

## 2006/2007 YEAR IN REVIEW

### INTRODUCTION

In 2006/07, British Columbia's Forest and Range Evaluation Program (FREP) entered its first full year of province-wide implementation. Stewardship monitoring of forest practices occurred in all 29 Ministry of Forests and Range districts for two *Forest and Range Practices Act (FRPA)* resource values, along with development and pilot testing for four others. FREP and its resource stewardship monitoring activities represent an important pillar in the province's drive toward sustainable forest management.

Highlights for the year included: implementing fish/riparian and stand-level biodiversity resource stewardship monitoring; pilot testing resource indicator checklists for soils, karst features, and water quality; working with First Nations to initiate a cultural heritage resource monitoring strategy; and improving the quality assurance framework. The following intensive assessments were also ongoing: free-growing stands; productive capacity of range soils and productivity of forage species; reforestation strategies for the Fort St. John Regeneration Pilot Project; forest worker safety issues associated with forest planning and partial cutting; and tree species diversity and genetic diversity.

In September 2006, FREP became the first BC government program to achieve Level 1 organizational certification through the National Quality Institute (NQI)

### CONTENTS

<b>Accomplishments in 2006/07 . . .</b>	<b>2</b>
RSM Implementation – Stand-level Biodiversity and Fish/Riparian . . . .	2
RSM Pilot Testing – Soils, Cultural Heritage, Karst, and Water Quality .	2
RSM Continuous Improvement Workshop . . . . .	2
District Recognition . . . . .	3
Quality Assurance and Management Information Management System (IMS) . . . . .	3
Training . . . . .	4
FREP Program Development Initiatives . . . . .	4
Evaluation Questions Update . . . . .	5
Intensive Evaluations . . . . .	5
Stakeholder and Partner Communications . . . . .	6
<b>CURRENT STATUS OF RESOURCE VALUE CHECKLISTS/INDICATORS . . . . .</b>	<b>7</b>
<b>FREP FUNDING AND EXPENDITURES FOR 2006/07 . . . .</b>	<b>9</b>
<b>FREP Initiatives for 2007/08 . . . .</b>	<b>9</b>
<b>Acknowledgements . . . . .</b>	<b>10</b>
<b>More Information . . . . .</b>	<b>10</b>



#### The FREP Mission:

To be a world leader in resource stewardship monitoring and effectiveness evaluations, providing the science-based information needed for decision making and continuous improvement of British Columbia's forest and range practices, policies, and legislation.

<http://www.for.gov.bc.ca/hfp/frep/index.htm>

Progressive Excellence Program. This significant milestone provides an important external validation of FREP's commitment to consistent and excellent data quality, and to best management practices. In addition, the Forest Practices Board conducted an independent assessment of the FREP quality management framework.

Significant program development initiatives refined the mid-term strategic direction. A 2-day session in November 2006, combined with the results of a "strengths, weaknesses, opportunities, and threats" analysis, helped nail down six strategic planning themes. These ensure that FREP will achieve its program objectives and make a valuable and lasting contribution to forest management in the province.

## ACCOMPLISHMENTS IN 2006/07

### RSM Implementation – Stand-level Biodiversity and Fish/Riparian

Resource stewardship monitoring (RSM) helps identify implementation issues regarding forest practices, policies, and legislation. As a fundamental component of FREP, RSM will lead to continuous improvement of forest management in British Columbia.

In 2006, FREP achieved its first full year of RSM implementation for two *FRPA* resource values. All 29 forest districts participated in stand-level biodiversity RSM. The aim of monitoring was to determine whether the current policy of retaining wildlife tree patches and riparian reserves is accomplishing the desired levels and types of forest structures required to maintain species diversity. Approximately 479 cutblocks, located in 10 different biogeoclimatic zones, were evaluated. Primary indicators assessed included ecological anchors, wildlife trees, coarse woody debris, windthrow, and retention strategies. The stand-level biodiversity data collected by FREP will be analyzed against a baseline of cruise data collected by BC Timber Sales from over 900 blocks across multiple biogeoclimatic zones and subzones.

Fish/Riparian RSM also occurred in all forest districts, with 319 streams evaluated. Fifteen primary indicators were assessed including channel bed disturbance, sedimentation, and aquatic connectivity.

