

Ministry of Forests and Ministry of Water, Land and Air Protection

FRPA Resource Evaluation Program

Charter

APPROVALS: <u>Program Sponsor</u>

L. Pedersen

Oct 20/03

Larry Pedersen Chief Forester

Signature

Date

This Charter was prepared by the FRPA Resource Evaluation Working Group in consultation with the Joint Management Committee. The charter has been approved by the Chief Forester in consultation with the Joint Steering Committee (JSC). The JSC consists of senior managers representing the Ministry of Water, Land and Air Protection; the Ministry of Sustainable Resource Management; the Ministry of Forests; the Ministry of Competition, Science and Enterprise; the Ministry of Energy and Mines; and the federal Department of Fisheries and Oceans.

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Preface

This document defines the provincial *Forest and Range Practices Act* Resource Evaluation Program in terms of purpose, objectives, scope, deliverables, stakeholders, structure and management.

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1.0 Program Purpose

FRPA Resource Evaluation Program (Evaluation Program) is a long-term commitment by government to:

- Assess the effectiveness of the *Forest and Range Practices Act* (FRPA) in achieving stewardship of the resource values identified under FRPA;
- Identify issues regarding the implementation of forest policies, practices and legislation as they affect the resource values identified under FRPA; and
- Implement continuous improvement of forest management.

2.0 Background

The Forest and Range Practices Act is intended to maintain high environmental standards, and promote innovation and cost-effective forest resource management. It is the mandate of the Ministry of Forests' Forest Practices Branch to ensure that scientifically based and peer-reviewed protocols are developed through collaborative efforts with existing scientifically based evaluation initiatives and stakeholder involvement. The intent is to determine if government-stated objectives for FRPA's resource values are being achieved.

Partnering with Ministry of Forests' Research Branch and Field Services Division, as well as agencies such as the Ministry of Water, Land and Air Protection (MWLAP) and the Ministry of Sustainable Resource Management (MSRM), Forest Practices Branch will coordinate ongoing evaluations and the continuous improvement of effective forest practices. The results of this work will be presented in regular and comprehensive reports to government officials, the public and other stakeholders.

3.0 Objective

The objective of the Evaluation Program is to determine if forest and range policies and practices in British Columbia are achieving government's objectives for FRPA resource values, with a priority on environmental parameters and consideration for social and economic parameters, where appropriate. This will be accomplished by:

- Evaluating the status or trends of resource and ecosystem values and determining causal factors;
- Determining whether resource values are being managed in a sustainable manner through proven or alternative forest practices; and
- Recommending options for changes to forest and range policies, practices and legislation, where required.

4.0 Critical Success Factors

The following critical success factors articulate what the Evaluation Program must achieve in order to be successful:

• Timely and appropriate identification, ranking and re-assessment of evaluation questions that need addressing;

- Sufficient staff, budget and time to achieve the agreed-upon program purpose (ensuring resources allocated to the Evaluation Program are consistent with approved program goals and deliverables);
- Clearly identified participant roles and responsibilities (including branches, regions, districts and other stakeholders);
- Peer-reviewed indicators and protocols for the priority evaluation questions being addressed;
- Access to the necessary expertise to develop appropriate indicators and conduct evaluations;
- Measurable, verifiable and cost-effective indicators and protocols that allow for evaluation in a timely manner and at various scales of intensity;
- Protocols that enable appropriate recommendations for changes to policy and legislation;
- Implementation of a comprehensive Quality Assurance Plan for the Evaluation Program as a whole and for individual projects;
- A well-planned and executed Information Management Plan, which includes quality control protocols for data collection, analysis, storage and maintenance;
- A well-defined and executed Communications Plan and reporting framework; and
- Credible, accurate and unbiased reporting based on actual evaluation data analysis that follows specific reporting and quality assurance guidelines.

