

# **Tree Farm License 18**

## **Vegetation Resources Inventory**

### **Photo Interpretation Project Implementation Plan Addendum #1**

**PREPARED BY:  
FORSITE**

**ON BEHALF OF:  
CANADIAN FOREST PRODUCTS, VAVENBY DIVISION**

**ISSUED:  
DECEMBER 12, 2006**

**The attached document references sections from the original TFL 18 VPIP, dated November 29, 2006, with additions and revisions noted.**

**Addition to Section:**

**2.1 Project Objectives**

In efforts to meet the stated objectives, in 2006, Canfor captured large scale digital colour (23 cm Ground Sampling Distance (GSD)) photography of their TFL lands. One of the goals of acquiring these photos was to determine whether or not they would enhance the interpreter's ability to assign more accurate attribute estimates to the inventory polygons. Since there is no known 'test' of the feasibility of using this scale of digital photography in completing a VRI, nor any known 'test' of the perceived enhancements in the ability of the photo interpreter to assign attributes, Canfor is planning to undertake a pilot project in attempts to answer some of these questions.

The pilot project will be designed to complete VRI within a small area within the TFL (one mapsheet) and report on a number of measurables using two different approaches on the same area. The approaches will be:

- Completing the delineation and attributing portions of a VRI using solely the large scale digital photos;
- Completing the delineation and attributing portions of a VRI using a combination of both the large scale (for attributing) and 1:30,000 scale photos (for delineation).

The deliverable of this pilot is to report on several measurables. These measurables include: cost, time, ease of use, and determining the accuracy of select attributes through field testing and through a comparison of attributes between the two methods used in the pilot. It is intended that the results from this pilot will be employed to further guide the completion of the VRI on TFL 18 in the following years, using the method that is deemed most appropriate while adhering to the current provincial VRI standards.

**Addition to Section:**

**2.7 Polygon Descriptions (Attribute Estimation)**

For the pilot project, both the large scale digital photos and the existing 1:30,000 scale scanned film photos will be used.

The intent of the pilot is to determine whether or not better information can indeed be obtained through the use of the large scale photos at a reasonable cost and with a reasonable amount of effort.

The results from the pilot project will be used in determining the most appropriate method for completing the VRI on the TFL. Depending upon which method is chosen (which could include the re-capture of aerial photography at a more appropriate scale than what is currently available), the schedule of events that will be necessary for the VRI completion will differ. For this reason, a table outlining the steps for this portion of the VRI has not been developed at this time, as it is entirely dependant upon the results of the pilot project and deemed best to complete prior to the initiation of the remainder of the project.

**Revision to Table:**

**Table 2: TFL 18 Summary of Estimated Delivery Schedule**

<b>Fiscal Year</b>	<b>Project</b>	<b>Viewer Set Preps. (for use in softcopy)</b>	<b>Polygon Delineation</b>	<b>Sample Design</b>	<b>Field Data Collection</b>	<b>Polygon Descriptions</b>	<b>Final Digital Mapping and Deliverables</b>	<b>Quality Control</b>
<b>06/07</b>	Pilot	Fall 2006 and Spring/Summer 2007	Winter 2006/2007	Winter 2007	Spring 2007	Spring/Summer 2007	Summer 2007	Ongoing

**Addition to Section:**

**3.2 Photo Scale**

For the pilot project, both the large scale digital imagery (approximately 1:3,000-1:5,000 scale) and the existing 1:30,000 scale scanned film photos will be used. The licensee is planning to undertake a pilot project on a portion of the TFL to address some of the compatibility issues with digital imagery before completing the entire landbase.

**Revision to Table:**

**3.8 Costs**

Pilot project anticipated costs

VRI Task	Estimated Cost
Digital Photo acquisition	<b>\$80,000.00</b>
Viewer sets for Softcopy	<b>\$6000.00</b>
<b><u>Phase I VRI and Digital Map Production (inclusive of QA costs)</u></b>	
1. Data Acquisition/Sample Design/Delineation	<b>\$0.32 – \$0.42/ha</b>
2. Field Calibration	<b>\$0.45 - \$0.50/ha</b>
3. Attribute Estimation/Digital Mapping	<b>\$0.50 - \$0.70/ha</b>
4. Final Reporting/Management	<b>\$0.04 - \$0.05/ha</b>
<b>Total Estimated Cost</b>	<b><u>\$13,300 - \$19,300</u></b>
Phase I – Air and Ground Calibration (inclusive of all helicopter costs)	\$100 - \$150/air call \$250 - \$300/ground call
Phase I – Air and Ground Calibration Helicopter Cost*	Dependent upon the sample plan air calls and ground call access*

\*Neither VRI nor the previous reinventory standards (manuals) specify how many calibration points are required in a mgt unit to support photo interpretation. Each case is unique and depends on:

- the amount and composition of productive forest
- amount of existing, usable calibration data
- distribution of existing calibration data
- knowledge and skill of the interpreter(s) and their familiarity with the area
- lots of other considerations, including available budget.

MOF set "benchmarks" for the number of air calls and ground observations with measurements (these replaced the earlier ground calls) that would be established. These were not a Standard, but more a "Best Practise" to ensure that the interpreters had adequate data to be confident in their attribute estimates. Note, also, that this "benchmark" specified that the air and ground calls were done by the individual interpreters in the areas they were assigned, to calibrate themselves for later work with the photos. <sup>1</sup>

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<sup>1</sup> Email document from MoFR, June 23, 2005

**Approval/Sign-off of VPIP Addendum #1**

I have read and agree that the procedures and process outlined in this addendum to the plan meet current Ministry of Forests and Range standards and business needs and considerations.

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Manager, Vegetation Resources Inventory  
Forest Analysis and Inventory branch  
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Licensee Representative *D. D=BI*