MANNING DIVERSIFIED FOREST PRODUCTS LTD.

Landbase Netdown

2007 – 2017 Forest Management Plan for FMA 0200041

May 31, 2007

Prepared by:
The Forestry Corp.

2007 – 2017 FMP FOR FMA 0200041

FMA Resources forms one of 10 sections of the 2007 – 2017 Forest Management Plan for Manning Diversified Forest Products Ltd.'s Forest Management Agreement (FMA) 0200041.   The Forest Management Plan (FMP) includes the following sections:

1. **Introduction and Plan Development** – Introduces the companies operating on the FMA and describes the FMP development process, including the public consultation process. Includes the FMP Standards Checklist.
2. **FMA Area** – Describes the physical environment of the FMA Area.
3. **FMA Resources** – Describes the natural resources within the FMA Area.
4. **Values, Objectives, Indicators and Targets** (VOITs) – Details the values, objectives, indicators and targets that were instrumental in selecting the Preferred Forest Management Strategy and in developing forest management strategies for the FMP.
5. **Forest Landscape Metrics** – Presents specific information regarding forest vegetation composition and natural disturbance within the FMA Area and/or northwestern Alberta to address VOIT requirements.
6. **Landbase Netdown** – Provides a detailed description of the landbase netdown process, in preparation for the Timber Supply Analysis.
7. **Yield Curves** – Documents the volume sampling and yield curve development process.
8. **Timber Supply Analysis** – Describes how the Preferred Forest Management Strategy, which was selected to meet Values and Objectives, was incorporated into the Timber Supply Analysis and provides an Annual Allowable Cut for both the coniferous and deciduous landbases.
9. **Implementation** – Describes the forest management strategies and operations that will be used to implement the FMP and help ensure that indicators and targets are met.
10. **Monitoring and Research** – Describes monitoring commitments required to ensure indicators and targets are tracked and describes Manning Diversified's approach to supporting research.

Executive Summary

Manning Diversified Forest Products (MDFP) Ltd.'s Forest Management Agreement (FMA) Area includes two Forest Management Units (FMUs), P6 and P9, which are collectively known as FMU P16. As part of the 2007-2017 FMP process, a netdown landbase was developed to support the timber supply analysis (TSA) for P6 and P9.

This document describes the process used to develop the Active landbase for the timber supply analysis. The landbase netdown process evolved over time and this document summarizes only the final process utilized. The final landbase for MDFP consists of 275,995 polygons. The landbase is split into a coniferous and a deciduous landbase. The base year for the landbase is 2005.

The following table shows a breakdown by class and area of the landbase resulting from the netdown process. The column *F_DEL* in the netdown landbase dataset reflects this classification and will duplicate these results when summarized by the *AREA_HA* field.

MDFP landbase summary.

Landbase Category		Area (ha)			% Gross Area
		FMU P6	FMU P9	Total	
Gross Landbase		297,531	298,147	595,677	100%
Patented Land (D_STATUS)					
PSP	SRD PSP Buffer	239	0	239	0%
PATENT	Protected Areas	270	0	270	0%
Total Patented Land		509	0	509	0%
Running Sum of Area Deleted		509	0	509	0%
Landbase Remaining		297,022	298,147	595,169	100%
Access (D_ACCESS, D_SEISMIC)					
ROAD	Roads	2,394	755	3,149	1%
PIPE	Pipelines	1,037	1,009	2,045	0%
SEISMIC	Seismic Lines	5,154	6,326	11,479	2%
Total Access		8,584	8,089	16,674	3%
Running Sum of Area Deleted		9,093	8,089	17,182	3%
Landbase Remaining		288,438	290,057	578,495	97%
Non-Forested (D_NONFOR)					
WATER	Water Body	3,163	635	3,798	1%
ANTHRO	Anthropogenic Non-Vegetated	997	718	1,716	0%
NNF	Non-Forested	36,934	20,979	57,913	10%
NNV	Naturally Non-Vegetated	3,670	4,136	7,806	1%
Total Non-Forested		44,765	26,468	71,233	12%
Running Sum of Area Deleted		53,858	34,558	88,416	15%
Landbase Remaining		243,673	263,589	507,262	85%
Recent Burns (D_BURN)					
BURN	Recent Burn	319	2	321	0%
Total Burn		319	2	321	0%
Running Sum of Area Deleted		54,177	34,559	88,736	15%
Landbase Remaining		243,354	263,587	506,941	85%
Non-Productive (D_TPR)					
U	Unproductive	1,790	185	1,975	0%
F	Decid TPR = F	1,106	1,776	2,881	0%
Total Non-Productive		2,896	1,960	4,856	1%
Running Sum of Area Deleted		57,073	36,520	93,592	16%
Landbase Remaining		240,458	261,627	502,085	84%
Water Buffers (D_BUF)					
RIVBK	River Breaks	8,384	14,647	23,031	4%
SWAN	Swan Lake Buffer	137	0	137	0%
WBUF	Water Buffers	639	618	1,257	0%
Total Water Buffers		9,160	15,265	24,425	4%
Running Sum of Area Deleted		66,233	51,785	118,017	20%
Landbase Remaining		231,298	246,362	477,660	80%
Subjective Deletions (D_SUBJ, D_ISO)					
WETLAND	Wetland	54,160	115,774	169,934	29%
ADENS	A Density Stands	3,071	5,084	8,155	1%
LARCH	Larch	70	22	92	0%
SBLEAD	Sb Leading and TPR < G	1,835	847	2,682	0%
CBUSB	APM Area Black Spruce	340	0	340	0%
CBUSW	APM Area White Spruce	1,166	0	1,166	0%
CBUPL	APM Area Lodgepole Pine	0	0	0	0%
ISO	Isolated Stands	0	0	0	0%
Total Subjective Deletions		60,641	121,727	182,369	31%
Total Area Deleted		126,874	173,512	300,386	50%
Active Landbase		170,657	124,634	295,291	50%

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1. Introduction

1.1 Background

Manning Diversified Forest Products Ltd. (MDFP) has a Forest Management Agreement (FMA) Area that consists of two FMU's, P6 and P9.

1.2 Overview of the Process

The landbase netdown process comprised of five main steps:
- Compile and process base data, administrative and fire history information,

- Process forest cover (AVI) attribute data,

- Prepare existing and planned harvest block coverage,

- Prepare a single spatial coverage of all necessary information,

- Calculate final landbase attributes.

The landbase netdown process evolved over time and this document summarizes only the final process. Information from the previous netdown landbase developed by SRD in 1997 (based on Phase III inventory) was not considered in this process although some of the same assumptions were retained.

For the figures used throughout the document, Figure 1-1 shows the symbols used to represent data and actions taken on the data.
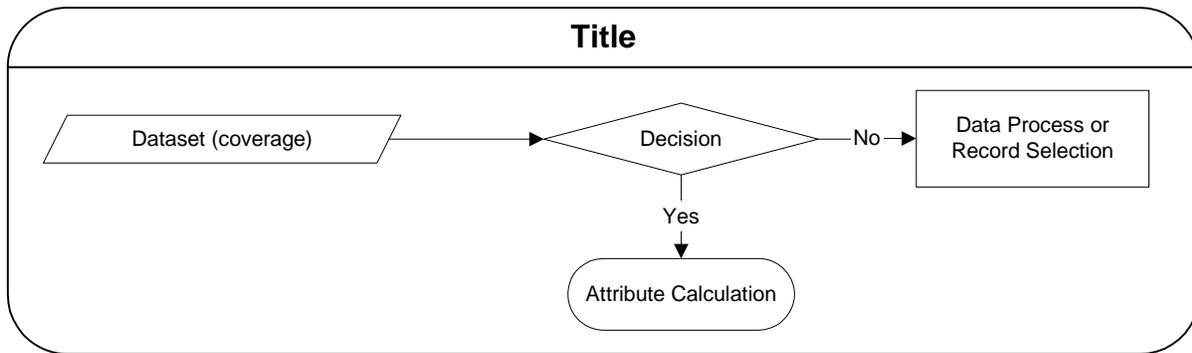
Figure 1-1. Figure legend.

The general flow of programming used is presented in Figure 1-2. The flowchart shows that the spatial processing takes place in Arc/Info, the preliminary strata calculations are completed using SAS (as these were calculated with the yield curves), and all other attribute calculations were done in Oracle.

A description of the datasets used in the netdown process is described in Section 2. For each dataset, a description of the processing that occurred to prepare the data for inclusion in the netdown process is also provided. Also, information regarding the source of the dataset is found in Appendix V. Section 3 provides detail on the spatial data processing to join the many layers together. Section 4 describes the field assignment of the attributes calculated once the landbase file is created. Section 4.5 describes the netdown attributes and how they are used in a hierarchy to determine the one call for each polygon. Finally, section 5 summarizes the results of the landbase netdown.
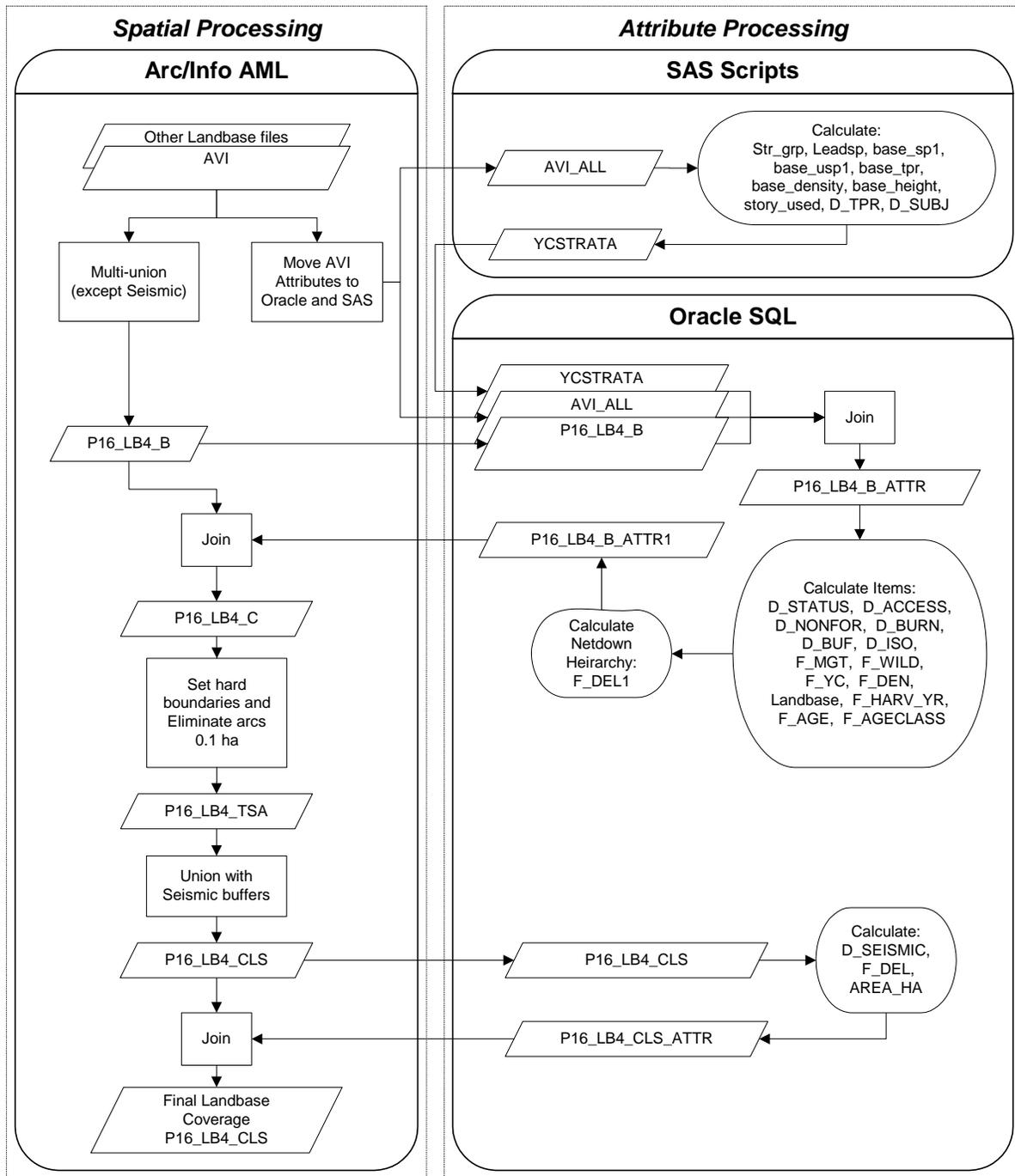
Figure 1-2. Programming process flow.

