



MINISTRY OF FORESTS AND RANGE

RESULTS INFORMATION SUBMISSION
SPECIFICATIONS

Government Funded Silviculture Activities



Ministry of Forests and Range



3rd Edition

May 2010

Forward

This document is the third edition of *RESULTS Information Submission Specifications for Government Funded Silviculture Activities (RISS-gf)*. The document was developed in response to questions received by Forest Practices Branch and RESULTS Help Desk staff on how to process submissions for government funded silviculture activities. Some questions with respect to submissions are not yet resolved and future editions of this guide will incorporate further guidance as these outstanding questions are addressed.

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1. Purpose

This guide summarizes requirements for preparing and submitting information pertaining to Ministry of Forests and Range (MFR) funded silviculture activities (treatments and surveys) to RESULTS (*Reporting Silviculture Updates and Land status Tracking System*).

General user and formatting submission specifications, including field definitions, are summarized in the *RESULTS Information Submission Specifications - Licensee Submissions* (RISS-Is) document¹.

- Information on how to use RESULTS is found on the RESULTS website <http://www.for.gov.bc.ca/his/results/>;
- Access to RESULTS is governed by the RESULTS Access Policy <http://www.for.gov.bc.ca/his/results/access.htm#policy>; and,
- RESULTS training material and documentation, including pre-recorded session, are available at <http://www.for.gov.bc.ca/his/results/trainingMaterials.htm>

2. Reporting Timelines

As per FS1001, all government funded activities must be submitted to RESULTS on or before March 31st.

Despite the March 31st deadline for government funded activities, Forest for Tomorrow program must adhere to the following schedule:

- All completed planting activities must be reported into RESULTS by November 30th;
- All remaining completed activities must be reported by February 28th.

3. Application

This guide provides direction to individuals who submit silviculture data to RESULTS as part of a government funded program: 1) in accordance with the *Forest Planning and Practices Regulation* (FPPR), sections 86, 87, and 88; and/or 2) in accordance with MFR contractual agreements. It is the policy of the MFR that areas under MFR responsibility, and not otherwise subject to legislated requirements, are managed in the same way as areas subject to the requirements of the *Forest and Range Practices Act* (FRPA) and associated regulations.

This guide applies to silviculture operations that are subject to MFR program funding including (but not limited to):

1. Forests for Tomorrow (FFT)
2. Forest Investment Account (FIA)
3. Forest Stand Management Fund² (FSMF):
 - a. *MFR-managed non-replaceable forest licences (NRFL)*;
 - b. *Community salvage under community forest agreements*;

¹ At http://www.for.gov.bc.ca/his/results/business.htm#Submission_Specifications

² Using funds collected from the Forest Stand Management Levy.

- c. MFR-managed Small Scale Salvage (SSS³);
 - d. Forestry Licences to Cut [FLTC] with free growing obligations.⁴
4. FRPA s. 108 Applications

4. Introduction

RESULTS tracks silviculture information on the landbase by managing submissions of opening definitions, disturbances, silviculture activities, forest cover and obligation declarations as required by FRPA, FPPR and the *Woodlot Licence Planning and Practices Regulation (WLPRR)*⁵.

RESULTS also tracks managed natural disturbance stands, and any free growing stands that previously had licensee silviculture obligations, under government funded programs.

RESULTS stores the following information:

- Opening definitions;
- Standards units and associated stocking standards;
- Disturbance activities (e.g., harvest, natural disturbance, etc..) and silviculture activities;
- Forest cover and land status summary;
- Milestone declaration (regeneration and free growing);
- SU Modification History;
- Rendered spatial data such as: opening, standard units, disturbance activities, silviculture activities and forest cover;
- Attachments: “mandatory” required information pertinent to the management of the openings.

The information supplied to RESULTS is used to:

1. Calculate statistics that support the provincial annual allowable cut allocations as part of the provincial timber supply review;
2. Report on performance of key outcome indicators in the *MFR Annual Service Plan Report*;
3. Supply statistics for the *BC State of the Forests* report;
4. Update vegetation inventory;
5. Provincial forest cover updates (VRIMS);
6. Monitor licensees for compliance with legal requirements; and,
7. Plan government funded programs (e.g., FIA, FFT).

³ Small scale salvage areas are reported in accordance with these specifications and with the *Post Harvest Reporting Requirements for Small Scale Salvage Forestry Licences to Cut* at:

http://www.for.gov.bc.ca/his/results/business.htm#Small_Scale_Salvage

⁴ Pre-2006 SSS projects are managed under the FFT program:

⁵ See http://www.for.gov.bc.ca/his/results/business.htm#Woodlot_Submissions

5. Access and Support

5.1. Authorization to BC Government Systems

RESULTS and ESF systems are accessed by authorized users with either BCeID or IDIR accounts. In order to be granted access to the RESULTS application, a user requires the completion of two steps:

1. Issuance of a BCeID or IDIR account; and,
2. Application for access to RESULTS (through the RESULTS Online Access Request Service. (“declaration” authorization is the highest level of authority required for reporting under government funded programs)

5.1.1. BCeID or IDIR

1. **BCeID** – an online service for private sector clients to securely access any BCeID participating British Columbia (BC) government web site. To apply for a BCeID account for submissions relating to FIA, FFT, or FSMF programs, see <https://www.bceid.ca/>. BCeID accounts are issued for most RESULTS submissions associated with government funded projects.
2. **IDIR** – accounts are only issued to third party program administrators.

5.1.2. RESULTS Access

After a BCeID or IDIR account is granted, the applicant requests appropriate RESULTS access after reading the MFR policy on RESULTS access, completing any RESULTS training modules relevant to the project, and completing an online access request⁶.

5.2. Support

1. Reference materials are available on the RESULTS web site⁷.
2. RESULTS support service is available on the RESULTS web site⁸.
3. In RESULTS, the **Help** button, located at the top right header of each web page, is specific to each web page and returns a help screen containing topics relevant to the current page. Select any of the hyperlinks on the help screen for more information.
4. New users, after completing RESULTS training modules⁹, should work closely with someone knowledgeable in ESF submissions to try to submit one record successfully before setting up a batch of files (to minimize the occurrence of mass submission failures resulting from systematic coding errors).

6. General Data Specifications

General user and formatting submission specifications are in the RISS-Is. This document specifies additional content requirements and MFR policy applied to submissions related to government funded activities.

⁶ At <http://www.for.gov.bc.ca/his/results/access.htm>

⁷ See <http://www.for.gov.bc.ca/his/results/>

⁸ At <http://www.for.gov.bc.ca/his/results/support.htm>

⁹ Training material, scheduled training and pre-recorded sessions are available at <http://www.for.gov.bc.ca/his/results/trainingMaterials.htm>.

Submission requirements for government funded programs are designed to assist districts and regions in meeting commitments as laid out in the MFR Service Plan and ensure complete and accurate data is available for timber supply review. District staff and MFR project administrators may include additional requirements outside the minimum requirements in this guide.

6.1. Opening Categories and Funding Sources

Opening category codes (Table 1) in RESULTS classify program areas. They are based on combined descriptors of legislative silviculture obligation, disturbance origin and silviculture responsibility. *Funding Source* codes (Table 2) classify funding allocation and may overlap some program areas. Activities funded by different funding sources may occur on the same areas.

