

Green Scene: The Sad Saga of Maple Creek

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Near the Ozada ‘tot lot’ on the edge of Coquitlam’s New Horizons subdivision, Maple Creek has some riparian trees and good water flow from a ground-water pump but its conditions deteriorate further downstream. *Photo by Raincoast Applied Ecology.*

Maple Creek may not be a stream familiar to most people in the Tri-Cities area. In fact, it is likely one of our less visible streams even though thousands of people pass daily through its watershed as they drive along the Lougheed Highway just west of the Coquitlam River. Nonetheless, Maple Creek supports several species of salmon, other fish, red-legged frogs (a species at risk) and has a very dedicated group of stream stewards working to protect and improve fish and wildlife habitat along its much maligned corridor. In April, the Cities of Port Coquitlam and Coquitlam hosted a public open house where they presented a draft plan under which a series of much-needed habitat enhancements were proposed.

Unlike most local streams, Maple Creek has no high elevation land in which to gather rainfall to empower its downstream flows. Historically, it was probably once a side channel of the Coquitlam River which was gradually severed at its upper end through natural shifting of the river course and slow deposition of silt and sand. With the northern boundary of its watershed near Gabriola Drive, it now arises from groundwater discharge near Ozada Avenue, flows through highly developed land (especially in the Port Coquitlam portion) not far from the west side of the Coquitlam River and discharges into the Coquitlam River just a few meters upstream of the mouth of Scott/Hoy Creek. Its watershed area, which comprises only 192 hectares, starts in Coquitlam and flows south to Port Coquitlam in which 58% of the watershed is located.

Sadly, much of the Maple Creek watershed was urbanized and developed long before there was any awareness of the value of small salmon streams on which juvenile salmon depend for feeding and for refuge during erosive storm flows. Development has been allowed along Maple Creek in a manner to which no creek should ever be subjected. In many areas, there is no riparian buffer of streamside forest to provide shade and add insect-producing stream nutrients. In some areas, the creek has been reduced to little more than a concrete-lined ditch. This is not only bad for fish; it also creates a hazard for people.

Under conditions of high flow, a natural stream will have broad banks which contain space for excess water as well as riparian forests into which some water can temporarily move. Some of this water will infiltrate into the ground and help to maintain adequate ground water levels. With narrow concreted banks, a stream under flood conditions has no place to hold such large volumes water which then spill over onto private land and into buildings. Ironically, the flood risk is so high in lower Maple Creek that its mouth is now contained behind an artificial dike and flood gate that prevents high flows in the Coquitlam River from backing up into Maple Creek. On the other hand, summer flows in Maple Creek are so dangerously low that a groundwater pump was installed several years ago in its upper reaches to keep salmon alive during dry spells and hot weather. This should serve as a reminder that, if appropriate stream protection measures are not taken in the first place, the solutions that must inevitably follow can be unusually complicated and expensive.

The draft watershed management plan for Maple Creek (see the City of Port Coquitlam website for this report and more information) contains a number of good recommendations. For example, a pump installed 16 years ago to augment stream flows in upstream areas is now failing so a new solution must be sought. A more natural, but also more expensive, solution could be to bring gravity-fed water flow from the Coquitlam River; alternatively a new pumping system could be installed with the risk this might also fail over time. Disconnecting roof drains on homes from the stormwater system and allowing this rainfall to naturally infiltrate into the ground could also help to augment ground water levels; this could help to sustain summer flows in Maple Creek. In many areas, Maple Creek flows through private land where land-owners have encroached considerably on the stream. Working with these landowners to overcome some of these problems would certainly benefit stream health and lower flood risk.

Public input on the draft recommendations has been solicited until this weekend; there is expected to be one last chance for public input when the plan is finalized this summer. One thing is clear - the salmon have never given up on Maple Creek and neither should we.