

Electronic Forest Management Strategy and Action Plan Development for Woodlot Licensees and Community Forests

March 22, 2004

Prepared for:

Federation of British Columbia Woodlot Associations

by:



Forsite Consultants Ltd.

Executive Summary

Current changes to forest management in the Province of British Columbia coupled with the move of the BC Government to electronic service delivery is affecting the manner in which business in the forest industry is conducted. To that end, the Ministry of Forests has introduced the electronic forest management (e-FM) initiative to support the changes in forest management as well as the move to electronic service delivery. With e-FM, licensees will be required to conduct more business electronically. As well, e-FM will provide woodlots and community forests (licensees) on-demand access to services and information managed by government. Currently, appraisals must be submitted electronically. The requirements to submit tenure/permit requests and silviculture obligation reports electronically come into effect April 1, 2005, at which time all licensees are expected to submit information electronically.

Woodlots and community forests are no exception to these new requirements and opportunities offered by the e-FM initiative, but it is recognized that this initiative has unique challenges to this group of licensees. It is not reasonable to expect that woodlots and community forests can meet the requirements of e-FM or that they have the same internal resources as larger forest licensees in the province to support this new way of business.

One key concern of licensees is the increased cost that meeting the demands of e-FM will bring to their small operations. It is anticipated that the challenges of e-FM, coupled with new requirements under the *Forest and Range Practices Act*, will increase the workload and requirements of woodlot and community forest management. It is critical to understand that many woodlots and community forests have little access to the technology for electronic service delivery or the ability to utilize the technology. Changes to legislation and requirements that are occurring in BC are happening too frequently for many of these small operators to keep pace, as woodlot management is often not the primary occupation of the licensee. These changes are requiring that licensees become more reliant on third party resources specializing in various aspects of forest management, in-turn increasing their costs and contributing to a loss of control over forest management by the license holder. Given the situation of most woodlots and community forests, the benefits that e-FM bring to forest management are limited or not well understood.

The Federation of British Columbia Woodlot Associations in conjunction with support from the Forest Investment Account and Small Tenure Program is seeking, through the development of this strategy, to support licensees during the transition to electronic service delivery.

There is no single approach that will allow licensees to meet the requirements of e-FM. Therefore, there must be a variety of strategies available to licensees. This plan outlines strategies to address communication and organization around e-FM for licensees to improve awareness and monitor the success of this plan. This plan also outlines strategies to provide access to resources to allow licensees to participate in e-FM, as well as strategies for implementing these solutions. Finally, this plan offers strategies to address issues with access to technology including the ability of individuals to utilize the technology and training.

For the recommended strategies to be implemented, it is estimated that it will cost between \$110,500 and \$158,500 plus approximately 1.1 FTE (Full Time Equivalent) to support and coordinate. If all strategies were to be implemented, it is estimated that the costs would be approximately \$340,000 - \$500,000 and require 3-4 FTEs to support. Most importantly, these costs do not reflect the on-going costs to small licensees and only recognize the initial cost to implement.

Table of Contents

Executive Summary.....	i
1 INTRODUCTION TO ELECTRONIC FOREST MANAGEMENT	1
1.1 <i>Audience for the Strategy</i>	2
2 CURRENT SITUATION ASSESSMENT	3
2.1 <i>e-Submission Requirements</i>	3
2.2 <i>Issues with e-FM implementation</i>	5
2.3 <i>Technology</i>	6
2.4 <i>Knowledge and Understanding of e-FM</i>	7
2.5 <i>Current Reporting and Submitting Processes</i>	7
2.6 <i>Concerns of Woodlot and Community Forest Licensees</i>	8
2.7 <i>e-FM Tools Available to Woodlots and Community Forests</i>	9
3 RECOMMENDED STRATEGIES	10
3.1 <i>Communication and Organization Strategies</i>	10
3.2 <i>e-Submission Implementation Strategies</i>	16
3.3 <i>Access to Technology Strategies</i>	24
4 SUMMARY OF STRATEGIES	29
4.1 <i>Implementation of Strategies</i>	29
4.2 <i>Timelines</i>	29
4.3 <i>Costs</i>	31
4.4 <i>Key Factors to Success / Next Steps</i>	32
Appendix A. Summary of Methods for Strategy Development	33
Appendix B. e-Submission Readiness Survey	34
Appendix C. Glossary of Terms and Acronyms	42
Appendix D. References	43

Version	Description	Date	Author
1.0	Initial Draft released to the Federation of BC Woodlot Associations for review.	03/29/04	Forsite
1.1	Revised based on feedback from the Federation of BC Woodlot Associations.	03/30/04	Forsite

Prepared for:

The Federation of British Columbia Woodlot Associations

by:



Forsite Consultants Limited

1 Introduction to Electronic Forest Management

Electronic forest management (e-FM) is a province-wide initiative of the Ministry of Forests (MOF) to improve service delivery through the use of electronic business media. The aim of e-FM is to replace cumbersome paper-based business process with more efficient and cost effective electronic approaches.

The e-FM initiative has four components:

- e-Submissions, the methods to submit information to the ministry
- e-Access, access to ministry information by Ministry of Forest clients
- e-Records, internal electronic filing process within the MOF
- e-Training, access to training for private and public sector on Ministry initiatives

Electronic Forest Management (e-FM) Components

e-Submissions	e-Access	e-Records	e-Training
<i>Appraisals (ECAS)</i>	<i>MapView</i>		
<i>Harvest Billing (HBS)</i>	<i>Reporting (CRS)</i>		
<i>Seed Information (SPAR)</i>	<i>Silviculture (RESULTS)</i>		
<i>Tenure Maps (TMS)</i>			
<i>Tenure and Silviculture (ESF)</i>			

This document focuses on the e-Submission and selected items of the e-Access component of e-FM, as that is where the majority of the new requirements are.

The e-Submission component of e-FM includes the following items:

- Electronic Submission Framework (ESF) for silviculture and tenure submissions,
- Electronic Commerce Appraisal System (ECAS) for appraisal submissions,
- Harvest Billing System (HBS) for scale returns and invoicing,
- Seed Planning and Registry System (SPAR) for seedlots searches and requests, and
- Tenure Mapping Service (TMS) for validating tenure submissions.

The e-Access component of e-FM includes the following items:

- Results Based Code Silviculture and Landstatus Tracking System (RESULTS) for review and reporting on silviculture obligations.
- Corporate Reporting System (CRS) provides reports on information contained in various ministry systems.
- MapView which provides access to spatial information from government.

The Electronic Submission Framework (ESF) is a component of e-Submissions that can be accessed by clients of the MOF in order to make silviculture (RESULTS) and forest tenure/permit (FTA) submissions. In the future, this will be the standard for submitting all information to the government, with the goal that each piece of information will only need to be submitted once, even though it may be used for a number of purposes. Information submitted to government through the ESF is shared between the MOF and the Ministry of Sustainable Resource Management (MSRM). The ESF submissions to FTA and RESULTS are a critical requirement to woodlots and community of forests as this is the only mechanism by which licensees can receive cutting permits and road permits and meet the reporting obligations of the ministry.

The Electronic Commerce Appraisal System (ECAS) is a web-based system that has replaced the previous paper driven process of submitting appraisal information. Data can be uploaded from an appraisal program or entered directly into a web interface. This system is not currently linked to the ESF.

The Harvest Billing System (HBS) is a new web-based billing system that captures scale data at the scale site. From a licensee standpoint, HBS is a reporting tool that can be used to view invoices and stumpage rates, but there are no requirements for licensees to submit data to HBS.

The Seed Planning and Registry System (SPAR) is a web-based system used for searching for seedlots, making seedling requests, and running reports.

The Tenure Mapping Service (TMS) is an on-line service that can be used to do preliminary validation of data to be submitted to ESF (e.g. a cutting permit application submission), and it displays the spatial data on the MSRM map base to allow the user to check for tenure conflicts.

1.1 Audience for the Strategy

This strategy for electronic forest management is intended for members of the Federation of British Columbia Woodlot Associations (Federation), Woodlot Association members, woodlot and community forest licensees (licensees), and consultants working for woodlots or community forests. The strategies and options outlined within the document require the support of the Federation and MOF in order to be implemented.

2 Current Situation Assessment

The following sections outline the current requirements and situation of woodlot and community forests to meet the requirements of e-FM.

2.1 e-Submission Requirements

The MOF is in transition moving towards full implementation of e-Submissions. Licensees will be expected to meet the requirement to submit FTA and RESULTS through ESF submissions and appraisals through the ECAS web application. This section identifies details of the e-Submission requirements and the associated timelines leading to mandatory status. Other components of e-FM that are not specified as mandatory, but the use of them is being encouraged, include SPAR, TMS and other e-FM components.

2.1.1 Regulatory Environment

The forest industry is currently going through a transitional period between the Forest Practices Code Act (FPC) and the Forest and Range Practices Act (FRPA). FRPA was enacted on January 31, 2004, but licensees will still be operating under the FPC as long as their current Forest Development Plan (FDP) is in place. For many licensees, this could be at least 5 years. The reporting requirements under FRPA will be largely the same as under the FPC. Both the FPC and FRPA have provisions that the Minister may require electronic submissions of reports and may specify the required format and content.

2.1.2 e-Submission Implementation Timeline

December 1, 2003 - ESF became operational and the Integrated Silviculture Information System (ISIS) was replaced with RESULTS for silviculture administration and FTAS (Forest Tenure Administration System) was replaced with FTA for tenure administration.

March 1, 2004 – ECAS became the mandatory system for making appraisal submissions to the MOF.