### RSM Pilot Testing – Soils, Cultural Heritage, Karst, and Water Quality

Pilot monitoring and evaluation projects were under way for cultural heritage resources, karst resource features, soils, and water quality. Work continued on developing and refining indicators and protocols for landscape-level biodiversity,

terrain-level soils, timber, and wildlife resource values.

Cutblock-level pilot testing for soils took place in all three regions during the 2006 field season. The effect of harvesting was analyzed using six indicators in 11 forest districts. A random sample of approximately 50 cutblocks was assessed using high-quality digital aerial photography. Ground sampling of all cutblocks was conducted to assess the accuracy and capability of digital imagery as a FREP sampling tool; the effectiveness of this approach is undergoing analysis.

Pilot testing for cultural heritage resources reached the information-gathering stage in four forest districts—South Island, Fort St. James, Chilcotin, and Queen Charlotte Islands. Indicator development workshops served to build relationships among First Nations, forest region and district staff, and forest licensees. Seven First Nations (Ulkatcho First Nation, T'silhqot'in National Government, Hupacasath First Nation, Tseshaht First Nation, Nak'azdli First Nation, Yekooche First Nation, and Haida Nation) were involved in the initial stages of defining and developing indicators for cultural heritage resource values in 2006.

The karst RSM checklist and evaluation protocol were further refined through field training with ministry staff, licensees, and First Nations. Testing of monitoring indicators took place in two forest districts (Queen Charlotte Islands and North Island-Central Coast). Continuing assessments of important karst features (e.g., cave entrances, sinkholes, etc.) will determine the effects of forest practices over time.

Pilot testing for water quality was expanded to all three forest regions. Five training sessions took place in 11 forest districts. Trainees then completed assessments at six sample sites in most districts. Another round of sampling later in the season, as well as further analysis and verification of the pilot results, led to subsequent improvements in the effectiveness evaluation field protocol.

For more information on FREP's resource stewardship monitoring activities, go to: <http://www.for.gov.bc.ca/hfp/frep/rsm/index.htm>

### RSM Continuous Improvement Workshop

The annual RSM Continuous Improvement Workshop took place February 27–28, 2007, at the Laurel Point Inn in Victoria, B.C. This workshop sets the stage for the coming year by updating staff on the progress of each resource value and associated program projects. It also ensures that FREP continues to grow and develop by collecting suggestions from program staff, by evaluating trends in the monitoring data, and by sharing experiences during the workshop's rich discussions. In addition, the session recognizes the many significant and valuable contributions staff make to the program, its stakeholders, and the public.

In his introduction, Deputy Chief Forester Henry Benskin observed that FREP had developed a reputation as a “forward-thinking innovator” and had advanced quickly through collaboration and co-operation. The “what worked/what didn’t work” feedback sessions emphasized the successes and challenges faced by districts during their resource stewardship monitoring efforts in the last field season and offered important information for continuous improvement opportunities. The workshop further explored FREP’s implementation and the experience gained with RSM checklists and protocols for stand-level biodiversity and fish/riparian habitat assessments. Other presentations:

- outlined the new resource value pilots proposed for 2007;
- described two intensive evaluations of partial cutting and free-growing stands undertaken in 2006;
- highlighted other important accomplishments in the areas of quality management, training, and systems implementation; and
- congratulated the winners of the annual Loon Tale Challenge and RMS Photography contest (see “District Recognition,” below).

The approximately 90 workshop participants represented a cross-section of Ministry of Forests and Range district, regional, and branch staff, Ministry of Environment personnel, and key consultants. Many participants commented on the value of the meeting as an opportunity to learn and network.

For more information on the FREP 2007 Continuous Improvement Workshop, go to: <http://www.for.gov.bc.ca/hfp/frep/rsm/ciworkshop.htm>

## District Recognition

FREP owes much of its success to the dedicated forest district staff who were required to fit their resource stewardship monitoring commitments into already full workloads. To recognize these efforts, the *Chief Forester and ADM of Operations Award* will be presented annually to the district that demonstrates the highest level of contribution and excellence in resource stewardship monitoring associated with FREP. The winning district will be announced this summer.