Table 1 Opening Category Codes

Code	Description	Notes
EXCLU	Openings excluded from Crown managed forests	
FTFSM	Forest Tenure - Forest Stand Management FPC s.71	Pertains to NRFLs where the free growing obligations have been transferred to the government under the FPC Act s. 71 ¹⁰ .
FTLEVY	Forest Stand Levy under FSM Fund Regulation	Pertains to SSS Forestry License to Cut ¹¹ .
FFTFLTC	Forest for Tomorrow – Forestry License to Cut	Pertains to BCTS Forestry License to Cut (FLTC). Restricted to the FFT program.
FFTITSL	Forest for Tomorrow – Innovative Timber Sale License	Pertains to BCTS Innovative Timber Sale License (ITSL). Restricted to the FFT program.
NDAML	Natural Disturbance - area-based Major Licensee	
NDCF	Natural Disturbance - Community Forest	
NDFS	Natural Disturbance - Forest Service	Non-tenured projects. Includes under-planted stands (no overstorey removal).
NDVML	Natural Disturbance - volume-based Major Licensee	
NDWL	Natural Disturbance - WL License	
NREQ	Areas where SP/SMP's are not required by law	May include tenured openings managed under current government funded programs i.e. FFT and FIA.
P87	Pre-87 areas that are either NSR, or stocked but not necessarily FG	
SPEX	Areas with no reforestation or FG obligations and the area is exempt from a site plan requirement	
UHCF	Unauthorized Harvest – Community Forest	
UHFS	Unauthorized Harvest – Forest Service	

¹⁰ Reference: <http://www.for.gov.bc.ca/tasb/legsregs/archive/fpc/fpcact/part4-4.htm#71>

¹¹ See <http://www.for.gov.bc.ca/hth/timten/documents/sss-silviculture-levies-mar-23-2007.doc>

Table 2 Funding Source Codes

Code	Description	Notes
FIL	Forest Investment Account - Licensee Administered	Applies when FIA land base projects are delivered by a FIA recipient.
FRP	FRPA Application For Relief	Activities funded under FRPA s.108 account until the stand is brought to the same condition it was prior to the damaging event.
FTL	Forests for Tomorrow - Licensee Administered	Activities funded by the FFT program that were carried out by licensees under their FIA recipient agreement.
FTM	Forests for Tomorrow - MFR Administered	Activities funded by the FFT program that were carried out by branch, regions or districts internally or with FFT recipients.
GFS	Forest Stand Management Fund	

6.2. Record Management

6.2.1. Approval

Some government funded program submissions (e.g., amendments, stocking standards) may require District Manager approval. The submitter should notify either the RESULTS Coordinator(s)¹² of the applicable district(s) and/or the MFR Project Administrators after submitting items that require district approval, to ensure these documents are assessed and approved in a timely fashion.

6.2.2. Projects

The RESULTS Projects module allows MFR Project Administrators to track cost and administrative details associated with silviculture projects, prepare contract requirements, and monitor field implementation. Project Administrators and specific standards agreements will specify whether Projects module usage is mandatory for a given project.

6.2.3. Attachments

For attachment specifications refer to the RESULTS ATTACHMENT STANDARD - Government Funded Silviculture Activities - on the RESULTS website http://www.for.gov.bc.ca/his/Results/RESULTS_Attachment_Standard_for_Government_Funded_Programs_20091214.pdf.

6.2.3.1. FFT Additional Information Requirement

- Where an [IRR workbook](#) (ROI) is completed, the workbook must be attached to the opening in RESULTS; and
- All survey activities must include treatment maps showing plot locations and must be supplied in pdf format.

¹² RESULTS Regional and District Contacts http://www.for.gov.bc.ca/his/results/Contact_List.pdf

6.3. RESULTS Data and Mapping Standards

Data and mapping standards are described in:

- **RESULTS Information Submission Specifications – Licensee Submissions:**
http://www.for.gov.bc.ca/his/results/business.htm#Submission_Specifications
- **RESULTS technical specifications:**
<http://www.for.gov.bc.ca/his/results/techDocs.htm>

Professionals who collect and prepare data for RESULTS submissions are expected to be familiar with legal and data requirements and required precision and accuracy standards.

6.4. Reporting to New Opening or an Existing Opening

When field activities are completed, submitters must determine whether they submit to an existing opening or create a new opening in RESULTS.

6.4.1. New Opening

New openings are created under the following scenarios:

6.4.1.1. Non-Tenured Openings

If the completed treatment(s) and/or disturbance(s) spans over several openings and/or unmanaged stands and the area is not under any form of tenure, the submitter creates and reports under a "shell" opening. For previously managed stands that exist in RESULTS submitters may create a shell opening or report to an existing opening as defined in section 6.4.2. Please note that if a shell opening is overlapping an existing free-growing opening or several openings, the free growing opening(s) may be retired.

6.4.1.2. Tenured Openings

When a new tenure is created to complete harvesting activities, a new opening is created and subsequent activities are reported to that opening.

- **Forestry License to Cut (FLTC)**

For all activities conducted on FLTCs under the FFT program, the opening category code FFTFLTC must be used. For FFT surveys and other activities conducted over an area prior to the establishment of an FLTC, activities are reported via existing free growing or new openings.

- **Innovative Timber Sale License (ITSL)**

For reporting activities under ITSL that have a shared responsibility between BCTS and FFT, the procedures are as follow:

- 1) For FFT surveys and other activities conducted over an area **prior to the establishment of an ITSL**, activities are reported via existing free growing or new non-tenured openings (shell openings);
- 2) BCTS initiates the ITSL and disturbance harvesting occurs;

- 3) BCTS tracks the opening and disturbance in GENUS as if they would hold the silviculture liabilities;
- 4) BCTS submits to RESULTS using “**FFTITSL**” - **opening category** and supplies the opening definition, the standard units and associated stocking standards, the disturbance activity and denuded forest cover;
- 5) FFT takes over from here. Any silviculture management activities (surveys, planting, forest cover updates, milestones, etc.) are reported to the FFTITSL opening created by BCTS as laid out in step #4; (FFTITSL is a viewable category and as such, the records will be available for FFT recipients to manage and update)

6.4.2. Existing Opening

If the completed treatment(s) and/or disturbance(s) is entirely contained within the bounds (on the ground) of an existing free growing opening (e.g. FTML) or an opening that is not under silviculture obligations (e.g. P87, NDFS and NREQ), the activity(ies) may be reported to the existing opening. Opening spatial submission and/or update is mandatory on existing openings.

Please note that for post 87 FTML openings that are free growing, forest cover updates and survey activities only are reported. Any other activities requiring undeclaration of milestones and stocking standards modifications must be reported to a new opening (shell opening) as we do NOT undeclare post 87 FTML openings.

7. Opening Definition Submission

Opening definitions must exist in RESULTS before other attributes or spatial data can be submitted to those opening records. Opening spatial submission and/or update is mandatory on all existing and new openings.

7.1. Opening Definition Data Requirements

Please refer to RISS-ls: http://www.for.gov.bc.ca/his/results/RISS_ls_3a_ed_Oct1.pdf

7.2. Changes to Opening Definitions

Occasionally, opening definitions may require changes as a result of changes to the landscape, or as a result of administrative changes (e.g., tenure information). RESULTS accommodates three kinds of changes to openings definitions:

1. **Spatial and Attribute Area Update:** to revise the spatial boundaries and submit area attribute and corresponding spatial amendments to affected openings within and adjacent to a (natural) disturbance.
2. **Remove¹³ (Retire):** to permanently disable the opening from receiving further updates. Allows for a new opening to be superimposed. History associated with the opening is archived. MFR staff with Approve authorisation may retire openings.

¹³ Removed (retired) records are not deleted.

3. **Delete:** to completely delete an opening record from RESULTS. History associated with the opening is permanently removed, and is not archived. Deletions are completed with the assistance of APPHELP staff.

7.3. Encumbrances

Before planning any treatments on new openings, use professional discretion for clearing treatment areas that may conflict with other tenures, previous land investments and/or resource features and contact the title/permit/licence holder when and where applicable.

