Forestry Research Partnership

ANNUAL REPORT
- 2010/2011 –

March 1, 2011
Forestry Research Partnership

ANNUAL REPORT – 2010/2011

Approvals

This Annual Report is submitted to you as a summary of the activities and expenditures of the Forestry Research Partnership from April 1st 2010 to March 31st 2011.

Alan Thorne
General Manager, Forestry Research Partnership

On behalf of the primary partners of the Forestry Research Partnership, we accept the Annual Report for fiscal 2010/2011 of the Forestry Research Partnership:

Michel Lessard
Senior Vice President, Forest Resources Management Group
Tembec Inc.

Frank Kennedy
Assistant Deputy Minister, Science and Information Resources Division
Ontario Ministry of Natural Resources

Ted Van Lunen
Director General, Great Lakes Forestry Centre
Canadian Forest Service

George Bruemmer
Executive Director Canadian Wood Fibre Centre
Canadian Forest Service
# Table of Contents

<table>
<thead>
<tr>
<th>Page #</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Mission of the Forestry Research Partnership</td>
<td>3</td>
</tr>
<tr>
<td>2.0 FRP Program Goals - 2006 to 2010</td>
<td>4</td>
</tr>
<tr>
<td>3.0 Summary of FRP Activities/Achievements 2010/2011</td>
<td>5</td>
</tr>
<tr>
<td>3.1 Milestone Achievements</td>
<td>6</td>
</tr>
<tr>
<td>3.2 Year-end Review of Specific FRP Objectives</td>
<td>7</td>
</tr>
<tr>
<td>4.0 Budget &amp; Expenditures 2010/2011 (Planned versus Actual Spending)</td>
<td>13</td>
</tr>
<tr>
<td>5.0 Annual Trend of Actual FRP Expenditures</td>
<td>21</td>
</tr>
<tr>
<td>6.0 Conclusion</td>
<td>22</td>
</tr>
<tr>
<td>7.0 References</td>
<td>23</td>
</tr>
<tr>
<td>Appendix : FRP Extension Exchange Highlights</td>
<td></td>
</tr>
</tbody>
</table>
The Forestry Research Partnership (FRP) was formed in 2000 through an agreement between Tembec, the Ontario Ministry of Natural Resources, and the Canadian Forest Service in response to sections of the 1999 Ontario Forest Accord pertaining to science partnerships and the implementation of intensive forest management practices on the forest landscape.

1.0 Mission of the Forestry Research Partnership

The Mission of the Forestry Research Partnership is to identify, develop and implement ecologically sustainable and scientifically defensible leading edge forestry practices required to maintain and enhance an economically viable supply of quality fibre to Tembec mills, and to the communities those mills support, over the long term.

The success and value of the Forestry Research Partnership is to be measured by the degree to which it demonstrates:

1. Increased certainty around current and future wood supply;

2. The application of new and improved science and information in the implementation of enhanced forest productivity practices on the ground.

3. Shareholder and taxpayer value;

4. An effective science partnership that focuses forest science expertise on critical management issues not only in Ontario, but across the country, and;

5. The influence of new science and information in informing policy and guideline review and development.
2.0 FRP Program Goals - 2006 to 2010 (extended to 2011)

The FRP chose an adaptive management approach with a very specific goal to guide its investments: to increase available wood volume by 10% over 10 years – i.e. 10/10. Short, medium and long-term objectives were set and project selection criteria were determined before the program was initiated. Phase 1 addressed short- and medium-term objectives. Phase II addressed longer-term objectives.

The majority of the FRP work between 2000-2005 focused on Phase 1, and involved building a solid foundation of knowledge and information from which to conduct a series of sensitivity analyses to determine if the long-term 10/10 goal was plausible and, more importantly, sustainable. Phase 2 will continue that process, but with a greater emphasis on application and implementation. This annual report summarizes the progress of the FRP during year nine (i.e. 2008/09) of the partnership.

While the timeline on Phase 2 has come and gone, it is under the direction of the FRP Executive that the Program Goals will remain the same for 2011. The FRP has reached a cross road and must consider its future. With the downturn in the forest industry across Canada and Ontario being particularly hard hit, Tembec has had to curtail its financial contributions to the FRP. Tembec is still committed to the concept of the FRP but given the uncertainty in the economics of the forest industry compounded by the decision of the provincial government to embark on tenure reform which could remove licensing and thus forest management responsibility from forest companies, the Executive will have to consider and decide on the future of the FRP in the year ahead. It was therefore decided not to develop a Phase III strategy at this time.