For more information on this award, and to download nomination forms, go to: <http://www.for.gov.bc.ca/hfp/frep/recognition/chief.htm>

The first winners of the RSM Photography Contest were announced at the Continuous Improvement Workshop in February 2007. Recognition for best overall photo went to Birgitta Glibbery for her “Walking on Water” taken in the Fort

Nelson Forest District. View all the winning photos for 2006 at: [http://www.for.gov.bc.ca/hfp/frep/recognition/photo\\_winners2006.htm](http://www.for.gov.bc.ca/hfp/frep/recognition/photo_winners2006.htm)

For information on entering the 2007 contest, go to: <http://www.for.gov.bc.ca/hfp/frep/recognition/photo.htm>

Also congratulated at this year’s Continuous Improvement Workshop was Ted McRae (Okanagan Shuswap Forest District), the recipient of the Loon Tale Challenge trophy. Ted received the trophy for a humorous song he wrote about his experience collecting RSM data during the 2006 field season.

## Quality Assurance and Management

Quality assurance and quality control mechanisms are essential to FREP’s overall success. Resource stewardship monitoring activities and several program-level improvements featured prominently in 2006/07.

Resource stewardship monitoring activities focussed on:

- training and site visits to resample field sites for quality assurance, to mentor, and to learn from district staff; and
- completing a set of comprehensive quality indicators and quality control protocols (process mapping) to streamline both data collection and management for stand-level biodiversity and fish/riparian resource values.

Twenty-two mentorship/site visit sessions took place in 18 forest districts from mid-June through September 2006. During these sessions, field staff worked one-on-one with a trainer to address local issues concerning field assessments. Quality assurance site visits were also conducted in nine forest districts – Prince George, Central Cariboo, Columbia, Fort St. James, Kamloops, Fort Nelson, Quesnel, Chilcotin, and 100 Mile House. These visits ensure that data collection is consistent and repeatable. Opportunities and requirements for continuous improvement were also identified. Resampling activities were carried out on 15 stand-level biodiversity blocks and 17 riparian streams.

On September 18, 2006, FREP was the first BC government program to receive Level 1 organizational certification through the National Quality Institute (NQI) Progressive Excellence Program. Certification through NQI emphasizes that the program is managed to internationally recognized “best practices”. It also provides an important external validation of FREP’s commitment to consistent and excellent data quality and information. FREP achieved certification for its demonstrated excellence in: leadership; focus on citizens, employees, suppliers, and partners; planning; process management; and commitment to continuous improvement. FREP

intends to pursue all levels of the Progressive Excellence Program, as well as the Canada Award for Excellence, also awarded through the NQI.

In February 2007, the Forest Practices Board released its independent comprehensive review of FREP's quality management framework. The Board concluded that, in the course of just 3 years, FREP had made good progress in building capacity and developing processes to examine the effectiveness of the *Forest and Range Practices Act*. For a copy of the Forest Practices Board review, go to: [http://www.for.gov.bc.ca/hfp/frep/site\\_files/qmgmt/QM\\_Assessment\\_Quality\\_Mgmt\\_Framework.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/qmgmt/QM_Assessment_Quality_Mgmt_Framework.pdf)

For more information on FREP's quality management activities, go to: <http://www.for.gov.bc.ca/hfp/frep/qmgmt/index.htm>

## Information Management System (IMS)

Several important milestones were reached in the multi-phased development of FREP's province-wide information management system (IMS). When fully implemented, a wide range of stakeholders will use the IMS to store and manage FREP's resource stewardship monitoring and effectiveness evaluation information.

The gathering of general business requirements was completed in April 2006, and in May, a system developer (CGI) was selected through a BC Bid Request for Proposal. From June to October 2006, CGI worked under the direction of the FREP IMS Working Group, headed by Frank Barber of the Forest Practices Branch and John Gallimore of the Ministry's Information Management Group (IMG), to refine the requirements and build the IMS. The first round of IMS "user acceptance testing" took place November 27–December 6, 2006.

After incorporating suggested enhancements, Release 1 of the system went live on February 19, 2007. This first release of the IMS incorporates:

- the master lists used by FREP staff to select evaluation sites for the 2005/2006 and 2006/2007 field seasons;
- the ability to add new stand-level biodiversity and fish/riparian checklist field data, and;
- limited reporting capabilities.