December 1, 2003 to March 31, 2005 - Transitional period for ESF during which licensees may either submit silviculture reports and tenure/permit applications directly through ESF themselves, or they may make submissions to the ministry as they have previously. The ministry will be responsible for ensuring that the data is put into ESF. During this period, the MOF anticipates that licensees will begin internal projects to transition to electronic submissions.

April 1, 2005 onward - Licensees must make all tenure/permit applications and silviculture submissions electronically through ESF, either through their own systems or through a qualified service provider.

2.1.3 BCeID

A key requirement for all e-FM transactions with the MOF is a BCeID (BC electronic identification).

All access to the website and applications for making electronic submissions to the MOF requires security measures to ensure appropriate authorizations are in place. Through BCeIDs, the MOF and the MSRM provide a common approach for the private sector to access government applications. All licensees must obtain a BCeID with the appropriate authorization for the type of business they wish to conduct. The use of BCeIDs ensures that a licensee's data is secure and is only accessible to them or a person authorized by them (or by the MOF).

All licensees must obtain a BCeID account in order to conduct any e-FM transactions with the MOF. Each individual using the account will have a unique logon password, and would apply for access and authorization for each of the e-Submission systems that they will be using. For example, a woodlot owner would have a BCeID in his/her own name, and they would apply for authorization to make ECAS submissions, FTA submissions, RESULTS submissions, etc. Authorization to access each of the e-submission systems must be applied for separately. Links to BCeID on-line application forms and access requests for each of the systems are available on the MOF Information Management Group website: <http://www.for.gov.bc.ca/his/esd/>.

2.1.4 Electronic Submission Framework (ESF)

The ESF is the system that allows users to submit data to FTA and RESULTS in a specified format. The cornerstone of the electronic submission initiative is that all data will be submitted in a non-proprietary format based on widely accepted standards that are not specific to any particular forest management, mapping or database system. Key to this approach is the integration of spatial (where) and attribute (what) information into a single electronic format. This format can be relatively easily interchanged between many different computer systems as it provides a very specific structure that can be easily transmitted between organizations. All information submitted to the government must be properly formatted according to the data specifications provided by the MOF. This formatting and structure is referred to as the XML files and RESULTS and FTA schema.

Forest Tenure Administration (FTA)

FTA is the new system used by the MOF and MSRM to manage all tenure and permit information (such as cutting permit applications or road permit amendments), including both spatial and non-spatial data. Licensees are able to view their data on-line through MapView and CRS. An FTA submission is an XML document that is uploaded via the ESF website for automated processing before it is forwarded to District staff for approval. It allows the attribute and spatial data to be submitted in a single file.

After April 1, 2005, all licensees will be required to submit tenure and permit applications and amendments through FTA.

The following submissions will be made by woodlots and community forests through FTA:

- Cutting Permit Applications and Amendments
- Road Permit Applications and Amendments

Details on what information is required in the FTA submissions can be found in the Industry Guide to FTA, available on the MOF website at:

<ftp://ftp.for.gov.bc.ca/HIS/external/publish/esf/ESFFTAIndustrySubmissionGuide.doc>

Reporting Silviculture Update and Land Status Tracking System (RESULTS)

RESULTS is the new system used by the MOF to manage all silviculture information, including spatial and non-spatial data. Licensees are able to view their data on-line through RESULTS. A RESULTS submission is an XML document that is uploaded via the ESF website for automated processing before it is transferred to RESULTS. A RESULTS submission can incorporate both attribute and spatial data in a single file (spatial data is required for some types of submissions, and not for others). Spatial data is embedded using GML.

RESULTS reporting for woodlots will replace the current annual report form, but is still required on an annual basis for activities that took place in the preceding year. Woodlot licensees and community forests will be required to submit most of the same data as major licensees, which includes additional data not previously required in the annual report. This is because the MOF does not intend to build different report forms (called “schema”) for minor tenure holders. One difference may be that some specific reports may not be required from woodlot licensees or community forests (such as regeneration delay declarations), but this has not been clarified yet.

RESULTS submissions can be made either by the licensee themselves, or by someone authorized by the licensee to make the submission.

The following are the Required RESULTS Submissions:

- Opening Definition and Stocking Standards – spatial data required (consists of site plan info)
- Disturbance – spatial data required (report harvested areas)
- Silviculture Activities – spatial data optional (report all silviculture activities)
- Forest Cover Polygons – spatial data required (report stocking status, silviculture/inventory labels, etc. from surveys)
- Milestone Declaration – no spatial data (free growing declarations)

Details on what information is required in the RESULTS submissions can be found in the Industry Guide to Results, available on the MOF website at: <http://www.for.gov.bc.ca/his/results/IndustryGuide.pdf>.

2.1.5 Electronic Commerce Administration System (ECAS)

ECAS is the new web-based system for submitting appraisal data to the MOF. ECAS is now the required method for making all appraisal data submissions. This system is different from ESF in that it has a web interface that allows users to key-in data for their submission. Alternatively, if users have an appraisal program that supports the creation of an XML file, this can be uploaded directly into ECAS, eliminating the data entry step. Supporting documents (maps, cruise compilation, etc) can either be submitted as attached files (no specified file format), or can be mailed separately. Unlike ESF, spatial data does not need to be encoded as GML.

Information requirements with ECAS are not significantly different than the paper-based system, but Internet access is required to make an appraisal submission. Another requirement to note is that all appraisal submissions must be reviewed and submitted by an RPF.

2.1.6 Future Requirements

It is important to note that additional electronic submissions are anticipated to be required as the MOF moves further into electronic business practices and streamlining ministry business. It is currently unclear how these future requirements may impact licensees.

2.2 Issues with e-FM implementation

There is considerable concern that the additional requirements of e-FM are being implemented to create efficiencies and costs savings to the government as they reduce their resourcing levels without any real benefits for small licensees. It is anticipated that there is an extensive increase in costs for licensees from

this initiative. It is not practical that these costs be downloaded to small licensees, as they do not have the resources necessary to meet these demands, nor will they receive the same level of benefit as the government or larger licensees.

Currently, many major licensees are able to utilize FIA funding to cover aspects of the transition to e-FM, but the funding is not structured to meet the real needs of the smaller licensees who now must acquire computer hardware, software and basic computer training to continue in small forestry management. The process of approving and managing FIA funding makes it difficult to address small operator needs and help them shift to e-FM. Underlying the e-FM initiative is a misguided premise that all licensees, large or small, should be treated in the same fashion with regards to e-FM.

For the Federation to support licensees through the implementation of e-FM, it is important to note that funding will be required. Funding to support the Federation must be available on an on-going basis. It is not feasible to off-load the costs to woodlot and community forest members through the current Federation revenue mechanisms. The Federation requires assistance from the BC Government through funding and technical support to ensure that intent of the woodlot and community forest programs are addressed and that MOF is able to implement e-FM with small licensees. e-FM is a BC Government driven initiative that they must fund and support or the implementation of this initiative will be unsuccessful.

2.3 Technology

A key factor of e-FM implementation is Internet access. To successfully make e-submissions and utilize other e-FM tools requires reliable Internet service, preferably high speed, as potentially a significant amount of data will be transferred. The Woodlot Association members and community forest representatives were surveyed to get an idea of how much access to technology the licensees generally have (and the range of access). Technological skills and software use were also addressed, as licensees who have a higher comfort level with computers will probably have a higher level of success at implementing e-submissions.

Of the respondents to the survey that had access to a computer, most felt that they had average to good computer skills, and nearly all have access to the Internet themselves or through a consultant that they utilize. Approximately half of the people with Internet access only have dial-up available, and Internet service is generally less available in northern areas of the province. Woodlot Association representatives were also polled to determine what they thought were more representative levels of Internet access for their members. There was a wide range of responses, but most associations felt that approximately half of their members had Internet access.

Comments from a variety of people (Woodlot Association representatives, Federation council members, and MOF staff) indicate that there are a significant number of woodlot licensees who do not use the Internet or have strong computer skills.

Licensees who use the Internet and have a good technological background will potentially be able to do e-Submissions on their own, but licensees who do not have Internet access or computer skills will need a different solution for meeting e-Submission requirements.

There was a wide and varied response to how and with what tools woodlots and community forests deal with the mapping aspects of their operations. Given that e-submissions have a greater dependence on spatial information, this wide variety of tools and approaches will cause the greatest grief.

2.4 Knowledge and Understanding of e-FM

To determine whether there was an understanding among licensees of what e-FM is and what the e-Submission requirements are, licensees were asked to rate their knowledge of e-FM and state whether they felt prepared to make e-Submissions.

The survey results indicate that generally there is not a good understanding of e-FM, with a majority of respondents having little knowledge of e-FM. Less than a quarter of the respondents have attended and information sessions or training (based on the responses, those that had likely have taken ECAS training). A significant portion of respondents said they were prepared to make e-submissions, but most of these people also said they had little knowledge of e-FM, so this could be misleading. From the responses and comments, it seems to be true that licensees have a reasonable awareness of ECAS, since training has been provided in many locations and it is now a requirement for appraisal submissions, but they seem to have much less awareness of e-Submissions for ESF.

Some of the comments received indicated that licensees are resistant to spending the time and effort required to learn about new systems before they have to. There is a sense that the government makes frequent changes to requirements, and licensees can't keep up. Many licensees have some knowledge of e-FM, but there is quite a lot of confusion and concerns within this group about how they will be impacted.

2.5 Current Reporting and Submitting Processes

An important factor in creating an e-FM strategy was assessing how woodlot holders and community forests are currently submitting information to the MOF, in order to determine how significant the shift to e-Submissions and e-FM will be.

Based on the survey it is very clear that woodlot and community forests make very few submissions (tenure applications, silviculture reports, and appraisal submissions) in a year. The total number of submissions per licensee averages about 4 per year.

