

## 2007/2008 YEAR IN REVIEW

### INTRODUCTION

In 2007/08, the Forest and Range Evaluation Program (FREP) made important progress toward realizing its mission of continuous improvement of British Columbia's forest and range practices, policies, and legislation. The objective of FREP is to evaluate whether practices under the *Forest and Range Practices Act (FRPA)* are meeting the intent of current government objectives for 11 resource values, and to determine whether forest and range practices, and the legislation itself, are meeting government's broader intent for the sustainable use of British Columbia's natural resources.

During its second year of province-wide implementation, FREP ramped up mandatory and voluntary resource stewardship monitoring (RSM) activities for five resource values, and broadened the piloting of protocols and checklists for four others. Substantial amounts of RSM data collected during the 2005 and 2006 field seasons have also been analyzed and some preliminary results reported out to stakeholders—an important achievement that will ultimately serve to improve forest practices.

Highlights for the year included: conducting mandatory RSM for stand-level biodiversity and fish/riparian resource values in all 29 forest districts; implementing voluntary RSM for soils, visual quality, and water quality; pilot testing

### CONTENTS

<b>Accomplishments in 2007/08. . . . .</b>	<b>2</b>
RSM Mandatory Implementation – Stand-level Biodiversity and Fish/Riparian . . . . .	2
RSM Voluntary Implementation – Soils, Visual Quality, and Water Quality. . . . .	2
Intensive Evaluations and Special Projects . . . . .	3
RSM Continuous Improvement Workshop . . . . .	4
People-Focus: Program and District Recognition. . . . .	5
Quality Management and Assurance Information Management System . . . . .	5
Training . . . . .	6
FREP Program Development Initiatives . . . . .	6
Stakeholder and Partner Communications . . . . .	7
<b>Current Status of Resource Value Checklists/Indicators . . . . .</b>	<b>8</b>
<b>FREP Funding and Expenditures for 2007/08. . . . .</b>	<b>10</b>
<b>FREP Initiatives for 2008/09 . . . . .</b>	<b>10</b>
<b>Acknowledgements. . . . .</b>	<b>11</b>
<b>More Information . . . . .</b>	<b>11</b>



Heather MacLennan looking for benthic invertebrates  
Headwater Forest District (photo courtesy of Norma Stromberg-Jones)

#### 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>



for cultural heritage resources, forage, karst, and wildlife resource values; and achieving Level 2 certification through the National Quality Institute's Progressive Excellence Program (<http://www.nqi.ca>). Several intensive evaluations and special projects were also initiated, continued, or completed. These included: a pilot of an intensive timber protocol; effectiveness evaluations of free-growing stands; a peak flow index project for watersheds in areas affected by the mountain pine beetle; the development of identification guides for invasive plants and stumps; and a project to scope out applications of remote sensing and geographic information systems for FREP monitoring.

The release of the *FREP 5-year Strategic Plan, 2007–2011* heralded a major accomplishment for the program's continued development. Six strategic themes are identified that will guide future program activities and ensure that FREP achieves its objectives over the coming years. In addition, district-level fact-finding visits conducted in fall 2007 discussed suggestions for FREP's continuous improvement and opportunities to enhance licensee engagement and understanding of the program.

## ACCOMPLISHMENTS IN 2007/08

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

The fundamental objective of resource stewardship monitoring is to continuously improve forest management in British Columbia. It provides valuable information on the status, trends, and implementation issues related to specific resource values at the local level. By monitoring the effectiveness of forest practices (e.g., forest stewardship plan [FSP] results and strategies, and related practices), RSM builds our knowledge of the status, health, and sustainability of the 11 resource values identified under *FRPA*. The outcomes of RSM help us find ways to enhance forest planning and practices, thus advancing sustainable resource management in the province.

In 2007, the second year of mandatory RSM for the stand-level biodiversity and fish/riparian *FRPA* resource values took place in all 29 forest districts. Approximately 470 cutblocks were evaluated for stand-level biodiversity attributes. The aim of this monitoring is to determine how well biodiversity attributes have been maintained on harvested cutblocks. This data 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 is looking at the effectiveness of riparian forestry and range practices in maintaining the structural integrity and functions of stream ecosystems over both

short and long terms. During the 2007 field season, district staff assessed 397 streams for 15 primary indicators, including channel bed disturbance, sedimentation, and aquatic connectivity.

