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**FOOTHILLS MODEL FOREST
PRELIMINARY BUSINESS PLAN &
REQUEST FOR FUNDING (2001-2005)**

**Submitted by Foothills Model Forest to the Alberta Forest and Forest
Products Research Institute - December 5, 2000.**

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December 5, 2000

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PRELIMINARY BUSINESS PLAN/REQUEST FOR FUNDING

Submitted by Foothills Model Forest to the Alberta Forest and Forest Products Research Institute - December 5, 2000.

Goal

Through partnership with the Alberta Forest and Forest Products Research Institute, enhance research in sustainable forest management relevant to the needs of land and resource managers through the Foothills Model Forest program. A five year program is proposed.

The Foothills Model Forest – A Background

The Foothills Model Forest is a 2.75 million hectare research forest set in the Foothills and Rocky Mountains region of west central Alberta. It was established in 1992 as part of a national network of model forests, and is the largest of 11 across Canada. The Canadian Model Forest Network (CMFN) was conceived to provide “working models of sustainable forest management” in each of the major forest regions of Canada. Its main research focus is on locally based sustainable forest management issues and challenges. It aims to form and maintain unique and long lasting functional partnerships, which bring all values and perspectives of the area it represents to the table. Each model forest is set up and functions to best suit the area it represents.

The 2.75 million hectares encompassed within the Foothills Model Forest landbase includes both industrial forest, crown management units and protected areas. It includes the Weldwood Forest Management Agreement Area, Jasper National Park of Canada, Wilmore Wilderness Park, provincial parks, special places, and crown forest management units. The model forest has 4 major sponsoring partners. They are Weldwood of Canada Limited, Natural Resources Canada, Alberta Environment, and Jasper National Park of Canada. We are currently in year four of our second five year phase. At the beginning of Phase II, each of the four sponsoring partners committed an amount of yearly “core” funding which would run through until the end of the Phase. The funding breakdown is as follows:

Sponsoring Partner	Yearly Core Funding Amount
Natural Resources Canada (NRCan)	\$500,000
Weldwood of Canada	\$250,000
Alberta Environment (AENV)	\$150,000
Jasper National Park of Canada (JNP)	\$100,000
Total Yearly Core Funding	\$1,000,000

As part of NRCan’s 5 year funding commitment to the Model Forest Program it was expected that by the end of Phase II each model forest would raise and maintain yearly funding commitments of 50% (\$250,000) of the federal contribution. With its core funding of one million dollars, Foothills Model Forest has well exceeded this expectation.

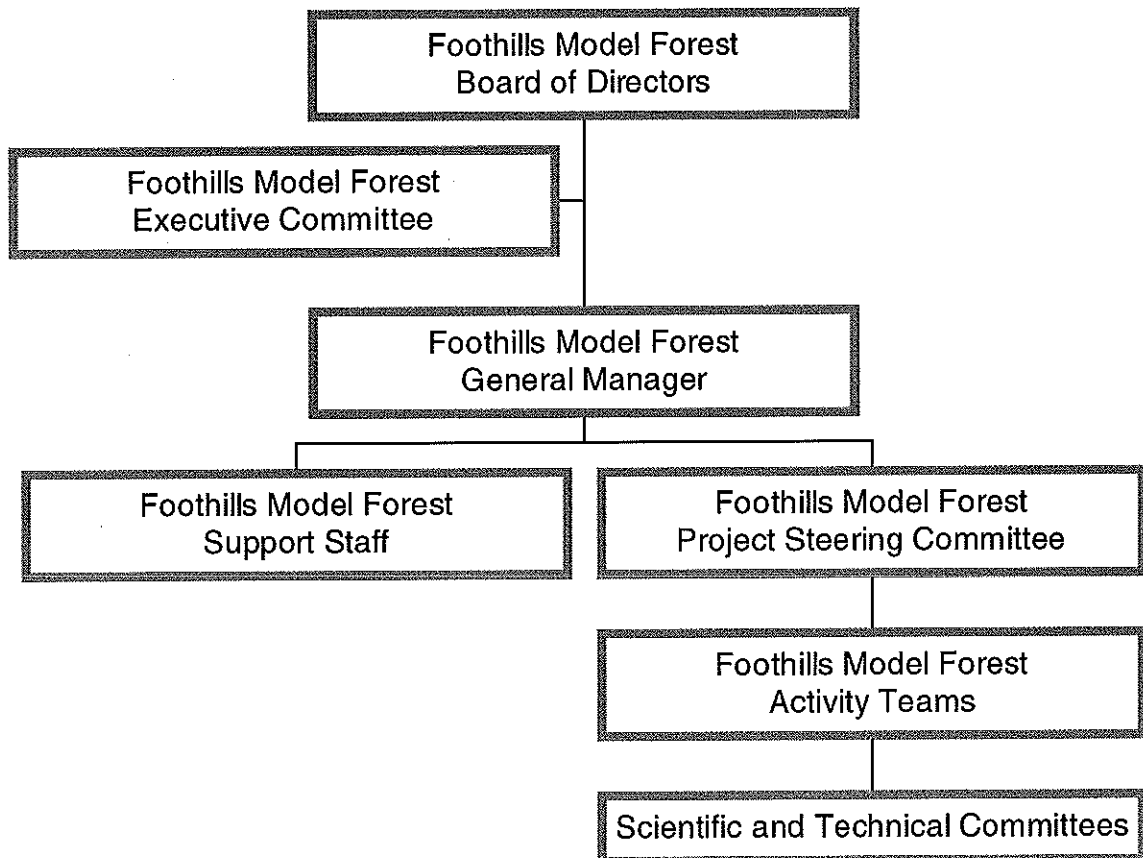
The Foothills Model Forest has had great success in establishing and maintaining effective and long lasting partnerships with numerous companies and organisations. Currently the Foothills model Forest has over 40 partners. The operating budget for the current fiscal year is approximately 3 million dollars.

