

Fish and Watershed Program



Monitoring Water Quality and building modelling tools for use in Management Plans

Five years ago we recognized three obstacles to conservation of aquatic ecosystems within our region. These hurdles included knowledge gaps in the connections between small streams and the forests they flow through; absence of a coordinated approach to improving stream crossings; and lack of environmental group involvement. We have used Foothills Research Institute's five-part strategy to achieve sustainable forest management to make progress towards these challenges. The components of this approach include knowledge development, technology transfer, demonstration, communication and informing policy.

Resource managers locating roads, cutblocks, pipelines and power lines occasionally encounter large streams but routinely run into small streams. Practices to protect the ecological values along the large streams have been developed from policies that are well supported by science, however the scientific knowledge required to predict, measure, and monitor impacts to small streams from our activities is limited. We have developed partnerships and a research program to address this knowledge gap and produce tools to help achieve management and conservation goals when working near small streams.



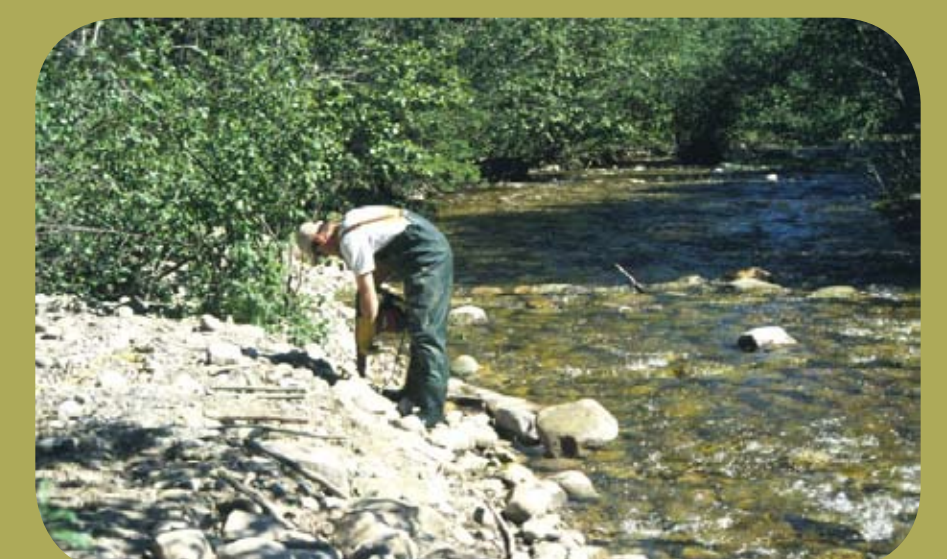
Impacts to aquatic ecosystems from our land use activities occur at the intersection of roads and streams – this has been well documented across all developed areas of the world. We required a coordinated approach involving numerous companies and the establishment of the Foothills Stream Crossing Program to move forward with this challenge.

Hardisty Creek Restoration Project

In 2003, we were approached by the West Athabasca Watershed Bioregional Society to form a partnership for a new initiative - the Hardisty Creek Watershed Restoration Project. The goals of this project were restoration and education. The partnership has expanded to include a number of other stakeholders and together we have demonstrated success in both of our objectives. In 2006, our project was recognized as a finalist in the Community Projects category of the Alberta Emerald Awards and we received the Environmental Effort Award from Communities in Bloom Canada. In 2007, we received a Forest Stewardship Recognition Award from Wildlife Habitat Canada.

In the near future, we recognize that the rapidly expanding energy sector is placing new pressures on aquatic ecosystems in the region. To achieve ecosystem sustainability, we plan to address knowledge gaps, identify practical and innovative solutions, build partnerships, and communicate with stakeholders and policy makers.

One of the things that has made this program a success is the involvement of the community. A number of events have been organized and the general public has been invited to come out and learn more about Hardisty Creek or to help with streambank restoration and creek cleanups.



Foothills Research Institute is a leader in developing innovative science and knowledge for integrated resource management on the forest landscape through diverse and actively engaged partnerships.

The Foothills Research Partnership Ltd. landbase is located in west-central Alberta, and is based in the resource community of Hinton, some three hours west of Edmonton. It covers roughly 2.75 million hectare (27,500 square kilometres), and embodies Jasper National Park of Canada, the Willmore Wilderness Park, and the Forest Management Area of Hinton Wood Products, a Division of West Fraser Mills Ltd. It also includes some provincial "crown forest management units" and the Hinton Training Centre's Cache Percotte Training Forest. Within its boundaries are three forest areas—boreal, montane, and sub-alpine—and many forest uses including timber, petroleum, and coal extraction, tourism, and recreation.

We welcome inquiries: Box 6330 Hinton, Alberta Canada • T7V 1X6 • T: 780.865.8330 • F: 780.865.8331 • foothillsresearchinstitute.ca