Substantial amounts of RSM data collected for both resource values during the 2005 and 2006 field seasons have now been analyzed and some preliminary results communicated to stakeholders. This significant knowledge base will aid licensees and prescribing foresters in formulating their harvesting plans and will ultimately serve to improve forest practices.

### RSM Voluntary Implementation – Soils, Visual Quality, and Water Quality

During the 2007 field season, forest districts voluntarily participated in RSM for the soils, visual quality, and water quality resource values. Cutblock-level monitoring for soils took place in 15 forest districts. These aerial and ground-based assessments examined six indicators to determine if forest practices were successful in preventing site disturbances that were detrimental to soil productivity and hydrologic function. Work continued on refining the monitoring protocol and field forms, and on reporting out preliminary results from pilot monitoring in 2005 and 2006.

Voluntary RSM monitoring for the visual quality resource value took place in 14 forest districts during the 2007 field season. The overall objective is to assess whether forest practices conserved visual quality on cutblocks falling within scenic areas with established visual quality objectives. To establish a benchmark against which to analyze visual management under *FRPA*, this initial RSM sampled cutblocks harvested under the Forest Practices Code. After quality assurance checks, data for 163 samples was entered into the FREP database. While some reporting out on these results has already occurred, work will continue on refining the monitoring protocol and training assessors for the next round of voluntary RSM during the 2008 field season. A full report on the visual quality resource value is expected after analysis of the 2008 field data is completed.

The 2007 field season represented the second year of voluntary RSM for water quality. This monitoring is determining whether forestry practices are protecting water quality or are increasing the risk of drinking water health hazards. Evaluations focus on assessing the potential of bare ground as a fine sediment source into water bodies. Sixty-seven staff members from 19 forest districts and six Ministry of Environment districts participated in five 2-day formal training sessions. During the field season, approximately 540 checklists representing 117 sample areas and 14 forest districts were reviewed and submitted for data entry. Some preliminary results are available; a full report on the water

quality resource value is expected after analysis of the 2008 field data is completed.

## RSM Pilot Testing – Cultural Heritage Resources, Forage, Karst, and Wildlife

### Cultural Heritage Resources

Cultural heritage resource values overlap all other identified *FRPA* values. The goal here is to identify whether forest practices are conserving and, where necessary, protecting these values for First Nations' cultural and traditional activities. Working in partnership with several First Nations in four forest districts, indicators and interview protocols were developed to evaluate the effectiveness of First Nations involvement in forest management planning and implementation. These indicators address four factors: (1) First Nations participation in FSP development; (2) post-FSP information-sharing and consultation; (3) technical, logistical, and cross-cultural capacity; and (4) the incorporation of Aboriginal cultural heritage values in management plans at multiple scales. The indicators have been evaluated through 18 structured interviews with First Nations, licensees, and staff from the four pilot districts and BC Timber Sales. In addition, 110 FSPs across the province were analyzed to determine how the cultural heritage resource value was being addressed. Some preliminary analysis results are now available; a comprehensive report on pilot results will be published in 2008. Further work involves developing an RSM field checklist and protocol to assess the management of known and geographically defined traditional use sites and features at the cutblock level. These will be tested and revised in 2008.

### Karst

Karst, the distinctive rock landscape that develops by the dissolving action of water on soluble bedrock, has recreational, cultural, and biodiversity significance and covers about 10% of the province. The karst evaluation protocol and checklist is the first completed under the *FRPA* resource features objective. Monitoring of this resource feature is evaluating whether current forest practices adequately protect and maintain the structure, function, and ecological integrity of surface and subsurface elements of karst systems. Training in the use of the protocol and checklist took place in the fall of 2007.

### Forage and Associated Plant Communities

The objective for this resource value is to maintain or enhance forage quality and quantity for livestock and wildlife while maintaining healthy plant communities and biodiversity, and minimizing undesirable disturbance to soils, water, and riparian areas. Level 1 RSM aims to deter-

mine the effects that forest and range practices have on both the quality and quantity of forage, and the species composition and structure of the forest understory. The current monitoring protocol, which was piloted in five forest districts in 2007, focusses on plant community description, forage and browse use, and mapping by utilization zones. Valuable lessons were learned during this pilot; the protocol will undergo redevelopment and further piloting.

