

General Requirements

RESULTS

Standards Unit Legislative View

Prepared by Mei-Ching Tsoi
Prepared for Ralph Winter, Resources Practices Branch

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Opening Standards Unit Legislative Cross Reference View – General Requirements

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1. Background

RESULTS is used to track non-legal and legal silviculture obligations on openings. In past, RESULTS primarily covered three legislative frameworks: pre-1987/88 (backlog), pre-FPC and FPC. Over the last four years, there have been two additional legislative changes, FSP Transitional and FRPA. In addition, there has been the creation of the Forest Stewardship Plan Tracking System (FSPTS) designed to track FSPs, amendment processes, and references FSP's stocking standards that RESULTS refers to.

Currently, there is no ability to quickly identify and report which legislation authority. Also, FSP IDs are not submitted with CP nor RESULTS submissions. There is no desire to change ESF schemas to limit impact to licensees. Therefore MFLNRO needs to come up with an internal solution to infer the required legislation framework and FSP ID references. Users would have to infer through a number of data elements to determine which legislation a given SU belongs to which is time-consuming as it is on an individual record-by-record basis, error-prone as there are numerous nuances, and not sharable for other end-uses such as reporting or reference by other MFLNRO applications.

2. Objectives

To create a new view that provides core set of data that describes legislation framework and key indicators of stocking standards modifications.

- Identify which legislative framework a standards units (SU) is authorized under.
- Identify which FSP a SU is authorized under, where applicable.
- Identify any key SU modification processes, where applicable.
- Identify those cutblocks/SUs that are included into a FSP under s.197.

3. Requirements

- Build a new view that can be used by multiple applications to report legislative and FSP ID context.
- Provide initial logic will require district confirmation to ensure that logic is robust due to complexity of historical data, local-specific processes and current business rules on the usage/sharing of similar stocking standards IDs (SSIDs); this serves as a QA process of logic prior to building technical specifications.
- Ensure that the new view will built in MOF Oracle environment and copied over to the LRDW to enable access by other resource-based users as all spatial data analysis is extracting data via LRDW.
- Once the view is built, this information can be accessed as enhancements for RESULTS or other applications and reports to display new fields generated by the view.

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4. Challenges

The process must use RESULTS's data fields to derive legislative framework information and link to specific FSP, where applicable. The accuracy of this process is based on the understanding of legislation as translated into data standards and entry processes. While the legislation interpretation piece may appear straight forward, how this is typically applied in the data management world is not always consistent due to:

- potential differences in interpretation of legislation to system's data management practices;
- time lag for the optimized system's implementation and current operational reality for potential interim/"make-shift" solution(s);
- data entry errors caused by submitters; and/or,
- potential for lack of standards for data management/entry practices.

Given this reality, the logic constructed should be reviewed with district to ensure that the interpretation to create the view is tempered and confirmed through local knowledge.

As a part of the verification of the prototype logic, participation and comments were received by Barb Wadey (DCO) , Paul Barolet (DNI), Ron Tetrault (DPG) to enable verify logic correctness – as

4.1 SSID Assignment to FSPs

Stocking standards approvals are done through Forest Stewardship Plans (FSP). These approved standards have unique "SSIDs" that are linked to a given FSP. Flexibility is offered in the FSP application that enables challenges for explicit reference in RESULTS. The challenge stems from that a FSP SSID may belong to:

- multiple districts;
- multiple clients/licensees;
- may be the same SSID number that belonged to a pre-existing FDP SSIDs but approved under current FSP;
- may be a SSIDs used by other FSP(s) but approved current FSP; and/or
- may be the a SSID number that belonged to a MOF's default SSIDs but approved under FSP. There is currently MOF defaults that belong to 11 FSPs.

Forest Stewardship Plan Tracking System (FSPTS) contains the tables that track the approved SSIDs that belong to FSP.

Upon harvest completion, licensees are required to supply a RESULTS opening definition describes the tenure identification, opening details, standards units (SUs) with SSIDs to describe the applied stocking standards. Licensees do not supply any FSP identification information with the opening definition nor with the cutting permit application. Main assumption is that licensees are correctly assigning the appropriate SS ID to reflect the authorization by which the cutblock is logged under. The ability to derive the FRPA linkage will be based on this correct assignment.

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The flexibility offered in the usage/sharing of pre-existing FSP stocking standards has made reporting difficult as there has to be multiple references client and organizational units to reference explicated that a given SSId belongs to which FSP.