Encumbrances can be checked in Mapview or in the Integrated Land and Resource Registry¹⁴ (ILRR).

- 1) Silviculture
 - a) Opening
 - b) Forest Cover
 - c) Silviculture Activities
 - i) *MSMA Treated Areas (RESULTS ATU with activity code combination: PC_CG_MSM)
 - ii) *Fertilized Areas (RESULTS ATU with silviculture base coe FE)
- 2) Forest Tenures
 - a) Approved Cutblocks
 - b) Pending Cutblocks
 - c) Approved Cutting Permits
- 3) Range Tenure
- 4) Research Plots
- 5) Trap Lines
- 6) Ungulate Winter Range
- 7) OGMA
- 8) Private Land
- 9) Oil, Gas, and Mineral Rights
- 10) Wildlife Habitat Area

Treatment areas conflicting with other uses/resources as listed above must be resolved before updating a completed or planned activity in RESULTS.

*Monosodium Methanearsenate (MSMA)-treated areas, and areas that have been fertilized may be included in government funded silviculture activity survey projects.

8. Stocking Standards Submission

Stocking standards and Biogeoclimatic Ecosystem Classification (BEC) information are required for openings under MFR responsibility. While these areas have no legal obligations, the objective is to manage them similar to obligated areas under FRPA. This allows the government to satisfy key performance indicators in the MFR service plan. Stocking standards are assigned

¹⁴ At <http://ilmbwww.gov.bc.ca/ilrr/ILRR.htm>

to establish the regeneration and free growing milestones that enable the MFR to monitor reforestation progress.

RESULTS returns an error if a declaration is made against an area that does not have a Standards Unit (SU) assigned to it. When making declarations for areas not previously subject to stocking standards that will not require future treatments (e.g., areas that have been assessed against Return-on-Investment [ROI] criteria), SUs are created through Opening Definition submissions and Stocking Standards Identifications (SSID's) are assigned to the SUs for the purpose of making the declarations. In this case, assign the SUs and SSID's based on the stocking and free-growing survey parameters that were used to make the assessments. If an area is declared stocked or free-growing as a result of ROI criteria, but does not meet the stocking standards in the given SSID, then a comment is added to the declaration stating that no further treatments are planned as a result of the ROI decision process.

Stocking standards are assigned to Standards Units (SUs) in one of two ways¹⁵:

1. PREFERRED METHOD – Provincial Default Standards In accordance with the *Reference Guide for Forest Development Plan Stocking Standards*¹⁶:
http://www.for.gov.bc.ca/ftp/hfp/external/!publish/Stocking%20Standards%20for%20FDPs/Reference_Guide.xls
 - ✓ The appropriate SSID (from the guide) that matches the desired stocking standards may be used for most government funded projects where the stocking standard is primarily based on BEC. Data requirements in Table 3 apply.
2. UNIQUE CIRCUMSTANCES – District-Approved Default or other MFR-Approved Standards
 - ✓ *Individual standards* may be loaded into RESULTS for given SUs in accordance with existing Higher Level Plans, Silviculture Strategies, Forest Management Plans, or recent backlog prescriptions, in consultation with, and under the direction of, district silviculture staff and the MFR contract administrator¹⁷. This may be desirable for stands with management objectives that are not reflected by the SSIDs in the *Reference Guide for Forest Development Plan Stocking Standards*. In this case, the stocking standards are approved by the district manager. Data requirements in Table 4 apply¹⁸.

¹⁵ Stocking standards for government-funded projects are not developed through the *Forest Stewardship Plan Tracking System*, the method used by Licensees to submit Standards IDs that become available for assigning in RESULTS.

¹⁶ At http://www.for.gov.bc.ca/his/results/business.htm#FSP_Procedures

¹⁷ See *FFT Stocking Standards Policy* at <http://forestsfortomorrow.ca/GuidelinesAndStandards/Surveying/Surveying.html>

¹⁸ In this case, newly created Stocking Standards are first submitted to the RESULTS Inbox for MFR district approval before being assigned to an SU in an opening.

8.1. Stocking Standards Data Requirements

Depending on the option chosen to assign stocking standards, Table 3 and Table 4 list mandatory information required for stocking standard submissions. **SU Spatial is mandatory and can only be submitted via ESF.**

Table 3 Minimum Stocking Standard Data Requirements for Site Plan Openings using SSIDs

Data Field	Notes
Opening No, Opening ID, or Timber Mark/Cut Block	
SU	A unique alphanumeric identifier.
Net Area to be Reforested (NAR)	Area in hectares.
BEC fields	BEC zone, subzone, and site series.
SSID	Unique number in the <i>Reference Guide to FDP Stocking Standards</i> ¹⁹ , specific to ecosystems within each region, to which a specific set of stocking standards has been assigned. When entered, all related standards are automatically generated for the defined SU in RESULTS.
Spatial (Map) for areas that will receive treatment	SU boundaries must be provided in spatial submission (via ESF).

Table 4 Minimum Stocking Standard Data Requirements for Silviculture Prescription Openings (no SSIDs)

Data Field	Notes
Opening No, Opening ID, or Timber Mark/Cut Block	
SU	Unique alphanumeric identifier.
Net Area to be Reforested (NAR)	Area in hectares for proposed treatment area
Regen Offset	The end of the period, following the commencement date, by which a stand being established on the NAR must conform to regeneration stocking standards. In RESULTS, this is an offset field called "Regen".
FG Offsets	The end of the period, following the commencement date, by which a stand being established on the NAR must conform to free growing stocking standards. In RESULTS, the offsets fields are referred to as "Early" and "Late".
Preferred Species/Minimum Heights	Preferred species and the minimum heights that must be attained by the preferred species in meters.
Acceptable Species/Minimum Heights	Acceptable species and the minimum heights that must be attained by the acceptable species in meters.
Target Stocking	Target number of trees per hectare of preferred and acceptable species.
Minimum Preferred and Acceptable Stocking	Minimum number of trees per hectare of preferred and acceptable species.
Minimum Preferred Stocking	Minimum number of trees per hectare of preferred species.
Max Conifers (stems/ha)	Maximum allowable stand density of total countable conifers, above which openings must be spaced down to a specified density of well-spaced preferred and/or acceptable stems/ha, to achieve free growing status.
Post Spacing (Min/Max)	Minimum and maximum density of well-spaced preferred and/or acceptable stems/ha to which the stand must be spaced to achieve free growing status.
Minimum Inter-tree Distance	Minimum allowable horizontal distance between trees in meters.

¹⁹ At http://www.for.gov.bc.ca/his/results/business.htm#FSP_Procedures

% Height Above Brush	Required minimum height of the tree above competing vegetation in a 1 meter radius, expressed as a percentage.
Comment	Required where applicable to expand or justify stocking requirements. Select a standards comment type code, then type applicable comment related to stocking standards.
Spatial	SU boundaries must be provided in spatial submission (via ESF).

9. Disturbance and Silviculture Activities Submission

Data requirements are described for four activities: disturbance, surveys, planned treatments, and completed treatments.

Data for planned silviculture activities (treatments and surveys) under government funded programs must be entered in RESULTS by **December 1** to secure adequate project funding for treatments and surveys scheduled for the next fiscal year (beginning April 1).

If RESULTS contains a record for a planned activity (survey or treatment) for which the activity has been completed, then the existing record should be updated with the completed activity information; i.e., update the previously entered planned activity with the relevant completed activity information details.²⁰

Guidance for planning silviculture activities (treatments and surveys) is available²¹.

