



Progress Report 2000-2001

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Partners in Research

Funding Partners

- *Ainsworth Lumber Ltd.*
- *Alberta Conservation Association*
- *Alberta Economic Development*
- *Alberta Newsprint Company*
- *Anderson Exploration Ltd.*
- *Blue Ridge Lumber (1981) Ltd.*
- *British Columbia Oil & Gas Commission*
- *BP Canada Energy Company*
- *Burlington Resources Canada Inc.*
- *Canadian Hunter Exploration Ltd.*
- *Canadian Model Forest Secretariat*
- *Canfor Corporation*
- *Cardinal River Coals Ltd.*
- *Environmental Training Centre*
- *Forest Resources Improvement Association of Alberta*
- *Gregg River Mine*
- *Inland Cement*
- *Luscar Limited*
- *Manitoba Natural Resources*
- *Millar Western Forest Products Ltd.*
- *Municipal District of Bighorn #8*
- *Petro-Canada*
- *Petroleum Technology Alliance Canada*
- *Precision Drilling Corporation*
- *Province of Alberta*
- *Rocky Mountain Elk Foundation Canada*
- *Slave Lake Pulp*
- *Spray Lake Sawmills*
- *Sundance Forest Industries Ltd.*
- *Sunpine Forest Products Ltd.*
- *TransCanada Pipelines Limited*
- *University of Alberta*
- *University of Calgary*
- *University of Saskatchewan, Western College of Veterinary Medicine*
- *University of Washington*
- *Weyerhaeuser Company Ltd.*

Principal Sponsors

- *Alberta Environment/Alberta Sustainable Resource Development*
- *Weldwood of Canada Limited, Hinton Division*
- *Natural Resources Canada/Canadian Forest Service*
- *Canadian Heritage Parks Canada*

Socio-Economics

Economic and Community Sustainability

2000-2001 Accomplishments

The Computer Generated Equilibrium (CGE) model and the environmental CGE model have been completed. A report discussing the CGE model has been submitted and approved by the Foothills Model Forest. A report based on the latter is also under way. The model described in these reports is being incorporated into a decision support system (DSS). The project has resulted in the completion of a Masters thesis on environmentally extended impact analysis. Scientific journal articles have been submitted, and others are in progress.

Measuring the economic value of the visitor sector of a regional economy: a case study of the Foothills Model Forest was also published during this fiscal year. In this study, a collection of secondary data sources was used to estimate the contribution of visitors to the economy of the Foothills Model Forest, in west-central Alberta in 1997. This area provides a unique opportunity for this kind of study because it includes Jasper National Park, a popular visitor destination, and Hinton, a resource-based community.

Report Conclusions

The following conclusions were identified through this report:

- The number of travellers has been increasing worldwide, a trend that will continue into the foreseeable future.
- Resident and foreign travellers were attracted to the Foothills Model Forest landbase for a variety of different reasons.
- All of the visitors have an impact on the local economy, particularly true of Hinton.
- The data collected in this report will allow us to determine the size of the visitor sector for this region, and compare it with the other major sectors in the Foothills Model Forest landbase.
- The visitor sector is the third largest sector in the Foothills Model Forest landbase, after mining and forestry.
- The total estimated visitor expenditures for the Foothills Model Forest were calculated at just over \$316 million.

For the Sense of Place study, interviews were conducted with different users of the Foothills Model Forest landbase, (park visitors, Hinton residents, Jasper residents, tourism interests, timber interests, mining) to establish range of meanings held for the landscape, attachment levels and *what* they are attached to. A draft report was submitted for review based on interview data.

Non-timber Values

The FMF landbase supports over one million visitors annually, with the majority of these visitors to Jasper National Park (JNP).

Understanding the forest values of these visitors is an important component of sustainable forest management. In 2000-2001, the Socio-economic program conducted many activities designed to better understand non-timber values of both protected areas and the working forests.

Activities included a completed descriptive analysis of JNP users from 1994 to 1997 inclusive, (origins, number of people, length of stay, etc.) and the development of random utility models to model backcountry trail choice in JNP. This involved acquiring databases from Statistics Canada and Geographic Information Systems databases from JNP. A draft report on the descriptive analysis of backcountry use in JNP from 1994 to 1997, and a Master's thesis on random utility models have been produced. Data entry began for permits issued from 1998-2000, and a non-market valuation of JNP backcountry use was also started. A user manual for the camping decision support system (DSS) was also developed.

Public Involvement and Perception

An information report - *Forest values and attitudes of the public, environmentalists, professional foresters, and members of public advisory groups in Alberta*- based on the survey on values and attitudes undertaken was published in between 1999-2000. (McFarlane, B. and P. Boxall)

Ecotourism

In response to suggestions that ecotourism is the future of the west-central Alberta economy and key to its sustainability, the Foothills Model Forest and its partners set forth to develop a better understanding of ecotourism.

In 2000-2001, the report, *Ecotourism: Understanding the competing expert and academic definitions*, was completed. A draft report based on face-to-face interviews with Foothills Model Forest residents' perceptions of ecotourism was also completed and will be published in 2001-2002.

Geographic Information Systems And Sustainable Management Research

The program continues to support a variety of other Foothills Model Forest research programs.

2000-2001 Accomplishments:

- The GIS program has taken an active role in ensuring better data management and quality assurance by applying effective database management principles.
- For example, all the data for the Grizzly Bear Project is now stored in a single location and integrated with spatial components.
- As outlined in the work plan, program staff successfully migrated all on-site spatial data from North American Datum (NAD) 27 to NAD 83, bringing the program in line with the Alberta Government and most Forest Companies within Alberta.

Alberta Biodiversity Monitoring Program

Alberta's ecological heritage is surprisingly rich: the number of fish, birds, mammals, insects, and plants runs into the thousands; each species is an irreplaceable thread in the fabric of life. Today, the Foothills Model Forest is playing a key role in the development of a province-wide system for monitoring changes in the diversity of the many species found in Alberta's forests. Through the efforts of partner organizations and many other collaborators, program staff have designed a permanent sample plot (PSP) system to benchmark and monitor biodiversity changes in various landscapes in Alberta.

Recognizing the future value of long-term monitoring of tree growth and yield, early North Western Pulp and Power foresters established a permanent sample network of 3000 plots, and devised standardized methods for measuring the growth rate of trees. The resulting information has supported crucial decisions of where, and how much, forest should be harvested each year. Today, foresters and planners in other sectors recognize the value of implementing a similar system for monitoring the number of species in the forest. Only by monitoring species themselves will it be possible to gauge progress towards local, provincial, and natural commitments to preserve biodiversity for future generations.

The Foothills Model Forest and collaborating scientists have identified 30 target groups from each of the above classes, and have developed standardized methods for counting the number of species across a PSP network. Each plot is visited every few years, and the species are counted using the same methods each time. Only in this way will an accurate picture of biodiversity change emerge.

There are no "correct" species to monitor. Scientists constantly change views on which species are considered good indicators. The most prudent approach, therefore, is to monitor species with different lifestyles, from mosses growing on rocky outcrops, to predatory beetles roaming the forest floor in search of prey, to birds that nest and feed in the canopy. Fluctuations in the number of species in each target group reveals something different about how the ecosystem responds over time in response to land use and natural processes such as fire. More importantly, the selected species can be monitored using relatively simple and

inexpensive methods. Biologists have tested many of these methods, including bird listening stations, insect traps, and plant transects, in the Foothills Model Forest landbase and elsewhere in Alberta's forested lands.

2000-2001 Accomplishments

- Efforts focused on the business aspects of operating a large-scale ecological monitoring program.
- A business plan was developed and implemented to guide efforts to secure the necessary capital and operating funds needed to ensure continuous monitoring over the next several decades.
- A contact program has been established to ensure key players contribute to the final design and no opportunities for efficiency are overlooked. Linkages have already been established with collaborating institutions such as the University of Alberta, the Provincial Museum of Alberta, and the Government of Alberta.

For the future, phased implementation, perhaps starting with the Foothills Model Forest, and later expanding to other regions of Alberta, is being considered as a way to build upon the considerable expertise and support in this region.

While the designed system is elegant and comprehensive, it will also be expensive to implement, and the model forest is looking at options for a scaled down version appropriate to more modest budgets.

Natural Disturbance

The Foothills Model Forest and its partner organizations initiated a program in 1995 to study and describe natural and cultural disturbance across more than two million hectares in the Rocky Mountains and Foothills natural regions. The program was designed to deliver research, communication, and implementation initiatives consistent with the 1997 Foothills Model Forest Phase II Proposal, and the 1996 Proposal Guidelines for Phase II of Canada's Model Forest Program. This is a collaborative program involving both industry and government.

The program was intended to span several years, and included a detailed list of approximately 20 individual research projects ranging from empirical data collection, to communication, to simulation modelling. Together, the projects represent a package of potential knowledge about the ways in which natural disturbance-related processes created the historical patterns observed on the Foothills Model Forest landbase. Also, the staged design of the research program itself provides a valuable template for a structured approach to a comprehensive research initiative. Recognizing that it is not possible to understand observed patterns through a single study, the program differentiates the study of processes into observable spatial and temporal scales, ranging from the stand to the landscape.

With research well underway, partners are already integrating the findings into management practice. The long-term forest management plans for Weldwood of Canada Ltd. and Alberta Newsprint Company, for example, use historical patterns of natural disturbance to guide strategic decisions of where and when to harvest. This means that over the next ten years the forest management area will be managed to maintain a mosaic of young, immature, mature and old forests that reflect the historical ranges.

2000-2001 Accomplishments

- A research report series continued: *Landscape level fire activity on Foothills and Mountain landscapes of Alberta* - was completed.
- Field research was conducted in the Virginia Hills Fire area. Data from 40 transects was collected to establish where fires stop, and to identify residual material left within burnt areas. Research was also funded through the University of Alberta, Department of Biological Sciences to investigate stand level characteristics of island remnants from the Virginia Hills Fire.
- Research continued on the detailed patterns of disturbance in the Montane natural subregion in Jasper National Park. Many fires in this area are of moderate to low intensity, which create dramatically different stands and landscapes than the more common stand-replacing fires.
- Research continued on fire effects and grazing in the Montane natural subregion of Jasper National Park. This study examines the effects of fire in the Montane natural subregion on plant communities, as well as the interaction of fire and grazing by animals.
- Analysis continued on disturbances and island remnant patterns at the meso scale and stand level disturbances in riparian areas.

Communication efforts included presentations at public meetings, scientific conferences, and meetings with industry and government. In addition to standard communication efforts, a series of “Quicknotes”- short briefings on current research findings - was developed for the Natural Disturbance program.

In partnership with the NCE Sustainable Forest Management Network, the Foothills Model Forest hosted a conference that was attended by 200 people (including land managers from government and industry, academics and scientists): *Natural disturbance and forest management: What’s happening and where it’s going*. Members of the Foothills Model Forest Natural Disturbance activity team presented six papers at this conference.

