# Nomination for A BC River for the 2014 Endangered Rivers List

**Name of River**
**The Similkameen.**

**Please provide sections of river that are of particular interest or which face specific threats and issues.**
While potentially the whole river may be affected, the particular area of concern is some 750 hectares along a section about 15 km. south of Princeton. In 2013, Fortis BC applied for a Crown Land allocation, the purpose being to build a dam and create a large storage reservoir. Potentially, the lower reaches of the river, in the dry Similkameen Valley, could be impacted.
The proposed storage reservoir, upriver of the Canyon would destroy 634 acres of wildlife habitat stretching 14 km south toward Manning Provincial Park.

**Impacts or Threats**
The Similkameen is one of very few remaining undammed, or otherwise compromised, wild rivers in the Southern Interior of British Columbia. The area proposed for the dam and reservoir has extremely high wildlife and habitat values, including Red- and Blue-listed species. The river is the focal point and source of much of this value, not only in the threatened area, but also downstream into the Lower Similkameen Valley and Washington State. The location of the river's lower reaches in the dry Similkameen Valley make it and the associated Black Cottonwood riparian thickets lining the riverbanks particularly important for healthy ecosystems in the area and for the survival of many species dependent on it.

Both in the upper and lower reaches, the river and shoreline habitat provide critical water and other life-sustaining requirements for a wide variety of large and small mammals, including Mule Deer, Elk, Moose, Mountain Goat, Black Bear, California Bighorn Sheep, Cougar, Lynx, Bobcat, Coyote, Pine Marten, Mink, Red Squirrel, Golden-mantled and Columbia Ground Squirrel, Yellow-pine Chipmunk, Long-tailed Weasel, and four bat species.

The wild range of habitats, from mountain forests and cliffs to bunchgrass-sage and cottonwood-riparian stands support many bird species including those on the current Red and Blue lists, such as the White-throated Swift, Lewis's Woodpecker, Canyon Wren and Flammulated Owl. The area habitat also supports a number of reptile and amphibian species, including the Red-listed Tiger Salamander.

Past studies, and empirical evidence show that the Similkameen River has supported an abundant population of native Rainbow Trout, and Mountain Whitefish. One detrimental effect of the reservoir and dam would be the release of cold, oxygen-poor water to the lower reaches and retention of warmer waters in the reservoir, a factor that, dramatically, would affect the existing and any future fisheries.

The spring runoff brings down nutrients from the mountains, along with the increased waterflow, the effect of which is to flush out the riverbed and shift sand and gravel bars. Plant species in the riparian zone are dependent on this annual cycle of higher water and the flood of nutrients to maintain growth and increase numbers. Healthy riparian

areas are critical for mammals, birds, reptiles, and amphibians that inhabit both the floodplain-riparian zone and the dry grasslands-shrub steppes and dry upland forests.

In 1998, the BC Heritage Rivers Board recommended heritage status for the Similkameen because of the river's natural values and its importance for human livelihoods. The main reason that status was not rewarded was opposition from investors in a similar power dam proposal.

Assuming the current proposed dam is similar to the previously proposed dam, it would create a reservoir upriver of the canyon that is estimated to destroy not only the canyon ecosystem, but 634 hectares of wildlife habitat stretching 14 km south towards Manning Provincial Park. This would irrevocably change the spring freshet regime of the free-flowing river with the downstream effects of compromised lower-valley riparian stands and thickets from decreased spring flow, lower flow of nutrients to the valley riverbed, changes in annual water-temperature regimes and the consequent loss of critical riparian and water habitat for a wide variety of wildlife.

An estimate of lost habitat from the previous dam proposal was 179 hectares of winter range for Mule Deer; resulting in a proportionate decline in population. Elk would be in a similar situation and the decline in these prey species would affect predator populations. The previous proposal's assessment did not give any details on possible/likely effects on predators; however, the existence of the reservoir would clearly change established wildlife movement patterns.

At the dam site, winter conditions pose additional hazards to wildlife that now cross the river in winter. Draw-downs of the water would leave steep slopes that wildlife might not be able to negotiate or if they did in normal movements or to escape predators, the reservoir lake ice could be unsafe and animals drown. Even in other seasons, the cold water of the reservoir would be dangerous for animals attempting to swim across.

The effects on agriculture in the Lower Similkameen, which depends on the river for irrigation water, and on the valley communities, could be drastic when considered in light of climate change and lowered snowpack levels. The dam would provide flood control, but in the absence of significant flooding, the lack of water would have other, even more dramatic, effects which have been shown in various ways at many other dams in North America and elsewhere in dry climates.

The Climate Impacts Group at the University of Washington is predicting that by 2080 the Similkameen Basin will no longer be a "snowmelt-dominant basin but in a transition between a rain and snowmelt-dominance, (USCE p11)" with a forecast reduction in summer stream flows of 39% by 2080"." (Ken Farqharson. *Review of Similkameen Watershed Study*,2009). In fact, higher summer temperatures, lower late summer flow, and earlier freshet have already been observed.

**Loss of Outdoor Recreation Activities**

The potential losses would include sport fishing, birdwatching, other wildlife viewing, canoeing, white-water kayaking, hiking and other non-motorized travel for recreation and education.

**For persons who are neither visitors or nor residents, what is your knowledge of the area and how did you acquire this knowledge?**

BC Nature is a federation of local natural history groups, representing some 51 local history clubs throughout BC. Local club members range from beginning birders to experienced and knowledgeable amateurs to professionally-educated naturalists, including biologists, botanists, geologists, geographers, foresters, environmentalists, engineers and others concerned with knowing nature and keeping it worth knowing. Specific knowledge and concerns come to the attention of BC Nature from the members of the local clubs, who observe and monitor their particular areas of interest and issues that may cause significant impact to them.

BC Nature has a Conservation Committee, with members appointed by the executive. That committee recommends conservation policies, prepares letters to government and non-government agencies as deemed necessary, and maintains a correspondence file on conservation issues. The chair, in particular, monitors conservation-related activities through media monitoring, including websites, notifying the BC Nature executive about new and ongoing issues.

BC Nature also holds two general meetings per year, in different locations around the province, hosted by member clubs. The program always has a strong educational component involving expert speakers. BC Nature also publishes the quarterly magazine *BC Nature,* in print and online, that follows the educational and conservation mandate of the organization.

BC Nature has a website with content for the general public, as well as members, and a members-only section. The content available to all audiences includes a nature viewing guide to the various areas of BC. This is a new feature, still being expanded.

Consequently, all members have the opportunity not only to learn about conservation concerns in their particular locales, but also those of other areas of the province.

**Relevant experience of person or group making the nomination – Direct experience, stewardship activities, professional background (forester, biologist, etc.) or recreational activities.**

As noted above, BC Nature is a federation of local natural history groups, representing some 51 clubs throughout British Columbia. Its Mission Statement is: Know Nature and Keep It Worth Knowing. BC Nature was established as the Federation of BC Naturalists in 1969, a registered, non-profit society.

The organization's objectives are:

a. To provide naturalists and natural history clubs of British Columbia with a unified voice on conservation and environmental issues;

b. To foster an awareness, appreciation, and understanding of our natural environment, that it may be wisely used and maintained for future generations;

c. To encourage the formation and cooperation of natural history clubs throughout British Columbia, and;

d. To provide a means of communication between naturalists in British Columbia.

BC Nature is a respected, effective voice on wildlife and habitat conservation and coordinator of stewardship and educational programs.