

Foothills Growth and Yield Association

Consolidated Annual Report

2000 - 2001

This report is for the period from April 1, 2000 to March 31, 2001. It has been revised since presentation at the Steering Committee meeting of March 15, 2001 to include:

- expenditures consolidated to the year end (March 31, 2001);
- annual meeting and other activities occurring in March 2001;
- decisions made at the meeting on work planning and budgeting for the next fiscal year;
- a summary of accomplishments, activities and findings consistent with reporting requirements of the Foothills Model Forest.

1. Income and Expenditures

Table 1 itemizes income and expenditures for the year. The budgeted amounts shown in Table 1 are based on the *Foothills Growth and Yield Association* (FGYA) project proposal submitted by the Foothills Model Forest to the Forest Resource Improvement Association of Alberta (FRIAA) in July, 2000. The proposal was approved by all voting members of FGYA, and subsequently by FRIAA. Some variances from the budget are commented on below.

- The carry-forward of provincial environmental funds from the previous year was larger than expected, following reconciliation of accounts by the Foothills Model Forest.
- The time inputs by the Director 770 hours for the year, slightly less than the budgeted 800 hours. No additional contract services were utilized. (Inputs were donated at no charge by the University of Alberta, the Land and Forest Service, the Foothills Model Forest, and members of the Technical Committee.)
- Travel expenses were less than budgeted because (a) the Field Coordinator did not travel to the extent planned and (b) the Director's costs were reduced by discounted air travel and combining trips with other business.
- Total GST is shown under actual expenditures, and is higher than budgeted. The budget is based on non-recoverable GST (i.e. discounted 50%).

Note that the ending balance for the year is somewhat more than the carry-forward from the previous year. The costs of the Association are essentially in balance with the membership fees paid, except for the payroll costs of the Field Coordinator, which were funded separately by the Foothills Model Forest.

Table 1
Income and Expenditures for the Fiscal Year (April 1, 2000 – March 31, 2001)

Income / Expense	Budgeted for Year¹	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total for Year	Variance
Payment							
Foothills Model Forest (PEF carry-over)	135,000.00					146,105.75	11,105.75
Membership fees - FRIAA	70,000.00					70,000.00	
Membership fees - non-FRIAA	20,000.00					20,000.00	
Total income	225,000.00					236,105.75	11,105.75
Expenses²							
Director - fees	64,800.00	11,623.50	12,879.00	15,268.50	22,599.00	62,370.00	(2,430.00)
Miscellaneous contract services	10,000.00					-	(10,000.00)
Vehicle (lease)	6,000.00		1,357.62	2,036.43		3,394.05	(2,605.95)
Computing equipment (capital)	10,000.00	6,720.99				6,720.99	(3,279.01)
Travel expenses (director & FMF staff)	19,000.00	905.47	1,961.28	2,940.09	1,982.32	7,789.16	(11,210.84)
Meeting & miscellaneous expenses	7,000.00		179.07	268.61	4,103.73	4,551.41	(2,448.59)
GST	3,178.00	1,284.14	996.57	1,257.54	1,779.71	5,317.96	2,139.96
Total expenses	119,978.00	20,534.10	17,373.54	21,771.17	30,464.76	90,143.57	(29,834.43)
Ending Balance	105,022.00					145,962.18	40,940.18

¹ Based on proposal submitted to FRIAA, July 2000

² Excludes costs for services provided directly by Foothills Model Forest:

- Field Coordinator – salary + fringe (budgeted at \$29,000 for year)
- Administration (budgeted at \$7,290 for year)

2. Activities

Activities of the Director are itemized in the appended quarterly activity reports. The most important and / or time-consuming activities throughout the year were:

- preparation for, and participation in, meetings with technical committee members;
- development of the Regeneration Project design and procedures;
- proposal development (FRIDAA, nutrition and density management project, annual work plan);
- supervision, support, and assessment of the Field Coordinator's work in implementation of the Regeneration Project;
- assessment of knowledge, models and techniques available to support the Associations' program;
- preparing and holding the annual meeting, March 14-15, 2001.