5.0 Program Scope

The following activities are within the scope of the Evaluation Program:

- 1. Identification, prioritization and re-assessment of evaluation questions that need addressing.
- 2. Development or identification of measurable, verifiable and cost-effective indicators and protocols that allow for evaluation in a timely manner.
- 3. Evaluation of priority questions related to:
 - Achievement of the desired future conditions for resource values;
 - Status, trend and causal factors of resource values;
 - FRPA objective statements;
 - Alternative management strategies (e.g., refinement monitoring of Forest Stewardship Plans and strategies¹ and Code pilots),
 - Implementation, effectiveness and validation monitoring; and
 - FRPA policy assumptions.
- 4. Providing options and recommendations for changes to legislation and policy to senior management, including the Chief Forester.
- 5. Meta-evaluation (evaluating the Evaluation Program determining if the program is achieving its objectives).²

¹ Includes district-level activities to provide feedback to district managers and the Evaluation Program by identifying "critical issues" and questions for follow-up evaluations.

² Evaluations may take place anywhere within the total provincial land base.

6.0 Complementary Evaluation Programs

There are other evaluation initiatives either planned or underway in British Columbia which will contribute to the overall evaluation of forest and range management. The Evaluation Program will exchange data and other information with these programs. Complementary evaluation programs include:

- 1. Biodiversity and environmental monitoring programs in the Ministry of Water, Land and Air Protection (MWLAP).
- 2. FRPA Administrative Effectiveness Evaluation Program Ministry of Forests (Resource Tenures and Engineering Branch).
- 3. Compliance and enforcement Ministry of Forests (Compliance and Enforcement Branch), and MWLAP Compliance Program.
- 4. The Forest Practices Board.
- 5. Certification audits and activities.
- 6. National C&I Reporting
- 7. Provincial State of the Forest Reporting

7.0 Program Structure and Process

To achieve the purpose and objectives set out in this charter, the Evaluation Program will include the following business processes:

- Identify resource value priorities for evaluation;
- Develop and prioritize questions to focus resource value evaluations;
- Conduct timely, credible and appropriate evaluations (at a variety of scales, intensities and timelines);
- Make recommendations on legislation, policies and the Evaluation Program as new insights, observations, analyses and research findings become available;
- Effectively manage information and data generated; and
- Communicate results and recommendations to stakeholders in a timely and appropriate manner.

A committee consisting of internal stakeholder representatives titled the Resource Evaluation Working Group (Working Group) will guide the development and implementation of the Evaluation Program. External stakeholders will be invited to provide input on evaluation issues and participate on sub-working groups, as needed.

The Working Group will be given a clear mandate by the Chief Forester via this charter. It is expected that senior management will provide ongoing multi-agency direction, support and decision making. Key ministries and agencies will assist in both the development and implementation phases of the Evaluation Program.

In the development phase, an integral part of the Evaluation Program will be the appointment of Resource Value Team Leaders (Team Leaders). Team Leaders will be responsible for developing a list of evaluation questions for their assigned resource value(s)³, in consultation with internal and external stakeholders (as described in the External Stakeholder Involvement Protocol) on an annual basis. The Working Group will compile the evaluation questions for each resource value, and recommend priority rankings for the questions to senior management annually. Senior management will decide which priority projects to fund given available budget and staff resources.

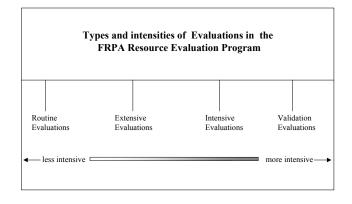
Once a project has been funded, Team Leaders will work with Evaluation Project Leaders to develop or refine data collection protocols and indicators, and reporting procedures. A process will be developed to establish cross linkages between evaluation projects and Teams Leaders to ensure an inter-disciplinary approach is taken on evaluations whenever possible.

Based on available funding and priorities, the types of evaluation projects that will take place under the Evaluation Program may range from intensive multi-year or multi-value evaluations to short duration, geographically limited, or single-topic evaluations.

In ascending order of detail, evaluations are respectively termed *routine, extensive and intensive*. Each level of evaluation uses a set of indicators to identify forest management-related effects upon the condition or function of a given resource value(s). Routine evaluations are low intensity overview evaluations that use indicators that can be obtained at most sites (relatively simple qualitative measures, such as visual estimates or yes/no answers). Extensive evaluations generally include categorical data collection (rapid collection of quantitative data) by visual estimation of specified indicators, at randomly selected sites. Intensive evaluations involve quantitative data collection and analysis with comparison to controls. Another type of evaluation is validation (primarily a research tool) which is used to verify the assumptions underlying targets, goals and standards. Figure 1 illustrates the range of intensity between the different types of evaluations that will be conducted under the Evaluation Program.