*The Forest Research Partnership Strategic Plan 2006-2010 (Version 13) has specified five “high level goals”, as follows:*
**Goal #1: Application of Enhanced Forest Productivity**

- Apply Patchworks model in each Management Unit (in conjunction with the FMP Schedule).
- Integrate research recommendations into operational enhanced forest productivity strategies in forest management plans.
- Implement enhanced forest productivity practices on the ground and monitor results.
- Link Goal #1 directly with Goal #3 Extension to support aggressive implementation.

**Goal #2: 10/10 Sustainability Science**

- Continue and refine the science work done to date to identify strategies that will result in a 10% increase in allowable cut in 10 years, within an ecologically and economically sustainable context;

**Goal #3: Extension**

- Continue the emphasis on networking, communication, and interaction between the partners, between researchers and practitioners, and between scientists and policy makers. *Emphasis will be on transfer of knowledge gained from the past five years to forest management planning and operations for Tembec.*
- Knowledge Transfer, Training, and Support to Practitioners (Planning & Operations) to enable implementation of new science using appropriate tools.
- Broad dissemination of projects and results to partners, collaborators, and public as primary and transparent transfer vehicle.
Goal #4: Policy Development & Implementation

- Increase the effort directed to synthesizing the science outputs generated by the FRP and informing policy development and implementation provincially, both within government and within industry;

Goal #5: Enhance the Sustainability of the Forestry Research Partnership

- Strategically increase partnerships while ensuring fully functional FRP governance.

- Maintain an open and transparent approach to managing the FRP, and seek to attract more collaboration at both the project and program levels.

- Develop stronger linkages to other research providers, primarily in Ontario and Quebec to increase the influence and effectiveness of the FRP.

- Maintain an entrepreneurial spirit in the FRP to enable flexibility and promote nimble responses to attractive and pertinent opportunities when they occur.

These five high level goals provided the framework upon which the annual activities of the FRP was governed during the period 2006-2010 and extended into 2011 by the Executive Committee.

3.0 Summary of FRP Activities/Achievements 2010/2011

The Forestry Research Partnership supported 34 individual applied research projects in 2010/11. Details of work completed in each project can be found in specific project status reports available at the FRP, however a brief synopsis of some noteworthy milestones over the fiscal year are provided in Section 3.1 below.
3.1 Milestone Achievements:

**Milestone 1:** An agreement was signed with FPInnovations for the FRP to deliver knowledge exchange services in the field of forest operations and management research in Ontario.

**Milestone 2:** Managed 25 projects successfully meeting budget objectives and leverage and tax credit objectives (details of planned versus actual cash and in-kind spending are provided in Section 4.0 below).

**Milestone 3:** Made great strides in the development of enhanced FRI (forest resource inventory) with particular success integrating LiDAR (Light Detection and Ranging) with enhanced digital photography to predict non traditional FRI attributes such as volume, DBH (diameter at breast height), and basal area.

**Milestone 4:** This past year the FRP collaborated with a number of partners in the biomass study area. The largest project is in collaboration with OFRI, CWFC, and OPG. In addition, a relationship to assist the Biomass Innovations Centre within Nipissing University to deliver technology transfer was established.

**Milestone 5:** Continued development of relationships with academia; in particular closer ties were fostered with Queens University, Nipissing University, Trent University, University of Waterloo and Lakehead University.

**Milestone 6:** The FRP was featured in a national electronic-lecture series hosted by the Canadian Institute of Forestry on the VMAP project. In addition, two themed issues of the Forestry Chronicle presented the Nipissing Biomass Conference and VMAP project results.

**Milestone 7:** The partnership with the Canadian Institute of Forestry to assist in the delivery of the FRP’s extension and knowledge exchange program worked very well again during 2010-2011. The FRP hosted a number of very successful workshops and seminars in Thunder Bay/Dryden, Timmins, Mattawa/Huntsville, Toronto, Petawawa, and Kapuskasing as well as presenting/attending workshops in Kingston, Pembroke, Toronto and Jasper, Alberta.
3.2 Year-end Review of Specific FRP Objectives:

The Forestry Research Partnership identified nine specific objectives in the 2010/2011 FRP Annual Plan. These objectives are re-stated below with details of how each one was addressed during fiscal 2010/2011.