3. Achievements, Shortfalls, Problems and Opportunities

3.1. *Regenerated Lodgepole Pine Project*

Following the inaugural Steering Committee meeting, the experimental design for the Project was reviewed and enhanced. Several points raised by the Committee were reviewed by the Director and the Technical Committee as follows:

- Experts were consulted over the possible use of alternative designs, and the risks of results being compromised by interacting and confounding effects. It was concluded that, given the objective to investigate vegetation management, site, and spacing effects, and the limited area of homogenous ecosites, the replicated block design should be retained, but improved to limit confounding effects of uncontrolled variables. This was done by blocking installations into groups having similar climatic, soil, and site treatment characteristics.
- Simulations using the models *GYPSEY* and *TIPSY* indicated that, even though close spacing may be operationally unrealistic, not including it in the experimental design would result in a failure to assess the full range of volume production options. The upper spacing level of 1.5 m was retained.
- "Control" (unplanted) installations were confirmed as essential to provide a baseline for assessing and monitoring planting densities. The unplanted installation will be split into two vegetation control treatments: with and without weeding.
- Models and data for interim forecasting were further investigated, and the following confirmed as most promising: *GYPSEY* (Alberta Land and Forest Service), *TASS / TIPSY* (B.C. Ministry of Forests), Gregg Burn pre-commercial thinning trial (Canadian Forest Service) results and simulations, site index paired-plot data. All but the last item have been confirmed as available to the Association.

A draft field manual was prepared describing installation and measurement procedures. Procedures were developed with the pilot establishment of 6 installations.

Installation status at the end of the year is summarized in Table 2. The allocation of installations was distributed among members according to the formula agreed at the inaugural meeting (see Table 3), with some modifications to facilitate grouping, as indicated in Table 2.

Table 2
Preliminary Establishment Report for Regeneration Trial (March, 2001)

Ecosite	Group	Member	Number of Installations*		
			Identified	Confirmed	Installed
1	1	SLS	6		
1	2	WEY	6	6	partial
1	3	SPI	6	6	
2	1	WWC	6	6	complete
2	2	ANC	6	6	
2	3	WEY	6	6	partial
3	1	WEY	6	6	partial
3	2	SPI	6	3	
3	3	SDA	6	6	partial
4	1	WWC	6	6	
4	2	WWC	6	6	
4	3	CFP	6	6	
5	1	MWF	6	6	
5	2	BRL	1		
5	3	?			
Total			79	69	

Member	Number of Installations	
	Committed	Identified
ANC	5	6
BRL	8	1
CFP	5	6
MWF	5	6
SLS	5	6
SDA	6	6
SPI	14	12
WWC	21	18
WEY	21	18
Total	90	79

ANC=Alberta Newsprint, BRL=Blue Ridge Lumber
 CFP=Canfor, MWF=Millar Western
 SLS=Spray Lakes, SDA=Sundance
 SPI=Sunpine, WWC=Weldwood
 WEY=Weyerhaeuser

* 6 installations are required in each ecosite / group combination; total number of installations required = 90

Table 3. Allocation of Installations by Company

Company	Net area (ha)	% of total	# of installations
ANC	106,870	5.5	5
BRL	180,323	9.3	8
Canfor	106,271	5.5	5
MWFP	112,406	5.8	5
Spray Lakes	114,988	5.9	5
Sundance	121,848	6.3	6
Sunpine	293,655	15.1	14
Weldwood	451,713	23.2	21
Weyerhaeuser	457,433	23.5	21
Total	1,945,507	100.0	90

The “net area” indicated in Table 3 is the confirmed estimate of net pine landbase contributing to the member’s allowable cut, including quotas.

The following shortfalls / problems / opportunities were encountered during the year:

- Members experienced difficulties in identifying suitable Category 5 (Labrador tea – hygric – poor) sites.
- Blue Ridge Lumber was unable to identify the committed number of sites because the company’s operations are scheduled predominantly into burned areas.
- Members anticipate cost overruns relative to the establishment costs quoted in the FRIAA proposal of July, 2000.
- The FRIAA proposal and umbrella agreement currently covers only establishment costs for the first two years of the Project. It requires updating to include measurement, treatment and maintenance costs for the first five years.
- Establishment verification reporting was not initiated.
- Protection of the installations from industrial disturbance is a serious concern. A special new reservation / notation purpose ISP code was requested and granted through the Reservations Unit of Alberta Agriculture, Food and Rural Development, Public Land Division. An information note was drafted for Alberta Land and Forest Service (LFS) field staff.
- LFS fuel abatement requirements created some difficulties because of the potential confounding of growth effects resulting from burning debris within the installations.
- Vegetation control methods require resolution, and other treatment and measurement procedures, plus a data model, require further elaboration.
- Opportunities have been identified for extending replication of the trial. Inclusion of the Weyerhaeuser Edson and Drayton Valley operations will result in Weyerhaeuser contributing 9 additional installations, and increase the total number of installations from 90 to 102.
- The main limitation on interim forecasting is uncertainty over site-index changes from fire-origin to regenerated stands. The LFS Senior Biometrician suggested the Association consider a short-term paired-plot project, in conjunction with analysis of suitable permanent sample plot data, with peer-reviewed publication of results, to provide a credible interim solution. (The Steering Committee considered this suggestion, and the resulting decisions are incorporated into the revised work plan for 2001 / 2002.)