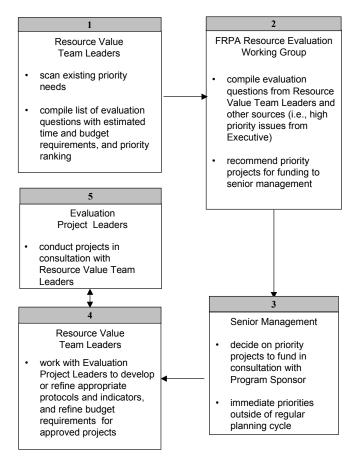
³ It may be appropriate to appoint a Resource Value Team Leader to more than one resource value (e.g., fish and water).

Figure 1: Types of Evaluations under the Evaluation Program



The Evaluation Program priority planning process is detailed in Figure 2. However, from time to time, evaluation priorities will emerge outside the regular planning cycle and require immediate attention. For evaluations of this nature, the client will be required to clearly define the scope, objectives, deliverables, timelines, responsibilities and resources required.

Figure 2: Process for Prioritizing, Approving and Implementing Evaluation Projects



8.0 Organizational Structure, Roles and Responsibilities

The Resource Evaluation Program Leader (Program Leader) will chair the Working Group, and play a major role in the coordination and management of the overall program. The Working Group will have a number of sub-working groups (consisting of Working Group members and others with appropriate expertise) that will conduct the bulk of the work on topics such as stakeholder involvement, quality assurance, data management and communications. Resource Value Teams reporting to the Working Group will conduct scientific work and specific project planning.

The following descriptions define the general roles and responsibilities of the people and structures required to support the Evaluation Program.

Evaluation Program Sponsor (Chief Forester)	 Provide clear and ongoing direction to ensure the Evaluation Program is returning demonstrated benefits consistent with Ministry priorities given the resources available to the program Champion the development of partnerships between government ministries and external stakeholders. Ensure program deliverables meet the expectations of senior management and key users. Approve the FRPA Resource Evaluation Program Charter and any future changes. Facilitate executive communication and liaison between ministries and ministers. Liaise with the Minister's Practices Advisory Council. Propose changes to legislation, regulations, policies and practices to the executives of the FRPA ministries. Promote the drafting of legislation and resource objectives in a manner that facilitates evaluation and updating. Approve final reports for release to the public.
Inter-ministry FRPA Management Committee (Joint Management Committee)	 Make recommendations to the Evaluation Program Sponsor on changes to legislation, regulations, policies and practices based on options provided by the Working Group. Provide direction and leadership to the Evaluation Program. Ensure internal stakeholder interests are addressed. Provide support for commitment of staff to Resource Value Teams and projects. Approve Resource Value Team terms of reference. Approve wording recommendations by the Working Group for any necessary translating or refining of FRPA objective statements into measurable desired future conditions that can be evaluated. Decide on priority projects to fund in consultation with the Evaluation Program Sponsor.
Evaluation Program Leader	 Prepare program plans. Chair the Working Group. Ensure all projects under the Evaluation Program conform to quality assurance standards and protocols. Act as spokesperson for the Evaluation Program, including liaison with senior management and the Evaluation Program Sponsor. Coordinate all aspects of the Evaluation Program. Ensure a process is in place to monitor the status and success of all projects under

