

# ACHIEVING GOALS, GENERATING RESULTS

2012-2013 Annual Report



10  
programs

5 associations

145+ partners



foothills  
RESEARCH INSTITUTE  
Research Growing Into Practice





**Weyerhaeuser**  
joined fRI as a sponsor.

**Emerald Award**  
recognizes the Berland  
Smoky RAD plan contribution  
to improved land and resource  
management in Alberta.

**\$3 million**

was contributed over three years for Tree  
Improvement Alberta.



DR. RICK BONAR | PRESIDENT  
FOOTHILLS RESEARCH  
INSTITUTE

# Message From The President

**A**s a leader in developing innovative science for land and resource management, fRI has always been focused on achieving results to benefit partners.

This year marks year one of our five-year business strategy that guides business practices and provides direction for 2012–2017. We have made progress on each of the nine goals outlined in the strategy.

**Nurture and expand partnerships:**

Weyerhaeuser Company joined fRI as a shareholder.

**Expand our geographic scope:** The Healthy Landscapes Program started the Western Boreal Wildfire Patterns project, which covers all of boreal Alberta and Saskatchewan and parts of the Northwest Territories.

**Expand the business portfolio:** A new Caribou Program was started to support knowledge needs related to caribou recovery planning and implementation.

**Achieve science excellence:** We started work to establish a Science Committee to ensure research meets high standards for quality, relevance, and recognition.

**Increase knowledge transfer:** Our new website was launched to facilitate the adoption of fRI knowledge, tools, and technology into land and resource management practice.

**Engage in partner outreach and support:**

As the climate changes, Tree Improvement Alberta commenced a major Tree Species Adaptation Risk Management project.

**Contribute to improved land and resource management:**

The Foothills Landscape Management Forum received an Emerald Award recognizing the Berland Smoky RAD plan contribution to improved land and resource management in Alberta.

**Report to partners and others:**

The Land-use Knowledge Network continued to develop high-quality communication media on subjects important to fRI partners and broader audiences.

**Expand fRI resources and investment:**

fRI resources and partner investment continued to expand. For example, Alberta Environment and Sustainable Resource Development provided \$865,000 for the Mountain Pine Beetle Ecology Program, and Climate Change and Emissions Management (CCEMC) Corporation provided \$3 million over three years for Tree Improvement Alberta.

These highlights are just examples of the excellent work by fRI partners, staff, researchers, and collaborators. Read on for details and many more examples.



# Message From The General Manager

Reviewing the successes of the past year provides an opportunity to see the impact fRI, its programs, and the associations are having. Throughout this report, you will note many achievements—new tools, knowledge, and communication efforts—that are helping our partners succeed.

Looking forward, my goals for the 2013–2014 fiscal year will, to a large extent, be guided by the 2012–2017 business strategy. While there is a lot of work to do in implementing the strategy, I think it will be very worthwhile and will set up the organization for success in addressing the needs of our partners.

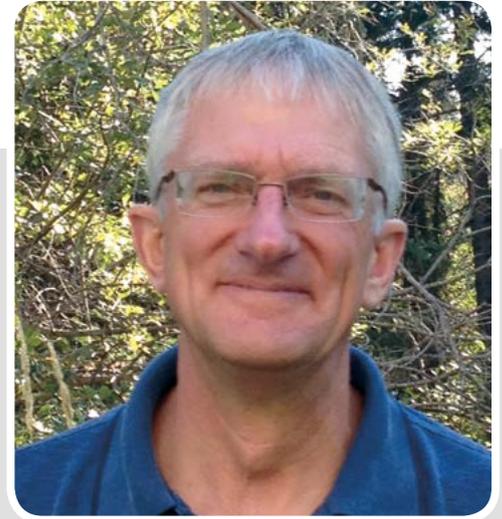
Increasing the breadth and diversity of our partnership base will be a priority, not only to address the knowledge gaps of our partners but also to ensure that the knowledge we generate is being used as widely as possible. fRI will continue to broaden and expand its partner base through presentations and building relationships with relevant stakeholders.

I will also be working on maximizing program integration. The questions we're asking are generally complex and multifaceted, and I believe that our programs will see significant benefit by integrating their approaches to particular questions.

Another area of focus will be ensuring a sound financial underpinning for the organization, which is increasingly challenging and important in today's more restrained fiscal environment.

As always, we will focus on our ultimate goal—providing relevant, applicable research that our partners require to conduct themselves on the landscape. fRI continues to address knowledge gaps as in the example of the Caribou Program, which continues to gain traction and become established, and in the refocusing of the Mountain Pine Beetle Ecology Program.

I am especially appreciative of the efforts of our staff in meeting our goals over this past year. I look forward to both the challenges and successes we will experience in our quest to achieve all our goals over the coming year.



BILL TINGE | GENERAL MANAGER



A photograph of a forest stream. The top part shows a small waterfall cascading over rocks. The middle part shows a calm section of the stream with a semi-transparent text box overlaid. The bottom part shows a larger, more turbulent rapids section with white water. The surrounding forest is dense with evergreen trees and moss-covered rocks.

As always, we will focus on our ultimate goal—providing relevant, applicable research that our partners require to conduct themselves on the landscape.

# Partners

Partnerships are the foundation and lifeblood of fRI. Through the contributions and actions of partners, issues are identified and analyzed, resources are assembled, and new knowledge is created, transferred and integrated into land and resource management in Alberta and beyond. The strength of the fRI organization would not be what it is today without partners' commitment, and fRI is honoured to have their contributions in any form.

## Shareholders

Alberta Environment and Sustainable Resource Development, ConocoPhillips Canada, Encana Corporation, Jasper National Park of Canada, Suncor Energy Inc., Talisman Energy Inc., West Fraser Mills Ltd. and Weyerhaeuser Company are shareholders of the fRI.



## Management Partners

Management Partners provide financial and in-kind support to fRI. They are also responsible for land, resource, or forest management, and are interested in using research institute knowledge and tools in their businesses.

Ainsworth Engineered Canada LP.  
 Alberta Newsprint Company  
 Alberta Pacific Forest Industries Inc.  
 Alberta Tourism, Parks and Recreation  
 Banff National Park of Canada  
 Blue Ridge Lumber Inc., a division of West Fraser Mills Ltd.  
 BP Canada Energy Company  
 Canadian Natural Resources Limited  
 Canfor Corporation

Daishowa-Marubeni International Ltd.  
 Devon Canada Corporation  
 Fisheries and Oceans Canada  
 Foothills Forest Products Inc.  
 Government of British Columbia
 

- Environment
- Forests, Lands and Natural Resource Operations

 Government of Saskatchewan
 

- Environment

 Grande Cache Coal Corporation  
 Husky Energy Inc.  
 Manning Diversified Forest Products Ltd.  
 Millar Western Forest Products Ltd.  
 Paramount Resources Ltd.  
 Pembina Pipelines

Progress Energy Resources Corp.  
 Shell Canada Limited  
 Sherritt International Corporation
 

- Coal Valley Resources Inc.

 Slave Lake Pulp, a division of West Fraser Mills Ltd.  
 Spray Lake Sawmills  
 Sundance Forest Industries Ltd.  
 Sundre Forest Products, a division of West Fraser Mills Ltd.  
 Teck Coal Limited, Cardinal River Operations  
 Tolko Industries Ltd.  
 Tourmaline Oil Corp.  
 TransCanada Corporation  
 Waterton Lakes National Park of Canada



## Program and Project Partners

Program and Project Partners provide financial and in-kind support to specific programs or projects. These organizations believe in and support fRI.

Alberta Aboriginal Relations  
Alberta Agriculture and Rural Development  
Alberta Conservation Association  
Alberta Forest Products Association  
Alberta Infrastructure  
Alberta Innovates - Bio Solutions  
Alberta Transportation  
Alberta Upstream Petroleum Research Fund  
Apache Canada Ltd.  
Aseniwuche Winewak Nation of Canada  
Athabasca Watershed Council  
Bandaloop Landscape-Ecosystem Services  
British Columbia Institute of Technology  
Canadian Association of Petroleum Producers  
Canadian Cooperative Wildlife Health Centre  
Celtic Exploration Ltd.  
Climate Change and Emissions Management Corporation (CCEMC)  
Cows and Fish Program  
Defenders of Wildlife  
Dennis Quintilio and Associates  
Earth Systems Institute  
Environment Canada, Canadian Wildlife Service  
Foothills Ojibway Society

FORCORP  
Forest History Association of Alberta  
Forest Resource Improvement Association of Alberta (FRIAA)  
FORREX  
FP Innovations – FERIC  
Fred Pollett  
GeoConnections – Government of Canada  
Habitat Stewardship Program  
Hinton Training Centre  
Laval University  
Millenium EMS Solutions  
Mistik Management Ltd.  
Mixed Wood Management Association  
Municipality of Jasper  
National Sciences and Engineering Research Council of Canada (NSERC)  
Natural Resources Canada, Canadian Forest Service

- Northern Forestry Centre
- Pacific Forestry Centre

Nature Conservancy Canada  
Northern Rockies Tourism Alliance  
Norwegian University of Life Sciences  
novaNait Boreal Research Institute  
Oldman Watershed Council  
Peregrine Helicopters  
Peter J. Murphy Forest Consulting Ltd.  
Petroleum Technology Alliance Canada

- Environmental Research Advisory Council

Robert Stevenson  
Scandinavian Brown Bear Project  
Silvacom Consulting  
Sustainable Forestry Initiative  
Tay River Environmental Fund  
TECO Natural Resource Group  
Tom Peterson  
Tourism Jasper  
Town of Edson  
Town of Grande Cache  
Town of Hinton  
Trout Unlimited Canada  
University of Alberta  
University of British Columbia  
University of Calgary  
University of New Brunswick  
University of Saskatchewan  
University of Victoria  
University of Waterloo  
Vanderwall Contractors (1971) Ltd.  
Via Rail  
Vilhemina Model Forest  
West Athabasca Watershed Bioregional Society  
Wildlife Genetics International  
Wilfred Laurier University  
Yellowhead County  
Yellowhead to Yukon Conservation Initiative

## Other Partners

The following associations, businesses and communities support the vision and goals of fRI.