3.2. *Nutrition and Density Management Project Proposal*

The Work Plan for the 2000-2001 fiscal year, and the approved *Foothills Growth and Yield Association* FRIAA project, called for the development of a project proposal to determine the potential for increasing yields of semi-mature and mature lodgepole pine. The Alberta government encouraged the Foothills Model Forest to include this project under an umbrella proposal for the Foothills Model Forest to undertake research funded by the proposed Alberta Forest Research Institute. The umbrella proposal was submitted January 6, 2001.

Meanwhile, the Association Director and members of the Technical Committee investigated the feasibility, options, and priorities for such a project. The result was a conceptual plan for a cooperative project addressing management of density and nutrition primarily in fire-origin stands of lodgepole pine. On March 15, 2001, the Steering Committee approved and identified funding for proceeding with a detailed scope assessment for the Project during the 2001/02 fiscal year, involving a situational review of the member companies, literature and expert reviews, and preliminary site selection.

3.3. *Personnel Assignments*

The Foothills Model Forest has retained the services of a Director since June 21, 1999. The Director's contract expires June 21, 2001. The Steering Committee instructed the Foothills Model Forest to retain the current Director for the 2001/02 fiscal year.

The Foothills Model Forest agreed to retain the services of a Field Coordinator, including covering the costs of salary and fringe costs, on a half-time equivalent basis, from April 1, 2000 to March 31, 2002. He resigned in December 2000, following repeated unsatisfactory performance reviews, and unsuccessful attempts by the General Manager of the Foothills Model Forest and the Director of the Association to encourage and support improved performance. The Foothills Model Forest issued a request for proposal for the required services in January 2001. A candidate was selected and contracted to commence work effective April 1, 2001.

Other support services provided by the Foothills Model Forest, including financial accounting, were exemplary, with no problems being experienced.

3.4. *Dissemination of Information and Education of Members*

The Foothills Model Forest, as Coordinating Agency for the Association, is responsible for dissemination of information to, and continuing education of, members in matters relevant to the Association.

Members were provided the following products, services and opportunities:

- draft field manual for Regeneration Trial installation and measurement procedures;
- field tour of pilot installations and related Weldwood trial;
- site index assessment procedures and related background materials;

- information and expert opinions on opportunities and threats to lodgepole pine management related to climate change, regenerated stand growth and yield, wood quality, mountain pine beetle, and fire.

The latter opportunity was provided at the Annual Meeting, March 14-15 2001, with presentations by:

- Robert Monserud, US Forest Service, Portland, Oregon;
- Shongming Huang, Alberta Land and Forest Service, Edmonton, Alberta;
- Gerry Middleton, Forintek Canada Corp., Vancouver, B.C.;
- Les Safranyik, Pacific Forestry Centre, Victoria, B.C.;
- Kelvin Hirsch, Northern Forestry Centre, Edmonton, Alberta.

A shortfall in information distribution is that no Internet web site has been developed for the Association.

3.5. Work Planning and Budgeting

The Foothills Growth and Yield Association proposal dated July, 2000, was accepted by FRIAA July 20, 2000. A request to amend the proposal (to reflect 7 out of 9 members directing FRIP payments to the Foothills Model Forest) was approved September 20, 2000. The proposal contained budget and payment schedules for (a) development and management of the Association and (b) Regeneration Trial establishment by the members. The Regeneration Trial schedules are subject to confirmation and amendment by supplementary applications from individual members. The proposal included payment of membership fees for 2 fiscal years (2000/01 and 2001/02) at the rate of \$10,000 per member.

A preliminary Annual Work Plan for development and management of the Association from April 1, 2001 to March 31, 2002 was submitted as required to the Foothills Model Forest on November 11, 2000. The Plan was revised based on decisions made by the Steering Committee at the meeting of March 15 2001. Table 4 shows the original “preliminary” budget for 2001/02 as submitted to the Foothills Model Forest on November 11, 2000, and the “revised” budget based on updating of the amount carried forward, and resolutions passed at the March 15 meeting.