IMS Release 2 is in the production phase. System training will be conducted in conjunction with technical training on field use of the checklists. An IMS Training Centre page has been added to the FREP website (<http://www.for.gov.bc.ca/hfp/frep/ims/training.htm>). This training tool enables field trainers to demonstrate how to enter data into the system. Resources on this site also include a self-study guide.

Other information management developments in 2006/07 saw delivery of two reports related to the search for an efficient system of information exchange between a field data collection tool and the FREP IMS. In December 2006, VIVID Solutions completed a report on the state of current handheld technology. It concluded that no currently available device meets all of FREP's requirements. In February 2007, CGI presented the FREP Handheld Business Case, a cost/benefit analysis that explored the implications of using handheld technology versus a combination of paper checklists with an online database. CGI found that, in comparison to the current procedures involving paper checklists, the overall net cost/benefit of a handheld device was unacceptable. The issue of the Ministry-wide use of handhelds will be addressed at the Ministry level.

For more information on the FREP IMS, go to: <http://www.for.gov.bc.ca/hfp/frep/ims/index.htm>

## Training

Training is a critical component of FREP's quality assurance framework. The 2006/07 RSM training program consisted of 12 formal sessions in fish/riparian and stand-level biodiversity assessment techniques for first-time RSM field staff. For those having previous experience with both checklists, refresher training was offered, which provided updates to protocols, field cards, and monitoring procedures. A total of 116 people received both types of training.

In the 2007 fiscal year, a training centre approach has been introduced in five locations with formal sessions designed to instruct first-time participants in assessment techniques for soils, fish/riparian, karst, stand-level biodiversity, and water quality. Another innovation will see the development of web-based materials to familiarize FREP IMS users with the skills necessary for checklist data-entry activities.

## FREP Program Development Initiatives

Significant program development initiatives undertaken in 2006/07 will help achieve FREP's mission of being a world leader in resource stewardship monitoring and effectiveness evaluations, and promote the continuous improvement of British Columbia's forest and range practices, policies, and legislation.

"Looking Forward: A Strategy Development Session" took place November 14–15, 2006, at the Chateau Victoria in Victoria, B.C., with about 40 in attendance, including the Chief Forester, for the 2-day event. The purpose of this session was to refine the mid-term (5–10 years) strategic direction for FREP. The first day of presentations served to update the status of ongoing projects for all resource value teams, and to provide opportunities for enhancing

co-operation and awareness amongst the various teams. The second day was devoted to identifying the strategic priorities that will direct FREP activities over the coming years. Action items were compiled to manage the attainment of these priorities.

Combined with the results of a “strengths, weaknesses, opportunities, and threats” analysis (131 individual stakeholder contributions), this planning session fine-tuned FREP’s vision and mission statements and established the following six strategic themes:

1. Clarity of Priorities
2. Leadership
3. People Focus
4. Program Development and Implementation
5. Continuous Improvement and Critical Reflection
6. Communication – Influencing Change through Collaboration and Information Sharing

These strategic planning goals will guide future program activities and ensure that FREP achieves its objectives over the coming years. A revised 10-year implementation schedule for resource stewardship monitoring protocols further defines the program’s longer-term direction.

For more information on FREP’s program development initiatives, go to: <http://www.for.gov.bc.ca/hfp/frep/pmgmt/index.htm>

## Evaluation Questions Update

Asking and answering the right questions is vital when examining the status, trends, and sustainability of British Columbia’s forest and range resource values. Appropriate resource stewardship monitoring indicators and protocols are based on evaluation questions that are updated annually. These questions are also used to identify important intensive evaluation projects and help to allocate FREP resources.

First Nations and stakeholders including academics, resource agency staff, range and forest industry representatives, and environmental groups, were asked to assist in setting FREP priorities for 2007/08 by reviewing the evaluation questions from 2005/06. Reviewers suggested additional questions and identified their top five priority questions. Based on this feedback, the list of 41 evaluation questions was updated and 20 top-ranked priority evaluation questions selected.

For more information on FREP’s evaluation questions for 2007/08, go to: <http://www.for.gov.bc.ca/hfp/frep/about/questions.htm>

## Intensive Evaluations

Several intensive evaluation projects were undertaken and (or) completed in 2006/07.