Alberta Caribou Committee  
Alberta Chamber of Resources  
Alberta Forest Genetic Resources Council  
Alberta Provincial Biodiversity Monitoring Institute  
Alberta Stewardship Network  
Arctos Ecological Consulting  
AVID Canada  
Canada Centre for Remote Sensing  
Canadian Institute of Forestry  
Canadian Model Forest Network  
Climate Change Central

College of Alberta Professional Foresters  
College of Alberta Professional Forest Technologists  
Conservation Biology Institute  
Council of Forest Industries  
Ember Research Services Ltd.  
Encompass Strategic Resources Inc.  
EoS Management and Research  
Forest History Society, Durham, NC  
Forest Products Association of Canada  
Golder Associates  
Grande Yellowhead Public School Division  
Greenlink Forestry Inc.  
Hinton Fish and Game Association  
Hinton Historical Tracks & Trails Society

Inside Education  
Integrated Ecological Research  
International Model Forest Network  
Jasper-Yellowhead Museum & Archives  
KBM Forestry Consultants  
NatureServe Canada  
Ontario Ministry of Natural Resources  
Palisades Education Stewardship Centre  
Telemetry Solutions  
University of Montana  
West Central Caribou Landscape Planning Team  
Wildlife Habitat Canada  
Woodlands Operation Learning Foundation  
World Wildlife Fund Canada

# Tree Improvement Alberta

## Working Together to Support Tree Species Adaptation

A consortium of forestry industry and provincial government representatives, Tree Improvement Alberta (TIA) is fRI's newest association. It brings the tree improvement community interested in forest genetics together to deliver the Tree Species Adaptation Risk Management Project funded by the Climate Change and Emissions Management (CCEMC) Corporation.

### 2012–2013 Goals

### Achievements

Assess the risk of climate change resulting in Alberta's genetic tree improvement programs' being unsuccessful	<ul style="list-style-type: none"> <li>• Developed a risk assessment template for genetics programs.</li> <li>• Contracted forest geneticists to conduct the assessments.</li> <li>• Completed 10 assessments.</li> </ul>
Develop field test sites to extend the provincial genetic field test site network to formerly untested areas and climates in preparation for expanded climate change adaptation field testing	<ul style="list-style-type: none"> <li>• Completed survey, soil analysis, fencing, and initial site preparation of a 15-hectare test site at the Crop Diversification Centre South (CDCS) in Brooks.</li> <li>• Signed a 20-year memorandum of understanding between Alberta Environment and Sustainable Resource Development (ESRD) and Alberta Agriculture and Rural Development for access and cooperative management of the new CDCS site.</li> <li>• Completed scouting and prioritization of four candidate areas for development of a 15-hectare genetics test site in the northern dry mixedwood natural subregion.</li> </ul>
Compile a provincial genetic database from existing regional field test data and analyze data from past trials from the perspective of climate change and climatic adaptation	<ul style="list-style-type: none"> <li>• Hired Dr. Laura Gray through the University of Alberta.</li> <li>• Consolidated data into 173 documents and databases representing accumulated provincial genetic test and test site data and information.</li> <li>• Corrected elevation discrepancies for parent trees in databases.</li> <li>• Started statistical analysis.</li> </ul>
Create awareness of the potential economic and environmental consequences of climate change	<ul style="list-style-type: none"> <li>• Strengthened relationships with the University of Alberta, Alberta Innovates, and the Boreal Research Institute of novaNAIT.</li> <li>• Hosted a one-day seminar and two-day field tour for project partners and others.</li> </ul>

## Long-Term TIA Goals

- Sustain fibre productivity
- Maintain forest ecosystems and their function
- Identify and conserve species and populations that may be threatened by climate change

## Tree Species Adaptation Risk Management Project Themes

- Evaluate how prepared government and industry programs are for adapting to climate change
- Identify the strengths and weaknesses of existing tree improvement programs
- Install experimental sites where required to test environmental extremes and suitable adapted materials for reforestation and reclamation under projected climate change
- Develop reliable science and information to direct policy change related to climate change and adapted deployment of reforestation and reclamation materials
- Within the limits of new and reliable knowledge, adjust reforestation and reclamation policy to manage climate change risk to deployment and future health and productivity of artificially regenerated forests

## The Value of Working Together

*"Many of the institute's member companies as well as ESRD are involved in the consortium. The funding allows us to strengthen climate change, tree improvement, and adapted reforestation and reclamation work in the province, and associating with fRI gives us a coordinating body for the funds."*

*–Daniel Chicoine, TIA program manager*

To learn more about TIA or the Tree Species Adaptation Risk Management Project, visit [tia.foothillsri.ca](http://tia.foothillsri.ca).



**Survey:** Initial site survey takes into consideration soil properties (type, moisture, drainage, nutrients, and texture), vegetation types, terrain (slope, position, and aspect), land use (current and future), and access.



survey



**Soil analysis:** Several small soil cores are collected from the selected site and sent to a laboratory to confirm soil type, moisture, drainage, nutrients, and texture.

# What's Involved in Developing a Field Test Site?

**Fencing:** Site fencing provides protection from browsing by wildlife such as deer and moose. It's also a reminder to other land-use operators of the site's importance in terms of the data it provides through measurements.



**Initial site prep:**

Site preparation facilitates ease of planting and some control over competing vegetation such as grass, brush, and other woody plants not part of the test site.

preparation

# Water Program

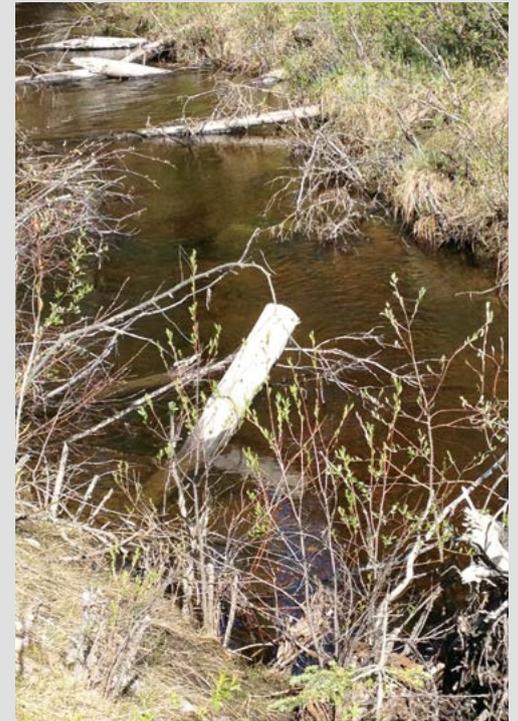
## Improving the Sustainable Management of Alberta's Land, Water, and Resources

This year, the Water Program got down to work, implementing the strategic plan and overall program goals developed in 2011–2012.

### 2012–2013 Goals

### Achievements

<p>Complete projects to provide partners with tools and information</p>	<ul style="list-style-type: none"> <li>Published <b><i>A Cumulative Watershed Effects Assessment Template for the Eastern Slopes: The Geomorphic and Riparian Components with a Case Study of Todd Creek Watershed.</i></b></li> <li>Developed base data for the headwaters of the Oldman watershed to test the usefulness of the NetMap tool for watershed assessments.</li> <li>Completed analysis on changes to water flow in the Eastern Slopes as a result of climate change scenarios and produced a paper that is in review as part of the Alberta Innovates Climate Change Project. The Grizzly Bear Program and Mountain Pine Beetle Program are also involved in this project.</li> <li>Developed a procedure for using watershed value when prioritizing stands for silviculture treatment for restoration.</li> </ul>
<p>Provide practitioners with information that makes science more accessible to end users</p>	<ul style="list-style-type: none"> <li>Led a special session, held workshops, and published articles. The articles provide background to the program's research focus for 2012–2017.</li> </ul>
<p>Develop new partnerships</p>	<ul style="list-style-type: none"> <li>Worked more closely with the energy sector and with the City of Dawson Creek. Partnerships are expected to solidify in 2013–2014.</li> <li>Working closely with the Foothills Stream Crossing Partnership, University of Alberta, and Grande Prairie Government to investigate the effect of culverts on fish communities.</li> <li>Part of the academic team that wrote a successful Alberta Innovates proposal that will bring together researchers from Ontario, the U.K., and Alberta to investigate the cost benefits of forestry on a comprehensive range of watershed values in the Eastern Slopes.</li> </ul>