**Objective 1:** To develop a strategy to direct the FRP into 2010-2011 as an amendment to the 2006-2010 strategic plan

Direction from the Executive Committee was to extend the 2006-2010 strategic plan for one more year and conduct an environmental scan to determine the future direction.

**Objective 2:** To prepare a 5 year Executive Summary for the period 2006- 2010

To be submitted for approval by the Executive Committee

**Objective 3:** To prepare a summary document evaluating the achievements of Goal 1: Application of Enhanced Forest Productivity and Goal 2: 10/10 Sustainability Science depicting the cost savings and wood supply results of FRP projects as implemented into forest management plans and operations on the Romeo Malette and Gordon Cosens Forests.

In preparation

**Objective 4:** To manage the 34 proposed FRP projects in an efficient manner meeting leverage objectives, delivery of milestones and tax credits.

A total of 25 projects were managed successfully in the 2010/11 work plan. The Tembec/CEC contribution of $79,000 in cash and $184,300 in-kind achieved significant leveraged cash of $1,017,191 and $2,595,200 in-kind contributions from primary partners (MNR and CFS) and other collaborators, most notably Ontario Power Generation.
**Objective 5:** To continue the development and implementation of Patchworks through integration of FPInterface as an economic road strategy model.

**Objective 6:** To maintain and enhance the work being done on resource inventory research and development, and to support further development of the AFRIT concept and to develop a pilot project on the Hearst Forest that demonstrates the ability of AFRIT to enhance the existing inventory using imagery and LIDAR combined to predict additional attributes on a polygon basis such as basal area, volume, diameters, biomass, and more accurate tree height predictions.

A great deal of “learning” has been achieved during this first foray into operational implementation of an ITC approach with the digital imagery from the Hearst Forest. This component of the AFRIT III plan fell short of its internally planned milestones this fiscal year. The reasons for this are primarily associated with the volume of data being processed and the time it takes to complete them.

**Objective 7:** To continue to build and maintain strategic partnerships at the provincial and national levels, helping to enable improved economically viable supply of quality fibre through FRP’s strengths in applied research and targeted knowledge transfer, including alignment with national innovation programs (e.g. FPInnovations – value chain optimization), and linkages with government and academic research organizations in Ontario and Quebec.

See attached FRP Extension Exchange Highlights report

**Objective 8:** To continue to participate in the emerging Bio-fibre/Bio-economy field of study in support of the FRP goals.

FRP played a key role in organizing and delivering the Nipissing Biomass Conference in partnership with the CIF and Nipissing’s Biomass Innovations Centre. A biomass study was established on the Martel Forest with Tembec operations staff in conjunction with the
Northeast Superior Community Forest goals. This trial was incorporated into a network of trials being established across Ontario including Haliburton, Nipissing, Algoma and Petawawa. The FRP is a primary industrial supporter of the Nipissing BioProducts Research Chair where several years of study are producing exciting results.

**Objective 9:** To provide support for Core Teams as part of the Extension Plan reflecting their lead role as the delivery mechanism of the latest science and to obtain feedback from them to identify new science needs in the adaptive management process.

While great efforts were made on Knowledge Transfer generally (see Objective 7, they use of Core Teams at this time is limited because of the lull in the planning cycle. There are no Management Plans being developed during this time period.

### 4.0 Budget & Expenditures 2010/2011 (Planned versus Actual Spending)

The 2010/2011 FRP planned budget supported total cash and in-kind spending from all partners of $6,137,674 with actual being slightly less at $6,029,241.