With a proven track record in research and partnership, the Foothills Model Forest stands ready to continue to serve the needs of government and industrial land managers through leveraged support from the Alberta Forest and Forest Products Research Institute. We propose the following initiatives as appropriate for such support.

Foothills Model Forest Organisation

The Foothills Model Forest is a well functioning, effective, empowered, self-sustaining organisation which was founded on committed partnerships. The organisation is outlined in the following chart:

Foothills Model Forest Organisational Chart



FMF Board of Directors: The Board of Directors is comprised of 16 individuals from agencies with land management authority, or who work in areas that have direct impacts on the forest landbase. The board is responsible for setting strategic priorities, allocation of resources, and overseeing action plans. It reflects the views and values of key stakeholders and is representative of FMF partnerships. In order to ensure strategic directions of the FMF are in step with the needs of the larger partnership, membership of the Board of Directors is reviewed on a periodic basis. Current Foothills Model Forest Board membership is comprised of the following individuals:

Name	Title/Organisation	Comments
Robert Udell	Manager, Forest Policy - Weldwood of Canada Limited (Hinton Division)	FMF President
Ross Risvold	Mayor – Town of Hinton	FMF Chairman
Dr. Jim Beck	Professor of Forest Management - University of Alberta	
Dennis Hawksworth	Vice-President, Hinton Forest and Wood Products – Weldwood of Canada Limited (Hinton Division)	
Rick Ksiezopolski	Forest Resource Manager - Weldwood of Canada Limited (Hinton Division)	
Ron Hooper	Superintendent – Jasper National Park of Canada	3 Jasper reps share 2 voting board seats.
Brian Wallace	Manager, Warden Service – Jasper National Park of Canada	3 Jasper reps share 2 voting board seats.
Kevin Van Tighem	Manager, Ecosystem Secretariat – Jasper National Park of Canada	3 Jasper reps share 2 voting board seats.
David Luff	Vice President, Environment and Operations, Canadian Association of Petroleum Producers (CAPP)	2 CAPP members share 1 voting board seat.
John Kerkkoven	Surface Land Supervisor, Control and Management – Petro-Canada Limited	CAPP Rep
Bob Newstead	Regional Co-ordinator, Model Forest Program - Canadian Forest Service, Edmonton	
Mike Poscente	Regional Director - North East Slopes Region, Land and Forest Service, Alberta Environment	
Jim Skrenek	Regional Director – North East Slopes Region , Natural Resource Services, Alberta Environment	
Dennis Quintilio	Executive Director - Integrated Resource Management Division, Land and Forest Service, Edmonton	
Jerry Sunderland	Director of Industry Operations - Forest Industry Development Branch, Department of Resource Development, Government of Alberta, Edmonton	

**Note – There is currently a vacant seat, traditionally held by a member of the Coal Industry. FMF is currently in the process of refilling this seat.*

FMF Executive Committee: The executive committee is comprised of 7 FMF board members, and acting on behalf of the board, provides direction to the Foothills Model Forest General Manager in dealing with operational and resource allocation issues/requirements. The Executive Committee consists of two members from each of the 3 sponsoring partners with land management authority on the FMF landbase, as well as the FMF Chairman. Currently, executive committee membership consists of the following:

Name	Organisation
Ross Risvold	Town of Hinton – FMF Chairman
Bob Udell	Weldwood of Canada Limited (Hinton Div.)
Rick Ksiezopolski	Weldwood of Canada Limited (Hinton Div.)
Ron Hooper	Jasper National Park of Canada
Kevin Van Tighem	Jasper National Park of Canada
Mike Poscente	Land and Forest Service – AENV
Jim Skrenek	Natural Resource Services - AENV

Project Steering Committee: The project steering committee is comprised of members who are seen as crucial to the work plan process or have been empowered by their employer/organisation to make financial and/or project related decisions that may lead to operational changes to forest management planning/practice. The group is accountable to the Board of Directors through the General Manager and is entrusted to deliver on the annual workplan as approved by the Board on an annual basis.