2. Spatial Data

This section describes the datasets that is used in the landbase process. Table 2-1 lists the preliminary datasets used to generate input datasets, as indicated in the 'Result Dataset' column.

Table 2-1. List of datasets used in building input datasets.

Dataset Name	Description	Result Dataset
SEISMIC	P69 cutline coverage	CUT_B
SRD_PSP	SRD Permanent Sample Plots	GOVT_PSP_B
GPIPE_CUT	Non-AVI pipelines	GPIPE_CUT_B
HIGHWAY	Highways to be buffered	HWY_MGT
P69_LAKES	AVI Lakes	LAKE_B
P69_MAJRIV	Major rivers from avi and SRD hydropolys	MAJRIV_B
AVI_21	P6 AVI v2.1	P69_AVI
COMPART	Compartment boundaries	P69_AVI
NSR_1994	1994 Natural Subregion coverage	P69_AVI
P9_NOTWP	P9 AVI v2.1	P69_AVI
WILD_MGT	Wildlife management zones	P69_AVI
CBU_2005	Alternative Patch Management Zone	P69_AVI
BREED_G_J	Breeding Regions	P69_AVI
P6_ALL_PLOTS	P6 MDFP Permanent Sample Plots	P69_PSP_B
P9_ALL_PLOTS	P9 MDFP PSP's	P69_PSP_B
ROADS	Non-AVI roads	ROADS_B
MDFP_SLNET	Small rivers and creeks	STREAM_B
SWAN	Trumpeter Swan Lakes	SWAN_B
TWIN_LODGE	Twin Lodge MLL	TWINLGE_B
AVITWIN_LAKES	Twin Lakes	TWINLK_B
LAKE_B	Lake buffers	Z_HYDRO
MAJRIV_B	Major River buffers	Z_HYDRO
STREAM_B	Stream buffers	Z_HYDRO
GPIPE_CUT_B	Pipeline buffers	Z_LANDUSE
LANDUSE2004	MDFP Landuse layer	Z_LANDUSE
MLL_PNT	Last minute additions to Landuse layer	Z_LANDUSE
P6WELLS_CUT	Oil and Gas non-linear dispositions	Z_LANDUSE
ROADS_B	Road buffers	Z_LANDUSE

Table 2-2 contains a list of the input datasets that are used in the actual multi-union process and a short description of each, as well as the fields that are used in the landbase file.

Table 2-2. List of input datasets used in the creation of the landbase.

Dataset Name	Description	Net Landbase Database Field(s)
BLOCKS_ALL	Final block coverage (planned and actual) excluding AVI blocks	INSIDE_BLK
		HARV_YR
		MDFP_STRATA
		TREATMENT
CUT_B	Cutline buffers	IN_CUT_B
FIRES	Fires since AVI capture	FIRENUMBER
		FIRE_YEAR
GOVT_PSP_B	Polygon buffers of SRD Permanent Sample Plots	IN_GOVT_PSP_B
HWY_MGT	Highway management zone	HWY_MGT
P69_AVI	AVI v2.1 coverage for both P6 and P9.	FORESTKEY
		COMPART
		WILD_MGT
		NSR_NAME
		REG_G_DOM
		REG_J_DOM
		CBU_2005
P69_PSP_B	Polygon buffers of MDFP Permanent Sample Plots	IN_MDFP_PSP_B
P69_RIVBRK	River Break deletion coverage	RIVER_BREAK
SWAN_B	Trumpter Swan Lakes buffer	IN_SWAN_B
TRAPLINE_PV	Fur management areas	TRAPLINE
TWINLGE_B	Twin Lakes Lodge management zone	IN_TWINLGE_B
TWINLK_B	Twin Lakes buffer	IN_TWINLK_B
TWINLK_REC	Twin Lakes recreation area	REC
TWISTEDBOG	Twisted Bog Moss management zone	BOG
WATERSHED	Watershed boundaries	WSHED_ID
Z_HYDRO	Unioned and dissolved hydro buffers (streams, rivers and lakes)	IN_LAKES_B
		MAJRIV_TYPE
		IN_MAJRIV_B
		IN_STREAM_B
Z_LANDUSE	Unioned and dissolved landuse (roads, pipelines)	LANDUSE
		PNT

Figure 2-1 shows a summary of the processing steps taken to prepare data from Table 2-1 into the datasets shown in Table 2-2.

Dataset Preparation

Submitted / Input Datasets

- trapline_pv
- twistedbog
- watershed
- twinlk_rec
- p69_rivbk
- fires
- blocks_all

Submitted Datasets

- avi_21
- p9_notwp

avi_21, p9_notwp — APPEND → p69_avi

- compart
- nsr_1994
- wild_mgt
- breed_g_j
- cbu_2005

→ Assign Attributes to AVI

- p69_lakes — BUFFER = 100m → lake_b
- p69_majriv — BUFFER = 60m → majriv_b
- mdfp_slnet — BUFFER = 30m → stream_b

UNION and DISSOLVE

- roads — BUFFER - variable → roads_b
- gpipe_cut — BUFFER = 20m → gpipe_cut_b
- p6wells_cut

UNION and DISSOLVE

- p6_all_plots
- p9_all_plots

APPEND and BUFFER = 100 m →

- srd_psp — square BUFFER 318m X 318m →
- highway — BUFFER = 125m →
- twin_lodge — BUFFER = 100m →
- avitwin_lakes — BUFFER = 200m →
- swan — BUFFER = 200m →
- seismic — BUFFER varies by depletion width class →

Input Datasets

- p69_avi
- z_hydro
- z_landuse
- p69_psp_b
- govt_psp_b
- hwy_mgt
- twinlge_b
- twinlk_b
- swan_b
- cut_b

Figure 2-1. Dataset preparation summary.

Section 2 contains complete descriptions of each dataset and preprocessing done to each. Appendix V lists complete information on each dataset file and a data dictionary for each of the included data sets.

2.1 Alberta Vegetation Inventory

A combination of fires and harvesting operations has shaped the current landscape. The Alberta Vegetation Inventory (AVI) classified all fires prior to 1997 in P6 and 2000 in P9, including the large 1950 Chinchaga burn that covers approximately the western two thirds of FMU P9. Historically harvesting operations have occurred primarily in the conifer types. Orthophotos created from 2002 photography allowed all recent harvesting activity to be incorporated into the inventory. This landbase is considered to be current to September 2005.

P6 AVI was created by Greenlink Forestry Inc. for Manning Diversified Forest Products and is effective as of 1997. The original format was AVI 2.2 (Draft) and was converted to AVI 2.1 by Alberta. Two types of 1:20,000-scale aerial photography were used:

- Spring 1997 color infrared (CIR) leaf off/snow free aerial photography

- Summer (July/August) Black and White infrared (BW IR) leaf-on aerial photography

- Ortho reproduction was contracted by Tarin Resources Services Ltd. and The Orthoshop. 1985 and 1998 Black and White aerial photography was used to create the orthophoto bases.

P9 AVI was created by Greenlink (original format was AVI 2.2 (draft) and was converted to AVI 2.1 by SRD) for Manning Diversified Forest Products and is effective as of 2000. Two types of 1:20,000-scale aerial photography were used:

- Summer 2000 Black and White infrared (BW IR) leaf-on aerial photography

- Fall 2000 false color infrared (CIR) leaf off/snow free aerial photography

1:60,000-scale aerial photography was used to create orthophotos:

- Summer 2000 High altitude Black and White (agfa 50) leaf-on aerial photography

AVI 2.1 for both P6 and P9 FMU was used for the landbase and TSA. In P9 two versions of the AVI were produced, a seamless version and one with township lines. The seamless version was chosen to represent P9 as the township line version adds unnecessary polygons and potential for slivers. Approval letters for both P6 and P9 are provided in Appendix IV.

The AVI input coverage used in the multi-union is a combination of P6 and P9 AVI coverages, as well as five other coverages:

- Compartments,

- Natural Sub-Regions,

- Wildlife Management Zones,

- Breeding Regions,

- Alternative Patch Management Zone.

These additional datasets were digitized at large scales and have large, indistinct polygon boundaries. It does not make sense to artificially add linework to the landbase coverage by unioning these coverages into the final landbase when the definitive line between polygons is either abstract (such as natural subregion boundaries, breeding regions or wildlife zones) or follows existing features (such as compartment boundaries). Therefore, the attributes were added to the AVI without their linework being cut in.

2.1.1 Compartments

The compartment layer was created by selecting arcs from the AVI coverage. The FMU boundaries were used for the outside boundary. The Hotchkiss, Meikle and Botha Rivers along with the main Canfor Forest Products Ltd. haul road were used as compartment boundaries in FMU P6, creating 5 compartments. P9 was divided into 6 compartments using hydrography and wet land areas. Compartment numbers were assigned sequential numbers, 1-11, as shown in Figure 2-2.

This coverage is incorporated into the landbase by adding a compartment attribute to the AVI.
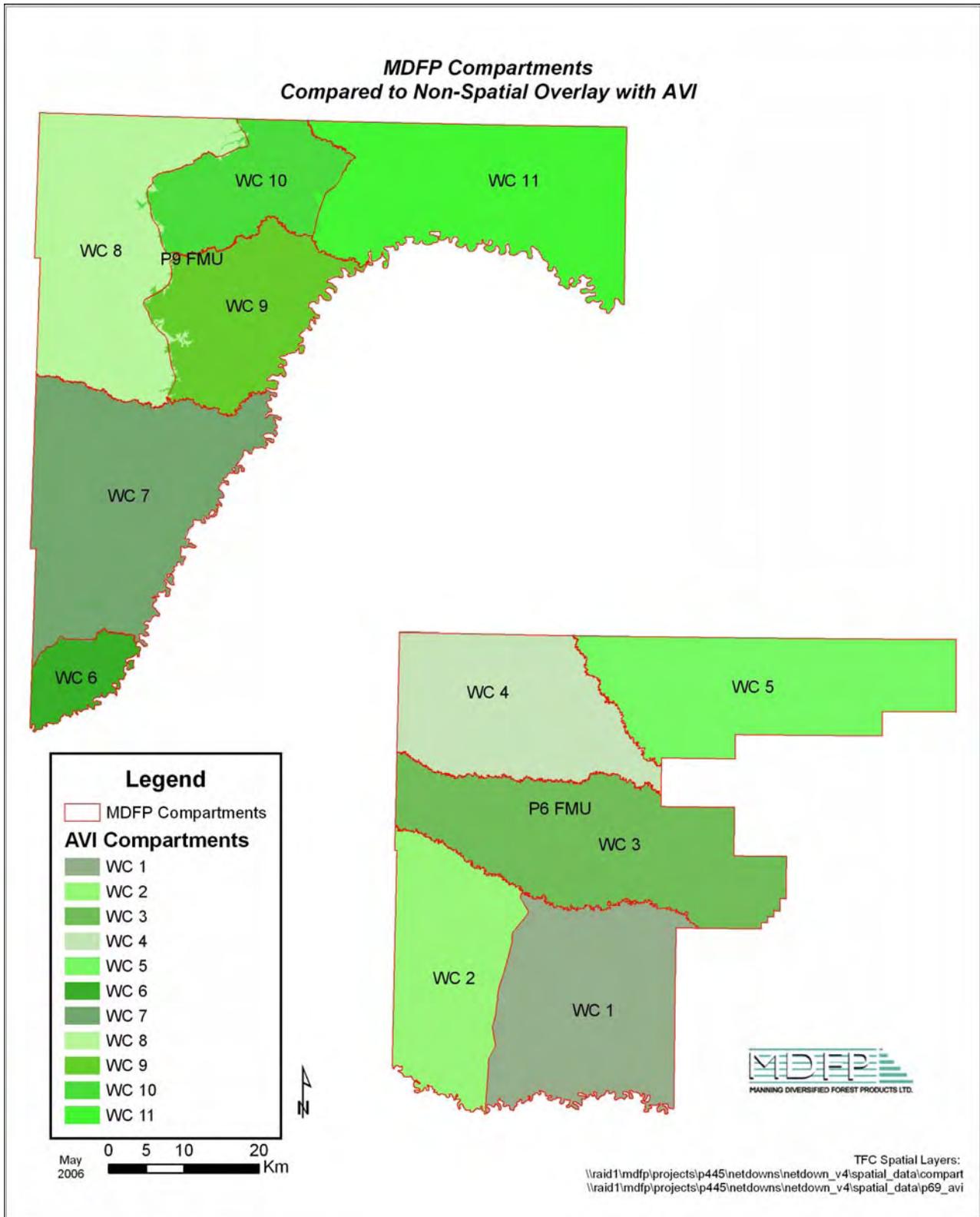
Figure 2-2. Map of compartment boundaries.