9.1. Disturbance Data Requirements

Fields in Table 5 are required with disturbance submissions. Disturbance fields not listed in the table are optional. Disturbance submissions are accompanied by forest cover submissions with spatial information. Submit disturbance activities online in RESULTS or through the ESF.

Table 5 Disturbance Activity Data Requirements

Data Field	Notes
Opening No, Opening ID, or Timber Mark/Cut Block	
Disturbance Code	As appropriate: B (burned, wildfire) F (flood) I (slide) P (pest – e.g., beetle) R (rehabilitation) S (salvage) W (wind damage)
Disturbance Start Date	YYYY-MM-DD
Disturbance Completion Date	YYYY-MM-DD
Disturbance Area	In hectares
Silvicultural System	Required for projects that involve harvest activity. e.g., CLEAR, CCRES, SELEC

²⁰ Creating new completed activity records while leaving previously planned activity records unchanged causes errors in budgeting and planning processes.

²¹ At ftp://ftp.for.gov.bc.ca/HIS/external!/publish/OnLineClassroom/Results/Generating_Reports_Planning

Silvicultural Variant	Conditionally required for IMCUT, SEEDT, SELEC, SHELT.
Silvicultural Cut Phase	Required for projects (e.g., salvage) that involve harvest activity. e.g., REMOV, SALV
Spatial (Disturbance Activity)	Forest Cover updates both attributes and spatial, are mandatory with disturbance reporting.

9.2. Surveys (Planned and Completed) Data Requirements

Fields in Table 6 are required with planned or completed survey submissions. Activity fields not listed on the table are optional. Transmit survey submissions online in RESULTS or through the ESF. Forest cover submissions with spatial information accompany completed survey submissions. Accompanying forest cover submissions are transmitted through the ESF.

Table 6 Survey Activity Data Requirements

Data Field	Notes
Opening No, Opening ID, or Timber Mark/Cut Block	
Base	SU
Technique	RE (Reconnaissance) RG (Regen/Stocking) RA (Regen Performance Assessment) FG (Free Growing) FG-FILE (Impeded Stands Data Review) Or other appropriate code relevant to program requirement
Method	RECCE WALK FILE Or other appropriate code relevant to program requirement
Activity Status Indicator (in RESULTS)	Set to "Planned" or "Complete" as appropriate. <i>Some ESF submission software has an Actual Date Indicator instead of an Activity Status indicator. In this case: A "yes" or "no" indicator. Set to "no" if the survey is planned. Set to "yes" if the survey has been completed.</i>
Activity Date (Planned or Completion Date)	YYYY-MM-DD. Date of the planned or completed survey. For ESF submission software that does not have an "Activity Status" indicator: If <i>Actual Date Indicator</i> is set to "no" this the planned commencement date for the survey. If <i>Actual Date Indicator</i> is set to "yes", this is the date on which the survey was completed.
Funding Source	Enter applicable funding source code (Table 2).
Net Area Treated	Areas surveyed, in hectares
Inter-agency No.	FIA or FFT project number listed in FIRS or PINES. Required for completed survey under a FIA or FFT project.
Spatial	Forest Cover updates both attributes and spatial, are mandatory with completed survey activities and optional for planned.

9.3. Planned Treatments Data Requirements

Fields in Table 7 are required with planned treatment submissions²². Transmit planned treatment submissions online in RESULTS or through the ESF²³.

Table 7 Planned Treatment Data Requirements

Data Field	Notes
Opening No, Opening ID, or Timber Mark/Cut Block	
Activity Base	Select appropriate codes for the planned activity(s). At a minimum, include Activity Base.
Activity Technique	
Method	
Activity Status (RESULTS)	Set status to "Planned". <i>(Note: Some ESF submission software has an "Actual Date Indicator" instead of an Activity Status indicator. In this case, for planned data, set Actual Date Indicator to "no".)</i>
Planned Date	YYYY-MM-DD (planned commencement date of activity)
Funding Source	Select appropriate source code (Table 2)
Treated amount	Planned number of hectares proposed to be treated
Planned Cost	Total estimated planned cost (\$). Use estimates provided by funding program.
Spatial	Optional

9.4. Completed Treatments Data Requirements

Fields in Table 8 are required with completed treatment submissions. Activity fields not listed in the table are optional. Transmit completed treatment submissions online in RESULTS or through the ESF²⁴. Forest cover submissions with spatial information accompany completed planting treatment submissions. Accompanying forest cover submissions are transmitted through the ESF.

Table 8 Completed Activity Data Requirements

Field	Data
Opening No, Opening ID, or Timber Mark/Cut Block	
Base	For complete list of valid codes and associated descriptions please refer to the code tables on the RESULTS online technical specification. http://www.for.gov.bc.ca/his/results/webhelp/index.htm
Technique	
Method	
Activity Status (RESULTS)	Set status to "Complete". <i>(Note: Some ESF submission software has an "Actual Date Indicator" instead of an Activity Status indicator. In this case, for activity completion data, set Actual Date Indicator to "yes".)</i>
Activity Completion Date	YYYY-MM-DD (date of activity completion)
Funding Source	Select appropriate source code (Table 2).
Net Area Treated	In hectares

²² Activity fields not listed in Table 7 are optional.

²³ Aerial fertilization activities are transmitted through ESF because of the requirement to include spatial activity maps.

²⁴ Aerial fertilization activities are transmitted through ESF because of the requirement to include spatial activity maps.

Interagency No.	FIA or FFT project number listed in FIRS or PINES. Required for completed treatment under a FIA or FFT project.
Spatial	Forest Cover updates both attributes and spatial, are mandatory with completed activities with the exception of “Danger Tree Assessment and Felling”.

Table 9 Completed Planting Activity – Additional Data Requirements

Field	Data
Species	
Number Planted	
Number Beyond Transfer Limit	
Lot	Seedlot must exist in SPAR ²⁵ and must match the species.

10. Forest Cover and Map Submission

Forest cover updates are required with all government funded programs where a treatment and/or an activity resulted in a change in forest cover attributes and spatial information. All forest cover updates (attributes and spatial) must be submitted via ESF and must include both GML and XML data files (spatial and attributes).

10.1. Polygon Component Data Requirements

All polygons within an opening must be reported with attributes and spatial data, including openings in which only a portion of the opening is treated or surveyed. Polygons, within the opening, that were not surveyed or treated are identified and their locations and attributes are included as part of the submission, along with the reference year (the year to which the attribute information applies; generally the last time the polygon was treated or surveyed). Polygon component fields in Table 10 are required with forest cover submissions.

Table 10 Forest Cover Data Requirements. Even-Aged and Multi-Layer Stands. Polygon Component

Data Field	Notes
SU label	Required only for polygons that are located within an SU.
Polygon ID	
Gross Area	Area of the polygon.
Reference year	Year of survey.
Reserve Type	Group (G) or Dispersed (D) - Required if reserves (long-term or short-term) exist within the polygon.
Reserve Objective	BIO (Biodiversity), WTR (Wildlife Tree Retention), CHR (Cultural Heritage Resource), TIM (Timber Management), VIS (Visual), etc. For complete list of valid codes and associated descriptions please refer to the code tables on the RESULTS online technical specification. http://www.for.gov.bc.ca/his/results/webhelp/index.htm
Site Index	
Site Index Source	Select appropriate code.
Re-entry Year (where applicable)	Year the next harvest entry is expected to occur in a partial-cut opening.
Stocking status	Select appropriate code.
Stocking type	Select appropriate code.

²⁵ See *Seed Planning and Registry System* at <http://www.for.gov.bc.ca/hti/spar/index.htm>

Spatial location of each forest cover polygon (GML)	Load through ESF.
Non-mapped area	Include areas(ha) that are too small to map (less than 0.1ha) and that should be taken out of the productive forest area – NAR – but should be accounted for. Consists of four components: ID, area, stocking status and stocking type (see RISS-Is).