Both budgets were based on the Foothills Model Forest incurring all field coordinator payroll or fee costs. For the revised budget, the Foothills Model Forest Board of Directors approved contracting of a field coordinator at a fee cost of \$50,000 (100 days at \$500 per day).

The revised budget includes:

- annual membership fees of \$10,000 per voting member, as approved by the Steering Committee, March 15, 2001;
- retention of the Director for 100 days at \$648 per day;
- \$45,000 for contractual assistance in development of the Nutrition and Density Management Project.

Table 4. Budget for the Fiscal Year April 1, 2001 – March 31, 2002

Income / Expense	Preliminary \$	Revised \$
Income		
Carry-forward	143,706	145,962
Membership fees - FRIAA	80,000	70,000
Membership fees - non-FRIAA	10,000	20,000
Total income	233,706	235,962
Expenses		
Director - fees	64,800	64,800
Director - expenses	9,720	9,720
Other contract services	20,000	45,000
4WD vehicle (rental)	4,358	4,358
Travel expenses (field coord.)	5,250	5,250
Meetings	7,321	7,321
Equipment & misc.	12,809	12,809
GST	3,569	9,400
Total expenses	127,827	158,658
Ending Balance	105,879	77,304

The Association currently lacks a business plan. A business plan will be consolidated in the 2001/02 fiscal year following:

- finalization of a five-year technical and financial plan for the Lodgepole Pine Regeneration Project;
- scope assessment of the Nutrition and Density Management Project;
- review by the Steering Committee.

4. Summary of Accomplishments, Activities and Findings

The Foothills Growth and Yield Association has established itself as a strong partnership of forest managers committed to the sustainable management of lodgepole pine. The membership is composed of nine companies holding large forest tenures (covering much of the species' geographic range in Alberta), the Alberta Land and Forest Service, and the Foothills Model Forest. The Foothills Model Forest was retained by the other members as the Coordinating Agency for the Association. During the year, ties and cooperation with other agencies having shared interests have also been developed and strengthened.

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. An initial \$200,000 contribution of provincial funding has already been surpassed by industrial financial commitments of more than \$650,000 (\$180,000 in membership fees plus at least \$475,000 in direct project contributions) during the first two years of operation (April 2000 – March 2002).

The fundamental purpose of the Association is the forecasting and monitoring of managed stand growth and yield, particularly of lodgepole pine. More specific performance measures are:

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-focussed, and directly applicable to management and crop planning.

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 (measure 3) of the response of lodgepole pine to climate change and to forest, fire and pest management was improved by the presentations of world-class experts at the Association's annual meeting. The Association's organization and activities 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.

Development of Lodgepole Pine Growth and Yield Association

Quarterly Activity Report – Dick Dempster Consulting Ltd.

Reporting Period	April 1 – June 30, 2000
Total reimbursable hours	143.50 (details on invoices # 27 and 31)
Major expenses incurred	\$905 (primarily travel and accommodation for technical meetings at Foothills Model Forest in Hinton, plus communications, see invoices # 27 and 31)
Activities	
<ul style="list-style-type: none"> Steering Committee Meeting minutes and follow-up Development of design for Project 2 (Regeneration Trial) Analysis and selection of candidate cut-blocks for Regeneration Trial Proposal to FRIAA for FRIP funding of Association activities Miscellaneous correspondence with technical representatives 	
Achievements	
<ul style="list-style-type: none"> Experimental design for Regeneration Trial completed Net pine areas and candidate cut block lists (required for Regeneration Trial) received from technical representatives Initial selection of candidate cut blocks completed Draft project proposal submitted to FRIAA; funding application templates prepared; eligibility and mechanism for FRIP funding confirmed 	
Shortfalls	
<ul style="list-style-type: none"> Preliminary cut block selections not verified FRIAA proposal not formally submitted and approved 	
Tasks for next quarter	
<ul style="list-style-type: none"> Obtain formal approval for FRIP funding by FRIAA; assist members in applications Assist technical representatives in verification and location of Regeneration Trial installations Finalize field procedures for Regeneration Trial (including testing and Field Manual) Technical Committee Meeting and field trip (September) 	

Development of Lodgepole Pine Growth and Yield Association

Quarterly Activity Report – Dick Dempster Consulting Ltd.