2.1.2 Natural Sub-regions

Two Natural Sub-region coverages were available for use in the analysis, the 1994 version and the revised 2005 version. The yield curve development and sampling programs were all based on the 1994 version, so this coverage was used to represent the natural subregions for the TSA (see Figure 2-3).

This coverage is incorporated to the landbase by adding a Natural Sub-region attribute to the AVI.
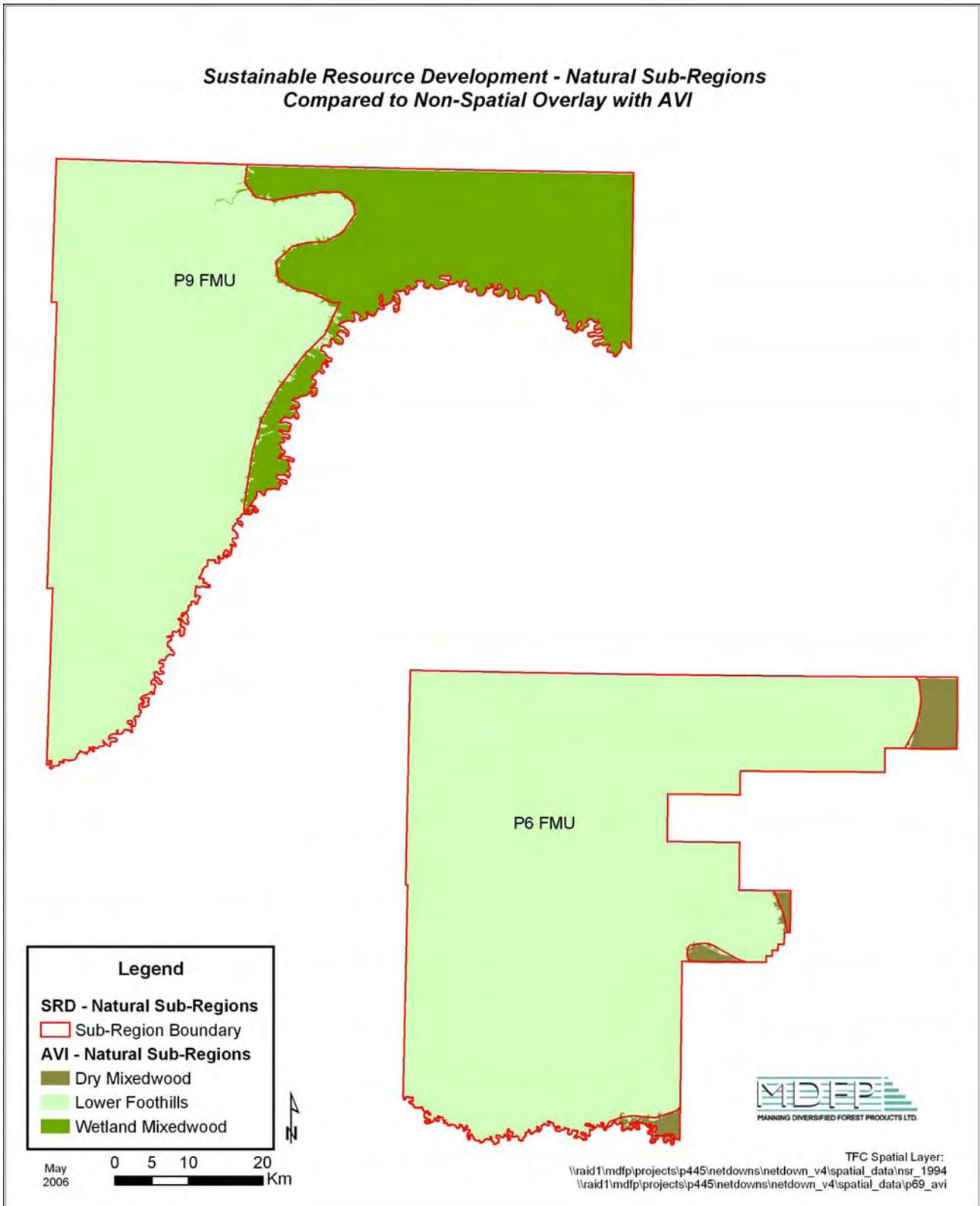
Figure 2-3. Map of Natural Sub-regions (1994 version).

2.1.3 Wildlife Management Zones

The wildlife management zone coverage was obtained from SRD (see Figure 2-4). It defines the ranges of three zones to be used in the analysis:

- Caribou zone,
- Ungulate zone,
- Special access zone.

This coverage is incorporated into the landbase by adding a wildlife management zone attribute to the AVI.
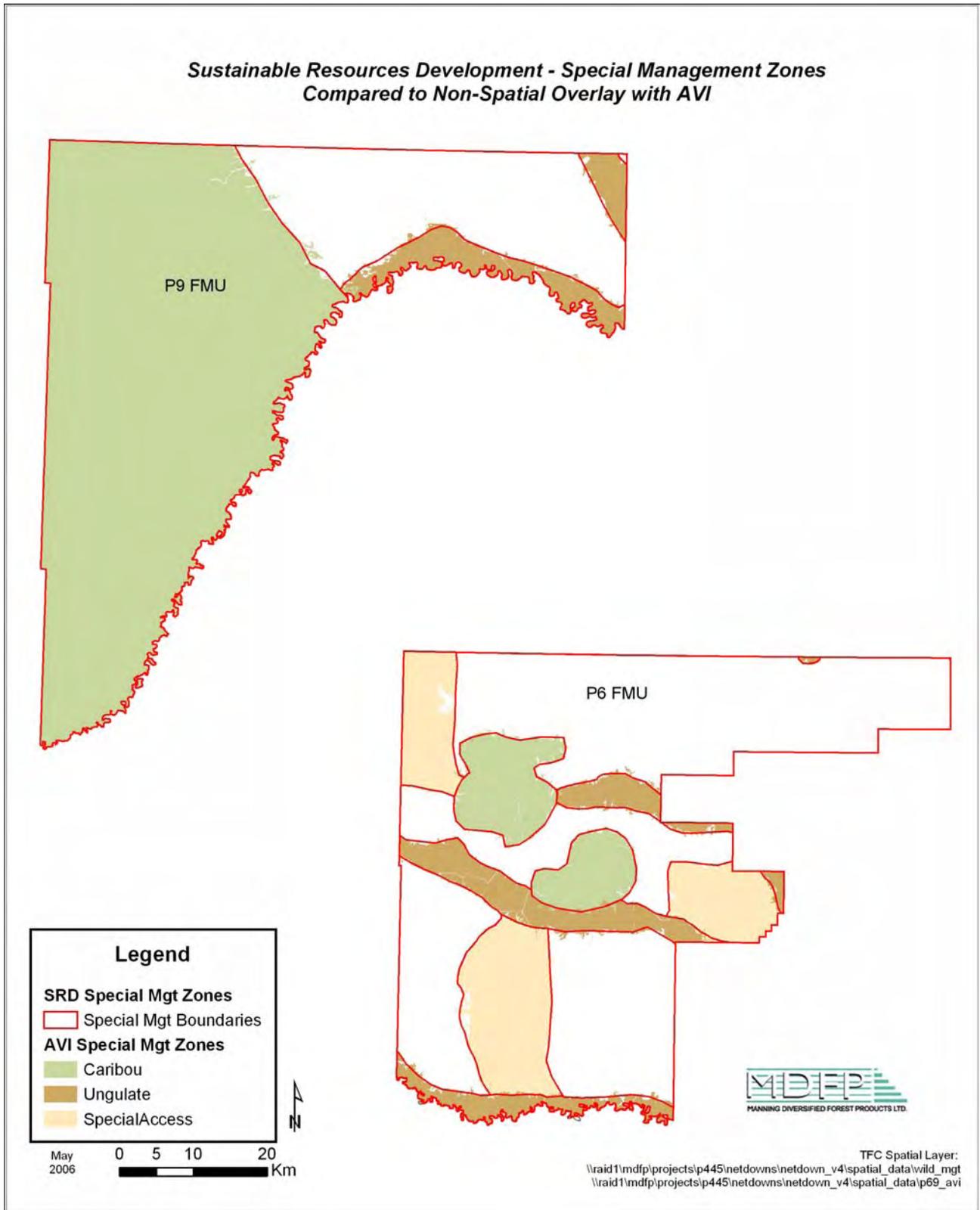
Figure 2-4. Map of wildlife management zones.

2.1.4 Tree Improvement Breeding Regions

Two tree improvement breeding region coverages were obtained from MDFP and these were processed into one coverage to ease processing (Figure 2-5). Region G2 applies to the SW strata and region J applies to the PL strata.