Activity Teams: Program Activity Teams for the Foothills Model Forest, in conjunction with the Project Steering Committee, are responsible for designing detailed programs necessary to meet the goals and objectives of the Foothills Model Forest as specified by the Board of Directors. Activity Teams are developed around each of the major program areas currently underway at the Foothills Model Forest. Activity Teams include representation from the Project Steering Committee and members of partner organisations. Each activity team has a “**FMF Board Champion**” who provides direction and rationale as specified by the board to ensure program direction meets strategic and operational requirements. As required additional expertise in a particular subject area outside of the general partnership can be brought in on a “value added” basis as agreed to by the activity team. Examples of this would include “*Scientific and Technical Advisory Committees*”, for such programs as the Carnivore Conservation (Grizzly Bear) Program, and the Alberta Forest Biodiversity Monitoring Program.

Foothills Model Forest – Preliminary 5 Year Business Plan – Proposal for AFRI Funding

The Foothills Model Forest is seeking long term funding under the “*Sustainable Forest Management*” strategic research direction outlined in the Alberta Forest Research Advisory Council documents, “*A Proposal for Development of the Alberta Forest and Forest Products Research Institute*”, completed in January of 2000, and the “*Forest Sector Research Plan*” dated November of 2000. While the Foothills Model Forest is applying for funding under the Sustainable Forest Management strategic direction, current and planned program directions have relevance in the strategic research areas of “*Improving the Value Chain*” and “*Enabling Technology*”. Relevance to strategic

research areas is addressed under the individual program areas we are seeking long term funding for.

The Foothills Model Forest is seeking long term funding for the following program areas:

- Northern East Slopes – Sustainable Resource and Environmental Management Strategy (NES IRM)
- Carnivore Conservation – Grizzly Bear Program
- Natural Disturbance Program
- Watershed and Fisheries Program
- Foothills Growth and Yield Association
- Biodiversity Monitoring/Indicators of SFM
- Communications, Knowledge and Technology Transfer

Due to time constraints, the Foothills Model Forest is not applying for funding in the program areas of Community and Economic Cycles, and Global Cycles at this time. It is important to note that virtually all of the above program areas have Community and Economic Cycle components and ramifications to them. In particular, the NES Sustainable Resource and Environmental Strategy will draw upon leading edge, world class Socio-economic research developed and conducted in partnership with the Canadian Forest Service at the Foothills Model Forest. As well, the completed Foothills Model Forest Carbon Budget and ongoing Climate Change projects are aimed at addressing Global Cycles. If desired, the Foothills Model Forest will gladly expand its business plan to include these programs.

The preliminary five year funding request under the strategic direction of **Sustainable Forest Management** is summarised in the following table:

Proposed FMF Budget

Note – FMF fiscal year runs from April to March

AFRI Program Area	FMF Program	Year 1 2001/2002	Year 2 2002/2003	Year 3 2003/2004	Year 4 2004/2005	Year 5 2005/2006
SFM	NES IRM	\$81,000	\$140,000	\$200,000	\$240,000	\$240,000
SFM	Grizzly Bear	\$322,000	\$440,000	\$380,000	-	-
SFM	Natural Disturbance	\$80,000	\$108,000	\$141,000	\$223,000	\$223,000
SFM	Watershed/ Fisheries	\$80,000	\$108,000	\$140,000	\$223,000	\$223,000
SFM	Growth & Yield	\$80,000	\$108,000	\$141,000	\$223,000	\$223,000
SFM	Biomonitoring/ Indicators of SFM	\$78,000	\$108,000	\$139,000	\$223,000	\$223,000
SFM	Communications Knowledge/ Tech Transfer	\$79,000	\$108,000	\$139,000	\$148,000	\$148,000
	Total (\$)	800,000	1,120,000	1,280,000	1,280,000	1,280,000

Five year Budget = \$5,760,000

Rationale

The Foothills Model Forest is currently in year 4 of its 2nd five year phase (Phase II). Phase III will commence in 2002/2003 and will run through until 2006/2007. The Grizzly Bear Project is in the 2nd year of a five year program and is slated to end in 2003/2004. As this is a key program spearheaded by the Government of Alberta and has the highest yearly program budget at the FMF, we have requested a proportionally higher funding amount over the first three years of this proposal to ensure its successful completion. It is expected that other program areas under this proposal will require greater levels of funding as the FMF gets further into Phase III.

Descriptions, outlining individual program goals, strategies, relevance to AFRI priorities, and resource requirements by fiscal year and quarter follow in this document.

NES – Sustainable Resource and Environmental Management Strategy

Goal

To support the Northern East Slopes Sustainable Resource and Environmental Management Strategy through the development/enhancement of landscape planning and visualisation models, along with associated research and monitoring.

Strategy and Tactics

Examine and modify existing models (e.g. C5, ALCES Model, Woodstock, McGregor Landscape Scenario Planning Model) to suit the Northern East Slopes landscape and conditions. This would include visualisation, quantitative analysis, forecasting and cumulative effects analysis. We will also conduct research to fill knowledge or data gaps, and provide technical/knowledge transfer.

Relevance to AFRI Priorities

Sustainable Forest Management – The NES strategy will set forward the framework for the desired future forest and integrated resource management in the Northern East Slopes region of Alberta. Land and resource managers will benefit from the development of landscape planning and visualisation models that are applicable to the landscape and conditions that are found within the strategy area. Foothills Model Forest involvement in model development, combined with effective monitoring programs, and targeted research to fill critical gaps in knowledge will provide resource managers with information and technology with which to make appropriate and sustainable land management decisions. These tools combined with components from the FMF Criteria and Indicators program (i.e. risk assessment, threat minimisation, value added, income distribution, competitive cost position, community sustainability) will help meet the challenge of balancing the ecological, social and economic needs of the region.