	the Evaluation Program.		
	• Compile annual reports for the Evaluation Program.		
Resource	Prepare briefing notes for senior management consideration and decision.		
Evaluation	 Implement direction from senior management. 		
	 Recommend options for changes to legislation, regulations, policies and practices, 		
Working Group	and, where appropriate, make recommendations to senior management on preferred		
(representatives of	options.		
MWLAP, MOF	 Implement stakeholder involvement, including coordination and communication 		
and MSRM)	with represented groups.		
,	 Provide guidance and advice to the Evaluation Program Leader. 		
	 Provide guidance regarding overall program design. 		
	 Provide guidance (terms of reference) to the Resource Value Teams. 		
	 Select, and get the commitment of, Team Leaders. 		
	Prepare the Evaluation Program budget and rank projects for funding.		
	Recommend annual program priorities for approval by senior management.		
	• Review reports regarding policy implications, and develop options for changes to		
	legislation, policies and guidance for designated decision makers.		
	• Ensure program integrity and credibility.		
	• Where necessary, refine FRPA objective statements into measurable desired future		
	conditions that can be evaluated.		
	• Develop or compile a list of specific evaluation or monitoring questions, and		
	recommend the priority rating of these questions to senior management on a yearly		
	basis. (NB: This list will be used to rank proposed evaluation projects for funding.)		
	Develop and implement a communications plan.		
	• Prepare protocols, including quality assurance, reporting, data management and		
	stakeholder involvement.		
	• Provide documentation to improve future projects (lessons learned).		
	• Produce a report series on the results of the Evaluation Program.		
	Coordinate reporting across agencies.		
	• Coordinate and synthesize existing evaluation project information and new projects.		
	• Develop district-based monitoring protocols in consultation with Team Leaders.		
	• Develop a Risk Management Plan and keep it current.		
	• Evaluate the Evaluation Program (meta-evaluation).		
Resource Value	• Compile evaluation questions related to the resource value(s) for which the team is		
Team Leaders	responsible.		
	• Recommend refinements to objective statements to the Working Group.		
(required to be	• Provide recommendations to the Working Group regarding Resource Value Team		
representatives	membership.		
of MWLAP, • Where necessary, assist the Working Group to translate, refine or reg			
MOF or MSRM)	objective statements into measurable desired future conditions that can be evaluated.		
,	• Assist the Working Group in defining and prioritizing evaluation questions that		
	need answering.		
	• Compile a summary of available literature related to resource values being		
	evaluated.		
	• Develop or specify indicators, sampling and analysis systems, and associated		

	 protocols for routine, extensive and intensive evaluations of resource values. Design or assist in the design of projects. Determine the most appropriate methodology and indicators for conducting the evaluation (i.e., baseline, target comparison, etc.) by working with Evaluation Project Leaders. Ensure all projects have acceptable designs, analyses and reporting. Manage a list of peer reviewers for the resource values being evaluated. Ensure scientific quality assurance standards are adhered to for each project. Develop district-based monitoring protocols, in consultation with the Working Group. Implement stakeholder involvement as guided by the appropriate protocol. Ensure data management is consistent with the appropriate protocol. Make recommendations based on evaluation findings.
Evaluation Project Leaders (not required to be representatives of MWLAP, MOF or MSRM)	 Assist Team Leaders to determine the most appropriate methodology and indicators for conducting the evaluation (i.e., baseline, target comparison, etc.). Make recommendations based on evaluation findings. Act as project managers for individual evaluations (i.e., develop project plans, schedules and communications; lead the project team; develop reports and draft recommendations; conduct project close-out, including proper information storage and documentation of lessons learned; and ensure the evaluation project is completed on time, and within budget and quality requirements and expectations). Implement stakeholder involvement as per protocol. Note: Under FRPA, external organizations may lead some projects; however, these types of projects will normally be in partnership with government.
Districts	 Conduct routine evaluations of Forest Stewardship Plans, strategies and forest practices. Identify critical issues and evaluation questions for follow-up evaluations. Note: There will be protocols in place for data collection and reporting of district-level monitoring. These protocols may include gathering information on alternative practices, and their success and effects on resource values within a geographical area.