10.2. Even-aged Stands Data Requirements

Inventory component data is required for all even-aged stands (Table 11). Silviculture component data (Table 12) is required for even-aged stands when differences exist between inventory and silviculture forest cover²⁶.

Table 11 Forest Cover Data Requirements. Even-Aged Stands. Inventory Component

Field	Notes
I/S Component	Component=I. Inventory component.
Crown Closure	Crown closure of all the commercial tree species: estimated to the nearest 10%. Required when tree species are entered.
Basal Area	Average cross-sectional area (m ² per hectare) of all tree stems > 12.5 cm diameter at breast height. Not required for even-aged stands, except if prescribed as an even-aged partial cut or intermediate cut. Required for commercial thinning or intermediate cuts where BA is used to assess post-harvest stocking requirements. Required if BA is part of stocking requirements.
Total Stems/ha	Refers to all stems/ha: both crop and non-crop trees.
Species	
Species %	Refers to species composition of total stems/ha – crop and non-crop. Must add to 100% for all species.
Average Species Age	<ul style="list-style-type: none"> • Stocking surveys: average age of the leading species dominant and co-dominant trees; • Free growing surveys: average age of the leading species dominant and co-dominant trees and the average age of the second species dominant and co-dominant trees.
Average Species Height	<ul style="list-style-type: none"> • Stocking surveys: average height of the leading species dominant and co-dominant trees; • Free growing surveys: average height of the leading species dominant and co-dominant trees and the average height of the second species dominant and co-dominant trees.
Damage Agent	Required where stand has been damaged.
% Incidence of Damage Agent	Required if damage agent present.
Area Affected by Damage Agent	Required if damage agent present.

²⁶ Reporting for even-aged inventory and silviculture component data may be combined together into the inventory component report if no significant differences exist between species composition in the silviculture (crop trees) and inventory (all trees) components; that is, if the stand inventory consists almost entirely of preferred and acceptable crop trees. See *Submitting Forest Cover to RESULTS for Openings with Treed Retention* at http://www.for.gov.bc.ca/his/results/business.htm#Submission_Procedures

Table 12 Forest Cover Data Requirements. Even-Aged Stands. Silviculture Component

Field	Notes
I/S Component	Component=S. Silviculture component.
Basal Area	Average cross-sectional area (m ² /ha) of crop tree stems > 12.5 cm diameter at breast height. Not required for even-aged stands, except if prescribed as an even-aged partial cut or intermediate cut. Required for commercial thinning or intermediate cuts where BA is used to assess post-harvest stocking requirements. Required if BA is part of stocking requirements.
Total Well Spaced Stems/ha	
Well Spaced Stems/ha	
Free Growing Stems/ha	
Species	
Species %	Must add to 100% for all species.
Average Species Age	<ul style="list-style-type: none"> • Stocking surveys: average age of all preferred and acceptable well-spaced sample trees; • Free growing surveys: average age of all preferred and acceptable free-growing sample trees.
Average Species Height	<ul style="list-style-type: none"> • Stocking surveys: average height of all preferred and acceptable well-spaced sample trees; • Free growing surveys: average height of all preferred and acceptable free-growing sample trees.
Damage Agent	Required where stand has been damaged.
% Incidence of Damage Agent	Required if damage agent present.
Area Affected by Damage Agent	Required if damage agent present.

10.3. Multi-layer Stands Data Requirements

These specifications apply to forest stands that have more than one tree canopy layer. Four canopy layers are recognized (Table 13): mature, pole, sapling and regeneration.

Table 13 Forest Cover Layers

Layer	Description	Notes
1	Mature Layer – uneven-aged	Uneven-aged stand with trees ≥ 12.5 cm dbh – based on all commercial ²⁷ trees.
2	Pole Layer – uneven-aged	Uneven-aged stand with trees 7.5 cm to 12.49 cm dbh – based on all commercial trees.
3	Sapling Layer – uneven-aged	Uneven-aged stand with trees 1.3 m in height to 7.49 cm dbh – based on all commercial trees.
4	Regeneration Layer – uneven-aged	Uneven-aged stand with trees < 1.3 m in height – based on all commercial trees.
V	Veteran	This term is being phased out. Previously referred to a living remnant of a former stand. Combined crown closure of less than 6%, and at least 40 years older and 10 m taller than the main stand.

²⁷ See FIP Relational Dictionary (p. 140) for description of tree species for forest inventory http://www.for.gov.bc.ca/hts/vridata/standards/datadictionary/rpt_fip_rddv2.pdf

Status and type refer to the cohort layer next in line for harvest in a multi-layer stand – the predominant layer with the highest site occupancy. Site index refers to the leading species in the layer with the highest volume, or the layer which is next to be harvested (could be a pole, sapling or regeneration layer).

Inventory component data is required for multi-layer stands (Table 14). Silviculture component data may be submitted together with the inventory component report for multi-layered stands in which the inventory and silviculture forest cover is not different²⁸. *This is an interim measure to reduce reporting requirements for multi-layer stands, and may be appropriate for some homogenous stands like dry belt Douglas fir. Submitters may continue to report separate components to fulfill specific forest management objectives.*

Follow procedures for Submitting Forest Cover to RESULTS for Openings with Treed Retention²⁹.

General information on multi-layer stands is in the RISS-Is³⁰, the *Silvicultural Systems Handbook for British Columbia*³¹, and the *Stocking in Partial Cut Stands* web site³².

Table 14 Forest Cover Data Requirements. Multi-Layer Stands. Inventory/Silviculture Components

Field	Notes ³³
I/S Component Canopy Layer	Inventory component codes: 1 (mature) 2 (pole) 3 (sapling) 4 (regeneration) Silviculture component codes (where applicable): 1S (silviculture layer 1) 2S (silviculture layer 2) 3S (silviculture layer 3) 4S (silviculture layer 4)
Crown Closure	Inventory component only.
Basal Area	
Total Stems/ha	Inventory component only.
Species	
Species %	
Average Species Age	
Average Species Height	
Damage Agent	
% Incidence of Damage Agent	
Area Affected by Damage Agent	
Total Well Spaced Stems/ha	Where a separate Silviculture Component is not reported, complete these fields only in the I Component. While species composition for preferred and acceptable species is not reported, well-spaced and free growing stems/ha values refer to
Well Spaced Stems/ha	
Free Growing Stems/ha	

²⁸ Reporting for even-aged inventory and silviculture component data may be combined together into the inventory component report if no significant differences exist between species composition in the silviculture (crop trees) and inventory (all trees) components; that is, if the stand inventory consists almost entirely of preferred and acceptable crop trees.

²⁹ At http://www.for.gov.bc.ca/his/results/business.htm#Submission_Procedures

³⁰ At http://www.for.gov.bc.ca/his/results/RISS_Is_3a_ed_Oct1.pdf

³¹ At <http://www.for.gov.bc.ca/hfp/meta/publications.htm#006>

³² At <http://www.for.gov.bc.ca/hfp/silviculture/MPBI/index.htm>

³³ Same field definitions as in Table 11 and Table 12.

densities of preferred and acceptable crop trees only.

11. Declaration Submission

Declarations for openings subject to government funded treatments or surveys are the same as for licence holders. Follow procedures for submitting declarations according to the RISS-ls.

For special cases; for example, areas where lower than expected stocking standards have been applied and the area has been declared free growing, add comments to describe the circumstances and situation justifying the application of lower standards (e.g., ROI rationale).