Reporting Period	July 1 – September 30, 2000	
Total reimbursable hours	159	(Details in invoices # 36 and 39)
Expenses incurred	\$1961	Travel and accommodation for meetings with technical representatives at Grande Prairie and Whitecourt, technical committee meeting at Hinton, attendance WESBOGY meeting at Edson, plus communications, (see invoices # 27 and 31 for details)
Activities		
<ul style="list-style-type: none"> Consultations FRIAA re: Association project proposal Field manual input, review and edit Regeneration Project planning with technical representatives Presentation to WESBOGY meeting Technical committee meeting and field tour, Hinton (September 19-20) 		
Achievements		
<ul style="list-style-type: none"> Association proposal approved by FRIAA and endorsed by all members, contract between FRIAA and FMF signed Draft field manual prepared for installation of Regeneration Trial Regeneration Trial installation: draft field manual prepared, 79 installation locations identified, 38 confirmed, 6 completely installed, methodology tested by pilot installations and technical committee field visit Information exchanges with WESBOGY and University of Alberta 		
Shortfalls		
<ul style="list-style-type: none"> Location and verification of Regeneration Trial installations incomplete Field measurement procedures not developed 		
Tasks for next quarter		
<ul style="list-style-type: none"> Complete location and verification of Regeneration Trial installations Amend installation procedures (based on September technical committee meeting) and develop measurement and data capture procedures for Regeneration Trial Technical committee meeting (November 29) FMF Detailed Activity Work Plan for April 1 2000 – March 31 2001 Preparation for annual meeting in March 2001 Review membership activities and research in late stage thinning and fertilization Information exchanges: BCMinFor, CFS, USDA, U of A, other Develop web site 		

Development of Lodgepole Pine Growth and Yield Association

Quarterly Activity Report – Dick Dempster Consulting Ltd.

Reporting Period	October 1 – December 31, 2000	
Total reimbursable hours	188.5	(Details in invoices # 42 and 46)
Expenses incurred	\$2055	Travel and accommodation for meetings with technical representatives, LFS, CFS, BC Min. For., and FMF
Activities Direction, work review, and performance assessment of Field Coordinator Coordination of location and verification of Regeneration Trial installations Research and development of field procedures for Regeneration Trial Meetings BC Ministry of Forests and Alberta Land and Forest Service Visits to technical representatives of MWFP, BRL, ANC, Weldwood Technical committee meeting (November 29) Meeting FMF Project Steering Committee and Communications Manager Preparation of annual work plan		
Achievements Regeneration Trial installation procedures amended and improved FMF Detailed Activity Work Plan submitted for period April 1, 2000 – March 31, 2001 Initial arrangements completed for annual meeting Awareness improved of relevant work being undertaken by LFS, CFS, BC Min. For., USA Membership activities in late-stage thinning and fertilization reviewed		
Shortfalls Location, verification and audit of Regeneration Trial installations incomplete Field manual incomplete Web site not developed		
Tasks for next quarter Replace Field Coordinator Finalize schedules and procedures for Regeneration Trial; re-write field manual Prepare project proposal for nutrition and density management in fire-origin stands Prepare for and hold annual meeting (technical committee meeting, steering committee meeting, and technical session)		

Development of Lodgepole Pine Growth and Yield Association

Quarterly Activity Report – Dick Dempster Consulting Ltd.

Reporting Period		January 1 –March 31, 2001
Total reimbursable hours		279 (Details in invoices #50, 53 and 57)
Expenses incurred	\$3484	Travel and accommodation: Edmonton (LFS, Fertilization and Economics Conference, FGYA Annual Meeting), Hinton (FMF). Annual Meeting (see invoice # 57 for details).
Activities Preparation for Annual Meeting Scheduling and procedures development for Regeneration Trial Preparation of project proposal for nutrition and density management project Recruitment of Field Coordinator Attend Fertilization and Economics Conference and post-conference field tour Annual Meeting (technical committee meeting, technical session, and steering committee meeting)		
Achievements Successful Annual Meeting and Technical Session with educational presentations by 5 expert scientific authorities Work plan and budget approved for 2001-02 fiscal year by Steering Committee Conceptual project plan prepared for nutrition and density management project: first phase approved for implementation by Steering Committee Field coordinator recruited Installation procedures for Regeneration Trial re-written; measurement requirements identified and reviewed by Technical Committee Commitment for Regeneration Trial increased from 90 to 102 installations		
Shortfalls Installation schedules for Regeneration Trial not finalized (Blue Ridge Lumber and Category 5 sites) Documentation and data model for Regeneration Trial measurements incomplete		
Tasks for next quarter Supervise and assist development and documentation of technical procedures: regenerated LP Project data model, measurements, competition index, and treatments Briefing and supervision of field coordinator Develop terms of reference for nutrition and density management project expert review; retain expert assistance Develop proposal for site index change assessment supplement to Regenerated LP Project		