### Wildlife

The wildlife resource value addresses species-specific *FRPA* mechanisms for species at risk, regionally important wildlife, and ungulates. The approach adopted examines both the condition of the species and its habitat, and evaluates the risk to these habitats. Efforts during 2007/08 were directed toward the development of a wildlife resource value monitoring framework, a priority methodology, and two technical guides—one for completing wildlife effectiveness evaluations and the other for using conceptual models to select indicators. Work to date on protocol development, pilot testing, and implementation has largely involved five species: badger, gopher snake, mountain goat, tailed frog, and northern goshawk. Ministry of Environment (MOE) staff undertake effectiveness evaluations for this resource value.

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

## Intensive Evaluations and Special Projects

### Timber Value – 2007 Pilot of an Intensive Timber Protocol

A FREP intensive evaluation protocol is being developed that addresses the question "to what degree are stand conditions in harvested areas consistent with the goal to maintain or enhance an economically valuable supply of commercial timber?" In 2007, the protocol was piloted in a population of cutblocks near Merritt, B.C.

For more information on this project, go to: [http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/FREP-CI-Timber-Eval-PatMartin.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/FREP-CI-Timber-Eval-PatMartin.pdf)

### Timber Value – Free Growing Effectiveness Evaluations

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.

Using the basic protocol from these studies, a new survey protocol is being developed that will build on connections between forest health, silviculture, inventory, and the Timber Supply Review. This new monitoring program, conducted as part of FREP RSM procedures, will focus on stands declared free growing between 1995 and 2001, as this group captures more current management practices.

For more information on this project, go to: [http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/tab2/FREP-CI-Timber-E-SquaredFG-WendyBergerud.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/tab2/FREP-CI-Timber-E-SquaredFG-WendyBergerud.pdf)

### **Mountain Pine Beetle Watershed Peak Flow Index Project**

This project applied a coarse-filter, geographic information system (GIS) approach to the assessment of key watersheds in areas affected by the mountain pine beetle (MPB). The Level 1 Interior Watershed Assessment Procedure was used to assess 83 incorporated towns and communities located on major river floodplains in MPB-affected areas. This procedure identifies watersheds that may have impacts from the cumulative effects of past forest harvesting or planned future forest harvesting. The aim is to establish whether the watersheds are at risk of increased peak flows and to determine the proportion of the peak flow that can be attributed to natural disturbances (fires and MPB) and to human activities (harvesting and road building). A report on this project is undergoing peer review.

### **Invasive Plants and Stump Identification**

FREP, in co-operation with Range Branch and the Northwest Invasive Plants Council, is developing a guide to help staff identify invasive plants and to track their distribution and abundance. FREP also developed a Stump Identification Guide with wood science consultant, Les Jozsa. This guide will assist staff in identifying tree species from stumps—important in assessing post-harvest conditions.

For more information on the stump identification guide, go to: [http://www.for.gov.bc.ca/hfp/frep/site\\_files/ciworkshop2008/posters/FREP-CI-StumpID-FrankBarber.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/ciworkshop2008/posters/FREP-CI-StumpID-FrankBarber.pdf)

### **Remote Sensing Scoping Project**

Exploratory work took place into the application of remote sensing and GIS in the assessment of resource values and their indicators. This project is being conducted in conjunction with the University of British Columbia and Forest Analysis and Inventory Branch. FREP used GIS this year at the district and branch level to assist with planning, reporting, and presentations.

## **RSM Continuous Improvement Workshop**

FREP's Continuous Improvement Workshop is an annual sharing of best practices and of the collective program experience. Held at Victoria's Laurel Point Inn over two days in late February 2007, the event attracted over 100 participants from the regions, districts, branches, and other ministries. This workshop provides a valuable venue for the FREP team to improve all aspects of the program: relationships are built or strengthened; successes and challenges are discussed; and monitoring and evaluation results from the previous field season are reviewed. Most important, however, is the opportunity for all participants to contribute their voice to the program's continued development and improvement.

Diane Medves (MFR, Forest Practices Branch Director) and Peter Fuglem (MFR, Operations Executive Director) provided an introductory senior management perspective of the program's foundational role in supporting the province's results-based forest and range practices legislation. Workshop participants then broke out into seven groups to discuss issues of importance to district staff, including safety, efficiency, and program improvements. Team leaders presented updates on each resource value, providing scientific background for the protocols and an opportunity to discuss how RSM data and results will lead to improvement of forest practices and policies.

