

Shuswap's water diversion to the Okanagan

A *Shuswap Passion* column for the Shuswap Market News

By Jim Cooperman

While some people may remember the unsuccessful attempt to divert Shuswap water to the Okanagan in the 1970s, few people know that there has been a significant water diversion to the Okanagan for over 100 years. Nelson Duteau first visited the White Valley near what is now Lumby in 1860, and returned to settle and farm along what was then called Jones Creek named after a Cariboo miner. Duteau built a grist mill, likely powered by water from the creek, which became a key feature of this growing agricultural community.

Now likely the oldest heritage house in the Greater Vernon area, Duteau's squared log house sits empty along the road to Lumby. Covered in weathered grey siding, this classic 'salt block' style home awaits a planned restoration when the current owners can afford it.

When Duteau passed away, the land was purchased in 1905 by his son-in-law who sold it to one of the Coldstream Ranch partners. Shortly after, the ranch water manager had the entire watershed, including Aberdeen Lake surveyed. It was likely then, as the original water license is dated 1906, that the water rights were also transferred to the Coldstream Ranch, thus beginning the diversion of Shuswap water to the Okanagan. And in 1916, the B.C. geographic survey renamed the creek after Duteau.

As farming is water intensive and the Okanagan region is dry, more water was needed out of Duteau Creek. In 1920, the farming community worked together to form an irrigation district, pooling their funds and efforts to build irrigation canals and two reservoirs in the Aberdeen plateau, using existing lakes. A third reservoir was added more recently.

Between 1965 and 1972, with the help of government funding major improvements were made to the Vernon Irrigation District, including underground pipes, booster pumping stations, intake works and dam renewals.

Unlike the Okanagan region, Duteau Creek has salmon and in the fall of 1978 too much water was removed thus killing thousands of spawning coho and trout. Consequently, DFO worked with the Ministry of Agriculture and the irrigation district to better regulate the minimum flow requirement established in 1971 to protect the coho salmon that spawn as far as 10 km up Duteau Creek from its confluence to Bessette Creek.

By 1986, the system included 232 km of pipeline, 60 pressure reducing stations, 28 booster pumping stations, six dams, three chlorination stations, reservoirs, intakes and screening works. In the late 1980s, growing concerns regarding the long-term quality and quantity of water supplies led to a series of engineering studies that showed the need for regional water management. In the late 1990s, a Master Water Plan was commissioned which resulted in the creation of Greater Vernon Water in 2003, a single regional utility replacing the three local water utilities.

While our Shuswap water has been well appreciated by generations of farmers, there have been many problems with the quality of the water for residential use, including its turbidity and brown colour from the presence of natural iron, humus, peat material and plankton. Although chlorination is necessary, it also reacts with the organic matter to produce carcinogenic trihalomethanes. Given that water from the expanded Duteau Creek watershed now services approximately 20 percent of the greater Vernon residents, a major upgrade was necessary. A \$19-million water treatment plant and new, 5,000 sq. metre reservoir is now nearing completion.

Prior to the recent rains, Vernon was experiencing drought conditions as the reservoirs were unusually low. Exacerbating the situation, was a major valve leak that led to the loss of 2 million gallons of water and a boil water advisory as four kilometers of pipes had to be disinfected.

Even though the water reservoir recreation site was closed sometime ago and efforts have been made to hide these reservoirs from the public, there always seems to be a group of yahoos who enjoy using their riding machines to destroy wetland areas. On the recent long weekend, conservation officers helped avert significant damage after they warned a large group of off-roaders that they would face a \$575 fine if they drove into the wetlands.

Off-roaders are not the only problem, as cattle grazing in the plateau have also impacted water quality. In 2008, grazing tenure holders undertook efforts to reduce impacts with improvements to fencing and watering systems.

As the population in the Okanagan continues to increase and the climate continues to warm up, there are growing concerns about the adequacy of existing water supplies. Shuswap residents will need to remain vigilant regarding the possibility that the Okanagan may want more of our water in the future