Enabling Technologies – Foothills Model Forest will target development of landscape models, research, and monitoring programs which are cost effective yet comprehensive enough to be modified to other landscapes within Alberta. As new Resource and Environmental Strategies are initiated the communication of research and monitoring programs and the transfer of knowledge and technology to land and resource managers will be a major focus of the Foothills Model Forest.

Partnership

Currently the Foothills Model Forest is providing strategic and technical advice and information to the IRM Regional Steering Group, of which three Foothills Model Forest Board Members are included. These members include the NES Regional Director (LFS), Jasper National Park of Canada Superintendent, and Weldwood of Canada (Hinton Division) Forest Resources Manager. The Director of Alberta Environment's Integrated Resource Management Division is also a member of the Foothill Model Forest Board of Directors. The Foothills Model Forest is also providing, in partnership and collaboration with Alberta Environment, Alberta Economic Development and the Canadian Forest Service, a Resource Economist who will be a member of the Integration Group and provide analysis and advice on incorporating the economic interests of industry sectors active in the NES region.

Current Funding/Partnership Profile

Partner	Funding
Alberta Environment	\$46, 000
Alberta Economic Development	\$95, 000

Resources Required

Note – Foothills Model Forest fiscal year runs April 1 to March 31.

Year	1st ¼	2nd ¼	3rd ¼	4th ¼	Total
2001/2002	\$21,000	\$20,000	\$20,000	\$20,000	\$81,000
2002/2003	\$35,000	\$35,000	\$35,000	\$35,000	\$140,000
2003/2004	\$50,000	\$50,000	\$50,000	\$50,000	\$200,000
2004/2005	\$60,000	\$60,000	\$60,000	\$60,000	\$240,000
2005/2006	\$60,000	\$60,000	\$60,000	\$60,000	\$240,000
				Total	\$901,000

Carnivore Conservation – Grizzly Bear Program

The 1997 Cheviot panel recommended, as a condition of approval of the proposed mine, that the Province of Alberta, through co-operation with Jasper National Park, develop a long term grizzly conservation framework for west central Alberta. The Province of Alberta proposed and Foothills Model Forest agreed - that the model forest conduct the necessary research to support this framework.

Goal

¹"To provide resource managers with the necessary knowledge and planning tools to ensure long-term conservation of grizzly bears in the Alberta Yellowhead Ecosystem", and ultimately the Eastern Slopes region of Alberta.

Strategy and Tactics

The Model Forest is supporting the goal of long term grizzly bear conservation by conducting a comprehensive and internationally-recognised research program that will:

- Provide information that will support management programs to provide healthy and stable/increasing grizzly bear populations over time.
- Identify habitat and landscape conditions that contribute to or limit viable and regionally connected grizzly bear populations.
- Develop a set of validated, user friendly, GIS based computer models that will provide predictive capability when resource managers are making land use planning decisions in known grizzly bear range.

Relevance to AFRI Priorities

Sustainable Forest Management – The ability to develop effective management programs which provide healthy and stable/increasing grizzly bear populations over time should maintain and or enhance wildlife and wildness values and help ensure ecosystem function. The cumulative effects component of the Grizzly Bear program will allow land managers to set threshold values which if adhered to should ensure long term ecosystem function, and allow the continuation of appropriate levels of resource development. This will aid the goal of long term community sustainability.

Enabling Technologies – The GIS based predictive models, evidential reasoning, and genetic research components of this program have great potential for further development and/or modification for applicability on to other landscapes. This transfer of technology and knowledge will allow resource managers to make, with confidence, science-based resource management decisions, and effectively communicate and substantiate those decisions to the general public.

Partnership

Through extensive partnership building and fund raising activities the Foothills Model Forest Grizzly Program has had tremendous success in building a broad and varied partnership base. Many of the program partners have committed to multi-year funding. Partnerships and associated \$ are those outside of FMF Core Funding.

Current Funding/Partnership Profile

Partner	Total Funding	Details
ACA	\$100,000	Applied for annually (50K/year to date)
AENV	\$339,000	Funds as available from time to time
AENV Endangered Species	\$20,000	1 time funding

¹ The Foothills Model Forest Grizzly Bear Research Project - Workplan for 1998-99 – G. Stenhouse

