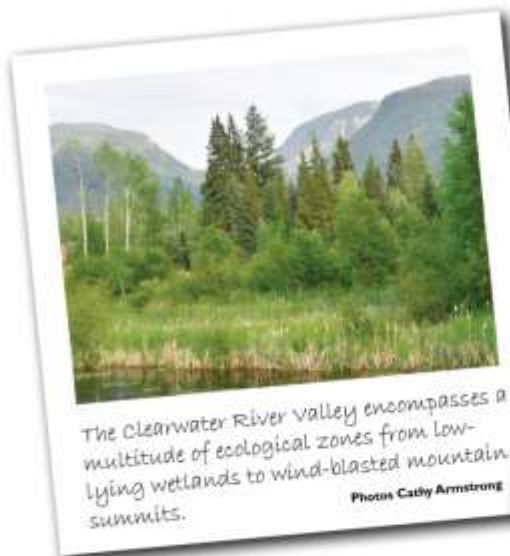
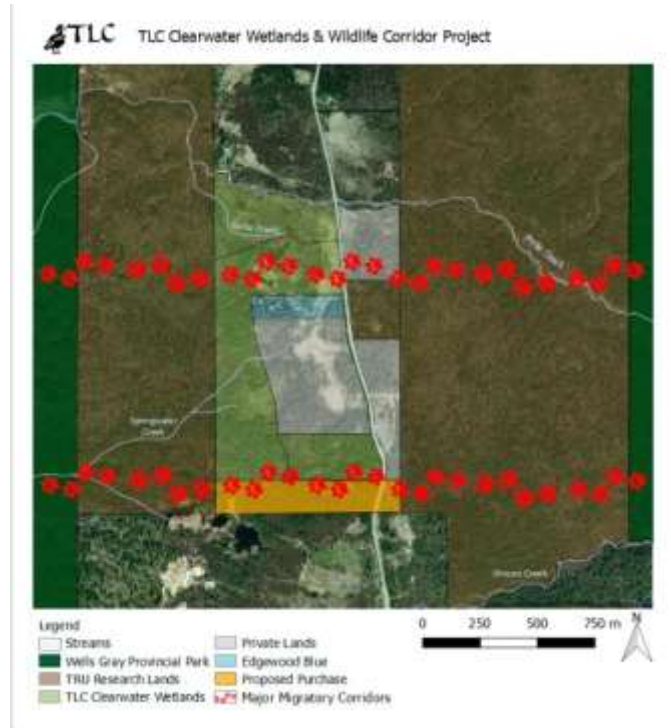
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Habitat fragmentation is an ever increasing challenge for wildlife and this ancient swamp plays an integral role in one of only three existing corridors used by southern Wells Gray's wild inhabitants. An esker, left behind from the last glacier period, runs through this swamp and provides dry passage for deer, cougar, moose, wolf, black bear and grizzly bear to cross and forage. Evidence of this use has been identified through the presence of large dig holes from foraging - even with boulders thrown about by powerful grizzly bears.

Swamps are important ecosystems for animals and humans alike. Swamps and wetlands provide keys for climate change mitigation. Plants convert atmospheric carbon, currently higher than at any point in the last 800,000 years, into plant tissue. When plants die they decompose and become stored in soils where microbes consume organic matter and release greenhouse gases back into the atmosphere. However, swamps absorb more carbon than they release and consequently, become rich stores for carbon which accumulate over millennia. That is, unless temperatures continue to rise or soil is disturbed through development. Swamps, if left intact make communities (wildlife and human alike) resilient to flooding, reduce temperatures during times of drought, filter water, behave as firebreaks and reduce erosion.

Wetlands cover about 16% of Canadian land area yet support 80% of our biodiversity. This not only expresses how important wetlands are to wildlife but the surrounding habitats as well. This includes swamps and their surrounding areas. Canada has seen about 80% to 98% of its wetlands degraded or lost in urban areas. Conserving the Clearwater Ancient Swamp and Wildlife Corridor will ensure a safe corridor for wildlife as they migrate east and west between their summer and winter ranges in southern Wells Gray Park and the Clearwater Valley. Together, let's protect the legacy this unique ancient swamp.



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