Fields in Table 15 are required with declaration submissions. Declaration fields not listed in the table are optional. Forest cover and spatial submissions accompany declaration submissions. Transmit completed declaration submissions online in RESULTS or through the ESF. Accompanying forest cover submissions are transmitted through the ESF. Attachments of supporting documentation are submitted online in RESULTS.

Table 15 Declaration Data Requirements:

Field	Data
SU	Standards Unit ID to which the declaration relates.
Declaration type	Enter appropriate code: RG=regeneration FG=free growing
Declared date	YYYY-MM-DD (not necessarily the same as submission date)
Comment	It is recommended to include the name of the Registered Professional Forester who supervised the professional field assessments that support the declaration. Add any additional comments as necessary to explain the declaration or to satisfy contractual requirements..

12. Broadcast Treatments of Large Areas Submissions

In some projects, broadcast treatments are applied over large areas (e.g., fertilization application for timber value improvement, aerial spraying for forest health management regimes). Existing openings, forest cover, or stocking standards may be absent in some of these cases. While each case must be addressed individually, an example is provided for how RESULTS can be used to report the information.

12.1. Example: Aerial Fertilization

The provincial government funds extensive fertilization of stands with good growth potential, to supplement anticipated timber supply shortfalls in some timber supply areas. These treatments are mapped and tracked to monitor the investments.

The new opening submission must have sufficient information to describe the fertilization event, and to determine impacts on higher level plans, silviculture, forest cover, and local issues. Given

that fertilization encompasses extensive areas without immediately affecting forest cover, a special opening designation is created.

All aspects of a fertilization program, from initial pre-treatment project area assessments, to the treatment records, and post-treatment monitoring, are submitted to RESULTS. Broadcast fertilization activity submissions include: opening definition³⁴, initial assessment, immediate and future planned treatments, ground-based fertilization³⁵, completed treatments, post-treatment monitoring, supporting documentation, and related maps.

A report of the pre-treatment fertilization assessment area and map (provides initial assessment of potential fertilization treatment opportunities) minimizes the risk of duplication. This report contains the *entire* assessed area (the areas both eligible and non-eligible for fertilization).³⁶

During the assessment of potential fertilization areas, any candidate fertilization treatment areas that cannot be treated³⁷ in the current year are identified. This preserves the investments made in reviewing these areas and allows for easy identification and efficient deployment of fertilization when funding and resources become available. For candidate sites within an assessed area that are predicted to meet specific criteria within a given number of years, an estimated planned date is submitted for the fertilization treatment. Guidance on a maximum planned date threshold is specified in the associated contract.

Fertilization treatment monitoring plots may be monitored for a period of 5 years after the treatment. Plots are established within the fertilization treatment area, along with control plots in a nearby untreated control area. The control area is commonly identified at the pre-treatment planning stage, and should be identified as a unique Activity Treatment Unit (ATU) (e.g., "no" treatment) for monitoring purposes³⁸. The area comprising the control ATU is included as part of the opening gross area with the opening definition submission. This allows the control area to be identified by silviculture planners so they can avoid scheduling activities in the area during the post-treatment monitoring period. Post-treatment monitoring survey data (both Treated area and control area) is submitted through an activity submission, along with spatial GML showing the location of the treatment and control ATUs. Detailed plot locations³⁹ are submitted as attachments to the activity submission.

Spatial data, in GML format embedded within the XML document, is submitted for all fertilization activities.

³⁴ For shell openings only. Not required for existing openings.

³⁵ Applicable to some areas.

³⁶ Individual prescription areas are not reported here because the results of the activities carried out are reflected in either planned and/or completed fertilization accomplishment reporting.

³⁷ Due to constraints, for any current year's fertilization program, in time, resources or finances.

³⁸ If not identified on the map as a separate ATU, then the attached supporting documentation must clearly identify where the treated area is in relation to the untreated area. Control areas must be identifiable during encumbrance checks. Designating them as "non-treated" ATU will ensure that they are easily identified.

³⁹ Plot locations must be submitted as attachments to allow surveyors to find them when plots are re-measured in 5 years. Treatment and Control ATUs each have 100 trees, scattered among plots, and each tree is re-measured at the conclusion of the monitoring period.

Licensees with area-based tenures are not required to complete the fertilization assessment area and future planning reporting requirements. Assessed fertilization areas, future planned fertilization areas, and other required documents (e.g., prescriptions, survey work, etc.) may be retained in a paper-based or local electronic format at the licensee’s office. This information is made available to MFR staff or fertilization program administrators, if requested. RESULTS fertilization accomplishment reporting remains a mandatory requirement.

Documentation associated with fertilization treatments and assessments (e.g., survey documents and treatment prescriptions, including field records) are submitted to RESULTS.⁴⁰ See Section 12.4.

12.2. Fertilization Activity Submission to RESULTS

Fields in Table 16 are required with fertilization treatment activity submissions to RESULTS. Additional information may be required by some districts.

Table 16 Data Requirements for Broadcast Fertilization of Extensive Areas

Field	Details
<i>Opening Definition (shell openings only)</i>	
Mapsheet Number	
Opening ID	Automatically generated by RESULTS upon submission.
Opening Category	NREQ (Areas where SP/SMP not required)
Opening Gross Area	Include the untreated area that will be designated as the Control ATU for post-treatment monitoring.
Approval Date	Fertilization application date (YYYY-MM-DD)
Opening Status	IDIR Users: Set to "FG" BCeID Users: Set to "APP" and contact District RESULTS Coordinator with request to reset Opening Status to "FG".
TSB (Timber Supply Block)	Select as appropriate to assist with reporting.
Previous Stand Type	<optional or leave blank>
Previous Species1 Code	<optional or leave blank>
Previous Species2	<optional or leave blank>
Previous Age Class	<optional or leave blank>
Previous Height Class	<optional or leave blank>
Previous Stock Class	<optional or leave blank>
Previous Site Index Code	<optional or leave blank>
Previous Site Index Source	<optional or leave blank>
<i>Survey Activity (pre-treatment)</i>	<i>Fertilizer Pre-treatment Assessment with map</i>
Base	SU (Survey)

⁴⁰ Historically, documentation has been sent to a district office and/or retained at the recipient’s office. These documents are not easily retrievable for anyone outside of the district office.

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Field	Details
Technique	FE (Fertilization)
Method	PHOTO (Air Photo Interpretation) PLOT (Plots) WALK (Walkthrough) HELI (Helicopter)
Objective	FE (Fertilization)
Funding Source	FTL (Forest for Tomorrow Licensee administered) FTM (Forest for Tomorrow Ministry administered) FIL (Forest Investment Account Licensee Administered) Other eligible funding source
Completion Date	YYYY-MM-DD
Area Treated	Total surveyed area reviewed for fertilization treatment
Inter-agency No	FIA or FFT project number listed in FIRS or PINES. Required for completed projects under a FIA or FFT project.
Project No ⁴¹	Format derived from RESULTS: (eg. BR2007DSI001)
Activity Map (GML)	Supply GML exterior outline of fertilized area.
Comments or Attachments	Can attach details regarding survey assessments, GPS etc. Attachment file size limit is 1 Megabyte
<i>Planned Treatment Activity</i>	
<i>Immediate or Future Planned Fertiliser Treatment</i>	
Base	FE (Fertilization)
Technique	CA (Chemical Air)
Method	FIXED (Fixed Wing) or HELI (Helicopter)
Objective	FE (Fertilization)
Funding Source	FTL (Forest for Tomorrow Licensee administered) FTM (Forest for Tomorrow Ministry administered) FIL (Forest Investment Account Licensee Administered) Other eligible funding source
Planned Date	YYYY-MM-DD
Planned Area	Total planned eligible fertilization treatable area(s)
Inter-agency No	FIA or FFT project number listed in FIRS or PINES. Required for completed projects under a FIA or FFT project.
Project No ⁴²	Format derived from RESULTS: (eg. BR2007DSI001)
Activity Map (GML)	Supply GML exterior location(s) planned eligible fertilization treatment area.
Comments or Attachments	Can attach details regarding future fertilization stands including differences noted in species composition from current inventory lead species, GPS etc. Attachment file size limit is 1 Megabytes
<i>Completed Treatment Activity</i>	
<i>Completed Aerial Fertilizer Treatment</i>	
Base	FE (Fertilization)
Technique	CA (chemical Air)
Method	FIXED (Fixed Wing) or HELI (Helicopter)
Funding Source	FTL (Forests for Tomorrow Licensee administered) FTM (Forests for Tomorrow Ministry administered) Other eligible funding source
Completion Date	YYYY-MM-DD

⁴¹ Only applicable if Project Module within RESULTS is required by the Project Administrator.

