

Swan Valley Forest Management Plan Newsletter



Volume 1, Issue 3: October 1st, 2003

Welcome to the Newsletter, Issue 3

Welcome to the third issue of the Swan Valley Forest Management Plan Newsletter. You will notice that this issue is considerably shorter than our previous issues. We will be focusing each upcoming issue on some aspect of our Forest Ecosystem Management Plan (FEMP) for Forest Management License #3, including some interesting tidbits about our current operations. This issue will spotlight an operations update, long-term ecological research in Riding Mountain National Park (RMNP), our stream assessment program, and small mammal research.

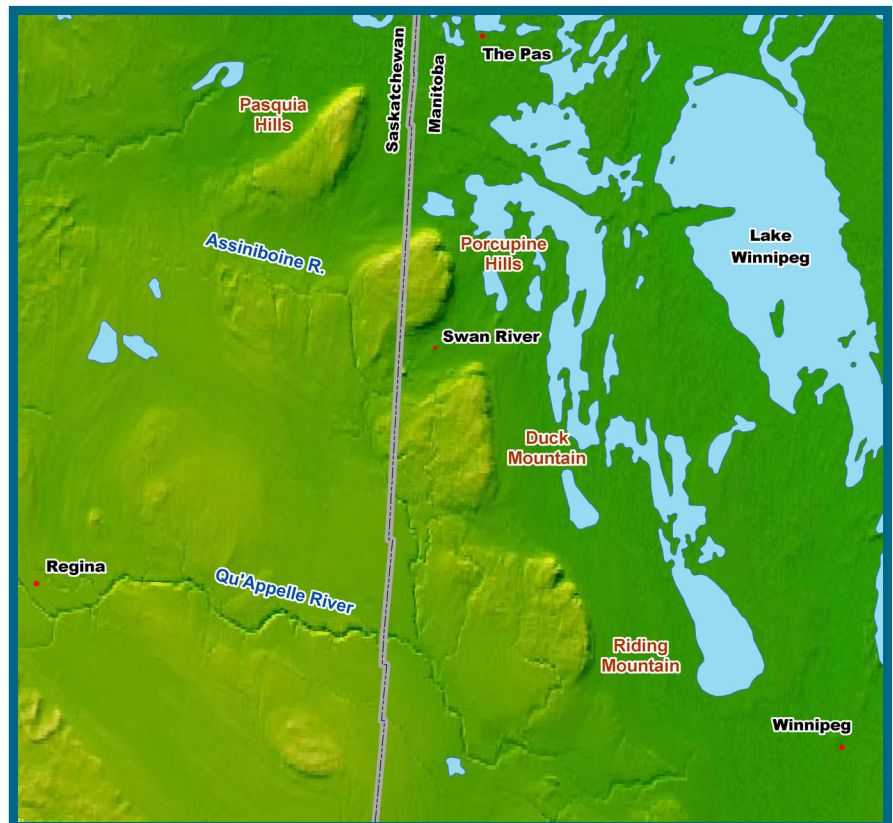
The image to the right is an elevation model created from data captured by a NASA Space Shuttle mission during which the entire earth was mapped. Zooming into the prairies, we can see Riding Mountain, Duck Mountain, Porcupine Hills, and the Pasquia Hills, which form a 'chain' across the boreal forest. Although geographically separated by parkland, these mountains are very similar to each other, and very different from the surrounding parkland. The Canadian Ecological Land Classification System grouped all four mountains or hills into the 'Mid-Boreal Upland EcoRegion'. Since these areas are very similar ecologically, LP Swan Valley has supported research in the Riding Mountain, and believes these results can be applied to the Duck Mountain Provincial Forest.

Operations Update

Harvesting

Our 2003/04 Annual Operating Plan (AOP) was approved by Manitoba Conservation in May 2003. You can review the plan at several locations throughout the Swan Valley, including local libraries, government offices, and the LP office. You can also download the plan at our website (www.swanvalleyforest.ca).