It is apparent that licensees currently submit information to the MOF in a wide variety of ways. There is a fairly even split between people who "always" and "never" use consultants to prepare cutting permit and road permit applications, as well as do silviculture reporting. Cruise compilations, appraisal submissions and mapping are generally done by consultants.

Most of the information currently submitted to MOF is in hard copy format, with most of the mapping for all types of submissions prepared using mapping software; however, there is a lot of sketch mapping being submitted as well.

About half of respondents use (or have consultants that use) some type of mapping software, with Microstation, ArcView/ ArcGIS, and AutoCAD being the most common tools used. Another quarter of the respondents didn't know what type of software was being used.

The respondents are not commonly using silviculture information management and data collection software and many are submitting hard copy forms to the ministry.

Most licensees (or their consultants) are using some type of appraisal program. Most common appraisal programs available in British Columbia currently support the ECAS submissions.

Based on the wide variety of responses received on these topics, it is clear that proposed strategies must address the full range of technologies (and lack of technology) currently being used by woodlots and

community forests. This should minimize the amount of change licensees must go through to successfully implement e-Submissions.

2.6 Concerns of Woodlot and Community Forest Licensees

Through the survey, licensees raised a number of concerns with e-FM, particularly with e-Submissions. These concerns can be lumped into several categories:

1. Cost
2. Increased workload
3. Limited access to technology
4. Too much change
5. Loss of direct control by woodlot holders
6. No benefit to small licensees

1. Cost

Cost is a very real issue for woodlots and community forests. Small tenure holders cannot afford to purchase expensive software to produce e-submissions. If they cannot do the work themselves, they will have to contract it out, and every new requirement that they have to contract out adds new costs to operations that may already be marginal.

2. Increased workload

A common sentiment is that small tenure holders do not want to spend large amounts of time learning new systems as well as the increased time to actually produce electronic submissions. There is also a certain amount of skepticism about whether the e-Submission systems are working well enough yet, and about whether e-FM is here to stay. People are unwilling to learn and implement something new if it is going to fall by the wayside.

Currently, many districts are still requiring all of the hard copy submissions as before, in addition to e-Submissions. If this continues, it means a significantly increased workload for licensees. Also, some of the reporting requirements for woodlot licensees seem to be increasing (e.g. increased silviculture reporting), despite the fact that the MOF is supposed to be streamlining business and reducing reporting requirements.

3. Limited access to technology

Many comments were received about either the lack of Internet access available in some areas, or the very slow Internet service available. This issue is very significant and will definitely limit the options available to those licensees that are impacted by this.

Another access to technology concern that was raised is that many woodlot licensees (or their consultants) do not have mapping software, so are unable to produce digital spatial data. This concern ties back to the cost issue, with small tenure holders not being able to afford mapping software.

4. Too much change

Some licensees feel that woodlot management is getting too complicated with the constant changes in the way they have to conduct business, and e-FM is one more step towards making woodlots like major licensees. There is a sense that woodlot holders don't think they need to be experts in the business end

of forest management, and that they would prefer that the MOF continue to provide support to them as in the past.

5. Loss of direct control by woodlot holders

The move to electronic based systems will require that many licensees rely on additional services from third party sources. This will require them release at least some control over the woodlot or community forest's management, including information about their private lands.

6. No benefit to small licensees

Throughout the development and implementation e-FM, the focus has been on the benefits that this initiative will bring to government and licensees. The large impact this initiative has on small licensees has generally not been recognized. The relative costs to meeting the requirements of e-FM greatly overshadow any benefit that small licensees may receive from e-FM. In the numerous cases where small licensees do not have access to technology to participate in e-FM, any benefit that they can receive is negligible and the initiative only adds cost to the operations.

2.7 e-FM Tools Available to Woodlots and Community Forests

It is important for woodlot and community forest licensees to recognize that e-FM does not just mean new requirements that must be met, but it also means improved access to information housed by the MOF. The following are some examples of e-FM tools that can be used by licensees for activity planning and information management:

- **RESULTS application:** The RESULTS on-line application can be accessed by licensees to view all silviculture records for an opening, view approved stocking standards, and can even be used as a planning tool for silviculture activities.
- **MapView:** MapView is an on-line tool that is available to all licensees to view the provincial map database housed by the MSRM. For example, you can check to see if a road is under permit, where mineral tenures are, or where the boundary of your last approved cutting permit is. MapView is automatically updated when tenures are approved through FTA, so the most current data is always available to licensees.
- **CRS:** The Corporate Reporting Service is an on-line tool that allows licensees to run reports on data that is stored in RESULTS and FTA. This would include planning and activity reports.

3 Recommended Strategies

The following strategies are presented as options for the successful implementation of e-FM with licensees. Strategies have been categorized into Communication and Organization, e-Submission Implementation, and Access to Technology.

Associated with each strategy are options for implementing the strategy and benefits and challenges of the implementation options.

Recommendations are outlined, along with estimated costs and proposed training delivery methods for the recommended options. The success of the recommendations will depend on good communication with woodlot licensees, community forests and consultants, as well as support from the Federation of BC Woodlot Associations, Woodlot Associations, and the MOF.

Roles and Responsibilities

Many of these strategy implementations require coordination through numerous groups. These groups include the Federation of BC Woodlot Associations, local Woodlot Associations and the MOF. The key groups for implementing various aspects of each recommended strategy are indicated.

3.1 Communication and Organization Strategies

3.1.1 Strategy 1: Improve awareness of e-FM requirements

As the majority of woodlot licensees and community forests have little knowledge of e-FM, a key step in successfully implementing e-FM is to increase the awareness and understanding of e-FM, and in particular the new requirements placed on woodlot and community forest licensees. Clear and timely communication of e-FM information, requirements, and training is vital to successfully implement e-FM for licensees. The goal for e-FM information dissemination must be to reach all of the licensees that it impacts. This strategy focuses on an initial investment of effort to get licensees knowledgeable about e-FM by the April 1, 2005 deadline.

To establish this initial awareness prior to the deadlines, it is recommended that the Federation, in conjunction with the MOF, prepares and delivers workshops on e-FM and the requirements and benefits of e-FM. These workshops should include only information directly relevant to woodlots and community forests. They should provide specifics on the steps licensees must take to make an e-submission for tenure/permit applications and silviculture reporting. The key steps to selecting and utilizing the strategies offered in this plan should be addressed with specific timelines and key contacts. It should also lay out the training and support services available to licensees on the specific aspects of e-FM and the different approaches that they may select.

These workshops should be conducted in the local communities of the licensees and would be best delivered at forest district offices around the province to attract the most licensee members. Evening or weekend workshops would be best as sessions during the week often conflict with licensee primary work schedules.

The workshop should include an information package identifying the key requirements of e-FM and the benefits that licensees will receive through e-FM. This information package should be supplied to all

licensees prior to the session. It is critical for the licensees to receive this information so they can come prepared as well as have this information on hand if they are unable to attend a session.

Benefits:

- Having this message delivered through the Federation instead of the MOF will keep it impartial,
- Provides a forum where questions can be asked and answered, and
- Provides an opportunity for concerns and issues for licensees to be discovered and addressed.

Challenges:

- The costs of visiting each community can be excessive, but the cost of sending a single individual to each community is significantly lower than that of having all licensees or representatives travel. It will also ensure that more licensees attend the sessions.
- Frustrations may occur in the sessions if the concerns and questions can not be addressed. It is extremely important to have concrete answers to the questions that are likely to be asked.
- These sessions may become a forum for licensee frustrations and concerns due to on-going changes in woodlot and community forest management.
- The sessions may become too technical or focus on what e-FM is to the MOF rather than on the requirements, benefits and steps to meeting e-FM requirements for Woodlots and Community Forests.

Implementation Steps:

1. Develop the information package for woodlot and community forest licensees,
2. Develop presentation for workshops,
3. Create a complete listing of mailing addresses for all woodlot and community forest members,
4. Develop a list and response to anticipated questions occurring at these sessions,
5. Set up dates for each session,
6. Distribute information package, and
7. Conduct workshops at district locations.

Implementation Costs:

The development of the information packages and workshop is anticipated to cost approximately \$15,000 - \$20,000 through contracted resources. The delivery of the workshops at the 30+ forest district across the province will require about 0.1 FTE of a Federation staff time plus \$10,000 in expenses for travel and workshop expenses. To reduce costs of the sessions, the Federation should discuss the option of utilizing district office meeting space for the workshops.

Implementation Timelines:

The preparation for the workshops should be conducted over the summer of 2004 with the delivery of the district workshops in the fall of 2004. Information packages should be sent out approximately one month prior to the workshops.

3.1.2 Strategy 2: Provide on-going communication of new information and changes to woodlots and community forests in regards to e-FM

Communication of new information and changes on e-FM will also be important to keep people up to date. It is recommended that the Federation coordinate with the MOF to create and deliver focused communication to licensees. It is important to note that on-going communication to both Federation members as well as those members not belonging to the Federation is critical. This on-going communication should be through Association and Federation meetings, incorporated into the Woodland Almanac newsletter, and provided through news items on the Federation and Association websites as well as through electronic mail to those members and associations that can receive communications electronically. It is recommended that the newsletter be distributed bi-monthly instead of quarterly during this period of rapid changes. Communication should include information on any new requirements from the ministry, changes in support contacts, upcoming training and information events, new service providers and tools and other related information. It should not focus on the technical aspects of e-FM, rather on providing updates and linking members to events and information that will provide more technical information. The Federation, rather than the MOF, individual Woodlot Associations or other professional/technical associations should distribute communication.

Benefits:

- Will ensure that as inevitable changes to requirements change and new components of e-FM become known to licensees in a timely fashion.
- Using the Federation for the distribution of communications will ensure that all information comes from a source that is mandated to support woodlots and community forests and which is familiar with the best communication avenues.