Table 1, Figure 1, and Figure 2 (following pages) provide a summary of planned versus actual cash and in-kind spending by partner over fiscal year 2010/2011. Note that total actual cash expenditures was $2,526,483 less than planned and total actual in-kind contributions were $2,418,050 more than the planned. However, this merely reflects a change in reporting approach. In the past, collaborator dollars contributed to a project were accounted for in planned and actual cash. For a clearer reflection of actual dollars handled by the FRP, the collaborators dollars for the 2010-11 are now reflected as in-kind contributions to the projects. In 2010-11 internal FRP expenditures totaled $954,722 with the difference of $153,469 held in trust and accounted for in project planning for the 15 active (ie. on-going) projects.
Table 1: Summary of Planned versus Actual Expenditures – FRP Partners 2010/2011*

<table>
<thead>
<tr>
<th></th>
<th>Cash</th>
<th>In Kind</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Planned</td>
<td>Actual</td>
<td>Planned</td>
</tr>
<tr>
<td>Tembec</td>
<td>$84,000</td>
<td>$79,000</td>
<td>396,500</td>
</tr>
<tr>
<td>MNR</td>
<td>$692,000</td>
<td>$215,493</td>
<td>$1,113,500</td>
</tr>
<tr>
<td>CFS</td>
<td>$111,000</td>
<td>$17,184</td>
<td>$420,000</td>
</tr>
<tr>
<td>CWFC</td>
<td>$585,000</td>
<td>$624,565</td>
<td>$252,000</td>
</tr>
<tr>
<td>Collaborators</td>
<td>$2,162,674</td>
<td>$171,949</td>
<td>$321,000</td>
</tr>
<tr>
<td>Total</td>
<td>$3,634,674</td>
<td>$1,108,191</td>
<td>$2,503,000</td>
</tr>
</tbody>
</table>

* This is an estimate of actual expenditures based on project reporting data available on July 25,
Figure 1: FRP Total Planned vs Actual Cash Expenditures by Partner – 2010/2011
Figure 2: FRP Total Planned vs Actual In-Kind Expenditures by Partner – 2010/2011
Table 2: Percentage of Total Spending (cash plus in kind) by Project Theme

<table>
<thead>
<tr>
<th>Project Theme</th>
<th>Percentage Planned</th>
<th>Percentage Actual</th>
<th>(+/-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 Administration (general)</td>
<td>2.2%</td>
<td>2.5%</td>
<td>+0.3%</td>
</tr>
<tr>
<td>110 Research Affiliations</td>
<td>0.1%</td>
<td>0.1%</td>
<td>---</td>
</tr>
<tr>
<td>120 Spatial Analysis</td>
<td>25.3%</td>
<td>27.5%</td>
<td>+2.2%</td>
</tr>
<tr>
<td>130 Fibre Production</td>
<td>37.8%</td>
<td>40.1%</td>
<td>+2.3%</td>
</tr>
<tr>
<td>140 Sustainability &amp; Guidelines</td>
<td>29.0%</td>
<td>24.1%</td>
<td>-4.9%</td>
</tr>
<tr>
<td>150 Forest Management Context</td>
<td>0.9%</td>
<td>0.9%</td>
<td>+0.0%</td>
</tr>
<tr>
<td>160 Operational Implementation (Protection)</td>
<td>0.7%</td>
<td>1.2%</td>
<td>+0.5%</td>
</tr>
<tr>
<td>180 Knowledge Transfer</td>
<td>3.9%</td>
<td>3.7%</td>
<td>-0.2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 2 provides a percentage breakdown of total planned versus actual spending (cash plus in kind) by project theme. As in 2009/10, the Fibre Production and Spatial Analysis themes accounted for the majority (67.6%) of program spending in 2010/2011, while Sustainability and Guidelines was a very close third.
Table 3: Percentage of Total Spending (cash plus in kind) by Project Theme – Comparison to Fiscal 2009/10