### Timber Value – Partial Cutting

To increase FREP’s capability in the evaluation of partial cutting and to make recommendations to improve partial cutting practices and standards, this project is examining the results of recent partial cutting in the Rocky Mountain Forest District in southeastern British Columbia. Focussing on 25 randomly sampled locations that were partially cut between 2000 and 2002, this research is attempting to establish benchmarks for indicators, such as stocking level, volume of merchantable dead or down wood, remaining volume of pine or non-pine species, and poor quality trees. For more information on this project, go to: [http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2007/tab7/FREP-CI-Timber-Feb-26-2007.ppt](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2007/tab7/FREP-CI-Timber-Feb-26-2007.ppt)

### Timber Value – Fort St. John Regeneration Pilot Project

This project is evaluating the effectiveness and efficiency of reforestation strategies outlined for the Fort St. John Regeneration Pilot Project. By determining whether these strategies can achieve healthy and sustainable forests, this project aims to develop a methodology for evaluating and monitoring alternative reforestation strategies and approaches in other parts of the province.

### Timber Value – Genetic Diversity

This project is evaluating the deployment of genetically improved seed across the province. In 2005/06, data compilation and analysis were undertaken to develop a baseline for genetic diversity back to October 31, 1987, and a report was drafted. In 2006/07, additional data compilation and analysis updated this baseline back to 1970. The original draft report is currently undergoing revision and will be finalized in 2007/08.

### Timber Value – Tree Species Diversity

This project is examining the changes in species diversity that resulted from harvesting during three periods: pre-1987, 1987–1995, and 1995 to present. The evaluation report on tree species diversity was reviewed and finalized in the spring of 2006.

### Timber Value – Free Growing

The purpose of this evaluation is to determine whether declared free-growing status is an accurate predictor of future stand productivity and whether the assumptions of stand performance associated with free-growing stands are valid. This project was initiated in the Lakes Timber Supply Area (TSA) in 2005 and continued in the Okanagan-Shuswap TSA and Strathcona TSA in 2006.

### Range/Forage Value – Forage

To determine whether range practices are leading to reduced quality and quantity of forage in the Southern Interior Forest Region, sites in six different ecosystems underwent sampling in 2006. Clippings of grass and flower species were collected in the grasslands, yellow pine forest, dry Douglas-fir forest, moist Douglas-fir forest, lodgepole pine forest, and open sub-alpine ecosystems. These samples were analyzed for digestibility and nutritive content.

### Range/Forage Value – Soils

During 2005, soils at range sampling sites were collected to analyze carbon and nitrogen content (i.e., indicators of change in productive capacity). These analyses were completed in 2006.

### Forest Worker Safety

This project evaluated safety issues surrounding the planning and design of partial cutting blocks (including wildlife tree retention) and forest road building in British Columbia. It identified industry “safety practices” or recommendations associated with these activities.

## Stakeholder and Partner Communications

Conference calls, emails, the FREP website, presentations, workshops, and various publications continue to be the program’s primary communication tools. In 2006, the program’s website was considerably revamped to more efficiently and effectively display information. Also updated was the FREP communications plan, which outlines the program’s communications objectives and provides general guidance on communication activities and products. Two FREP reports and two report summaries were produced, as well as a newsletter, an annual report, and a program retrospective for 2005/06. Two project summary lists have also been produced.

### Reports

Levesque, L. 2006. Geographical information systems needs assessment. B.C. Ministry of Forests and Range, B.C. Ministry of Environment, and B.C. Ministry of Agriculture and Lands,

Victoria, B.C. FREP Report No. 4. [http://www.for.gov.bc.ca/hfp/frep/site\\_files/reports/FREP\\_Report\\_04.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/reports/FREP_Report_04.pdf)

Levesque, L. 2006. 2006. Recreation site effectiveness evaluation project. B.C. Ministry of Forests and Range, B.C. Ministry of Environment, and B.C. Ministry of Agriculture and Lands, Victoria, B.C. FREP Report No. 5. [http://www.for.gov.bc.ca/hfp/frep/site\\_files/reports/FREP\\_Report\\_05.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/reports/FREP_Report_05.pdf)

### Report Summaries

Forest Practices Branch. 2006. Resource stewardship monitoring pilot tests. 2006. B.C. Ministry of Forests and Range, Victoria, B.C. FREP Report Summary No. 9. [http://www.for.gov.bc.ca/hfp/frep/site\\_files/extension/FRPA\\_Evaluator\\_Extension\\_Note\\_09.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/extension/FRPA_Evaluator_Extension_Note_09.pdf)

