News from the Inventory Section, Forest Analysis and Inventory Branch, Ministry of Forests Lands and Natural Resource Operations

January 20, 2012

Planning for 2012-13

Planning for 2012/13 is well underway in the Inventory Section. Significant projects planned for 12/13 include the following: Air photo acquisition in Lakes TSA. Photo-interpretation in Mid Coast, Haida Gwaii, Pacific, 100 Mile House, and Kamloops TSAs, and TFLs 14 and 23. Targeted NVAF sampling. Young stand monitoring integrated with mature stand audits in Kootenay Lake and Morice TSAs. Maintenance of the PSP program. Improving site productivity information. LVI in western Williams Lake TSA. Stand modelling research and development. And many other projects and activities. For more information on planning for 2012/13, contact Gary Johansen (Gary.Johansen@gov.bc.ca; 250-356-0633).

2011 Projection

Of the many data sets that comprise the provincial forest inventory, the "veg-comp-poly" file is one of the most frequently accessed by inventory data users. This file provides the provincial coverage of polygons and their attributes. Each year, a new cut of this file is posted to the GeoBC data distribution web site. On January 12th, the 2011 version was posted. Preparing the data for release is a major undertaking. The provincial inventory contains 4.3 million polygons. This release includes approximately 300 mapsheets of new VRI Phase 1 inventory. Since last year, approximately 50,000 polygons (harvest and regeneration updates) have been integrated. In addition, approximately 970,000 polygons (totalling roughly 15 million hectares) have been adjusted for the impact of mountain pine beetle. The on-time completion of this large task is a significant accomplishment. For more information on the 2011 projection, visit http://www.for.gov.bc.ca/hts/vridata/ or contact Marc Rousseau (Marc.Rousseau@gov.bc.ca, 250 828-4426) or Tim Salkeld (Tim.Salkeld@gov.bc.ca , 250-387-6736).

Site index tile

In B.C., considerable progress has been made over the last decade in developing tools to accurately estimate site index. Less progress has been made on providing data users with easy access to spatial site index coverage. To improve user access to site index estimates, we are developing a province-wide GIS layer for site index. By fiscal year-end, we will have assembled PEM and SIBEC data from the central interior, filled data gaps with a bio-physical site index model, and produced a prototype.   We will seek user review and feedback this spring before we

complete other areas of the province. For more information on this site productivity project, contact Graham Hawkins (Graham.Hawkins@gov.bc.ca; 250 387-8893).

Working with BCTS
In January, the Inventory Section and BCTS Strait of Georgia Business Area signed a photo-interpretation implementation plan for 53,000 hectares on the Sunshine Coast comprising six blocks west of Jervis Inlet and east of Desolation Sound. For more information on this project, contact Cathy Taylor (Cathy.Taylor@gov.bc.ca; 250 286-9414).

Status of VRI photo-interpretation in Williams Lake and 100 Mile House TSAs
Photo-interpretation on the eastern third of the Williams Lake TSA (approximately 1,500,000 hectares on 120 maps) is progressing under a number of contracts, the majority of which will be completed by March 2012. Approximately 91,000 hectares will be completed in the next fiscal year.
Approximately 1,464,000 hectares on 106 mapsheets are being re-inventoried in the 100 Mile House TSA. A portion of the fieldwork was completed this fall and all polygon delineation on this project is nearing completion. For more information on the Williams Lake and 100 Mile House projects, contact Matt Makar (Matt.Makar@gov.bc.ca; 250-828-4427).

Integrated audit and monitoring
The Inventory Section 12/13 work plan calls for the establishment of a network of young stand growth monitoring plots in two management units (Morice and Kootenay Lake TSAs). To maximize efficiency, and to acquire information on all components of the forest, we plan to implement an integrated sample – monitoring plots in the young stand component and traditional VRI phase 2 ground sample plots in the mature stand component. For more information on the integration of monitoring and audit sampling, contact Chris Mulvihill (Chris.Mulvihill@gov.bc.ca; 250-825-1183). For more information on the young stand monitoring initiative, contact Tamara Brierley (Tamara.Brierley@gov.bc.ca; 250-356-0703) or access the document, 'A Framework for Implementing Young Stand Growth Monitoring in British Columbia,' posted on the monitoring web page at
http://www.for.gov.bc.ca/hts/vri/monitoring/monitoring.html

Stakeholder focus groups
Staff in the inventory section strive to understand and meet client needs. Stakeholder focus groups are one of the mechanisms that we use to discuss our plans with interested parties and gather their input. On December 2nd, we drew together individuals with a keen interest in

monitoring to discuss our framework for young stand monitoring. We gratefully acknowledge the following individuals for making time to share their views with us: Oscar Garcia of UNBC; Grant Glessing and Bryan Jakubec of Tolko; Eleanor McWilliams of J&E McWilliams and Associates; Ian Moss of Tessera Systems; Earl Spielman of West Fraser; Steve Stearns-Smith of Stearns-Smith and Associates. For more information on the young stand monitoring program, contact Tamara Brierley (Tamara.Brierley@gov.bc.ca; 250-356-0703). The topic of the next stakeholder dialogue is the 2012/13 inventory plan.

