

# Workshop Synopsis

## Land Based Investment Strategy (LBIS): Forests for Tomorrow Current Reforestation Workshop

*Sponsored by*

*Resource Practices Branch  
BC Ministry of Forests, Lands and Natural Resource Operations*

Ministry of **Forests, Lands and  
Natural Resource Operations**



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## Reminder of Meeting Agenda

### Land Based Investment Strategy (LBIS): Forests for Tomorrow (FFT) Current Reforestation Planning and Delivery Workshop

Location: Vancouver Airport Marriott Hotel  
7571 Westminster Highway, Richmond, BC

**DAY ONE: WEDNESDAY, SEPTEMBER 12<sup>TH</sup>, 2012**

**LBIS: Strategic objectives, budgeting, sowing requests and mandatory reporting**

8:30 am *Coffee/tea available – meet and greet*

9:00 am **Introductions and 5 Key Business Objectives - Lorne Bedford**

Opening remarks including an update on the Mid Term Timber Supply report and FFT flagship program

1. Develop budget for 2013/14 budget process under LBIS
2. Debrief the activities completed to date: lessons learned, successes shared
3. Confirm that sowing requests are based on established priorities, capacity to deliver, and consistent with budget forecast
4. RESULTS Data quality and planning, Backlog NSR
5. Share and learn from operational experiences through Case Studies

9:15 am **Session 1: Review budget numbers compiled to date – review strategic objectives - Al Powelson**

10:30 am *Coffee break*

10:45 am **Session 1: Complete session 1**

11:30 am **Session 2a: Debrief activities completed to date - Leith McKenzie and Mike Madill**

What went well, what was tricky, where can we improve, did we do it safely?

12:00 pm **Session 2b: Review critical issues identified - All**

12:30 pm *Lunch – will be provided*

1:30 pm **Session 3: Sowing requests – species selection and sowing levels - Al Powelson**

2:15 pm **Session 4: Type 4 Silviculture Planning - Ralph Winter**

3:00 pm *Coffee break*

3:15 pm **Session 5a: RESULTS Reporting, QA and planning - Caroline MacLeod**

3:45 pm **Session 5b: Backlog NSR - Matt LeRoy**

4:45pm **Recap of Day One**

5:00 pm **End of Day One**

**DAY TWO: THURSDAY, SEPTEMBER 13<sup>TH</sup>, 2012**

**LBIS: Delivery and training needs**

- 7:30 am *Coffee/tea available*
- 8:00 am **Housekeeping items from Day One on all topic areas**
- 8:15 am **Session 6: Wildfire Management Branch: Opportunities for collaboration - Kelly Osbourne**
- 9:15 am **Session 7: Site preparation techniques and equipment for stand rehabilitation projects - Janet Mitchell, FP Innovations**
- 10:00 am *Coffee break*
- 10:15 am **Session 8: Case study: Coastal regions – 5 year planning consultation process - Kevin Telfer**
- 11:00 am **Session 9: Case study: BCTS – Collaboration in delivery and lump sum sales - BCTS attendees**
- 12:00 pm *Lunch – will be provided*
- 1:00 pm **Session 10: Hand falling guidelines and owner obligations - Tom Jackson**
- 2:00 pm **Session 11: Forest Health - Jennifer Burleigh**
- 2:45 pm **Workshop wrap-up and evaluation**  
Please complete the Workshop Evaluation Form before leaving
- 3:00 pm **Adjourn**                      Thanks to All Who Participated!

## **Purpose of this Synopsis**

At least 45 individuals from districts and regions, BCTS business areas, and branches that are involved or interested in the Forests for Tomorrow (FFT) program attended a two-day workshop held September 12-13<sup>th</sup>, 2012 in Richmond, British Columbia (BC). Workshop participants are listed in Appendix 1, the Workshop Evaluation by participants is provided in Appendix 2, and the Actions from the Workshop are listed in Appendix 3.

The purpose of this Synopsis is to provide a summary of discussion highlights and action items from the meeting for participants and others that may be interested.

Workshop presentations, the Workshop Workbook and this Synopsis are posted on the following LBIS FFT website: <http://www.for.gov.bc.ca/hcp/fia/landbase/fft/updates.htm>

So as not to repeat material already compiled, this Synopsis should be used in conjunction with the Workbook that was prepared to guide the meeting.

The 5 key workshop objectives were:

1. Develop budget for 2013/14 budget process under LBIS (see Session 1 in the Agenda)
2. Debrief the activities completed to date: lessons learned, successes shared (Session 2)
3. Confirm that sowing requests are based on established priorities, capacity to deliver, and consistent with budget forecast (Session 3)
4. Discuss RESULTS-related topics – Backlog NSR, data trends, training needs (Session 5)
5. Share and learn from operational experiences through Case Studies (see Sessions 8 to 9 on Day 2), and about other related topics (i.e. Type 4 Silviculture Planning in Session 4; opportunities to collaborate with Wildfire Management Branch in Session 6; site preparation techniques in Session 7; hand falling guidelines in Session 10; and forest health in Session 11).

## **Day One**

### **Welcome and Introductory Remarks**

Lorne Bedford (Deputy Director, Resource Practices Branch) thanked attendees for their participation and for the team work everyone has demonstrated in delivering the LBIS FFT program. Lorne extended appreciations to Kevin Tefler for his recent “Overview: BC’s Land Based Investment Strategy” article in the September-October 2012 BC Forest Professional, to Dave Cornwell for organizing the workshop, to Ralph Winter and Al Powelson for their enthusiastic leadership, and to everyone involved in delivering the FFT program for their efforts. He noted that budgets in general are very tight yet LBIS FFT remains relatively robust.

Lorne outlined some of the key events that have occurred. There was a commitment in a Throne Speech that the FFT Current Reforestation program would plant 60 MM seedlings between 2008 and 2012; in fact 63 MM seedlings got planted. With around 14 MM seedlings planted this year and around 22 MM seedlings expected to be planted next year, we should be at around 100 MM seedlings planted by 2014. We are consistently hitting our goals.

About 90 000 ha was fertilized in last 5 years – more than during any other previous 5 year period. We are on target to eliminate the backlog NSR by 2015 which was another Throne Speech commitment in 2008.

Where are we going? We had FRBC for 8 years, FIA for 8 years, and this is our 7th year with FFT. So we might be in for a change. In Jan/Feb we should know our budget for next FY. Although the LBIS budget is projected to drop next FY, we are still going to plant 22 MM seedlings, and sow an additional 20 MM seedlings, so Current Reforestation carries on. Fertilization and spacing activities associated with FFT Timber Supply Mitigation however may go way down unless the projected drop in LBIS funding for next FY changes.

#### Auditor General

There are many recent drivers that suggest support for the FFT program. The Office of the Auditor General of BC's February 2012 report *An Audit of the FLNR's Management of Timber* (<http://www.bcauditor.com/pubs/2012/report11/timber-management>) concluded that the ministry has not clearly defined its timber objectives, and, as a result, cannot ensure that its management practices are effective. The audit also recommends that, in light of the devastating impacts from the mountain pine beetle (MPB), that government establish a provincial plan that states its long-term timber objectives and focuses its resource in order to foster economic stability and quality of life for British Columbians now and in the future.

In the Throne Speech that followed the release of the audit, the Minister made a commitment to complete a strategic plan for FFT in 6 months that targets the best areas for strategic investments, and to keep the program at 20 MM seedlings/year.

#### Forest Practices Board

The Forest Practices Board's June 2016 'NSR' report entitled *How much of BC's Forests is not satisfactorily restocked? And what should be done about it?* concluded that is important for [http://www.fpb.gov.bc.ca/SR42\\_How\\_much\\_of\\_BC\\_forest\\_is\\_not\\_satisfactorily\\_restocked.htm](http://www.fpb.gov.bc.ca/SR42_How_much_of_BC_forest_is_not_satisfactorily_restocked.htm) government to make timely decisions about restocking BC forests impacted by the MPB given the implications for future timber supply. A cost/benefit assessment on whether to plant impacted stands or let them naturally recover is consistent with the Minister's commitment for a strategic plan.

#### Special Committee on Timber Supply

The MLA Special Committee on Timber Supply's recent August 2012 report entitled *Growing Fibre, Growing Value* (<http://www.leg.bc.ca/timbercommittee/>) focuses on BC's central interior impacted by the MPB. The report provides several recommendations that relate to FFT such as:

- 3.2: that the Province determine the level of investment in intensive silviculture, such as fertilization, that it will sustain. One of the further recommendations is that type 4 silvicultural strategies be completed to guide investments in intensive silviculture.
- 3.4b: that FLNR develop technical and financial criteria for stratifying NSR areas that considers among other things: (i) the areas that are likely to be harvested and reforested; (ii) the areas that are candidates for rehabilitation to ensure their timely reforestation; and (iii) the areas that should be left to recover on their own.

The latter recommendation is also consistent with the intended FFT strategic plan. The Minister needs to respond to the Special Committee's report by the end of December, with the legislature addressing the report and any budget needs in January.

The current government is committed to balancing the budget and also responding to the Special Committee's report.

## Summary

Given Throne Speech commitments and uncertainties regarding next FY's LBIS budget:

- eliminating the backlog NSR should remain a high priority
- we need to be prepared in case the funding level increases for planting e.g. depending on government response to the FFT strategic plan and the Special Committee's report
- \$38 MM should be the minimum LBIS budget for all investment categories for next FY

## **Session 1: Review Budget Numbers Compiled to Date and Strategic Objectives**

The purpose of this session was to review the draft budget number proposed by regions as well as the strategic objectives of FFT Current Reforestation program. Al Powelson led the session his powerpoint presentation is posted as 'FFT 2013/14 Planning' at

<http://www.for.gov.bc.ca/hcp/fia/landbase/fft/updates.htm>

Background resource material that are available in the Workshop Workbook include:

- Key Dates for LBIS (Appendix D) <http://lbis.forestpracticesbranch.com/LBIS/node/246>
- LBIS Planning and Delivery Framework, April 2012 (Appendix E)
- Pre-Workshop Input (Appendix C)

## Context

LBIS goals (<http://lbis.forestpracticesbranch.com/LBIS/home>) are to:

- Actively manage a portfolio of natural resources to uphold and enhance their value
- Mitigate impacts due to catastrophic environmental disturbance or human action
- Act on immediate needs/emerging priorities to enable the use of BC's natural resources and contribute to the achievement of economic, social and environmental benefits.

The two main focus areas for FFT Current Reforestation are to:

- Reforest priority areas impacted by the MPB and past wildfires
- Eliminate backlog NSR

The FFT Current Reforestation program strategies include:

- Maintaining adequate growth rates of FFT reforested areas (maintain investments) e.g. through vegetation management
- Maintaining an annual reforestation level of at least 20 MM seedlings planted per year (this was 13 MM seedlings per year but now up due to Throne Speech commitment)
- Address s. 108 obligations
- Eliminate backlog NSR

The focus of FFT Current Reforestation is within BC's interior as these areas have been most impacted by the MPB and wildfires.

The FFT Timber Supply Mitigation program's goal is the mitigate impacts on mid-term timber supply that occur across the province including MPB impacted areas through activities such as fertilization and spacing.

The 'So What?' answer to why we have the FFT program is reflected in the FLNR Service Plan Performance Measure 6: Timber volume gain from silviculture investments. The timber

volume gain (millions of cubic metres) expected in 65 years from silviculture treatments completed is forecasted to be 7.3 MM m<sup>3</sup> in 2011/12, and targeted to be 7.7 in 2012/13, 8.3 in 2013/14, and 8.3 MM m<sup>3</sup> in 2014/15. This includes LBIS investments in FFT and Tree Improvement.