⁴² Only applicable if Project Module within RESULTS is required by the Project Administrator.

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Field	Details
Area Treated	Total fertilization coverage area in hectares
Inter Agency No	FIA or FFT project number listed in FIRS or PINES. Required for completed projects under a FIA or FFT project.
Activity Map (GML)	GML exterior outline of coverage required. Internal swath line work not required.
Comments or Attachments	Can attach details regarding type/concentration of fertilizer applied, GPS, etc... Attachment file size limit is 1 Megabytes.
Completed Treatment Activity	Completed Ground-based Fertiliser Treatment (excluding at-time-of-planting fertilizers)
Base	FE (Fertilization)
Technique	CG (Chemical Ground)
Method	BPACK (Backpack Application) GRANU (Granular Application) VMSGH (Vehicle Mount Sprayer (Gun and Hose))
Objective	NUT (Forest Nutrient Improvement)
Funding Source	FTL (Forest for Tomorrow Licensee administered) FTM (Forest for Tomorrow Ministry administered) FIL (Forest Investment Account Licensee Administered) Other eligible funding source
Completion Date	YYYY-MM-DD
Area Treated	Total fertilization coverage area in hectares
Inter-agency No	FIA or FFT project number listed in FIRS or PINES. Required for completed projects under a FIA or FFT project.
Project No ⁴³	Format derived from RESULTS: (eg. BR2007DSI001)
Activity Map (GML)	Supply GML exterior outline of surveyed area.
Comments or Attachments	Can attach details regarding type/concentration of fertilizer applied, GPS, etc.
Survey Activity (post-treatment)	Fertilizer Post-treatment Assessment with map (separate ATUs designated for treated and control areas)
Base	SU (Survey) or AU (Audit) – as appropriate
Technique	FE (Fertilization)
Method	PLOT ⁴⁴ (Plots) <i>PHOTO (Air Photo Interpretation)</i> <i>WALK (Walkthrough)</i> <i>HELI (Helicopter)</i>
Objective	FE (Fertilization)
Funding Source	FTL (Forest for Tomorrow Licensee administered) FTM (Forest for Tomorrow Ministry administered) FIL (Forest Investment Account Licensee Administered) Other eligible funding source
Completion Date	YYYY-MM-DD
Area Treated	Total surveyed area monitored for fertilization treatment (control areas and plots)
Inter-agency No	FIA or FFT project number listed in FIRS or PINES. Required for completed projects under a FIA or FFT project.
Project No ⁴⁵	Format derived from RESULTS: (eg. BR2007DSI001)
Activity Map (GML)	Supply GML exterior outline of surveyed area (areas within which plots are located, including control areas). Separate ATU for control and treated areas.

⁴³ Only applicable if Project Module within RESULTS is required by the Project Administrator.

⁴⁴ At this time, only PLOT monitoring is funded by the ministry.

⁴⁵ Only applicable if Project Module within RESULTS is required by the Project Administrator.

Field	Details
Comments or Attachments	Attach details regarding survey assessments, survey data, detailed plot locations, GPS etc. Attachment file size limit is 1 Megabytes per attachment.
Standards Unit	
n/a	Not required. "SPEX" opening category removes requirement for SU information.
Forest Cover	
n/a	Not required. Spatial ATU maps provide for identification of these areas.

12.3. Reporting by Existing versus "Shell" Openings

A fertilization treatment may overlap existing openings (Figure 3). Two reporting options may be considered: 1): Report to individual existing openings; or, 2) Create a "shell" opening that overlaps existing openings.

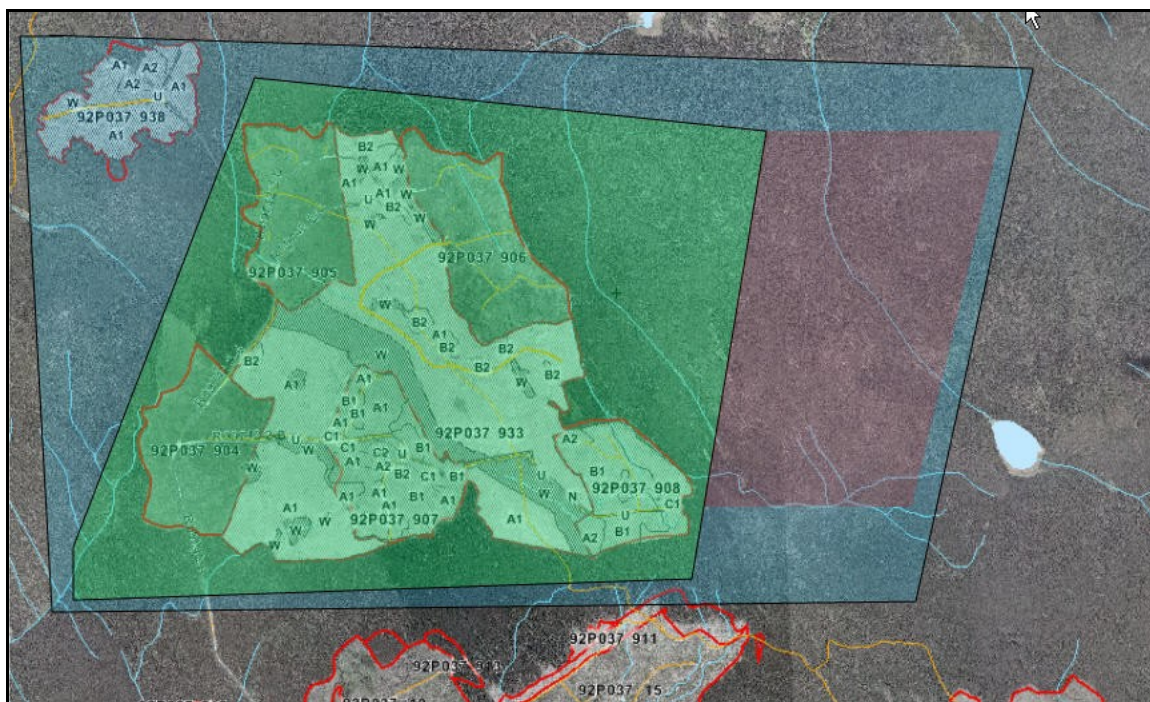


Figure 1 Fertilization Treatment Overlapping Existing Openings

Option 1: Individual openings

Reporting by individual openings allows specific treatments to be tracked within each opening so that full historical context is retained within the individual opening records (Figure 2). Increased work is required to split the areas (attribute and spatial) to conform to each of the opening boundaries. A shell opening is created to report any adjacent, remaining project area outside of the existing opening(s), including control areas.

