## **Cowichan and Shawnigan**

The Cowichan River story is an important object lesson for the Shawnigan Watershed.

The Cowichan basin has experienced a 35% drop in average summer rainfall over the last few decades leading to more frequent and severe summer drought. This climate change has caused great stresses on the Cowichan River system, including challenges to the salmon fishery, risks to the Catalyst Pulp Mill operations and reduction in dilution of sewage outfalls in the lower reaches of the river. In the winter, the basin is experiencing more concentrated storms, with increases in rainfall rather than precipitation as snow. These intense storms are increasing the potential for flooding in the communities downstream.

The Cowichan Watershed Board, chaired jointly by the Cowichan Tribes and the Cowichan Valley Regional District, is actively addressing these and other problems on the Cowichan River. The Board was established almost three years ago, arising from the decade long efforts of the Cowichan Stewardship Roundtable and engages a broad cross section of valley citizens and agencies. Board members represent First Nation, water supply, water conservation, fishery, forestry, industry, public health and flood prevention interests. Their collaborative work is recognized province-wide as a significant innovation in watershed management. The Cowichan is of strategic importance, designated as a "heritage river" and used by the Department of Fisheries and Oceans as an indicator for determining salmon run management throughout the Salish Sea. The health of the river is central to the culture of the Cowichan People.

One of the key management tools on the river is the weir at Lake Cowichan. The weir was designed to hold back sufficient winter water in Cowichan Lake to provide late summer water to the river. It is managed by Catalyst to ensure enough water to run the pulp mill, but Catalyst, as a collaborating member of the roundtable, also helps to ensure sufficient late season water flow to accommodate spawning salmon. The Cowichan Watershed Board treats the watershed as an integrated system, the forested uplands, the lake, the river and the estuary along with all of the interested communities that live within the basin.

Then came the summer of 2012. The prolonged summer drought raised the need to manage water flows in the river with much greater accuracy to ensure sufficient late summer flow. The drawdown of Cowichan Lake is expected to occur in a systematic manner, following a pattern set by the provincial government. It is called a "rule curve", a protocol that requires water to be spilled at the weir in a prescribed and predictable pattern. The problem with the curve is the "rule" part. If the rule is interpreted inflexibly as it has been in recent yearsthe weir managers cannot respond to the variations that nature provides.

Intelligent water flow management requires that weir managers monitor the situation constantly and make necessary adjustments, honouring the spirit of the rule curve, but responding to actual conditions rather than slavishly following a prescription that can lead to unintended damage.

In the dry summer of 2012, the Watershed Board and others correctly anticipated a growing potential for late summer problems on the river. The four local mayors and two members of Cowichan Tribes (five of whom are affiated with the Watershed Board) approached the provincial Minister of Lands, Forests and Natural Resource Operations to seek agreement to hold back more water in the lake than the strict letter of the rule curve allows.

The Department of Fisheries and Oceans had requested compensation for habitat that would be destroyed as part of the multi-million dollar flood protection work in the lower Cowichan. DFO had said that assuring adequate flows would be the best compensation there could be so if the Minister would make this concession the result would be fast, cheap and effective. Fish and people would benefit immediately and hundreds of thousands of dollars could be devoted to flood protection instead of less beneficial compensation projects.

In retrospect it seems unbelievable but the Minister refused the local request. As the summer wore on, the provincial bureaucrat in charge of water flows in the river repeatedly directed Catalyst to spill water to match the curve. "Surplus" water was still being spilled on the eighth of August despite the risk that if there were a prolonged drought both the Catalyst Mill and the salmon run would be at risk. The results are now history. The salmon run on the river has been compromised, even while the Cowichan Tribes people trucked fish up river in a desperate attempt to save the run. Adult fish have worn the skin off their bellies trying to run the rocks of the drying river. Seals feasted on the milling salmon trapped in the estuary at the mouth of the river. The Cowichan Tribes had to make the agonizing decision to abandon their annual food fishery in order to protect the limited spawning stock that was able to make its way up the shrunken river. This necessary decision robbed elders and families, not just of their cultural tradition but also of their winter food supply. The Catalyst mill was at risk of shutting down before the rains came, with all of the economic impact that would have ensued.

The great irony is that this could all have been easily prevented. The local knowledge, the ten-year history of intensive collaboration, the leadership of the Cowichan Tribes and the CVRD, the willingness of Catalyst to operate the weir responsively were all in place. What was tragically and inexplicably missing was an appropriate response from the provincial government. By adamantly refusing to respond to the 2012 conditions, the province ensured that damage was done. To add insult to injury, the spokesman for the provincial government had the temerity to suggest that it was a local responsibility to fix the situation by taking out a conservation water license on the river. The province has the mandate to deal with

water and fish. It has the capacity and the legislated responsibility to manage both, not to download them on local governments that have neither. In a fair world, the province would be compensating the Cowichan Tribes for the loss of their food fishery.

So, where from here? The provincial government has demonstrated that they are prepared to allow damaging results to occur by sticking to a regulation that does not make practical sense in a time of changing climate. They are suggesting that their accountability for management should be downloaded to the very people that they so rigorously ignored. The Cowichan Watershed Board has demonstrated that intensive collaboration and local leadership can work. Perhaps it is time for the province to invest the Board with a legal mandate and the necessary resources to manage the Cowichan Basin and to step out of a picture that they no longer effectively inhabit.

What is the lesson for Shawnigan? We face the same climate trends, we have the same influence of forestry on the upper reaches of the watershed, we have a weir at the outlet of the lake to manage late summer flows in Shawnigan Creek, we have an important trout, bass and salmon fishery, we have many residential, recreational, commercial and industrial interests in the basin,we have major concerns about the quality and quantity of our heavily committed domestic water supply and we have a community that increasingly knows and cares about its watershed.

We are just beginning the process of establishing our own watershed management capability. The Shawnigan Watershed Roundtable members are learning the detailed geography of the basin. They have invited regulating agencies to the table. They are exploring the science of ecological integrity with the help of qualified professionals. We intend to build on the examples provided by the Cowichan Watershed Board and its partner and precursor roundtable, but to proceed more rapidly to local watershed management. The lesson of 2012 for us is that we cannot depend on senior governments for the detailed local knowledge and fine-tuned responses that will be needed to deal with the combination of development pressures and a changing climate.

We will have to invent the local capacity to manage the water of the Shawnigan Basin and to insist that we are supported to do the job with both the mandate and resources required. This cannot be done unless there is broad citizen engagement and deep collaboration within our community. Please follow our progress on the Shawnigan Watershed Roundtable web site, participate in the watershed tours and meetings and make your voices heard.

(shawniganwatershedroundtable.ca)

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