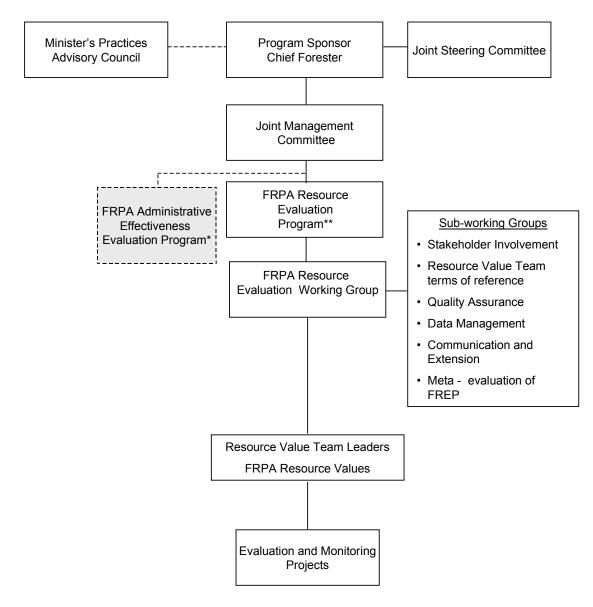


Figure 3: FRPA Resource Evaluation Program Structure

Notes:

*MOF, Resource Tenures and Engineering Branch will be evaluating the administrative effectiveness of FRPA.

**MOF, Forest Practices Branch, in cooperation with Research Branch and MWLAP, will be evaluating environmental parameters concerning FRPA's resource values.

Stakeholders

The Ministers' Practices Advisory Council (PAC)⁴ will serve as the primary point of contact for external stakeholder involvement in the Evaluation Program. Those external stakeholders not represented on PAC (e.g., the academic community, Forest Practices Board, Auditor General, Fisheries and Oceans, Federation of BC Naturalists), but whose involvement is seen as necessary to ensure scientifically-based resource management evaluations, will be provided an opportunity for input as described in the External Stakeholder Involvement Protocol.

Objectives for External Stakeholder Involvement:

- Provide an opportunity for external stakeholder input into the Evaluation Program processes, plans and priorities.
- Provide a mechanism for communication with external stakeholder representatives and the broader stakeholder community (e.g., annual workshops).
- Enable external expert stakeholder technical input into the Evaluation Program and projects.
- Facilitate understanding and awareness of Evaluation Program principles and objectives.
- Establish effective two-way communications aimed at continually improving the Evaluation Program.
- Provide early identification of information and communication needs.
- Provide consistent, accurate and timely responses to program and project inquiries.

9.0 Links and Dependencies

The Evaluation Program is linked to the work of several other agencies, including the Forest Practices Board; Auditor General; Ministry of Water, Land and Air Protection (MWLAP); Ministry of Sustainable Resource Management (MSRM); and the Forest Investment Account Research Program. Identification and analysis of these linkages is important to ensure budget and staff resources are spent in an efficient and effective manner. It is envisioned that all of these stakeholders will be engaged at some level in the Evaluation Program.

The Forest Practices Board (Board) conducts compliance and effectiveness audits as well as special projects. The scope of Board audits is usually all of a licensee's activity in one district or alternatively all licensees' activities in a landscape unit. The intensity of their effectiveness evaluations has been at the routine or extensive level using risk-based sampling (stratified sampling concentrating most heavily on high risk areas) to determine the field sites. Occasionally, where an audit (or a series of complaints) indicates a forest management issue is occurring at a broad geographic area (e.g., the whole province) the Board will conduct a special project on effectiveness, at the extensive level, over the entire area of interest.

⁴ Membership in PAC includes representatives from the BC Cattlemen's Association; Forest Caucus, BC Environmental Network; Natural Resource Committee, Union of BC Municipalities; Federation of BC Woodlot Associations; First Nations Summit Task Group; Central Interior Logger's Association; Industrial Wood and Allied Workers of Canada; Council of Tourism Associations; and major licensees.

Activities of the Board can help identify critical or emerging issues, and can therefore be helpful in setting Evaluation Program priorities. Opportunities for partnering with the Board on specific initiatives, such as developing and testing indicators, should be utilized whenever possible. To facilitate cooperation and efficiency, the Working Group will provide the Forest Practices Board with an annual list of evaluation projects. In return, the Working Group will request a list of evaluation projects that the Board plans to undertake.