The Natural Disturbance program presented a total of 15 papers during 2000-2001.

Canadian Wildland Fire Growth Model

2000-2001 Accomplishments

- Work continued on *Prometheus*, the Canadian Wildland Fire Growth Model. The majority of phase one (Work Units 1 - 5) and several components of phase two were completed.
- The development of *Prometheus* is proceeding in two phases, with the objective of completing an operational beta version of the model after phase one.
- The User Interface, System Design and Data I/O documents were updated.
- The deliverables in phase one (work Units 5 and 6) were also revised to ensure a smooth transition to phase two.

Phase two consists of four work units. These work units will enhance the model's functionality by incorporating spotting (breaching of firebreaks), fire extinguishment and residual stand modelling.

Foothills Model Forest Grizzly Bear Research Project

Important information has been gathered over the past three years from the Foothills Model Forest Grizzly Bear Research Program. As a result of this comprehensive and innovative research, the scientific knowledge of grizzly bear behaviour and response to human activities has steadily increased. To date, the research team has completed three field seasons. During that time, 63 grizzly bears within the study area have been captured and radio collared.

The study area (which has been expanded to 9700 km²) is currently home to a large number of bears, with approximately 66 to 147 bears roaming the area. Data analysis that highlights sampling biases is underway to address this population estimate. Although imprecise, the current estimated density within the study area appears to be greater than that identified by Dick Russell in Jasper National Park in 1970.

Research has shown that the grizzly bears within the study area continue to find mates, reproduce, gain weight and establish den sites – all very positive indicators for the grizzly bear population. While this is not conclusive evidence that the grizzly bear population has increased over this period, it supports the idea that bears continue to live in the same general areas, year after year. The identification and ability to map grizzly bear habitat within the study region is a key element to this research effort.

2000-2001 Accomplishments

- Data is now available for location comparisons from many of the same individuals over a three-year period. Both male and female bears of all ages have been collared, thus ensuring research conclusions are based on a representative sample of the population. Repeat collaring of many of the same bears has allowed valuable analysis of annual changes on an animal-specific basis. From this data, researchers have learned that bears exhibit a great deal of home range fidelity.
- New drug combinations have improved capture efficiency, have allowed for the quick reverse of immobilizing agents, and have allowed for speedier recoveries of captured bears after being collared.
- New measures of body condition have also been investigated to look at population health over time.
- Current Global Positioning System (GPS) data has also exposed some interesting grizzly bear association patterns during the mating period. The data confirm that bears continue to find mates, and successfully mate within the study area. This precept was supported by the emergence of many radio collared female bears from their dens with cubs in 2001.
- Collaborators from the University of Washington returned with a field crew and trained scat detection dogs. The crew worked in portions of the study area and retrieved approximately 500 samples of bear scat for DNA, and stress and reproductive hormone analysis. Laboratory work with the 2001 samples is underway.
- University of Calgary partners continued developing a grizzly bear habitat map for the expanded study area, using remote sensing tools and field data. Current research also includes the use of new satellite imagery to measure and quantify landscape change and the investigation of links between landscape metrics and bear densities and movements. The ways in which seismic lines and other linear disturbances may influence bear movements are also being analysed. Exploration of new modelling techniques to predict how bear travel routes may relate to landscape attributes continues.
- Collaborators at the University of Alberta completed the first set of Resource Selection Function (RSF) models to identify the location of bears within the study area, and to determine the variables related to bear habitat use.
- Researchers continue to investigate the possible relationship between road densities and habitat use and response by grizzly bears.
- The study team also established five permanent berry (*Sherperdia canadensis*) plots across the study area. This food is an important staple for grizzly bears in the area, providing the necessary fat supplies required to survive the winter denning season.

Fish and Aquatics

The MacKenzie Creek watershed is situated southeast of Hinton near the hamlet of Cadomin. This watershed provides recreational opportunities for local residents and offers spectacular scenery for residents and visitors alike. It also provides spawning habitats for mountain whitefish and Alberta's provincial fish, the bull trout. Because of declines in the bull trout population from its historically abundant levels, it is a species of management concern.

In the summer, biologists installed a fish trap to monitor bull trout and mountain whitefish spawning migrations from the McLeod River. Considerable work has been done to describe bull trout in the McLeod River and MacKenzie Creek as a result of the proposed Cheviot Coal Mine.

However, this is the first opportunity to provide a detailed description of the spawning population. While the trap operated, biologists captured 167 bull trout, the largest of which was a male that measured 729 mm (29 inches) and 3400 g (7.5 lbs.). The smallest bull trout captured during the 2000-2001 field season measured in at 285 mm (11 inches), and weighed less than one pound. Most of the bull trout captured were 500 mm or 19 inches long. Following the bull trout migration, 1124 mountain whitefish were captured, with nearly 40 percent of these arriving in one day. Fish populations were also monitored in several other watersheds (Pinto, Emerson, Lambert, Anderson, Teepee, Antler, Wampus and Deerlick).

These data will serve as benchmarks for future research and monitoring programs.

2000-2001 Accomplishments

- Data collection for the long-term monitoring of fish continued for a third year.
- Channel classification protocols were developed and refined.
- Data were collected from each of the fish sample locations.
- Over the last seven years, a total of 1215 sites have been sampled. In 2000-2001, the Foothills Model Forest inventoried data at 209 sites.

Species of Concern: Woodland Caribou and Harlequin Ducks

Woodland Caribou may require special management attention because of concern for their long-term health. Understanding how human activities affect this species contributes to the ability of land and resource managers to properly manage wildlife and therefore, to practice sustainable forest management.

Caribou herds (Little Smoky, A La Peche, Redrock/Prairie Creek) and their demographics and habitat use continue to be monitored. Biologists use leading-edge technologies such as global positioning systems telemetry collars as well as more traditional techniques like snowtracking.

Harlequin ducks may also require special management. The harlequin duck, although abundant on the west coast, is nearing the fringes of its range on the eastern slopes. Knowledge about this species has steadily increased, largely as a result of the Cheviot Mine hearings. In response to the many questions that were asked at the hearings, Foothills Model Forest partners surveyed rivers in the eastern slopes region of Alberta to determine abundance and distribution of harlequin ducks.

2000-2001 Accomplishments

Woodland Caribou

- A sample of 75 radio collared females was maintained in three winter ranges to monitor survival, calf recruitment and distribution relative to land use pressures.
- In the spring of 2001, seven out of 12 of the radio-collared females in the Little Smoky herd had a calf that survived to June 4. By mid June, at least two of these calves were no longer alive.
- Thirty-one wolves within eight packs were radio collared on the Redrock/Prairie Creek and Little Smoky caribou ranges. Wolf packs vary in size, and moose appear to be their main prey. Initial results revealed that some wolf packs hunt successfully in or near cutblocks.
- The A La Peche herd stayed in the mountains of Jasper National Park for the fourth straight year and did not migrate to forested winter range.
- Preliminary evidence indicates that at multiple scales (selection for home range; within home range and for feeding sites) caribou prefer the oldest forests, and avoid stands less than 80 years old at all scales.
- Mountain caribou response to linear features (Redrock/Prairie Creek Range) indicated avoidance of active roads to a maximum of 500 m, avoidance of inactive roads to a maximum of 250 m and avoidance of streams to a maximum of 250 m. Caribou were 26 percent more likely to occur around seismic lines greater than 23 years old (approximately 80 percent of lines were greater than 23 years old in the Redrock/Prairie Creek Range study area).
- Winter distribution of woodland caribou in relation to clear-cut logging in west central Alberta was published in the Canadian Journal of Zoology.
- A progress report based on: the relationship of commercial thinning regimes in lodgepole pine dominated forests to lichen abundance, growth, establishment and species diversity was also completed.
- A fourth Master's degree program Survival of female woodland caribou and calf recruitment relative to landscape change: Implications to population persistence in west central Alberta, was also initiated.

Harlequin Ducks

- Foothills Model Forest partners continued work in 2000-2001 to monitor the harlequin duck populations in the rivers of the eastern slopes region.
- Aerial surveys for harlequin ducks were completed in the McLeod River and in northern streams in the Foothills Model Forest land base.
- Biologists plan to combine the results of these harlequin duck survey data with results and data from this program and the Hydrology Attributes Generated from GIS (HAGGIS) program. Subsequent analyses may provide managers with insights about harlequin duck distributions with respect to habitats and other species like bull trout.

Rangeland ecology and rare plant monitoring in Willmore Wilderness Park

An ecological site as defined for rangeland, is a distinctive kind of land with specific physical characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation.

An ecological site is the product of all the environmental factors responsible for its development. It has a set of key characteristics included in the ecological site description. Ecological sites have characteristic soils, hydrology, plant communities, herbivory and fire regimes.

This long-term project will monitor the successional changes under various disturbances within the landscape over time. The inventory and monitoring will assist with the development of a management plan that will be required for Willmore Wilderness Park under the Natural Heritage Act, and has links to the Alberta Forest Biodiversity Monitoring Program, coordinated by the Foothills Model Forest. The long-term goal is the development of ecological site descriptions with state and transition models and a vegetation database for the Willmore Wilderness Park.

This database will:

- acknowledge the various successional and disturbance relationships of identified rangelands;
- document locations of rare vascular plants and mosses; and,
- document plant communities of restricted distribution.

This will inevitably create a better understanding of ecological functions and define biodiversity in and around Willmore Wilderness Park.

Project Objectives

To develop an ecological site description(s) for the Willmore Wilderness Park.

The increasing level of horse use in Willmore Wilderness Park has created concern for the condition of native ranges found throughout the park. With most of the park being heavily forested, grazing opportunities are limited to the valley bottoms and moist, semi-open drainages. Trails throughout the park generally follow the more accessible valley bottoms.

Traditional camping sites located along many trails are receiving heavier intensities of grazing pressure than they can presently sustain. As a result, change to the species composition and the productivity of these native ranges is occurring in some areas.

The invasion of non-native species on heavily used areas and the retention of adequate supplies of winter forage for wildlife are also areas of concern.

To document and monitor the status of rare vascular and non-vascular plants.

There is a general lack of knowledge of the occurrence and biology of rare plants in the province. Knowledge of rare plants within Willmore Wilderness Park and the northern regions of Jasper National Park is very limited as rare plant surveys for vascular plants or mosses have never been conducted. Monitoring these areas will assist in achieving provincial biodiversity initiatives, and in delivering on the endangered species legislation and status of wildlife reporting initiative.

To document and monitor the status of plant communities of restricted distribution.

In plant communities that typify an area, there are often small communities that form discrete patches, usually associated with specific, specialized habitats or some unusual attribute. Such communities are often overlooked in site surveys because they are not extensive enough to be considered representative. However, small patch communities may add significantly to the biodiversity of a site, containing a disproportionately large percentage of the total flora or providing habitat for plants and animals dependent on specialized conditions.