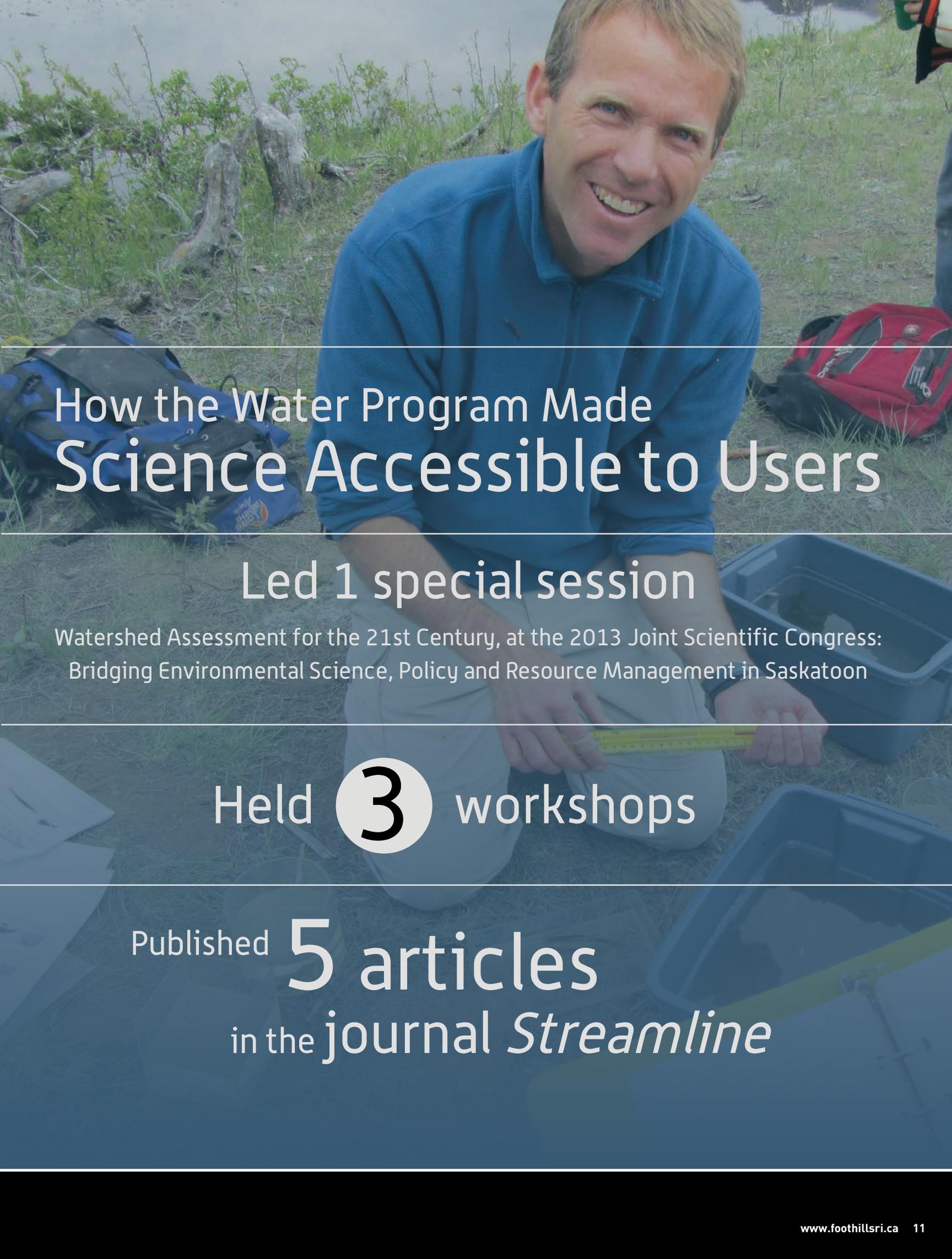
### Province to Trial Template in Southwest Alberta

Alberta Environment and Sustainable Resource Development is refining and implementing the cumulative watershed effects assessment template developed by the Water Program.

*“Developing and gaining the implementation of a watershed procedure is huge for Alberta. It’s a new approach for dealing with these local environmental and economic issues in areas where water is important and socially contentious.”*

*–Dr. Axel Anderson, program lead*





# How the Water Program Made Science Accessible to Users

Led 1 special session

Watershed Assessment for the 21st Century, at the 2013 Joint Scientific Congress:  
Bridging Environmental Science, Policy and Resource Management in Saskatoon

Held **3** workshops

Published **5** articles  
in the journal *Streamline*

# Foothills Landscape Management Forum

## Integrating Advanced Land Management

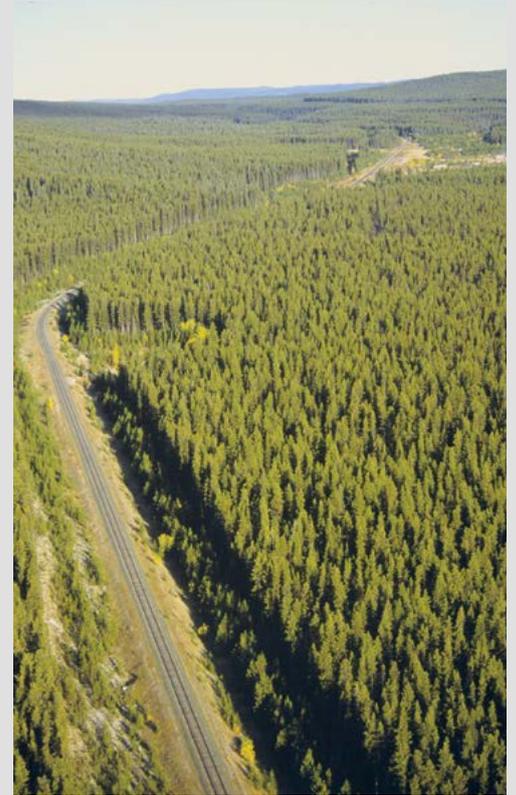
Over the past year, the Foothills Landscape Management Forum (FLMF) focused on completing phase one of the **Berland Smoky Reclamation Plan**. A landscape-level plan, it outlines a process to manage access within caribou and grizzly bear ranges over time and space. The plan was developed to fulfill obligations as outlined in the Berland Smoky Regional Access Development (RAD) Plan developed in 2011 and was submitted to Alberta Environment and Sustainable Resource Development in April 2013.

### 2012–2013 Goals

### Achievements

Advance integrated land management in Alberta

- Completed the initial Caribou Patrol Project with the Aseniwuche Winewak Nation (AWN). AWN received funding to continue the project, and the FLMF will continue to support it.
- Proposed an access management study in the RAD plan area to assess the effectiveness of using physical barriers on grizzly bears and caribou.
- Completed a vegetation assessment of lineal disturbances to help determine where reclamation is necessary and the vegetation characteristics of the lines caribou or grizzly bear, primary prey (e.g., moose, elk, deer), and predators are using or avoiding. The Caribou Program is now using that data to determine how vegetation attributes are affecting animal behaviour.
- Began planning around how the FLMF can collaborate and partner with government in developing innovative solutions to assist in caribou range planning.



*“We are well positioned as far as having the GIS data and expertise within our membership to provide significant input into the range planning process. The work we have been concentrating on, as an industry, is all focused on how to better manage our footprint and on developing mitigation strategies. It all comes back to how we can better manage the way we impact other values, including caribou.”*

*–Wayne Thorp, managing director, FLMF*

## Ready to Make a Significant Contribution

The Government of Alberta has to respond to the federal Caribou Recovery Strategy within three years. As a result, it has a very aggressive range planning process and wants to complete two range plans within the Berland Smoky Regional Access Development (RAD) Plan area by December 2013. The FLMF wants to be involved.



# DEVELOPING THE BERLAND SMOKY RECLAMATION PLAN

What does it take to create a reclamation plan that is the first of its kind in Alberta?  
Here's a look.



15 INVOLVED COMPANIES

7 years

of collaboration between the  
energy and forest sectors and  
the Province

1

strong commitment from all parties to manage access to protect  
caribou and grizzly bears

Combined, the RAD and reclamation plans are the result of **8 years** of  
work by **14 industrial partners**, **3 government  
departments**, and an estimated **30,000 person-hours**  
contributed by **40** professional foresters, engineers, and biologists.

# Foothills Stream Crossing Partnership

## Communicating Successes in Stream Crossing Management

The Foothills Stream Crossing Partnership (FSCP) continued to focus on its mandate to improve the management of stream crossings.

### 2012–2013 Goals

### Achievements

Expand capacity	<ul style="list-style-type: none"> <li>Trained a crew from Aseniwuche Winewak Environmental Services in inspection protocol so they can carry out crossing inspections for companies that are members in the Foothills Landscape Management Forum's Berland Smoky RAD plan.</li> </ul>
Expand operation area	<ul style="list-style-type: none"> <li>Provided crossing inspections to a member company in the Swan Hills area.</li> <li>Planned to expand into an area south of Grande Prairie in 2013.</li> </ul>
Showcase FSCP successes	<ul style="list-style-type: none"> <li>Completed database for creating a tool to show the impact of crossing repair on watershed habitat and risks to fish over time.</li> </ul>

Stream crossing inspections from January 2012 to July 2013 = 500



## Showcasing Value

During fRI's 2012 Fall Open House Tour, fRI president Rick Bonar talked about the innovative stream crossing structures being used in Alberta today to protect fish-bearing streams thanks to the FSCP. A video of Bonar's talk on the Alberta Land-use Knowledge Network's website ([available at \*\*foothillsri.ca\*\*](http://availableatfoothillsri.ca)) elicited this comment from Neil MacAlpine:

*"These riparian crossing and stream protection structures are two of the more innovative and cost-effective ideas I have encountered in 25 years of water management engineering. Not only are they cheaper than conventional 'hard' engineered solutions, they also add to the biological value of the creeks and rivers they are protecting."*



# Stream Crossing Inspections by Year

[Includes inspections of new crossings and re-inspections]

2005

28 in the Hinton area

2006

316 in the Hinton area

2007

0

2008

103 in the Hinton area

2009

89 in the Hinton area

2010

529 in the Hinton and RAD plan areas

2011

850 in the Hinton and RAD plan areas and southern foothills (Sundre to Kananaskis)

2012

355 in the Hinton and Crowsnest Pass areas

2013

On track to complete 300 in the Hinton, Swan Hills, north of Grande Cache, and Grande Prairie region

# Geographic Information Systems Program

## Behind-the-Scenes Support for Success

The Geographic Information Systems Program (GISP) has a supportive role, ensuring other programs and associations, and their members, have sound data management practices, geospatial technology, and associated information technology. The end goal is to provide reliable information on which to base land management decisions.

This year, however, GISP completed one of its own projects, a three-year effort to gain a better understanding of visitors to the Willmore Wilderness Park for Alberta Tourism, Parks and Recreation. The project was part of program lead Deb Mucha's master's thesis.

"This project contributes not only to our better understanding of Willmore Wilderness Park visitors but to the research areas of visitor monitoring and associated technologies, such as trail cameras, Global Positioning System (GPS) Tracksticks, and place meanings. Essentially, it meshes social science with innovative and emerging technologies that can be used in outdoor recreation areas not only in Alberta, but around the world," says Mucha.