Partner	Total Funding	Details
AENV Secondment Position – Program Leader	\$54,000	Annual Yearly Salary Support
Ainsworth	\$50,000	5 year – multi year funding (5x 10K)
Anderson Exploration	\$5,000	1 time funding
Blue Ridge Lumber	\$60,000	3 year – multi-year funding (3x 20K)
Burlington Resources	\$5,000	1 time funding
Canfor	\$100,000	4 year – multi year funding (4x 25K)
Canadian Hunter Exploration Ltd.	\$10,000	1 time funding
Cardinal River Coal	\$50,000	1 time funding
Fish and Game Association	\$1,500	1 time funding
Greg River Resources	\$25,000	1 time funding
Inland Cement	\$25,000	1 time funding
Provincial Enhancement Funds	\$295,000	2 grants
Luscar	\$25,000	1 time funding
Millar Western	\$20,000	4 year – multi-year funding (4x5K)
Petro-Canada	\$15,000	1 time funding
Rocky Mountain Elk Foundation	\$1,000	1 time funding
Sundance Forest Industries	\$15,000	1 time funding
Sunpine Forest Products	\$10,000	1 time funding
Telemetry Solutions	\$700.00	1 time funding
Trans Canada Pipelines	\$12,000	1 time funding
Weldwood	\$200,000	4 year – multi year funding (4x 50K)
Weyerhaeuser – GP	\$100,000	2 year – multi year funding (2x 50K)

Note – Above funding profile only covers past and expected expenditures to the end of the 2000/2001 Fiscal Year. Committed funding is insufficient to sustain projected expenditures through the 5 year life of the program. Average yearly expenditures over 1st 2 years of program have been \$600,000.

Resources Required

Note – Foothills Model Forest fiscal year runs April 1 to March 31.

Year	1st ¼	2nd ¼	3rd ¼	4th ¼	Total
2001/2002	\$137,000	\$32,000	\$48,000	\$105,000	\$322,000
2002/2003	\$187,000	\$43,500	\$65,500	\$144,000	\$440,000
2003/2004	\$161,500	\$37,500	\$56,500	\$124,500	\$380,000
				Total	\$1,142,000

Natural Disturbance Program

Forest management programs in Alberta and elsewhere have been moving in the direction of designing activities which approximate the range and variability of natural disturbances from which Alberta's natural forests originated. This so-called "coarse filter" approach to forest management presumes that, if man can manage his activities in harvest and renewal to continue the seral stages and forest ecosystems within their historic range of variability, then the conservation of natural biodiversity should be achieved. The model forest's natural disturbance program is examining the various elements of this historic disturbance in the foothills of Alberta, to inform the management programs of forest managers, both industrial and government.

Goal

²It is the goal of the FMF partners directly responsible for land management decisions (AENV, Jasper National Park of Canada, Weldwood of Canada) that some degree of "naturalness" be maintained on the landscape through disturbance management. This is precipitated by the desire to maintain ecological integrity or "biodiversity".

Strategy and Tactics

Six general categories are identified in the research plan. Within each of the general categories fall several proposed or ongoing projects. These projects are at Regional, Landscape, Meso/Disturbance, and Stand Scales. These projects include a disturbance overview of the model forest, area specific empirical research, within-disturbance empirical research, and stand level empirical research, and experimentation, which will culminate in a series of decision-support and simulation tools.

Much of the work completed already has been carried out on the Foothills Model Forest Landbase, however a window of opportunity was realised in the aftermath of the Virginia Hills Fire in 1998. During the summer of 1999 Stand and Meso Scale research projects were carried out in the Virginia Hills Fire area. This research continues.

Relevance to AFRI Priorities

Sustainable Forest Management – Natural Disturbance research underway at the Foothills Model Forest has allowed land management partners to begin disturbance based management planning and/or activities on their respective landbases. The development of decision support and simulation models will allow managers to test disturbance scenarios, which consider other values on the landbase. This will increase their ability to maintain ecological diversity and ensure long term, sustainable access to resources.

Enabling Technologies – The research, experimentation and decision support and simulation tools being developed under the Natural Disturbance program have already been extended to other, boreal forest landscapes. The objective of a comprehensive knowledge and technology transfer strategy at the Foothills Model Forest is to improve

² Foothills Model Forest Natural Disturbance Program – Long Term Research Plan – 1998/99 – D. Andison

the understanding and application of these tools and research results in planning and operations throughout Alberta.

Partnerships

Through partnership building and fund raising activities The Foothills Model Forest Natural Disturbance Program has had success in building a broad and varied partnership base. Many of the program partners have committed to multi-year funding. Partnerships and associated \$ are those outside of FMF Core Funding.

Current Funding/Partnership Profile

Partner	Funding	Details
Alberta Newsprint Company	\$70,000	Multi-year funding – yearly commitment Of 35K.
Blue Ridge Lumber	\$15,000	1 time funding
Jasper National Park	\$10,000	1 time funding
Provincial Enhancement Funds	\$54,000	1 time funding
Weldwood	\$38,000	Multiple 1 time funding outside of core funds. (2x19K)
Weyerhaeuser	\$70,000	Multiple 1time funding.

Resources Required

Note – Foothills Model Forest fiscal year runs April 1 to March 31.

Year	1st ¼	2nd ¼	3rd ¼	4th ¼	Total
2001/2002	\$28,500	\$28,500	\$11,500	\$11,500	\$80,000
2002/2003	\$38,000	\$38,000	\$16,000	\$16,000	\$108,000
2003/2004	\$50,000	\$50,000	\$20,500	\$20,500	\$141,000
2004/2005	\$79,000	\$79,000	\$32,500	\$32,500	\$223,000
2004/2005	\$79,000	\$79,000	\$32,500	\$32,500	\$223,000
				Total	\$775,000

Watershed and Fisheries Program

Watershed and fisheries are of key interest to the public of Alberta, who wish them to continue to provide clean abundant water and healthy fish populations. The model forest has recognised this imperative and has been conducting this research for several years. The recent (2000) report of the Cheviot Panel has identified the need for more such research by the Province and the federal government in order to provide appropriate information for decision making in resource development.

