

Under FREP, sustainable forest and range management includes:

- managing forest and range lands to meet present needs without compromising the needs of future generations;
- providing stewardship of forests and range based on respect for the land;
- balancing the economic, spiritual, ecological, social, and cultural needs of people and communities; and
- conserving British Columbia's forest and range resource values.

FREP monitoring and evaluation activities include:

- determining if current practices are achieving government's goals and management objectives for resource values;
- identifying issues related to forest and range practices, policies, and legislation;
- promoting the continuous improvement of forest and range management in British Columbia.

FREP relies on the involvement of many people and organizations with an interest in the program, including provincial and federal resource agencies, First Nations, the Forest Practices Board, academics, consultants, non-government organizations, the ranching industry, guide outfitters, the forest industry, municipalities, regional districts, and members of the public.

Quality Assurance and Continuous Improvement: Implementing quality assurance mechanisms will ensure the integrity of the vast amounts of data that will be collected under FREP, as well as the effective management, analysis, and extension of that data and other information. FREP's strong emphasis on quality assurance will lead to evidence-based continuous improvement of forest and range practices, policies, and legislation that respond to the needs of all forest stakeholders in British Columbia.

Two key components of FREP are resource stewardship monitoring and intensive evaluations:

Resource Stewardship Monitoring (RSM) consists of routine monitoring of on-the-ground practices to determine if resource value objectives, or results and strategies identified in forest stewardship plans, are being achieved or could be improved. RSM provides important information on the status, trends, and implementation issues related to specific resource values, and "red flag" areas that may require a change to local practices, or a more intensive investigation.

Intensive evaluations, consisting of in-depth data collection and analysis, assess whether legislation, policies, or practices are achieving intended outcomes. Intensive evaluations are often based on results from RSM, and may incorporate information from other scientific studies and research. The results of intensive evaluations may be combined with other adaptive management strategies to improve the management of specific resource values.



Your Guide to the Forest and Range Evaluation Program

ELEVEN RESOURCE VALUES

Resource Features

Soils

Timber

Visual Quality

Water

Wildlife

Recreation

Forage & Assoc. Plant Communities

Fish

Cultural Heritage

Biodiversity

How you can get involved with the Forest and Range Evaluation Program

FREP invites and welcomes your input.

You can contribute in many ways including:

- Contributing your suggestions for evaluation and monitoring topics.
- Providing feedback on existing monitoring and evaluation indicators.
- Commenting on any aspect of the program you feel could be improved.

To submit your comments visit:

www.for.gov.bc.ca/hfp/frep/feedback/index.htm

Forest and Range Evaluation Program



Science-based monitoring to improve British Columbia's forest range practices, policies, and legislation

Sustainability of Forest and Range Resources Through Science and Stewardship

Sustainability of Forest and Range Resources Through Science and Stewardship

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Boreal Owl

Our 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.

What is FREP?

The Forest and Range Evaluation Program (FREP) is an evaluation program designed to assess the effectiveness of British Columbia's new results-based Forest and Range Practices Act and Regulations. Established in 2003 under the direction and guidance of British Columbia's Chief Forester, FREP's goal is to help ensure the sustainable management of the province's forest and range resources. This goal is accomplished through ongoing monitoring and evaluation practices conducted primarily through the Ministry of Forests and Range, in partnership with the Ministries of Environment, Tourism, Sport and the Arts, and the Integrated Land Management Bureau.



FREP
Forest & Range
Evaluation Program

1 Ask The Right Question

The Forest and Range Practices Act identifies 11 resource values: soils, biodiversity, riparian/fish, visual quality, timber, forage and associated plant communities, water, wildlife, recreation, resource features, and cultural heritage resources. The Resource Value Teams, consisting of scientific and technical experts, identify management issues for each resource value. Each team sets priorities for its resource value. These issues are then formulated into key priority evaluation questions, which guide the collection of information required to obtain accurate and reliable answers.