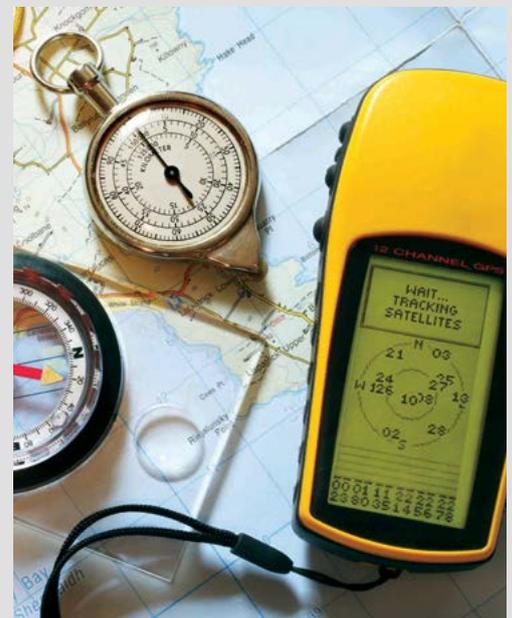
The project is also applicable to non-protected areas. Recreation is present across the land base, and the social science aspect needs to be understood in order to integrate and balance recreation with resource activities and ecological considerations.



### 2012–2013 Goals

### Achievements

<p>Provide ongoing support for fRI programs and associations</p>	<ul style="list-style-type: none"> <li>• Completed the Grizzly Bear Research Database.</li> <li>• Worked on the Grizzly Bear Program's pipeline project using LiDAR technology.</li> <li>• Worked closely with the Communications and Extension Program on the Forest History Program's Northern Rockies Ecotour iOS app.</li> <li>• Assisted the Water Program with the Oldman watershed cumulative environmental assessment.</li> <li>• Provided data management and reporting to the Foothills Landscape Management Forum.</li> <li>• Filled numerous data requests and data-sharing agreements.</li> <li>• Adapted and organized LiDAR imagery for fRI.</li> <li>• Created various Internet mapping tools for fRI's new website and the Ecotour.</li> <li>• Updated fRImap data layers and metadata.</li> </ul>
<p>Ensure GISP can effectively meet stakeholder needs</p>	<ul style="list-style-type: none"> <li>• Found a suitable hire to replace Darren Wiens, who left fRI for a new position in Prince George. Kevin Myles is the new GIS technician.</li> <li>• Updated policy and procedures for GISP.</li> <li>• Participated in implementing a new contract with NIRIX, fRI's cloud IT provider. Julie Duval continued serving as lead liaison between NIRIX and fRI.</li> </ul>



# GPS

Global positioning systems (GPS):

GPS units, GPS Tracksticks, GPS wildlife collars

**Databases:** Relational databases (Microsoft Access), geodatabases

**Programming:** Python scripting

**Field equipment:**

Trail cameras for wildlife and visitor monitoring and dataloggers for field data collection

## How to Meet the Technology Needs of fRI's Stakeholders: A Sampler of GIS Expertise

**Remote sensing:** LiDAR and other imagery management and analysis

**GIS analysis:** Expertise in ArcGIS 10x software and associated extensions (e.g., spatial analyst), geoprocessing

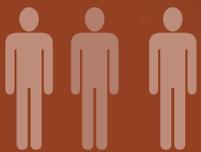
**Metadata:** Data documentation and geospatial knowledge integrity

# Metadata

**Internet mapping:**

Collaboration with open-source developers to create tools and applications (ForCorp. Solutions) and in-house development

mapping



**People:** Staff are highly trained in a range of geospatial and associated technologies and constantly learning to stay on top of what's new and innovative. A sound understanding of emerging and current technologies is critical in meeting fRI program and partner needs.

# Alberta Forest Growth Organization

## Tackling Strategic Forest Management Questions

This year marked a time of transition for the Alberta Forest Growth Organization (AFGO) as it wrapped up work on the carbon projects that had been its initial focus.

“AFGO continued to tackle strategic forest management questions that are higher level than the on-the-ground research that other growth and yield associations tend to do,” says Sharon Meredith, executive director of AFGO.

As AFGO’s new executive director, Meredith developed a work plan in consultation with members to give the organization direction. An important project identified for 2013 is development of a growth and yield vision for Alberta. As a result, membership is now focusing on two technical subcommittees that are working on two specific issues that are important to the forestry industry.

## Moving toward a Streamlined Approach

AFGO and the FGYA are two of four growth and yield associations in the province. In October 2012, AFGO and the FGYA invited the Western Boreal Growth and Yield Association and the Mixedwood Management Association to a field tour and meeting. A month later, the four organizations started discussing how all the associations might be restructured to allow for a more coordinated and effective approach to managing growth and yield in Alberta.

Initiative	Goal of Initiative	Benefit to Partners
Provincial Growth and Yield Initiative	Develop a program for cooperatively collecting data that is used for developing growth models and yield curves	<ul style="list-style-type: none"> <li>Individual companies won't have to collect as much data as they have in the past, resulting in cost savings.</li> <li>ESRD acquires data for growth model development.</li> </ul>
Strata Subcommittee	Provide recommendations for how to use data collected through the Reforestation Standards of Alberta in the forest management planning process	<ul style="list-style-type: none"> <li>Facilitates development of forest management plans by developing procedures and vetting them through ESRD staff.</li> </ul>



# How AFGO Re-established Priorities and Set Direction



**Hired**  
a new executive director



Developed a  
**work plan**

**Identified**

**2**

initiatives to focus on

# Foothills Growth and Yield Association

## Working Together to Improve Forest Management

The main project of the Foothills Growth and Yield Association (FGYA) continues to be the regenerated lodgepole pine trial, which began in 2000. In March 2013, the FGYA released **Regenerated Lodgepole Pine Trial: 10-Year Crop Performance Report**, prepared by Dr. Dick Dempster, research and development associate.

The report talks about trends in natural regeneration and mortality of planted seedlings and what the findings might mean in terms of adapting forest management practices. It can be found at [fgya.foothillsri.ca](http://fgya.foothillsri.ca).

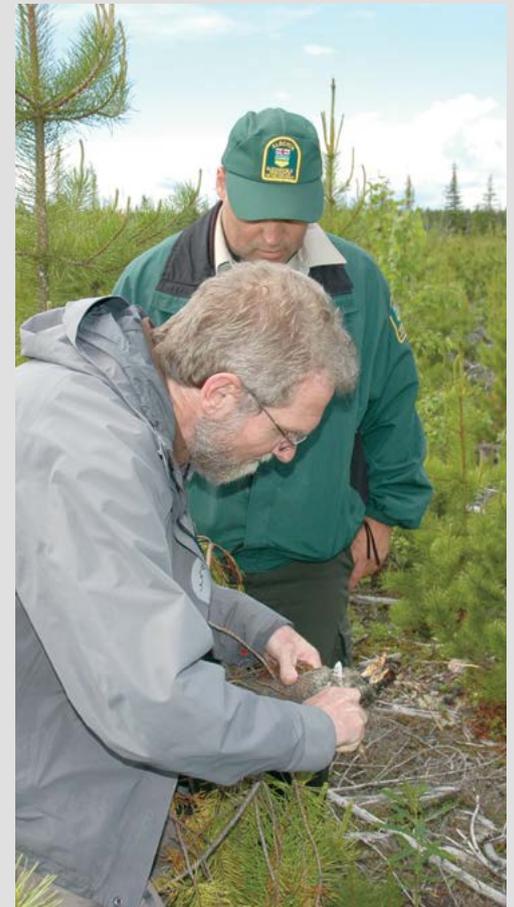
*"The FGYA has been very successful; we have really good support from our membership, who believe in the work we're doing. A lot of the credit for that goes to Dr. Dick Dempster, who was the original director of the association and who continues to do the technical work on the model development and analysis."*

*-Sharon Meredith, executive director*

### 2012–2013 Goals

### Achievements

Gather data and provide tools to improve growth and yield for lodgepole pine in Alberta	<ul style="list-style-type: none"> <li>• Did field work and analyzed data for the ongoing regenerated lodgepole pine trial.</li> <li>• Completed updates to the regenerated lodgepole pine model.</li> </ul>
Share the information in the 10-year performance report with members and other growth and yield associations	<ul style="list-style-type: none"> <li>• Held a field tour and invited all four of the province's growth and yield associations in October 2012. The goal was to talk about the results of the trial and how they can be applied to improve forest management.</li> <li>• Held a workshop in March 2013 with FGYA members. Participants focused on specific questions related to the results of the trial and the implications for best practices in management. A draft discussion paper describing suggestions for how the trial results can be applied to forest management has been prepared.</li> </ul>
Provide operational decision support to forest managers assessing silvicultural treatment options for stands attacked by mountain pine beetle	<ul style="list-style-type: none"> <li>• Completed a decision support tool to help forest managers make decisions about treating stands that have been attacked by the mountain pine beetle. This project was done in conjunction with the Mountain Pine Beetle Ecology Program.</li> <li>• Monitored 42 permanent sample plots attacked by mountain pine beetle. This work was also done through the Mountain Pine Beetle Ecology Program.</li> </ul>



Soil moisture, nutrient regimes, and the amount of seed-bearing cones left on the ground after harvest strongly influenced natural regeneration of pine.

Natural regeneration and mortality of planted stock continued beyond the four- to eight-year range conventionally used to assess regeneration establishment.

There was a strong relationship between mortality and mean annual temperature of the site.

## Trends in Natural Regeneration and Mortality of Planted Seedlings

from *Regenerated Lodgepole Pine Trial: 10-YEAR CROP PERFORMANCE REPORT*

Few tree deaths were directly attributed to climatic injury. The primary causes were common diseases and insects affecting tree roots.