Goal

To provide resource managers with the necessary knowledge, planning, and decision support tools to ensure long-term conservation of water quality and aquatic resources on the Foothills Model Forest Landbase, and ultimately the Eastern Slopes region of Alberta.

Strategies and Tactics

The Model Forest is supporting the goal of clean water and healthy fisheries by conducting a comprehensive research program by:

- Continuing and expanding existing monitoring and research programs currently on the Weldwood FMA to include Jasper National Park of Canada
- If deemed appropriate, supporting NES IRM Strategy operational and planning initiatives to cover areas of special interest on crown management units and/or protected areas.
- Providing information to resource managers to ensure healthy native fish species populations over time.
- Identifying human activities, aquatic habitat and riparian ecological conditions that contribute to or limit viable fisheries populations and water quality.
- Developing validated, user friendly, GIS based computer models that will provide predictive capability when resource managers are making land use planning decisions in and around riparian areas and aquatic environments.

Relevance to AFRI Priorities

Sustainable Forest Management – Long term conservation of water quality and aquatic resources is a cornerstone of Sustainable Forest Management. Foothills Model Forest fisheries monitoring, research and stream classification programs are allowing land managers to make informed and sustainable land-use decision in and around riparian areas, and aquatic environments.

Enabling Technologies – The development of computer based predictive watershed models will allow land managers to test the potential effects of land-use decisions in and around aquatic and aquatic environments. By combining these predictive tools with landscape disturbance models the long term effects of activities within a watershed area should be able to be predicted. This will allow resource managers to make appropriate planning and operational decisions, both at the local and landscape levels.

Partnerships

The watershed and fisheries program has to date had three main funding agencies, i.e. core model forest budgets, Weldwood (using FRIP funding), and the Alberta Conservation Association. In the recent Report of the EUB-CEAA Joint Review Panel for the Cheviot Coal Project it was recommended that “through the Foothills Model

Forest Committee, the Department of Fisheries and Oceans (DFO), in partnership with Alberta Environment (AENV), lead the formation of a co-operative regional research and management subcommittee to help develop and implement aquatic monitoring and research and management programs in the McLeod and Cardinal River watersheds. The Panel also recommended that the DFO actively participate in this and any other regional aquatic studies." The Foothills Model Forest stands ready to serve this partnership, but lacks the funds to do so.

Current Funding/Partnership Profile

Partner	Funding	Details
Weldwood	\$907,500	Multi year funding since 1995.
ACA	\$215,748	Multi-year funding since 1995
Hinton Fish and Game	\$4,500	Multi-year funding form 1995-1998

Resources Required

Note – Foothills Model Forest fiscal year runs April 1 to March 31.

Year	1st ¼	2nd ¼	3rd ¼	4th ¼	Total
2001/2002	\$22,500	\$27,000	\$21,000	\$9,500	\$80,000
2002/2003	\$30,000	\$37,000	\$28,000	13,000	\$108,000
2003/2004	\$39,000	\$47,500	\$36,500	\$17,000	\$140,000
2004/2005	\$62,500	\$76,000	\$58,000	\$26,500	\$223,000
2005/2006	\$62,500	\$76,000	\$58,000	\$26,500	\$223,000
				Total	\$774,000

Foothills Growth and Yield Association

Several forest companies, and the province have joined together in an association to develop growth and yield information which will provide the scientific foundation for the intensification of forest management in coniferous forest types in Alberta. Initially, investigations are underway in juvenile forest stands. But strong evidence points to substantial benefits from late stage stand management also.

Goal

To provide the quantitative evidence which supports the use of late stage stand Management in forest practice and timber supply analysis in Alberta.

Strategies and Tactics

Association members have agreed to co-operate in the design, installation and analysis of replicated trials in a range of forest conditions in Alberta. Among other activities, they have agreed to:

- Implement research to quantify the growth and yield benefits of late stage interventions (commercial thinning and fertilisation) in mature lodgepole pine stands in Alberta.

- Develop a research design, select appropriate stands, install by Foothills Growth and Yield Association Members (9), monitor, analyse, and report on a 5 year periodic basis.

The proposed project, which is incremental to the Association's current research program, will provide a much needed scientific basis for forecasting and monitoring the effects of late-stage thinning/partial cutting and fertilisation on timber growth and yield, timber value, stand structure, plant biodiversity, and fire risk/crop stability.

Relevance to AFRI Priorities

Sustainable Forest Management – Significant areas in the managed forests of Alberta are being removed from the timber supply base to support other values. This project supports efforts to compensate for the AAC impact by increasing productivity of the remaining landbase.

Improving the Value Chain – Strong evidence suggests late stage interventions will substantially increase volume/hectare and average stem diameter in the near term scheduled harvest. The larger diameters have higher value for solid wood products, and lower harvesting cost.