Challenges:

- This strategy represents an on-going commitment by the Federation to communicate with licensees who are often difficult to communicate with.
 - The communications should be made to all woodlot and community forests regardless if they are members of a local woodlot association or Federation of BC Woodlot Associations.
 - The Federation will need to maintain knowledge on the changes to e-FM and work with the MOF on a regular basis to keep informed on activities and requirements.
1. Development of e-FM section for Woodland Almanac newsletter.
 2. Add additional information to the Federation Website.
 3. On-going monthly revisions to the website.
 4. Bi-monthly newsletter updates.

Implementation Costs:

e-FM communication is anticipated to have minimal cost and should be included within existing Federation communications to its members. The main costs with implementing this strategy are in staff development and distribution time. This effort is estimated to be less than a 0.1 FTE of a Federation staff member's time and \$5,000 annually for materials and postage for more frequent publication of the Almanac. Also, it is estimated to require approximately \$2,000 annually to maintain the Federation website to include information about e-FM. Budgeting of initial changes to the website and the

development of a newsletter template, a one-time cost of \$2,500 is anticipated. The ongoing costs may be absorbed by current activities of the Federation.

Implementation Timelines:

This communication will be critical now until a few months after the April 1, 2005 deadline, but though not as critical following that timeline, it is important to maintain some level of communication on e-FM as changes and new related items occur.

3.1.3 Strategy 3: Establish a key Federation contact to support licensees through e-FM

To provide on-going support and a point of contact to address licensee concerns and support their unique needs, it is recommended that the Federation establish a contact person at the Federation. It will be the responsibility of this person to organize and support licensees with e-FM issues. This will include organizing and conducting workshops, training sessions, newsletters and other key components of this strategy. This person will also be responsible to answer questions and provide advice to licensees on appropriate training and the best approaches for e-FM issues in an impartial manner. This person will also need to participate in e-FM working groups and committees to represent the interests of licensees as well as coordinating any woodlot/community forest committees.

Benefits:

- Provides an impartial person to provide advice as required on an individual basis to licensees.
- Provides knowledge and expertise on solutions specific to supporting woodlots and community forests.

Challenges:

- Individual support will require a fairly large investment of time from the Federation staff member.
- Will require that the person be able to understand the technical, business and cultural aspects related to implementation of e-FM with woodlot and community forests and communicate the complexities clearly.

Implementation Steps:

1. Determine if current Federation staff can fill the role for supporting e-FM, look at hiring or contracting the position.
2. Distribute the key contact person's name and information to associations, woodlots and community forests.
3. Determine, and participate on, the key committees/working groups related to e-FM.

Implementation Costs:

It is anticipated that the role within the Federation would require an estimated 0.5 FTE over the next two years and possibly more if the need continues.

Implementation Timelines:

Given the immediate nature of concerns and issues for e-FM and the looming deadline of April 1, 2005, the implementation of this support position should be immediate. This position is anticipated to be required into 2005.

3.1.4 Strategy 4: Establish an e-FM implementation and monitoring committee

Establishing an e-FM Committee to monitor the success of the e-FM implementation will ensure that the correct strategy or strategies have been identified which will meet the on-going requirements for e-submissions by licensees. This monitoring should include the evaluation of each strategy, how it is being accepted by licensees, how new changes to requirements or to e-FM may impact each strategy and any new training initiatives required. The e-FM committee's focus should be on the success and issues that arise out of the implementation of the strategies and provide recommendations to the Federation on how to address the issues.

It is recommended that the e-FM committee be made up of Federation members who fully understand the initiative. This would probably best fit with the existing e-Business Subcommittee that is already in place with the Federation. This should also involve MOF staff who can provide advice and guidance on Ministry's requirements.

Benefits:

- Provides an avenue to learn from strategy successes and help address any issues that arise.
- Allows for adaptive management practices.
- Using an e-FM committee for implementation monitoring keeps recommendations impartial.
- The recommended makeup of the committee aligns with other recommended strategies outlined in this document and provides synergy between strategies.
- The e-FM committee will act as a decision making body for adopting strategies.
- Use of Federation members on the committee provides operational expertise in the issues and challenges presented by the implementation of the strategies.

Challenges:

- Determining the criteria for assigning committee members.
- Evaluating the expertise required for a committee member.
- Developing a monitoring schedule.
- This monitoring should be done regardless of whether there is an established committee or not.
- Knowing how to evaluate a strategy's success.
- Communicating the findings and recommendations of the monitoring to the Federation licensee members.

Implementation Steps:

1. Obtain a commitment from members to participate on the monitoring committee.
2. Develop rules of engagement for the monitoring committee.
3. Develop strategy monitoring SOPs for guidance in evaluating whether a strategy is a success.

Implementation Costs:

It is recommended for the Federation to solicit committee members from its membership. It is anticipated that the setup and organization of the strategy monitoring committee would require an estimate of 0.1FTE.

Implementation Timelines:

The timing for the establishment of a monitoring committee is not immediate. The timing will follow the implementation of Strategy 3.1.3 but should be no later than the fall of 2005 once all the proposed strategies have been implemented.

3.1.5 Strategy 5: Investigate options for recovering e-FM costs through appraisal allowances

A key task that the e-FM Committee should undertake is initiating discussions with the MOF Revenue Branch around what options could be used to recognize increased overhead costs to licensees as a result of implementing e-Submission requirements. The costs to licensees for the implementation of e-FM could be recovered through the MOF stumpage appraisal system. This may be possible as the appraisal calculations allow for the licensees to incorporate overhead costs resulting in lower stumpage. There are several potential avenues that should be pursued with regard to recovering e-FM costs through appraisal allowances:

- Woodlot and community forest licensees should be including all costs related to meeting e-FM in their Overhead Cost calculations. This could include the cost of Internet service, computer hardware and software, paying a service provider to make submissions, paying an RPF to review appraisal calculations for ECAS submissions, costs related to training, etc. This approach will not return a benefit to licensees immediately, and will never cover all of the costs for licensees with higher than average implementation costs, but it is a start.
- Small tenure holders will have a larger per cubic meter cost related to e-FM than major licensees will. Discussions should be held with the revenue branch to ensure that this is recognized and accounted for in the Low Volume Cost Estimate.
- Immediate recovery of e-FM costs may be an option by getting e-FM recognized as a Specified Operation within the appraisal calculations. The classification of e-FM as a Specified Operation should be assessed for feasibility through discussions with MOF. While Specified Operation costs are generally for prescribed treatments (not overhead), the intent is that they are for costs that are difficult to apply an average to. As e-FM is a new cost to licensees, there is no average cost available at this time. A Specified Cost could be included for e-FM for the period of time until full overhead costs of implementing e-FM are included in overhead averages (i.e. 3 years from April 1, 2005).

Benefits:

- Provides an avenue for licensees to recover costs related to e-FM.
- Will provide an opportunity for all parties involved to analyze the actual costs of e-FM implementation.

Challenges:

- Working with the Revenue Branch to come up with solutions that will meet everyone's needs in the short and long term.

- Communicating to members the importance of including all costs associated with e-Submissions in their Overhead Costs.
- Averages for Overhead Costs and Low Volume Cost Estimates will not fully adjust for e-FM costs until three years after full e-Submission requirements come into effect.

Implementation Steps:

1. Initiate discussions with the Revenue Branch on e-FM cost recovery through appraisals.
2. Communicate the approaches to include e-FM components in appraisals with licensees and Regional Appraisal Committees.
3. Work with licensees and the Revenue Branch to develop solutions.

Implementation Costs:

It is anticipated that the Federation would spearhead this work. It is estimated to require 0.1 FTE over the next year. Some expenses will be associated with attending Appraisal Committee meetings and travel. Expenses would be about \$2000 per year.

Implementation Timelines:

Discussions with the Revenue Branch could be initiated at any time, but the bulk of the work will be done after e-Submission strategies are in place. Communication with licensees should begin as soon as possible to ensure that they are including all applicable e-FM costs in appraisals that they are submitting this year. Ideally, cost recognition options should be established by the time of the full e-FM implementation deadline (April 1, 2005).

3.2 e-Submission Implementation Strategies

Outlined in the following section are the specific approaches to dealing with e-submissions for ECAS and ESF (FTA and RESULTS). The strategies outlined below are offered due to the varying expertise, knowledge and desire to follow the different approaches by woodlot and community forests. It was determined that no single approach would fit these unique situations. It is key that a knowledgeable resource (see section 3.1.3 - Strategy 3: Establish a key Federation contact to support licensees through e-FM) be available to support licensees in selecting the best approach on a case by case basis.

3.2.1 Strategy 1: Provide a centralized service for e-Submissions and support through the Federation

This strategy involves the Federation acquiring the skills and technology required to perform e-Submissions on behalf of the licensees. This could be accomplished in one or two ways. Each option is explored below. The overall goal of implementing this strategy would be to ensure licensees have access to service for e-submissions specific to meet their needs as well as ensure that service is available on a cost recovery basis rather than a profit driven venture. Funding of this service through the Federation could be recovered through current or increased membership dues and alternate funding sources through the government (FIA).

Option 1 – Acquire internal Federation skills and resources

The first option is for the Federation to hire qualified staff that have the knowledge and expertise to create and deal with the technical and business aspects of e-Submissions. The Federation would develop

processes and a costing model to address the needs of the woodlot owners. It is anticipated that to offer this service the Federation would need to invest in GIS/Mapping, silviculture tracking, appraisal software and other related applications as well as the time to develop the service offering.

Benefits:

- The service could be lower cost by offering the service on a cost recover basis to licensees.
- Woodlot and Community Forests are comfortable with dealing with the Federation.