AI touched on the ‘drivers’ mentioned by Lorne i.e. the Auditor General’s audit, the Forest Practices Board’s NSR report, and the Special Committee on Timber Supply recommendations which all support the need for a FFT strategic plan. Ralph Winter and Paul Rehler are working on timber objectives related to volume, wood quality, etc. The Type 4 silviculture strategy (SS) pilot in Quesnel is furthest along; the learning from the pilot should make it easier to complete other Type 4 SS in other areas of BC.

#### FFT strategic planning work on treatable areas

Five years ago a FFT strategic business plan was prepared based on the projected impacts of the MPB; now we know the area impacted by the MPB for most areas of BC so it is timely to renew the strategic plan. AI went over some draft material that shows how areas impacted by the MPB and wildfire can be ‘netted down’ to support a FFT strategic plan.

Table 1 provided the ‘facts’ about potentially treatable areas with the following shown:

1. The total area impacted by the MPB (mature and immature stands) and wildfire
2. Total impacted area in the THLB
3. In case of the MPB, the total THLB area with >50% pine and severe or very severe cumulative impacts (i.e. stands with <50% pine, or >50% pine but only trace, low or moderate impacts, are expected to be able to contribute to a mid-term timber supply)
4. Minus the total area harvested with obligations to reforest
5. Where #3 minus #4 = potentially treatable area impacted by MPB

Table 2 provided the ‘assumptions’ about potentially treatable areas with the following shown:

1. The range in area likely to be harvested in the future based on past practices, when the MPB infestation is expected to peak by management unit, and the anticipated economic shelf-life of pine-killed stands; this future harvest area has obligations to reforest and therefore FFT does not need to treat them
2. We know many of the untreated mature >50% pine stands not harvested are likely going to recover naturally based on plots compiled across the province by Dave Coates and Don Sachs in their January 2012 report entitled *Current State of Knowledge Regarding Secondary Structure in MPB Impacted Landscapes* <http://www.for.gov.bc.ca/hts/pubs.htm>. See Appendix 4 on the estimated natural recovery by BEC with ‘natural recovery’ meaning either sufficient understory densities or secondary structure to contribute to mid-term timber supply. The 70-80% range of natural recovery across BECs shown in Appendix 4 compares reasonable well with the anecdotal findings from FFT silvicultural surveys where about 10 to 25% of surveyed areas need treatment.
3. We currently don’t have a natural recovery rate for immature MPB impacted stands or wildfire impacted areas so no assumptions provided on this at this time

Table 3 provided the ‘return on investment’ (ROI) perspective on what we are going to treat following the netdowns in Tables 1 and 2 where:



1. Estimated area with SI>15 and SI>18 are provided on slopes <30% (as it would likely not be economically feasible to clear dead mature trees on steeper slopes; clearing the trees are necessary both from a worker's safety and site preparation perspective)
2. Estimated area in #1 above with > or < 4 hour cycle time of nearest mill.

The 'netdown' perspectives from Tables 1 to 3 provide a more realistic range of amount of area that actually may require FFT Current Reforestation treatment. However a substantial area will need to be surveyed in order to find impacted areas that are not recovering naturally and that meet ROI considerations such as SI, slope and possibly distance to mill.

The other important question is what is an adequate time frame for treatment? We likely can forget about trying to treat anything surveyed 25 years after it has impacted by the MPB or wildfire as the area will likely have sufficient stocking to not make it worthwhile to start over. Based on ITSL work, probably 15 years is the maximum timeframe where FFT Current Reforestation treatments can still have a positive impact. The key aspect of the FFT strategic plan for Current Reforestation will be how many seedlings to plant per year over a reasonable time frame to treat the expected area significantly impacted by the MPB and wildfire that won't be harvested or recover naturally, and that provides a reasonable ROI.

A map was prepared with the filters noted in Tables 1 to 3 for the Quesnel and Nadina to support the Type 4 SS. If the feedback is positive, we can prepare these maps for other MUs.

During the discussions it was noted:

- There are a number of implementation issues trying to treat impacted mature pine stands including shelf-life and safety e.g. danger trees can inhibit ground survey work
- There was a comment under assumptions that you may not need to have a range (high and low) – just take a conservative approach; another view was that the range is useful to show as it underscores the uncertainty in the many assumptions

#### FFT Current Reforestation Planning

The current budget forecast for 2013/14 is \$38 MM for all 13 LBIS investment categories – a considerable drop from this fiscal year. As a consequence the focus is on critical needs; doing what must get done next fiscal year and postponing things that can wait. All of the key guidance for FFT Current Reforestation, including the 5-Year Plan and Annual Operating Plan, have been consolidated on one website <http://lbis.forestpracticesbranch.com/LBIS/node/103>

This includes the:

- FFT Strategic Plan
- Silviculture Planning Process
- FFT silviculture 5-year plan instructions
- Silviculture treatment regimes.

Also provided on the website are stand management and ROI guidance material:

- Silviculture Funding Criteria
- Management of tree species composition and FFT species and density indicators and targets
- Assisted species migration
- FFT use of western white pine guidance
- Fibre plantations in BC
- ROI Information/Training/Guidance documents

In the ‘Silviculture Funding Criteria’ document, a key consideration is the determination of priority management units i.e. Who is having the biggest problem? Where can we have an impact? For FFT Current Reforestation, the highest priority units (Priority 1) are Quesnel and Williams Lake. Priority 2 are Lakes, Prince George, Morice, 100 Mile House and Mackenzie. Priority 3 are Kamloops, Merritt, Arrow, Lillooet and Dawson Creek. The priority units for Current Reforestation were determined considering the data in Appendix 1 and assessment approach in Appendix 4 of the Silviculture Funding Criteria document.

### 5-Year Plan

Al thanked operations staff for their 5-Year Plan submissions. The funding levels associated with the submissions are in the \$25 MM ballpark that we expect Current Reforestation (CR) to receive so likely few significant changes are needed. The Timber Supply Mitigation (TSM) submissions in the \$10 MM range however may need to change significantly depending of funding levels for next FY which could be as low as zero for TSM based on the \$38 MM project amount for all LBIS investment categories in 2013/14. However this could change given government’s focus on responding to mid-term timber supply and related ‘drivers’ such as the Auditor General’s audit of FLNR’s management of timber, the Forest Practices Board ‘NSR’ report, and the Special Committee on Timber Supply’s recent recommendations.

The 5-Year Plan submissions highlight the significant contributions of BC Timber Sales in helping deliver both the CR and TSM programs under FFT.

An issue in the 5-Year Plan submissions is that it shows an area in backlog NSR in 2017 that is not consistent with Throne Speech (and thus FFT) commitments to eliminate the backlog by 2015. There may also be the need to better match sowing levels with number of seedlings planted in future in some of the submissions.

**Action #1: Updating 2013/14 Annual Operating Plan (AOP) and 5-Year Plan.** Al Powelson will send FLNR operations staff a digital copy of the draft AOP and 5-Year Plan in excel with guidance on how it needs to be updated and by when. Note: This was done via Al’s Sept. 19<sup>th</sup> e-mail to staff.

For TSM, there was a question on how to ramp down the \$10 MM budget submission if this was necessary to do. Need to focus on the management units where we can have greatest impact mitigating projected declines in mid-term timber supply, and then to those stands and species where TSM activities like fertilization can have the greatest impact.

**Action #2: Unit Costs.** Al Powelson will review unit costs per treatment activity and how these line up (e.g. between adjacent management units) to assess that they are reasonable.

### RESULTS: Reporting Accomplishments and Forward Planning

Al noted that it was important to use RESULTS for forward planning but this not being consistently done so far. One reason for this is that if RESULTS is consistently used, we can address questions that inevitably materialize in a timely manner without having to bother staff. It was also noted that by BCTS submissions in GENUS can now be automatically loaded in RESULTS. The reporting of accomplishments such as planting in RESULTS needs to be consistent with FFT accomplishments such as number of seedlings planted.

**Action #3: Updating reported accomplishments in RESULTS.** Caroline MacLeod will provide data on reported accomplishments in RESULTS per district and flag any potential discrepancies for applicable districts.

There was a comment that RESULTS is good to use for accomplishments (what has been done), but there may be problems using it for forward planning as we may not get the funding to support those future activities. In response, it was noted that the value in forward planning using RESULTS is that we are prepared to respond to any future funding level. If we get additional funds, via forward planning in RESULTS we have identified areas that can most benefit from intensive silviculture treatments (i.e. we are not scrambling to find areas and inadvertently invest in poorer quality sites).

There was a question about an intended letter to district managers about the importance of RESULTS. The letter did not go out in part because CTQ Consultants were hired to assess quality assurance and district staff have done a great job addressing the issues with CTQ.

#### Next Steps

- September 30<sup>th</sup> – proposed budget for next FY based on draft AOP
- November 1<sup>st</sup> – LBIS budget to Deputy
- Middle or late January – 2013/14 AOP 2<sup>nd</sup> draft based on projected budget (Note: powerpoint indicates December 31<sup>st</sup> but this needs to change to allow for district constituent meeting with FFT Planning Teams as per Appendix 7)
- March 15<sup>th</sup> – 2013/14 AOP finalized based on actual budget for next FY
- April 1<sup>st</sup> – 2013/14 AOP actioned

## **Session 2: Debrief Activities Completed to Date**

The purpose of this session, led by Leith McKenzie, was to identify: What went well? What was tricky? Where we can improve? Did we do it safely? Appendix 5 presents all of the sticky note comments on each of those four questions. The Workbook also contains some pre-Workshop feedback on these questions. Below is high-level summary of the key themes from the sticky note comments:

### **What went well in 2012/13?**

- Districts program engagement (e.g. dedicated and enthusiastic staff)
- Program support (e.g. good branch/regions/district/BCTS working relations)
- Communication (e.g. with branch/regions/districts/industry)
- Budget (e.g. early budget approval and communications to regions)
- Useful tools (e.g. BCTS handling the planting program)
- Recipients (e.g. having a contingency allotment for previous recipients)

### **What was tricky?**

- Program management (e.g. lack of direction; changing delivery model; budget issues)
- Workload (e.g. too much work; lost expertise; hard to find qualified surveyors)
- Training/capacity/experience (contracts) (e.g. staff training: RESULTS/contract mgt)
- Stand selection criteria (e.g. finding FFT eligible stands; ROI may be too limiting)
- Communications (e.g. with BCTS)
- RESULTS/GENUS (e.g. connectivity between systems; forward planning in RESULTS)

### **Where can we improve?**

- Staffing FTEs/specialist positions/training/expertise (e.g. lack of District FTEs to delivery program)
- Planning and funding (e.g. stable funding annually; not necessary to have sowing caps; lets consider forest resiliency index rather than just timber supply index)
- Data management and RESULTS (e.g. improve functionality; training to do spatial part of RESULTS; data integrity)
- Communication within program and to others about program (e.g. Executive, RMT, DMT)
- Looking at other mechanisms to meet program objectives (e.g. licensee mechanism to remove MPB killed overstories outside of BCTS's operating areas)

### **Did we do it safely?**

- Safe certification (e.g. BCTS SAFE program is good; use safe certified companies)
- What about when it gets too dangerous? (e.g. trees falling down now, not sure how its all going be get surveyed)

During the discussions on where we can improve, it was noted that there is a separate allocation for community forests and woodlots. In some Districts, the area in community forests can be substantial with good opportunities to reforest MPB or wildfire impacted stands that may exceed the allocation.

**Action #4: Community forests.** Work with Community Forest to integrate their requests in the District 5-year plans.

### **What does third party delivery option do for us?**

Dave Cornwell gave a short presentation about the third party delivery option in helping deliver parts of the FFT program and the benefit that option can provide the Ministry. In 2010 Purchasing Services invited qualified consulting firms to submit proposals to provide third party delivery services and PwC submitted the successful proposal for services. Where licensees deliver part of the LBI program in districts, PwC holds and administers the agreement. Third party delivery costs are about 5% of overall program costs that they deliver – 3% for administration, and 2% to undertake a financial/performance audit. Whenever possible, existing FTEs are used to deliver the program. In situations where the program funding levels have the potential to go up and down rapidly, it is probably better to use PwC so staff FTEs are not impacted.