Partnerships

The Foothills Growth and Yield Association is made up of strong partnership nine coniferous FMA holders in the foothills region of Alberta, Alberta Environment, and the Foothills Model Forest. Efforts to expand the partnership are ongoing.

Current Funding/Partnership Profile: Existing Early Seral Stage Trials

Note – Companies are responsible for setting up Regen trials on their own FMA's. Number of installations is dependent on the AAC of the FMA and the relative amount of lodgepole pine dominated forest. Funding indicated below reflects costs of yearly membership dues (\$10,000/annum) and installation establishment.

Partner	Funding	Details
ANC	16,750	5 installations
Blueridge	\$35,200	8 installations
Canfor – Grande Prairie	\$16,570	5 installations
Millar Western	\$16,570	5 installations
Spray Lakes	\$16,570	5 installations
Sundance	\$19,900	6 installations
Sunpine	\$45,100	14 installations
Weldwood	\$67,150	21 installations
Weyerhaeuser – Grande Prairie	\$67,150	21 installations

Resources Required

Note – Foothills Model Forest fiscal year runs April 1 to March 31.

Year	1st ¼	2nd ¼	3rd ¼	4th ¼	Total
2001/2002	\$12,000	\$28,000	\$28,000	\$12,000	\$80,000
2002/2003	\$16,000	\$38,000	\$38,000	\$16,000	\$108,000
2003/2004	\$21,000	\$49,500	\$49,500	\$21,000	\$141,000
2004/2005	\$33,500	\$78,000	\$78,000	\$33,500	\$223,000
2005/2006	\$33,500	\$78,000	\$78,000	\$33,500	\$223,000
				Total	\$775,000

Biodiversity Monitoring/Indicators of SFM

The conservation of biodiversity has been recognised in international conventions of which Canada is a signatory, as well as a criteria of sustainable forest management by the Canadian Council of Forest Ministers. Closer to home, conservation of biodiversity is a cornerstone of the Alberta Forest Legacy Framework. But to demonstrate that biodiversity conservation is being achieved, measurement of appropriate indicators is paramount.

Goal

To examine and document the relationship between resource management on public lands, and the conservation of biodiversity on those lands.

Strategy and Tactics

- A biodiversity monitoring program will be designed and tested on the lands contained within the model forest research area – including crown management units, provincial parks, industrial forest, and national park. The following activities are proposed:
- The FMF Criteria and Indicators and the Alberta Biodiversity Monitoring programs will be examined for possible linkages/synergies.
- A comprehensive, affordable, and science based strategy will be devised to establish and carryout a biomonitoring protocol which meets the reporting needs of both SFM Indicator program and provincial biodiversity convention needs.
- The protocol will be tested on the FMF landbase, and if effective expanded to other landbases for broader testing and/or implementation. This will support provincial IRM initiatives, National Park management plan objectives, and reporting requirements for certified industrial landbases.

Relevance to AFRI Priorities

Sustainable Forest Management – Biodiversity and SFM indicators are key elements of sustainable forest and resource management in Alberta, Canada and the world. A tested and publicly acceptable biomonitoring protocol, which is closely linked to criteria and indicators initiatives, is desirable to all resource managers.

Enabling Technologies – The protocol will be shared with other resource managers and if required modified to suit conditions on other landbases. The protocol will have a strong public relations component and is intended to be an effective communications tool for resource managers.

Partnership

The Foothills Model Forest Criteria and Indicators program is made up of all land management partners in the FMF and has recently added the Canadian Association of Petroleum Producers to the activity team responsible for the program. The Alberta Biodiversity Monitoring Program currently has sixteen partners from the forest industry, various government organisations, universities, and scientific research organisations. The linkage of these two programs to develop a monitoring protocol for testing on the FMF landbase should have positive implications for leverage funding.

Current Funding/Partnership Profile 2000/2001(outside of core funding)

Partner	Funding	Details
Alberta Research Council	\$38,000	Administered by AENV
ACA	\$20,000	
Other partners/sponsors:	\$140,000	Other partners listed below: Ainsworth Lumber Alpac ASRA Daishowa-Marubeni Intern FOREM Consulting Manning Diversified Millar-Western Industries NRCan Parks Canada – Wood Buffalo Park Provincial Museum of Alberta University of Calgary University of Alberta University of Victoria Weldwood of Canada Weyerhaeuser Canada

Resources Required

Note – Foothills Model Forest fiscal year runs April 1 to March 31.

Year	1st ¼	2nd ¼	3rd ¼	4th ¼	Total
2001/2002	\$16,000	\$27,000	\$27,000	\$8,000	\$78,000
2002/2003	\$21,500	\$38,000	\$38,000	\$10,500	\$108,000
2003/2004	\$27,500	\$48,500	\$48,500	\$14,500	\$139,000
2004/2005	\$44,500	\$78,000	\$78,000	\$22,500	\$223,000
2005/2006	\$44,500	\$78,000	\$78,000	\$22,500	\$223,000
				Total	\$771,000

Knowledge and Technology Transfer

Goal

To build recognition and understanding among FMF partners, key stakeholders and Albertans, that the Foothills Model Forest is conducting credible and necessary research in developing practical tools for sustainability and stewardship in forest ecosystem management.