Category	SS Ids	SU
Total SS Ids	49,058	-
SS Ids associated with Openings	7,530	74,275
SS ID Ministry Defaults	1,174	25,246
Total SS IDs in FSP	27,292	
FSP SS IDs associated with Openings	2,408	25,435
SS IDs Ministry Defaults in FSP	225	3,880
SS ID > 1 FSP (MOF Defaults)	802	4,091

4.2 s.197 Application of FPC cutblocks into FSP

Legislation enables licensees to apply FPC-cutblocks into FSP standards, if authorized under s.197. As of release 4.2, s197 SU Event Code functionality tracks the conversion of FPC-cutblocks authorized under s.197. Only those cutblocks which uses RESULTS's conversion process can be identified in this view. In other words, other non-systemize process will not show up as s197 conversion.

4.2.1 Pre-FRPA Silviculture Prescription to FSP

Licensees who wants to reflect these s.197 authorized opening/cutblocks to new FSP standards are currently using a "Major Amendment" as an interim solution within RESULTS to assign to the new FSP with comment notation in the rationale that the amendment is in fact related to s197 application. This not preferred as the FSP has already been approved for specific list of opening/cutblocks and so that licensees should not need to undergo a "Major Amendment" which requires an approval process. The new SU Event Code for s197 exists and will be used to identify these. However, there is no mining to attempt to identify s197 completed under an amendment process.

No "mining" of the comments is done, so it will be difficult to confirm accuracy of this logic if there is inadvertent use of FSP SS ID where in appropriate to do so.

4.2.2 Pre-FRPA Site Plan to FSPs

FDP site plans may be converted to FSP standards under s197. Only those which have used the SU Event Code s197 process will be identified in the view.

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5. Out of Scope

5.1 FSPTS Usage of FRPA s197 Election Indicator

FSPTS has a “FRPA s.197 Election Indicator” on the FSP300-Information Screen. Based on the FSP Tracking Communique 6a, “In release 1.3 of the FSP Tracking System, users can indicate that they are making an election under FRPA section 197...The selection of the check box can be done on the original FSP or in an amendment not requiring approval. Once the check box is selected, it indicates the section 197 election applies to the FSP and all amendments. The check box does not need to be reset for future amendments.”

Key points on the usage of the FRPA s.197 Elections for Stocking Standard is:

- indicator at the FSP level, it does not provide specific details of which cutblocks that application is authorized under for RESULTS to cross-reference to enable the view to reference explicated to the SU;
- It appears this is an optional field and does not imply mandatory usage where required, as such, this be prone to reporting omissions (eg. for “Y”, FSP will have s197 election, while “N” a FSP may or may not have s197 election); and,
- The field occurred in subsequent FSPTS releases and therefore it is difficult to determine its accuracy for those licensees who has s197 but has not undergone any amendments to update this indicator.

Reference:

http://www.for.gov.bc.ca/ftp/his/external!/publish/fsp/communiques/FSP_Release_1_3_Communique_06a.pdf

5.2 Non-Standardize Practices

The development of this view’s logic is based on agreed-upon standardize practices on how certain business process are reflected in RESULTS and FSPTS as defined by Headquarters’ experts and confirmed by district. If there are district non-standard workarounds, they cannot be included as this would impractical build to the already complex logic.

5.3 Cannot “Mine” Comments to Create View’s Attributes

In some cases, instructions have given to use RESULTS “Rationale” or “Comments” to highlight special circumstances for specific processes (eg. s197 in the rationale when a major amendment is taking place to convert silv prescription over the FRPA standard). The logic for the view can only be based upon specific existence of data fields and cannot be based on bits of text from the rationale/comments. If a specific process such as adding/changing the data element took place that is consistent to a standardize business practice, then the logic will be able to extract that required information to make a determination. This process is based on data elements and not based on text review.

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5.4 FSP's s196 Declared Areas

RESULTS does not have any ability to identify if an area is under a FSP s.196 Declared Area.

5.5 New/Replacement and Extension of FSPs

Current discussions are taking place regarding on the management of the new second generation of FSPs (replacement of pending retired one's) or providing provisions to extend existing FSPs. This view does not consider these new business processes and should be reviewed later when there is more clarity on how this process will take place as it will have an impact on the ability to track new FSPs that continue to use pre-existing SSIDs.

5.6 FRPA Transfer of s29.1 & s.30

Under s.29.1 & 30, there are provisions to allow for 3rd party's managing silviculture liabilities who did not originally harvested the cutblock. While the clarification is being sought regarding subsequent 3rd party's ability to amend these cutblocks and which SSIDs they should or should not use, in the end, the view can only use and reference those SSIDs that a SU is assigned to make determination of which FSP the opening belongs to. Other processes will dictate the rules behind legal usage of FSP's SSID under these transfers and this view follows system's logic rules.