If a TFL holder wants to do LBI work through PwC, there should be communication with district staff to ensure good use of program funds. There has been \$5000 provided each district to foster a dialogue with district staff and their constituents like forest licensees to help ensure good cooperation and communication about FFT and its delivery (see Appendix 7). That way licensee interests can be addressed, for example, in District 5-year plans.

Another value in having PwC as an option is if there are significant staff changes, we can still deliver program goals. The ministries of Highways and Health use third party delivery agents, and Forests have done so for last 8 years. Third party delivery is an accepted delivery method and is just one tool in the delivery toolbox.

Some districts note good communication with PwC and licensees, whereas others raised concerns such as hearing about projects ‘after the fact’.

**Action #5: Third party delivery.** If staff have experienced concerns with third party delivery, please raise them with Dave Cornwell so that he can work with the delivery agent to resolve the concern and improve communications.

### Session 3: Sowing requests – species selections and sowing levels

The purpose of this session was to confirm that sowing requests are based on established priorities, capacity to deliver, and are consistent with the budget forecast. Al Powelson led the Session and his powerpoint presentation is posted as ‘Species and Sowing’ at <http://www.for.gov.bc.ca/hcp/fia/landbase/fft/updates.htm>.

Background resource material that are available in the Workshop Workbook include:

- FFT strategic priorities in LBIS 2011/12 to 2013/14 (Appendix F)  
<http://lbis.forestpracticesbranch.com/LBIS/home/LBIS>
- FFT Species Management and Density Targets (Appendix G)  
<http://lbis.forestpracticesbranch.com/LBIS/node/103>
- Pre-Workshop Input (Appendix C)

All 2013 Ministry funded seedling requests should be entered and approved in SPAR by the following dates:

- August 15, 2012 – seedling requests for Coastal TSOs
- September 12, 2012 – all ‘early sow’ species and stocktypes
- October 10, 2012 – any other species and stocktypes

The target of 20 MM seedlings for planting in 2014/15 is not a cap; we are letting the planning process influence the allocation. The target includes summer sowing in north and for high elevation sites. FFT is striving to be a ‘flagship’ leader in species and density management; be adaptive and innovative; think beyond legal requirements; consider adaptive management.

FFT tree species composition objectives include:

- Species mixtures of desirable species will be planted where appropriate
- Species management decisions will be informed by forest-level analysis (e.g. TSR, Type 2 and 4 Silvicultural Strategies)
- Cumulative impacts and impacts at the landscape scale will be considered
- Density management will optimize productivity, future product value, and resiliency of the forest at a stand and landscape level.

Five FFT species and density indicators are addressed in Al’s powerpoint and include, for example, percent of area planted with more than one species, and percent of area in a management unit planted with a single species.

Three species and density targets were addressed in the presentation and include, for example, that 80% of the area planted within a management unit, where funded by FFT, should have 2 or more species in the silviculture label at the time of establishment. One of the density targets is to plant at least 2000 sph for lodgepole pine dominated stands. It is also noted that professional decisions to deviate from the targets will be recognized in those situations where it is ecological

appropriate. That is, use professional judgment as the targets can be breached where there are valid reasons.

As part of the discussion it was noted that ingress needs to be accounted for when addressing density targets. In some areas, what you plant is what you get, so 2000 sph for pine is ok, but in other areas ingress may result in overstocking so plant less than 2000 sph on those sites.

Other guidance includes (<http://lbis.forestpracticesbranch.com/LBIS/node/103>):

- Assisted migration guidance
- FFT use of White Pine guidance
- Fibre plantations in BC

As shown on graphs in AI's presentation, the proportion of FFT planted area with just one species planted has declined from about 55% in 2004 to about 15% in 2011. The FFT planted area where one species dominates (>70% of stand) has also declined from about 55% in 2004 to about 25% in 2011. The planted densities for non-pine have held relatively steady at about 1200 stems per hectare (sph). The average planting densities for pine have increased from about 950 sph in 2004 to about 1450 sph in 2011.

George Harper at Resource Practices Branch will be undertaking a project to address mixed conifer species plantings in MPB impacted areas with the intent to develop some guidance on this. There was some discussion and questions regarding the mountain caribou mitigation work as it relates to legal obligations to reforest. Branch has not been involved in this work. This could be an important issue for FFT in the future.

## **Session 4: Type 4 Silviculture Strategies**

The purpose of this session was to learn about the Type 4 Silviculture Strategies initiative. Ralph Winter led this Session and provided handouts on the Type 4 SS (see Appendix 6) and FFT Planning Teams (Appendix 7). Ralph noted that Type 4 SS are not a land use plan but tie to the 5-year FFT plan and to investments made on-the-ground.

Ralph noted key drivers for Type 4 SS including the Auditor General's audit on FLNR's management of timber and the MLA Special Committee on Timber Supply that Lorne discussed in his introductory remarks. For example, in the Special Committee's report, three recommendations address Type 4 SS:

- 3.2 recommends that the Ministry place priority on completion of Type 4 SS to guide investments in intensive silviculture in accordance with established criteria
- 3.3 recommends that the Ministry work closely with tenure holders by linking fuel management program to Type 4 SS.
- 6.1 recommends that the Ministry complete a Type 4 silviculture analysis for the Lakes TSA to guide the fertilization program and also to set other important silvicultural goals as well as to support goals for the management of wildfire risks in the TSA.

Another important driver is the BC Forest Stewardship Action Plan for Climate Change Adaptation <http://www.for.gov.bc.ca/het/climate/actionplan/index.htm>

The Type 4 SS in Quesnel TSA shows that if licensees can salvage harvest in the western supply block over the next 10 years that this will have a significant positive impact on timber

supply, and also lessen the need for FFT CR investments. Licensees in Merritt TSA had committed to a focused harvesting strategy there to improve timber supply projections. It is important for licensees to ‘co-own’ Type 4 SS by being engaged in its development.

Non-timber constraints can have a significant impact on timber supply; are there proactive silvicultural investments that can be made to address non-timber values and improve timber supply such as partial cutting and fertilization. A strategic combination of treatments may improve timber supply.

There was discussion around possible incentives to licensees to salvage harvest such as relieving them of reforestation obligations (akin to the model with BCTS). There is some work in progress in the context of reducing fire hazard.

It is important to communicate with licensees the importance of continuing to salvage harvest and to save live trees for mid-term timber supply as per TSR assumptions; otherwise impacts on mid-term timber supply will get much worse than projected in TSR. Hopefully that awareness will result in positive volunteer actions and obviate need for a regulatory action. That said some licensees say they can’t do that economically. Another approach to address the issue is to partition the AAC, but that leads to other challenges such as how do we monitor and enforce the partition? (e.g. How do we know that >50% of the stand was dead? How do we penalize?). It was also noted that an AAC partition in one area is being legally challenged by the licensee.

It was mentioned that although TSR is a good tool to try and change performance, there are implementation challenges in delivering on assumed harvest practices. And that it is important to link harvest practices with TSR assumptions.

It was noted that the Ministry’s job should be providing the best information it can about the consequences of different actions (such as harvesting dead vs live stands in the short-term and their differential impacts on mid-term timber supply). An example of this is the Species Monitoring Reports prepared for each management unit located at the The State of BC’s Forests website <http://www.for.gov.bc.ca/hfp/sof/>

Reports like those from the Auditor General on FLNR management of timber, and Forest Practice Board’s report regarding NSR, help put a spotlight on how we can improve.

Regardless of whether a Type 4 SS is underway or not in your district, it is important to have on-going meetings with key constituents via FFT Planning Teams (see Appendix 7). A policy review is underway about the Fort St John Code Pilot Project and IFPAs – and a key outcome is that there are cost savings when constituents work together (e.g. roads). Having a district constituent meeting about LBIS in general or FFT in particular is also important to foster cooperation and support in the program. That said some challenges were mentioned, for example, competition between licensees in some management units may make cooperation difficult, and company silviculture staff may need a commitment from their managers to be engaged.

Ralph commented on the history of forest investments in BC and why it is so important to have FFT Planning Teams. FRDA was largely government delivered and consequently there were industry detractors, while FRBC and FIA was largely licensee delivered which led to government detractors. We need to ensure we work together through FFT so that the program

is fully supported; communication is key to getting licensee support – and the FFT Planning Teams can play a vital role in communication and coordination. Because of the importance of having constituent meetings, \$5000 has been allocated to each district so that FFT Planning Team meetings can be held. The Fall meeting should go over the draft 5-year plan and assess if we are missing something; the Spring meeting should focus on who is going to deliver the program so that when budget's are allocated, we are ready to go.

Although it makes sense, it was noted that District staff are delivering FFT on the 'side of their desk' as it is and may not have the staff and resources needed to effectively hold FFT Planning Team meetings. District staff focus is largely on legal obligations; with respect to other activities, staff are often told by management that that is not our role anymore. Although an overview of stewardship is fundamentally important, this needs to be reflected in regional work plans – it is too often missed there; there is a need to influence management that this is fact needed work with links to ministry goals, objectives and targets.

There was a question about whether species targets have been established for specific species related to climate change adaptation. Al P. said none yet; important to watch trend on use of white pine. After Type 4 SS in Quesnel, we may be able to establish target(s).

Regarding the link between 5-year plans and Type 4, Al P. said keep going with 5-year plans and then blend them with Type 4 outcomes as they unfold; don't stop doing 5-year plans while waiting for Type 4 SS to be completed.

## **Session 5: Backlog NSR, RESULTS Data Trends and Training Needs**

This session was led by Caroline MacLeod and Matt LeRoy; their power point presentation entitled "RESULTS Reporting" is posted at <http://www.for.gov.bc.ca/hcp/fia/landbase/fft/updates.htm>

### **Backlog NSR**

Matt noted there was 128 000 ha of reported backlog NSR in RESULTS in 2012 and this dropped by 49 000 ha to 79 000 ha in 2013. The FFT target for 2014 is to eliminate the remaining 79 000 ha through surveys and entries in RESULTS in order to achieve the Throne Speech commitment that there will be no remaining backlog NSR in 2015.

Some of the relatively remote and expansive areas with a large proportion of the remaining backlog NSR (Cassier, Fort Nelson, Peace, Mackenzie) will require lots of flying to address the status of areas currently identified as backlog NSR. Silviculture surveys need to be planned in backlog NSR areas as it is expected most if not all have naturally recovered. If any questions on the appropriate survey standard, contact Dave Weaver at Resource Practices Branch. The standards are posted at <http://www.for.gov.bc.ca/hcp/fia/landbase/fft/standards/surveys.htm>

Chartwell Consultants have been hired to help address the backlog NSR and can assist with data entry, surveys, forest cover submissions, etc. It was noted that some of the backlog NSR area is now in parks; Matt said that Chartwell is dealing with this.

**Action #6: Updated Backlog NSR data.** A new extract (graph) based on the most recent run of RESULTS data will be available to district staff before the September 20<sup>th</sup> Backlog NSR meeting.



## RESULTS Data Trends and Reporting

Caroline said that it was decided that this FFT Workshop is probably not the right forum to undertake RESULTS training; the agenda was therefore updated to reflect this.

**Action #7: RESULTS training needs.** Please let Caroline know of your training needs as they relate to RESULTS reporting as it is critical that FFT program investments and accomplishments get reflected in RESULTS

Caroline went over a few graphs in the powerpoint presentation that summarized the findings of a reporting review of FFT or FIA funded activities. The review found that the 2% error quality assurance target is not being met in terms of RESULTS reporting, and that there has been little improvement over time (between 2006 and 2013). For example large areas that were assessed as part of the impeded stand review did not get a forest cover update to reflect findings or treatments.

**Action #8: RESULTS reporting issues.** All openings with issues will be sent by Caroline and Matt to each district so they can be addressed/resolved.