6 Decision-Making & Implementation

After analyzing the monitoring and evaluation data, the teams recommend changes at the district, regional, and provincial scales. Each of these scales has different mechanisms for implementation. For example, district level implementation may involve enhancing communication with stakeholders, or implementing training to improve forest and range practices. At a provincial level, changes include improvements to forest and range policies and legislation, training and guidance documents.

5 Communication

Social, economic, and environmental factors are all considered before determining appropriate actions based on the results and recommendations of monitoring and evaluation projects. As with all aspects of FREP, decision making is open, and we encourage input from stakeholders and the general public.

Develop Indicators

The priority evaluation questions provide the context for developing specific indicators for different resource values. Indicators are the measurable attributes or characteristics of a resource value that can provide reliable information on the sustainability status or state of the resource. The methods of collecting data on these indicators are known as monitoring protocols.

Indicators and monitoring protocols for each resource value are developed through a rigorous, scientifically valid process. Resource value experts develop all indicators and protocols, which are then peer reviewed, field tested, and continually updated to reflect new knowledge and understanding.

2

Collect Data

3

BC Forest Service and Ministry of Environment district staff throughout the province collect data for Resource Stewardship Monitoring (RSM).

With RSM, data collection generally involves relatively quick but statistically valid measurements and visual estimates. A typical assessment of a cut block can take a team between 3 and 6 hours.

Intensive evaluations are usually conducted at a more focused scale by Resource Value Team Leaders, in conjunction with other resource value experts (e.g. licensees, academics). Data collection is much more quantitative, and data analysis often involves detailed comparisons with baseline information. Intensive evaluations can be very complex and extend over long periods of time.

To manage the significant amount of data being collected through RSM and intensive evaluations, FREP has implemented a comprehensive Information Management System (IMS) to store and analyze the data. The FREP IMS will also allow for rigorous data quality control measures to ensure the accuracy and integrity of FREP results.

Analysis & Recommendations

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Resource value experts and statistical specialists analyze and interpret data collected during RSM and intensive evaluations to show how forest practices are impacting resource values. The analyses are summarized and shared through public reports and communicated directly to forest industry representatives and senior government decision makers.

Based on the findings, Resource Value Teams may recommend changes to the rules governing forest practices. Recommendations can range from improving local practices, to developing regional/provincial training, revising forest policy or legislation, or recommending new guidelines for balancing the ecological, social, and economic benefits of the forest.

Biodiversity - A Case Study

Biodiversity refers to life in all its forms and the habitats and natural processes that support it.

The Forest and Range Evaluation Program evaluates both stand and landscape-level biodiversity through routine Resource Stewardship Monitoring and intensive evaluations.

Stand-level biodiversity monitoring determines if the present policy of retaining wildlife tree patches and riparian reserves is achieving the desired levels and types of structures to maintain species diversity.

Stand-level biodiversity evaluations allow FREP to demonstrate potential risks to biodiversity. In part, this is accomplished using data comparison of cutblock to baseline. If, for example, these comparisons showed that the amount of large standing dead trees in a particular ecosystem was significantly lower than expected to maintain the health of that ecosystem; this would signal a potential risk to biodiversity.

Applying FREP's Continuous Improvement Cycle to stand-level biodiversity

Question: Is the structural retention (wildlife trees and coarse woody debris) left associated with cut blocks adequately maintaining habitat for dependent species at the site and across the landscape now and in the future?

FREP Identifies Six Key Stand-Level Biodiversity Indicators:

1. Area of harvest block left in reserves (unharvested).
2. Individual patch (reserve) size.
3. Presence and abundance of ecological anchors.
4. Presence and abundance of wildlife trees.
5. Presence and abundance of tall and large diameter trees.
6. Presence, abundance, and size of coarse woody debris after harvest.



FREP delivers comprehensive & effective science-based information to ensure balanced decision-making.