Challenges:

- This approach requires a great deal of investment in technology and staff and may not be a direction that the Federation wishes to proceed based on their current mandate.
- May be seen as making the Federation partial to solutions or in direct competition to the consulting industry.

Implementation Steps:

1. Develop a costing approach to address how the costs of the service would be recovered.
2. Hire staff capable of creating the submissions.
3. Issue proposal for software solutions for meeting objectives.
4. Communicate service offering to woodlots and community forests.

Implementation Costs:

It is anticipated that given the estimated volume of submissions made by woodlots (approximately 2500 - 3500 per year) that it would require approximately 2 – 3 FTE to support the creation of submissions on behalf of the Federation members. The cost associated with the systems necessary to offer this type of service are estimated to be between \$30,000 and \$45,000 with an annual cost of \$3,000 and \$9,000 for annual maintenance depending on the specific systems selected.

Implementation Timelines:

Hiring and preparation to offer this service should begin in the winter of 2004/05.

Option 2 – Utilize service providers through the Federation

The second option is for the Federation to select one or more qualified service providers that perform the work for licensees that have the qualified staff and ability to create these submissions. This approach requires a minimal investment by the Federation into long-term infrastructure. The Federation can develop lower cost alternatives for the licensees through collective negotiations as well as minimize the overall administration costs to licensees by providing centralized administration and coordination of service providers.

Benefits:

- Provides a mechanism to lower the costs for access to services for licensees.
- Lowers the overall costs for woodlots having to find and select a service provider.
- Moves the risk of delivery onto service providers.

- Allows for the usage of service providers from across the province and puts a service provider closer to the operations than that of a centralized model.

Challenges:

- Not all licensees wish to use a service provider.
- This type of service is likely to be through larger consulting firms and may exclude smaller firms that are unable to invest in the infrastructure to perform the service.

Implementation Steps:

1. Send out a request for proposal to provide service to licensees through the Federation. This should include pricing and approach to dealing with services.
2. Establish agreements with service provider(s).
3. Set-up a service monitoring process.
4. Develop process for woodlots to access the services.

Implementation Costs:

The costs to implementing this solution are limited to an administration function by Federation staff to establish agreements and communicate to licensees. It is anticipated that the effort to administrate these service providers would be less than 0.1 FTE.

Implementation Timelines:

It is expected that the service providers be in-place in the winter of 2004/05 with information submitted to licensees on how to access these services prior to the April 1, 2005 deadline.

Recommendations for implementation of strategy:

In the short-term if the Federation is to move ahead with developing the services, it is recommended that service providers (option 2) be used to establish the service and test the concept without a large, long-term investment. If the service proves useful, it is then recommended that the Federation evaluate the feasibility to proceed with option1 to invest in the internal resources and infrastructure to support members.

3.2.2 Strategy 2: Establish a process for licensees to select and use a service provider to make e-Submissions

The intent of this strategy is to assist licensees in selecting a qualified service provider to make e-Submissions, as well support licensees in managing their submissions and the approaches to dealing with service providers. To implement this strategy, the Federation is encouraged to work with the MOF who has been in the process of putting together a list of qualified ESF service providers that have demonstrated the ability to create ESF submissions. This information should be distributed through regular communications to licensee members (see 3.1.2 - Strategy 2: Provide on-going communication of new information and changes to woodlots and community forests in regards to e-FM) to ensure that this list is available to all woodlots and community forests.

It is also important the Federation and Associations work with local contractors to become qualified service providers. These contractors should already be working with licensees on the management of woodlots and community forests.

Given that control over information being submitted is of concern to licensees, the Federation should create a template non-disclosure agreement that licensees can sign to ensure confidentiality.

Since FTA and RESULTS submissions are not required until April 1, 2005, it is recommended that licensees continue to submit information through their current practices until that date. ECAS is a current requirement that the Federation can address through this strategy.

This approach is best suited to licensees that do not have computers, Internet access and the skill sets necessary to create the submissions.

The federation should create a guide that can be distributed to licensees wishing to utilize service providers that includes a general process that can be followed. Items in this guide should include the following:

- How to select service providers.
- How to get the proper authorizations to submit electronically (BCeIDs).
- Providing authorization through BCeIDs to service providers to submit on-behalf of licensees.
- Guidance on getting service providers to provide documentation to licensees on the contents and details of submissions.
- What to do if licensees are unhappy the service provided.

Benefits:

- Using a service provider off-loads the complexities of creating and submitting required documents for those that do not wish to do so or do not have the technical ability.
- Use of service providers will ensure that licensee receive qualified people to perform the work.

Challenges:

- Use of a service provider will involve additional cost to the licensee (per submission or hourly charges).
- Individual licensees may lose the ability to control the process of submitting information to the ministry.
- Not all licensees wish to use a service provider.

Implementation Steps:

1. Contact the ministry for a listing of qualified service providers.
2. Develop a pilot process with a few woodlot owners prior to the deadline to review and test the strategy of using service providers.
3. Develop a guide to outline the process of finding and using a qualified service provider
4. Provide information to woodlots and community forests at workshops and through mail-out

Implementation Costs:

The cost of implementing this strategy is very negligible. It is anticipated that creating, maintaining and distributing the list of qualified service providers will only require Federation staff time. The development of the guidebook on selecting the service provider is estimated to cost approximately \$5,000.

Implementation Timelines:

The development of the service provider list should be established and distributed in the fall of 2004 at the workshops delivered across the province. It is anticipated that the creation of the guide would occur in the summer of 2004. Periodic updates will also be required.

3.2.3 Strategy 3: Provide e-Submissions tools that can be accessed by licensees at minimal costs

Many licensees expressed the desire to do e-Submission themselves, both to reduce costs and to maintain control over their data. Currently there are various software packages available to allow submissions to be created and it is anticipated that the number of solutions will grow as the April 1, 2005 deadline approaches.

This strategy presents options and opportunities to make tools available licensees who desire to make the submissions on their own behalf.

For tools to be effective for licensees to create FTA and RESULTS submissions, a few key requirements should be addressed by the tool:

1. Must be easy to use and understand.
2. Must address the spatial (maps) and attribute (data) components of submissions.
3. Should not be dependent on additional software or digital information to create submissions.

Key to making tools available to licensees will be supporting them in the decisions for selecting a general approach as well as the specific tool that is best suited for their particular situation. The use of software systems is likely more suited to individuals with some background in mapping and database systems who feel comfortable with these types of systems.

The issue for most small operators is that most software solutions available are currently too expensive and represent a substantial investment to purchase. The options outlined below address options to implementing this strategy from a cost perspective.

It is important that in looking at these options to also consider the inclusion of support and training to ensure that these are implemented effectively.

Option 1: Utilize and promote existing software made available through the MOF

Currently the MOF has been offering access to licenses of the Feature Manipulation Engine (FME) to all licensees across the province. It is recommended that the availability and the suitability of this software be communicated to licensees. It is important to note that this software would not be suitable for many small woodlot operators that do not have mapping and database systems for managing information. It is more ideally suited to larger companies and individuals that may be supporting multiple woodlots or community forests and have the supporting software and technical skills to use FME.

Benefits:

- Training is also available.
- FME offers more than just the ability to create submissions.

Challenges:

- The suitability of the current software available is likely beyond the majority of licensee skill levels.
- The Ministry has a finite number of licenses available and may run out.
- The software requires the person to pay for annual maintenance of approximately \$600.

Implementation Steps:

1. Communicate to licensees on the availability of FME through the MOF and suitability to particular situations.

Implementation Costs:

The software is currently available at no cost through the MOF, but if upgrades are required, the person using the license will be expected to cover upgrade and maintenance costs if they so choose.

Implementation Timelines:

This option is currently available now. This information can be distributed at any time to licensees.

Option 2: Select or develop a software solution suited to woodlots and community forests

This option involves the selection and or development of a solution(s) that the Federation feels would best suit woodlots and community forests. This will require that the Federation develop the requirements that would best suit woodlot owners.

Benefits:

- The development of a solution ensures that it is suited to woodlot and community forests

Challenges:

- Developing one software application that can meet the various situations for all the woodlots and community forests is a very lofty goal.

Implementation Costs:

The costs to custom development and/or purchase of a solution specific to woodlots and community forests to handle all aspects of the e-Submission (spatial and attribute) is estimated to cost well over \$250,000 to develop, implement and support (based on potential user base of 800).

Option 3: Provide information on systems and solutions and negotiate cost savings on behalf of woodlots and community forests

This option involves the Federation working with the MOF to communicate information on the available products and leaving the selection and purchase of these solutions in the hands of each licensee. It is recommended that the Federation provide support and advice to those selecting to utilize a software solution to ensure that the specific complexities are understood. It is recommended that vendors be approached to determine if any savings could be offered to licensees through the Federation.

Benefits:

- Provides an opportunity for the Federation to offer members a cost saving on software.
- An opportunity to provide membership benefits to Federation members.

Challenges:

- Given the variation in woodlots and community forests in their current situations, it is difficult to make recommendations on the best solution for woodlots.

Implementation Steps:

1. Solicit and develop a listing of software solutions for e-submission and determine suitability for woodlots and community forests.

Implementation Costs:

The cost to implementing this strategy is minimal and only requires staff time to support negotiations with vendors and to maintain a list of systems.

Implementation Timelines:

This strategy could occur at any time before the April 1, 2005 deadline.

Option 4: Solicit the MOF to make other software solutions to support e-submissions available for woodlots and community Forests

This option involves the Federation working with the MOF to offer solutions and distribute in the same fashion as FME to provide alternatives that may be better suited to woodlots and community forests. It is critical that the solution offered to these licensees allows them to perform the complete submissions.