During discussions, it was noted that the right RESULTS label is needed for areas of NSR that are reviewed, but where decision made not to treat it. It is important not to lose that information or conclusion, otherwise the site might get unnecessarily revisited again. There was questions about removing or retiring a forest cover label, and not losing the historic information about the area. Caroline said the historic data is not removed from RESULTS – it can still be accessed. Some of these issues relate to lack of training; some to lack of guidance.

The importance of using RESULTS for forward planning was mentioned; however some operational issues and concerns were raised about this. The CR regimes in RESULTS end at free-growing, there are no regimes in TSM. There is also lots of historic outdated planned activities in RESULTS that we will be not be doing; how to clean this up? BCTS staff were asked how they address this in GENUS; the response was they clean up outdated historic planned activities all the time.

**Action #9: Form RESULTS working group.** A working group with Lilijana Knezevic, Barb Wadey, Carolyn Stevens, Dave C., Al P. and others who may be interested should be formed to assist Caroline/Matt address various RESULTS issues faced by operations staff such as forward planning, labeling (remove/retire), review of large areas, how to address historic (outdated) planned activities, how to clean-up RESULTS data, etc.

**Action #10: Update legal obligations.** Any caribou mitigation decisions by government that result in some areas being waived as a legal obligation to reforest need to be reflected in RESULTS.

## RESULTS Training Plan

The RESULTS training plan consists of:

- exploring potential for increasing training requirement and move to certification model
- maintaining existing training material and recorded sessions on the Branch hosted Live Meeting site

- forward planning session
- Snap Tool/Survey Wizard Training
- EzLink Training
- “One on One” sessions via Live Meeting

The “one on one” sessions will be tailored to the needs of the individual as each person who uses RESULTS has a different training need – please sign up for this opportunity. Staff will be contacted about Survey Wizard training.

There was discussion around the use of map notations that ‘flag’ areas needed for carbon investments. This is still being worked on; no pressures yet as few projects currently identified. It was noted that map notations don’t stop harvesting approval, it is an encumbrance check.

This is a good reason for bi-annual meetings with licensees. For example, if we fertilize, it is important to secure that investment and delay harvest so benefits of fertilization can be secured. It was noted that getting the large licensees together less of a challenge, but there are many smaller operators who may not be able to attend.

## Day Two

### Housekeeping – Addressing Concerns from Day One

Dave Cornwell went over the Action items from the first day, and asked if there were any concerns before moving forward with today’s agenda. No concerns were raised.

### Session 6: Wildfire Management Branch: Opportunities for Collaboration

The purpose of this session was to describe opportunities whereby the FFT Current Reforestation program and the Wildfire Management Branch can effectively collaborate. Kelly Osbourne led this Session. Kelly covered four main topic themes:

- Strategic direction
- Wildfire trends
- Landscape fire management planning
- Collaboration opportunities

#### Strategic direction

These key drivers include the:

2010 BC Wildland Fire Management Strategy  
<http://bcwildfire.ca/Prevention/PrescribedFire/>

2012 Forest Sector Strategy for BC  
<http://www.for.gov.bc.ca/mof/forestsectorstrategy/>

2012 BC Forest Stewardship Action Plan for Climate Change Adaptation  
<http://www.for.gov.bc.ca/het/climate/actionplan/index.htm>

2012 BC Forest Practices Board Special Investigation re: Fire Management Planning  
[http://www.fpb.gov.bc.ca/SIR34\\_Fire\\_Management\\_Planning.htm](http://www.fpb.gov.bc.ca/SIR34_Fire_Management_Planning.htm)

2012 Special Committee on Timber Supply's report Growing Fibre, Growing Value  
<http://www.leg.bc.ca/timbercommittee/>

District level fire management planning and collaboration where Wildfire Management Branch can assist.

### **Wildfire trends**

“Fire will play a role on the landscape managed or otherwise”

Trends include:

- Steadily increasing suppression costs
- Steadily increasing complexity on the landscape including wildland urban interface
- Increasing impacts (e.g. air quality, evacuations, loss of timber)

### **Landscape fire management planning**

The intent is to create a more fire resilient landscape to mitigate impacts on priority values in an era of increasing fire hazards and risks. The planning identifies zones with a high hazard, and aims to restore fire in the ecosystem. Government will likely need to lead this planning as industry generally not interested in taking on the public consultation work, but industry may be key to implementing the plan by doing fuel management work (e.g. removing wood where fuels need to be reduced).

The planning is done in a phased approach. Phase 1a involves wildfire planning at management unit level where levels of fire intensity is identified. Phase 1b involves the identification of key values needing protection: #1 is human life and safety; #2 is property and critical infrastructure; #3 are high environmental and cultural values (e.g. community watersheds, values identified under FRPA's Government Actions Regulation); and #4 are high resource values such as high value timber areas, parks and protected areas). The identification and mapping of priority values helps fire suppression staff identify key activities needed to suppress fires as well as proactive measures that might be taken to mitigate risk.

Phase 2 involves district and WMB led collaborative planning with communities, First Nations and stakeholders where locally important values are identified.

Phase 3 identifies operational management actions needed to reduce fire risk. For example, perhaps a forest license to cut needs to be issued by the district manager to reduce fuels in key wildland urban interface areas with either an exemption to reforest, or with significantly reduced stocking standards to reduce fuel build-up.

**Action #11: Stocking standards to support wildfire management objectives.** Resource Practices Branch to work with Wildfire Management Branch and operations staff to develop suitable standards.

It was noted that some districts are already doing prescribed burns with their FFT Current Reforestation funding. And that FFT funds can be used to plant alternative fire resistant species in the wildland urban interface. There was comment that the cost of clearcutting next to a small community to reduce fire risk may be less than trying to treat the forest by reducing fuel loads.

FFT is striving to be a ‘flagship’ program as it relates to climate change adaptation. If 100 years ago the area was an open forest, and if now a dense forest that has burned, why plant with high stocking densities?

### **Collaboration opportunities**

This can include:

- FFT activities contributing towards reduced fire risk to communities
- Fertilization and reforestation aligning with values needing protection from fire
- Integrating LBIS ecosystem restoration, FFT and fuel management planning

It was noted that Type 4 SS are trying to do the last point above, but we don’t have to wait for Type 4 SS to begin that integration.

There was a comment that strategic integration ok but need guidance, standards and best manage practices for CR and TSM on obtaining multiple benefits as the costs can go up. Also the strategic priorities for FFT in a management unit as it relates to timber supply may have to modified in order to better support priorities for wildfire management. A key is to define objectives and to identify what is the timber volume loss vs fire reduction gain if FFT treatments are modified.

## **Session 7: Site Preparation Techniques and Equipment**

The purpose of this session is to describe site preparation techniques and equipment than can used for stand rehabilitation projects. Janet Mitchell with FP Innovations led this Session; her power point presentation “FP Innovations Overview” is posted at <http://www.for.gov.bc.ca/hcp/fia/landbase/fft/updates.htm>

FPInnovations is a private, non-profit corporation formed in 2007 that merged FERIC, Paprican, Forintexk and Canadian Wood Fibre Centre. FPInnovations supports a competitive Canadian forest sector through science and technology based solutions, and facilitates collaborate approaches to innovation.

The member-supported research represents a partnership between industry and federal & provincial governments. Members includes over 400 forest product companies, industry suppliers, 8 provinces (including BC) and the federal government through Natural Resources Canada and the Canadian Forestry Service.

FPInnovations has four main research centres, including one in Vancouver, with field staff and extension specialists located in several other locations across Canada and BC.

The Forest Operations Program’s includes: reduction of phase operation costs; value maximization; worker health and safety; and sustainability of forest operations.

The Forest Operations Research Programs and Themes include: Fibre Supply; Harvesting Systems; Roads & Transportation; and Value Maximization (e.g. via decision support systems).

FPInnovations supports technology transfer and knowledge exchange through workshops, field trips, seminars, courses, responding to information requests, reports and via its website: [www.FPInnovations.ca](http://www.FPInnovations.ca)

Examples of project topics undertaken by FPInnovations include:

- Forest Feedstocks: provide solutions to deliver a sustainable supply for an emerging bioeconomy (e.g. one project focuses on storage practices)
- Harvesting Operations: develop safe, cost-effective and sustainable ways to plan and carry out forest harvesting operations (e.g. steep slope research program)
- Precision Forestry: develop operational performance and production monitoring and reporting systems for woodlands operations (e.g. use of FP suite of products to better track production and reduce costs)
- Resource Roads: develop and implement tools and solutions for high performance, safe and environmentally friendly resource road networks (e.g. digital video to increase sight lines and improve road safety)
- Transportation and Energy: optimize transportation in terms of costs, productivity and safety; having more fuel efficient truck use)
- Silvicultural Operations: develop safe, cost-efficient silvicultural strategies and tools to help member companies and provincial partners in achieving regeneration targets and AAC objectives

An example of the latter project topic is the development of regeneration strategies for natural disturbances where effective treatments on MPB and wildfire-impacted sites is undertaken to remove dead overstory and establish a productive stand. Several studies were described including the use of a mulcher to juvenile thin dense pine regeneration.

A list of FPInnovation contacts and research managers are provided at the end of Janet's powerpoint presentation. Since the Province of BC is a member of FPInnovations, FLNR employees can get a password and access everything on their website.

During discussions it was noted that the ROI decision support tools FLNR uses is dependent on logging cost surveys that need refinement. Janet said that Jack MacDonald with FPInnovations is working with Mario Di Lucca at FLNR on this.

Janet concluded by saying if there is a treatment you want assessed or issue you want raised, please contact FPInnovations as they develop in the winter their program budget/plan for next fiscal year.

## **Session 8: Case Study: Coastal Regions**

The purpose of this session was to review 5-year consultation process undertaken in the Coastal regions. The objective of the consultation process was to get licensee/district input into the development of the 5-year LBIS FFT plan for the Coast. Kevin Telfer led the session; his powerpoint presentation is posted as '5 Year Silviculture Plan Development Process' at <http://www.for.gov.bc.ca/hcp/fia/landbase/fft/updates.htm>.

The objective of the consultation process was to familiarize District staff and licensees with LBIS FFT program, and to obtain detailed input about investment opportunities and priorities for the Coast. The desired outcome was to prepare a defensible 5 year FFT plan.

A spreadsheet was provided to districts/licensees to identify proposed FFT eligible activities by type, and over what area, in each year of the 5-year plan. A treatment rationale also needed to be provided. The FFT Silviculture Funding Criteria was used to screen projects for eligibility e.g. proposals to fertilize western hemlock were not accepted.

Some companies were interested in submitting activities whereas others were not. During the feedback process, a licensee who had deactivated a road now wished they hadn't as they could have used that road to access areas for FFT treatments. The feedback underscored importance of communicating with licensees about FFT.

There was feedback from silviculturists both for and against spacing. Spacing skeptics felt that activity would lead to decreased future volumes, poor stem form, and decreased stand values. Those in favour of spacing felt that it would result in earlier harvests, increased piece size, more clear wood (especially with pruning), and product diversity.

In the end a compromise 5-year plan was developed for the Coast that included:

- Current reforestation in wildfire impacted areas
- Fertilization in Douglas-fir stands
- Some red alder spacing
- Some spacing and pruning if supported by the area's TSR, licensees, districts and if there was available budget to do so

The \$3 MM/year plan covers the entire Coast area. It is supported by a rationale document that outlines assumptions and identifies priorities in order of which activities to drop depending on size of budget. The plan also identifies opportunities should silviculture investment criteria change.

Assuming a similar budget as 2012/13, the activities include:

- Lots of aerial fertilization (8 500 ha)
- Current reforestation (150 ha)
- Removal of Vexar tubing from defunct licensees
- Alder spacing (around 100 ha/year)
- Conifer spacing (280 ha)
- Pruning (100 ha in 2015 if an eligible activity then)
- Hand fertilization (around 80 ha) where feasible
- Consider barge based fertilization in future years

The 'grassroots' requests for activities seemed to dovetail with expected funding levels and BCTS capacity to deliver. The plan was built based on district/licensees input; the priorities were shown to districts for feedback. The planning was based on management units with reliance on the Silviculture Investment Criteria so that the activities focus on improving timber supply. For example there was a proposal to create Goshawk habitat via spacing but it had no AAC effect and was not prioritized. Perhaps another LBI investment category is a better tool to use.