MWLAP is a partner in the Evaluation Program. MWLAP also has a broader evaluation strategy and mandate, including monitoring protected areas and urban areas for conservation values. A close link with MWLAP staff will ensure maximizing partnership opportunities and avoiding duplication of efforts.

The office of the Auditor General has extensive experience in conducting audits and evaluations for a wide variety of topic areas, including environmental evaluations. As such, staff at the Auditor General are a valuable source of information (e.g., lessons learned, communications, stakeholder involvement, etc.).

The Forest Investment Account Research Program (FIA Research Program) funds forest management-related research projects. Evaluation project priorities and results identified by the Evaluation Program could provide input into the FIA Research Program needs analysis and project funding decision-making process. The FIA Research Program may also be a potential source of funding for the Evaluation Program.

10.0 Milestones and Deliverables

Major milestones for the development and implementation of the Evaluation Program are as follows:

Program Development Milestones	Date
Program Charter Submission	July-Sept/03
Program Charter Approval	Sept-Oct/03
Business Mapping Plan for Evaluation Program	Sept-Oct/03
Development Plan Submission	Sept-Oct/03
Communications Plan Submission	Sept-Nov/03
External Stakeholder Involvement Protocol Submission	Oct/03
Quality Assurance Plan (including protocols and standards for data management, evaluation design and management feedback)	Sept-Dec/03
Protocol and timeline for evaluation of the program (meta- evaluation)	Sept-Oct/03
Terms of reference for Resource Value Teams	Sept-Oct/03
Protocols for developing or specifying indicators, sampling and analysis systems, and associated protocols for routine, extensive and intensive evaluations of resource values.	Oct-Nov/03
Assigning Resource Value Team Leaders	Sept-Nov/03

Program Development Milestones	Date
Develop a list of priority evaluation questions for each	Dec/03
resource value	
Develop or specify indicators, sampling and analysis	Mar/04
systems, for routine, extensive and intensive evaluations	
for selected resource values.	
Strategic/Development Plan Approval	Oct-Nov/03
Communications Plan Approval	Oct-Nov/03
External Stakeholder Involvement Protocol Approval	Oct-Nov/03
Protocol for development of indicators by each Resource	Oct-Nov/03
Value Team	
Submission of recommended priority evaluation questions	Nov/03
to senior management	
Identification, prioritization and re-assessment of	Annually
evaluation questions that need addressing	
Budget submission for program	Annually
Deliverable Documents	
Annual Program Plan	Annually
Annual reports and presentations	Annually
Project reports	As completed

11.0 Program Resources

The Ministry of Forests and the Ministry of Water, Land and Air Protection face significant funding challenges, including funding for the Evaluation Program. At this time, the Ministries have base funding to initiate a modest Evaluation Program. The future scope and scale of the Evaluation Program will be a function of the Ministries' budgets and funding available from other government agencies and external partners. The goal of the Evaluation Program is to start modestly and increase program capacity over time through the success of individual evaluation projects and the development of partnerships.

12.0 Program Management

The Evaluation Program will be coordinated through the Evaluation Program Sponsor, senior management, the Program Leader, the Working Group, and Resource Value Team Leaders.

The Working Group will hold scheduled meetings with the Team Leaders where progress will be reported, tasks assigned, and issues addressed. The intent of program and project planning is to emphasize the project management process and document the plans.

12.1 Information and Data Management

The Program Leader will manage the production, review and approval of all documentation deliverables. Government or organization project management standards will be used where they exist.

In the long term, documents will be stored on the Ministry of Forests' FRPA Resource Evaluation Program website. For the interim, documentation will be stored on the government's internal FTP server.

All documentation deliverables and original field data will be recorded and filed in the provincial operational records classification system, similar to the Ministry of Forests' Experimental Projects (EP) Program. A system will be put in place to formally manage data from evaluation projects.

12.2 Quality Management

A sub-working group will develop a Quality Assurance Plan for the Evaluation Program. Each significant component of the Evaluation Program will have quality assurance protocols.

All program deliverables will be subject to a review and approval process. Quality control for each deliverable will be covered in the Quality Assurance Plan.

12.3 Communications Management

The Program Leader will provide a quarterly status report to the Evaluation Program Sponsor and senior management. The Program Leader will also provide a status report to identified stakeholders upon completion of each milestone.