Harvesting operations began on June 9, 2003 and by mid-September we had harvested approximately 180 000 m³. At the same time, the OSB plant produced 172 million square feet of board.



LP supports research in the hills and mountains shown in this Digital Elevation Model, including small mammal research in the Duck Mountain Forest, which is discussed in this newsletter.
Source: NASA Global Land 1-km Base Elevation (GLOBE-DEM).



Field crews gather data on understorey vegetation

LP shut down bush activities 4 times as a result of adverse weather conditions, which were either too dry or too wet. Operating in dry conditions increases the risk of fire, while operating in wet conditions may cause soil

- year and season of harvest
- harvest/silvicultural system e.g. Clear Cut, Understorey Protection
- wildlife objectives (e.g. leave trees/ structure, buffers, corridors)
- renewal detail (e.g. site preparation, seedlings stock types and densities)
- monitoring (e.g. timing of regeneration surveys)

Long-term Ecological Research in Riding Mountain National Park

Shortly after the Second World War (1946-1948), the Dominion Forest Service (now Canadian Forest Service or CFS) initiated a Rate of Growth Survey called MS-69. The study area was the Riding Mountain Forest Experimental Area, which is now designated as Riding Mountain National Park (RMNP). A total of 1482 permanent plots were initially established to determine stocking, forest succession

and growth/yield changes in the survey area. Re-measurements were started in 1951 and continued in 1956 - 1958, 1961 and 1966 - 1969. The age and quality of this research places it among some of the oldest of its kind in western Canada. Unfortunately, due to funding constraints, the CFS discontinued this research and the data and field plots were left for more than 30 years.

In 2001, LP staff were invited to the CFS Northern Forestry Centre in Edmonton, to view the MS-69 project files to see if LP Swan Valley might be interested in reviving the MS-69 project. LP foresters Ken Broughton and Paul LeBlanc were very impressed with the quality and completeness of the information. LP Swan Valley decided it would be valuable to continue this long-term ecological research, and in 2002 LP received permission and a research permit from Parks Canada to initiate the re-measurement of a subset of the 1482 original plots.

The 2002 re-measurement protocol was a combination of the original CFS and LP long-term sample

"The age and quality of [the PSP] research places it among some of the oldest of its kind in western Canada."

compaction and site damage.

Pre Harvest Surveys

During the summer field season LP completed over 1,500 pre-harvest survey (PHS) plots, representing 73 proposed LP and Quota holder cut blocks. The PHS field crews began working in early May and spent 3 weeks training. LP's intensive training program ensures a consistent means of collecting and assessing the forest conditions. Technicians have a detailed knowledge of forest soils, forest vegetation, wildlife signs and exceptional habitat features such as mineral licks. The Pre-Harvest Surveys gather data on most aspects of the ecosystem, including:

- in-block water courses
- exceptional features (mineral licks, heron rookeries, etc.)
- live & dead standing (snag) trees
- coarse woody debris (dead trees on the ground)
- vegetation community
- soil texture & moisture
- understorey trees (advanced regeneration)
- competitive vegetation (shrub & forb layers)
- ungulate browse activity
- species at risk
- forest health (insects & disease)
- wildlife evidence (tracks or scat)
- site limitations (steep slopes, wet areas)
- heritage resources

A pre-harvest survey is usually completed one year in advance of the harvest and is used by the LP Planning Team to develop a Pre-Harvest Cutblock Prescription (PHCP) for each proposed cut block. The PHCP is a detailed site-specific plan for each proposed cutblock, which includes information on:



Field crews use Global Positioning System (GPS) technology to precisely locate the corners of research plots

protocols. The new protocol closely follows the original protocol to ensure data collection consistency. Soil data, tree heights, tree condition, diameters, downed woody debris, herb and shrub understorey and regeneration/saplings were all measured in the plots. Understorey herb and shrubs were also measured by University of Manitoba botany students in 2003.