The feedback has been mainly positive with respect to the process used to develop the plan. It was noted during discussions the value of plan in prioritizing activities so in can respond to uncertain budgets. In terms of lessons learned, it would have been better to have had more time to compile the silviculture surveys that were used to identify proposed activities.

## Session 9: Case Study: BCTS – Collaboration in Delivery

The purpose of this session is to discuss BC Timber Sales – collaboration in delivery and lump sum sales. Dave Cornwell mentioned that the signed MOU with BCTS regarding LBIS, and the approved ITSL FLTC Stand Selection Policy (aka eligibility criteria) for FFT Current Reforestation are posted at: <http://www.for.gov.bc.ca/hcp/fia/landbase/fft/updates.htm>. Simply put, the eligibility criteria places focus on FFT harvesting in areas BCTS could not afford to harvest if they had a reforestation obligation.

The question for this Session is how can we increase BCTS uptake in the delivery of FFT Current Reforestation? The uptake is working well in some areas like Kamloops and Burns Lake, but it is not occurring in some FLNR districts/BCTS business areas.

There was suggestion that FFT should expand its scope to include the reforestation of problem forest types – the stands are not entirely dead but they are not commercial. This may increase uptake by BCTS. Also in some areas, we are running out of MPB impacted stands with >70% dead trees so that criteria may need to be eased.

The Silviculture Criteria guidelines were developed so we don't compromise either the mid-term timber supply contribution opportunities from residual stands or the opportunities for the future salvage harvesting of these stands.

There was concern expressed that an issue with BCTS uptake may be because the wood harvested under an ITSL that meets FFT eligibility criteria may not be as profitable as other harvesting options – and yet the FFT harvested wood 'counts' towards the AAC. In response it was noted that BCTS has no 'cut control' with respect to AAC so that person did not think this aspect was an issue.

**Action #12: Identify opportunities to improve MOU/ITSL.** Staff should share any ideas to improve the LBIS BCTS MOU or use of the ITSL for FFT Current Reforestation to address local needs with Dave Cornwell.

One factor in why there is less BCTS uptake in some districts is when the district may not have the FFT Current Reforestation funding levels to make it worthwhile to deliver in this manner. It was noted that districts who need auxiliary help to deliver planting contracts should consider contacting BCTS to see if they can help; BCTS gets 10% overhead to help address their costs.

One of the issues is whether BCTS is willing to operate outside of their chart areas; they are reluctant to do so in some areas, but are doing that in Burns Lake and Okanagan areas. It was suggested that FFT needs to involve major licensees in the delivery within their chart areas as some districts are nearly 'done' in BCTS chart areas.

In one TSA BCTS is addressing 3000 ha/year in their chart area, but the need could be 20 000 to 30 000 ha if extended to entire THLB. NRFLs don't appear interested in addressing the need to remove the impacted overstory.

**Action #13: Involving major licensees in their chart areas.** The BCTS MOU and eligibility criteria could be adapted for use with major licensees so they have opportunity to be involved in FFT delivery.

The MOU and eligibility criteria with BCTS was reviewed through the lens of the Softwood Lumber Agreement (SLA) and deemed ok. The eligibility may need to change however with major licensees so as not raise SLA issues, for example, for stands where any surviving overstory wood is only used for non-softwood products such as chips. Some licensees may be interested in FFT delivery so their staff or contractors can be involved in the planting work.

It was noted that in the Quesnel Type 4 SS that growth rates can increase 4 times from 1 cubic metre per year in stands with suppressed growth rates to 4 cubic metres per year with pine from select seed sources. This underscores the importance of addressing suppressed stands.

There was a question whether overly dense dry belt fir near communities could be spaced using FFT CR to increase timber supply and reduce fire risk. A response was that FFT TSM funding should be used instead as it does not meet Silviculture Funding Criteria for CR.

## **Session 10: Resource Worker Safety and Hand Falling Guidelines**

The purpose of this session is to discuss key concepts related to resource worker safety, owner obligations, and the hand falling guidelines. Tom Jackson, Director, Resource Worker Safety will lead the Session. Tom provided the following resource material that can be accessed in the Workshop Workbook appendices:

- Hand Falling Guidelines (Appendix J)
- Safety Conditions (Appendix K)
- Sample ITT Package (Appendix L)
- Pre-Work Conference Checklist (Appendix M)

The BC Forest Safety Council <http://www.bcforestsafe.org/> has implemented a voluntary program for obtaining and maintaining SAFE companies certification. The Council is funded through a special assessment collected by WorkSafeBC from the harvesting, hauling and silviculture sectors. The Western Silvicultural Contractors' Association is a member of Council.

Other natural resource sectors have safety forums and standards (e.g. BC Construction Safety Alliance, Agriculture Inter-Agency Committee as it relates to farm workers' safety including ranchers).

The Ministry has a Resource Worker Safety Task Team that includes Dave Cornwell. The Team is responsible for establishing a Safety Management System for the Ministry. The 'system' is broader in scope than the more detailed guidelines developed by the Team for Hand Falling, or by other organizations within FLNR such as Wildfire Management Branch's fire suppression safety guidelines, or BCTS' safety guidelines.

The Safety Management System includes policy, guidance (e.g. in contract administration), audit protocol, training, and roles and responsibilities. Safety-related contract administration guidance is expected to be out in September 2012 that clarifies 'who is the owner' (see discussion below). The Ministry's internal safety website is located at <http://gww.nro.gov.bc.ca/home/safety/index.html>



FFT has a Worker Safety website <http://www.for.gov.bc.ca/hcp/fia/landbase/fft/safety.htm> that includes a one-page FFT Safety Policy. The intent of the policy is to foster a safety culture (values, beliefs and practices) that supports a safe workplace. Culture = policy + practice (since ‘practice’ may or may not be consistent with policy).

**Action #14: FLNR Safety Management System.** Contact Tom Jackson if any questions or concerns about FLNR’s Safety Management System as it rolls out including policy, guidance, and roles and responsibilities.

It is important to keep in mind that Safety Management System can’t be rules-based given the diversity of activities undertaken by FLNR.

The contract administration guidance is largely driven by the Workers Compensation Act (WCA). WCA has a broader definition of ‘who is the owner’ than we might think of it terms of day-to-day usage. WCA defines the ‘owner’ as the person/organization with knowledge and control under the circumstances and the situation. This was done on purpose in order to protect workers.

If FLNR contracts work, FLNR is the ‘owner’ as it owns the land and issues the contract. However if a TFL holder issues a contract on Crown land, it would be deemed the ‘owner’ as that holder has knowledge and control. If BCTS hires a contractor who in turn hires staff, BCTS has knowledge and control over some aspects of the work, while the contractor has knowledge and control over other aspects (i.e. the same project may have two ‘owners’).

There is an issue whether use of a resource road constitutes a ‘workplace’ that WorkSafeBC and government are addressing. We expect some direction on this. It is clear that road maintenance activities means the road is a workplace, but should every vehicle on a Forest Service Road (FSR) be deemed a ‘workplace’? Unfortunately there are lots of accidents on resource roads, but should the focus be making FSR use safe (i.e. do it safely regardless of rule).

‘Owners’ can’t delegate that responsibility if they have knowledge and control. A key duty of an owner is to identify hazards, and then mitigate those hazards. There is guidance from WorkSafeBC on these duties. This does not mean that the owner is required to do a hazard inventory; but it does mean that any hazards observed while preparing for work need to be identified and mitigated including access to the workplace.

WCA s. 119 addresses general duties of owner including hazard identification, s. 118 addresses who is the prime contractor (‘owner’), and s. 115 covers the duties of employers (if you have employees, you are an employer). The general duty of care in the workplace includes those visiting the site (e.g. guests attending this Workshop from out-of-province). WCA regulation specifies that any person witnessing or seeing a safety issues needs to report it to the supervisor. FLNR staff are encouraged to bring a WorkSafeBC officer to the workplace if any questions or concerns about worker safety. It may be useful to get any advice in writing.

The Hand Falling Guidelines apply where you need to hire a qualified independent contractor. The contracting firm should have ‘certified fallers’; the back of the issued card indicates up to what tree diameter the certification applies. There needs to be a designated supervisor overseeing the work by certified fallers. The BC Forest Safety Council is developing a supervision certificate. The designated supervisor can oversee work on multiple sites. If a

small job, can hire one faller who is also the supervisor. The requirements for a falling certificate and designated supervisor begins April 1<sup>st</sup>, 2013.

**Action #15: New falling certificate and designated supervisor requirements.** All applicable FLNR/BCTS staff need to get message out about April 1<sup>st</sup>, 2013 requirements for a falling certificate and designated supervisor. If the company has any concerns about the requirements, have them contact Tom Jackson.

Where there is a multi-employer workplace, there needs to be a prime contractor (WCA s. 118). Amongst other things, the prime contractor must ensure the activities of employers, workers and other persons at the workplace relating to health and safety are coordinated. If FLNR hires a prime contractor, it is not good enough to just tell that person that is their role; FLNR needs to tell the ‘subcontractors’ so they are aware who the prime contractor is.

## Session 11: Forest Health

The purpose of this Session is to learn about forest health topics of interest to the FFT Current Reforestation program. Jennifer Burleigh led this session; her power point presentation “FFT Forest Health” is posted at <http://www.for.gov.bc.ca/hcp/fia/landbase/fft/updates.htm>

### Western Spruce Budworm

The western spruce budworm (WSB) is an important native defoliator of interior Douglas-fir in BC. From 1909 to 1995 less than 40% of the IDF has a history of WSB defoliation. The WSB has expanded considerably since 1995; as of 2010 over 50% of the IDF now has a history of defoliation (1909-2010). Much of new defoliation has occurred in the Cariboo, and in the Merritt to Princeton area. The map showing the 2011 defoliation also shows considerable activity in the Cariboo, and in the Kelowna-Osoyoos-Grand Forks area, with new activity in the East Kootenays southeast of Cranbrook.

Small larvae disperse on fine threads over tree canopy and to small trees below with the fall dispersal following hatching and spring dispersal following emergence. Higher density stands with multiple layers provide more abundant food and opportunity for feeding larvae, and lessens mortality since the budworm has higher chance of landing in lower canopy layer than on the ground where the larvae would die. Higher quantity of foliage translates into higher numbers of moths, therefore faster and more extreme population build-ups in dense multi-layered stands. Impacted stands may reduce options for commercial harvesting and increase fire hazard risk.

Thinning therefore is suggested forest health treatment to reduce inter-tree competition for moisture and light, lessen canopy/foilage sources for dispersing budworm, and ultimately to increase budworm mortality. If stand is already severely defoliated, delay thinning as trees may take longer to respond or even light levels of subsequent defoliation could cause tree mortality.

If WSB levels are high and/or defoliation events sustained over consecutive years, even single layer stands can be a risk to severe damage. Intervention with B.t.k. may be needed in this situation.