Benefits:

- Off loads the costs to the Ministry to offer suitable solutions
- Provides alternate solutions for licensees that will allow them to take complete control

Challenges:

- No one solution is suitable to all licensees
- Must include support and training

Implementation Steps:

1. Meet with the Ministry of Forests to discuss the opportunity

Implementation Timelines:

The discussions with the ministry must begin immediately to ensure that alternatives and solutions can be communicated to licensees and that any training can be delivered prior to the April 1 deadline.

Recommendations for implementation of strategy:

It is recommended that given the various solutions available and the situations of the various woodlot owners and community forests that Option 1, 3 and 4 be implemented. It will prove very difficult to select a single application that is suitable for all woodlots and community forests. The expense of developing a custom solution for licensees is costly and requires a long-term investment to deal with support and maintenance.

3.2.4 Strategy 4: Implement pilot projects to assess suitability and feasibility of e-Submission options

It is recommended that prior to the deadlines, small pilot projects be conducted on each of the strategies presented for dealing with e-Submissions. This would include pilot projects for the following:

- Licensee working directly with the service providers. This should include woodlots and community forests without access to technology. It is anticipated that 2 or more service providers should be selected to pilot with 5 or 6 woodlots or community forests participating.
- Providing trial software from vendors to woodlot owners for creating submissions. This should include a few key software packages as well as an number of licensee participants. These participants should at a minimum have basic computer knowledge.

The pilots should include both FTA (Cutting Permits and Road Permits), RESULTS (opening definitions, milestones, forest cover polygons, disturbance and activities) and ECAS submissions. It would also be extremely useful to also pilot other aspects of e-FM with licensees for feedback on the usefulness of items such as CRS, MapView and other related e-FM components.

Benefits:

- Performing these pilot projects will help refine the suitability of the various options to licensees.
- Provides feedback on from licensees on the specific issues and challenges faced in meeting these demands.

Challenges:

- Timelines for implementing solutions are very tight and the ability to conduct in-depth pilot projects may be limited.
- Given the low number of submissions that a woodlots and community forests make in one year, it may be difficult to find pilots members with a large enough number of submissions to get a good estimate on the feasibility of a solution.

Implementation Steps:

1. Gather members that would be willing to pilot an option.
2. Determine the potential vendors offering solutions from the MOF Information Management Group and send a request for interest to service providers and vendors for participating in a pilot for Woodlot owners.
3. Develop a questionnaire that pilot members can respond to upon completion of the pilot.
4. Conduct the pilots.

Implementation Costs:

It is anticipated that the costs to software for trials should be minimal as most vendors typically offer trial software. It is anticipated that there will be costs associated with supporting service providers and the support for a particular solution. An approximate estimate is \$2,000 per pilot.

Implementation Timelines:

To prepare for the deadline of April 1, 2005, these pilots would need to be completed before the fall of 2004.

3.3 Access to Technology Strategies

3.3.1 Strategy 1: Promote improvement in infrastructure throughout BC to support e-FM

With so many government services available through the Internet, as well as increasing opportunities and requirements for British Columbians to conduct their business with the BC government through the Internet, it is only logical that Internet service should be made more accessible to all British Columbians. Specific to woodlots and community forests, e-FM would be much easier to implement if high speed Internet was readily available to all parts of BC. As part of the Federation's strategy for implementing e-FM, they should continue to explore options for making Internet service available to all woodlots and community forests that need it. This could include:

- Lobbying government to consider creative solutions for Internet service delivery to areas where it is currently unavailable, recognizing that the return on investment for a private Internet service provider would be very low. Options such as joint ventures may be appropriate.
- Negotiating improved public access to workstations in government offices with high-speed access (such as BC Access Centres and MOF offices). It is evident that current office hours make it difficult for many people to access these services.

Benefits:

An improved high speed Internet infrastructure would make implementation of e-FM much easier and more convenient for licensees. Communication between the MOF, Federation, and licensees would also be improved, making it easier to share new information and provide assistance to those who need it. Other benefits would be the improved access to other Internet services and the wealth of information available on-line.

Challenges:

- The government needs to recognize that, if they are mandating the implementation of e-FM, then they have a responsibility to ensure that access to required technology is available to all British Columbians.
- Cost to improve Internet access to remote communities is very high. Some type of cost-sharing agreement may have to be implemented, possibly with government, private Internet access providers, and communities each bearing a portion of the cost.
- The length of time required to implement this strategy is probably not within the timeframe for full implementation of e-Submissions.

Implementation Steps:

1. Determine the actual Internet availability across the province.
2. Determine who is responsible at the provincial government level and initiate discussions.
3. Propose several options to the government for implementing this strategy.

Implementation Costs:

The cost of analyzing the situation and initiating discussions with government would not be high. Existing Federation staff would likely do the work.

Implementation Timelines:

As successful implementation of e-FM requires the use of the Internet, it is important that work to improve Internet access beginning immediately. It is anticipated that this will be a long-term project, probably requiring communication with the government and service providers over the next few years.

3.3.2 Strategy 2: Provide and foster access to basic computer and Internet training

It is very apparent that the move to electronic service delivery is becoming a fact of life for British Columbians. It will prove vital for people that interact with the BC government on a regular basis have access and the ability to use a computer and have knowledge of the Internet. It is important as those managing woodlots and community forests have, at a minimum, access to basic training on computers and the Internet.

Implementation Option 1: Provide information to woodlot licensees on where and how to get computer and Internet training

The first option is to compile a list of resources available across the province that provides basic computer and Internet training. These resources could include colleges, libraries and adult education centres. A list of available funding sources could also be compiled. This list could be distributed to Federation members and also made available through Woodlot Associations.

Benefits:

- This method allows licensees to choose the training method and location that works best for them, while providing them with a comprehensive list to choose from.

Challenges:

- This method requires that licensees take a certain amount of initiative to investigate the options available and sign up for a course.
- Keeping a list of available training options up-to-date would be a difficult task.

Implementation Steps:

1. Research the options available for training across BC.
2. Compile and distribute the list to woodlots and community forests.
3. Maintain and update the list, re-distributing periodically.

Implementation Costs:

The researching of options and compilation of a list is of minimal cost to develop. This would be done as regular Federation business. Distribution would probably take the form of an annual mail-out, with an estimated cost of less than \$1000.

Implementation Timelines:

This should be an on-going activity, as reliance on Internet and computer usage is becoming prominent.

Implementation Option 2: Look at opportunities to create and offer training directed at small forest operations

A training course on basic computer, software and Internet use could be developed and delivered through the Forestry Continuing Studies Network (FCSN). This course could be offered periodically to all those in the forest industry who feel they could benefit.

Benefits:

- A course could be developed that is specific to a forestry audience, as opposed to more general computer and industry courses, which may have target audiences in other very different sectors whose needs are significantly different than that of the average small tenure holder.
- The same course could be delivered to many people across the province, and could be delivered wherever and whenever the demand is high enough.
- Using the FCSN to deliver this course would be valuable since they already have the infrastructure in place to deliver courses to groups of people in multiple locations.

Challenges:

- Creating enough interest (both from the FCSN and from potential students) that development of such a course can be pursued. If the FCSN is not interested in this course, the Federation could organize it themselves.

Implementation Steps:

1. Approach the FCSN about developing a basic computer and Internet course.
2. Work with the FCSN to develop the course outline and possibly course materials (this may be contracted out).
3. Ensure that the course is advertised to woodlot and community forest licensees (mail out), as these people may not be receiving FCSN course calendars already.
4. Monitor the success of the course (are licensees taking it/do they find it valuable).

Implementation Costs:

If the FCSN takes on the development and delivery of this course, then the cost to the Federation will be minimal. Some time will be spent in discussions with FCSN and developing a course outline, as well as monitoring the implementation and success of the course. These tasks could be taken on by a Federation staff member as part of their regular duties, possibly the same person who is designated as the key contact for e-FM.

If the FCSN does not want to pursue this type of course, and the Federation delivers it instead, then initial costs will be significantly higher for developing and delivering the course. . Course development costs

are anticipated to be approximately \$15,000. Delivery costs would be approximately \$15,000 per location for a one-week course (assuming the availability of a computer lab).

Implementation Timelines:

As successful implementation of e-FM requires computer and Internet use, it is important start planning and course development in Spring 2004, with the first courses planned for delivery in Fall 2004 and is estimated to require 0.1 FTE to coordinate. It is anticipated that this will be a long-term project, with courses delivered over the next few years.

Recommendations for implementation of strategy:

It is recommended that both options be implemented. Option 1 will provide guidance to those wishing to pursue training in computer or Internet basics. To ensure that appropriate training is available to all licensees that need/ want it, it is recommended that Option 2 also be implemented.

3.3.3 Strategy 3: Provide training on ESF, ECAS, RESULTS and other e-FM applications

It is clear that woodlot and community forest licensees do not have much knowledge of e-FM applications. A training program is recommended, targeted at these licensees to provide an introduction to what to use each application for and how to use it.

While the MOF has already provided training for some of these applications, it is felt that a comprehensive course explaining the basics of all of the e-FM applications would be of value to licensees. This course would cover what all of the e-FM applications are, how to get access and an introduction on how to use them. The options available for making required submissions can be addressed, as well as the other functions the applications can be used for.

This course would ideally be offered by the MOF, and incorporate some of the training materials they have already developed. Alternatively, this training could be delivered by the Federation, making use of existing MOF training material and assistance from the MOF.

In order to reach a significant portion of the target audience, it is very important that this training be offered at a sub-regional scale (preferably at a District-level). Training materials should also be made available on the MOF website for general use.

Benefits:

- A course specifically targeted at small licensees and delivered in a way that makes it accessible to them would improve awareness of the applications and give licensees the knowledge they need to implement e-FM.
- Training materials would be available on the MOF website for those unable to attend training sessions.