<table>
<thead>
<tr>
<th>Project Theme</th>
<th>% Actual 09/10</th>
<th>% Actual 10/11</th>
<th>(+/-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 Administration (general)</td>
<td>4.8%</td>
<td>2.5%</td>
<td>-2.3%</td>
</tr>
<tr>
<td>110 Research Affiliations</td>
<td>0.1%</td>
<td>0.1%</td>
<td>--</td>
</tr>
<tr>
<td>120 Spatial Analysis</td>
<td>28.3%</td>
<td>27.5%</td>
<td>-0.8%</td>
</tr>
<tr>
<td>130 Fibre Production</td>
<td>53.4%</td>
<td>40.1%</td>
<td>-13.3%</td>
</tr>
<tr>
<td>140 Sustainability &amp; Guidelines</td>
<td>3.6%</td>
<td>24.1%</td>
<td>+20.5%</td>
</tr>
<tr>
<td>150 Forest Management Context</td>
<td>0.6%</td>
<td>0.9%</td>
<td>+0.3%</td>
</tr>
<tr>
<td>160 Operational Implementation (Protection)</td>
<td>0.8%</td>
<td>1.2%</td>
<td>+0.4%</td>
</tr>
<tr>
<td>180 Knowledge Transfer</td>
<td>8.3%</td>
<td>3.7%</td>
<td>-4.7%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 (page 16) compares the percentage project theme expenditures between this year and last fiscal year (2009/10) to bring attention to those areas where the FRP has increased and/or decreased program emphasis. Of note is the increase in spending that took place in the Sustainability and Guidelines theme with the increased interest and participation in the Forest Ecosystem Co-ops Caribou project. Reductions in Spatial analysis and Knowledge Transfer are a result of reduced funding from the federal government. As a result, the FRP will attach a 3% charge on all projects to go toward Knowledge Transfer in 2011/12, a key component of success for any project. There was also recognition of minimizing administration costs in order to maximize funds going to projects and a successful 50% reduction as a percentage of total spending.
5.0 Annual Trend of Actual FRP Expenditures

The following chart illustrates the annual total spending (cash plus in-kind) by year since the inception of the FRP in 2000/01 up to and including fiscal 2010/2011. Spending in fiscal 2010/2011 was very much in line with historical levels.

Figure 4: Comparison of Total Annual FRP Expenditures (cash plus in-kind) by Year

*Note: The expenditure value for 2010/11 is a best estimate as of April 30, 2011*
6.0 Conclusion

The Forestry Research Partnership continued to build on its efforts of advancing the implementation of enhanced forest productivity across northeastern Ontario through very active extension work by all FRP partners. The FRP has become a leader in the advancement of inventory science, technology development and implementation. In 2010/11 with the increased resources of the Advanced Forest Resource Inventory Technology Project significant progress in the area of operational implementation. In addition, the FRP has taken an active role in discussions and research in the area of forest biomass impacts and opportunities.

This year’s strong support of all three primary partners has meant that the FRP was able to continue to be relevant and effective. Going forward, the financial future for the FRP is uncertain, yet the need for a research organization like the FRP is evident in the continued request for researchers to use the FRP administration platform and strength at finding collaborative support.

The Forestry Research Partnership hopes to remain highly relevant and an effective force for advancing and applying forest science. The FRP executive disbanded at the end of this year and the partners are reevaluating the mechanism for delivering forest research and their involvement in science partnerships. In the interim, the FRP will continue operating through the Canadian Ecology Centre platform. The focus will be to capitalize on past success, while simultaneously pursuing new and innovative approaches that directly apply the resulting forest science. The acceptance and implementation of enhanced forest productivity in central and north-eastern Ontario will also remain an FRP focus. In addition, the FRP will continue to explore opportunities with respect to emerging developments in the forestry and natural resources sector, including state of the art forest inventory science and technology.

The coming year will be one of transition for the FRP to emerge with a new organizational
structure.

### 7.0 References

The following documents were referred to, and/or copied directly with or without modifications, in the writing of this annual report:

- Forestry Research Partnership Annual Report 2009/2010
- Forestry Research Partnership Quarterly Reports (March, June, October, and January).
- FRP status reports and/or proposals; assorted projects.
- FRP Strategic Plan 2006-2010
Appendix

FRP Extension Exchange Highlights
FRP Extension Exchange Highlights

Spring 2010

- Knowledge Exchange and Extension Project Renewal Agreement for 2010 – 2011 signed

- Northwestern Ontario Road Trip – Dryden & Thunder Bay (CIF/IFC Northwestern Ontario and Lake of the Woods Sections) – Matt Meade and John Pineau
  - Two workshops highlighting FRP projects and FRP/CIF Extension in collaboration with the Forest Co-op & CFS; future coordinated extension efforts were discussed

- Multi-cohort Workshop at University of Toronto—Toronto, ON; theme was LiDAR use in enhanced forest inventory and multi-cohort forest classification; John Pineau, Murray Woods and other FRP representatives presented and attended

- Interviews & hiring of FRP/CIF Forest Extension Coordinator, Special Projects Coordinator and a Forests without Borders Coordinator (External Grants from Heritage Fund, FedNor and NRCan)

- OPFA AGM & Conference – Pembroke, Ont.
  - Set up a booth/display – John Pineau & Matt Meade distributed FRP promotional/research materials while answering questions.