2000-2001 Accomplishments

- Northern Rough Fescue grassland found on alluvial terrace was subject to an 18 percent increase in shrub encroachment over 44 years.
- Thirty-three rare plant taxa were found, including 27 vascular plants, and six rare bryophytes. Another 15 vascular plants and six mosses have been reported but not confirmed.

- Two Northern Rough Fescue community types have been designated to the rare plant community- tracking list (Alberta Natural Heritage Information Centre - Northern Rough Fescue-Hairy Wildrye and N. Rough Fescue-Tufted Hairgrass). The Northern Rough Fescue/Globeflower community type has been reported but not confirmed.
- Program staff are currently working towards developing a detailed map of Willmore Wilderness Park's valleys, designating plant community types, campsites and rare plant locations.

Foothills Growth and Yield Association

In response to interest by industry and government, the Foothills Model Forest facilitated collaboration among a number of softwood producers to create the Foothills Growth and Yield Association for co-operative forecasting and monitoring of managed stand growth and yield, particularly of lodgepole pine. Nine companies participate in the Association as voting members. The Land and Forest Division of Alberta Sustainable Resource Development and the Foothills Model Forest participate as non-voting members, with the Foothills Model Forest acting as the co-ordinating agency. During the year, ties and co-operation with other agencies having shared interests have also been developed and strengthened.

The Foothills Growth and Yield Association has already established itself as a strong partnership of forest managers committed to the sustainable management of lodgepole pine. Effective April 1, 2000, the members of the Association entered into a formal agreement involving commitments for participation, personnel, industrial funding, project development, dissemination of information, and protection of rights and privileges.

The Association's mandate is to:

- forecast and monitor managed stand growth and yield in the foothills natural subregions of Alberta, particularly of lodgepole pine, the predominant commercial tree species of the foothills;
- promote co-operation, knowledge, shared responsibility and continuous improvement in sustainable management of lodgepole pine; and,
- facilitate the scientific development and validation of yield forecasts used by members in the development of their forest management plans.

Specific performance measures include ensuring:

1. Timber yield forecasts used in forest management planning are defensible and approved.
2. Increasingly rigorous requirements for monitoring and validation of sustainable forest management practices are met.

3. Managers' knowledge, and their abilities to predict responses to management practices, are improved, facilitating management by objectives rather than by arbitrary prescription.
4. Investments in growth and yield assessment are cost effective, and there is no unnecessary duplication of effort.
5. All participants remain committed to the program, and share costs equitably.
6. Work is user-driven, results-focused, and directly applicable to management and crop planning.

2000-2001 Accomplishments

- The initiation of a comprehensive Lodgepole Pine Regeneration Project during the year, evaluating response to site, competition, and spacing, is a major step towards defensible forecasting, meeting monitoring and validation requirements, and supporting management by objectives (measures 1, 2 and 3).
- Further project design work conducted during the year led to approval and funding for an expert review of nutrition and density management opportunities in existing lodgepole pine stands, which will further contribute to these measures.
- Managers' knowledge of the response of lodgepole pine to climate change and to forest, fire and pest management was improved by presentations of world-class experts at the Association's annual meeting.
- The Association's organization and activities also performed well against measures 4, 5 and 6: work was focused on questions and needs defined by the members; members' contributions were shared on an equitable and agreed formula and membership commitment, participation and support increased during the year.

Managed Stand Ecosite Chronosequence Study

This study is a multi-partner project to develop a predictive field guide that describes early post-harvest plant community development and tree productivity by ecosite and age-class. It will provide a database for temporal and spatial modelling of biodiversity and wildlife habitat.

2000-2001 Accomplishments

- The third of three years of field data sampling was completed with data collection in the Boreal Mixedwood, Upper Foothills and Subalpine natural subregions.
- A total of 485 plots have been surveyed. These plots include the Lower Foothills and Montane natural subregions.

- Concurrent with the data collection, construction began on the spatio-temporal database that describes the plant community structure and composition, tree productivity, and soil and site characteristics among the sampled natural subregions, ecosites and seral stages.
- Future efforts will focus on refinement of the database, data analysis, and compilation of the field guide, which will be published as an addendum to the Field Guide to Ecosites of West-central Alberta.

Climate Change Impacts on Forest Productivity in Western Canada

Changes in global climate are already being observed, and climate model projections indicate larger, systematic changes occurring within the next 50-100 years. That said, sustainable management of Canada's forest resources will need to address these changes.

The most immediately observable impacts are likely to be changes in species growth rates, competition and survival. This project (also referred to as ECOLEAP-West) attempts to assess these potential impacts on western boreal forest ecosystems using a suite of simulation models applied to detailed spatial data sets.

The models are first calibrated and tested by running them with data representative of current climate conditions for the study area. Then, the effects of possible future climates using scenarios derived from global climate model simulations, will be investigated.

2000-2001 Accomplishments

- Two study regions have been identified. The Alberta region covers approximately 2700 km² within the Foothills Model Forest landbase, while the second extends over a much larger area in central Saskatchewan. The Alberta region was selected for its range of topography and ecological diversity (though most of the forest lies in the Upper and Lower Foothills natural regions). Several other studies are also located in this region, notably the National Forest Inventory pilot project and a pilot study for the Alberta Biodiversity Monitoring Program.
- **Biomass and LAI mapping**
Permanent sample plot data (PSP) obtained from Weldwood (in the summer of 2000) were used to select a subset of sites representative of the range of conditions and forest types found in the region. Fieldwork was carried out at these PSP locations to re-measure trees and determine leaf area indices (LAI). The data collected were used to create maps of the distributions of estimated biomass density and LAI for the entire study region. The digital data underlying these maps will be crucial input to the models and will also be used to validate larger scale (national) modelling initiatives.

- **Spatial Data Sets**

In addition to the PSP data, spatial data sets were obtained from other sources, including the Foothills Model Forest archives, the Government of Alberta and the Canadian Forest Service. These have been used to build a coherent database of biophysical and inventory data. The layers include digital elevation, soils, climatology, Landsat imagery and Alberta Vegetation Inventory (AVI) cover types and densities.

Program staff are attempting to create a detailed map of soil physical and chemical attributes as functions of elevation and soil depth, using four different sets of soil profile data (including PSP soils data). These spatial data will then be used to drive the process models that are a key component of the project.

- **Lodgepole pine physiology**

Physiological data for important tree species (black spruce, aspen and jack pine) were obtained from the BOREAS project (Saskatchewan and Manitoba, mid-1990s). This data set however, does not include lodgepole pine. Initially, it was assumed that lodgepole pine could be adequately represented using jack pine data, but careful work by Frédéric Raulier showed that this was not the case.

- **Spatial Modelling**

Program staff have carried out tests and parameterizations of three distinct models (StandLEAP, FORSKA-M and 4C) of forest ecosystem processes.

StandLEAP is a physiologically-based radiation use efficiency (RUE) model, which estimates forest net primary productivity (NPP) based on LAI, incoming radiation, topographic data and other climate variables. FORSKA-M is a version of the succession (gap) model first developed by Prentice et al. in Sweden, to account for management practices that may compensate for effects of a changing climate. This model is able to simulate competition between species and stand development. The newest model is called 4C, (originated by Harald Bugmann and colleagues) and is still undergoing active development at the Potsdam Institute in Germany. This model is also a succession-type model, but contains more detailed representations of plant physiology and also accounts for soil decomposition processes.

- **Climate Scenario Data**

Jacques Régnière, from the Laurentian Forestry Centre in Quebec, has developed a new version of his model of daily climate to generate realistic temperature and precipitation regimes for multiple locations across the study regions. Data produced by this model have been used by Dr. Lindner in simulations using FORSKA-M. In a related project funded by the Climate Change Action Fund (CCAF), data from the Canadian Coupled General Circulation Model (CGCMII) were used to develop high-resolution scenarios of future climate under the IPCC IS92A greenhouse gas emissions scenario. These data are now available, and will be used in the near future to generate local climate scenarios for the Foothills Model Forest and Saskatchewan study regions.

Carbon Sequestration

Trees remove carbon from the atmosphere through photosynthesis and store it for long periods of time.

At the *Sixth Conference of the Parties to the UN Framework Convention on Climate Change* in Bonn, Germany in July, 2001, the role of forests as carbon sinks was discussed and negotiated. Representatives from Canada and other forest producing countries argued that all forms of forest management should be considered for the inclusion of carbon sinks. If this is the case, forest companies may be able to sell carbon credits to emission emitters.

This project involves the inclusion of carbon sequestration and economic variables into Weldwood's existing forest planning model. By including carbon sequestration into its forest-planning model, researchers will be able to determine if or when Weldwood should be involved in carbon credit trading.

2000-2001 Accomplishments

- Researchers from Weldwood of Canada, the Canadian Forest Service and the University of Alberta are examining the relationship between Weldwood's carbon budget and the economic benefits that can be derived from a carbon credit trading market.
- In addition to the price of tradable carbon credits, other factors such as risk (fire, insect damage) and policy considerations (accounting rules and institutional limitations) are also being considered.
- Preliminary results of this study will be available in December, 2001.

Communications

Throughout 2000-2001, the Foothills Model Forest continued to spread its messages using some very effective tools including: education programming and outreach activities, research series and conferences, and various publications. Significantly less funding was spent on advertising in 2000-2001, as the Communications Branch sought more economical ways to deliver Foothills Model Forest messages.

The Foothills Model Forest strives to reach a broad scope of regional, national and international audiences with its messages. However, because most of the communications efforts for the year 2000-2001 targeted rural areas, reaching urban audiences effectively and consistently remains a challenge. By continuing to implement a creative communications mix, the communications program hopes to effectively address this and other challenges in the future.

2000-2001 Accomplishments

- In conjunction with the Foothills Model Forest Natural Disturbance program, the Communications branch hosted a very successful Natural Disturbance research symposium called *Natural Disturbance and Forest Management - What's Happening and Where it's Going*. Over 200 representatives from industry, government and the academic community attended. Speakers and participants traveled from as far away as British Columbia, New Brunswick and Alaska.
- A new, modular Grizzly Bear Research poster was created for 2001. The poster won the competition for best poster at a Fish and Wildlife Management Division conference in Medicine Hat. The poster has been delivered by request to many Foothills Model Forest partners.
- Over 3000 people were exposed to Foothills Model Forest messages through regularly scheduled Woods Tours, Sixth Grade Woods Tours and through grizzly bear interpretive programs delivered throughout the summer.
- The Foothills Model Forest collaborated with Weldwood of Canada (Hinton Division) during National Forestry Week in May, 2000.
- Research tool kits containing information, activities and props were completed for the Grizzly Bear and Natural Disturbance programs. These kits were developed to tailor interpretative tours for those interested in learning more about these particular subject areas. Development began on similar tool kits for the Fish and Aquatics and Socio-economics programs.
- One thousand people received the semi-annual editions of Footnotes. Electronic copies were also distributed to Jasper National Park staff and Alberta Environment staff. Eight hundred copies of the Foothills Model Forest 1999-2000 Annual Report were also distributed.
- Advertisements placed with the Alberta Government's Parks and Protected Areas Publication, Sportfishing and Hunting Regulations and publications targeted at visitors to Jasper National Park also reached key audiences.
- The Foothills Model Forest website received 34,985 visits.
- The fourth year of partnership with FEESA resulted in the production of two draft curricular tools called the Species Edukit and the Trees and Forest Edukit. Also included under the banner of FEESA were:
 - ⇒ Foothills Model Forest supported Alberta Environment with Fish in Schools (FinS), by facilitating the delivery of an educational experience aimed at teaching elementary school children about fish and aquatic stewardship.
 - ⇒ The Foothills Model Forest continued to provide support forest education leaders by sponsoring FEESA's Forest Education Leadership Institute. This institute was well attended, with participation from approximately 28 educators from across Alberta.