### Information is Key

Since there are limited funds available for forest health treatments, it is important to assess priorities. Sources of information to review when assessing priorities include:

- LBIS Forest Health Planning Maps (i.e. Forest Health Hazard Maps from RESULTS and SEDA data). Maps from RESULTS data spatially represents data collected during surveys (i.e. what has been damaged) Maps from SEDA (Stand Establishment Decision Aids) data spatially represents the potential for damage based on biophysical site conditions (e.g. BEC, elevation). See <http://lbis.forestpracticesbranch.com/LBIS/node/180>
- Forest Health website (e.g. Regional and TSA Forest Health Strategies; and Forest Health Stand Tending Decision Keys for the Coast and Interior). For example, in the Decision Key for the Interior, treatment recommendations for Armillaria root disease are provided in interior subzones based on tree species (host susceptibility) and incidence of root disease based on survey. Where there is high or moderate incidence and high susceptibility, an intensive disease treatment level of actions is recommended. See <http://www.for.gov.bc.ca/hfp/health/index.htm>

The biggest proactive action that can be taken for forest health is at the stand establishment phase via stocking standards (species, densities and definition of free growing). In June 2012, 'Guidance for assessing FSP stocking standards alignment with addressing immediate and long-term health issues' (as required under FPPR s. 26) was sent by Resource Practices Branch to all Regional Executive Directors, District Resource Managers, and Timber Sales Managers. [http://www.for.gov.bc.ca/hfp/silviculture/stocking\\_std.htm](http://www.for.gov.bc.ca/hfp/silviculture/stocking_std.htm) There are more limited proactive treatment opportunities when managing mature trees.

In the Nadina, locally developed stocking standards were developed via a collaborative process with district staff, silviculturists and forest health specialists that address forest health.

**Action #16: Locally developed stocking standards that address forest health.** Contact Jennifer and your regional forest health specialist if interested in developing stocking standards that address local forest health issues.

Forest health staff are in the process of developing a Forest Health Training Strategy. It was noted that staff or contractors who develop stand prescriptions need forest health training.

**Action #17: Identify your forest health training needs** to Branch or regional forest health staff.

Final words for Session 7 on forest health:

- Consult with your regional forest health specialist
- Incremental silviculture can do a lot of good
- Incremental silviculture can do a lot of not so good if forest health is not appropriately considered
- When in doubt: consult with your regional forest health specialist!

## **Workshop Wrap-Up and Evaluation**

Dave Cornwell went over the new Actions from Day Two, thanked all who attended for their contributions, and to the presenters for leading the various sessions of the workshop. Many thanks in turn were extended by attendees to Dave for organizing the Workshop. Dave mentioned that everyone would be receiving a Workshop Synopsis that will include the Actions identified at the Workshop. Dave encouraged everyone to complete the Workshop Evaluation Forms that were distributed. The results of the Workshop Evaluations are in Appendix 2. The Actions in the Synopsis are listed in Appendix 3.

**Many thanks for everyone's contributions!**

## Appendix 1: Workshop Participants

An attendance list was distributed; apologies for anyone inadvertently overlooked in the list below.

Name	Organization
Delee Anderson	Vanderhoof District
Paul Barolet	North Island – Central Coast District
Lorne Bedford	Resource Practices Branch
Aaron Benterud	Coast Mountains District
Jennifer Burleigh	Resource Practices Branch
Jeff Brown	Prince George District
Scott Byron	BC Timber Sales Stuart-Nechako
Dave Cornwell	Resource Practices Branch
Nola Daintith	Cariboo Region
Mike D’Aloia	Fort Nelson District
Sam Davis	Mackenzie District
John DeGagne	Vanderhoof District
Larry Hanlon	Kootenay/Boundary Region
Caitlin Harrison	BC Timber Sales Stuart-Nechako
John Hopper	BC Timber Sales Kamloops
Kerri Howse	Cariboo - Chilcotin District
Susan Hoyles	Omineca Region
John Illes	Nadina District
Tom Jackson	Resource Worker Safety
Ljiljana Knezevic	Omineca Region
Darwyn Koch	BC Timber Sales Prince George
Lyn Konowalyk	Rocky Mountain District
Katherine Ladyman	Okanagan Shuswap District
Matt LeRoy	Resource Practices Branch
Monty Locke	Resource Practices Branch
Heather MacLennan	Thompson Rivers District
Caroline MacLeod	Resource Practices Branch
Mike Madill	Thompson/Okanagan Region
Lee Martens	Alberta Environment and Sustainable Resource Development
Rob Martin	BC Timber Sales Strait of Georgia
Leith McKenzie	Thompson/Okanagan Region
Frank McAllistar	BC Timber Sales Peace-Liard
Janet Mitchell	FP Innovations
Anna Monetta	Omineca Region
Guy Newsome	BC Timber Sales Cariboo-Chilcotin
Kelly Osbourne	Wildfire Management Branch
Bernie Peschke	Thompson/Okanagan Region
Allan Powelson	Resource Practices Branch
Carolyn Stevens	Nadina District
Andrew Tait	Fort St James District
Kevin Telfer	Coast Region
Miodrag Tkalec	Mackenzie District
Terje Vold	LBIS project consulting support
Barb Wadey	Selkirk District
Craig Wickland	Coast Region
Ralph Winter	Resource Practices Branch

## Appendix 2: Workshop Evaluation

How well do you feel the objectives of the Workshop were addressed? Were you satisfied with Workshop logistics? Please put an **X** in the column that best reflects your views. The number of people responding with an 'X' is shown below.

Workshop Objectives	Not met	Partially Met	Met	Exceeded
1. Develop budget for 2013/14 budget process under LBIS (Session 1)	0	5	23	0
2. Debrief the activities completed to date: lessons learned, successes shared (Session 2)	0	8	19	1 needed?
3. Confirm sowing requests are based on established priorities, capacity to delivery, and consistent with budget forecast (Session 3)	1	5	20	1 needed?
4. RESULTS training (Session 5) <b>1 comment-N/A</b>	1	9	16	0
5. Share and learn from operational experiences through Case Studies (see Session 8 and 9), and other related topics (Sessions 4, 6, 7, 10 and 11)	0	8	19	1
<b>Any Comments on Particular Sessions?</b> (please identify with #1, 2, etc)				
More case studies would have been good to help demonstrate learnings or room for improvement				
Good job. Perhaps Al P. could get graphs/charts out prior to meeting				
The variety of topics were good. The Day 2 agenda was very interesting especially the safety topic				
Tom Jackson's session very useful, as was Janet Mitchell's				
Good presentation from Mr. Jackson. Excellent updates. The meeting was fantastic. Well done manual and appendices.				
Good job!				
4) List of data errors encountered would be beneficial rather than summary groups.				
General comment: still some districts missing and they need to be here to get this information first hand				
Safety very valuable – this conversation/training in this area needs to be given on a larger scale				
Consider changing meeting location for next time				
11) Like forest health session; very energetic, willing to help. Good job!!!				
Ralph's discussion about meeting with licensees: <ul style="list-style-type: none"> <li>• might influence harvest activities in some areas</li> <li>• salvage areas or areas with a declining AAC, licensees do only what is legally required. It would be an embarrassment to try to use moral suasion to influence activities</li> </ul>				
Good sharing knowledge and experience				
Good to break up into our regional subgroups when we are here to discuss face to face our district plans and how they fit up to the region/province				
2) Not sure the 'went well, tricky, etc' themes are the best way to get all the right information – think more specific topics (like contracting issues, planting, etc) might pull out more information than general questions				
4) I don't really like getting the message that our data is terrible prior to getting the hard data to review; or at least getting it at the meeting! Kind of like getting a "Not Performing" EPDP review without being told why!				
No, all was very good, need these workshops to enable communication and review of principles and strategic objectives.				
Remember, lots of good informative discussion at breaks and dinnertime				
Mixed messaging on 2013/14 budget (especially Timber Supply Mitigation). \$38 MM budget = \$0 for TSM. Local AOP 13/14 budget includes activities under TSM, wait and see? What should we tell our				

contractors? Depends on the election? Problem because in 2011 we indicated to contractors the program would continue and they've built up capacity to deliver

Lots of topics not engaging to BCTS staff. Lots of information guided towards District Stewardship staff. Also presentation of information already sent out in e-mails. Graphs displayed to 'shame' certain business units however probably good reasons why. Forget the shaming and just contact particular units to understand the data. Overall still good! Good to talk to others doing similar work.

<b>Workshop Logistics</b>	<b>Satisfied</b>	<b>Not Satisfied</b>	<b>Comment</b>
Workshop organization	<b>27</b>	<b>0</b>  <b>1</b> not sure	-need to sure accurate FFT distribution list. Some districts missed from workshop invite -invitations to some district staff didn't happen -good facility -very good -very well organized. Good job! -morning coffee is good
Workshop venue (meeting room, refreshments/lunch)	<b>25</b>	<b>2</b>	-please have vegetarian and gluten-free options in future meetings -food – no fruits, vegetables, juices... -good facility -very good -food not greatest, poor service -group next to us had better snacks! Lunch ok. Hotel rooms very good -great venue -afternoon snack switch to fruit and vegetables so people do not fall asleep; ran out of water on first day -not enough water the first day; could have had some fruit at lunch
Workshop agenda	<b>23</b>	<b>1</b>	-shorten to 1.5 days -perhaps 1 day would suffice -great agenda -it would be good to have licensees as part of the agenda or even pat of the audience as we need to have their cooperation; (their) expertise and knowledge would help relationship building with districts as well -could be more detailed -all good topics -good run of material -may need repeat of topics to see if progress has been made overcoming challenges
Other (please specify)	-	-	-move meeting timing to October/November -timing (i.e. field season) not best; consider moving to November. Do we need 2 sessions per year? -good workshop -SWAG is good! -would have liked more information on developing annual plan

## **Appendix 3: Workshop Actions**

**Action #1: Updating 2013/14 Annual Operating Plan and 5-Year Plan.** Al Powelson will send FLNR operations staff a digital copy of the draft AOP and 5-Year Plan in excel with guidance on how it needs to be updated and by when. Note: This was done via Al's Sept. 19<sup>th</sup> e-mail to staff.

**Action #2: Unit Costs.** Al Powelson will review unit costs per treatment activity and how these line up (e.g. between adjacent management units) to assess that they are reasonable.

**Action #3: Updating reported accomplishments in RESULTS.** Caroline MacLeod will provide data on reported accomplishments in RESULTS per district and flag any potential discrepancies for applicable districts.

**Action #4: Community forests.** Work with Community Forest to integrate their requests in the District 5-year plans.

**Action #5: Third party delivery.** If staff have experienced concerns with third party delivery, please raise them with Dave Cornwell so that he can work with the delivery agent to resolve the concern and improve communications.

**Action #6: Updated Backlog NSR data.** A new extract (graph) based on the most recent run of RESULTS data will be available to district staff before the September 20<sup>th</sup> Backlog NSR meeting.

**Action #7: RESULTS training needs.** Please let Carolyn know of your training needs as they relate to RESULTS reporting as it is critical that FFT program investments and accomplishments get reflected in RESULTS.

**Action #8: RESULTS reporting issues.** All openings with issues will be sent by Carolyn and Matt to each district so they can be addressed/resolved.

**Action #9: Form RESULTS working group.** A working group with Lilijana Knezevic, Barb Wadey, Carolyn Stevens, Dave C., Al P. and others who may be interested should be formed to assist Caroline/Matt address various RESULTS issues faced by operations staff such as forward planning, labeling (remove/retire), review of large areas, how to address historic (outdated) planned activities, how to clean-up RESULTS data, etc.

**Action #10: Update legal obligations.** Any caribou mitigation decisions by government that result in some areas being waived as a legal obligation to reforest need to be reflected in RESULTS.

**Action #11: Stocking standards to support wildfire management objectives.** Resource Practices Branch to work with Wildfire Management Branch and operations staff to develop suitable standards.



**Action #12: Identify opportunities to improve MOU/ITSL.** Staff should share any ideas to improve the LBIS BCTS MOU or use of the ITSL for FFT Current Reforestation to address local needs with Dave Cornwell.

**Action #13: Involving major licensees in their chart areas.** The BCTS MOU and eligibility criteria could be adapted for use with major licensees so they have opportunity to be involved in FFT delivery.

**Action #14: FLNR Safety Management System.** Contact Tom Jackson if any questions or concerns about FLNR's Safety Management System as it rolls out including policy, guidance, and roles and responsibilities.