5.7 Licensee's Mergers and Acquisitions

As the forest sector undergoes substantial changes, undoubtedly, there will be mergers and acquisitions. In this process, an existing FRPA opening/SU has specific stocking standards that was specific to a given FSP that belong to a specific client. When these openings are transferred to new company, it is unknown how these pre-existing SU/SSIDs will be managed. While these questions will have to be discussed at the policy level, the outcome is that the view logic dependant on current rules of which SSIDs is link to which client and organization unit in the FSPTS. It is up to the rules policy governing usage of FSP's SS ID, client and organizational unit that will set the tone of whether the view will be robust for these type of changes.

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6. Data Quality

Licenses assign their SSIDs to SUs for their openings and also uses whatever online/ESF processes to make any SU modifications. Only Silviculture Prescriptions Major Amendment require District Manager’s approval. No extensive review has been done to determine whether SSIDs have been assigned appropriately. The view’s logic will follow business flow while other process will have to review the appropriateness of assignment of SSIDs. Sample of cases include:

- conversion of silviculture prescription to site plan under major amendment under FDP
- conversion of silviculture prescription to site plan under FRPA s.197;
- conversion of FRPA transitional site plan to FRPA site plan under FRPA s.197;
- application of the correct stocking standards.

7. Data Dependency

Key data elements and source tables required for the view are:

Application	Tables	Field
RESULTS	V_OPENING_TENURE	FOREST_FILE_ID
	V_OPENING_TENURE	CUTTING_PERMIT_ID
	V_OPENING_TENURE	CLIENT_NUMBER
	V_OPENING_TENURE	ORG_UNIT_NO
	STOCKING_STANDARD_UNIT	STANDARDS_REGIME_ID
	STANDARDS_REGIME	STANDARDS_REGIME_ID
	STANDARDS_REGIME	STANDARDS_REGIME_STATUS_CODE
	STANDARDS_REGIME	MOF_DEFAULT_STANDARDS_IND
FTA	HARVEST_AUTHORITY	FOREST_FILE_ID
	HARVEST_AUTHORITY	CUTTING_PERMIT_ID
	HARVEST_AUTHORITY	ISSUE_DATE (CP issue/start date)
FSP	FOREST_STEWARDSHIP_PLAN	FSP_ID
	FOREST_STEWARDSHIP_PLAN	FSP_AMENDMENT_NUMBER
	FOREST_STEWARDSHIP_PLAN	PLAN_START_DATE
	FOREST_STEWARDSHIP_PLAN	FRPA197_ELECTION_IND
	FSP_AGREEMENT_HOLDER	FSP_ID
	FSP_AGREEMENT_HOLDER	FSP_AMENDMENT_NUMBER
	FSP_AGREEMENT_HOLDER	CLIENT_NUMBER
	FSP_ORG_UNIT	FSP_ID
	FSP_ORG_UNIT	FSP_AMENDMENT_NUMBER
	FSP_ORG_UNIT	ORG_UNIT
	FSP_STANDARDS_REGIME_XREF	FSP_ID
	FSP_STANDARDS_REGIME_XREF	FSP_AMENDMENT_NUMBER
	FSP_STANDARDS_REGIME_XREF	STANDARDS_REGIME_ID

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8. View Refresh Requirements

Proposal is to have the view refresh once a day.

Limitation is that new openings/SUs, SU modifications, and deletions will not be reflected until next 24 hour refresh.

9. Business Justification and Sample Usage of New View

Multiple business areas have already communicated a need to be able to report by legislative framework and by FSP but currently lack easy ability to do so.

9.1 Governance & Stewardship

There is a need to be able to monitor how much harvesting is taken place by FSP. While the FSPTS contains FSP/Licence Linkage via FSP_FDU_LICENCE table and can track licences and cutting permits issued by FSP, this table does not reflect actual harvesting.

Actual harvesting is reported into RESULTS but with no direct linkage by FSP. SU information is provided with SSId linkage. The linkage to FSP is implied through use of SS ID and must be tracked back to FSPTS to determine the reference to the specific FSP.

As FSPs can overlap, there will be desire to monitor cumulative effects of harvesting on the land base under FRPA framework. This view will improve ease of reporting harvesting activities by legislative framework and by FSPs.

9.2 FREP

FREP business area has expressed need to be able to easily differentiate between FPC vs. FRPA openings. The FREP application and reporting currently uses RESULTS data and can take advantage of enhancing their reports to be able to differentiate legislative framework and specific FSP reference.

9.3 Compliance & Enforcement

C&E staff uses RESULTS to generate baseline openings/standard's critical milestones. In the process of the monitoring and inspection, they will need to know which legislation an opening is harvested under, if it is a FRPA opening, which FSP so they refer to FSP documentation, if required. Once the view is built, the RESULTS application & all key reports will take advantage of the FSP reference so there is no manual inference of FSP ID which time consuming.