- ⇒ FEESA delivered three Forest Ecotours during 2001 that were also well attended. In 2001, over 70 teachers and students participated in this program.
- ⇒ Two issues of *Footprints* were distributed (October and December, 2000). Five hundred copies of each edition were reproduced and sent to 82 teacher contacts in the west-central region of Alberta. The remainder was delivered to teachers at conventions, Alberta Teacher Association Councils (Science Council, Global Environmental and Outdoor Education Council) and to those included in the FEESA forest-related professional development program database.
- Hinton Forest Capital Natural Resources Interpretative Park. In partnership with the Hinton Forest Capital 2000 Society, the Foothills Model Forest began planning and development of a community Natural Resource Interpretive Park, located in Hinton.
- The Student Ambassador Program was introduced in May, 2000. Three high school students from Hinton and Jasper spent time in the field with Foothills Model Forest researchers and partners learning “hands-on” about sustainable forest management.
- The Foothills Model Forest delivered a series of research workshops across Alberta as it continued communicating its message to academia, government and industry. Over 400 people attended these workshops.
- Stories about Foothills Model Forest research appeared in the following publications:
 - ⇒ Weldwood of Canada’s – The Treebune
 - ⇒ Weldwood of Canada’s supplement in the Alberta Report
 - ⇒ Weldwood of Canada’s Corporate publication Dialog
 - ⇒ Alberta Chamber of Resources
 - ⇒ CFS Solutions
 - ⇒ Alberta Environment EnviroChat
 - ⇒ Ontario Forestry Association Review
 - ⇒ The University of Calgary Gazette
 - ⇒ Champion Forest Product’s Resource Issues Update
- Media coverage included major television stories from the following outlets:
 - ⇒ CBC Newsworld Feature Story
 - ⇒ Discovery Channel Feature Story
 - ⇒ A-Channel Evening News Story
 - ⇒ Educational documentary out of Ontario
- The Edmonton Journal published two feature stories on the Foothills Model Forest grizzly bear research project. Local media also regularly published stories about grizzly bears and the grizzly bear research project. Periodically, local media also printed stories about the Foothills Model Forest woods tours and interpretative programs.

Provincial Environmental Enhancement Funds

Alberta's abundance of natural resources provides great economic and social value for the people and the commerce of this province. Our forests in particular support a strong and diverse forest sector that has propelled Alberta as an industry leader.

Maintaining competitiveness and efficiency are vital to sustainable forest management. Focusing on forestry education, technology and business practices, projects funded by the Provincial Environmental Enhancement Funds benefit Alberta's forest sector in many different ways.

In 1998, Foothills Model Forest accepted a grant of \$3.2 million from the province's Environmental Enhancement Fund, to be applied to research in various areas (environmental, social, economic) of sustainable forest management.

In 2000-2001, the following Foothills Model Forest projects were funded by the Provincial Environmental Enhancement Funds.

Foothills Growth and Yield Association

Trees need water, sunlight, nutrient-rich soil and space to grow well. Understanding the forest conditions for optimal tree growth is an important requirement for sustainability. If forest companies can access more timber (and therefore, realize increased associated economic spin-offs) from a smaller area and in a shorter timeframe, more of the forest is available to support the many other values of the forest.

The Foothills Growth and Yield Association is a partnership between nine companies whose objective is to develop forestry treatments that increase tree growth and performance.

Wood Processing Technology

Skilled workforces are critical to both community sustainability and industry competitiveness. To that end, the Northern Alberta Institute of Technology (NAIT) and Forintek continued implementation of a two-year computer-based wood processing training program. This technologically advanced program trains sawmill workers with leading-edge technologies to ensure industry competitiveness is maintained.

Utilization of Burnt Wood

Although fire is a natural part of Alberta's forest, it has the potential to significantly erode the economic value of this resource. This study examines the ways in which burnt wood and harvesting delays after a forest fire affect the quality of two different pulping processes. This program has been set back by the inability to implement critical prescribed burns.

Sustainability of Resource-Based Communities

Over the last three years rural, resource-based communities have developed a strong and clear voice to support their position in both provincial and federal government discussions.

Municipal representatives in many of Alberta's forestry and coal mining communities have united in efforts to represent 175,000 coal mining families, and over 350 forest-based communities. Through effective lobbying, they have voiced their concerns, and seen those concerns heard by provincial and federal political decision-makers. The commitment shown by these local representatives helps ensure Alberta's resource-based communities continue to reap the economic, environmental and social fruits of our natural resources, now and into the twenty-first century.

The Foothills Model Forest continues to play a role in this very important exercise by providing municipal decision makers with accurate, timely information to communicate with all levels of government.

Canadian Wildfire Growth Model

Prometheus, the Canadian Wildfire Growth Model, is a computer model that uses state-of-the-art technology to predict fire behaviour. The model can be used operationally, to model the behaviour of an already burning fire, or in forest management to determine where and how a forest fire would naturally burn. In 2000–2001, work continued on the development of the model.

Socio-economics

Forests are not only important components of the environment, but have significant economic and social value as well. In 2000-2001, the Foothills Model Forest socio-economic program continued work in four main theme areas:

- socio-economic impact analysis;
- public involvement, attitudes, values, and decision-making;
- the non-timber valuation research stream; and,
- the study on sense of place.

Ecosite Chronosequence

The purpose of this multi-partner project was to develop a predictive field guide of post harvest stand and understory vegetation development by ecosite. The project also examines associated productivity levels using growth intercept and total height, by ecosite and seral age class, and provides a database for temporal and spatial modeling of biodiversity and wildlife habitat. Work continued on this project in 2000-2001.

Natural Disturbance Program

Provincial Enhancement Funds were used to support this integrated, multi-year, multi-scale, long term research program which continues to address questions of how natural disturbance processes shape and define our forest. This program continues to provide valuable information to forestry companies and government on how to manage the forest to more closely correspond to those of the (pre-industrial) past in an effort to sustain all biological values on the landscape.

Grizzly Bear Research Program

In 2000-2001, Provincial Enhancement Funds contributed to the purchase of Global Positioning System (GPS) Collars for use on this project. These funds also contributed to funding a portion of the field research program. Results from this program are being used by the Regional Carnivore Management Group to address land use and conservation issues.

Foothills Model Forest Officers

Robert Udell, President, Foothills Model Forest & Manager, Forest Policy and Governmental Affairs, Weldwood of Canada Limited (Hinton Division)

Ross Risvold, Chairman of the Board, Foothills Model Forest & Mayor of Hinton

Marsha Spearin, Secretary, Foothills Model Forest & Administrative Coordinator, Weldwood of Canada Limited (Hinton Division)

Brad King, Treasurer, Foothills Model Forest & Controller, Hi-Atha and Forest Resources, Weldwood of Canada Limited (Hinton Division)

Foothills Model Forest Board of Directors

Dr. Jim Beck, Professor of Forest Management, Department of Forest Science, University of Alberta

Dennis Hawksworth, Vice-President, Hinton Forest & Wood Products, Weldwood of Canada Limited (Hinton Division)

Ron Hooper, Superintendent, Jasper National Park¹

Bill Hume, General Manager, Cardinal River Coals Limited²

John Kerkhoven, Surface Land Supervisor, Control and Management, Petro-Canada Limited³

David Luff, Vice President, Environment and Operations, Canadian Association of Petroleum Producers⁴

Bob Newstead, Regional Coordinator, Model Forest Program, Canadian Forest Service, Edmonton

Mike Poscente, Regional Director, North East Slopes Region, Land and Forest Service, Alberta Environment⁵

Dennis Quintilio, Executive Director, Ecological Landscape Division, Land & Forest Service, Alberta Environment

¹ Term started December 1999.

² Term started June 1999, resigned July 2000

³ Term started October 1999, position shared with David Luff.

⁴ Term started October 1999.

⁵ Term started October 1999.

Ross Risvold, Mayor, Town of Hinton

Jim Skrenek, Regional Director, Northern East Slopes Region, Natural Resources Service, Alberta Environment

Jerry Sunderland, Regional Director, North East Slopes Region, Land and Forest Service, Alberta Environment⁶

Kevin van Tighem, Manager, Ecosystem Secretariat, Jasper National Park⁷

Bob Udell, Manager, Forest Policy and Government Affairs, Weldwood of Canada Limited

Brian Wallace, Manager, Warden Service, Jasper National Park⁸

Mel Williams, General Manager, Cardinal River Coals Ltd.⁹

Rick Ksiezopolski, Forest Resource Manager, Weldwood of Canada Limited

⁶ Term ended October 1999, reappointed March 2000.

⁷ Appointed 2000

⁸ Alternate for Ron Hooper

⁹ Appointed fall 2000

Foothills Model Forest Financial Statements

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Kingston Ross Pasnak

Chartered Accountants **KRP**

Auditors' Report

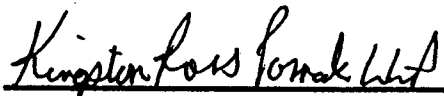
June 14, 2001
Hinton, Alberta

To the Board of Directors of the Foothills Model Forest:

We have audited the statement of financial position of Foothills Model Forest as at March 31, 2001 and the statements of operations and changes in fund balances and cash flow for the year then ended. These financial statements are the responsibility of the organization's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Foothills Model Forest as at March 31, 2001 and the results of its operations and cash flow for the year then ended in accordance with Canadian generally accepted accounting principles.