Other presentations:

- outlined the status of the FREP Information Management System and timber value intensive evaluations;
- highlighted important accomplishments in the areas of quality management, training, and systems implementation;
- described a new initiative to improve program communications with licensees, between districts, within districts, and with management;
- introduced the concepts and issues surrounding fisheries-sensitive watersheds and invasive plants; and
- congratulated the winners of the Chief Forester and ADM Operations Award, the Loon Tale Challenge, and the RSM Photography contest (see "People Focus: Program and District Recognition," below).

For more information on the FREP 2008 Continuous Improvement Workshop, go to: <http://www.for.gov.bc.ca/hfp/frep/rsm/ciworkshop.htm>

## People-Focus: Program and District Recognition

FREP owes much of its success to its dedicated staff. In March 2008, Provincial Stewardship Evaluation Officer, Peter Bradford, accepted the 2007/2008 Premier's Award for Leadership on behalf of the entire FREP team. This award attests to the shared leadership that exists in FREP between all levels of the organization.

For more information on this award, go to:

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

In 2006, executive sponsor, Chief Forester Jim Snetsinger, along with the Assistant Deputy Minister of the Operations Division, Tim Sheldan, instigated the *Chief Forester and ADM of Operations Award for Excellence in Resource Stewardship Monitoring*. This annual honour is awarded to the forest district that demonstrates the highest level of contribution and excellence during FREP's RSM field season. On October 25, 2007, Snetsinger and Peter Fuglem (Executive Director, Operations) were on hand to congratulate the Nadina Forest District as the 2006 winner of the striking cedar award, created by Ahousaht Nation carver George Williams.

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 winners of the RSM Photography Contest were announced at the Continuous Improvement Workshop in February 2008. Recognition for best overall photo went to Leith McKenzie (Kamloops Forest District) for the landscape shot "One Leaf's Bid for Canadian Citizenship." View all the winning photos for 2007 at: <http://www.for.gov.bc.ca/hfp/frep/recognition/gallery.htm>

For information on entering the 2008 contest, go to:

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

## Quality Management and Assurance

Quality management is an integrative management practice that reinforces program goals and objectives, and is therefore essential to FREP's overall success. Key quality management activities during 2007/08 included the National Quality Institute certification process, quality assurance visits, and several program-level improvements.

On October 16, 2007, FREP attained Level 2 organizational certification through the National Quality Institute (NQI) Progressive Excellence Program. FREP was the first BC government program to receive Level 1 certification in September 2006. Certification through NQI emphasizes that program management is comparable to the best Canadian and international organizations. FREP achieved certifica-

tion for its demonstrated excellence in: leadership, planning, citizen/client focus, people focus, process management, and supplier/partner focus. FREP intends to pursue all four levels of the Progressive Excellence Program, as well as the Canada Award for Excellence, also awarded through the NQI.

Other quality management activities included:

- Offering quality assurance mentorship visits to forest districts (see "Training" below).
- Business mapping all key communication and data management processes (e.g., RSM conference calls, FREP listserv operations, and website updates).
- Tracking performance trends through quality indicator reporting.
- Conducting a contractor survey, the results of which are communicated to the contract co-ordinator and the Contract Management Unit to aid continuous improvement.
- Implementing NQI Level 2 assessment improvement projects as lessons learned from the Level 2 NQI certification, as well as preparing the NQI Level 3 application.

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

## Information Management System

The multi-phased development of FREP's province-wide information management system (IMS) continued during the 2007/08 fiscal year. This computer application supports the activities of MFR, MOE, and other government staff conducting field evaluations on the state of the 11 resource values outlined in *FRPA*.

The first version of the application, which incorporated the stand-level biodiversity and fish/riparian resource values, became available in February 2007. Version 2, released in May 2007, improved navigation and design features, added new edit rules and data quality checks, and increased the number of available reports. Version 3, which went live in November 2007, incorporated additional reporting capabilities and another round of enhancements, primarily data quality edit rules suggested by users during testing. System training is conducted in conjunction with technical training on field use of the checklists.