RESULTS currently has FSP ID reference on Stocking Standards Screen but is not accurate as it potentially could display multiple FSP IDs if the same SSId is used by different FSPs.

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9.4 Spatial linkage

FSPs contain Forest Development Units that are spatially mapped and stored in the FSPTS and copied to the LRDW. There will be a number of spatial-based questions that will emerge such as:

- what are the cumulative impacts of FSPs as FSPs are allowed to overlap;
- are the openings/cutblocks logged within the identified FDUs
- where are the s197 cutblocks within FSP's FDU; and/or,
- ability to reference FSP's cutblock/openings to FSP to determine achievement of specific FSP strategies and objective.

While openings will have spatial information, having the FSP Id reference will enable the ability to associated harvesting and reforestation practices associated to specific FSP.

FSPs and FDUs boundaries are tracked by FSPTS. While a FSP's FDU have explicit licence reference, there is no easy way of ensuring that harvesting had occurred within the intended FDU. The ability to reference the opening/cutblock to FSP ID will enable the potential to perform spatial queries and analyses at the FDU level.

10. Proposed View

Note that the RESULTS Views are used for this document. Technical leads will have to decide whether raw table should be used instead.

10.1 Source Tables used to Derive View

Tables	Application
FSP_AGREEMENT_HOLDER	FSPTS
FSP_ORG_UNIT	FSPTS
FSP_STANDARSD_REGIME_XREF	FSPTS
STANDARDS_REGIME	FSPTS/RESULTS
HARVEST_AUTHORITY	FTA
V_OPENING_TENURE	RESULTS
STOCKING_STANDARD_UNIT	RESULTS
RESULTS_AUDIT_EVENT	RESULTS
V_STOCKING_MILESTONE	RESULTS

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10.2 Content for New View:

V_OPENING_STANDARDS_UNIT_LEGISLATIVE_XREF

View Fields	Source
OPENING_ID	RESULTS (View)
STOCKING_STANDARDS_UNIT_ID	
ORG_UNIT_CODE	RESULTS (View)
ADMIN_DISTRICT_NO	RESULTS (View)
FSP_ID1 ¹	FSPTS
FSP_ID2 ¹	FSPTS
FSP_ID3 ¹	FSPTS
FSP_NUMBER ²	Derived
FSP_AMENDMENT_NUMBER1 ³	FSPTS
FSP_AMENDMENT_NUMBER2 ³	FSPTS
FSP_AMENDMENT_NUMBER3 ³	FSPTS
FSP_PLAN_NAME1 ⁴	FSPTS
FSP_PLAN_NAME2 ⁴	FSPTS
FSP_PLAN_NAME3 ⁴	FSPTS
FSP_STATUS_CODE1 ⁵	FSPTS
FSP_STATUS_CODE2 ⁵	FSPTS
FSP_STATUS_CODE3 ⁵	FSPTS
PLAN_START_DATE1 ⁶	FSPTS
PLAN_START_DATE2 ⁶	FSPTS
PLAN_START_DATE3 ⁶	FSPTS
PLAN_END_DATE ⁷	
PLAN_END_DATE ⁷	
PLAN_END_DATE ⁷	
CLIENT_NUMBER	RESULTS (View)
CLIENT_NAME	RESULTS (View)
MGMT_UNIT_ID	RESULTS (View) – derived from FTA
MGMT_UNIT_TYPE	RESULTS (View) – derived from FTA
FOREST_FILE_ID	RESULTS (View based on Prime)
CUTTING_PERMIT_ID	RESULTS (View based on Prime)
TIMBER_MARK	RESULTS (View based on Prime)
CUT_BLOCK_ID	RESULTS (View based on Prime)
FILE_TYPE_CODE	RESULTS (View based on Prime)
BCTS_ORG_UNIT_CODE	RESULTS (View based on Prime)
BCTS_FUND_IND	RESULTS (View based on Prime)