TECO Bankruptcy

Since the 1970s, Timberline Forest Inventory Consultants have been a significant contributor to forest inventory in the province. In recent years, Timberline became TECO Natural Resource Group. In October, TECO declared bankruptcy. Many inventory specialists in the province have worked for TECO/Timberline at some point in their careers. Staff of the Inventory Section recognize the important role that this consulting firm has played in inventory over the years. To our colleagues in the inventory community that have been impacted by this event, we extend our sincere wishes for a smooth transition.

MPB

The mountain pine beetle has caused a significant change in stand characteristics over a vast area. This change has created enormous challenges for the inventory program. In 2012, the inventory program is pursuing a 9-part approach to improving inventory information in MPB-affected units:

1. Focus inventory resources on MPB-affected management units and carefully select areas to undertake conventional VRI re-inventory
2. Undertake non-traditional inventory projects to provide interim inventory information in select areas
3. Test and refine the pine kill algorithm that is applied in the annual projection
4. Catch up on harvest depletion and reforestation updates
5. Monitor young stand growth and yield
6. Improve inventory processes for handling dead overstory
7. Provide information on small trees
8. Innovate in inventory methods and processes
9. Enhance inventory planning

More detail on our approach in 2012 can be obtained from the presentation posted on our web site (http://www.for.gov.bc.ca/hts/vri/) or by contacting Patrick Martin (Pat.Martin@gov.bc.ca; 250-387-3650).

VRI change management

VRI Change Management is an open and orderly process to manage change to the VRI standards. From September 21st to October 31st, the VRI community was invited to propose changes. Thirteen proposed changes were received. Section staff are now reviewing the proposed changes against criteria such cost implications, feasibility, and impact on statistical reliability. VRI standards documents will be revised to incorporate the approved changes. Revised VRI standards will be posted prior to the 2012 field season. A summary of decisions on proposed changes will be posted to the change management web page http://www.for.gov.bc.ca/hts/vri/changemgmt/cm2011.html#. For more information on VRI change management, contact JohnWakelin (John.Wakelin@gov.bc.ca; 250-387-5262).

Digital air photos

In 2011 we transitioned from film-based air photos to digital photo acquisition. This is a significant change and we are pleased with the results. The digital air photos provide higher resolution than the traditional process of scanning film-based photos. The 2011 digital photos include a near infrared band that allows additional viewing options. Compared to film, less ground area is covered by a single digital photo, so 2-3 times as many photos are required for a project area. For more information please contact Ann Morrison (Ann.Morrison@gov.bc.ca; 250-953-3625).

VDYP7

VDYP7 is a relatively new stand growth model used to predict timber volume for polygons in the inventory data base and to generate yield tables for timber supply analysis. The key attributes that drive predicted yield are stand age, height, basal area, trees per hectare, species composition and BEC. Most of these attributes are estimated through photo-interpretation. There has been a long history of photo-interpretation of stand age, height and species composition. However, the photo-interpretation of basal area and trees per hectare is relatively new. In some cases, photo-interpreted estimates of these two attributes have been inaccurate. The issue is under investigation, and new tools are being developed to improve estimates. In addition, we are currently testing an updated version of VDYP7. The new version will have more output options, including generation of biomass data on request. We aim to release this new version in July. For more information, contact Sam Otukol (Sam.Otukol@gov.bc.ca; 250-387-2659).

Revised lumber yields for TIPSY

Throughout January, inventory staff located in Victoria found sawmill simulations running on their computers every morning. The culprit – our own Ken Polsson. Ken is re-running the

sawmill simulations for all 3,500 managed stand yield tables in TIPSY. Using the latest version of SAWSIM (from HALCO Software Systems Ltd.), TASS yields are fed through a simulated sawmill to predict lumber and chip outturn. The updated predictions of lumber and chip yield will be available to users in the next release of TIPSY. Over the last month Ken has had up to 35 machines running at once - the equivalent of 72 single-process PCs –cycling through thousands of runs and over 10,000 hours of CPU time. For more information on this enormous logistical challenge, contact Ken Polsson (Ken.Polsson@gov.bc.ca; 250-387-6948).