Increased temperatures or related changes in other climate variables may be increasing the susceptibility of young trees to pathogens and/or increasing pathogen activity.

# Healthy Landscapes Program

## Understanding Partner Needs to Set Direction

This was a transition year for the Healthy Landscapes Program, formerly known as the Natural Disturbance Program. The program formally expanded its research focus from disturbance patterns to all natural patterns, and is exploring whether and how a natural pattern approach can achieve many of the shared ecosystem-based goals of partners. It's also focusing on demonstrations and communication.

### Goals

### Achievements

Develop partnerships	<ul style="list-style-type: none"> <li>Grew the Healthy Landscapes Program team from four organizations to 13.</li> <li>Began defining a closer relationship with Ecosystem Management Emulating Natural Disturbance (EMEND) research team to link pattern to process.</li> </ul>
Understand partner needs	<ul style="list-style-type: none"> <li>Completed the final report on the program review workshop.</li> <li>Prepared the first draft of a comprehensive communications and education plan.</li> <li>Completed the first draft of a natural pattern demonstration co-op proposal.</li> </ul>
Conduct research	<ul style="list-style-type: none"> <li>Completed the first full field season for the fire, water, and climate project.</li> <li>Published a paper comparing cultural and natural disturbance patterns on the Al-Pac Forest Management Agreement area.</li> <li>Published a paper on wildfire patterns in the foothills and the importance of spatial language.</li> <li>Published a paper on tree mortality rates in the Alberta foothills.</li> <li>Completed the final report for Phase IV of the <b>wildfire pattern project</b>.</li> <li>Developed a new proposal to extend wildfire patterns research into Northern Saskatchewan and the Northwest Territories.</li> </ul>
Fundraise	<ul style="list-style-type: none"> <li>Secured \$200,000 for the western boreal landscape modelling project.</li> <li>Successfully applied to NSERC for the fire, water, and climate research.</li> </ul>
Communicate and educate	<ul style="list-style-type: none"> <li>Presented the healthy landscapes concept at 13 different events across Western Canada.</li> </ul>
Create decision-support tools	<ul style="list-style-type: none"> <li>After six months of beta-testing, the online version of <b>NEPTUNE</b> was fully functional and available to shareholders in mid-2012.</li> </ul>



## A Western Boreal Canada Group

So far, the member organizations in the Healthy Landscapes Program represent Alberta, Saskatchewan, and the Northwest Territories. Governments, non-governmental groups, and forestry companies are all involved, and the oil and gas sector is showing interest.

## New Way of Thinking

*"Ecosystem-based management requires shared responsibility for our landscapes. It's not just about research or new best practices; it's an entirely different way of thinking about what we are managing and why."*

*—Dr. David Andison, program lead*



# Accomplishments by the Numbers

9 new  
organizations involved

1  
communications  
and education plan

3 published papers

2  
provinces and

13 events where the  
healthy landscapes  
concept was presented

1  
territory involved in  
the program

# Forest History Program

## By Learning from Our Past, We Can Shape Our Future

The Forest History Program is the new name of the Adaptive Forest Management History Program, which began in 1996. The name change, made in the fall of 2012, reflects the evolution of the program's focus from examining adaptive management practices to examining landscapes and people's relationship with them before scientific management began.

### 2012–2013 Goal:

Complete ongoing projects so they can benefit partners and others.

### Achievements

### Partner Benefits

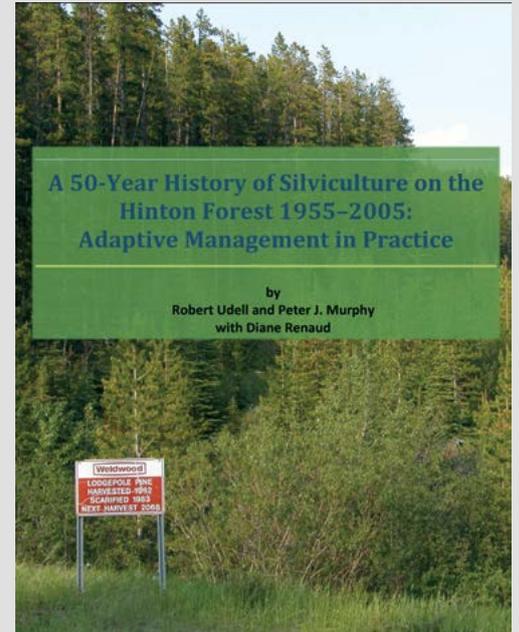
Published the <i>TransCanada Ecotours® Northern Rockies Highway Guide</i> , with a major book launch at Rendezvous Canada (Edmonton) in May 2012.	<ul style="list-style-type: none"> <li>• Showcases fRI accomplishments to a broad audience.</li> <li>• Raises awareness of the issues fRI is dealing with.</li> <li>• Brought new partnerships with Tourism Jasper and the Northern Rockies Tourism Alliance to the table.</li> </ul>
Published <i>A 50-Year History of Silviculture on the Hinton Forest 1955–2005: Adaptive Management in Practice</i> .	<ul style="list-style-type: none"> <li>• Provides industrial and forestry partners and the general public with a record of how silviculture practices have developed.</li> <li>• An important 50-year record of one of Canada's most innovative and advanced silviculture programs.</li> </ul>

Ongoing: The Forest History Program worked closely with the Communications and Extension Program and the Geographic Information Systems Program on the development of the Northern Rockies Ecotour iOS web app. The app will make information about fRI and its accomplishments, as well as about land management challenges, available to an even wider audience, including younger people who make frequent use of technology.

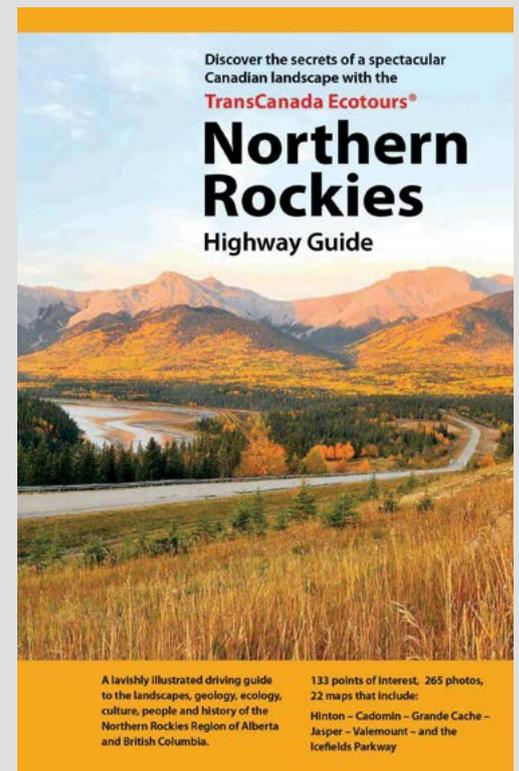
## On the Value of the Forest History Program

*"The program has produced a series of reports and four books about the history of forest management in west-central Alberta, along with a more holistic and longer-term examination of the history of the landscapes themselves and people's relationship to them. By learning from our past we can shape our future."*

*–Bob Udell, program lead*



Visit [foothillsri.ca](http://foothillsri.ca) to download and read *A 50-Year History of Silviculture on the Hinton Forest 1955–2005: Adaptive Management in Practice* in searchable PDF format.



Visit [ecotour.foothillsri.ca](http://ecotour.foothillsri.ca) to purchase a copy of the *TransCanada Ecotours® Northern Rockies Highway Guide* and to learn more about the iOS app.





*Learning from the Forest:  
A Fifty-Year Journey towards  
Sustainable Forest Management*

*TransCanada Ecotours®  
Northern Rockies Highway Guide*

TransCanada

# How the Forest History Program CONTRIBUTES TO KNOWLEDGE

*A Hard Road to Travel*

Travel

*The Resilient Forest*

Forest



*Mountain Trails*

# Caribou Program

## Preparing for Research to Support Caribou Conservation

The Caribou Program officially started in January 2013, with new lead Laura Finnegan taking the reins a month later. The initial focus has been on talking to partners about their needs, priorities, and questions, identifying research gaps, and selecting projects that will answer those questions.

Designed to generate solutions-oriented caribou-related research that can be used for recovery, the program is timely in light of the federal recovery strategy and Alberta's caribou range plan initiative that are currently underway.

## The Vision

*"We envisage that the fRI caribou program will provide leadership in the acquisition of new knowledge, and in its dissemination to end users, to inform management decisions and to support policy for landscape management and the conservation of caribou in Alberta."*

*-Dr. Laura Finnegan, program lead*



## 2012–2013 Goals

## Achievements

Determine partner needs, priorities, and questions	<ul style="list-style-type: none"> <li>Interacted with individuals and groups currently researching caribou in Alberta, met with partners, and attended workshops, meetings, and conferences.</li> </ul>
Select projects to answer those questions	<ul style="list-style-type: none"> <li>Currently funded projects (starting May 2013) are both being done in collaboration with the Grizzly Bear Program:               <ul style="list-style-type: none"> <li>A project to assess the effect of forest regeneration of seismic lines on animal movements</li> <li>A project to assess the effect of forest regeneration of cutblocks on animal movements, as well as to initiate non-invasive population monitoring of caribou herds using fecal collections</li> </ul> </li> </ul>
Acquire funding	<ul style="list-style-type: none"> <li>In collaboration with the Grizzly Bear Program, the Caribou Program secured federal funding from the Habitat Stewardship Program (HSP), international funding from the Sustainable Forestry Initiative (SFI), and funding from the FLMF, ESRD, Weyerhaeuser Company, and West Fraser to carry out research projects starting in May 2013.</li> <li>The program is currently seeking additional funding from its partner organizations.</li> </ul>
Develop partnerships	<ul style="list-style-type: none"> <li>Through attendance at meetings and ongoing communication with industrial partners and academia, the program is continuing to pursue partnerships to build on those already established by the Grizzly Bear Program under both the HSP and SFI research projects.</li> </ul>

## Dr. Laura Finnegan

Dr. Laura Finnegan began research specific to caribou while doing her post-doctoral work at Trent University with Paul Wilson, where she assessed genetic connectivity among caribou herds in Ontario. She also prepared the report *Designatable Units for Caribou (Rangifer tarandus) in Canada* for the Committee on the Status of Endangered Wildlife in Canada and presented her research at national and international conferences.