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STANDARDS_UNIT_ID	RESULTS
STOCKING_STANDARDS_ID	RESULTS
STANDARDS_REGIME_ID	RESULTS
DISTURBANCE_START_DATE	RESULTS
APPROVE_DATE	RESULTS
BGC_ZONE_CODE	RESULTS
BGC_SUBZONE_CODE	RESULTS
BGC_VARIANT	RESULTS
BGC_PHASE	RESULTS
BEC_SITE_SERIES	RESULTS
BEC_SITE_TYPE	RESULTS
BEC_SERAL	RESULTS
BEST_OPENING_DATE	Derived
PLAN_TYPE	Derived - Silv Prescription or Site Plan
MOF_DEFAULT_STANDARD_IND	from STANDARDS_REGIME
FPC_PRESC_TO_PLAN_IND	New – FPC s.35(2) & FPC s.36(4) Conversion of Silv Prescription to Site Plans
APPROVED_VARIATION_IND	Based on SU Archived Approved Variation Event Code
OPEN_AMENDMENT_REQ_APPROVAL_IND	Identifies if underwent amendment
OPEN_AMENDMENT_REQ_APPROVAL_NO	Identifies number of amendments
LEGISLATION_REF_CODE	New
FSP_FRPA_S197_IND	New – Indicator based on FSPTS (eg. s197 Code) – applied to the entire FSP that has any “APP” or “INE” with indicator set to “Y”
MIN_PREF_STOCK_EXIST_IND	Derived
OPENING_FRPA_S197_IND	New – based on derived processes
MAPSHEET	RESULTS (View)
OPENING_NUMBER	RESULTS (View)
OPENING	RESULTS (View)
REGEN_OBLIGATION_IND	Milestone View
OPENING_CATEGORY_CODE	RESULTS (View)
OPENING_STATUS_CODE	RESULTS (View)
REGEN_OBLIGATION_ID	Milestone View
REGEN_DUE_LATE_DATE	Milestone View
NO_REGEN_DUE_EARLY_DATE	Milestone View
NO_REGEN_DUE_LATE_DATE	Milestone View
NO_REGEN_DECLARED_IND	Milestone View
NO_REGEN_DECLARED_DATE	Milestone View
NO_REGEN_DECLARED_SUBMIT_DATE	Milestone View

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REGEN_DECLARED_IND	Milestone View
REGEN_DUE_LATE_DATE	Milestone View
REGEN_DECLARED_IND	Milestone View
REGEN_DECLARED_DATE	Milestone View
REGEN_DECLARE_SUBMIT_DATE	Milestone View
FREE_GROW_DUE_EARLY_DATE	Milestone View
FREE_GROW_DUE_LATE_DATE	Milestone View
FREE_GROW_DECLARED_IND	Milestone View
FREE_GROW_DECLARED_DATE	Milestone View
FREE_GROW_DECLARE_SUBMIT_DATE	Milestone View

¹ For SS ID not a MOF Default, only one FSP may exist;
For SS ID belonging to MOF Default, the SU may belong to one or more FSP. Priority is to select the first three (if more than three) FSPs that are “APP” or “INE” that is associated to the SU’s district and client.

² FSP Number is based on all possible FSPs that contains the associated SS ID that is APP or INE. If SS ID belong to MOF Default, the count all possible FSP(s) that is APP or INE that is associated to the SU’s district client.

³ FSP Amendment is based on the last amendment that exist for the associated FSP that is “APP” or “INE”

⁴ FSP Plan Name is based on the last amendment that exist for the associated FSP that is “APP” or “INE”

⁵ FSP Plan Status Code is based on the last amendment that exist for the associated FSP that is “APP” or “INE”

⁶ FSP Plan Start Date is based on the original FSP plan start date that exist for the associated FSP that is “APP”

⁷ FSP Plan End Date is based on the End date with the latest date for the associated FSP amendment that is “APP” or “INE”

MCT note: I changed from “largest” to “last” for footnote 3,4,5 – based on Scott’s comment that amendments may not approved chronologically.

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10.3 LEGISLATION_REF_CODE

Code	Description
NONLEG	Non-legislated – Government responsible with no legal silviculture obligations (eg. backlog and natural disturbances)
PFPC	Pre-Forest Practices Code Act of BC
FPC	Forest Practices Code Act of BC
FPCFDP	FRPA Transition
FRPA	Forest and Range Practices Act
WL	Woodlots
CFA	Community Forest Agreement
UNKN	Unknown – insufficient information to determine legislation reference

Total legislation categories include:

- Pre-1988/88 backlog openings and natural disturbances;
- Pre-Forest Practices Code Act of BC
- Forest Practices Code Act of BC
- FRPA Transitional
- Forest and Range Practices Act

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11. Draft Logic

11.1 *Silviculture Prescription vs. Site Plan*

Identifies whether Standards Unit is a Prescription vs. Site Plan. The logic fills the field “PLAN_TYPE”.

PLAN_TYPE	Condition
PRESC	Where STOCKING_STANDARD.STANDARDS_REGIME_ID = IS NULL
PLAN	Where STOCKING_STANDARD.STANDARDS_REGIME_ID = NOT IS NULL

11.2 *Opening with Amendments Requiring Approval*

Identifies whether Opening has undergone any amendments requiring approval based on amendment history table that existed in RESULTS. Note that this table was also available in ISIS so it tracks amendment events taking place since 1994/95.