Challenges:

- It may be difficult to reach all licensees, even if a serious effort is made to deliver at a local level.
- Getting the MOF to provide (or fund) more training beyond what they have already developed may be difficult.

Implementation Steps:

1. Obtain buy-in from the MOF on this strategy.
2. Develop an outline for the training package.
3. Monitor the implementation of the strategy.

Implementation Costs:

This strategy involves minor costs in initiating discussions with the MOF on preparing an e-FM training plan for woodlot and community forest licensees. Implementing the training will be a significant cost, but it is expected the MOF would bear this cost.

Implementation Timelines:

Discussions with the MOF around this strategy should be initiated this spring, with training delivery anticipated by the summer or fall of 2004. The training must be done prior to the date of full implementation of the e-submission requirements (April 1, 2005).

4 Summary of Strategies

4.1 Implementation of Strategies

The most critical strategies for implementing e-FM with licensees are those which will communicate and train licensees on the requirements of e-FM. It is critical that the Federation is prepared to support woodlots, woodlot associations and community forests through a variety of situations during the transition to e-FM. It is believed that establishing a key support person within the Federation to spearhead the implementation of these strategies is critical to their success.

Implementation must focus on those strategies that can realistically be put into action to support licensees before the April 1, 2005. This will include the strategies around e-Submission implementation.

On-going monitoring of strategies by the e-Business subcommittee is an activity that currently occurring and should continue through the long-term.

The strategies around long-term improvements to infrastructure and basic computer training represent a less critical and immediate concern. They will not have a great influence over the ability of licensees to meet the requirements in the short term, but in the long term will enhance the ability of licensees to select from a broader range of options.

4.2 Timelines

The timelines associated with this plan are driven by one key date. Woodlots and community forests could have difficulties obtaining permits and meeting their forest management reporting obligations if they are not prepared by April 1, 2005. Outlined in the chart below are the key timelines for implementation of each of the strategies that are recommended to meet this key deadline.

ID	Task Name	2004										2005			
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
1	<u>Communication and Organization</u>														
2	Strategy 3.1.1 Improve awareness of e-FM														
3	Develop the information for sessions														
4	Conduct workshops at District locations														
5	Strategy 3.1.2 Provide communication														
6	Development of website and newsletter														
7	On-going monthly revisions														
8	Strategy 3.1.3 Federation support contact														
9	Establishing support contact														
10	Strategy 3.1.4 Monitoring committee														
11	Establish a committee														
12	On-going committee activities														
13	Strategy 3.1.5 e-FM appraisal allowance														
14	Discussions with MOF														
15	<u>E-submission Implementation</u>														
16	Strategy 3.2.1 Centralized service through Federation														
17	Option 1: Acquire internal skills and resources														
18	Option 2: Utilize service providers through the Federation														
19	Strategy 3.2.2 Selection process - service provider														
20	Distribute service provider list														
21	Create licensee guide to selecting a service provider														
22	Strategy 3.2.3 Minimal cost tools														
23	Option 1: Utilize & promote existing software from MOF														
24	Option 2: Select or develop a software solution														
25	Option 3: Provide information & negotiate cost savings														
26	Option 4: Solicit the MOF to make software solutions available														
27	Strategy 3.2.4 Pilot projects														
28	Implement Pilot Projects of e-Submission Options														
29	<u>Access to Technology</u>														
30	Strategy 3.3.1 Improvement to infrastructure														
31	Promote improvement in infrastructure to support e-FM														
32	Strategy 3.3.2 Access to computer/internet training														
33	Option 1: Provide information on where and how to get computer and internet training														
34	Option 2: Look at opportunities for training directed at small forest operations														
35	Strategy 3.3.3 e-business training														
36	Provide training on ESF, ECAS, RESULTS and other e-FM applications														

4.3 Costs

The true cost of implementing these strategies is very difficult to estimate as little is really known about the true impact of e-FM. Outlined below is a summary of the expected costs to initially implement the key strategies and does not reflect the on-going administrative costs for e-FM.

Summary Cost Table		
Strategy	Costs	FTE Required
Communication & Organization		
Strategy 3.1.1	\$25,000- \$40,000	0.1
Strategy 3.1.2	\$9,000 - \$10,000	0.1
Strategy 3.1.3	-	0.5
Strategy 3.1.4	-	0.1
Strategy 3.1.5	\$1,500 - \$2,500	0.1
e-Submission Implementation		
Strategy 3.2.1 Option 2	-	0.1
Strategy 3.2.2	\$4,000 - \$6,000	-
Strategy 3.2.3 Option 1	-	-
Strategy 3.2.3 Option 3	-	-
Strategy 3.2.3 Option 4	-	-
Strategy 3.2.4	\$20,000 - \$24,000	-
Access to Technology		
Strategy 3.3.1	-	0.1
Strategy 3.3.2 Option 1	\$1,000	-
Strategy 3.3.2 Option 2	\$50,000 - \$75,000	-
Strategy 3.3.3	-	-
Total	\$110,500 - \$158,500	1.1

The above estimates represent the costs to implement the strategies and do not reflect the on-going costs of e-FM. The continuing cost of e-submissions (ECAS, FTA and RESULTS) is roughly estimated at \$375,000 – \$525,000 per year, but could vary greatly due to number of submissions and approaches taken.

In addition to the \$110,500 - \$158,500 implementation costs, it is estimated that the implementation of the strategies will require approximately 1.1 FTE for support and coordination of activities by the Federation.

For long-term strategies and those not recommended for immediate implementation (Strategy 3.2.1 Option 1 and Strategy 3.2.3 Option2), it is estimated that they would add an additional implementation cost of \$230,000 - \$345,000 and require an additional 2 –3 FTEs to support them.

4.4 Key Factors to Success / Next Steps

To ensure that this strategy moves forward and is successful in supporting Federation members, it is critical that the Federation makes this strategy available to the MOF, woodlot associations and licensees. This plan must be used to guide detailed project plans with clear actions, milestones and champions. The Federation must engage the MOF to support this critical component of e-FM in British Columbia to ensure that the effectiveness of the woodlot and community forest programs does not become hindered by e-FM requirements.

It is extremely important that the Federation work to establish a budget and funding for the implementation of these strategies. This will require securing funding commitments from the government and other funding sources to implement the various strategies for supporting licensees.

It is recommended that this strategy and action plan be evaluated regularly to determine if the strategies are effective and are being successfully implemented. Given the number and nature of the members of the Federation, it is important that additional feedback on these strategies be incorporated into this plan and ensuing projects.

The key factor that will effect the success of these strategies is that all parties involved in implementing e-FM with small licensees (the Federation of BC Woodlot Associations, BC Government, local woodlot associations, woodlots, community forests, and the consulting community) work together to in a timely and co-operative manner.

Appendix A. Summary of Methods for Strategy Development

The first step in preparing a strategy and action plan for e-FM was to compile the new e-FM requirements that apply to woodlots and community forests, and then assess the readiness of licensees to meet those requirements.

A survey¹ was developed and distributed to as many woodlot licensees and community forests (as well as their consultants) as possible, given the short timeframe available. 80+ responses were returned. The purpose of the survey was to determine what approaches and tools are currently being used to submit information to the MOF, assess the level of knowledge of e-FM among woodlot licensees and community forests, obtain input on potential options for creating an e-FM strategy for woodlots and community forests, and identify concerns of respondents.

The survey was distributed to members through the Woodlot Associations, with additional phone follow-up done where the associations provided phone numbers for members without email. Due to the short timeframe, it was not possible to mail out the survey. It is recognized that the responses that were received are biased towards those with email, and so probably under-represent woodlot holders who have little access to technology. This fact was considered in the analysis of survey results and in the development of strategies.

Discussions were held with Federation and Woodlot Association representatives to review the results of the survey, present an overview of the MOF e-FM initiative, outline e-submission requirements, and identify additional issues around e-FM. Proposed strategies for implementing e-FM were also presented. Feedback on the survey findings and proposed strategies has been incorporated into the final recommendations.

¹ see Appendix B - e-Submission Readiness Survey

Appendix B. e-Submission Readiness Survey

Electronic Forest Management Strategy and Action Plan Development for Woodlot Licensees and Community Forests

Survey Prepared by: Forsite Consultants Ltd.
Date of publication: March 31, 2004

Background:

In order to streamline government processes, the Ministry of Forests (MOF) has been mandated to move towards electronic submission of data and reporting for all licensees. The Federation of BC Woodlot Associations is in the process of addressing some major challenges facing woodlot licensees and community forests in fulfilling the requirements of e-submission of Tenure and Silviculture data by March 31, 2005.

The Federation of BC Woodlot Associations (Federation) is acutely aware of the major challenges ahead to have woodlot licensees and community forests prepared to fulfill electronic forest management (e-FM) requirements by March 31, 2005. The Federation feels it is imperative to recognize that there are technological impediments to e-FM implementation and access limitations now, in order to take the necessary steps for a smooth transition to electronic business. With the support of Forest Investment Account, Small Tenure Program funding, the Federation is pursuing the development of a strategy and action plan to address the above challenges. Forsite Consultants Ltd. have been contracted to develop this strategy and will deliver it by March 31, 2004.

This survey is intended to collect information from woodlot and community forest licensees to:

- ◆ assess how tenure holders are currently collecting, managing and submitting the information required for Tenure submissions (e.g. road permit and cutting permit applications) and Silviculture submissions (e.g. silviculture surveys and free growing declarations),
- ◆ collect information required for a comprehensive Needs Assessment Report that will be used to develop strategies for woodlots and community forests to meet e-FM requirements.