A wide range of stakeholders use the IMS to store and manage FREP's resource stewardship monitoring and effectiveness evaluation information. Database monitoring shows that, as of September 2007, 479 checklists had been created, with 295 of those submitted, and the majority of forest districts entering their own data.

To ensure a continuously high level of data quality, the Forest Practices Branch is working with Dr. Marla Weston (Camosun College) to build an audit process that focusses on process review and direct data analysis. Another project is exploring the best metadata systems to provide search tools and storage solutions for the FREP reports and datasets.

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. In 2007, formal training was delivered before the field season at two regional training venues—Campbell River and Williams Lake. This model offered training of multiple resource values with the convenience of attending one location. Two sessions were held at Campbell River and two sessions at Williams Lake. A total of 228 participants attended biodiversity and riparian training over four sessions, and 60 participants attended water quality training over five sessions.

After formal training, district staff are further supported by mentorship training. During the 2007 field season, trainers Dean McGeough, Derek Tripp, Bryce Bancroft, and Kevin Kilpatrick conducted 28 mentor visits for biodiversity and (or) riparian monitoring that covered 23 forest districts. District-based mentor training ensures field staff are trained and calibrated in “their own backyard.” This involved over 165 participants who received training for five resource values at 50 district locations.

The final stage in the RSM process involves quality assurance visits to evaluate and provide feedback on the reliability of the field assessments. Trainers revisited cutblocks sampled by district staff for stand-level biodiversity and fish/riparian resource values. These visits assessed the measuring, estimating accuracy, and precision for 20 openings and 34 riparian area samples. The results of these visits are used to refine future training activities and to update resource value protocols, checklists, and field guides, all of which helps drive FREP's cycle of continuous improvement.

For more information on the FREP 2007/2008 training, go to: <http://www.for.gov.bc.ca/hfp/frep/rsm/training.htm>

## FREP Program Development Initiatives

The release of the *FREP 5-year Strategic Plan (2007–2011)* in September 2007 signified a major accomplishment for the program's development. The priorities and performance measures outlined in this document will help FREP achieve its mission of being a world leader in resource stewardship monitoring and effectiveness evaluations, and of promot-

ing the continuous improvement of British Columbia's forest and range practices, policies, and legislation. Six strategic themes are identified:

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 themes will guide future program activities and ensure that FREP achieves its objectives over the coming years. Detailed tasks for each strategic area are outlined in annual work and improvement plans (<http://www.for.gov.bc.ca/hfp/frep/pmgmt/index.htm>) and quality control protocols (<http://www.for.gov.bc.ca/hfp/frep/qmgmt/control.htm>). The plan's six strategic themes and deliverables will be critically reviewed every year and updated where appropriate.

For more information on the *FREP 5-year Strategic Plan*, go to: <http://www.for.gov.bc.ca/hfp/frep/pmgmt/index.htm>

From October 29 to November 28, 2007, a series of meetings was held with district staff from across the province. These fact-finding visits:

- Presented an overview and update of FREP activities;
- Provided an opportunity for district staff to identify and discuss any monitoring or evaluation gaps and to prioritize these potential gaps;
- Discussed opportunities and methods for FREP to address high priority gaps (e.g., develop additional tools, local priority setting process, etc.);
- Identified comments and suggestions for FREP's continuous improvement; and
- Discussed opportunities to enhance licensee engagement and understanding of FREP (e.g., opportunities to comment on program priorities, protocols, and activities; communication and discussion of monitoring results through communities of practice or other means).

Regional FREP leads and staff from Forest Practices Branch met with more than 140 staff representing 18 districts and many program areas including tenures, stewardship, compliance and enforcement, research, and range.

Results of these meetings have been reported out in both regional (regional management team) and provincial (Forest Stewardship Division Management Team and Operations Leadership Team) contexts.

For the summary report of these district visits, go to:

[http://www.for.gov.bc.ca/hfp/frep/site\\_files/pmgmt/PM-FREP-District-Visit-Summaries-Dec-06-07.pdf](http://www.for.gov.bc.ca/hfp/frep/site_files/pmgmt/PM-FREP-District-Visit-Summaries-Dec-06-07.pdf)

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

## Stakeholder and Partner Communications

Conference calls, emails, the FREP website, presentations, workshops, and various publications continue to be the program's primary communication tools. Three FREP reports were produced that detail the results of resource stewardship monitoring and evaluations. Two report summaries were also published to extend the results of the reports. In addition, two newsletters, two annual reports, a program brochure, and an affiliated report were produced as well as the most recent version of the FREP publication list.