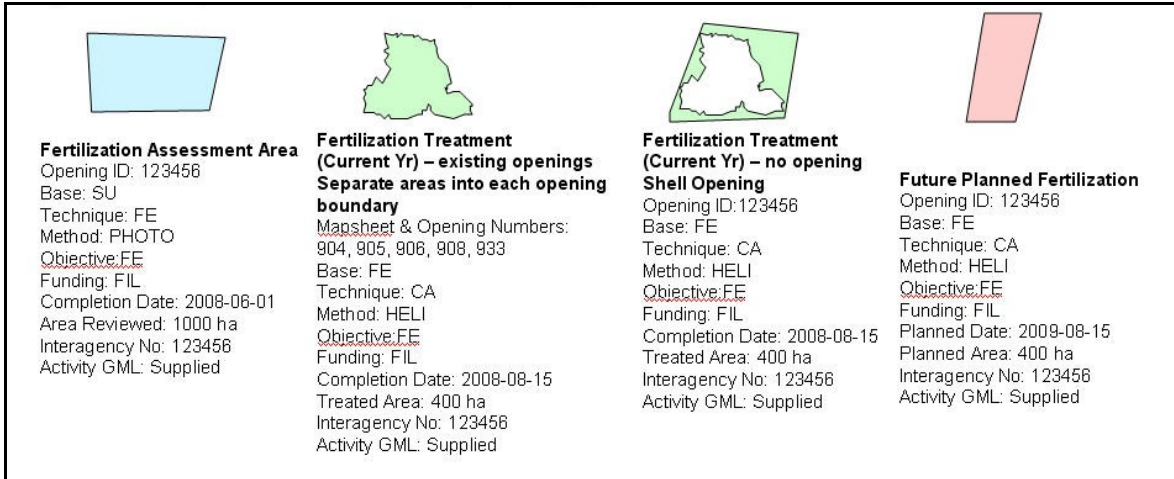


Figure 2 Option 1: Separate Submission by Openings

Option 2: "Shell" openings

Reporting by a "shell" opening allows for complete coverage of the entire assessed, treated, control, and planned area in one record (Figure 3). This method may simplify reporting because only fertilization related work, activity information and maps are submitted, and RESULTS allows for submission of multi-part polygons. A shell opening should fit within a resolution unit such as by drainage or landscape unit so that the areas can be reviewed using existing MFR mapping viewing tools (eg. Mapview or iMap).

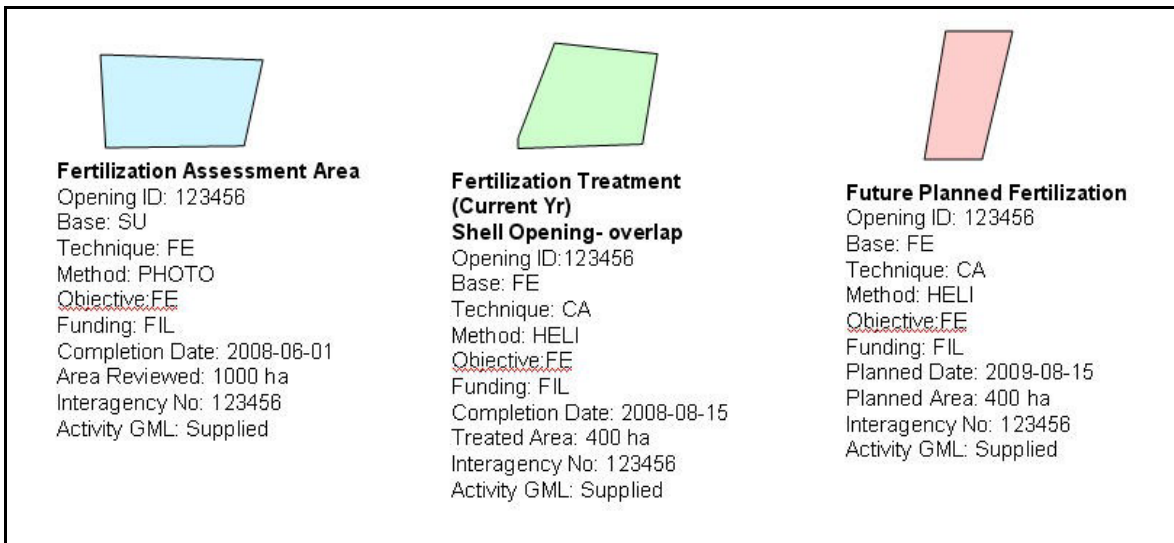


Figure 3 Option 2: Overlap Shell Opening Over Existing Openings and Applicable Adjacent Areas

12.4. Supporting documentation for aerial fertilization projects

RESULTS attachment option allows district staff or recipients to attach project documentation associated with the treatment, pre-treatment assessment activity reports, or post-treatment

monitoring assessment report. For specific file types, format and size please refer to the attachment standard on the RESULTS website: <http://www.for.gov.bc.ca/his/results/>

13. Data Discrepancies

13.1. RESULTS Data Discrepancy Resolution Protocol

When data inconsistencies are found, forest professionals should contact the custodians of the data (e.g., licensees and/or district office for licensee-responsibility openings; district office for government-responsibility openings) to report their findings, so that the custodians can check and correct the data if required. Guidance on reporting and resolving discrepant data is in the *RESULTS Data Discrepancy Resolution Protocol*:

http://www.for.gov.bc.ca/his/results/business.htm#Quality_Assurance

14. FRPA Section 108 Application

If an event causing damage (e.g., fire, landslide, or flood) that meets the requirements of FRPA s 108 and FPPR s 96 has affected an area, FRPA s. 108 may provide funding or relief of obligation. Before submitting a FRPA s. 108 application, submit a disturbance report identifying the disturbance event (including spatial location). Include a description of the event and the cutblock/opening showing the affected area, along with a forest cover report.

14.1. Disturbance Section (Mandatory)

RESULTS references any disturbance history associated with the opening requested. (*To qualify for s.108, the disturbance event must occur after December 17, 2002*). Once the disturbance event is selected, the information is auto-filled. If no disturbance record after December 17, 2002 exists, load a disturbance submission (online or through the ESF) to RESULTS before continuing with the on-line application.

14.2. Forest Cover Observation Dates Section (Mandatory)

Forest Cover Observation Dates describes the forest condition prior to the event and the most recent forest cover after the damaging event demonstrating the current forest condition leading to the FRPA s.108 request. Hyperlinks are available to view the detailed forest cover associated with each event.

RESULTS automatically loads the most recent forest cover submission. To complete the application, submit a new forest cover report, that describes the post-catastrophic event stand condition, through the ESF (full forest cover spatial and attributes are required).

14.3. Planned Activity Regime (Mandatory only for Funding Request)

More than one activity can be listed per opening. The request may be comprised of the activities that would be required to establish the stand condition that existed immediately preceding to the catastrophic event.

14.4. Eligibility and Authorization (Mandatory)

Check the applicable eligibility box(s) and confirm authorization to complete the s.108 request. Contact the district RESULTS Coordinator (or designated district contact if known) to let him/her know that a FRPA s. 108 application is awaiting processing in the District RESULTS InBox.

15. FFT Quality Assurance Monitoring

- The recipient or the service provider submitting on behalf of the recipient must notify the FFT QA contractor when the FFT data has been submitted to RESULTS. This must be done by the applicable reporting deadline as outlined in section 2;
- The recipient is responsible for any required updates identified by the QA process;
- Service Providers submitting on behalf of RAH must clearly identify the client they are working for when submitting to QA;
- The recipient may designate the service provider to address specific data quality issues as required, however the recipient is still responsible for the RESULTS data.