Forest Practices Branch. 2006. Recreation site effectiveness evaluation project. B.C. Ministry of Forests and Range, Victoria, B.C. FREP Report Summary No. 12. [http://www.for.gov.bc.ca/hfp/frep/site\\_files/extension/FRPA\\_Evaluator\\_Extension\\_Note\\_12.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/extension/FRPA_Evaluator_Extension_Note_12.pdf)

### Newsletters and Miscellaneous Reports

Forest Practices Branch. 2006. Resource Stewardship Monitoring Continuous Improvement Workshop. B.C. Ministry of Forests and Range, Victoria, B.C. FREP Newsletter No. 1. [http://www.for.gov.bc.ca/hfp/frep/site\\_files/newsletters/FREP\\_Newsletter\\_01\\_July-2006.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/newsletters/FREP_Newsletter_01_July-2006.pdf)

Forest Practices Branch. 2006. 2005/2006 Year in Review. B.C. Ministry of Forests and Range, Victoria, B.C. FREP Newsletter No. 2. [http://www.for.gov.bc.ca/hfp/frep/site\\_files/newsletters/FREP\\_Newsletter\\_02\\_July-2006.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/newsletters/FREP_Newsletter_02_July-2006.pdf)

Forest Practices Branch. 2006. 2005/06 Forest and Range Evaluation Program Quality Assurance and Quality Control Annual Report. B.C. Ministry of Forests and Range, Victoria, B.C. FREP Newsletter No. 3. [http://www.for.gov.bc.ca/hfp/frep/site\\_files/newsletters/FREP\\_Newsletter\\_03\\_August-2006.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/newsletters/FREP_Newsletter_03_August-2006.pdf)

Forest and Range Evaluation Program. 2006. Summary of projects to date: Version 1.0 – September 2003 to June 2006. B.C. Ministry of Forests and Range, Victoria, B.C. [http://www.for.gov.bc.ca/hfp/frep/site\\_files/FREP\\_Publication\\_List\\_2003-2006.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/FREP_Publication_List_2003-2006.pdf)

Forest and Range Evaluation Program Working Group. 2006. Summary of Forest and Range Evaluation Program projects that are underway for fiscal 2006/07: Version 1.0. B.C. Ministry of Forests and Range, Victoria, B.C. [http://www.for.gov.bc.ca/hfp/frep/site\\_files/pmgmt/PM-Approved\\_Projects\\_Summary\\_19-Sep-06.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/pmgmt/PM-Approved_Projects_Summary_19-Sep-06.pdf)

## CURRENT STATUS OF RESOURCE VALUE CHECKLISTS/INDICATORS

Resource Value	Primary Contact/Lead(s)	Priority Evaluation Question	Overview	Status
<b>Biodiversity (stand)</b>	Nancy Densmore (MFR) Richard Thompson (MOE)	Is the structural retention (wildlife tree and coarse wood debris [CWD]) left associated with cutblocks adequately maintaining habitat for dependent species at the site and across the landscape now and in the future?	Cutblock-level assessment; primary indicators include: ecological anchors, wildlife trees, large trees, coarse woody debris, % area retained, windthrow, and retention strategies.	Implementation
<b>Biodiversity (landscape)</b>	Nancy Densmore (MFR) Richard Thompson (MOE)	Are ecosystems represented across the landscape in time and space?	Landscape-level assessment; primary indicators in development are likely to include: average site index by leading species, ancient forest, seral stage distribution, and forest interior.	Development (e.g., pre-pilot)
<b>Cultural Heritage Resources</b>	Lisa Levesque (MFR)	Are cultural heritage resources being protected and conserved for First Nations cultural and traditional activities as a result of forest practices?	Determination of First Nations and stakeholder input satisfaction into the Forest Stewardship Plan process (process-level indicators). Assessment of individual cultural heritage resource sites or features, such as monumental cedar, cultural trails, or medicinal plant collection areas.	Development and partial pilot
<b>Fish/Riparian (stream reach)</b>	Peter Tschaplinski (MFR)	Are riparian forestry and range practices effective in maintaining the structural integrity and proper functioning of aquatic ecosystems and their associated riparian areas over both the short and long term?	In-block stream assessment of 15 primary indicators including: channel bed disturbance, aquatic connectivity, sedimentation, windthrow, and microclimate.	Implementation
<b>Fish/Riparian (fish passage)</b>	Peter Tschaplinski (MFR) Richard Thompson (MOE)	Are forestry practices, including those for road systems, preserving aquatic habitats by maintaining natural hill slope sediment supply and the natural sediment regimes of streams and other aquatic ecosystems?	Assessment at stream crossings looking for barriers to fish passage, such as perched culverts, blockages, etc.	Pilot
<b>Forage and Associated Plant Communities</b>	Francis Njenga (MFR)	What impact are range practices having on the quality and quantity of forage?	Assessment of riparian (bank integrity, vegetation, etc.) and upland areas (soils, vegetation, etc.) to determine impacts of ungulate grazing.	Pilot
<b>Recreation Resources</b>	Bill Marshall (MTSA)	Are recreation sites and trails providing healthy and safe recreation experiences?		Implementation