Kingston Ross Pasnak LLP
Chartered Accountants



FOOTHILLS MODEL FOREST

STATEMENT OF OPERATIONS AND CHANGES IN FUND BALANCES

March 31, 2001

	CFS Fund 2001 \$	Provincial Enhancement Fund 2001 \$	Contribution Fund 2001 \$	Capital Fund 2001 \$	Total 2001 \$	Total 2000 \$
REVENUES						
Contributions:						
Canadian Forest Service	500,000	-	-	-	500,000	500,000
Canadian Forest Service - other	10,800	-	2,000	-	12,800	304,850
Government Agencies	-	-	391,700	-	391,700	659,560
Corporate contributions	-	-	1,310,765	-	1,310,765	945,844
Contributions In-Kind	-	-	36,878	-	36,878	-
Other contributions	-	-	99,000	-	99,000	111,580
Interest income	-	-	134,044	-	134,044	118,990
Other income	70	-	58,363	-	58,433	7,017
	<u>510,870</u>	<u>0</u>	<u>2,032,750</u>	<u>0</u>	<u>2,543,620</u>	<u>2,647,841</u>
EXPENSES						
Advertising and promotion	20,355	-	32,501	-	52,856	82,491
Amortization	-	-	-	76,891	76,891	32,440
Bank charges and interest	23	-	76	-	99	87
Computer expense	19,728	-	8,517	-	28,245	44,896
Freight	1,643	-	5,794	-	7,437	10,816
General expense	1,970	-	995	-	2,965	3,927
GST expense	-	-	-	-	0	0
Insurance	3,001	-	3,071	-	6,072	8,140
Meeting expense	15,994	-	9,401	-	25,395	33,312
Office	16,549	-	8,596	-	25,145	33,357
Photo finishing	699	-	1,666	-	2,365	1,225
Printing and binding	10,534	-	7,804	-	18,338	19,269
Professional fees	10,600	-	19,106	-	29,706	9,642
Publications	-	-	-	-	0	8,761
Public relations	6,982	-	5,381	-	12,363	20,109
Licensing	721	-	345	-	1,066	3,452
Recovery of expenses	(7,277)	-	(128,157)	-	(135,434)	(121,065)
Rentals and field supplies	10,445	-	173,470	-	183,915	106,645
Sub-contracts	74,425	465,687	976,412	-	1,516,524	2,517,336
Subscriptions	875	-	465	-	1,340	3,942
Telephone and utilities	8,468	-	10,978	-	19,446	12,252
Travel and training	38,227	-	382,566	-	420,793	428,962
Vehicle expense	31,447	-	72,234	-	103,681	106,074
Wages and employee benefits	282,736	-	369,611	-	652,347	647,723
	<u>548,145</u>	<u>465,687</u>	<u>1,960,832</u>	<u>76,891</u>	<u>3,051,555</u>	<u>4,013,793</u>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENSES						
	<u>(37,275)</u>	<u>(465,687)</u>	<u>71,918</u>	<u>(76,891)</u>	<u>(507,935)</u>	<u>(1,365,952)</u>
INTER-FUND TRANSFERS						
Capital purchases (disposals)	(1,451)	0	(18,358)	19,809	0	0
Cash	10,053	(154,312)	54,730	-	(89,530)	321,072
	<u>8,602</u>	<u>(154,312)</u>	<u>36,372</u>	<u>19,809</u>	<u>(89,530)</u>	<u>321,072</u>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENSES AFTER TRANSFERS						
	<u>(28,673)</u>	<u>(619,999)</u>	<u>108,289</u>	<u>(57,082)</u>	<u>(597,465)</u>	<u>(1,044,880)</u>
FUND BALANCES, BEGINNING OF YEAR						
	<u>28,967</u>	<u>1,265,093</u>	<u>1,548,365</u>	<u>87,107</u>	<u>2,929,532</u>	<u>3,974,413</u>
FUND BALANCES, END OF YEAR						
	<u>294</u>	<u>645,094</u>	<u>1,656,654</u>	<u>30,025</u>	<u>2,332,067</u>	<u>2,929,532</u>

FOOTHILLS MODEL FOREST

STATEMENT OF FINANCIAL POSITION

March 31, 2001

ASSETS

	CFS Fund	Provincial Enhancement Fund	Contribution Fund	Capital Fund	Total	Total
	2001	2001	2001	2001	2001	2000
	\$	\$	\$	\$	\$	\$
CURRENT ASSETS						
Bank	(3,663)	751,939	1,504,394	-	2,252,670	2,590,164
Term deposits	-	-	-	-	0	150,000
Accounts receivable	17,463	-	505,871	-	523,334	683,575
Prepaid expenses	18,954	-	707	-	19,661	27,996
	<u>32,754</u>	<u>751,939</u>	<u>2,010,972</u>	<u>0</u>	<u>2,795,666</u>	<u>3,451,735</u>
CAPITAL ASSETS (Note 3)	0	0	0	30,025	30,025	87,107
OTHER ASSET						
Deposits	1,700	0	750	0	2,450	1,650
TOTAL ASSETS	<u>34,454</u>	<u>751,939</u>	<u>2,011,722</u>	<u>30,025</u>	<u>2,828,141</u>	<u>3,540,492</u>

LIABILITIES

CURRENT LIABILITIES						
Accounts payable and accrued liabilities	25,160	73,403	200,749	-	299,312	204,710
Inter-fund payables	9,000	33,442	4,319	-	46,762	100,000
Deferred revenue	-	-	50,000	-	50,000	156,250
	<u>34,160</u>	<u>106,845</u>	<u>255,068</u>	<u>0</u>	<u>396,074</u>	<u>460,960</u>
LONG-TERM LIABILITY						
Deferred revenue	-	-	100,000	-	100,000	150,000
	<u>34,160</u>	<u>106,845</u>	<u>355,068</u>	<u>0</u>	<u>496,074</u>	<u>610,960</u>

FUND BALANCES

FUND BALANCES						
Invested in capital assets	-	-	-	30,025	30,025	87,107
Internally allocated	294	645,094	1,656,654	-	2,302,042	2,842,425
	<u>294</u>	<u>645,094</u>	<u>1,656,654</u>	<u>30,025</u>	<u>2,332,067</u>	<u>2,929,532</u>
TOTAL LIABILITIES AND FUND BALANCES	<u>34,454</u>	<u>751,939</u>	<u>2,011,722</u>	<u>30,025</u>	<u>2,828,141</u>	<u>3,540,492</u>

FOOTHILLS MODEL FOREST

STATEMENT OF CASH FLOW

March 31, 2001

	Operating Activities				Financing and Investing Activities		
	CFS Fund	Provincial Enhancement Fund	Contribution Fund	Total	Total	Capital Fund	Capital Fund
	2001	2001	2001	2001	2000	2001	2000
	\$	\$	\$	\$	\$	\$	\$
SOURCES OF CASH							
Government contributions	531,741	-	252,750	784,491	928,268	-	-
Corporate contributions	-	-	988,089	988,089	1,511,273	-	-
Other contributions	-	1,987	516,898	518,885	111,580	-	-
Interest income	-	33,443	97,875	131,318	132,626	-	-
Other income	70	-	87,878	87,948	15,194	-	-
Contributions In-Kind	-	-	36,878	36,878	0	-	-
	<u>531,811</u>	<u>35,430</u>	<u>1,980,368</u>	<u>2,547,609</u>	<u>2,698,941</u>	<u>0</u>	<u>0</u>
USES OF CASH							
Wages and benefits	271,681	-	377,020	648,701	647,600	-	-
Materials and services	470,424	448,083	1,448,086	2,366,593	3,309,689	-	-
Purchase of capital assets	-	-	-	0	0	19,809	13,224
	<u>742,105</u>	<u>448,083</u>	<u>1,825,106</u>	<u>3,015,294</u>	<u>3,957,289</u>	<u>19,809</u>	<u>13,224</u>
NET INCREASE (DECREASE) IN CASH POSITION	(210,294)	(412,653)	155,262	(467,685)	(1,258,348)	(19,809)	(13,224)
CASH BEGINNING OF YEAR	10,274	1,440,177	1,289,713	2,740,164	4,011,736	-	-
INTER-FUND TRANSFERS	<u>196,357</u>	<u>(275,585)</u>	<u>59,419</u>	<u>(19,809)</u>	<u>(13,224)</u>	<u>19,809</u>	<u>13,224</u>
CASH (DEFICIENCY) END OF YEAR	<u>(3,663)</u>	<u>751,939</u>	<u>1,504,394</u>	<u>2,252,670</u>	<u>2,740,164</u>	<u>0</u>	<u>0</u>
CASH (DEFICIENCY) COMPRISED OF:							
Cash - CFS Fund	(3,663)	-	-	(3,663)	10,274	-	-
Cash - Provincial Enhancement Fund	-	751,939	-	751,939	1,440,177	-	-
Cash - Contribution Fund	-	-	1,504,394	1,504,394	1,139,713	-	-
Term Deposits - Contribution Fund	-	-	-	0	150,000	-	-
	<u>(3,663)</u>	<u>751,939</u>	<u>1,504,394</u>	<u>2,252,670</u>	<u>2,740,164</u>	<u>0</u>	<u>0</u>

FOOTHILLS MODEL FOREST
NOTES TO FINANCIAL STATEMENTS
YEAR ENDED MARCH 31, 2001

1. PURPOSE OF THE ORGANIZATION

Foothills Model Forest was incorporated in Alberta as a not-for-profit organization under Part 9 of the Companies Act of Alberta. The organization is owned equally by Weldwood of Canada Limited (Hinton Division), Jasper National Park and the Government of Alberta. Each shareholder owns one common voting share issued for one dollar, without nominal or par value. As a not-for-profit organization, Foothills Model Forest is not subject to income taxes and the assets of the organization cannot be distributed to the shareholders.

The objects for which the organization was established are:

- a) To accelerate and expand new and existing initiatives in sustainable forest operations innovation, integrated resource management, decision support systems research, technology transfer and public involvement in the Foothills Model Forest;
- b) To support the development of multi-jurisdictional resource management strategies and programs, particularly regarding transboundary resources;
- c) To test and demonstrate on the Foothills Model Forest advanced technology and integrated resource management practices consistent with the principles of sustainable development;
- d) To use the expertise and facilities of the Environmental Training Centre to assist in the knowledge base development and transfer the knowledge gained in the Foothills Model Forest program to local, national and international resource managers and various publics;
- e) To develop an integrated resource management strategy for the Foothills Model Forest, representing a balance of integrated resource management objectives, using consensus development techniques, with the participation of representative stakeholders; and
- f) To support the Foothills Model Forest in the delivery of the 5-year, Phase II, Model Forest Plan and the Annual Work Plan. These financial statements reflect operations of the fourth year in the 5-year, Phase II, Model Forest Plan. Planning for the proposal of a third phase of the Model Forest Plan is currently underway. Each phase has a life span of five years.

FOOTHILLS MODEL FOREST
NOTES TO FINANCIAL STATEMENTS
YEAR ENDED MARCH 31, 2001

2. SIGNIFICANT ACCOUNTING POLICIES

a) Fund accounting

The Foothills Model Forest follows the restricted fund method of accounting for contributions.