OPEN_AMENDMENT_REQ – APPROVAL_IND	Condition
Y	OPENING_AMENDMENT_HISTORY where APPROVAL_DATE is not null
N	OPENING_AMENDMENT_HISTORY where APPROVAL_DATE is null

11.3 *Number of Amendments for Openings with Amendment Approval*

Identifies the number of times an opening has undergone amendments requiring approval based on amendment history table that existed in RESULTS. Note that this table was also available in ISIS so it tracks amendment events taking place since 1994/95. There may be some uncertainty with the accuracy of the number of amendments being tracked as there had been periodic weakness with how the number generation is occurring and whether these events are rippling through as expected. However, this provides a broad indicator to show volume.

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OPEN_AMENDMENT_REQ_APPROVAL_NO	Condition
Insert count	<p>Do Group by Opening ID & OPEN_AMENDMENT_NO From OPENING_AMENDMENT_HISTORY where APPROVE_DATE not is null</p> <p>Then perform count of total number of open amendments tracked.</p> <p>Default value set to 0 if no data found.</p>

11.4 Modification from FPC Prescription to a Site Plan

This indicator provides the ability to filter if a SU was site plan was originally a silviculture prescription. This indicator does not provide any additional information about the authorization of the conversion.

Note that RESULTS has two separate processes for auditing stocking standards modification. From 2003 to 2008, auditing of stocking standards information is done through the Event History via RESULTS_AUDIT_EVENT and RESULTS_AUDIT_DETAIL that is only opening specific, not detailed by standards unit. Subsequently as of March 2008, new tables were created STOCKING_EVENT_HISTORY which tracks modifications by standards units. There was no conversion of old RESULTS audit tables to stocking event history.

Risk is that there may be under identification of FPC silviculture prescription to site plans.

Note that this includes SU History Events and will not mine through Event History due to risk of errors due to lack of STOCKING_STANDARD_ID business key tracking.

Process based on STOCKING_EVENT_HISTORY:

- 1. Set to “Y”, if the any of the opening’s Standards Unit has a SS ID and the pre-existing SU_HISTORY for the same Standards Unit has null SS ID; this is assumed to have been a conversion from silviculture prescription to site plan.**

Note that this process will identify Prescription to Site Plan at the opening level for all associated SUs given that that is possible that SUs may be deleted over subsequent SU modification events.

- 2.

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FPC_PRESC_TO_PLAN_IND	Condition
Y	Set to “Y” for all associated SUs for the opening, if any of the current Standards Unit has a SS ID and the pre-existing SU HISTORY for the same Standards Unit has null SS ID;
N	Default to “N”

11.5 Openings with Approved Variation based on SU History

Approved variation allows stocking standards modification of site plans under specific circumstances identified under FSP. There is a need to identify and monitor for those SUs where there are approved variation to confirm that it was done in accordance of the FSPs.

There is the same problem identified in 9.4 that has two methodologies of auditing/tracking of SUs. Only the most recent methodology of STOCKING_EVENT_HISTORY is identified as the method below. Risk is that there may be under identification of approved variation.

SUs may be deleted and may no longer in the SU Legislative View. Any approved variation event will be indicated at an opening level.

APPROVED_VARIATION_IND	Condition
Y	Select OPENING_ID From STOCKING_EVENT_HISTORY Where RESULTS_AUDIT_CODE = “VAR”
N	Default to “N”

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11.6 Opening s.197 Ind

RESULTS will use the STOCKING_EVENT_HISTORY to locate any SU's with s197 Event Identified (197).

From 2003 to 2008, auditing of stocking standards information is done through the Event History via RESULTS_AUDIT_EVENT and RESULTS_AUDIT_DETAIL that is only opening specific, not detailed by standards unit. There was no conversion of old RESULTS audit tables to stocking event history.

SUs may be deleted and may no longer in the SU Legislative View. Any s197 event will be indicated at an opening level.

OPENING_FRPA_S197_IND	Condition
Y	Select OPENING_ID From STOCKING_EVENT_HISTORY Where RESULTS_AUDIT_CODE = "197"
N	Default to "N"

11.7 Minimum Preferred Stocking Indicator

The Minimum Preferred stocking indicator provides information whether the SU contains the existence of Minimum Preferred Stocking that became a new data requirement for the stocking standards in 1994.