**Action #15: New falling certificate and designated supervisor requirements.** All applicable FLNR/BCTS staff need to get message out about April 1<sup>st</sup>, 2013 requirements for a falling certificate and designated supervisor. If the company has any concerns about the requirements, have them contact Tom Jackson.

**Action #16: Locally developed stocking standards that address forest health.** Contact Jennifer and your regional forest health specialist if interested in developing stocking standards that address local forest health issues.

**Action #17: Identify your forest health training needs** to Branch or regional forest health staff.

## Appendix 4: Natural Recovery of MPB Impacted Mature Pine Stands

**Predicted Natural Recovery of >50% Mature Pine Stands by BEC<sup>1</sup>**

A BEC	B Total Plots	C # plots with 1600+ stems/ha <sup>2</sup>	D # of plots with 10+ cubic metres basal area and <=1600 stems/ha <sup>3</sup>	E # of plots with predicted natural recovery <sup>4</sup> (Columns C+D)	F % of total plots with predicted natural recovery (column E/B x 100)	G Suggested % range of predicted natural recovery <sup>5</sup>
SBS	1698	513	562	1075	63	58-68
MS	1031	273	565	838	81	76-86
SBPS	428	182	175	357	83	78-88
IDF	390	187	126	313	80	75-85
ESSF	206	123	77	200	97	92-100
ICH	48	21	27	48	100	90-100
BWBS	22	4	16	20	91	80-100
<b>Total</b>	<b>3823</b>	<b>1303</b>	<b>1548</b>	<b>2851</b>	<b>75</b>	<b>70-80</b>

<sup>1</sup> Plot data from January 2012 *Current State of Knowledge Regarding Secondary Structure in Mountain Pine Beetle Impacted Landscapes* by K. David Coates and Donald L. Sachs

<http://www.for.gov.bc.ca/hts/pubs.htm>

<sup>2</sup> from Table 8 in *Progress Report*. 1600+ conifer seedlings and sapling density (10 cm tall to 7.5 cm DBH)

<sup>3</sup> from Table 10 in *Progress Report*. Basal area of large secondary structure trees (>7.5 cm DBH) greater than 10 cubic metres/ha and less or equal to 1600 conifer seedlings and sapling density (10 cm tall to 7.5 cm DBH)

<sup>4</sup> 'Natural recovery' meaning either sufficient understory densities (column C) or secondary structure to contribute to mid-term timber supply (column D)

<sup>5</sup> +/- 5% except for ICH and BWBS where +/-10% used given low # of plots

## Appendix 5: Sticky Note Comments from Session 2

### What went well in 2012/13?

#### Districts program engagement

- District engagement in FFT program post-recipient era
- District's delivery of program; good cooperation with BCTS in mentoring district staff
- BCTS/District program delivery in Vanderhoof
- We have dedicated and enthusiastic staff

#### Program support

- Good headquarter delivery and planning support
- Branch and regional assistance to complete works and guidance, advice and meetings
- Region's support was helpful and always there
- Good regional support
- Good working relations with region/district/delivery agents
- Good relationship with regional staff, BCTS and FFT

#### Communication

- Communication with regional and district staff
- Much improved communication between Branch and district (or regional) staff
- Good communication with industry as part of the 5-year planning process
- Regional collaboration meetings a success (operational level)
- Getting RPB staff on the ground!

#### Budget

- Prompt allocation
- Early budget approval and communication to regions
- Achieved goals; budget requests supported

#### Useful tools

- BCTS handling the planting program (800 000+ seedlings)
- BCTS ITSL's generally going well but issues with planning considering sales and harvesting schedules
- New FS704 Training Program
- Use access to data entry contractor for RESULTS
- Transition of planting program to BCTS
- Like the forward thinking and exercise done for required surveys
- Highly skilled contractors for FFT eligibility surveys

#### Recipients

- Recipient handled our completed schedules for planting, regeneration surveys, prescription surveys, etc at end of March
- Good on-going relationship with recipients
- BCTS recipient delivery in Omineca
- Having a contingency allotment for previous recipients so we could use the previous recipient for questions/advise

## **What was tricky?**

### Program management

- Program direction (rules, policies, etc)
- Senior management with no forestry background
- Fluctuating spacing goals – difficult to build skilled workforce
- Licensee buy-in
- Changing delivery model
- Regional management disposition of LBIP budgets and FTEs
- 80%/20% budget allocation for TSM/FH
- September meeting; look to changing to November as it interferes with field season
- Developing 2013/14 TSM plan knowing that Type 4 strategy development imminent i.e. how to plan knowing better information is coming
- Timing of September draft budgets before surveys in
- Managing changing budget levels in TSM
- Too many competing priorities in FLNR – water, wildlife, TSR, major projects
- Continuing delivery model changes; staff are ‘change’ weary
- Getting FFT higher level objective information out to the correct target audience e.g. Branch’s desire for multiple species planting; contractors do the prescriptions and often sowing requests; BCTS/Recipients big delivery agents; Branch communication with District and Regional staff

### Workload

- Workload/capacity (lack of resources)
- Too much work, too little time! Issues also with getting contractors to get work done on time which also impacts next phases of projects
- We are swamped! Need people dedicated to the program
- Survey contractor capacity. Hard to find surveyors
- Job/work loads; 3 FTE’s work done by 1 FTE
- Lost expertise; folks like Rocky with expertise around fertilization have retired
- Consulting world is shrinking – hard to find qualified surveyors
- Lack of resources to support FFT program
- First Nation’s referral process

### Training/capacity/experience (contracts)

- Learning new stuff adds time and cost to work

- Contracts are so time-consuming!
- Staff training: RESULTS/contract management
- Transition between recipient/district and BCTS – getting up to speed

#### Stand selection criteria

- Cost benchmarks for repression spacing
- ROI – maybe too limiting for some areas
- Finding FFT eligible stands
- Community Forest tying up good candidate stands for FFT funded treatments
- ITSL surveys less eligible stands; more complex; smaller blocks;
- ITSL eligibility more complex; TCU vs sold rate; complex blocks; multiple strata; smaller blocks

#### Communications

- Communications with BCTS tricky
- Not upsetting BCTS who deliver; keep happy

#### RESULTS/GENUS systems

- GENUS/RESULTS connectivity
- Forward planning in RESULTS; cumbersome when project goals/budgets drop and activity not fund

#### **Where can we improve?**

##### Staffing FTEs/specialist positions/training/expertise

- Ensure silviculture expertise developed in younger staff before we lose expertise to retirement
- Lack of District FTEs to deliver FFT program
- Lack of skilled surveyors/spacers/consultants
- Addressing staffing time/commitments so as to elevate this ‘work’ within Ministry
- Have a central specialist position for RESULTS data entry support
- More ADM support for FTE time at District level; stress importance and fundamental to TSR sustainability
- FTE – Allocations per Districts as the (allocations do not match workload) program deliverables expand so should FTE District allocations (presently no in line)
- Clarity needed for District role in program delivery without budget or designated FTEs (task specific)
- Everywhere! Experience will help us

##### Planning and funding

- We do not have sowing limits (if we are increasing pine planting densities we should not have numbers limited!)
- Let’s consider a forest resiliency index rather than just a timber supply index

- Local licensee involvement on FFT planning teams
- Need to look at having Districts direct Chief Forester's FFT funding program
- Look at linkages between FFT goals and actual treatments
- Not necessary to have sowing caps – just use \$\$ for what needs to be done
- Stable funding annually
- Managing different TSM program levels – criteria to address changing budget levels
- Criteria: include rationale within document i.e. how to use; fact that 'guidance' and up for discussion
- Improved linkage between timber supply assumptions and treatments
- Difficult to roll-up information for 5-year plan by management unit to AOP/District summary; simplify data entry with better spreadsheets that do not make it necessary to total by calculator!
- Specify how to spend 10% allowance

#### Data management and RESULTS

- No forward planning in RESULTS beyond next activity
- Need: data management tool! ex GENUS
- Can we forward plan (in RESULTS) from the expected area requiring surveys? (0.6 MM to 1.1 MM ha!!)
- RESULTS data integrity: forward planning activities scheduled workload cleanup
- RESULTS – improve functionality
- Multiple recipient holders and RESULTS data; RESULTS requires a thorough review and will require \$\$
- Training in doing spatial part of RESULTS

#### Communication within program and to others about program

- Keep on communicating and jointly solving problems
- Need to reinforce FFT message with Executive, RMT, DMT
- Continue open conversation and team building

#### Looking at other mechanisms to meet program objectives

- Not having a good license mechanism to remove MPB killed overstories to facilitate FFT funded planting on area's outside of BCTS's operating areas
- MPB makes fuel, huge fire hazard, can we do Rx burns?

#### Other

- ROI calculations to be expanded to include Type 4 objectives and local costs
- Still fine the website a little bit confusing
- Create a planning tool (MS database) in access to do forward planning (export from RESULTS) reporting – easier to edit forward plans/changes

#### **Did we do it safely?**

### Safe certification

- BCTS SAFE program is good
- Uniform application of Safe Company certification
- Need to use safe certified companies
- BCTS safety certification ensures work is being undertaken safely

### What about when it gets too dangerous?

- Work on fires is getting dangerous
- Trees are falling down now. Not sure how its all going to get surveyed
- Future concerns with surveying 'many years' dead stands. Older stands will become more unstable and risky to work in. Will we be able to survey?

### Other

- Yes
- Did better with DTA's using planting/brushing contractors as well as separate First Nations contractors
- No accidents reported
- Contracts all had safety schedules included. One close encounter with moose; snowmobile took punishment

## Appendix 6: Type 4 Silviculture Strategies

A component of several linked initiatives now underway

Management Component	Initiative	Lead
Goals and objectives	In response to the AG report we are developing draft objectives for timber and other key resource values. Will provide more specific goals and objectives for management, stewardship and investment priorities	Lorne, Ralph, Paul with contract assistance
Silviculture Strategies – type 4	In response Chief Forester Climate change and adaption plan, AG report, MLA report and other forest mgmt planning needs. Strategies will provide detailed forest level analysis to help balance silviculture investments portfolio. Identify 5 year annual activity goals and location	Paul Rehsler (+ contractors) and district leads at Morice, Lakes, PG, Quesnel, William Lake, 100 Mile House, Okanagan
LBIS annual planning and delivery	Identification of goals and budgets for 5 year and annual business plans for all units. Funding available to each district to have a fall review with key constituents of proposed goals for the 5 year and annual plan. Funding available for a March review with key players of key issues for the past year, what changes need to be made and who will lead on delivery of various components.	Al Powellson, Dave Cornwell with links to all districts
Annual planning and Reporting	Training on Annual planning and accomplishments in RESULTS to ensure executive and ministry at all levels are aware of silviculture investment needs and accomplishments. Data quality initiative	Nigel Fletcher, Monty Locke, Caroline Macleod and Mei Ching Tsoi and districts
Monitoring performance	Creation of new map and summary state of the forests reports to monitor the achievement of timber supply and silviculture strategy goals and objectives are being met. Link to Silviculture strategies. New BI reports for districts	Matt Leroy and Caroline Macleod
Policy review	Comprehensive summary of what are the key learning's from the IFPAs and Ft St John Pilot project. Key theme...need for cooperative industry-ministry planning group at the TSA level. Key learning's to be presented to the Forestry Forum with potential subsequent changes to Forest Act and FPPR	Charlie Western, Lorne Bedford, Ralph Winter, Tenures staff and industry reps



## ISSUE: TYPE 4 SILVICULTURE STRATEGIES

### Background - Where did this concept come from?

- **As Forest Management evolves in British Columbia strategic forest management issues keep emerging, for example:**
  - Central interior - mountain pine beetle has significantly exacerbated midterm timber supply.
  - Southern and Central Interior – large fires plus beetles have combined creating reforestation challenges (for the crown) as well as timber, hydrological and habitat issues.
  - Southern and Central Interior – the widespread deployment of lodgepole pine as a species for regeneration may result in higher than desired long term risk to the Crown.
  - Coast – earlier transition to second growth with stands being harvested much younger than projected in TSR will impact future AAC determinations.
  - Coast - Overcutting of western redcedar with unplanned conversions to hemlock stands has implications for future economic viability.
  - Entire Province – projected impacts from climate change have an increased likelihood of increased fire and bark beetle disturbance, drought stress, disease and other agents and surprises could dramatically increase – more in some places than others depending on the disturbance agent.
- **PLUS – Issues being pointed out by others...**
  - Auditor General pointing out a lack of clearly defined Timber Objectives.
- **These issues may all be symptoms of the same underlying problem within TSAs ...**
  - Lack of an ongoing, operational, strategic planning process linked to transparent tactical planning for implementation.
- **The Type 4 Silviculture Strategies addresses the above by:**
  - Strategic – analyzing current forest conditions and projecting trends to identify issues and opportunities. Sets clear strategic objectives for future forest conditions. Then forecasts various management scenarios to determine the best way to get there. Based on the preferred scenario, sets targets to guide tactical planning of what, where and when.
  - Operational – this is not land use planning – it must be done by those who will implement.
  - Ongoing – striving to overcome the tremendous uncertainty associated with forest management, especially with climate change, such planning must continually be revisited – it is the process not the plan that is important.

