



Timberline
Natural Resource Group

Morice Timber Supply Area

Vegetation Resources Inventory
Strategic Inventory Plan

June 8, 2007

Presentation Overview

- Program goal
- VRI Overview
 - VRI toolbox
 - VRI planning overview
 - VSIP process
- Morice TSA VSIP
 - Stakeholders
 - Key management issues
 - Strategic inventory plan for the TSA
 - VRI Phase II & NVAF plan
 - Program costs
- Next steps



Program Goal

- The goal was to:
 - *develop a VRI strategic inventory plan (VSIP) that identified the inventory issues on the Morice TSA*
 - *develop a plan to guide implementation of programs that improve inventory attributes*

Project Team

- Project Manager – Hugh Carter
- Technical Support
 - Mike Sandvoss
 - Gyula Gulyas
 - Hamish Robertson (presenter)

VRI Toolbox - Overview

- VRI Toolbox includes:
 - **Phase I** – Photo interpretation includes polygon delineation, field calibration & attribute estimation
 - **Phase II** – Random ground samples across land base
 - **Net Volume Adjustment Factor (NVAF)** – localized estimates of taper & decay
 - **Statistical Adjustment** – Phase II adjusts selected Phase I attributes. Removes photo-interpreter bias.
 - **Change Monitoring Inventory (CMI)** – monitor GY & inventory attributes to check that stands grow as projected.

VRI Planning - Overview

- All VRI activities require planning documents signed off by MoFR.
- VRI planning documents include:
 - VSIP – high level overview of inventory needs on Management Unit (MU)
 - Phase I VPIP – Phase I plan & commitments
 - Phase II VPIP – Phase II, NVAF, CMI, and statistical adjustment plan & commitments

VSIP Process

- Attended by stakeholders
- Outlines VRI process
- MU inventory history
- Stakeholders identify inventory issues
- Strategic plan for VRI activities - Phase I, Phase II, NVAF, Statistical Adjustment, CMI as appropriate
- Implementation plan for VRI activities
- Roles & responsibilities
- Sign-off by MoFR FAIB & Region
- Becomes assessment tool for funding by VIAC

Morice TSA VSIP



Morice VSIP Licencee Stakeholders

- Jim Burbee (Tweedsmuir)
- Jim McCormack (Canfor)
- Richard Vossen (Babine FP)
- Jason Platzer (Babine FP)
- Jaret Van der Geissen (HFP)
- Tom Olafsen (Fraser Lake Sawmills)
- Chris Hunter (BCTS)

Morice VSIP Gov't & Consultant

- Dick Nakatsu (MoFR – PG)
- Gary Johansen (MoFR – FAIB)
- Laurence Bowdige (MoFR – FAIB)
- Hamish Robertson (Timberline)
- Hugh Carter (Timberline)
- Gyula Gulyas (Timberline)

■ VSIP Key Forest Mgt Issues



VSIP Key Mgt Issues

1) Mid-term timber supply (2015-2060)

- What will it look like (live/dead, non-PI, understory)
- Information gap in GY modelling
- CMI tracks performance of young stands

2) Understory estimates in mountain pine beetle stands

- Improve understory info in inventory

3) Inventory Adjustment

- Phase II adjust estimates of live/dead volume, species mix, understory, merchantability of mountain pine beetle stands

VSIP Key Mgt Issues – Cont'd

- 4) Mountain Pine Beetle Shelf-life**
 - How long will wood be merchantable?
 - Federal mountain pine beetle project ongoing. No analysis yet
- 5) Deadwood estimate in attacked stands**
 - How much of the current inventory is dead?
- 6) Long-term timber supply (2060+)**
 - New Phase I and CMI (to track young stand performance)

VSIP Key Mgt Issues – Cont'd

7) Problem Forest Types (PFT)

- Current PFT are inventory problem?

8) Site Productivity

- Ongoing site index program, Phase I & II

9) Landscape Level Biodiversity

- Improved stand structure, seral stage distribution & old growth age estimates needed

VSIP Key Mgt Issues – Cont'd

10) Operable land base

- No-harvest zone included in Phase II to improve estimates

11) Taper

- Concerns about PI taper estimates

Morice TSA VRI Strategic Plan

- **Priority 1** - Phase II, NVAF, statistical adjustment & CMI program (ASAP)
- **Priority 2** - Wait until MPB attack is complete (est. 2012). Complete VRI Phase I (poly boundaries and attributes)



VRI Phase II & NVAF Program

- Implement in stands >30 yrs old
- Phase II
 - +/- 100 Phase II plots to achieve SE of +/-10%
 - Plot type: TEP's plus CWD, succession data
- NVAF
 - >100 NVAF trees destructively sampled by main species & live/dead (90/10)
- Statistical adjustment
- CMI design in stands <40 years

VRI Program Costs

- The program cost ***estimates*** are:
 - Phase II field program (incl. audit, heli): \$238,000
 - NVAF field program (incl. audit, heli): \$78,000
 - CMI program (dep. on size): \$130,000
 - Statistical adjustment: \$21,000

VRI – Next Steps

- VSIP sign-off from FAIB
- VIAC considers VSIP for funding Morice VRI activities
- 07/08 Focused Funding went to ongoing VRI initiatives. Few (if any) new programs started
- Develop Phase II VPIP (this fiscal/next)
- Implement Phase II program (08/09 at earliest)
- Phase I possibly to start in 2012

Wrap-up

- ***Thank you for your time***
- My contact info:
 - Email: hamish.robertson@timberline.ca
 - Ph: 604.714.2899
 - Cell: 604.644.5503