Redrock Prairie Creek

325

A La Peche

150



# MEAN POPULATION OF CARIBOU

Ranges the Caribou Program Will Be Working With<sup>1</sup>

Narraway

100

Little Smoky

80

1. Alberta Sustainable Resource Development and Alberta Conservation Association. 2010. *Status of the Woodland Caribou* (Rangifer tarandus caribou) in Alberta: Update 2010. Alberta Sustainable Resource Development. Wildlife Status Report No. 30 (Update 2010) Edmonton, AB. 88pp.

# Mountain Pine Beetle Ecology Program

## Providing Leadership in the Effort to Combat Mountain Pine Beetle and Restore Affected Landscapes

Spread of the mountain pine beetle continues to heighten concerns over the integrity of the pine resource and related issues such as the security of the forest industry, the impact on communities, the need for rehabilitation of damaged pine landscapes, fire hazard, and hydrological impacts. With the beetle moving north and east and in light of the finding that it can live in jack pine, the Mountain Pine Beetle Ecology Program refocused this year, developing new terms of reference and a new research prospectus. Six objectives were set, and the year saw several key achievements in support of those objectives.

### 2012–2013 Goals

### Achievements

<p>Synthesize the province's collective understanding of the science necessary to support operational strategies to mitigate the effects of the mountain pine beetle</p>	<ul style="list-style-type: none"> <li>• Along with the Foothills Growth and Yield Association and industry, enhanced a decision support tool for land managers. Enhancements included starting conditions of damaged stands and silviculture options such as scarification and vegetation control.</li> <li>• Completed a study at the University of Alberta describing how mountain pine beetle attack affects processes that reflect the tight coupling of vegetation and hydrologic (water balance) dynamics. A final report is available at <a href="http://foothillsri.ca">foothillsri.ca</a>.</li> <li>• Completed research comparing the environmental and biological processes that drive mountain pine beetle population dynamics in B.C. and northern Alberta.</li> <li>• Completed research that found that climate change will make the majority of pine stands in the foothills region susceptible to mountain pine beetle attack by the middle of the century.</li> </ul>
<p>Set research priorities and direct and support scientific activities through collaborative partnerships</p>	<ul style="list-style-type: none"> <li>• Through consultation with activity team members, governments, research providers, and practitioners, identified four research themes and specific questions to answer under each theme.</li> </ul>
<p>Inform discussions at the science/policy interface</p>	<ul style="list-style-type: none"> <li>• Held science policy discussions at the 2012–2013 Research-Practitioner Information Exchange Forum. It was attended by more than 80 researchers and practitioners and included presentations by both researchers and practitioners to understand research capacity and operational needs. The second day saw small groups discussing topics in a World Café format.</li> <li>• Efforts continue to engage decision makers through direct contact with scientists.</li> </ul>
<p>Promote effective communications among scientists, end users, and the public</p>	<ul style="list-style-type: none"> <li>• Held the 2012–2013 Research-Practitioner Information Exchange Forum.</li> </ul>
<p>Seek opportunities to integrate with other fRI programs and like-minded organizations to enhance knowledge sets</p>	<ul style="list-style-type: none"> <li>• Held initial discussion with another fRI program to identify points of program intersection and opportunities to collaborate on a joint research project.</li> </ul>
<p>Provide briefings to appropriate government bodies (municipal, provincial, federal), industry managers, and general interest groups on the application of science in meeting the challenges of managing the mountain pine beetle and highly disturbed landscapes</p>	<ul style="list-style-type: none"> <li>• Presentations made at the Research-Practitioner Information Exchange Forum were specifically geared to demonstrate the application of research results.</li> <li>• Opportunities are still being sought for direct contact through regional mountain pine beetle planning groups.</li> </ul>



# RESEARCH THEMES

## Set This Year

Biology and management  
of mountain pine beetle

BIOLOGY

IMPACTS

Hydrological impacts  
of beetles

Dynamics of  
natural and managed  
stands of lodgepole  
pine stands

DYNAMICS

Social and economic  
implications of a changing  
landscape

IMPLICATIONS

# Grizzly Bear Program

The Grizzly Bear Program is now focusing its efforts on research topics that will directly aid and impact provincial grizzly bear recovery efforts, with an emphasis on maintaining and improving habitat and finding new approaches to setting and monitoring recovery targets. The program continues to work with a dynamic multidisciplinary team of scientists from a number of countries to pursue these topics.

## 2012–2013 Goals

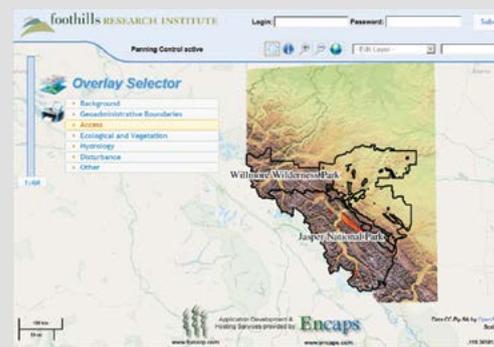
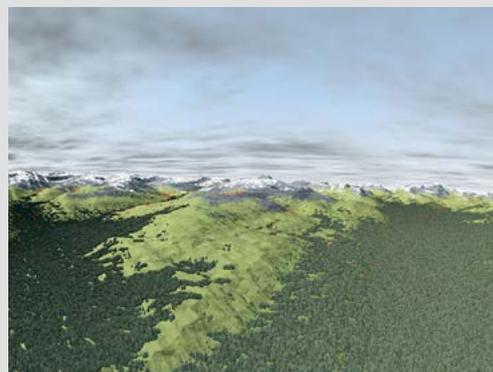
## Achievements

<p>Undertake new research to gather needed data sets</p>	<ul style="list-style-type: none"> <li>Completed the first year of fieldwork on a two-year project funded by the Forest Resource Improvement Association of Alberta (FRIAA) looking at how grizzly bears use forestry cutblock edges and retention patches.</li> <li>Completed the first year of a two-year project funded by the Alberta Upstream Petroleum Research Fund and a number of pipeline companies. The project is exploring how grizzly bears use and respond to pipelines. First-year results showed that grizzly bears appear to be using pipelines primarily for movement and secondarily for food. An interim report has been prepared and distributed to program partners.</li> <li>Completed the first year of a project titled “Research to Support Recovery and Long-Term Conservation of Grizzly Bears in Alberta.” This three-year project is funded by Alberta Innovates Bio Solutions, Alberta Environment and Sustainable Resource Development, and 22 other partners. First-year results were presented to the program partners in April 2013 with an annual project report being distributed to partners in June.</li> <li>Prepared two collaborative multi-year research project proposals with the Caribou Program and secured new research funding to pursue these topics in 2013.</li> </ul>
<p>Develop new GIS-based tools to improve land management based on research findings from our program</p>	<ul style="list-style-type: none"> <li>Produced a GIS tool that allows land managers to simultaneously determine how forestry activities affect grizzly bear and caribou habitat supply based on RSF scores.</li> <li>Provided partners with a GIS application that allows managers to assess how road reclamation decisions will impact grizzly bear habitat supply and security.</li> <li>Created a GIS tool that allows the evaluation of sightlines from access features, which has a direct impact on grizzly bear security in forested landscapes.</li> </ul>

## Brown Bears in Alberta and Sweden

### Final Research Report – Phase 1 (2009–2011)

Produced in July 2012, this report details the results of the initial phase of collaboration with the Scandinavian Brown Bear Research Program. Visit [foothillsri.ca](http://foothillsri.ca) to read the report.



# Research Program Team

- **Dr. Nicholas Coops** of the University of British Columbia and his remote sensing team used satellite imagery to continuously track landscape conditions and grizzly bear habitats in the province.
- **Dr. Scott Neilson** of the University of Alberta assessed the food and energy availability in the Yellowhead Bear Management Area and produced the first science-based estimates of the number of bears the landscape can support.
- **Drs. Marc Cattet and David Janz** at the University of Saskatchewan's Veterinary College successfully extracted reproductive hormones from grizzly bear hair.
- **Jerome Cranston** of the CCWHC continues to develop new GIS applications and tools for management application based on research findings.
- **Drs. Charlie Robbins and Heiko Jansen** at Washington State University Bear Centre are working with the health team on topics related to reproductive biomarkers in grizzly bears, and their captive bears have provided important samples for analysis.
- **Drs. Jon Swenson, Andreas Zedrosser, and Jonas Kindberg** from the Scandinavian Brown Bear Project are working with the Grizzly Bear Program on topics related to forest management and reproductive function.
- **Dr. Hans Geir Eiken** Norwegian Institute for Agricultural and Environmental Research (Bioforsk) has been able to extract DNA from grizzly bear scat in samples sent to them from Alberta.

**25** Masters Theses

**82** journal publication

# Alberta Land-use Knowledge Network

## Making it Easier to Find Information

For many of fRI's partners and stakeholders, keeping up to date on the news, stories, conversations, and commentary in the land-use sector can be like a full-time job. There are hundreds of environmental, economic, and social issues and opportunities that are part of the mix. While people have unimaginable access to diverse sources of information, they're also overwhelmed by the growing number of sites, web pages, blogs, and news feeds that must be monitored.

This year, the Alberta Land-use Knowledge Network focused on developing a solution to make it easier to keep track of what's going on.