This coverage is incorporated into the landbase by adding a Breeding region attribute to the AVI.
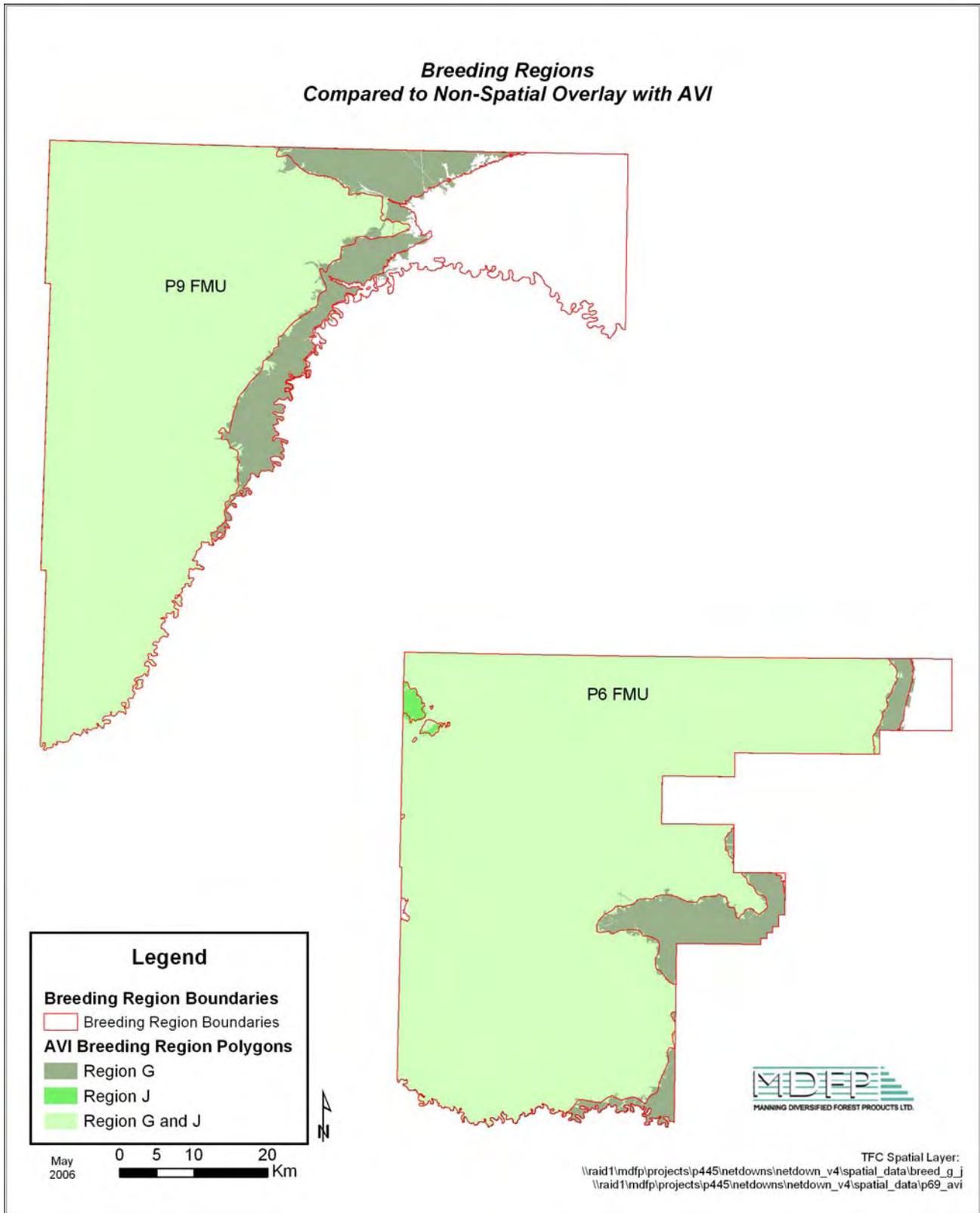
Figure 2-5. Map of tree improvement breeding regions.

2.1.5 Alternative Patch Management Area

The Alternative Patch Management Area (APMA) is shown in Figure 2-6. The P9 portion is coincident with the P9 Caribou Zone from the wildlife management zones coverage. Delineation of the P6 APMA is described in section 7.2.1 in FMP Implementation.

The P6 Alternative Patch Management Area is 76,283 ha and fully surrounds the P6 Caribou Zone (27,534 ha). Figure 2-6 shows the APMA in both P6 and P9, and overlapping with the Caribou Zone (Figure 2-4), but in application, the APMA only applies outside of the Caribou Zone. This means that the APMA is not active in P9 and will have 'hole' in P6 for the Caribou Zone. See VOIT document, Section 2 for map of the Caribou Zone and APMA together.

This coverage is incorporated into the landbase by adding an APMA attribute to the AVI.
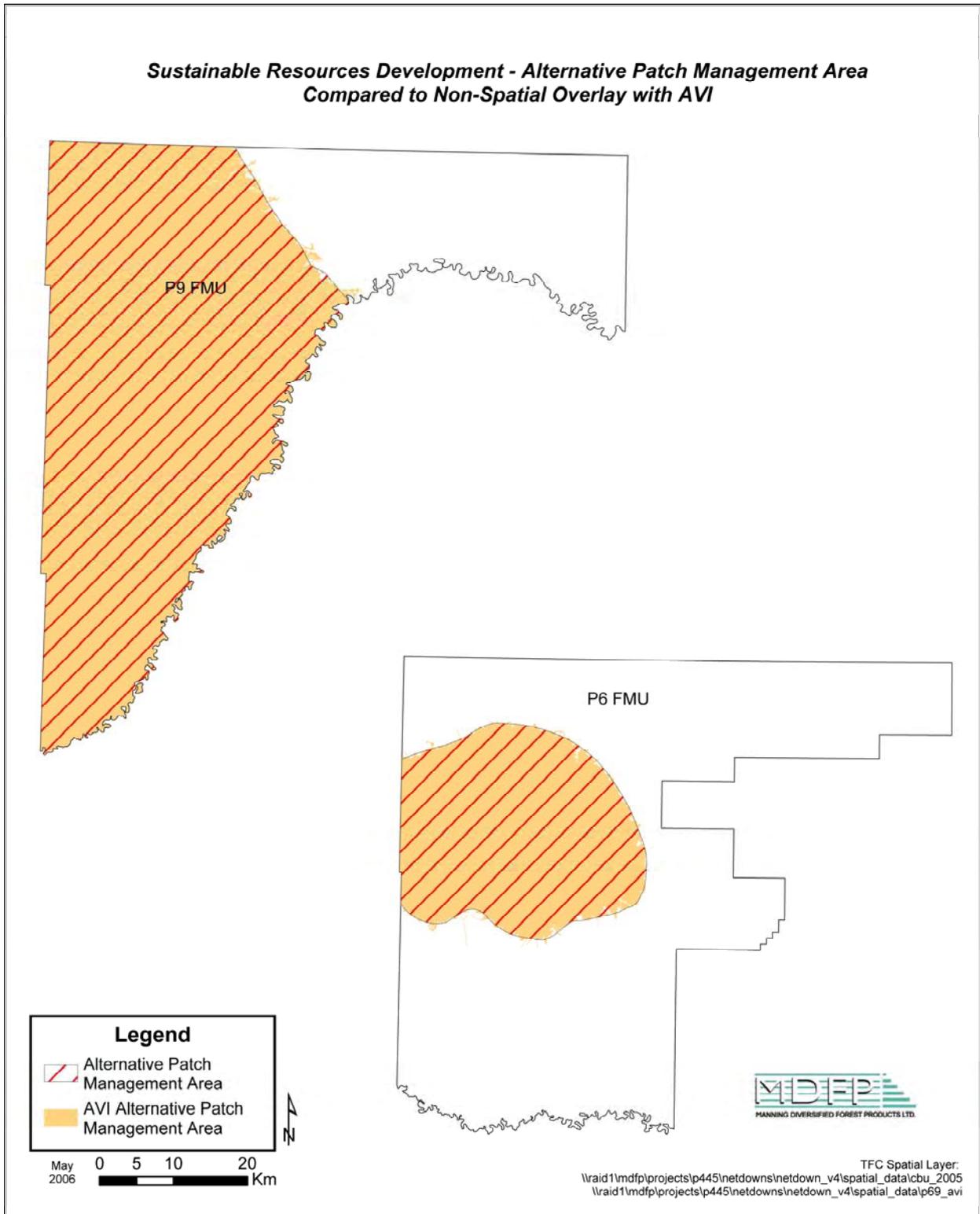
Figure 2-6. Map of Alternative Patch Management Area.

2.2 Fur Management Areas

The Fur Management Area coverage was obtained from SRD and includes all of P6 and P9 (Figure 2-7). Some manual edits were made to fill in missing data as per instructions given by MDFP. This coverage was also converted to the proper projection.
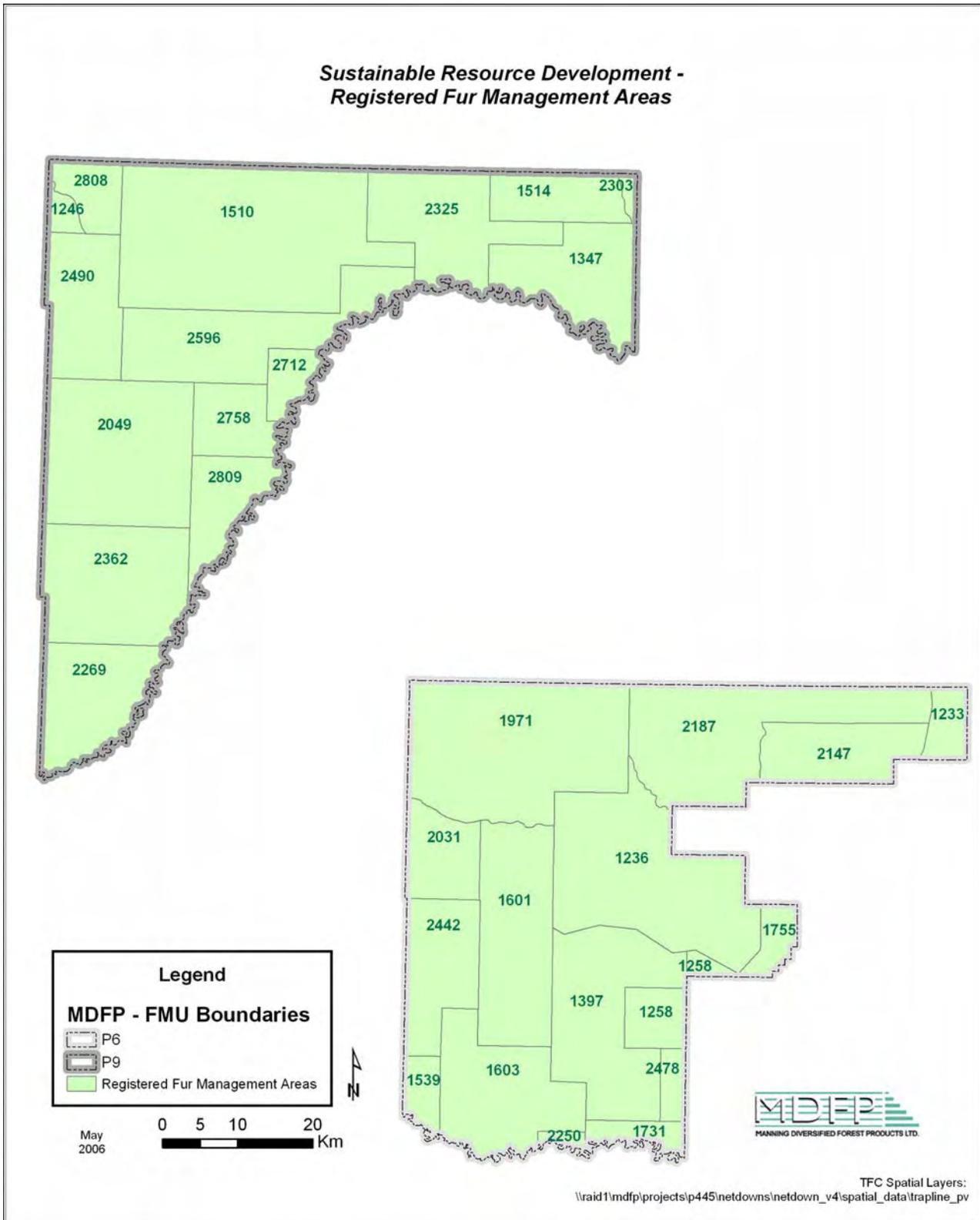
Figure 2-7. Map of Fur Management Areas.

