

**COMMENT ON
DRAFT TERMS OF REFERENCE
FOR APPLICATION FOR AN
ENVIRONMENTAL REVIEW ASSESSMENT CERTIFICATE
UNDER THE B.C. ENVIRONMENTAL ASSESSMENT ACT
GLACIER/HOWSER HYDROELECTRIC PROJECT
PROPOSED BY
AXOR/PURCELL GREEN POWER INC.**

APPLIED ECOLOGICAL STEWARDSHIP COUNCIL OF B.C.

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Overview

The sale of Glacier Creek, Howser Creek, and, despite assurances to the contrary, evidently East Creek too, amounts to British Columbia's version of the old joke about selling the Brooklyn Bridge. The metaphor implies a gullible customer, and an unscrupulous merchant willing to extract payment for something that he has no right to sell.

It is obvious that the ecosystems of the west slope of the North Purcell Mountains should rightly have been protected in the Purcell Conservancy. In 1993 The Applied Ecological Stewardship Coalition (AESC) proposed connecting the Purcell Conservancy with the Bugaboo Recreation Area, and with Revelstoke Glacier National Park, to make an ecologically viable and sustainable protected area. The Western Canada Wilderness Committee subsequently proposed protecting this same area as Bugaboo Glacier National Park, and more recently, The Vahalla Society has proposed protecting the area as The Central Selkirks Mountain Caribou Park, flanked by buffering recreation, but not industrial, use areas. Proposals to protect much of this area extend back as far as the early 1900s.

British Columbians have consistently spoken out clearly against industrial exploitation of the North Purcell Mountains. Overwhelming public censure of the Jumbo Glacier Resort development continues to loom prohibitively. Public license for the Axor proposal, that took the bait brazenly offered by government in defiance of public sentiment and scientific justification, just does not exist..

In particular, the Canadian Species At Risk Act (SARA) precludes the Glacier/Howser power project on the basis of its unavoidable impacts on bull trout (*Salvelinus confluentus*) alone.

The underlying question to be addressed by this environmental assessment process is if the federal government will allow British Columbia to thumb its nose at the Species At Risk Act and Federal Fisheries legislation, a crude gesture referred to in the Environmental Assessment Process literature as "mitigation".

AESC will comment in greater detail on this project proposal in the next public comment opportunity.

Threatened and endangered species and habitats in the Glacier/Howser/East Creek study area

There is simply no way to achieve ecologically feasible mitigation of the cumulative impacts of the Axor proposal, because existing human impacts at Glacier and Howser Creeks are already catastrophic.

The Duncan Dam flooding destroyed the aquatic diversity and riparian habitats of the main Duncan River ecosystems. These habitats were important to significant migratory as well as resident animal populations. As a result, the aquatic diversity, riparian, and old growth habitats of the Duncan Valley's tributary drainages became disproportionately important to the entire region. An environmental assessment must take this artificially induced disproportionate habitat significance of the Glacier, Howser, and East Creek ecosystems into account.

The Duncan system suffered little impact at the hand of man until the early 1970s, when Kootenay Forest Products, with, as was noted locally, “no more loggers than it would take to fill a school bus”, cleaned out the easily accessible old growth forest at the low elevations of the main valley. Glacier Creek and Howser Creek were gutted of old growth forest, low, mid, and high elevations; the globally unique huge clear spruce logs from the high hanging valleys below the glaciers falling to feed the plywood peeler mill at Nelson.

This theme of resource exploitation for the elite few at the expense of the many in the Duncan Valley continues with the Axor proposal.

AQUATIC HABITAT AND FISHERIES CONSIDERATIONS

The Axor Draft Terms of Reference do not reflect the irremediably serious nature of existing impacts to recognized Threatened & Endangered (T&E) Species in the study area, let alone cumulative impacts that would result from their proposal.

White sturgeon, *Acipenser transmontanus*, the largest freshwater fish in North America, can weigh over 1,500 pounds, be 20 feet in length, and live for over 100 years. Duncan Lake and downstream Kootenay Lake have globally significant, now Red Listed populations of sturgeon, that were negatively impacted by Duncan Dam, becoming landlocked. Anecdotal evidence relates that 90 sturgeon were once counted basking in shallow water at the South Bay, off Beseker’s Island in Duncan Lake.

Freshwater Ling Cod, or Burbot, *Lota lota*, are now Red Listed in Duncan Lake. Area pioneer Billy Clark observed burbot spawning at the mouth of Howser Creek before the dam. Burbot are in alarming decline in the entire Kootenay system; an annual harvest of 26,000 burbot was recorded in 1965 in the Kootenay River, and none in 1987. Disturbances in flow and nutrient availability resulting from the hydroelectric dams are thought to be responsible for this critical decline.

In Kootenay Lake a particular strain of Kamloops Trout, known as the Gerard Rainbow, is known to grow to enormous size. “The north arm race originally spawned in the Lardeau River and its tributary the Duncan River. A dam on the Duncan River eliminated that original spawning site.” (Behnke, 2002) It is possible that a residual landlocked remnant of the Duncan population survives in the Duncan system; it is unreasonable to put this possible population at further terminal risk.