"Our goal, this year, was to find a way to make it easier for people to keep up to date and get full access to valuable land-use resources. We wanted to create a go-to source of great information, pulled from thousands of sites, delivered to you in a way that you could spend as little as 10 minutes a day and be confident that you could scan and review all the really recent important news and insights," says Dr. Kirby Wright, lead of the Alberta Land-use Knowledge Network.

## Introducing Flipboard

The Flipboard app is freely available on all smartphones and tablets and is used to create customized magazines. It presents news and information in an easy-to-read format with lots of pictures and great design.

Land-use Knowledge Network staff scoured the Internet for all the sites they could find to cover all aspects of land-use planning and management. The new Flipboard magazine links to thousands of sites and instantly delivers resources produced by these sites to users. Readers simply open Flipboard and go to the Land-use Knowledge Network page, where they can quickly scan the many stories that have been posted and, if something catches their interest, read the full article.

The screenshot shows the Flipboard app interface. At the top, it displays the carrier 'ROGERS', the time '15:07', and the battery level '96%'. The magazine title is 'Land use topics'. Below the title, there are navigation options: 'Flipboard', 'Subscribe', and a search icon. The main content area features several article cards. The first card is titled 'Drought eases in the east, continues in the west' and includes a map of the United States showing drought severity. The second card is 'Honeybee parasite found in Scotland' with a close-up image of honeybees. The third card is 'Political leaders must end sprawl...' with a cartoon illustration of a dense housing development. Each card includes the source, date, and a 'Just now' notification.

The download and set-up instructions are available at <http://landusekn.ca/news/find-us-flipboard>.

## 2012–2013 Goal

Give land-use managers an easy way to find online resources

## Achievements

Developed and launched a Flipboard magazine.





# Who's Visiting the LAND-USE KNOWLEDGE NETWORK?

November 2011–March 31, 2012 (year 1 – partial year)

Number of unique visitors: **1,955**

Average pages per visit: **2.89**

Percentage of visitors from Alberta: **71%**

April 1, 2012–March 31, 2013 (year 2 – full year)

Number of unique visitors: **9,122**

Average pages per visit: **2.08**

Percentage of visitors from Alberta: **70%**

# Communications and Extension Program

## Ensuring that Information is Readily Available

The Communications and Extension Program's primary focus is to develop and implement communications and knowledge-transfer strategies that result in a greater understanding of fRI and sustainable resource management among local, provincial, and national publics. The program team works with researchers to facilitate the adoption of fRI knowledge and management tools in resource management policy, planning, and practice. This year the program undertook two major initiatives to achieve this goal: creating a digital library that contains everything fRI ever produced and launching a new website.

"fRI is known by its partners as an organization with first-class, web-based tools and resources, and other organizations have approached us on numerous occasions to learn from our experience," says Sean Kinney, program lead. "Our new website is designed to a world-class standard, reducing the resources needed to manage the site while making new and existing tools, including this incredible digital library, available to programs, partners, and the public."

The website was built using an open-source content management system. This allows for centralized administration of multiple sites, saving time and money and improving the management of the thousands of records. The site was launched in beta form in spring 2013.

## 2012–2013 Goal

Create a greater understanding of fRI and sustainable resource management among local, provincial, and national audiences

Support fRI's programs and associations by transferring knowledge and tools to partners, practitioners, policy makers, and stakeholders

Enhance internal and external communication by implementing new tools and mechanisms for collaboration

## Achievements

- Developed and populated new website for launch in spring of 2013.
- Helped organize a 20<sup>th</sup>-anniversary event in Hinton, presenting a retrospective of the organization through the years and highlighting the exciting research, knowledge, and tools that are to come in the future.
- Rebranded the Foothills Research Institute and developed new visual identity standards
- Developed an interactive annual report with a visual timeline showcasing 20 years of research
- Ran a 13-week regional sponsorship of a daily prime-time radio program highlighting fRI facts

- Organized the 2012 Mountain Pine Beetle Ecology Program Spring Information Session, bringing new knowledge and research results to practitioners.
- Helped the Water Program host a riparian workshop.
- Assisted Alberta Environment and Sustainable Resource Development with a one-day workshop on its Wet Areas Mapping tool.
- Worked with the Forest History Program to develop an iOS app for the *TransCanada Ecotours® Northern Rockies Highway Guide*.

- Created a business case for implementing Single Sign On (SSO) protocols across all fRI tools and web resources.
- Developed new reporting mechanisms for fRI's board of directors.
- Conducted an extensive evaluation of a new remote support and real-time collaboration platform for implementation in 2013-2014.
- Enhanced Beta 2 of fRI's new work-planning platform
- Administered fRI's corporate intranet and managed the onboarding of all new users.



Scan this QR code with your smartphone to learn more about the iOS app and the Northern Rockies Ecotour family of products.