This project strengthened research partnerships between the University of Manitoba (Dr. Norm Kenkel), Canadian Forest Service (Tim Keddy and Derek Sidders), Parks Canada (Wybo Vanderschuit) and LP. Their assistance was greatly appreciated and proved invaluable to the successful completion of the 2002 re-measurements.

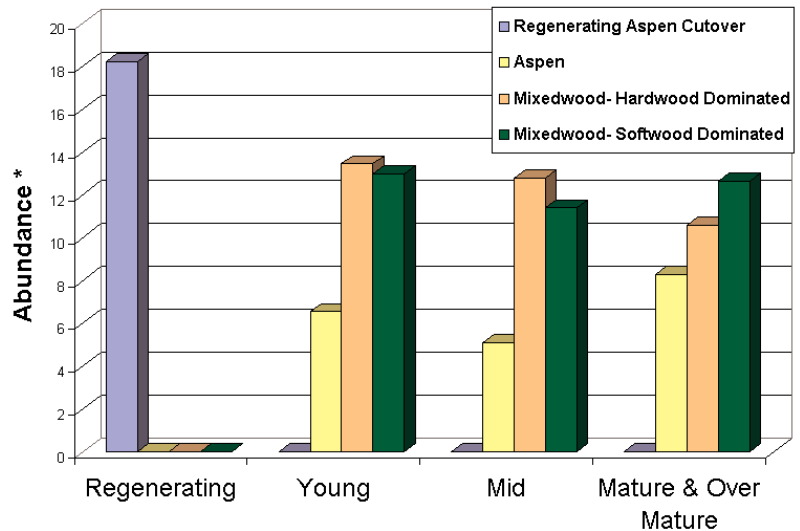
The company is confident that this data will be extremely useful in assisting with long term forest management planning initiatives. Long-term ecological plots measured 3 and 4 times each would today cost approximately \$6 million dollars, but the 55 years of growth data (1946 to present) is priceless. The original data is now more than 55 years old and combined with the re-measurement data it will provide useful information for the development of tools for growth and yield and successional pathway modeling.

Duck Mountain Small Mammal Inventory and Monitoring Program

The Duck Mountain Small Mammal Inventory and Monitoring Program was designed to provide baseline information on small mammal populations, including rare species and their habitat associations. This information will aid in the development of biodiversity conservation strategies within LP's long-term plan. Field investigations focused on describing existing small mammal population conditions with respect to species composition, abundance and distribution in the study area.

Between July and September, 2002, a total of 29 trapping blocks were set in a variety of boreal habitats in the Duck Mountains. Each block was checked daily for 5 days, giving a total effort of 14,500 trap-nights. Five blocks were located in post-harvest aspen stands, eight were in aspen dominated stands of varying age classes, six were in hardwood dominated mixed stands of varying age classes, seven were in softwood dominated mixed stands of varying age classes, and three were in unproductive forest types. A total of 1671 individual small mammals were collected. Preliminary results are shown on the top right hand corner of the page. Small mammal abundance for both pre- and post-harvest aspen dominated forests was at a relatively intermediate level, however, when post-harvest and

Initial survey results of small mammal abundance based on stand type and age



* Abundance is measured as the number of individuals trapped in 100 nights

pre-harvest aspen dominated forests are separated, the highest abundance occurred in post-harvest aspen habitats.

LP Canada Ltd. Stream Assessment Program

As part of Environment Act License 2191E, LP is required to submit detailed information regarding the potential for navigability and the presence of fish or fish habitat in areas where LP water crossings have been proposed. Since 1997, LP has conducted detailed stream assessments on proposed water crossings that have the potential to support fish or fish habitat. The data collected from the assessment is summarized and used to help LP develop forest road access strategies and water crossing development plans that minimize disturbance to aquatic environments and recreational areas. The road and water crossing development plan and the stream assessment summary report are included in the AOP for government and public review.