Strategy and Tactics:

The Strategy:

- Since 1997, Foothills Model Forest and its partners have supported a strong communications program. Their commitment is paying off as decision-makers, forest practitioners and the general public are starting to count on the Foothills Model Forest as a reliable, bias-balanced information source. This requires significant resources. The foundation of the Foothills Model Forest communications program is established and is in a position to lead the way in public education, knowledge and technology transfer.
- The Foothills Model Forest Board of Directors has identified increased and effective knowledge and technology transfer as a strategic direction in Phase III (2002 – 2007) of the model forest program. Forest practitioners require continual training and education on new research advances. The general public must also be informed on improved forest management techniques for ecologically sound practices to be socially accepted.
- Knowledge and technology transfer are relatively new areas for the Foothills Model Forest. Success in these two areas is essential for continued support of the model forest and its research. To be established in 2001, a *Knowledge and Technology Transfer Steering Committee* will develop a strategy and action plan for knowledge and technology transfer. The Environmental Training Centre and other educational institutions will play a key role in this area. Where appropriate and feasible, knowledge and technology transfer will be cost-recovery. Revenues generated from knowledge and technology transfer will be invested back so these efforts can be better sustained.

Tactics:

Over the next five years (2002 – 2007) Foothills Model Forest will continue to rely on proven communication products such as the web site and summer interpretive programs. Every year, Foothills Model Forest communicates the message of sustainable forest management to over *one million people*. Foothills Model Forest's current annual communications budget is sufficient to maintain the current level and nature of communication.

- Knowledge transfer is a priority for the last two years (2000-2002) in Phase II of the Foothills Model Forest. Transfer of knowledge to forest practitioners and policy makers, of Foothills Model Forest research projects and their findings provides a foundation for technology transfer. In the year 2000 there have been five research forums targeted at forest practitioners and the general public. A large natural disturbance symposium in

partnership with the NCE is being planned for March 5-7, 2001. Activities similar to the ones noted will continue over the next eighteen months. Phase III will emphasise knowledge and where possible, technology transfer.

- Research initiatives funded through AFRI will be incorporated into the Foothills Model Forest's communication program and they would help define audience, message and the most appropriate communication tools. The model forest proposes to apply additional funding from AFRI towards improving the forest practitioner's knowledge of, and ability to use, the research and technology tools developed in the model forest's programs.

Relevance to AFRI Priorities

Sustainable Forest Management - Sustainable forest management strategies such as the CCFM's *Criteria & Indicators of Sustainable Forest Management in Canada* and the provincial government's *Alberta Forest Legacy – Implementation Framework for Sustainable Forest Management* reference communications, knowledge and technology transfer as an important component of SFM. Applying research results and new management tools on-the-ground or in decision-making is critical to sustainable forest management.

Enabling Technologies – The Foothills Model Forest communications program is inextricably linked to enabling technologies. The Foothills Model Forest is committed to developing and implementing strategies designed to communicate and exchange information with the general public, forest practitioners and policy-makers.

Partnership

The principal sponsors in the communications program are Alberta Environment, the Canadian Forest Service, Jasper National Park and Weldwood of Canada Limited (Hinton Division). The annual communications budget is approximately \$225,000 and it comes from Foothills Model Forest's core funding. The communications program currently focuses on informing the general public, key decision-makers and forest practitioners about sustainable forest management research, research results and their application.

Over the last two years, the communications program has built a solid foundation and continues to build on that foundation. It has leveraged outside funding sources for increased and creative community outreach and environmental education efforts. The communications program will begin to rely on cost-recovery for knowledge and technology transfer initiatives. The Natural Resources Interpretive Park is an example of how Foothills Model Forest leveraged additional dollars through core funding dollars. The Natural Resources Interpretive Park is located on 11+ hectares on the west-end of Hinton. It is a collaborative effort with partners from the forest industry, the mining industry, provincial government and the Town of Hinton. The objective of the interpretive park is to increase the general public's awareness about sustainable resource management issues, practices and research. The Foothills Model Forest took a lead role in this project by funding development of a site plan, and raised approximately \$180,000 from outside funding sources. This made it possible to hire a project co-ordinator and construction manager to oversee the development of the interpretive park and raise additional dollars through increased partnerships.

Resources Required

Foothills Model Forest's AFRI proposal has allocated 10 – 15% of the total funds requested to *communication, knowledge and technology transfer*. This funding will be directed towards the improvement of knowledge, understanding and application of research in the managed forest landscape, as described earlier.

Note – Foothills Model Forest fiscal year runs April 1 to March 31.

Year	1st ¼	2nd ¼	3rd ¼	4th ¼	Total
2001/2002	\$16,000	\$16,000	\$23,500	\$23,500	\$79,000
2002/2003	\$21,500	\$21,500	\$32,500	\$32,500	\$108,000
2003/2004	\$28,000	\$28,000	\$41,500	\$41,000	\$139,000
2004/2005	\$30,000	\$30,000	\$44,000	\$44,000	\$148,000
2005/2006	\$30,000	\$30,000	\$44,000	\$44,000	\$148,000
				Total	\$622,000