A Communications Plan will be developed for the Evaluation Program. The Communications Plan will include protocols for all aspects of report preparation, writing, technical reviews, approval and dissemination to stakeholders. Communication principles for the Evaluation Program will be detailed in the plan, and include the following:

- All Evaluation Program reports will be objective and impartial;
- Approved final reports will be available to the public; and
- Reporting of project findings on high priority FRPA issues will be conducted cooperatively between appropriate agencies.

12.4 Risk Management

A Risk Management Strategy will provide guidance to resolve potential management issues and other unforeseen risks that may arise in the Evaluation Program as detailed in the Evaluation Program Development Plan. Issue mitigation strategies must constantly be updated to reflect changing requirements and conditions. The issues management process is as follows:

- Identify the potential issues or risk items;
- Assess the probability and consequence of the occurrence of the identified risk;
- Develop a plan for reducing or mitigating the risk; and
- Monitor the risk reduction process.

Funding and manpower are expected to be the main risks for the initial stages of the Evaluation Program. The design of the program involves internal and external stakeholders to ensure the program addresses current resource evaluation issues. A risk of disapproval or impasse from stakeholders also exists.

The Working Group and the Program Leader will assess projects for unforeseen risks and take remedial action on an ongoing basis. Issues that arise will be tracked and resolved in a timely manner.

14.0 Glossary

Critical Success Factors – factors deemed necessary in order for FREP to be successful in meeting its objectives.

Compliance Audits – assess compliance with legislated requirements (e.g., FRPA regulations). Conformance with strategies for achieving the desired results is also subject to compliance inspections.

Effectiveness evaluations – used to determine whether implemented plans or practices actually meet resource value objectives. Monitoring is a component of effectiveness evaluations.

Extensive Evaluations: – Extensive evaluations generally include categorical data collection (rapid collection of quantitative data). Extensive evaluations generally include the collection of categorical data by visual estimation of specified indicators at randomly selected sites **FREP** – FRPA Resource Evaluation Program.

FREWG – FRPA Resource Evaluation Working Group – the main working group that oversees the development and implementation of the FRPA Resource Evaluation Program.

FRPA – Forest and Range Practices Act.

FSP – Forest Stewardship Plan.

Implementation monitoring – undertaken to record progress towards a specific goal, including adoption of new practices, and whether the practices were implemented as planned.

Intensive Evaluations: – Intensive evaluations involve quantitative data collection and analysis with comparison to controls. In intensive evaluations, the data are quantitative and consequently variables can be analyzed and comparisons can be made between data sets. In addition, comparisons can be made to established standards to provide a measure of effectiveness. Intensive evaluation sites can also be set up to use as monitoring sites, where trends are measured over a number of years – Joint Management Committee.

JSC – Joint Steering Committee.

Monitoring – observing, checking, or keeping a continuous record of a process or quantity over a period of time.

MSRM – Ministry of Sustainable Resource Management – responsible for planning, policies and resource information in support of the sustainable economic development of Crown land, water and resources.

MWLAP – Ministry of Water, Land and Air Protection – responsible for the management, protection and enhancement of British Columbia's environment.

PAC – The Minister of Forests' Practices Advisory Council – a council of external stakeholders providing input into the *Forest and Range Practices Act* and regulations.

Protocols – methodologies and standards (e.g., data collection and analysis).

Refinement Monitoring – also known as improvement monitoring, refinement monitoring evaluates a range of alternative practices to provide a range of comparisons.

Routine Evaluations: – Low intensity overview evaluations (lower rigour as compared to extensive and intensive evaluations) that use indicators that can be obtained at most sites (relatively simple qualitative measures, such as visual estimates and yes/no answers). Rating levels are described prior to field assessment to ensure consistency in rating of observations and information collected.

Sustainability – a state or process that can be maintained indefinitely. The principles of sustainability integrate three closely interlined elements – the environment, the economy and the social system – into a system that can be maintained in a healthy state indefinitely.

Validation monitoring – used to validate or verify assumptions underlying targets that are linked to resource objectives.