MIN_PREF_STOCK_EXIST_IND	Condition
Y	Select STOCKING_STANDARD_ID From STOCKING_STANDARD_UNIT STOCKING_LAYER Where MIN_PREF_STOCKING_STANDARD > 0
N	Default to "N"

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11.8 Legislation Reference Code

11.8.1 Data Preparation

11.8.1.1 Disturbance Start Date, Approve Date, Disturbance End Date

One of the main data fields to determine legislation reference is the approval date or disturbance start date. However, there are cases where no disturbance start date exists. Therefore, a process must be in place to “mine” a next best..

Best Opening Date preference is to obtained:

1. [DISTURBANCE_START_DATE]
2. if not exist, then use [APPROVE_DATE]
3. if not exist, then use [DISTURBANCE_END_DATE]

There is only 77 records that do not have either Disturbance Start Date, Approval Date and Disturbance End Date.

11.8.1.2 Generalized Start Date

There are slight date differences of disturbance start date where legal silviculture obligation begins. BCTS start date is 1988-01-01 while major licensees and woodlots are 1987-10-01. The 1987-10-01 will be used the start date with understanding that there will be some openings that will have silviculture obligation but not classified. But this simplification will make the logic easier rather than having to develop two different process for BCTS vs. major/WL holders.

Estimate of BCTS is within 1987-10-01 and 1987-12-31 is 279 standards units that runs the risk of being misclassified.

Note that any records that is occurs during any new legislation is prone to misclassification due lag related to clear business procedures, training and communication to the operational level.

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11.8.1.3 Baseline Datasets

There are three applications that contain information that fulfill data requirements to create the view. These have to be extracted and then combined to then provide baseline attributes from which legislative coding can be assigned.

11.8.1.3.1 Opening subset

Opening requires combination of key data that is used for both identification, classification, analysis and reporting.

Table	Field Name
V_OPENING_TENURE	ADMIN_DISTRICT_NO
	CLIENT_NUMBER
	CLIENT_NAME
	OPENING_ID
	FOREST_FILE_ID
	CUTTING_PERMIT_ID
	TIMBER_MARK
	CUT_BLOCK_ID
	BCTS_ORG_UNIT_CODE
	BCTS_FUND_IND
	FILE_TYPE_CODE
	OPENING_CATEGORY_CODE
	OPENING_STATUS_CODE
	APPROVE_DATE
	DISTURBANCE_START_DATE
	NET_AREA
	VARIANCE_IND
V_STOCKING_MILESTONE	REGEN_OBLIGATION_IND
	NO_REGEN_DUE_EARLY_DATE
	NO_REGEN_DUE_LATE_DATE
	NO_REGEN_DECLARED_IND
	NO_REGEN_DECLARED_SUBMIT_DATE
	REGEN_DECLARED_IND
	REGEN_DUE_LATE_DATE
	REGEN_DECLARED_DATE
	REGEN_DECLARED_SUBMIT_DATE
	FREE_GROW_DUE_EARLY_DATE
FREE_GROW_DUE_LATE_DATE	
FREE_GROW_DECLARED_IND	
FREE_GROW_DECLARED_DATE	
FREE_GROW_DECLARED_SUBMIT_DATE	
STOCKING_STANDARD_UNIT	STOCKING_STANDARD_UNIT_ID
	STANDARDS_UNIT_ID
	STANDARDS_REGIME_ID
STOCKING_ECOLOGY	BGC_ZONE_CODE
	BGC_SUBZONE_CODE

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	BGC_VARIANT
	BGC_PHASE
	BEC_SITE_SERIES
	BEC_SITE_TYPE
	BEC_SERAL
	BEC_ZONE_CODE
HARVEST_AUTHORITY	CP_ISSUE_DATE

11.8.1.3.2 FSP SS ID subset

All FSP SS ID requires to be identified by organizational unit, client number per FSP requires combination of key data that is used for both identification, classification, analysis and reporting.

Table	Field Name
FSP_STANDARDS_REGIME_XREF	FSP_ID
FSP_STANDARDS_REGIME_XREF	FSP_AMENDMENT_NUMBER
FSP_ORG_UNIT	ORG_UNIT_NO
FSP_AGREEMENT_HOLDER	CLIENT_NUMBER
STANDARDS_REGIME	STANDARDS_REGIME_ID
STANDARDS_REGIME	MOF_DEFAULT_STANDARDS_IND
FOREST_STEWARDSHIP_PLAN	PLAN_NAME
FOREST_STEWARDSHIP_PLAN	PLAN_START_DATE
FOREST_STEWARDSHIP_PLAN	FSP_STATUS_CODE
FOREST_STEWARDSHIP_PLAN	FRPA197_ELECTION_IND

11.7.1.3.3 Combine Opening and FSP SS ID subsets

The above two dataset will be combined together with outer join to provide attribution of FSP dataset's attribute with the joining of org unit, client number and standards regime.