The survey should take approximately 10 minutes. Your participation in this survey is greatly appreciated. Survey responses should be returned to Forsite Consultants (see contact information below) by:

March 19, 2004

Survey responses can be returned by (prefer e-mail or fax response due to tight timelines):

email: woodlotsurvey@forsite-sa.com
fax: (250) 832-3811 Attn: Katherine Ladyman or Jason Hart
mail: Forsite Consultants Ltd.
P.O. Box 2079
Salmon Arm, B.C. V1E 4R1



All information collected in this survey will remain confidential.

Contact information is optional, but will enable us to contact you for clarification.

4.5 Administrative and Contact Information

Name: _____ e-mail Address: _____

Mailing Address: _____ Phone Number: _____

- 1) Do you mind if you are called for telephone follow-up if it is required? Yes ☐ No ☐
- 2) If you are a woodlot owner, what is your primary occupation? _____
- 3) What Forest District do you operate in? _____
- 4) If you are a member of a Woodlot Association, what Association is it? _____
- 5) This information is being submitted on behalf of a (check 1 or more):

Woodlot	☐	Tenure # _____
Woodlot Association	☐	
Community Forest	☐	Tenure # _____
- 6) Are you a: (check 1 or more)

Woodlot Licensee:	☐
Community Forest Representative:	☐
Consultant working for a Woodlot or Community Forest:	☐
- 7) If you are a consultant, how many Woodlots or Community Forests do you consult to? _____
- 8) If you are a licensee, how many licenses do you hold? _____
- 9) The AAC for the Woodlot(s) or Community Forest(s) that you hold or manage is _____ m³ per year.
- 10) Are you a member of a professional or technical association?
Yes: ☐ No: ☐ Name of Association: _____
- 11) How would you rate your current knowledge of the Ministry of Forests' (MOF) e-FM initiative and new requirements for permit applications (FTA) silviculture reporting (RESULTS), and appraisals (ECAS)?

Never heard of it	☐
Little knowledge	☐
Have attended some training	☐
Fully aware of e-FM and new requirements	☐
- 12) Are you (or your consultant) currently prepared to do e-submissions? Yes ☐ No ☐
- 13) Comments:

B. Woodlot Association Representatives Survey Questions

This section is for representatives of a woodlot association only. Please fill out to the best of your knowledge.

- 1) How many members do you have? _____
- 2) What % of your members has access to the Internet? _____
- 3) What percentage of woodlot owners in your area participate in the association activities (training sessions, meetings, information sessions):

0-25%	☐
25-50%	☐
50-75%	☐
75-100%	☐
- 4) Comments:

C. Reporting to the Ministry

We would like to know what information you are currently supplying to the ministry and how you prepare to submit this information.

- 1) For the tenure(s) that you hold or manage, how many cutting permit or road permit applications do you submit per year (on average)?

☐	☐	☐	☐	☐
0-2	2-6	7-10	11-20	20+
- 2) For the tenure(s) that you hold or manage, how many silviculture reporting submissions (including free growing declarations) you submit per year (on average)?

☐	☐	☐	☐	☐
0-2	2-6	7-10	11-20	20+
- 3) For the tenure that you are submitting this information for, please answer the following questions about how different aspects of the tenure are managed (how these things are currently managed will play a role in determining what the best solutions for moving to e-FM will be):
 - i) Cutting Permit and Road Permit applications are prepared by a consultant:

Never ☐	Sometimes ☐	Usually ☐	Always ☐	N/A ☐
--------------------------------	------------------------------------	----------------------------------	---------------------------------	------------------------------
 - ii) Silviculture Reporting to MOF (including free growing declarations) is done by a consultant:

Never ☐	Sometimes ☐	Usually ☐	Always ☐	N/A ☐
--------------------------------	------------------------------------	----------------------------------	---------------------------------	------------------------------
 - iii) Mapping is done by a consultant:

Never ☐	Sometimes ☐	Usually ☐	Always ☐	N/A ☐
--------------------------------	------------------------------------	----------------------------------	---------------------------------	------------------------------

iv) Cruise compilations are done by a consultant:

Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A ☐

v) Appraisals are prepared by a consultant:

Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A ☐

vi) Silviculture planning is done by a consultant:

Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A ☐

4) When you (or your consultant) submit a Cutting Permit or Road Permit application to the MOF how do you currently submit it (check all that apply)?

- i) Hard copy (paper) maps (Exhibit A and supporting info). ☐
- Map produced with mapping software ☐
- ii) Hard copy (paper) maps (Exhibit A and supporting info). ☐
- Map produced by sketch mapping ☐
- iii) Digital map (Microstation DGN or Arc shape file) ☐
- iv) XML/GML as per the new e-Submission requirements ☐
- v) Other ☐

5) Silviculture Reporting

When you (or your consultant) submit silviculture reporting information to the MOF, how do you currently submit it (check all that apply)?

- i) Hard copy (paper) map and documentation. Map produced with mapping software ☐
- ii) Hard copy (paper) map and documentation. Map produced by sketch mapping ☐
- iii) Electronic Data Transfer (EDT) ☐
- iv) SHANA Forms ☐

6) Appraisal Submissions

When you (or your consultant) submit appraisals to the MOF, how do you currently submit them (check all that apply)?

- v) Hard copy (paper) map and documentation. Map produced with mapping software ☐
- vi) Hard copy (paper) map and documentation. Map produced by sketch mapping ☐
- vii) Electronic Commerce Appraisal System (ECAS) ☐

7) Comments:

D. Technology

- 1) Do you have access to a computer? Yes ☐ No ☐
- 2) How would you rate your computer skills? (1 is poor, 5 is excellent)
1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
- 3) Do you (or your consultant, if you use one) have Internet access? Yes ☐ No ☐
- 4) If you use a consultant, do they have Internet access? Yes ☐ No ☐ Not sure ☐
- 5) What type of Internet access is available to you or your consultant (check all that apply)?
- High speed (cable/ADSL/satellite) ☐
 - Dial-up ☐
 - None available ☐
 - Not sure ☐
- 6) Do you (or your consultant) use any of the following software (check all that apply):
- ArcView/ ArcGIS ☐
 - Microstation ☐
 - AutoCAD ☐
 - RoadEng ☐
 - Other mapping software ☐
 - MS Access ☐
 - Appraisal software ☐
 - Silviculture data management software ☐
 - Silviculture survey data collection software ☐
 - Not sure ☐
 - Other (describe) ☐
-
- 7) How do you (or your consultant) usually collect data to map boundaries, roads, etc?
- GPS ☐
 - Hand traverse ☐
 - Sketch mapping ☐
 - Other ☐

E. Approaches to e-FM for Woodlots and Community Forests

- 1) Please rank the approach to creating submissions for the ministry that you feel would be the most workable and appropriate method. (1 is first choice, 6 is last choice). If you have ideas of your own, feel free to include those as well.

Ranking:

	Use a qualified service provider (contractor) to produce electronic submissions and submit them to MOF. You would select the service provider and provide them with your data independently of the Federation.
	Utilize a service provided by the Federation to produce electronic submissions. You would provide them with your data, and they would produce and submit the electronic submission.
	Create and submit electronic submissions yourself using a software tool independent of the Federation or a qualified service provider.
	Have a central on-line information management system for woodlots and community forests where silviculture and tenure information would be stored. Tenure holders would be responsible for managing their own data across the web and would be able to create electronic submissions from this data.
	Other (describe):
	No preference at this time.

- 2) Please rank the following in regards to importance to you as a manager of a woodlot or community forest around electronic submissions to the MOF in order of importance (1 is highest priority):

Ranking:

	Quick turn around on submissions
	Cost of creating the submissions
	Quality
	Working with a known, local service provider
	Being able to prepare and send in the submissions myself
	Other (describe):

F. Training Delivery

In anticipation that some training and communication around the selected e-submission process(es) will be required for Woodlot and Community Forest licencees and their consultants, please rank the following potential training delivery methods or provide your own suggestions (1 is first choice):

Ranking

	Training sessions delivered from Regional Centres (Prince George, Kamloops, and Nanaimo).
	Sub-regional training delivered from selected Forest Districts.
	Training documents with available support (help line perhaps).
	On-line training materials/ tutorial.
	Other (describe)

G. Comments

Please provide any feedback you may have regarding this survey, or about FTA, RESULTS, or e-FM.

Appendix C. Glossary of Terms and Acronyms

ESF

Electronic Submission Framework

FBCWA

Federation of BC Woodlot Associations

FRPA

Forest and Range Practices Act

FTA

Forest Tenures Administration (Acronym)

FTE

Full time equivalent

GML

Also see XML below. Geography Markup Language (GML) is a subset of XML that allows for the encoding of geographic information; including both the spatial and non-spatial properties of geographic features.

MOF

Ministry of Forests

MSRM

Ministry of Sustainable Resource Management

RESULTS

Reporting Silviculture Updates and Landstatus Tracking System

XML

Extensible Markup Language (XML) is a computer file standard for documents that contain structured data. It uses a format that is easily readable by both humans and computers and is a standard supported by the W3C, the standards body for the World Wide Web. Many tools are available for authoring, translating and viewing XML documents. Also see GML.

Appendix D. References

Industry Guide to RESULTS. May 1, 2002. Information Management Group, Ministry of Forests.

Industry Guide to FTA. Sept. 24, 2002. Information Management Group, Ministry of Forests.

ESF Website. Available at www.for.gov.bc.ca/his/esf. Information Management Group, Ministry of Forests.

Forest and Range Practices Act January 31, 2004

Woodlot License Planning and Practices Regulation, B.C. Reg. 21/2004, January 31, 2004

Forest Practices Code of BC Act, prior to January 31, 2004

Woodlot License Forest Management Regulation, B.C. Reg. 325/98, September 23, 1998