Resource Value	Primary Contact/Lead(s)	Priority Evaluation Question	Overview	Status
<b>Resource Features</b>	Kevin Kilpatrick (MFR)	Are current forest practices adequately protecting and maintaining the integrity of karst features? Are reserves being established for significant cave entrances, above significant caves, and around significant surface karst features, significant karst springs, and unique or unusual karst flora/fauna habitats?	Assessment of key karst attributes (e.g., individual features such as cave entrances, epikarst, sinking and losing streams, etc.) to determine the impacts of forest practices.	Implementation
<b>Soils (cutblock)</b>	Sandy Currie (MFR)	Are forest practices successful in preventing levels of site disturbance that are detrimental to soil productivity and hydrologic function? (disturbance in net area to be reforested)	Aerial- and ground-based assessment of indicators such as disturbance, exposed soil, CWD, and green trees.	Implementation
<b>Soils (landscape)</b>	Sandy Currie (MFR)		Assessment of terrain-level stability (landslides).	Development
<b>Timber</b>	Frank Barber (MFR)	What has been the impact of the FPC on tree species composition and levels of genetic diversity in forest stands harvested and regenerated prior to December 2005, using October 1987 to December 2003 as a benchmark, looking at both: forest stand level and landscape level (TSA, SPZ/SPU, region and province)?	Free-growing stands and forest health conditions are compared to determine the sustainability of silviculture practices.	Implementation (intensive)
	Alex Woods (MFR)	What has been the impact of the FPC on the health of forest stands harvested and regenerated prior to December 2005, using October 1978 to December 2003 as a benchmark, looking at both: forest stand level and landscape level (TSA, SPZ/SPU, region and province)?	Assessment of 60 cutblocks in each of three Timber Supply Areas to determine their current status as compared to when they were declared free growing: are they on the expected growth trajectory, and are they healthy?	Implementation (intensive)
	Pat Martin (MFR)	Are partial cutting forest practices sustainable as measured by maintenance of forest productivity? Are regeneration opportunities under partial cutting being maintained or diminished?	Assessment of partially cut stands to determine the economics and sustainability of this practice. Indicators focus on wood quality, size, and volume.	Implementation (intensive)
<b>Visual Quality</b>	Jacques Marc (MFR)	Is visual quality being managed and conserved (FPC baseline)?	Establishment of a baseline (i.e., performance under the Code) provincially against which to compare performance under <i>FRPA</i> in 3–4 years.	Pilot
<b>Water Quality</b>	Dave Maloney (MFR) Martin Carver (MOE)	Are forest road stream crossings or other forestry practices maintaining connectivity of fish habitats?	Assessment of bare ground acting as a potential fine sediment source into water bodies.	Implementation

Resource Value	Primary Contact/Lead(s)	Priority Evaluation Question	Overview	Status
<b>Wildlife (WHA)</b>	Kathy Paige (MOE) Wayne Erickson (MFR)	Do wildlife habitat areas (WHAs) maintain the habitats, structures and functions necessary to meet the goal(s) of the WHA, and is the amount, quality and distribution of WHAs contributing effectively with the surrounding land base (including protected areas and managed land base) to ensure the survival of the species now and over time.	Assessment of WHAs and Ungulate Winter Range (UWR) to determine whether, for species at risk, habitat needs are being met.	Development and pilot