2.3 Historic and Planned Blocks

Three sources of block information in addition to the AVI were available. The first source was a coverage Greenlink Forestry Inc. created in 2003 as part of a block update process. The second source was a coverage from MDFP with blocks extracted from AVI and updated to reflect activities since harvest. The third source was planned block boundaries from MDFP and DMI. These three sources were combined into one coverage and then the boundaries and attributes were manually edited to ensure that the most complete and current information for each block was utilized. The resulting coverage is called Blocks_all and contains treatments, opening numbers, harvest years and strata for most historical blocks. Figure 2-8 shows the resulting historic and planned blocks.
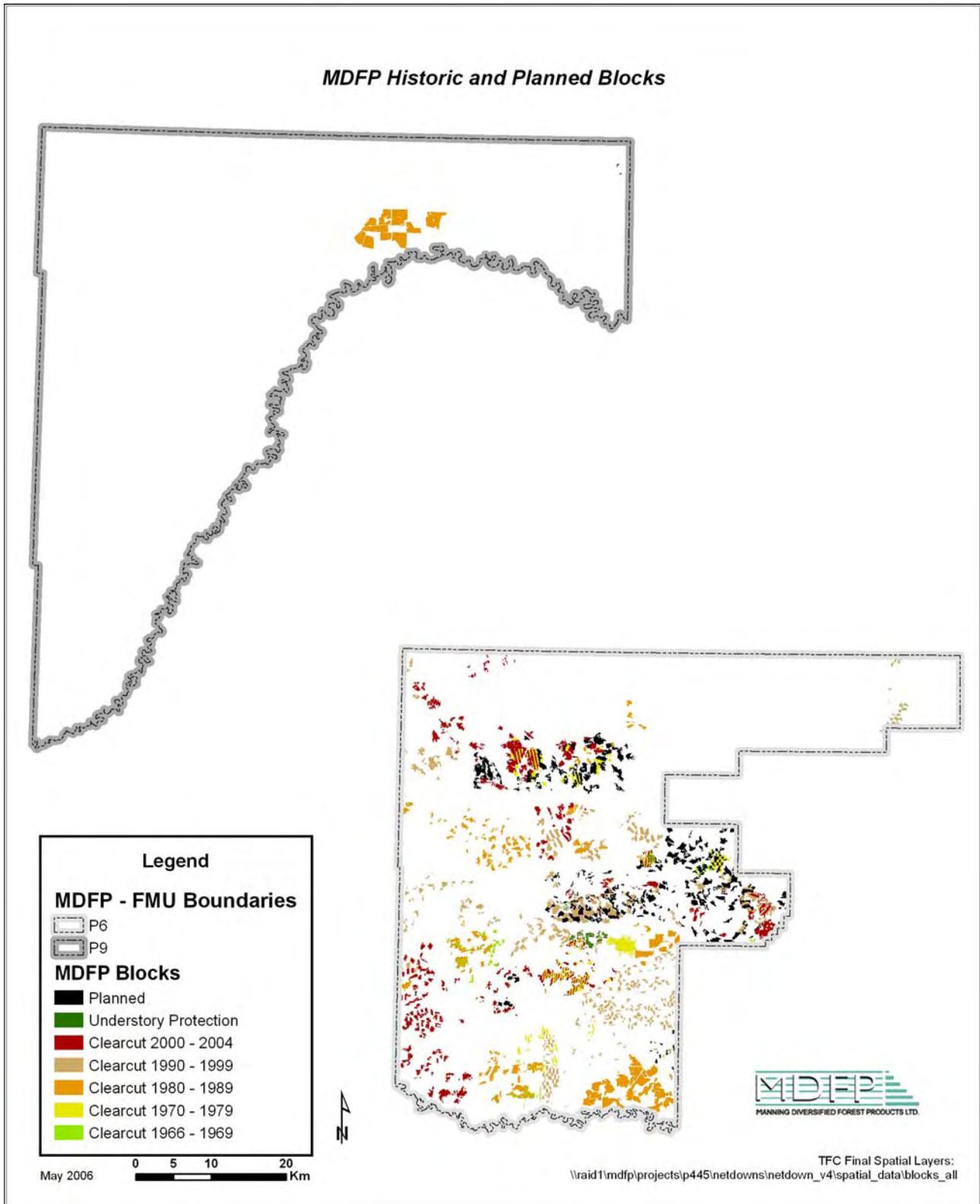
Figure 2-8. Map of historical and planned blocks.

2.3.1 Strata assignment

MDFP became a quota holder in 1997 and a FMA holder in 2002 and, as such, their cutblock liability begins in 1997. Pre-1997 blocks were harvested by DMI and other companies, and have no liability to MDFP. Some of these pre-1997 blocks have been tended by MDFP, and now fall into their liability.

Post-1997 blocks are assigned to a stratum based on the MDFP block treatment database (known as the DIRT database) where available or from the AVI. The pre-1997 blocks are assigned a stratum based on survey data, as outlined in Manning Diversified Forest Products Ltd. Polygon Update Protocol (August 15, 2005) Appendix I, Appendix II and Appendix III. This survey program was established to assign strata to reflect stand tending treatments conducted since the AVI or blocks that are unclassified in the AVI. The survey does not replace existing regeneration liabilities or commitments.

Under the protocol, 218 blocks were selected to be updated and assigned a stratum. In total, 40 blocks were surveyed, and the findings were applied to an additional 178 blocks. The remaining blocks do not have a strata assigned in the AVI. These were not surveyed and became part of the non-forested landbase. These blocks will be excluded from the active landbase in this management plan. Table 2-3 shows the number of blocks and the area assigned using each source.

Table 2-3. Harvested blocks strata assignment source.

Block Strata Assigned from	Blocks Number	Area (ha)
AVI call	652	8,252
DIRT strata	612	10,322
Surveyed Blocks	40	2,054
Stratified from survey data	178	2,826
No Strata assigned	249	4,228
Total	**1,731**	**27,682**

2.4 Recent Burns

Recent fires that are not captured by the AVI are removed from the landbase until a subsequent version of AVI is able to classify the burns using forest cover attributes (i.e., once vegetation has re-grown sufficiently). The Provincial fire history coverage was provided by SRD and fires in the MDFP FMA that were not captured in the AVI were selected for overlay in the landbase as shown in Figure 2-9. These were fires that occurred between 2002 and 2005.
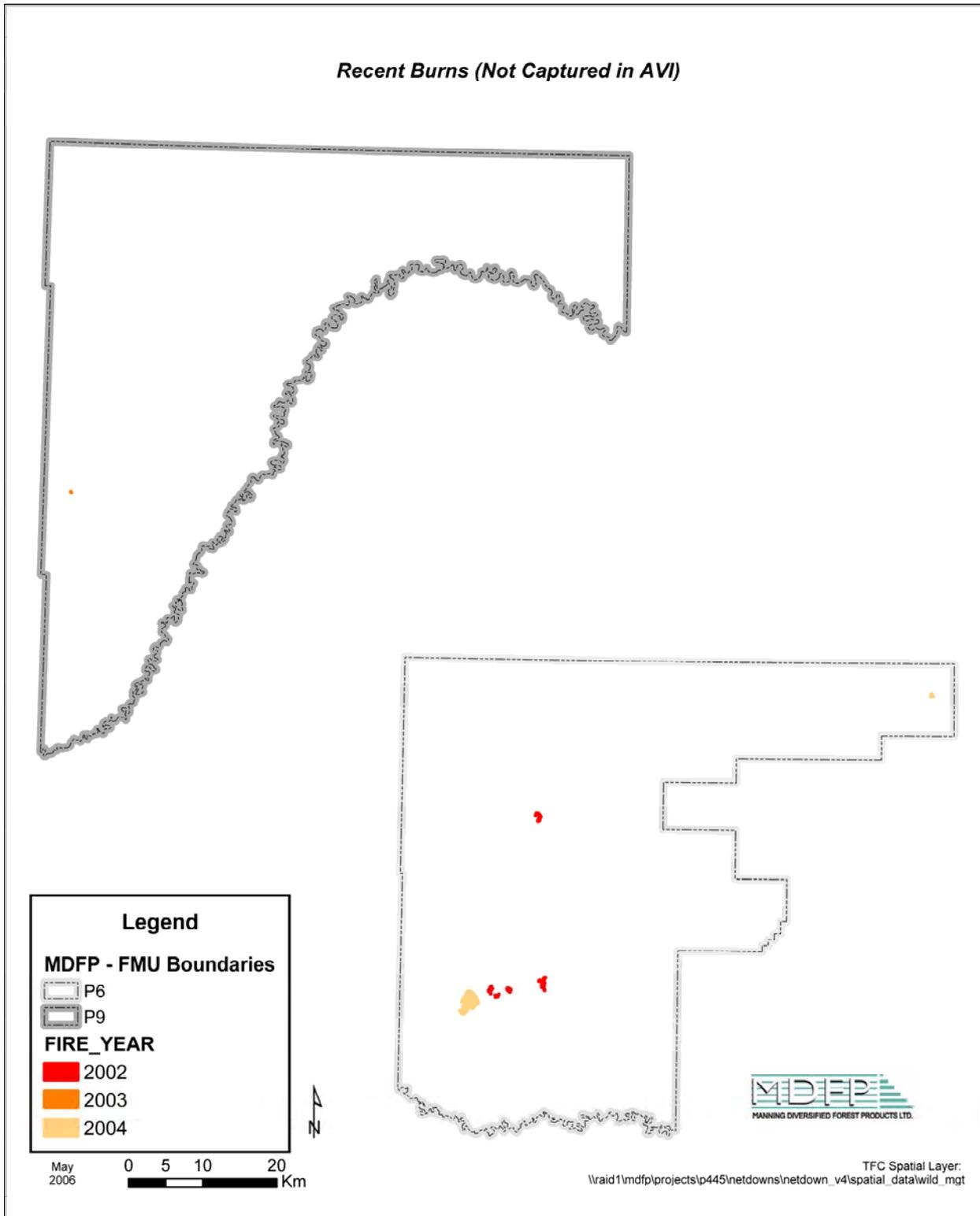
Figure 2-9. Map of recent burns (2002 to 2005).

2.5 SRD Permanent Sample Plots

SRD permanent sample plots (PSPs) are a permanent deletion from the landbase. These plots are located only in FMU P6. The plots are square in shape but the digital coverage was provided as centre points. Squares that are 318m x 318m were generated from these centre points to represent the SRD PSPs (see Figure 2-10).