The CFS Fund accounts for funding received from the Canadian Forest Service for the organization's program delivery and administrative activities as well as restricted resources that are to be used for specified projects of interest to the Canadian Forest Service.

The Provincial Enhancement Fund reports only restricted resources that are to be directed toward project areas of interest to Alberta's forest sector.

The Contribution Fund reports only restricted resources that are to be used for specified projects.

The Capital Fund reports the assets, liabilities, revenues and expenses related to the Foothills Model Forest's capital assets.

b) Capital assets

Purchased capital assets are stated at cost. Contributed capital assets are recorded at fair value at the date of contribution. Amortization of capital assets is provided on a straight-line basis using the following annual rates:

Computer equipment	33 1/3%
Field equipment	20%
Office equipment	20%

c) Investments

Investments are recorded at the lower of cost and fair market value.

d) Revenue recognition

All restricted contributions are recognized as revenue of the appropriate restricted fund in the year received. Investment income earned on all funds' resources is recognized as revenue of the Contribution Fund when earned.

FOOTHILLS MODEL FOREST
NOTES TO FINANCIAL STATEMENTS
YEAR ENDED MARCH 31, 2001

2. SIGNIFICANT ACCOUNTING POLICIES (Continued...)

e) Contributed services

The General Manager's services and rent of premises are contributed through agreements with Alberta Environmental Protection. These services are not recognized in the financial statements.

Significant other services are provided to the Foothills Model Forest by the Provincial Government, Weldwood of Canada (Hinton Division) and other volunteers. Because of the difficulty in determining fair value, these other contributed services are not recognized in the financial statements.

Where an estimate of the value of materials contributed is available the amount has been recognized as a Contribution In-Kind.

f) Financial instruments

The organization's financial instruments consist of cash, accounts receivable and accounts payable. Unless otherwise noted, it is management's opinion that the organization is not exposed to significant interest, currency or credit risks arising from these financial instruments. The fair value of these financial instruments approximate their carrying values, unless otherwise noted.

g) Measurement uncertainty

The preparation of financial statements in conformity with generally accepted accounting principals requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

FOOTHILLS MODEL FOREST
NOTES TO FINANCIAL STATEMENTS
YEAR ENDED MARCH 31, 2001

3. CAPITAL ASSETS

	2001			2000
	Cost	Accumulated Amortization	Net	Net
	\$	\$	\$	\$
Computer equipment	241,104	223,301	17,803	58,034
Field equipment	73,876	61,653	12,222	27,458
Office equipment	8,073	8,073	0	1,615
	323,052	293,027	30,025	87,107

Amortization provided for in the year in the capital fund is \$76,891; (2000-\$32,440)

4. RELATED PARTY TRANSACTIONS

During the year revenue was earned from the shareholders of Foothills Model Forest in the following amounts; \$606,265 from Weldwood of Canada, \$156,000 from Jasper National Park, and \$150,000 from the Government of Alberta. The organization also paid \$5,000 to the Government of Alberta for advertising.

5. COMMITMENT

The organization leases automobiles. Minimum lease payments on the automobiles in future years are as follows:

	\$
2002	37,058.25
2003	33,513.75
2004	11,654.42
	82,226.45

6. COMPARATIVE FIGURES

Certain of the comparative figures have been reclassified to conform to the current year's presentation.

FOOTHILLS MODEL FOREST
 SCHEDULE OF PROJECT FUNDS
 YEAR ENDED MARCH 31, 2001

Schedule I

	Project Codes	April 1, 2000 Fund Balance \$	Inter fund Transfers \$	Current Year Revenue \$	Current Year Expenses \$	March 31, 2001 Fund Balances \$
<u>Information, Research and Knowledge</u>						
GIS Project Management	100	-	47,081	85,541	136,304	(3,682)
Landscape Disturbance	128	(182)	62,213	193,509	246,666	8,874
Bridgeland Survey	130	-	-	-	-	0
Aboriginal Involvement	131	13,992	3,000	47,065	14,232	49,825
Watershed Assessment						
Model - Development	141	4,289	-	-	-	4,289
Fish Inventory	146	-	-	30,000	39,881	(9,881)
Fisheries Project	150	(2,117)	-	70,000	70,896	(3,013)
Successional Model Development	171	13,000	-	-	-	13,000
		<u>28,983</u>	<u>112,294</u>	<u>426,115</u>	<u>507,978</u>	<u>59,413</u>
<u>Integrated Resource Management</u>						
Woodland Caribou Study	202	(104)	50,000	-	61,843	(11,946)
Ecosystem Monitoring Program	203	53,583	(8,307)	85,300	132,354	(1,777)
Carnivore Conservation	204	251,778	40,186	632,838	599,848	324,953
Bears and Roads	204.1	-	-	5,200	481	4,719
Criteria and Indicators	205	780	25,000	14,800	19,165	21,415
Cache Percotte Management Plan	210	15,554	-	2,000	774	16,780
Harlequin Ducks	212	9,764	10,000	-	-	19,764
Integrated Research Management	213	45,518	-	295,000	120,213	220,305
Wildland Fire Growth Model Devel.	214	145,119	(5,000)	25,000	87,293	77,826
Willmore Grazing Inventory	215	-	10,000	-	9,313	687
Socio-economic Study	224	50,000	-	85,000	135,000	0
Forest Carbon Budget Study	225	30,000	-	-	30,000	0
NAIT/Forintek Wood Proc. Program	231	34,068	-	-	18,000	16,068
Sustainability of Resource Communities	234	213,295	-	-	133,000	80,295
Growth & Yield Research	235	236,106	(6,956)	50,000	133,187	145,962
Ecological Chronosequence Study	238	87,177	-	156,000	218,578	24,598
Burnt Wood Utilization	239	600,000	-	-	122,233	477,767
Project Management	390	256,983	(46,488)	-	52,545	157,950
		<u>2,029,620</u>	<u>68,435</u>	<u>1,351,138</u>	<u>1,873,827</u>	<u>1,575,367</u>

FOOTHILLS MODEL FOREST
 SCHEDULE OF PROJECT FUNDS
 YEAR ENDED MARCH 31, 2001

Schedule I (Continued...)

	April 1, 2000	Inter fund	Current	Current	March 31, 2001	
	Fund	Transfers	Year	Year	Fund	
	Balance	\$	Revenue	Expenses	Balance	
	\$	\$	\$	\$	\$	
<u>Administration Projects</u>						
Finance	400	-	(239,486)	189,043	(50,443)	0
Administration/Accounting	401	-	19,799	107,184	129,131	(2,147)
Phase II Wrap Up	405	-	100,000	-	-	100,000
Board of Directors	410	-	35	8,250	8,285	0
Model Forest Network	411	-	(2,858)	4,000	1,142	0
Project Steering Committee	412	-	(60)	1,000	940	0
Partners' Association	413	-	(1,000)	1,000	-	0
Activity Teams	415	-	(875)	1,000	125	0
	0	(124,444)	311,477	89,181	97,853	
<u>Forest Resource Improvement</u>						
<u>Project</u>						
Pileated Woodpecker	603	-	5,300	-	-	5,300
Adaptive Forest Management	612	41,954	-	60,000	89,903	12,051
Fish and Stream Inventory	643	46,182	(31,250)	129,193	130,947	13,178
	88,136	(25,950)	189,193	220,850	30,529	
<u>Communications</u>						
Co-ordination	300	-	7,472	71,720	79,192	0
Educational Relations	320	8,250	(3,425)	46,575	40,885	10,515
Community Relations	321	39,500	6,937	62,000	84,237	24,200
Media Relations	322	-	(665)	1,000	335	0
Partner Relations	323	6,250	6,171	13,000	21,102	4,319
Technology Transfer	324	-	(8,775)	64,401	48,126	7,500
Government/Network	325	4,000	(2,784)	2,000	3,216	0
Tool Development	326	-	5,397	5,000	5,397	5,000
Technology Transfer Development Opportunity	327	339	-	-	339	0
	58,339	10,326	265,696	282,828	51,534	
<u>Capital Fund</u>	87,107	19,809		76,891	30,025	
<u>Unallocated</u>	637,346	(150,000)			487,346	
	2,929,531	(89,530)	2,543,620	3,051,554	2,332,067	

FOOTHILLS MODEL FOREST

Schedule II

SCHEDULE OF COMPARATIVE OPERATIONS AND CHANGES IN FUND BALANCES

YEAR ENDED MARCH 31, 2000

	CFS	Provincial	Contribution	Capital	Total
	Fund	Enhancement	Fund	Fund	Fund
	2000	2000	2000	2000	2000
	\$	\$	\$	\$	\$
REVENUES					
Contributions					
Canadian Forest Service	500,000	-	-	-	500,000
Canadian Forest Service - other	304,850	-	-	-	304,850
Government Agencies	-	-	659,560	-	659,560
Corporate contributions	-	-	945,844	-	945,844
Other contributions	4,092	-	107,488	-	111,580
Interest income	-	-	118,990	-	118,990
Other income	1,566	-	5,451	-	7,016
	<u>810,508</u>	<u>0</u>	<u>1,837,333</u>	<u>0</u>	<u>2,647,841</u>
EXPENSES					
Advertising and promotion	57,938	5,279	19,274	-	82,491
Amortization	-	-	-	32,440	32,440
Bank charges and interest	48	2	37	-	87
Computer expense	29,940	1,461	13,495	-	44,896
Freight	3,131	96	7,588	-	10,816
General expense	2,272	-	1,655	-	3,927
GST expense	-	-	-	-	0
Insurance	5,907	-	2,233	-	8,140
Meeting Expense	12,366	3,908	17,038	-	33,312
Office	24,471	147	8,740	-	33,357
Photo finishing	547	-	678	-	1,225
Printing and binding	9,997	12	9,260	-	19,269
Professional fees	6,667	-	2,975	-	9,642
Publications	2,670	2,677	3,414	-	8,761
Public relations	15,154	-	4,956	-	20,109
Licensing	2,624	576	252	-	3,452
Recovery of expenses	(10,888)	(485)	(109,692)	-	(121,065)
Rentals and field supplies	1,024	-	105,621	-	106,645
Sub-contracts	337,945	1,148,025	1,031,366	-	2,517,336
Subscriptions	909	470	2,563	-	3,942
Telephone and utilities	6,568	68	5,616	-	12,252
Travel and training	35,758	12,218	380,986	-	428,962
Vehicle expense	36,863	335	68,875	-	106,074
Wages and employee benefits	266,341	35,870	345,513	-	647,723
	<u>848,254</u>	<u>1,210,660</u>	<u>1,922,440</u>	<u>32,440</u>	<u>4,013,793</u>
EXCESS (DEFICIENCY) OF REVENUE OVER EXPENSES	<u>(37,746)</u>	<u>(1,210,660)</u>	<u>(85,107)</u>	<u>(32,440)</u>	<u>(1,365,952)</u>
INTER-FUND TRANSFERS					
Capital purchases (disposals)	(6,307)	(2,375)	(4,541)	13,224	0
Other	10,395	(395,220)	705,897	-	321,072
	<u>4,088</u>	<u>(397,596)</u>	<u>701,356</u>	<u>13,224</u>	<u>321,072</u>
EXCESS (DEFICIENCY) OF REVENUE OVER EXPENSES AFTER TRANSFERS	<u>(33,658)</u>	<u>(1,608,255)</u>	<u>616,249</u>	<u>(19,216)</u>	<u>(1,044,880)</u>
FUND BALANCES, BEGINNING OF YEAR (Note 6)	<u>62,626</u>	<u>2,873,348</u>	<u>932,116</u>	<u>106,323</u>	<u>3,974,413</u>
FUND BALANCES, END OF YEAR (Note 6)	<u>28,968</u>	<u>1,265,093</u>	<u>1,548,365</u>	<u>87,107</u>	<u>2,929,532</u>