### Reports

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### Miscellaneous Publications

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## 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 stand-level retention providing the range of habitat with the structural attributes understood as necessary for maintaining the species dependent on wildlife trees and coarse woody debris?	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.	Piloting
<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 piloting
<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.	Piloting
<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.	Re-development
<b>Recreation Resources</b>	Bill Marshall (MTSA)	Are recreation sites and trails providing healthy and safe recreation experiences?	Project completed (on website)	Evaluation project completed

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)?	Assessment of the level of genetic diversity as measured by the source of genetic resilience and range of genetic gain resulting from seed deployed to regenerate Crown Land.	Implementation (special project)
	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> ).	Implementation
<b>Water Quality</b>	Dave Maloney (MFR)	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 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
Wildlife	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.  Do ungulate winter ranges (UWRs) maintain the habitats, structures, and functions necessary to meet the species winter habitat requirements, and is the amount, quality, and distribution of UWRs contributing effectively with the surrounding land base (including protected areas and managed land base) to ensure the winter survival of the species now and over time.	Assessment of WHAs and UWRs to determine whether habitat needs are being met for species at risk and ungulates.	Development and piloting

## FREP FUNDING AND EXPENDITURES FOR 2007/08

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 2007/08, 14.4 FTEs (one full time equivalent = one staff position) were allocated to field-work and 2.8 FTEs to headquarters.

The following table shows an approximate breakdown of FREP expenditures for 2007/08.

Project	Expenditure(\$)
RSM Checklist Development, Pilot Testing and Implementation	714 000
Intensive Evaluations	263 000
Training	206 000
Support, Planning, and Development	127 000
Quality Assurance Framework and Protocols	30 000
Salaries, Benefits, Corporate Charges (trucks, facilities, etc.)	2 660 000
<b>Total</b>	<b>\$4 000 000</b>

## FREP INITIATIVES FOR 2008/09

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 refined on the basis of further data collection, analysis, and review.

Communication is a vital component of effectively “closing the loop” in FREP’s continuous improvement cycle. The program’s primary communication tools (e.g., website, presentations, training, publications, meetings, and conference calls) will be used to provide feedback about program activities and results. Release of 2005–2007 RSM results is expected for stand-level biodiversity, fish/riparian, water quality, and soils resource values. Results from several intensive evaluations will also be published (free-growing stands, genetic diversity, tree species diversity, partial cutting, and hydrological effects in mountain pine beetle stands). In addition, ongoing surveys will actively seek input from all partners and stakeholders.

Work in the coming fiscal year will be directed toward continuous improvement in the six strategic themes identified in the 5-year strategic plan: clarity of priorities, leadership, people focus, program development and implementation, critical reflection, and communication. As part of this process, a client-based communication team has been formed to focus on activities that will best meet the needs of the program's partners and stakeholders. The annual Continuous Improvement Workshop will consolidate the year's achievements and progress. Level 3 certification is expected through the National Quality Institute's Progressive Excellence Program and the application process for Level 4 will be initiated.

## 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 fifth year of operations.

Special thanks are extended to:

- Our field staff (as there are so many field staff names, please see FREP website for district contacts) for their hard work in achieving program implementation and innovations;
- The Chief Forester, Jim Snetsinger, and Assistant Deputy Minister of Operations, Tim Sheldon, for their continued support and guidance of FREP;
- Lorne Bedford, Diane Medves, and Ian Miller for their leadership and guidance as the Forest Practices Branch management team;
- The resource value team leaders (Nancy Densmore, Richard Thompson, Lisa Levesque, Peter Tschaplinski, Perry Grilz, Francis Njenga, Kevin Kilpatrick, Sandy Currie, Frank Barber, Jacques Marc, Dave Maloney, Kathy Paige, and Wayne Erickson) for their dedication in developing and continually improving indicators, protocols, and training;
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- Our lead trainers and contractors (Derek Tripp, Dean McGeough, Bryce Bancroft, Brian Carson, Sue Elo, Jules Mullin, Susan Bannerman, Marla Weston, and Amanda Nemeć) for providing inspired in-house workshops, field training, mentoring, and advice.

## 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.*