Bull trout are listed as a Threatened species throughout their range in B.C, and are protected by federal and provincial legislation. Although bull trout are widespread throughout the upper Columbia Basin in B.C., the number of streams that they spawn in is severely limited. The largest known bull trout in Canada was caught in Kootenay Lake. “Four streams in the Duncan River Basin have been documented to support runs of bull trout: Glacier, Howser, East Creek, and the heavily- impacted- by- logging Westfall River. The East Creek bull trout population is limited to the lower reaches of the watershed. These runs once mixed with other stocks associated with Kootenay Lake; however, since the construction of Duncan Dam, they have been isolated. It is essential that these now geographically isolated bull trout populations be managed as a unique evolutionary unit.” (Bergdahl, 1998)

Pollution, habitat degradation, altered water flow and temperatures have resulted from excessive logging of Glacier Creek and Howser Creek. Glacier Creek has experienced at least one catastrophic flood, scouring, erosion and deposition event in recent years. Howser Creek has high risk erosion zones, which may be clearly seen with the naked eye, and do not require seismic analysis to confirm. Catastrophic slope failure is

to be regarded as the norm in these drainages, an eventuality that potential investors should be aware of.

Terrestrial Habitats and Wildlife

The Purcell Alliance For Wilderness comment has outlined many of the concerns that AESC also has regarding impacts on wildlife, particularly grizzlies, wolverine, lynx, goats, and old growth dependent species such as martin.

We note the mineral lick and warm spring along the Howser Creek Main that is heavily used by ungulates year round, and will undoubtedly be critically impacted by the proposed development.

Mountain Caribou and other T & E Terrestrial Species

There is a record of mountain caribou wintering at Tea Creek and Tenise Creek prior to recent forest removal. If government is serious about recovering caribou, running a linear clearcut transmission corridor through Howser Creek can not be a serious consideration.

Eduord Pass has been identified as the only low elevation pass in the North Purcells that allows some animal populations passage between East and West Kootenay.

Ancient Forest Values

There are still stands of ancient forest in Glacier Creek, Howser Creek, and pristine East Creek, that may be over 1000 years old. AESC asked the B.C. Conservation Data Center's Dr. Adolph Ceska for an analysis of the global significance of these ancient stands of the Inland Rainforest. The answer was that "These stands are among the rarest, most threatened and endangered ecosystems on the planet, and require highest global priority for protection." Any assessment of the study area must reflect this irreplaceable value.

The Ancient Singing Forest of Tenise Creek: A Cultural Icon

Glacier and Howser Creek were notable for the abundance of ancient Western Red Cedar stands characteristic of the southern extent of the wettest zone of the globally unique Inland Rainforest of North Western North America. The provincial government's forest administration chose to abandon the concept of sustained yield in the Duncan, opting instead to allow total liquidation of all merchantable timber, for example, at Howser tributary Tenise Creek, a hillside that, in 1975, came to be known internationally as "The Singing Forest." Axor's proposed Howser heliport is located within what little is left of the Singing Forest, and the proposed transmission line appears to transect a significant portion of the ancient stands that remain.

The documentary film "Ancient Voices: The Singing Forest" produced by John Bullard, records that "In the summer of 1995 hundreds of people visited the Singing Forest of Tenise Creek." CTV television national news program filmed a documentary at the Singing Forest in 1995. The Commission on Resources report for

the West Kootenay region recorded that the Singing Forest of Tenise Creek had spiritual significance, and recommended that the issue of its protection be resolved by government.

A proposal for protection of the ancient forest there, some trees of which may be significantly over a thousand years old, has been championed by various government agencies under legislation known as Goal II of the Protected Area Strategy.

Massive public protest has been received (and ignored) by the Ministry of Forests each time further permitting for forest removal of the Singing Forest has been perpetrated.

Axor, as well as the B.C. Environmental Assessment Process, is hereby notified that the well documented cultural value of the Howser Creek forest known as the Singing Forest may not be ignored by the assessment of running the proposed linear clearcut of the transmission line through what's left of the Singing Forest, all that remains being the pittance that the public and many government employees as well, have fought tooth and nail to save, for the past 16 years.

It is ironic that in the U.S., ancient forest like what we have lost at Howser and Glacier Creeks is not only protected, but in many places is paved for wheelchair access.

Highest Use; The Right To Maintain Wild and Scenic Rivers, Recreational Value, and Public Ownership

The highest value of the ecosystems in the study area is in maintaining what wildness and ecological value is left to them after some three decades of exploitation.

Glacier Creek is a world-class, easily accessed, family friendly alpine recreation destination. Howser Creek, although less well known, also contains significant recreation features. There is a defacto public ownership of these valleys that is saddened and horrified by the Axor/government development proposal.

Summary

AESC is confident that the provisions of SARA and federal fisheries legislation, along with the ethical imperative to maintain designated Old Growth Forest Reserves, will preclude the Axor proposal. In particular, the proposal of transmission line bisecting the North Purcells is ecologically untenable.