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11.8.2 Logic Process

The following logic process must follow a specific order for assignment of coding. The table below outlines the logic order and description of logic sections.

Order	Section	Category	Legislative Code
1	(i)	Woodlots	WL
2	(ii)	Community Forest Agreement	CFA
3	(iii)	Non Legislated	NONLEG
4	(viii)	FRPA	FRPA
5	(vii)	Forest Practices Code with Stocking Standards	FPCFDP
6	(vi)	Forest Practices Code with Stocking Standards	FPC FDP
7	(v)	Forest Practices Code	FPCPRES
8	(iv)	Pre-Forest Practices Code	PFPC
9	(ix)	Unknown	UNKN

(i) Woodlots - WL

All preceding assignment is ignored if File Type Code = A04 or A44
Set to “WL”

(ii) Community Forest Agreement-CFA

All preceding assignment is ignored if File Type Code = A28 or A29
Set to “CFA”

(iii) Non Legislated - NONLEG

Opening Category Codes:

SMP%

BL%

P87

NREQ

ND%

SPEX

UNKN

EXCLU

CONT

BL%

SMP%

FG, if Disturbance Start Date <1987-10-01

This section assumes that opening categories are correctly assigned.

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(iv) Pre-Forest Practices Code – PFPC

Approval Date is Between 1987-10-01 and 1995-06-14
And if Forest File Id is not null

(v) Forest Practices Code – FPCPRES

Approval Date is Between 1995-06-15 and 2002-12-16
And if Forest File Id is not null

(vi) Forest Practices Code with Stocking Standards – FPCFDP

Best Opening Date (Best of Disturbance Start Date or Disturbance End Date or
Approval Date) \geq 2002-12-17
And if Forest File Id is not null
And SU with SS ID but not associated with an FSP and FSP ID is null

(vii) Forest Practices Code with Stocking Standards – FPCFDP

If Harvesting_Authority.Issue_Date <
FOREST_STEWARDSHIP_PLAN.PLAN_START_DATE
And if Forest File Id is not null
And SU's Standards Regime is not null

(viii) FRPA

Best Opening Date (Disturbance Start Date or Disturbance End Date or Approval
Date) \geq 2002-12-17 and

(Best Opening Date \geq Plan Start Date or
Harvesting_Authority.Issue_Date \geq
FOREST_STEWARDSHIP_PLAN.PLAN_START_DATE)
And if Forest File Id is not null
And if SS ID is associated with FSP

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SS ID is associated with FSP (does not take into account dates). This is due to possibility of Silviculture Prescription or Site Plans that have been amended to a site plan managed under FSP.

(ix) Unknown – UNKN

All remainder openings if not match the above conditions is set to “UNKN”

12.1 Using 1987-10-01 date for BCTS

Logic uses the 1987-10-01 as a starting date despite BCTS has a different start date of 1988-01-01 for initiation of silviculture obligations. There were a total 278 BCTS opening records that is within 1987-10-01 and 1987-12-31.

12.2 Use of Approval Date when Disturbance Start Date does not Exists

Logic places uses the disturbance start date where it exists, but then defaults to opening’s approval dates and the second choice to arrive as a date to determine legislation context where a initiation date is used.

12.3 FSPTS s197 Indicator

The FSPTS’s s.197 Indicator by FSP and not by opening/SU and may not be accurately toggled. Set to “Y” if any of the FSP(s) that is “APP” or “INE” that has s197 Election indicator set to “Y”. Note that the indicator is applied to the entire FSP, not opening specific. Where there is more than one FSP associated with the SS ID, set to “Y” if any of the associated FSP has s.197 election set to “Y”.

12.4 Amendment Requiring Approval by Opening

Amendment requiring approval indicator and count of these amendments is based on the accuracy tracking of the opening amendment history table. This table is tracked by opening and not by SU.

12.5 Cannot track s197 transfer of FDP Site Plans to FSPs

The s197 transfer is reviewed based on the SU History Archive tables only and can is only based on silviculture prescription amendment requiring approval whereby FSP SS Id is being applied to a SU. No FDP site plan transfer to FSP is identified in this process due to difficulty to review SSIDs in that they are similar in FDPs and FSPs. This will be improved once there is a distinctive process exists identification s197. However, there is no retrospective ability to easily identify these.

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12.6 Opening's s197 Transfer & Approved Variation Limitations

These fields/indicators are based on the use of SU History Archive tables which is effective as of March 2008. No attempt was used to “mine” from the History tables as it lacked explicated SU linkage. There was no conversion of the History tables to the SU History table. Therefore, there may be omissions of the above events. These derived data elements of: These are considered to be accurate effective March 2008 which is when the SU History table went into production.