- **We already have numerous provincial strategies in place** – e.g., Climate Change Adaptation Strategy, Land Base Investment Strategy (with significant funds for mitigation of midterm timber supply problems).
  - But at this time these do not clearly link management activities and investments to long term objectives at the management unit level.
- **There are also many local plans and strategies in various TSA's** - that are often ignored or only partially implemented because they have no ongoing process to actually build targets that direct activities on the ground (e.g., Forest Health Strategies and Fire Management Plans).
- **Other attempts have been made recently to develop a process** –e.g., Forest Management Planning (2011), Future Forest Strategies (2009) – but were unsuccessful due to scope and resourcing issues.

### How do the Type 4's help with these issues?

- **The Type 4 Silviculture Strategies were designed as a scaled down first attempt at this type of process** - they are meant to satisfy immediate needs for well reasoned management strategies in areas with midterm timber supply problems to:
  - Help develop a spatially explicit five-year plan for silviculture investments.
  - Provide direction regarding species selection, landscape level retention, harvesting priorities, climate change and other key local concerns – using existing strategies and data already available.

These Type 4 strategies will:

- Rely on existing collaboration between Resource Practices Branch (RPB), district stewardship staff and key industry stakeholders.
- Rely on qualified district staff to lead the process.
- Utilize LBIS funding to support the development of the strategies that allow Districts to hire contractors to conduct analysis, modelling, and help facilitate the process.
- Provide a foundation for a more comprehensive process at some time in the future.

### Who are involved?

- Quesnel and Prince George TSAs were initiated the process in February, 2012.
- In June, 2012 – a number of other districts came aboard:
  - Lakes and Morice TSAs, Nadina District, in the North.
  - Williams Lake TSA , Cariboo-Chilcotin District and 100 Mile House Districts in the Cariboo.
  - Okanagan –Shuswap District in the South.

## What is the intent moving forward, and where are we at?

- **Communication** – this initiative has been widely communicated within:
  - the Ministry of Forests Lands and Resource Operations
    - Information notes have been created for the Interior and Northwest ADMs, as well as Decision Note for ADM Kevin Kriese in the Northwest to tie the strategies to district staffing priorities.
    - Additionally staff in the Forest Analysis and Inventory Branch have been involved in ongoing discussions and are actively engaged in providing information and providing suggestions on the process (e.g., a Site Index tile).
    - To reduce the potential for duplication ongoing communication with the Cumulative Effects project team is in place.
  - As well as to licensees through COFI **Type IV Milestones**
    - **Milestone A – definition of the management context** - within each of the chosen TSAs the contractor integrates existing plans and strategies and analyses data to identify key issues and opportunities for silviculture and timber management.
      - Completed in Quesnel District.
      - To be completed by September, 2012 in other Districts listed above.
    - **Milestone B – Identification of strategic objectives and analysis of management scenarios** to choose the best scenario going forward with a vision of future forest conditions for the mid and long term.
      - To be completed between September, 2012 and December, 2012
    - **Milestone C – Development of the management strategy with measurable targets** – for reforestation species deployment, landscape level retention, silviculture investments, and where possible, harvest priorities and climate change adaptation actions.
      - To be completed by March, 2013 and revisited as part of the ongoing process in 2013/14
    - **Milestone D** – translation of the strategy into operational reality – tactical planning.
      - To be done in 2013/14
      - Implementation monitoring and modifications as required.

## What have we learned so far?

- Communication is key – earlier attempts to implement a more detailed approach met with resistance from some licensees not fully informed of the process and intent.
- In house communication is important, more will be better as this moves forward.

- Leadership from the top is needed to move this beyond the Type IVs to a more robust and comprehensive operational planning process. This may require a careful look at the organizational structure
- The location and stand types that are being harvested is a critical part of understanding the local issues and opportunities. Presently planned harvest location comes from approved CPs as FSPs do not provide spatial information on harvesting direction. Legislation changes may be needed to ensure harvest planning matches assumptions.
- Each administrative unit (TSA) has its unique set of issues, be they:
  - Inventory differences since the last TSR – making simple analyses more complex, yet more relevant and worthwhile to assess mitigation options,
  - Lack of person power to coordinate the process,
  - Excessive size of some administrative units make planning difficult to comprehend and may wash out local opportunities,
  - Varying interpretation and implementation of the Chief Forester guidance on MPB related retention at the landscape, this will be described for each unit.
  - Little tracking of species deployment occurs within the administrative units, added guidance on this with a tie to climate change information is a key element of the Type IV strategies.
  - Varying approaches at tracking present harvesting to determine whether it is following TSR assumptions occurs: this will be described and shared in the process.
  - Historically, varying willingness to implement previous strategies or plans; this is a critical component in making the Type IV process relevant.

## Appendix 7: FFT Planning Teams

### FFT planning teams (Ministry, Industry, and Delivery agents)

In order to have an efficient, collaborative and effective FFT program, there needs to be:

- Common understanding of LBIS and FFT objectives, priorities, applicable strategies, and funding criteria.
- Consensus on the applicable Silviculture strategies for the management unit
- Agreement on the suite of FFT activities necessary to achieve the silviculture strategies goals and objectives
- For continual improvement, annual review of progress on goals and objective along with identification of issues hindering progress,
- Identification of the method of delivering the various components of FFT.

To achieve these objectives, the Resource Practices Branch has provided \$5,000 this fiscal year for each district to hold 2 meetings with industry and delivery agents (BCTS, PWC and other FFT recipients). This funding could be used to pay for arrange meeting facilities, working lunch and breaks, facilitators and meeting recorders, completing plans and reviewing progress and continual improvement and delivery.

- Districts would be requested to hold meetings with industry and delivery agents prior to December 15 to :
  - Ensure a common understanding of the priorities and directions contained in the most recent silviculture strategy for the management units in the district
  - Have general agreement on priority treatments and locations
  - Review and confirm the FFT 5 year plan submission
  - Review the draft annual operating plan for the up-coming field season
  - Review the appropriateness of costs and proposed budget amounts
  - Review current LBIS activities going on this fiscal year in the district and planned for future years and how FFT can integrate and collaborate with those. Discuss what other LBIS funded activities should be done in the district to address high priority issues (i.e. inventory, ecosystem restoration, wildlife and habitat work)
- Districts would be requested to hold meetings with industry and delivery agents before March 31, 2012 to:
  - Review accomplishments for the 2012/2013 fiscal year
  - Identify successes and shortcomings to the assigned goals
  - Identify areas for improvement in the local program . Identify areas for improvement that need to be considered at the regional or provincial level

- Identify FREP work, FFT survey results, or studies that would change practices for the next fiscal year
- Identify each FFT components delivery ( industry, delivery agent or ministry leads) and budgetary needs for the next fiscal year.
- Discuss what other LBIS funded activities are going to be carried out in the district which constituents need to be aware of (i.e. inventory, ecosystem restoration, wildlife and habitat work)

The Resource Practices Branch will accept JVs to the maximum value of \$5000 from each district who have carried out these meetings. A key delivery will be meeting minutes to confirm that the meetings happened with the key constituents.

If you have any questions or comments on this please contact Dave Cornwell or Ralph Winter

## **District roles and responsibilities**

### **5.1 Planning**

- Conduct strategic planning at the local level. Includes type 1, 2 and 4 silviculture strategies. Includes development of 5 year and annual business plans.
- Identify priority treatment areas in the context of provincial priorities, tactical planning and overview analysis of eligible ground (excludes surveys)
- Assist regional staff specialist or investment category leads in the recommendation of tactics required to achieve provincial goals, objectives, indicators and targets.
- Communicate provincial, regional, and District outputs, targets and tactics to regional and other district staff
- Support the Land Based Investment planning process by:
  - providing advice for, and participating in, the design of tactics for the respective district
  - leading the 5-year operational and annual plan development process for the district and coordinating plan development with licensees, BCTS and recipients.
- First Nations consultation process – review of information sharing done by delivery agents to ensure it is adequate for the proposed LBI project(s) to proceed.

### **5.2 Delivery**

- Achieve the portion of the Land Based Investment Strategy within their respective District where they are directly responsible for delivery
- Ensure cost efficiency and strategic delivery of activities funded by LBIS

- Ensure continuity of key activities needed to support government goals and objectives, i.e. , that once priority activities are started, appropriate follow-through treatments are undertaken on the areas in a timely fashion to protect and realize the value of the original investment.
- Identify the key delivery agents for the local LBIS program.

### **5.3 Reporting and Monitoring**

- Report achievement of the LBIS outputs where the district is responsible for delivery.
- Audit/Quality assurance to ensure that activities undertaken to achieve tactics are consistent with government standards, including:
  - monitoring program implementation collaboratively with RPB and regional staff
- Ensure all activities are reported into the appropriate data system in a timely and accurate fashion.
- Complete quarterly and annual reporting of key accomplishment and trends.

### **5.4 Continual Improvement and Adjustment**

- Identify and communicate significant natural resource issues within the region and district.
- Identify and communicate LBIS program planning and delivery issues.
- Assist in continual improvement of the LBIS program.
- Ensure key results of monitoring and continual improvement ideas are incorporated in the new fiscal year programs.
- Identify the effectiveness and efficiency of various types of delivery agents.

### **5.5 Summary**

- One district person will be formally assigned responsibility in their Employee Performance and Development Plan (EPDP) to be the key district contact for the LBIS program.
- Each district is recommended to provide core staff contact for supporting the following roles:
  - Coordinating and developing plans (August-March)
  - Coordinating delivery agents and ensuring goals are assigned to appropriate delivery agents (March-April)
  - Project implementation (year-round where district is delivery agent)
  - Reporting and monitoring (year-round)
  - Continual improvement and adjustment (January-March)
- The current staffing ranges from 0.2-0.5 FTE/district and should be increased commensurately with the budgets or program allocated to the district.

- The district contact would represent the District Manager on all key meetings for LBIS.
- The district contact would be responsible for organizing the annual local LBIS planning session every fall and implementation meeting each spring, to debrief what went well and what needs to be adjusted in the upcoming field season. The district contact would also identify and coordinate the key delivery agents in the upcoming field season. The district would coordinate with the region where there are regional delivery service agreements in place. ***A total of \$5000 would be assigned to each district to hold a minimum of 2 one day sessions with key delivery agents for the fall and spring meetings.***
- The ministry will have a varied delivery model for LBIS activities. Depending on regional and district priorities, the ministry may use:
  - Internal staff
  - BCTS staff
  - Licensees
  - Recipient agreement holders to deliver on behalf of the district
- The district contact will be responsible for determining with the District Manager the best mix of delivery that meets government goals and objectives, given funding constraints and available staffing.