**FOOTHILLS MODEL FOREST
RECORD OF CASH AND IN-KIND CONTRIBUTIONS
FOR THE YEAR ENDING MARCH 31, 2001**

Project Code	Project Title	SERVICES & PRODUCTS CONTRIB.	# of HOURS CONTRIB.	DOLLAR VALUE OF HOURS	OTHER CASH CONTRIB.	CASH CONTRIB.	TOTAL CONTRIB. BY PROJECT
100	GIS Project Management & Implementation						
	Provincial Government (Spatial Data)						0.00
	The Forestry Corporation		80.0	5,000.00			5,000.00
	Canadian Forest Service					85,541.00	85,541.00
	Jasper National Park					32,000.00	32,000.00
	Foothills Model Forest				16,531.99		16,531.99
	Sub - total	\$0.00	80.0	\$5,000.00	\$16,531.99	\$117,541.00	\$139,072.99
128	Landscape Disturbance						
	David Andison - Bandaloo Landscape-Ecosystem Services		16.0	1,300.00			1,300.00
	Alan Westhaver - Jasper National Park		20.0				0.00
	Rick Bonar - Weldwood of Canada		20.0	1,000.00			1,000.00
	Alberta Newsprint Company					35,000.00	35,000.00
	Blue Ridge Lumber	1,000.00				15,000.00	16,000.00
	FRIAA - Weldwood of Canada					12,000.00	12,000.00
	Land and Forest Service - AEP					25,000.00	25,000.00
	Land and Forest Service - High Prairie						0.00
	Land and Forest Service - Hinton	8,000.00					8,000.00
	Land and Forest Service -Whitcourt	4,800.00					4,800.00
	Millar Western Industries	4,450.00					4,450.00
	Provincial Enhancement Funds				40,000.00		40,000.00
	Other					13,296.50	13,296.50
	Weldwood of Canada - FRIAA					119,000.00	119,000.00
	Sub - total	\$18,250.00	56.0	\$2,300.00	\$40,000.00	\$219,296.50	\$279,846.50
131	Aboriginal Involvement						
	Canadian Forest Service					800.00	800.00
	FRIAA - Weldwood of Canada					46,265.00	46,265.00
	Foothills Model Forest				3,000.00		3,000.00
	Sub - total	\$0.00	0.0	\$0.00	\$3,000.00	\$47,065.00	\$50,065.00
141	Watershed						
	Sub - total	\$0.00	0.0	\$0.00	\$0.00	\$0.00	\$0.00
146	F.H.D.P. Fish Inventory						
	Alberta Conservation Association	6,000.00	25.0			30,000.00	36,000.00
	Fish and Wildlife Service - AB NRS		50.0				0.00
	Jasper National Park	1,000.00					1,000.00
	Other volunteers		100.0				0.00
	Sub - total	\$7,000.00	175.0	\$0.00	\$0.00	\$30,000.00	\$37,000.00
150	Fisheries Project Administration						
	Canadian Forest Service					70,000.00	70,000.00
	Other					10.99	10.99
	Sub - total	\$0.00	0.0	\$0.00	\$0.00	\$70,010.99	\$70,010.99
202	Woodland Caribou Study						
	Rick Bonar - Weldwood of Canada		80.0	4,000.00			4,000.00
	Land and Forest Service - AEP					50,000.00	50,000.00
	Sub - total	\$0.00	80.0	\$4,000.00	\$0.00	\$50,000.00	\$54,000.00
203	Ecosystem Monitoring						
	Bert Finnamore, Provincial Museum of Alberta		20.0				
	Brad Stelfox, Forem Technologies		30.0				
	Bruce McGillivray, Provincial Museum of Alberta		20.0				
	Chris Spytz, Weldwood of Canada Ltd.		20.0				
	Elston Dzus, Alberta-Pacific Forest Industries		20.0				
	Evelynne Wrangler, Alberta Land and Forest Service		20.0				
	Frank Oberle, Daishowa-Marebuni International		20.0				
	Harry Stelfox, Alberta Natural Resources Service		30.0				
	Jim Schieck, Alberta Natural Resources Service		20.0				
	Kirk Andries, Alberta-Pacific Forest Industries		30.0				
	Mark Bradley, Wood Buffalo National Park		20.0				
	Matt Carlson, University of Alberta		80.0				
	Mike Willoughby, Alberta Land and Forest Service		20.0				
	Neville Winchester, University of Victoria		10.0				
	Stan Boutin, University of Alberta		40.0				
	Steve Franklin, University of Calgary		20.0				
	Terry Nerasen, Alberta Conservation Association		20.0				
	Alberta Conservation Association					18,000.00	18,000.00
	Canadian Forest Service					53,300.00	53,300.00
	Land and Forest Service					4,000.00	4,000.00
	Land and Forest Service - AEP					20,000.00	20,000.00
	Weyerhaeuser Canada					10,000.00	10,000.00
	Sub - total	\$0.00	440.0	\$0.00	\$0.00	\$105,300.00	\$105,300.00

**FOOTHILLS MODEL FOREST
RECORD OF CASH AND IN-KIND CONTRIBUTIONS
FOR THE YEAR ENDING MARCH 31, 2001**

Project Code	Project Title	SERVICES & PRODUCTS CONTRIB.	# of HOURS CONTRIB.	DOLLAR VALUE OF HOURS	OTHER CASH CONTRIB.	CASH CONTRIB.	TOTAL CONTRIB. BY PROJECT
204	Carnivore Conservation - Grizzly Bears						
	Gordon Stenhouse - SRD			58,000.00			58,000.00
	Jim Skrenek - Natural Resources Service		58.0	5,800.00			5,800.00
	Conservation Officers (18-21)		7275.0	145,500.00			145,500.00
	Environmental Training Centre (ABENV) Rms G & A Petroleum	31,520.00	10.0				31,520.00
	Hinton Hospital Laboratory		25.0				0.00
	Jasper National Park - GIS & Communications		320.0				0.00
	Peregrine Helicopters	6,500.00					6,500.00
	University of Alberta (2 students x 3 mths)		520.0	18,000.00			18,000.00
	University of Calgary (2 students x 2 mths)		347.0	12,000.00			12,000.00
	University's of Alberta & Calgary (NSERC)	59,000.00					59,000.00
	University of Washington (10 people x 3 mths) US \$'s		5196.0	103,920.00			103,920.00
	University of Washington (Lab/Travel) US \$'s	55,000.00					55,000.00
	Wardens - Jasper National Park (1 x 2 months)		347.0	6,940.00			6,940.00
	Alberta Conservation Association					50,000.00	50,000.00
	Ainsworth Lumber					20,000.00	20,000.00
	Anderson Resources Ltd.					5,000.00	5,000.00
	BP Canada Energy Company					15,000.00	15,000.00
	Blue Ridge Lumber					40,000.00	40,000.00
	Burlington Resources					5,000.00	5,000.00
	Canadian Forest Products					50,000.00	50,000.00
	Canadian Hunter Exploration Ltd.					10,000.00	10,000.00
	Cardinal River Coals Ltd.					100,000.00	100,000.00
	FRIAA - Weldwood of Canada					50,000.00	50,000.00
	Gregg River Resources					25,000.00	25,000.00
	In-kind Contributions				36,877.96		36,877.96
	Inland Cement					25,000.00	25,000.00
	Jasper National Park					68,000.00	68,000.00
	Luscar Ltd.					25,000.00	25,000.00
	Millar Western Industries Ltd.					10,000.00	10,000.00
	Other					63,340.98	63,340.98
	Petro Canada					30,000.00	30,000.00
	Petroleum Tech Alliance Canada					20,000.00	20,000.00
	Precision Drilling					2,500.00	2,500.00
	Provincial Enhancement Funds				155,800.00		155,800.00
	Rocky Mountain Elk Foundation					1,000.00	1,000.00
	Trans-Canada PipeLines Ltd.					12,000.00	12,000.00
	Weyerhaeuser					100,000.00	100,000.00
	Sub - total	\$152,020.00	14098.0	\$350,160.00	\$192,677.96	\$726,840.98	\$1,421,698.94
204.1	Bears and Roads					5,200.00	5,200.00
	MD of Bighorn					5,200.00	5,200.00
	Sub - total	\$0.00	0.0	\$0.00	\$0.00	\$5,200.00	\$5,200.00
205	Criteria and Indicators						
	Jasper National Park		25.0	1,000.00			1,000.00
	Weldwood of Canada		50.0	2,000.00			2,000.00
	Canadian Forest Service - Other					12,000.00	12,000.00
	Land and Forest Service - AEP					25,000.00	25,000.00
	Other					2,800.00	2,800.00
	Sub - total	\$0.00	75.0	\$3,000.00	\$0.00	\$39,800.00	\$42,800.00
210	Cache Percotte Management Plan					2,000.00	2,000.00
	Anderson Exploration Ltd.					2,000.00	2,000.00
	Sub - total	\$0.00	0.0	\$0.00	\$0.00	\$2,000.00	\$2,000.00
212	Harlequin Ducks					10,000.00	10,000.00
	Foothills Model Forest					10,000.00	10,000.00
	Sub - total	\$0.00	0.0	\$0.00	\$10,000.00	\$0.00	\$10,000.00
213	Integrated Research Management					95,000.00	95,000.00
	Alberta Economic Development					95,000.00	95,000.00
	Land and Forest Service AB ENV					200,000.00	200,000.00
	Sub - total	\$0.00	0.0	\$0.00	\$0.00	\$295,000.00	\$295,000.00
214	Wildfire Growth Model Development					15,000.00	15,000.00
	Manitoba Natural Resources					15,000.00	15,000.00
	Ministry of Forests					5,000.00	5,000.00
	Parks Canada (Natural Resources Branch)					5,000.00	5,000.00
	Provincial Enhancement Funds				25,000.00		25,000.00
	Sub - total	\$0.00	0.0	\$0.00	\$25,000.00	\$25,000.00	\$50,000.00
215	Willmore Grazing Inventory					10,000.00	10,000.00
	Land and Forest Service - AEP					10,000.00	10,000.00
	Sub - total	\$0.00	0.0	\$0.00	\$0.00	\$10,000.00	\$10,000.00
224	Socio-Economic Study						
	Bill White/Tom Beckley - Canadian Forest Service			72,000.00			72,000.00
	Weldwood of Canada - FRIAA					85,000.00	85,000.00
	Provincial Enhancement Funds				50,000.00	0.00	50,000.00
	Sub - total	\$0.00	0.0	\$72,000.00	\$50,000.00	\$85,000.00	\$207,000.00

