Quality Assurance for Resource Stewardship Monitoring

The FRPA Evaluator

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Introduction

Quality assurance (QA) is a fundamental component of the FRPA Resource Evaluation Program (FREP), and is directly linked to the success and credibility of the program. Effective QA will ensure the implementation of scientifically valid monitoring and evaluation projects across the province, and lead to evidence-based continuous improvement of forest legislation, policies and practices. QA will also ensure that all FREP monitoring and evaluations are carried out in an effective and efficient manner to maximize the benefits from invested resources and minimize costs, redundancies and waste.

Under FREP, comprehensive QA is applied at both the program and project levels. At the program level, QA plays a major role in almost every aspect of FREP, including the program framework and structure, planning, budget development, training, communications, stakeholder involvement, and publications. At the project level, QA is more involved in the operational and implementation phases of FREP, such as indicator and protocol development; data collection, management and analysis; and reporting, reviewing and approval processes.

During resource stewardship monitoring (RSM), the QA process figures prominently in training district monitoring teams and ensuring that data collection and analysis is accurate, repeatable and representative of on-the-ground practices. The manner in which QA is applied to various steps in the RSM process is detailed in this document.

The FRPA Evaluator is a regular publication of the FRPA Resource Evaluation Program designed to inform stakeholders on program development and implementation, and report on the results of evaluation projects.

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

RSM Training

To ensure consistent quality of field data, district field staff must first complete formal RSM training for the resource value being monitored prior to conducting any RSM activities. Training includes detailed instruction on how to fill in the appropriate field cards, and practical demonstrations and field exercises on how to carry out the specific monitoring protocols. The training is delivered by expert consultants with assistance from technical specialists from headquarters (e.g., Research Branch, Forest Practices Branch, or Ministry of Environment). It is anticipated that district staff with practical experience gained through piloting and implementing resource value protocols will be trained to co-facilitate RSM training delivery.

RSM training sessions for individual resource values will be offered two or three times per year in each region. In 2005/06, RSM protocols for riparian/fish and stand-level biodiversity were implemented. RSM training for riparian/fish is a three-day course, while training for stand-level biodiversity is delivered over one day. As RSM protocols for other resource values become ready for implementation, formal training will be developed and delivered to district monitoring staff.

Refresher Training

At the beginning of each field season, refresher training sessions will be offered for field staff that feel they require some additional training prior to conducting monitoring activities. Refresher training will also be offered in situations where the time between formal training delivery and field implementation is too great (e.g., training delivered in the spring, but field implementation does not get underway until late fall).

Refresher training sessions will be delivered by regional staff, technical specialists from headquarters, and/or the expert trainer for that particular resource value. The location of refresher training may be determined primarily by requests from district staff or based on areas where there appears to be issues related to data quality.

It is anticipated that refresher training will be delivered in one-day sessions for all RSM protocols that are being implemented. Approximately six to nine refresher training sessions will be delivered for each resource value per year.

District QA Support

As part of a mentoring program for QA, all forest districts in the province will be visited by expert trainers and Resource Value Team Leaders over a three-year period in a continuous cycle to foster an appreciation and understanding of QA principles and address areas of concern or problems. Districts will be selected based on specific requests from RSM staff or districts that are experiencing recurring issues related to data quality. It is estimated that approximately 9–12 districts will be visited per year as part of the QA mentoring program.

QA Site Visits

Each year, a pre-determined number of randomly selected cutblocks (approximately 30) will be re-sampled by the expert resource value trainer to assess the accuracy of the field data collected by RSM teams. Re-sampling will occur in one or two forest districts per region where the RSM checklists were implemented. This information, along with re-sampling projects from previous years, will be used in the continuous improvement of data quality.

Quality Control Protocols

Quality control protocols, similar to standard operating procedures, have been developed for a number of steps in the QA/QC process:

- QA Site Visit
- Data Validation
- Data Cleaning
- Data Analysis and Summary
- Report and Publication Review Standards

Interactive Question & Answer Website

To address common questions/issues related to QA, an interactive website will be established where questions can be submitted online by district and regional field staff. Resource value team members or expert trainers will answer the questions and post them on the website within rapid turnaround times. In addition to providing real-time answers to operational questions, the website should also serve to identify systemic issues/root problems with the monitoring protocols, indicators and/or training. Identifying root causes to ongoing issues will facilitate problem resolution and accelerate continuous improvement to RSM. The question and answer website will be located under the FREP home page and will be linked to the FREP Information Management System (IMS) database.

Regular QA Updates

Regular updates on QA are provided throughout the year in a number of ways:

- Regular updates are e-mailed to district RSM staff on an ongoing basis.
- Staff surveys – operational feedback is solicited on a regular basis from regional and district RSM staff, resource value team members, and senior management.
- Annual de-briefing sessions – at the end of each fiscal year, a two-day de-briefing session is held to assess the results of the year's RSM activities and establish goals and objectives for the following year.

QA Reports and Publications

A QA annual report will be published each year. Other QA publications and documents available on the FREP website include:

- 2005/2006 Quality Assurance Work Plan
- Quality Control Protocols

Quality Assurance in a Snap Shot

	Pre-data collection	Post-data collection	Continuous improvement
Training	• formal training • refresher/follow up training • district support/mentoring	• evaluation of training quality	• Q&A interactive webpage • FAQ • surveys and questionnaires
QA activities	• quality management of FREP/RSM	• data quality framework	• QA annual report
QC activities	• QA site visit	Quality Control Protocols • data validation • data cleaning • data analysis and summary	• Quality control protocols • QA work plan • Data quality assessment (in development) • Reporting and publication standards • Process improvement

More Information

To view copies of the full or summary reports on the Quality Assurance Framework for FREP, please visit:
www.for.gov.bc.ca/hfp/frep/index.html.

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