2,141 records

38 resources related to soil, water and air

675

resources and  
14 projects  
related to land  
and human use

# Foothillsri.ca by the Numbers

50 videos

1 corporate intranet

462

resources and  
4 projects  
related to  
biodiversity

6 tools / interactive  
resources



6 microsites

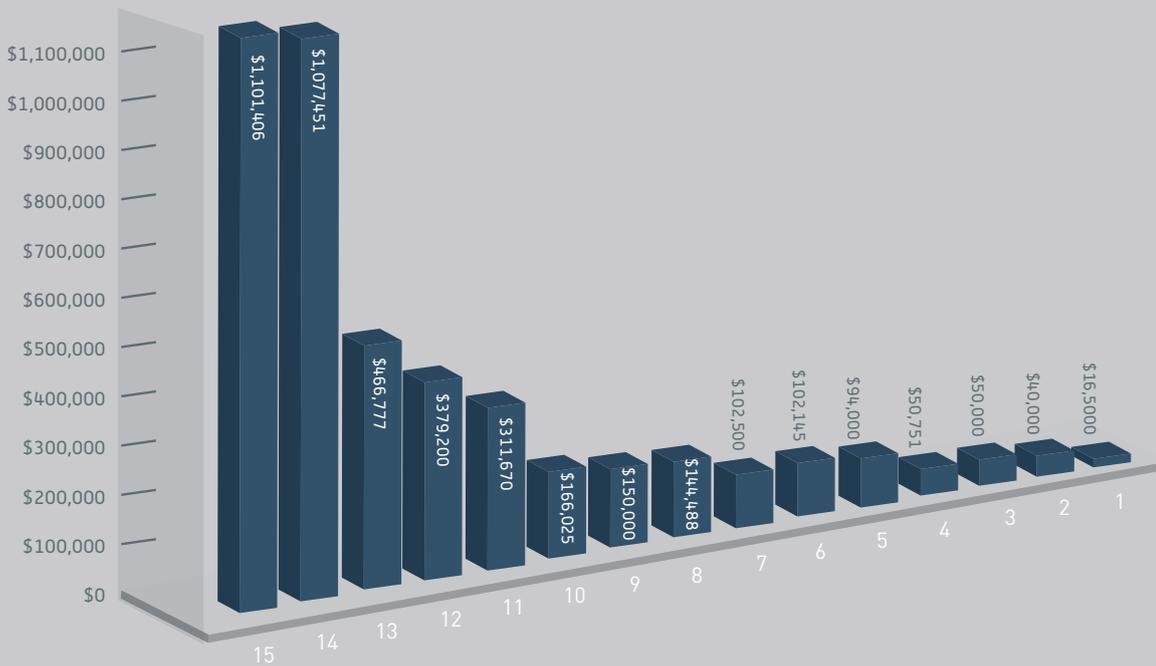
20 years of knowledge and tools

487 resources and 15 projects related to  
landscape and ecosystems



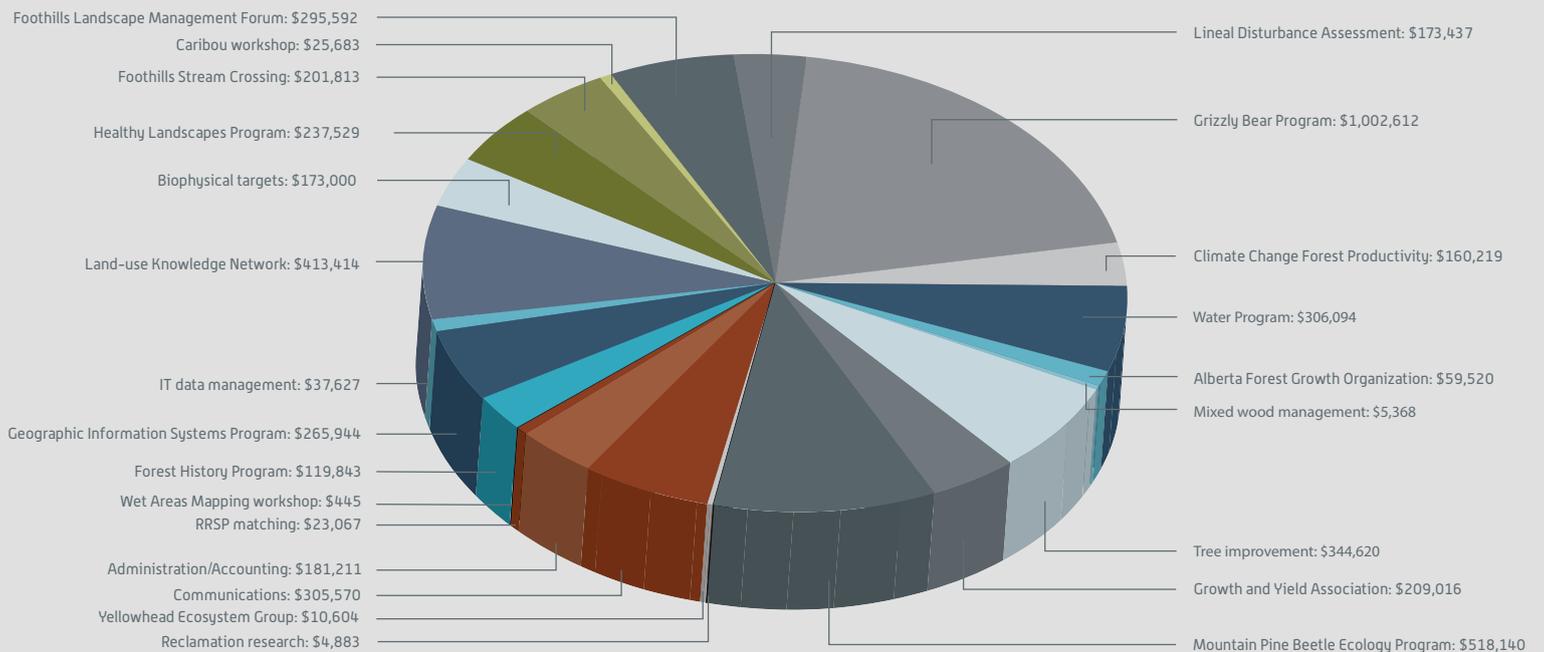
# Summary of Financial Statements

## REVENUE: \$4,252,966

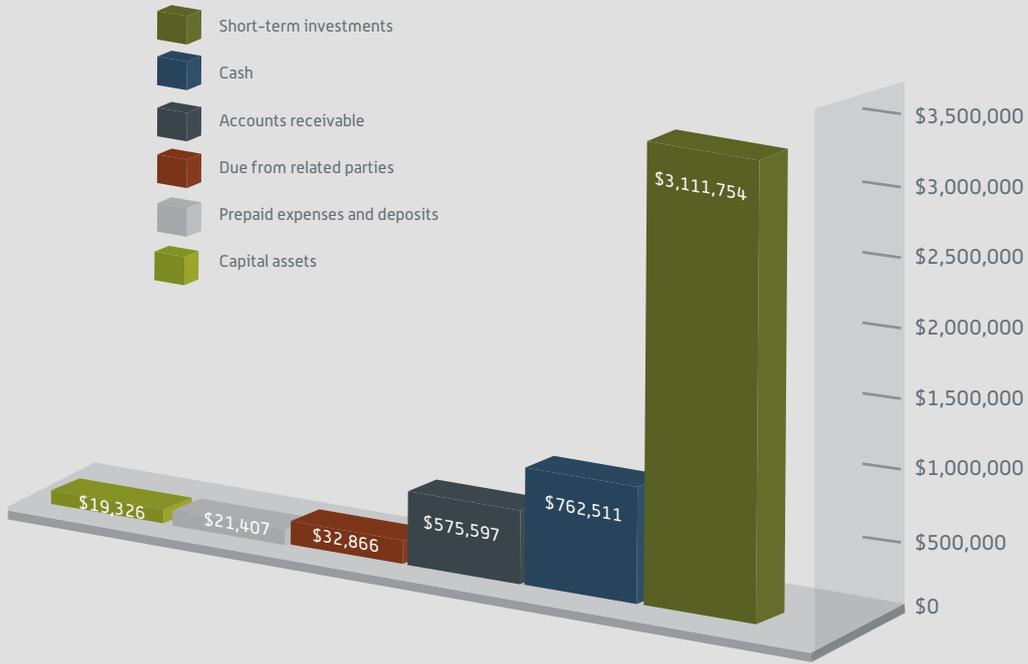


1. Non-governmental organizations
2. Government of Alberta (non ESRD and AI)
3. Jasper National Park
4. Natural Resources Canada
5. Environment Canada
6. Mining industry
7. Government of Saskatchewan
8. Other
9. Foothills Energy Partners
10. Alberta Innovates
11. West Fraser Mills
12. CCEMC
13. Oil and gas industry (excluding FEP)
14. Forest industry
15. Alberta Sustainable Resource Development

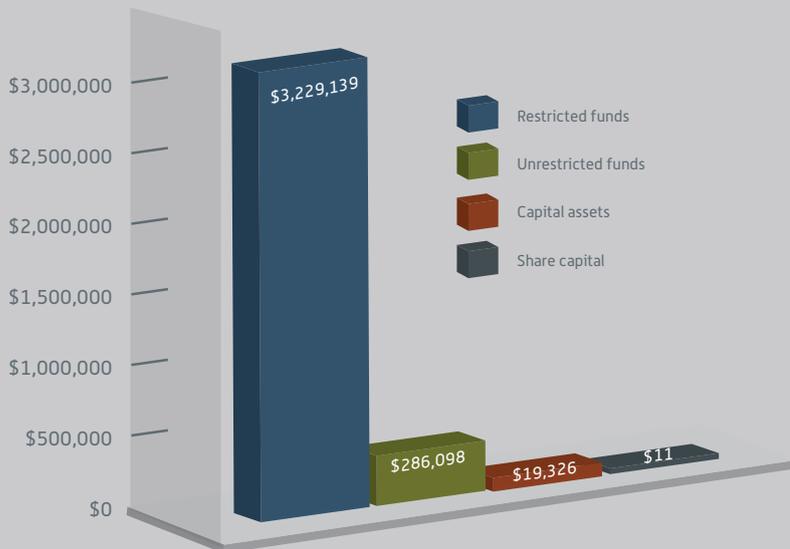
## EXPENSES: \$5,075,254



## ASSETS: \$4,523,461



## FUND BALANCES: \$3,534,574



## LIABILITIES: \$988,887



# Board of Directors 2012–2013



**Bruce Alexander**, Woodlands Manager, Hinton Wood Products, West Fraser Mills Ltd. (Alternate Director)

**Rob Baron**,<sup>1</sup> General Manager, Hinton Wood Products, West Fraser Mills Ltd.

**Ron Bjorge**, Executive Director, Policy Division, Alberta Environment and Sustainable Resource Development

**Dr. Rick Bonar**, Chief Biologist and Planning Coordinator, Hinton Wood Products, West Fraser Mills Ltd.

**Wendy Crosina**, Manager – Wildlife Ecology, Weyerhaeuser Company Limited (Alternate Director)

**Garth Davis**, Senior Coordinator – Land Management, ConocoPhillips Canada

**Steve Donelon**, Executive Director, Parks Program Coordination, Parks Division, Alberta Tourism, Parks and Recreation (Alternate Director)

**Greg Fenton**, Superintendent, Jasper National Park, Parks Canada

**Rob Gibb**, Government and Industry Relations Senior Advisor, Land and Environment, Talisman Energy Inc.

**Scott Grindal**, Senior Environmental Coordinator, ConocoPhillips Canada (Alternate Director)

**Stan Holmes**, Timberlands Manager, Weyerhaeuser Company Ltd., Drayton Valley

**John Kerkhoven**, Senior Advisor, Foothills Gas, Suncor Energy Inc.

**Jesse Kirillo**,<sup>2</sup> Surface Landman, Talisman Energy Inc.

**Jim LeLacheur**,<sup>3</sup> Chief Forester – Alberta, West Fraser Mills Ltd.

**Dr. Vic Liefvers**, Department Chair and Professor – Department of Renewable Resources, University of Alberta

**Roger Loberg**, Timberlands Manager, Weyerhaeuser Company Ltd., Grand Prairie

**Ken Mallett**, Director, Northern Forestry Centre, Natural Resources Canada (Alternate Director)

**Bruce Mayer**, Assistant Deputy Minister, Forestry Division, Alberta Environment and Sustainable Resource Development

**Jimmy O'Chiese**, Chief, Foothills Ojibway Society

**Steve Otway**, Resource Conservation Manager, Jasper National Park of Canada, Parks Canada

**Cole Pederson**,<sup>4</sup> Executive Director, Aboriginal Consultation, Alberta Aboriginal Relations

**Dan Rollert**,<sup>5</sup> Woodlands Manager, Hinton Wood Products, West Fraser Mills Ltd.

**Gordon Sanders**,<sup>6</sup> Chief Forester – Alberta, West Fraser Mills Ltd.

**Tim Sheldan**, Director General, Northern Forestry Centre, Canadian Forest Service, Natural Resources Canada

**Dr. John Spence**, Professor, Department of Renewable Resources, University of Alberta (Alternate Director)

**Graham Statt**, Assistant Deputy Minister, Parks Division, Alberta Tourism, Parks and Recreation

**Darren Tapp**, Executive Director, Forest Management Branch, Forestry Division, Alberta Environment and Sustainable Resource Development

**John Wilmshurst**, Ecosystem Science Coordinator, Jasper National Park of Canada, Parks Canada (Alternate Director)

## Foothills Research Institute Officers 2012–2013

**Tom Archibald**,<sup>7</sup> General Manager, Foothills Research Institute

**Rob Baron**,<sup>8</sup> General Manager, Hinton Wood Products, West Fraser Mills Ltd.

**Dr. Rick Bonar**, President and Chair, Foothills Research Institute; Chief Biologist and Planning Coordinator, Hinton Wood Products, West Fraser Mills Ltd.

**Jim LeLacheur**,<sup>9</sup> Board Member, Foothills Research Institute; Manager, Chief Forester – Alberta, West Fraser Mills Ltd.

**Krista Paniec**, Treasurer, Foothills Research Institute; Divisional Controller, Hinton Wood Products, West Fraser Mills Ltd.

**Garry Power**, Treasurer, Foothills Research Institute; Divisional Controller, Hinton Pulp, West Fraser Mills Ltd.

**Bill Tinge**,<sup>10</sup> General Manager, Foothills Research Institute

1. Appointed October 2012
2. Appointed December 2012
3. Resigned December 2012
4. Appointed March 2013
5. Resigned October 2012
6. Appointed December 2012
7. Resigned March 2013
8. Appointed December 2012
9. Resigned December 2012
10. Appointed November 2012





**64**  
projects

**25**  
summer  
students

**10,456**  
unique visitors  
to website



**foothills**  
RESEARCH INSTITUTE  
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Questions? Comments on this annual report?

**Please contact us at:**

PO Box 6330, Hinton, Alberta, Canada, T7V 1X6

Tel: 780.865.8330 | Fax: 780.865.8331