Unfortunately, three PSP points were not included in the spatial layer from SRD. These three plots are not included in the dataset and are not part of the overlay process. They are however, mapped for use by operational planners to ensure that they will not be harvested.
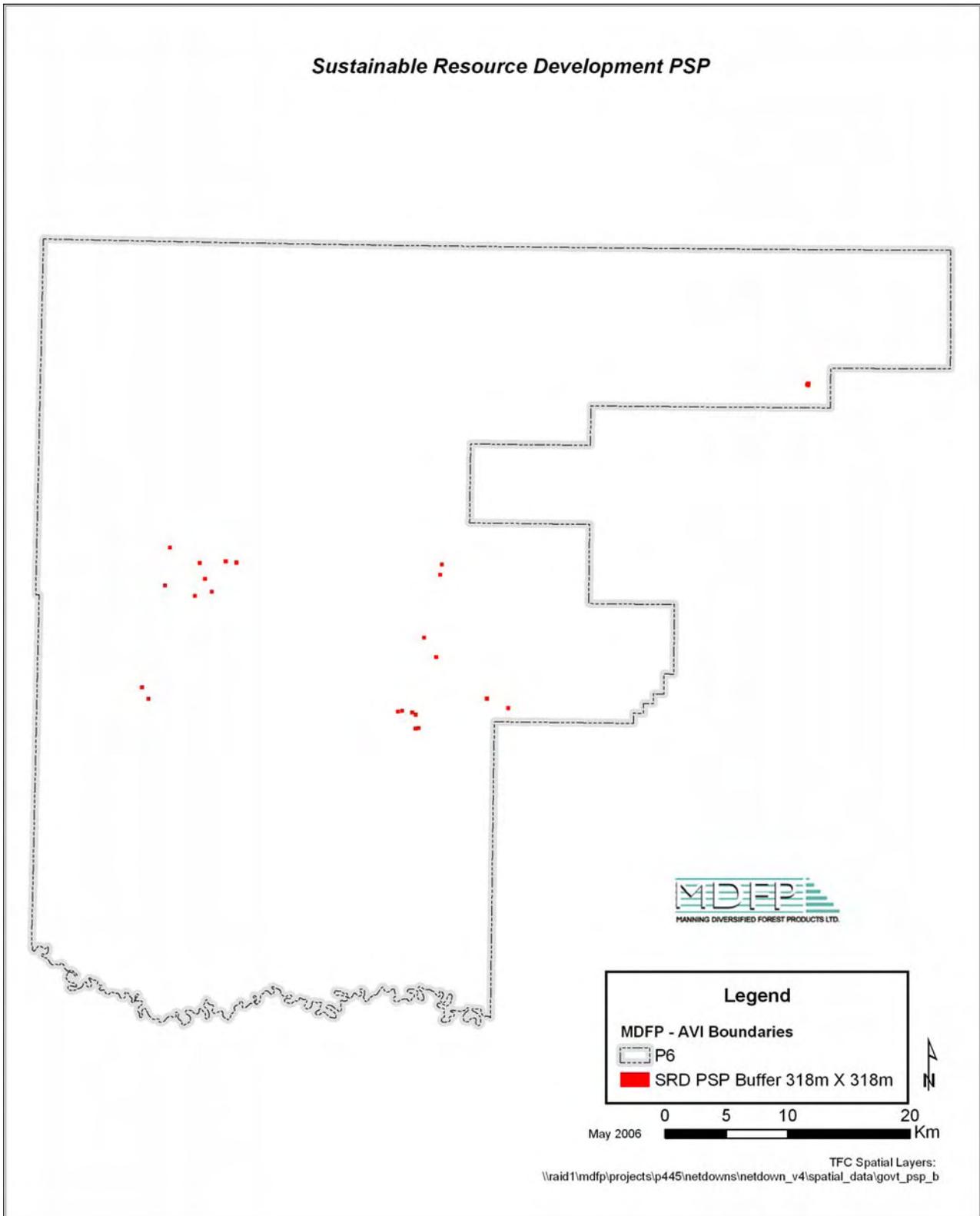
Figure 2-10. Map of SRD permanent sample plots.

2.6 MDFP Permanent Sample Plots

MDFP permanent sample plots are located on a grid throughout P6 and P9 (Figure 2-11). The plots are a temporary deletion from the landbase. The plot centre points were buffered by 100 m radius (200 m diameter) circles to represent these areas.
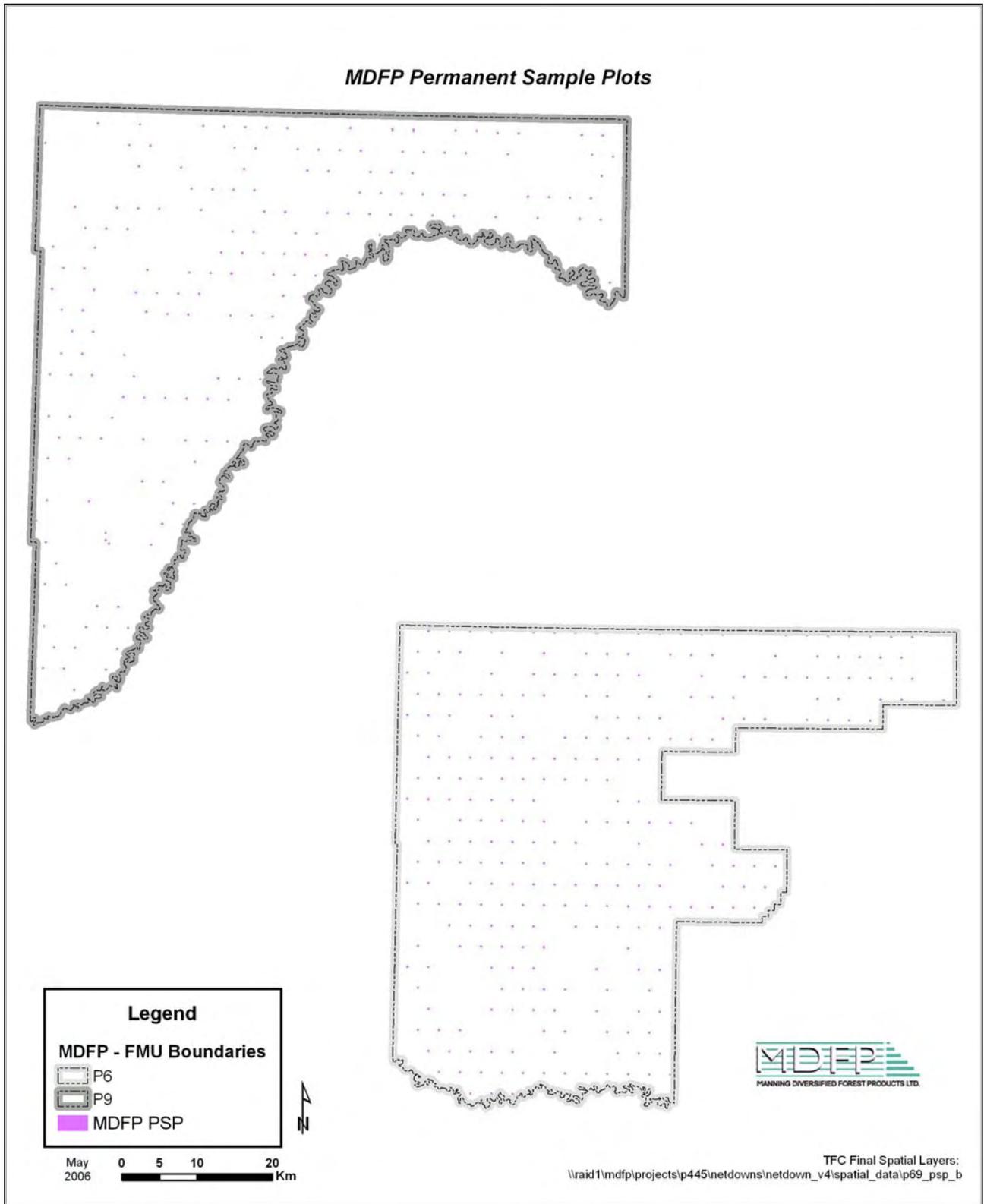
Figure 2-11. Map of MDFP permanent sample plots.

2.7 River Breaks

The river break coverage was prepared by a consultant for MDFP. The river break layer was created from local professional judgment using orthophotos and paper maps. The coverage identifies areas that are inoperable due to steep slopes and therefore focused on the top of the river break (Figure 2-12).

2.7.1   Steep Slope Areas

Steep slope areas are normally excluded from the operable landbase, as they are not suitable for timber harvesting. MDFP staff has reviewed the river break layer and all MDFP steep slope areas are contained within the river break layer and therefore removed from the active landbase.

2.7.2   Notikewin Habitat Zone

The Notikewin Habitat Zone was create to provide additional protection to the Notikewin River and its major tributaries (Botha, Hotchkiss and Meikle Rivers). Most of the river break polygons within P6 are classified as Notikewin Habitat Zone as shown in Figure 2-12 and are removed from the active landbase.
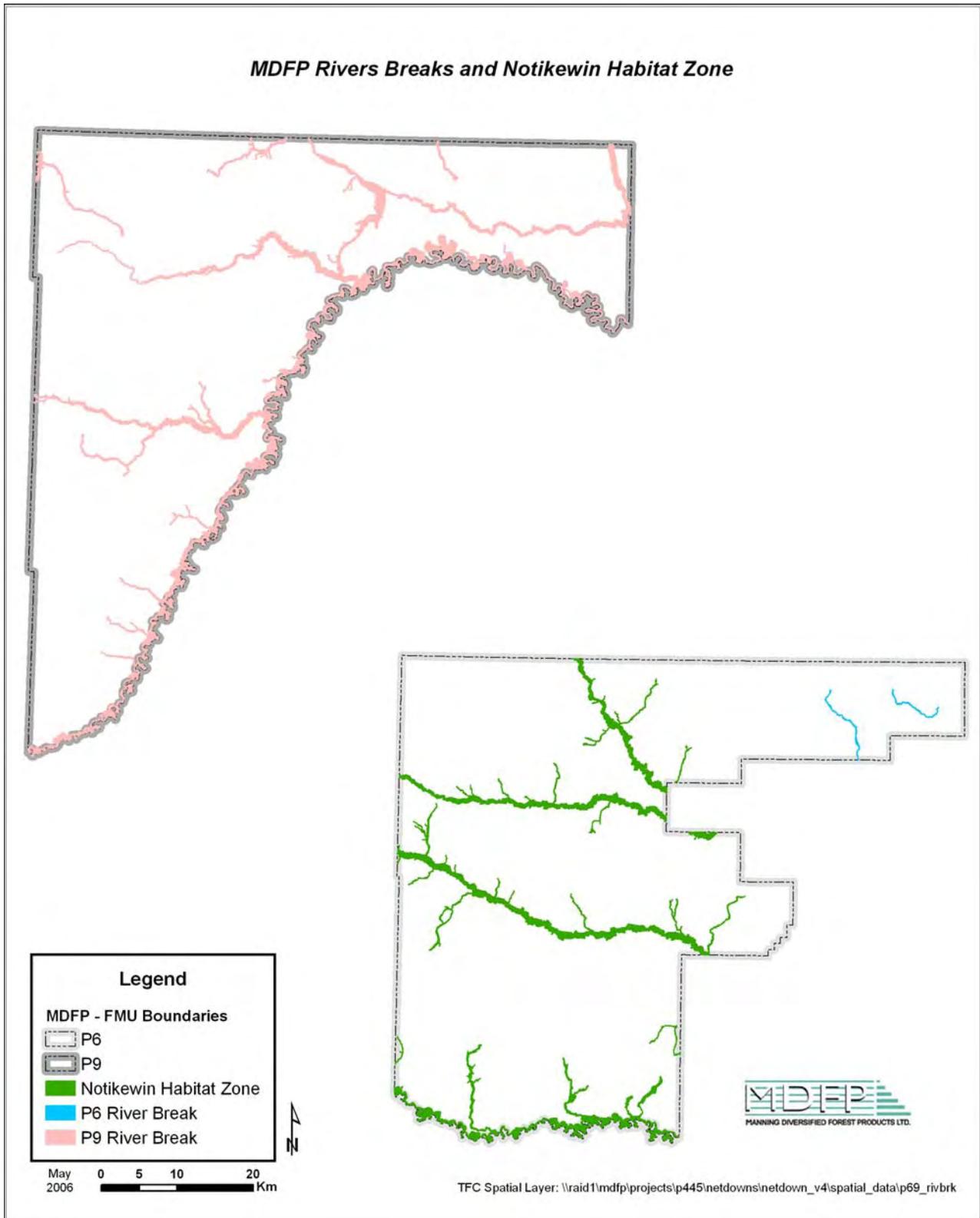
Figure 2-12. Map of river breaks including Notekewin habit zone.