## FREP FUNDING AND EXPENDITURES FOR 2006/07

The Treasury Board approved long-term funding for FREP in 2005/06. The budget is approximately \$4 million annually. District costs associated with implementing RSM (e.g., training, travel, remote access, seasonal employees) are covered through the FREP budget. For 2006/07, 12.5 FTEs were allocated to fieldwork and 2.2 FTEs to headquarters. In 2007/08, this will rise to 16.3 and 2.8 FTEs, respectively, for field and headquarters work.

The following table shows an approximate breakdown of FREP expenditures for 2006/07.

Project	Expenditure(\$)
RSM Implementation (training, access, equipment, etc.)	670 000
RSM Pilot Testing	260 000
Intensive Evaluations	310 000
Resource Value Checklist Development	315 000
Training	200 000
Support, Planning, and Development	100 000
Quality Assurance Framework and Protocols	50 000
Salaries, Benefits, Corporate Charges (trucks, facilities, etc.)	2 095 000
<b>Total</b>	<b>\$4 000 000</b>

## FREP INITIATIVES FOR 2007/08

Work will continue in the next fiscal year to quantify baselines and trends associated with *FRPA* resource values. Indicators and protocols will be developed for landscape-level biodiversity, cultural heritage resources, landscape-level soils, and wildlife resource values. Indicators and protocols already developed for other resource values at the implementation or pilot stages will be continuously improved on the basis of further data collection, analysis, and review.

All 29 forest districts will conduct stand-level biodiversity and fish/riparian (stream reach) resource stewardship monitoring at a targeted number of sample sites. Resource stewardship monitoring, using resource value checklists developed for cutblock-level soils, karst resource features (in 3 districts), and water quality (in 12 districts), will be implemented throughout the province on a voluntary basis.

Pilot resource stewardship monitoring will take place using indicator checklists and protocols developed for the following resource values: fish/riparian (for fish passage in 5 districts), forage/range (in 7 districts), wildlife, and visual quality (in 9 districts). Work on defining and developing indicators for cultural heritage resource values will continue in partnership with seven First Nations in four forest districts.

Communication is a vital component of effectively “closing the loop” in FREP’s continuous improvement cycle. FREP will use its suite of primary communication tools (e.g., website, presentations, training, publications, meetings, and conference calls) to provide feedback about program activities and results. Release of the 2006 RSM results for biodiversity and fish/riparian resource values is expected, as well as results from the following intensive evaluations: free-growing stands, genetic diversity, species diversity, partial cutting, and safety. FREP will also actively seek input from all partners and stakeholders through ongoing surveys.

To achieve its mission and objectives, FREP is committed to continuous improvement in all aspects of the program. Work in the coming fiscal year will be directed toward continuous improvement in the six areas identified in the strategic plan: clarity of priorities, leadership, people focus, program development and implementation, critical reflection, and communication. The annual Continuous Improvement Workshop will consolidate the year’s achievements and progress. Level 2 certification is expected through the National Quality Institute’s Progressive Excellence Program and an application will be submitted for Level 3.

## ACKNOWLEDGEMENTS

The FREP Working Group sincerely appreciates the significant contributions of everyone involved in helping attain the achievements and successes of the program in its fourth year.

Special thanks are extended to:

- Chief Forester Jim Snetsinger for his continued support for and guidance of FREP;
- Ralph Archibald (now retired) for his leadership and guidance as the Director of Forest Practices Branch;
- Diane Medves for assuming her leadership role in FREP as the Director of Forest Practices Branch;
- field staff for their dedication and hard work in achieving program implementation and innovations;
- resource value team leaders, and individual project leaders, for their dedication and expertise in developing and continually improving indicators, protocols, and training; and
- trainers for providing inspired in-house workshops and field training.

## MORE INFORMATION

For additional information on FREP, please refer to our website at: <http://www.for.gov.bc.ca/hfp/frep/index.htm>



**FREP**  
Forest & Range  
Evaluation Program

*The FREP Year in Review is a regular publication of the **Forest and Range Evaluation Program** designed to inform stakeholders on program development and implementation, and report on the results of evaluation projects.*