- Biomass harvesting experiment at Petawawa Research Forest – Petawawa, Ont.
  - A brainstorming session for an upcoming biomass harvest experiment to take place at the Petawawa Research Forest (PRF). The FRP was well represented by Mike Halferty and John Pineau.

- Biomass and Inventory Workshop at Queen’s University – Kingston, Ont.
  - Al Stinson, Brian Batchelor, Murray Woods, Doug Pitt and John Pineau attended as a number of FRP projects related to enhanced forest inventory were presented
- LAMF’s Climate Change: Community Vulnerability and Resilient Thinking at Northern College of Applied Arts & Technology Porcupine, Ont. – supported by CIF/FRP

- Ontario Centres of Excellence – Toronto, Ont.
  o Set up a booth/display – Sue Pickering, Matt Meade & Ben Kuttner distributed FRP promotional/research materials while answering questions and discussing possible coordination with FESC (D. Miller)

- Skid Trail TreeTip – Completed

Summer 2010

- Vegetation Management: Approaches in the Boreal Workshop – Kapuskasing, Ont.
  o The FRP coordinated and helped to communicate and transfer the results of the Vegetation Management Program during this event that included local citizens committee members, as well as government and industry participants.

- Forestry Research Partnership Trail Improvement Project at the Canadian Ecology Centre – Complete
  o Mike Halferty worked with FRP, CIF, CEC and Samuel de Champlain park staff to complete this trail improvement project and revise and update the interpretive brochure
  o New brochures, maps, information, guides & audio recordings to accompany the FRP trail

- FRP E-newsletter – June 2010 – Completed & Distributed

- Growth & Yield TreeTip – Completed

- American Pine Marten TreeTip – Completed
- 9th Annual Teachers Tour at the Canadian Ecology Centre
  - August 17 – 20th
  - FRP staff provided the majority of presentations & field tours during this event
  - Full day at the Petawawa Research Forest was included in the tour
  - 35 teachers from across Ontario participated
  - CIF/FRP raised over $11,000 from various sponsors to fund the event

Upcoming Events/Products

- Vegetation Management: Approaches in the Boreal Workshop – Thunder Bay, Ont.
  - Planning & preparation stage, scheduled for September 11th

- Spatial Planning (Patchworks) Review Workshop – Timmins, Ont.
  - Originally scheduled for September 14th, with organization finalize, this event has been postponed to April 2011 due to scheduling conflicts

- CIF AGM & Conference – Jasper, Alberta
  - Set up a booth/display – John, Matt, Mike & Krysta will distribute FRP promotional/research materials while answering questions
  - Organization has been finalized, this event is planned for September 26 – 29th

- Ontario Hardwood Management Tour – Mattawa & Huntsville, Ont.
  - Planning & preparation stage, scheduled for October 19 – 21st

- The Petawawa Research Forest (PRF) Forest Science Tours – Petawawa, Ont.
  - The FRP Extension Team has formalized an agreement through the Canadian Institute of Forestry that will bring about the planning and delivery of several forest science tours at the PRF in the coming year.

- FRP E-newsletter – September 2010
  - Fall Edition of Quarterly Newsletter

- FRP E-newsletter – December 2010
  - Winter Edition of Quarterly Newsletter
- Additional TreeTips now in production include:
  o Patchworks Modeling (first draft)
  o Woodland Caribou BMPs (awaiting approval & MNR input)
  o Patchworks Project (second draft complete)
  o Boreal Commercial Thinning (first draft)
  o Forest Inventory Tools and Technology (awaiting approval)

- Themed issue of the Forestry Chronicle
  o Nipissing Biomass Conference for Feb. 2011 (guest editor Jeff Dech); FRP and CIF played a key role in organizing and delivering this workshop in partnership with Nipissing University and others
  o VMAP’s issue scheduled for April 2011 (guest editors are Wayne Bell and Lisa Buse); FC completely devoted to ARIO-VMAP articles

- CIF Electronic Lecture Series – VMAP E-Lecture Series
  o Planning & preparation stage, scheduled for March/April 2011 to coincide with themed issue of the Forestry Chronicle