**FOOTHILLS MODEL FOREST
RECORD OF CASH AND IN-KIND CONTRIBUTIONS
FOR THE YEAR ENDING MARCH 31, 2001**

Project Code	Project Title	SERVICES & PRODUCTS CONTRIB.	# of HOURS CONTRIB.	DOLLAR VALUE OF HOURS	OTHER CASH CONTRIB.	CASH CONTRIB.	TOTAL CONTRIB. BY PROJECT
225	Forest Productivity (Climate Change)						
	David Price, Canadian Forest Service		69.0	3,105.00			3,105.00
	Ron Hall, Canadian Forest Service		46.0	2,012.50			2,012.50
	Mike Gartrell, Canadian Forest Service		40.0	1,440.00			1,440.00
	Marty Siltanan, Canadian Forest Service		60.0	2,160.00			2,160.00
	Hugh Lougheed, Weldwood of Canada	200,000.00					200,000.00
	Inventory database contact			2,000.00			2,000.00
	Sub - total	<u>\$200,000.00</u>	<u>215.0</u>	<u>\$10,717.50</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$210,717.50</u>
231	NAIT/Forintek Wood Proc. Prog.						
	Provincial Enhancement Funds				34,067.91	0.00	34,067.91
	Sub - total	<u>\$0.00</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$34,067.91</u>	<u>\$0.00</u>	<u>\$34,067.91</u>
234	Sustainability of Resource Communities						
	Provincial Enhancement Funds				213,295.37	0.00	213,295.37
	Sub - total	<u>\$0.00</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$213,295.37</u>	<u>\$0.00</u>	<u>\$213,295.37</u>
235	Growth & Yield Research						
	Alberta Newsprint Company					0.00	0.00
	Blue Ridge Lumber					0.00	0.00
	FRIAA - Canadian Forest Products					10,000.00	10,000.00
	FRIAA - Millar Western Industries Ltd.					10,000.00	10,000.00
	FRIAA - Spray Lakes Sawmills					10,000.00	10,000.00
	FRIAA - Sundance Forest Industries Ltd.					10,000.00	10,000.00
	FRIAA - Sunpine Forest Products Ltd.					10,000.00	10,000.00
	FRIAA - Weldwood of Canada					10,000.00	10,000.00
	FRIAA - Weyerhaeuser Canada					10,000.00	10,000.00
	Provincial Enhancement Funds				146,105.75	0.00	146,105.75
	Sub - total	<u>\$0.00</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$146,105.75</u>	<u>\$70,000.00</u>	<u>\$216,105.75</u>
238	Ecological Chronosequence Study						
	Ainsworth Lumber					10,000.00	10,000.00
	Alberta Newsprint Company					15,000.00	15,000.00
	Millar Western Industries Ltd.					10,000.00	10,000.00
	Provincial Enhancement Funds				47,311.21		47,311.21
	Slave Lake Pulp					10,000.00	10,000.00
	Sunpine Forest Products					36,000.00	36,000.00
	FRIAA - Weldwood of Canada					75,000.00	75,000.00
	Sub - total	<u>\$0.00</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$47,311.21</u>	<u>\$156,000.00</u>	<u>\$203,311.21</u>
239	Burnt Wood Utilization						
	Provincial Enhancement Funds				600,000.00	0.00	600,000.00
	Sub - total	<u>\$0.00</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$600,000.00</u>	<u>\$0.00</u>	<u>\$600,000.00</u>
300	Communications Project Management						
	Canadian Forest Service					71,650.00	71,650.00
	Other					1,187.90	1,187.90
	Sub - total	<u>\$0.00</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$72,837.90</u>	<u>\$72,837.90</u>
320	Educational Relations						
	Canadian Forest Service					46,575.00	46,575.00
	Sub - total	<u>\$0.00</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$46,575.00</u>	<u>\$46,575.00</u>
321	Community Relations						
	Canadian Forest Service					27,500.00	27,500.00
	Canadian National					5,000.00	5,000.00
	Foothills Model Forest				5,000.00		5,000.00
	Hinton Forest Capital 2000					6,500.00	6,500.00
	Land and Forest Service - AEP					10,000.00	10,000.00
	Other					1,200.00	1,200.00
	Weldwood of Canada - FRIAA					23,000.00	23,000.00
	Sub - total	<u>\$0.00</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$5,000.00</u>	<u>\$73,200.00</u>	<u>\$78,200.00</u>
322	Media Relations						
	Weldwood of Canada - FRIAA					1,000.00	1,000.00
	Sub - total	<u>\$0.00</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$1,000.00</u>	<u>\$1,000.00</u>
323	Partner Relations						
	Canadian Forest Service					13,000.00	13,000.00
	Sub - total	<u>\$0.00</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$13,000.00</u>	<u>\$13,000.00</u>
324	Technology Transfer						
	Canadian Forest Service					10,000.00	10,000.00
	Other					43,401.42	43,401.42
	Weldwood of Canada - FRIAA					15,000.00	15,000.00
	Sub - total	<u>\$0.00</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$68,401.42</u>	<u>\$68,401.42</u>
325	Government/Network Relations						
	Eastern Ontario Model Forest					7,736.52	7,736.52
	Weldwood of Canada - FRIAA					2,000.00	2,000.00
	Sub - total	<u>\$0.00</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$9,736.52</u>	<u>\$9,736.52</u>
326	Tool Development						
	Weldwood of Canada - FRIAA					5,000.00	5,000.00
	Sub - total	<u>\$0.00</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$5,000.00</u>	<u>\$5,000.00</u>

**FOOTHILLS MODEL FOREST
RECORD OF CASH AND IN-KIND CONTRIBUTIONS
FOR THE YEAR ENDING MARCH 31, 2001**

Project Code	Project Title	SERVICES & PRODUCTS CONTRIB.	# of HOURS CONTRIB.	DOLLAR VALUE OF HOURS	OTHER CASH CONTRIB.	CASH CONTRIB.	TOTAL CONTRIB. BY PROJECT
390	Project Management						
	Provincial Enhancement Funds				210,495.25	0.00	210,495.25
	Sub - total	\$0.00	0.0	\$0.00	\$210,495.25	\$0.00	\$210,495.25
401	Administration						
	Treasurer - Weldwood of Canada		100.0	4,000.00			4,000.00
	General Manager - Alberta Environment			52,000.00			52,000.00
	Canadian Forest Service					107,184.00	107,184.00
	Land and Forest Service - AEP					10,000.00	10,000.00
	Other					1,727.14	1,727.14
	Sub - total	\$0.00	100.0	\$56,000.00	\$0.00	\$118,911.14	\$174,911.14
410	Board of Directors						
	Bill Hume-Cardinal River Coals		14.0	1,400.00			1,400.00
	Bob Newstead - Canadian Forest Service		N/A				0.00
	Bob Udell - Weldwood of Canada		331.0	33,100.00			33,100.00
	Brad King - Weldwood of Canada		16.0	1,600.00			1,600.00
	Brian Wallace - Jasper National Park		28.5	2,850.00			2,850.00
	David Luff - CAPP		16.0	1,600.00			1,600.00
	Dennis Hawksworth - Weldwood of Canada		50.0	5,000.00			5,000.00
	James Beck - University of Alberta		102.5	10,250.00			10,250.00
	Jerry Sunderland		33.0				0.00
	Jim Skrenek - Natural Resources Service		65.0	6,500.00			6,500.00
	John Kerkhoven - Petro Canada		45.5	4,550.00			4,550.00
	Marsha Spearin - Weldwood of Canada		63.5				0.00
	Mel Williams - Cardinal River Coals Ltd.		7.5	750.00			750.00
	Mike Poscente - Land and Forest Service		140.0	14,000.00			14,000.00
	Rick Ksiezopolski - Weldwood of Canada		85.0	8,500.00			8,500.00
	Ron Hooper - Jasper National Park		93.0	3,800.00			3,800.00
	Ross Risvold - Mayor, Town of Hinton		208.0	20,800.00			20,800.00
	Canadian Forest Service					8,250.00	8,250.00
	Sub - total	\$0.00	1298.5	\$114,700.00	\$0.00	\$8,250.00	\$122,950.00
411	Model Forest Network						
	Bob Udell - Weldwood of Canada		106.0	10,600.00			10,600.00
	Canadian Forest Service					4,000.00	4,000.00
	Eastern Ontario Model Forest					4,420.78	4,420.78
	Sub - total	\$0.00	106.0	\$10,600.00	\$0.00	\$8,420.78	\$19,020.78
412	Project Steering Committee						
	Rick Bonar - Weldwood of Canada		20.0	1,000.00			1,000.00
	Canadian Forest Service					1,000.00	1,000.00
	Sub - total	\$0.00	20.0	\$1,000.00	\$0.00	\$1,000.00	\$2,000.00
413	Partners' Association						
	Canadian Forest Service					1,000.00	1,000.00
	Sub - total	\$0.00	0.0	\$0.00	\$0.00	\$1,000.00	\$1,000.00
415	Activity Teams						
	Canadian Forest Service					1,000.00	1,000.00
	Sub - total	\$0.00	0.0	\$0.00	\$0.00	\$1,000.00	\$1,000.00
OTHER PROJECTS							
603	Pileated Woodpecker						
	Rick Bonar - Weldwood of Canada		200.0	10,000.00			10,000.00
	Sub - total	\$0.00	0.0	\$10,000.00	\$0.00	\$0.00	\$10,000.00
612	Adaptive Forest Management						
	Bob Udell - Weldwood of Canada		76.0	7,600.00			7,600.00
	FRIAA - Weldwood of Canada					60,000.00	60,000.00
	Sub - total	\$0.00	76.0	\$7,600.00	\$0.00	\$60,000.00	\$67,600.00
643	Fish & Stream Inventory - FRIP						
	Other					4,302.24	4,302.24
	Fish and Wildlife Service - NRS	4,000.00					4,000.00
	FRIAA - Weldwood of Canada					125,000.00	125,000.00
	Sub - total	\$4,000.00	0.0	\$0.00	\$0.00	\$129,302.24	\$133,302.24
TOTAL FOR ALL PROJECTS		\$381,270.00	16,819.5	\$647,077.50	\$1,593,485.44	\$2,671,689.47	\$5,293,522.41