During a stream assessment, information is collected on a variety of stream attributes, including measurements of morphological and hydrological characteristics, identification of in-stream cover and stream bottom characteristics, and sampling of fish and invertebrate communities found within the stream. LP Fish and Wildlife Resource Technicians conduct the stream assessments on an annual basis between May and September. The stream assessment program is coordinated and supervised by the LP Swan Valley District Biologist.

Another significant component to the LP Stream Assessment Program is the freshwater fish identification training workshop held annually at the

University of Manitoba Fish Laboratory. Dr. Ken Stewart, a renowned ichthyologist, and the LP District Biologist developed a training workshop in 2000 that allows LP field technicians to gain the knowledge and practice required in order to be able to accurately identify both sport and forage fish species at various life stages. Field technicians review anatomical features of several species and learn terminology used to describe fish anatomy to help facilitate the use of a fish classification key. Over the last seven years, the data collected during the stream assessments has been summarized and is being used to help design water crossings along forest access roads, as well as contributing to a provincial fish inventory database. The data will also contribute to the development of riparian management strategies to be presented in the upcoming Forest Ecosystem Management Plan.

LP Water Crossing Inspection Program

LP has developed a water crossing inspection program to monitor the condition of active and deactivated crossings, as well as water crossings that have been rehabilitated using biotechnical stabilization techniques. For example, when LP inspects an active culvert crossing, the company will check for proper culvert alignment, culvert blockage,



An example of an active culvert installation

damage or corrosion, and whether or not the culvert has become perched over time. The inspection also monitors the effectiveness of the erosion and sediment control measures that have been implemented.

Comments made on the inspection forms are then reviewed by the LP Stream Team and decisions regarding follow-up maintenance activities are made. Water crossing inspections are conducted twice a year for all active crossings, and twice a year for all deactivated crossings, until vegetation on site reaches a level where the potential for erosion is no longer a concern. Each year more than 300 inspections (active and deactivated combined) are conducted on LP water crossings.

Questionnaire

KBM Forestry Consultants Inc. is conducting a forest values survey on behalf of LP Swan Valley to determine forest values that are most important to people living within and outside of LP Swan Valley's Forest Management License #3 area. This information will be used to help develop biological and socio-economic indicators that will be monitored in order to measure progress towards sustainable forest management. LP Swan Valley would like to invite the public to participate in the development of sustainable forest management indicators by filling out a forest values assessment questionnaire. These questionnaires can be picked up with a prepaid, self addressed envelope at the LP Woodlands Office in Swan River or can be filled out on-line at www.swanvalleyforest.ca

All questionnaires must be returned by October 15, 2003. For further information please call KBM at 1-800-465-3001, and ask for Karen (ext. 64).

Annual Report

The 2002-03 Annual Report has been completed for Forest Management License #3 and submitted to Manitoba Conservation. Copies of our Annual Report are available for download on our webpage (www.swanvalleyforest.ca/documents.html) or by calling LP directly at 204-734-7703.

Erratum

You may have noticed in Issue 2 that the picture on the lead page did not seem to match the caption "*The edge of the Duck Mountain Provincial Forest with agricultural land in the foreground.*" This was due to a mix-up with the printers. The picture on page 1 should have appeared on page 4 with the caption "*Past fires affect the condition of the forest by creating a mosaic of forest stands*" and the picture on page 4 matches the caption on the first page.

**Provide YOUR input!
Subscribe to the Newsletter!
or for Questions or Comments,**

Forest Management Plan Contacts

Phone: 204-734-7703

Fax: 204-734-3646

Email: Swan.Comments@LPCorp.com

Mail: LP Canada Ltd

P.O. Box 998 439 Westwood Road
Swan River, MB, Canada R0L 1Z0

Or visit our website:

<http://www.swanvalleyforest.ca>