2.8 Trumpeter Swan Buffer

SRD provided MDFP with the Element Occurrence (EOS) layer for the FMA Area. Within the MDFP FMA three lakes were identified as trumpeter swan nesting sites. These three lakes were identified in the AVI and a 200 m buffer was applied as indicated in Figure 2-13.
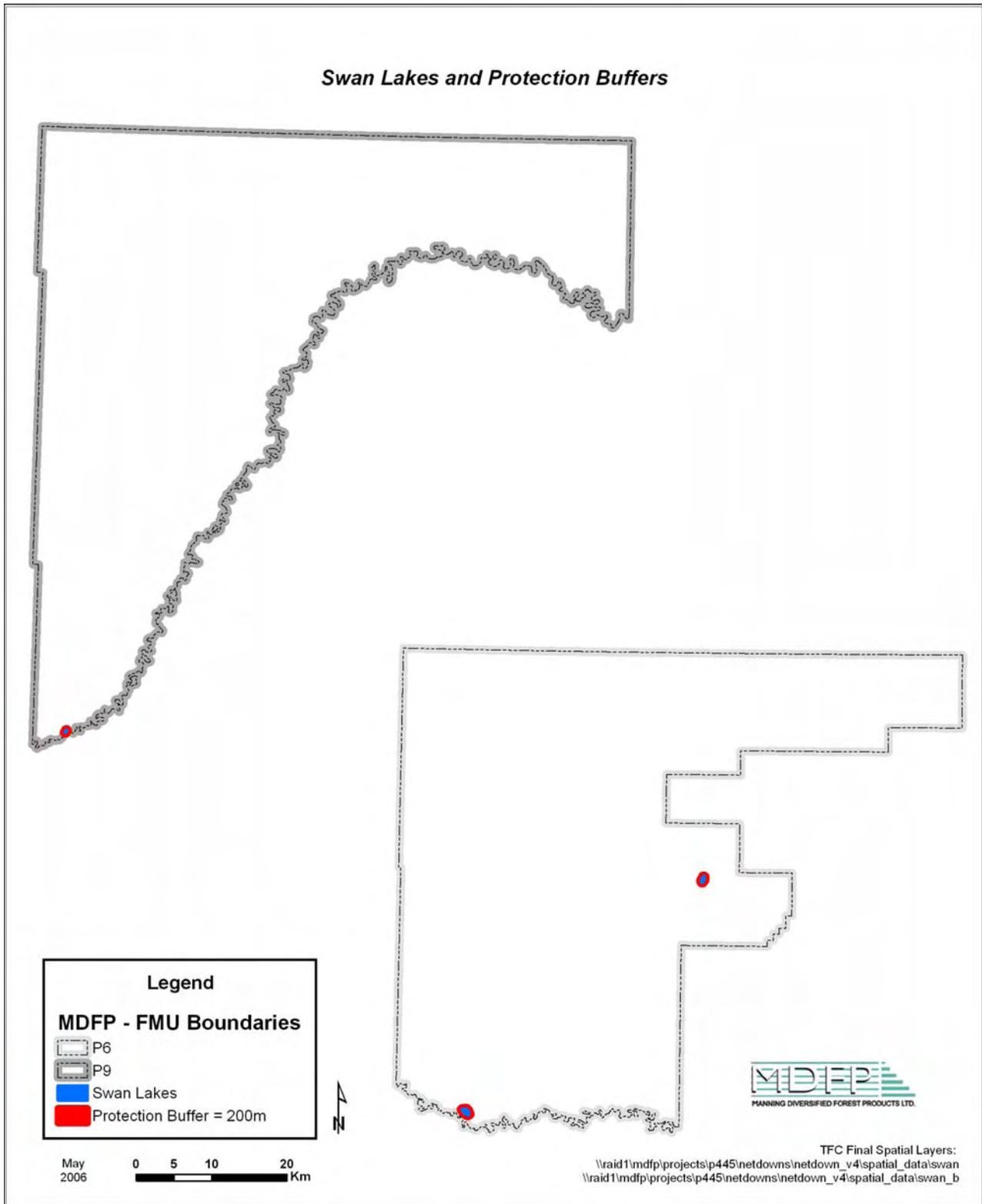
Figure 2-13. Map of Swan buffer.

2.9 Highway Management Zone

The provincial highway (HWY 35) and the Chinchaga Forestry road running through the P6 FMU were buffered to create a Highway Management Zone that is 250 m wide (125 m each side of centerline). This area was added to the landbase as a special management zone (Figure 2-14) but was included in the active landbase.
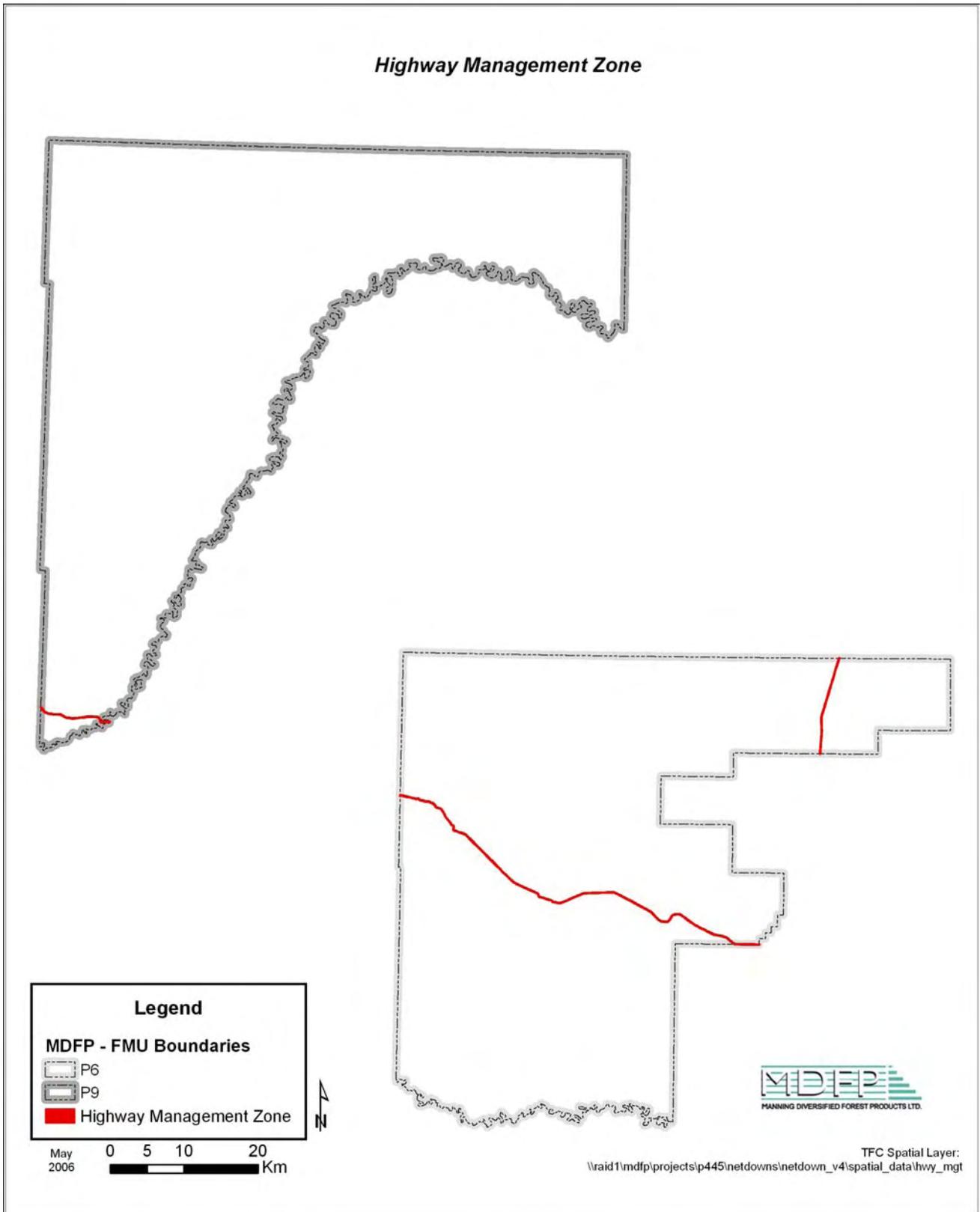
Figure 2-14. Map of Highway Management Zone.

2.10 Twin Lakes Complex

The following management zones came from several sources, but all are located in the northeast corner of FMU P6, in the vicinity of the Twin Lakes (see Figure 2-15.)

2.10.1 Twin Lakes Lodge Management Zone

The AVI polygon containing Twin Lakes Paradise Motel was selected and buffered 100 m to define the Twinlakes Lodge Special Management Zone.

2.10.2 Twin Lakes Buffer

A buffer of 200 m was applied around the Twin Lakes to create a protection buffer deletion in the landbase.

2.10.3 Twin Lakes Recreation Area

A coverage delineating the Twin Lakes Recreation Areas was provided by Parks and Protected Areas Division, Alberta Community Development. This area is cut into the landbase as a deletion.

2.10.4 Twisted Bog Moss Management Zone

SRD provided the EOS layer for the MDFP FMA Area, which identified the occurrence of twisted bog moss in the vicinity of Twin Lakes. A 1000 m buffer was established around the sighting to facilitate protection of this moss species, which has been identified at limited locations within the province. The Twisted Bog Moss Management Zone is included in the landbase as a special management zone.
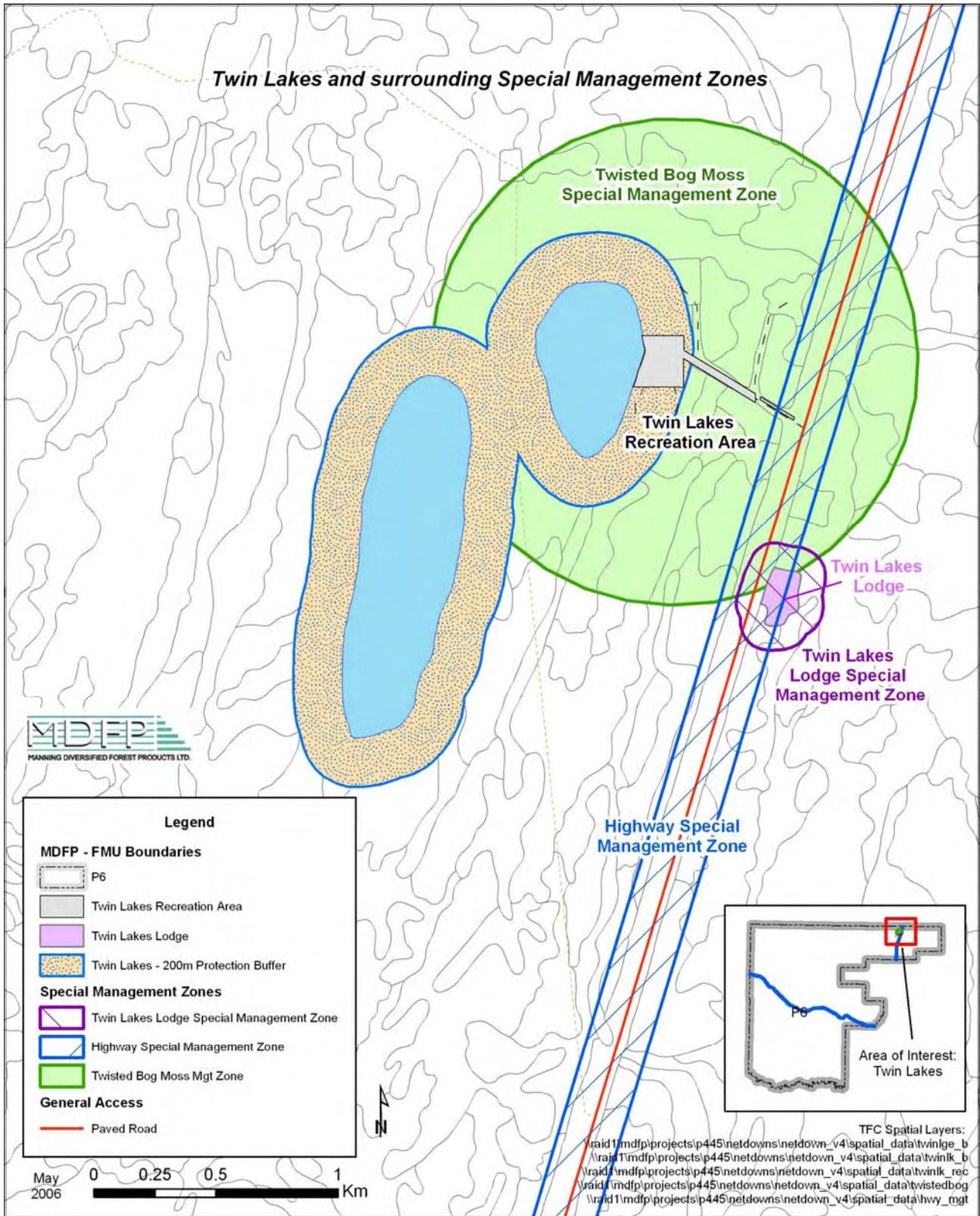
Figure 2-15. Map of Twin Lake area

