



## HYDRO PROJECT TO DIMINISH THE MIGHTY PEACE

By Chris Wearmouth, AWA Conservation Specialist

The Peace River valley is something to behold on a winter's day. As my friend and I picked our way through chocks of heaved ice littering the valley bottom, families of deer peered down from high overhead along the rim of farmers' fields. The mighty Peace River was festooned with a crosshatch of ice floes run aground. A ribbon of open water snaked through the blocks, in places a third of its summer's meandering width.

We watched as a moose exited the woods from the north and high-stepped its way toward the moving water. Between our own footsteps ran the tracks of coyote, deer, and over-wintering birds, the snow a stamped record of winter activity. Coming to rest on a grassy bank gone brown, we found tree stumps with their woody crowns missing, the rough-hewn cones a tell-tale sign of the beaver that had lumbered here. The most striking sense of the area was that, as the call of birds attested, even during winter, this place is alive – dynamically, unequivocally alive.

But this may not be the case for long. The place where we wandered for a late-winter picnic on this year's Easter weekend is the site for Glacier Power's proposed run-of-the-river hydro-electric dam.

Currently in the process of a joint review by the Canadian Environmental Assessment Agency (CEAA), the Alberta Utilities Commission (AUC), and the Natural Resources Conservation Board (NRCB), Glacier Power's proposal is to erect an 11-metre-high dam across the width of the Peace River two kilometres upstream of Dunvegan Provincial Park, southwest of the town of Fairview, Alberta. What will follow will be the flooding of productive riparian and valley lands, the alteration of the river's ice regime, and the creation of an obstruction for fish across the entire width of the river.

"The Peace River is one of Canada's



*The Peace River valley near the site of the proposed Dunvegan dam. The valley provides some of the last intact parkland habitat in the region. PHOTO: C. WEARMOUTH*

grandest rivers," says Alberta Wilderness Association Director Vivian Pharis. "The Mighty Peace of my childhood is no more. Having been tamed with two dams in the canyon above Hudson's Hope in the 1960s and 1970s, destroying the famous Gold Bar ranch, significant dinosaur remains, and a vast wild and diverse valley ecosystem, the river is now under consideration for more dams and destruction. There has never been a better time for honest, full-cost accounting before mistakes are made."

The Peace River begins in the northern Rockies of British Columbia and winds its course for 1,923 km from the headwaters of the Finlay River to Lake Athabasca. Along the way it drains an area of approximately 302,500 km<sup>2</sup>. Recognized as a nationally significant waterway, the river is home to several species of fish, including bull trout and rare large scale suckers. Its encompassing valley is key year-round habitat for moose, elk, and deer, as well as

significant habitat for birds of prey such as golden eagle, bald eagle, and osprey.

It was the Peace River by which Alexander Mackenzie successfully pioneered a route across the North American continent, having four years earlier mistakenly ended up at the Arctic Ocean on the northern river that now bears his name. In 1793, as the first European to paddle and pull his way upstream past the mouth of the Smoky River, he found a wonder of wilderness, which he exalted in his journal: "The river displayed a succession of the most beautiful scenery I had ever beheld... This magnificent theatre of nature has all the decorations which the trees and animals of the country can afford it."

The river valley as discovered by Mackenzie and his crew was a wilderness previously known only to the Beaver and Cree who inhabited the area. Today, the land above the valley is a patchwork of agriculture; the larger basin is dotted with cutblocks, Fort Dunvegan is a popular

leisure spot for locals, and river boats motor their way up and down the Peace. Across the border in B.C., the river is the site of two hydro-electric dams, the Peace Canyon Dam and the W.A.C. Bennett Dam, which inundated the territorial home of the Tsay Keh Dene and formed the 251-km-long Williston Lake. Now a third dam on the B.C. side, “Site C,” is on the table.

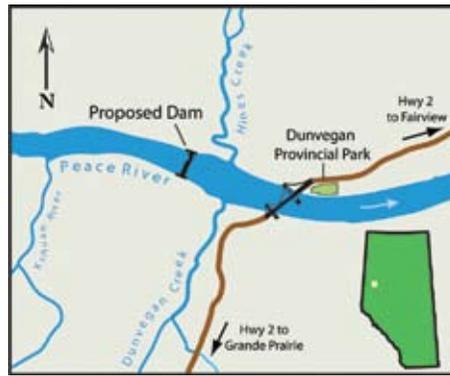
Despite the changes on surrounding lands, the obstructions upstream, and the occasional rumbling of a motor boat, the Peace remains a wilderness corridor snaking through Parkland and Boreal Natural Regions. Its Alberta waters still run free of impediment from the Alberta-B.C. border to where it empties into the Peace-Athabasca Delta, one of the world’s largest freshwater deltas.

The vision of a power-generating dam on the mighty Peace is not new. Since before the first feasibility studies of the Dunvegan area were done in the mid-1970s, there has been talk of harnessing its waters. Over the years, different sites have been proposed, but Dunvegan has continued to be the most widely cited.

Most recently, Glacier Power filed an earlier application in 2000 to develop a run-of-the-river dam at Dunvegan. After almost three years passed while the application was reviewed, it was denied by a joint Energy Utilities Board and NRCB panel. In its decision, the panel stated that “while each of the potential negative economic, social, and environmental effects of the project, if they were to occur, are substantive on their own, their cumulative effect clearly outweighs the social and economic benefits of the project to the local community, as well as to Albertans in general.”

Glacier Power has now reapplied with a new Environmental Impact Assessment (EIA) that it hopes will address concerns expressed by stakeholders and the panel in the earlier review. The new proposal calls for the construction of an 11.4-metre-high weir that would span the Peace, a width of 400 metres at the site.

The dam would raise water levels behind it approximately 6.6 metres, creating a headpond running upstream 26 km and inundating 106 to 215 hectares of surrounding land, depending on river fluctuations. Once in operation, the run-of-the-river project would not regulate the flow rate of the river like larger,



*Approximate location of Glacier Power’s proposed hydro-electric dam on the Peace River. AWA is opposed to the project due to its likely impacts on wilderness values, including fish survival and aquatic habitat*  
MAP: AWA FILES

traditional dams but would generate power as the water moves freely – it is hoped at its normal rate – through the turbines.

Although hydro-electric projects are often marketed as producing green energy, with photos of clear running rivers frequently present and plumes of black smoke noticeably absent, any obstruction to a moving waterway has impacts. Run-of-the-river projects are touted as being less intrusive with smaller structures and an attempt to maintain the river’s natural flow, but they still present problems that need to be assessed accurately, as is the case with Glacier Power’s Dunvegan project.

Of major concern is how the project will affect the river’s fish populations. The Peace River is home to several species listed as sensitive by the province, including bull trout, arctic grayling, large scale suckers, and northern pikeminnow. Even though the dam plans include “fish-friendly” turbines and fish ladders, Glacier Power’s own Environmental Impact Assessment states that the project will have a “significant adverse effect” on local fish populations. As well, the creation of the headpond will prevent some species from using portions of the area for their life requisites.

With the dam will also come a delay in winter ice formation downstream, and nearer to the dam ice will not form at all unless it’s a colder than usual season. This will make it harder for wildlife to cross from one side of the valley to the other as they forage during the most difficult time of the year.

But perhaps the biggest threat to the Peace River is the precedent Glacier

Power could set for development on this mighty watercourse. The B.C. section of the Peace is already heavily impacted, and with this one project approved, the doors may be opened to allow for future development of power-generating weirs on the Alberta side. If that were to follow, we would possibly be looking at the end of wilderness in the Peace River valley as, one after another, gaps would appear in the corridor, compounding the damage.

It is with these concerns in mind that AWA is opposing the project. We plan to fully participate in the public process regarding this project and have formed a coalition with Canadian Parks and Wilderness Society (CPAWS, Northern Alberta Chapter), South Peace Environment Association, and Peace Parkland Naturalists. “With the cumulative effects on the Peace River caused by the dams in B.C., agriculture, and forestry and petroleum industries, it is time to stop new development that will further impact its ability to act as a healthy, naturally functioning ecosystem,” says Helene Walsh of CPAWS.

In July, a three-member CEAA, AUC, and NRCB Joint Review Panel was established to review Glacier Power’s application. As we go to press, we are awaiting the announcement of a public hearing, which must be called within the first 45 days after establishing the panel. AWA received participant funding on behalf of the coalition by CEAA and plans to retain the expertise of a fish biologist and legal counsel to assist in making our presentation to the panel.

If our plea falls on deaf ears and Glacier Power’s dam goes ahead, seasonal birds may continue to chirp and shrill in the valley, and deer – who seem to adapt easily – may still forage at field’s edge, but the area will lose its wildness, a characteristic that is under threat these days across Alberta, where “cultivated,” “developed,” and “domesticated” seem to be the ruling adjectives.

If the Dunvegan Hydro-electric Project becomes reality, it is not merely the loss of fish and other wildlife impacts we should lament, but also the death of the idea that in Alberta a mighty river can run free and wilderness can be found only a few kilometres upstream on a winter’s day. 🌿