2.11 Watershed Boundaries

The watershed boundaries were created for MDFP as part of a masters thesis project by Boyd Laing. It was received in June 2005 and approved for use by SRD in August 2005. The four original shapefiles were converted into one coverage and each watershed was assigned an arbitrary identification number (see Figure 2-16).
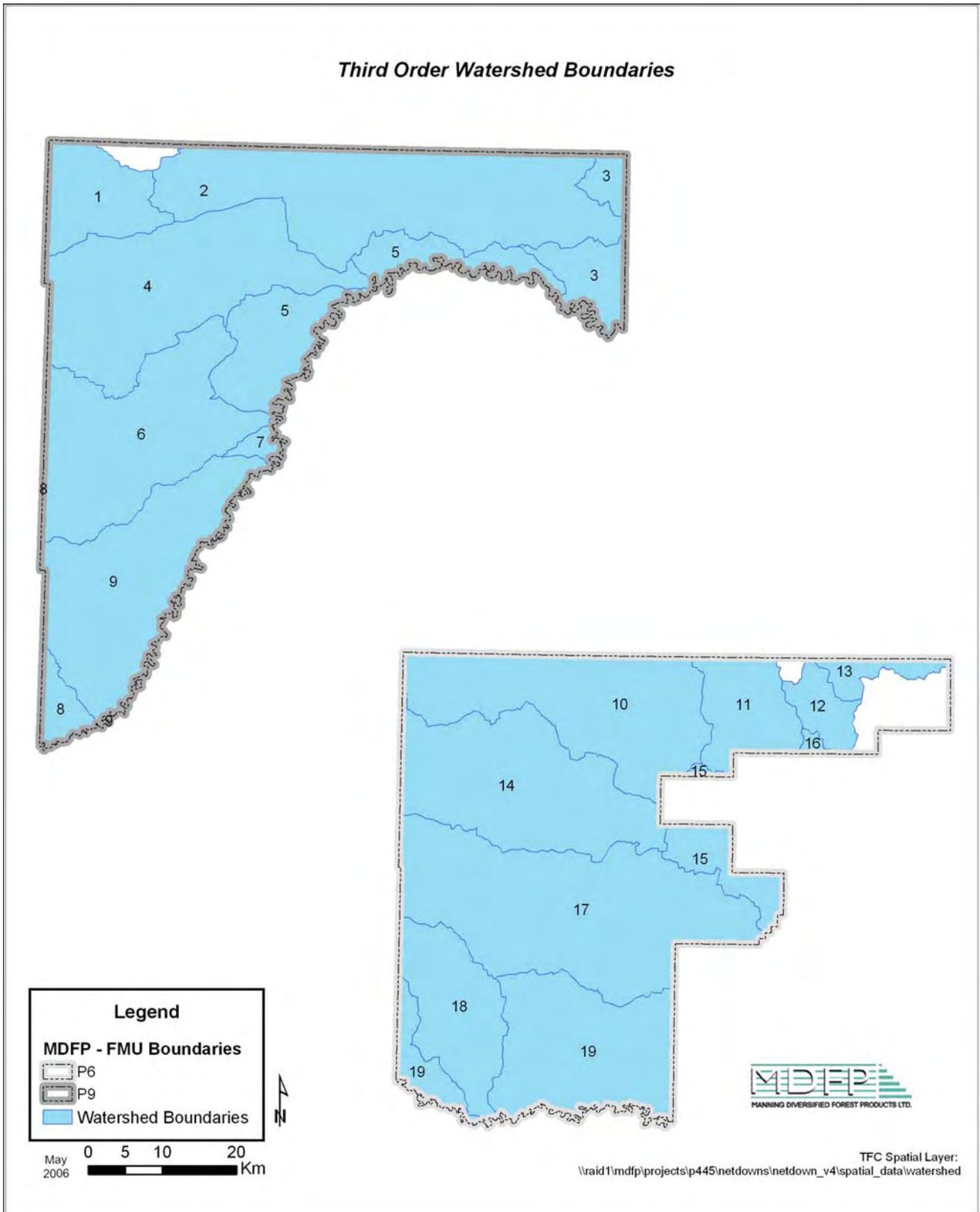
Figure 2-16. Map of watershed boundaries.

2.12 Hydrology Buffers

The hydrology buffers coverage was generated from multiple sources according to the rules in Table 2-4.

- Small rivers and creeks were buffered from the SRD – SLNET coverage.

- Major rivers were buffered from linework extracted from the AVI and supplemental information from the SRD hydropolys coverage.

- Lakes were buffered from extracted AVI lakes.

These three buffered coverages were then unioned and dissolved to create the z_hydro coverage. Once the coverage was created, areas that were isolated by water buffers were identified and their area assigned to the isolated_ha field to allow deletions of isolated areas. The resulting hydrology buffers are indicated in Figure 2-17.

Table 2-4. Hydrology buffer widths.

Feature	Buffer Width (m)	Code
Perennial Streams	30	WATER
Oxbow Lakes	30	WATER
Major Rivers	60	WATER
Lakes	100	WATER
Twin Lakes	200	WATER
Swan Lakes	200	SWAN
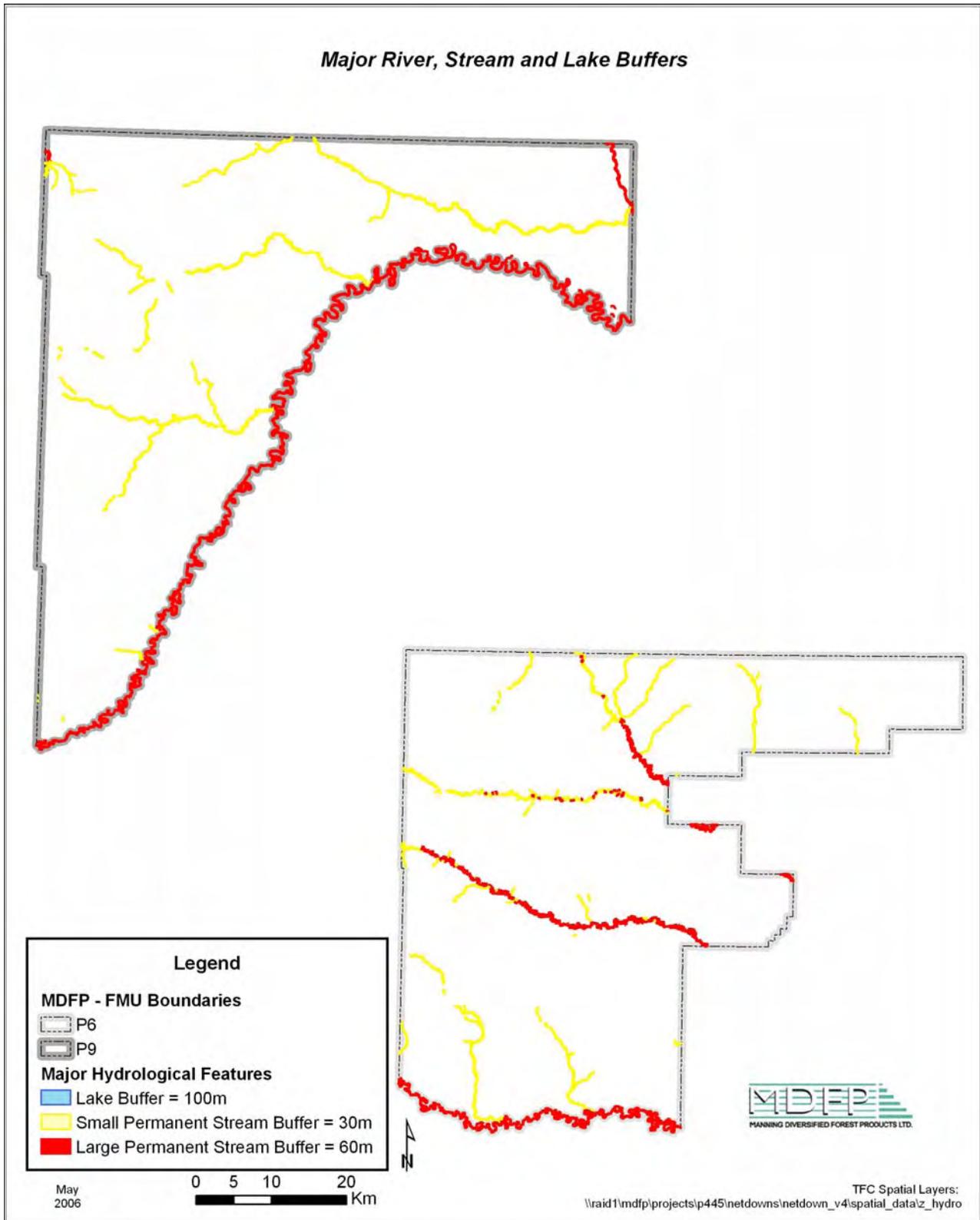
Figure 2-17. Map of hydrology buffers.

2.13 Landuse and Access

The landuse and access dataset includes roads, pipelines and wellsites that are not included in the AVI.

2.13.1 Processing

In addition to the AVI roads, there are two sources of road centerlines for update: GPS roads and Greenlink linear update. The GPS roads were assigned to width classes of 10, 15, 30 and 40 metres wide when the data was collected in the field. This information was used to classify the GPS roads into their appropriate widths for buffering. The roads updated by Greenlink were buffered according to information gathered at the time of interpretation. The buffer widths used are shown in Table 2-5.

Table 2-5. Landuse buffer widths.

Feature		ROW Width (m)	Code
Roads			
GPS		10, 15, 30 or 40	ROAD
Greenlink			
	Main Road	30	ROAD
	Gravel Road	15	ROAD
	Unimproved	8	ROAD
	Truck Trails	5 to 30	ROAD
Pipelines			
		20	PIPE

Oil and gas dispositions not present in the AVI were added to this input coverage. These came from the landuse coverage provided by Ezra Consulting Ltd. and the Greenlink update coverage. These datasets were filtered out for duplication in the AVI and each other.

Next the roads, pipelines and non-linear datasets were cleaned. This included removing polygons that currently exist in the AVI and excluding portions of roads and pipelines from the GPS data which varied slightly in alignment from the Ezra LOC or PLA features. Finally they were overlaid using Arc/Info regions and assigned a hierarchy based on the disposition type as shown in Table 2-6. Coverages containing MLL960106 and LSAS PNTs were also incorporated into the overall landuse/access dataset. Figure 2-18 shows the resulting landuse/assess features.

Table 2-6. Landuse hierarchy.

Rank	Disposition	Description
1	ROAD	LOC, other roads
2	PIPE	PLA, PIL
3	WELL	MSL
4	EZE	Anthropological Deletion
5	MLL	Anthropological Deletion
6	MLP	Anthropological Deletion
7	PNT	Protective Notations
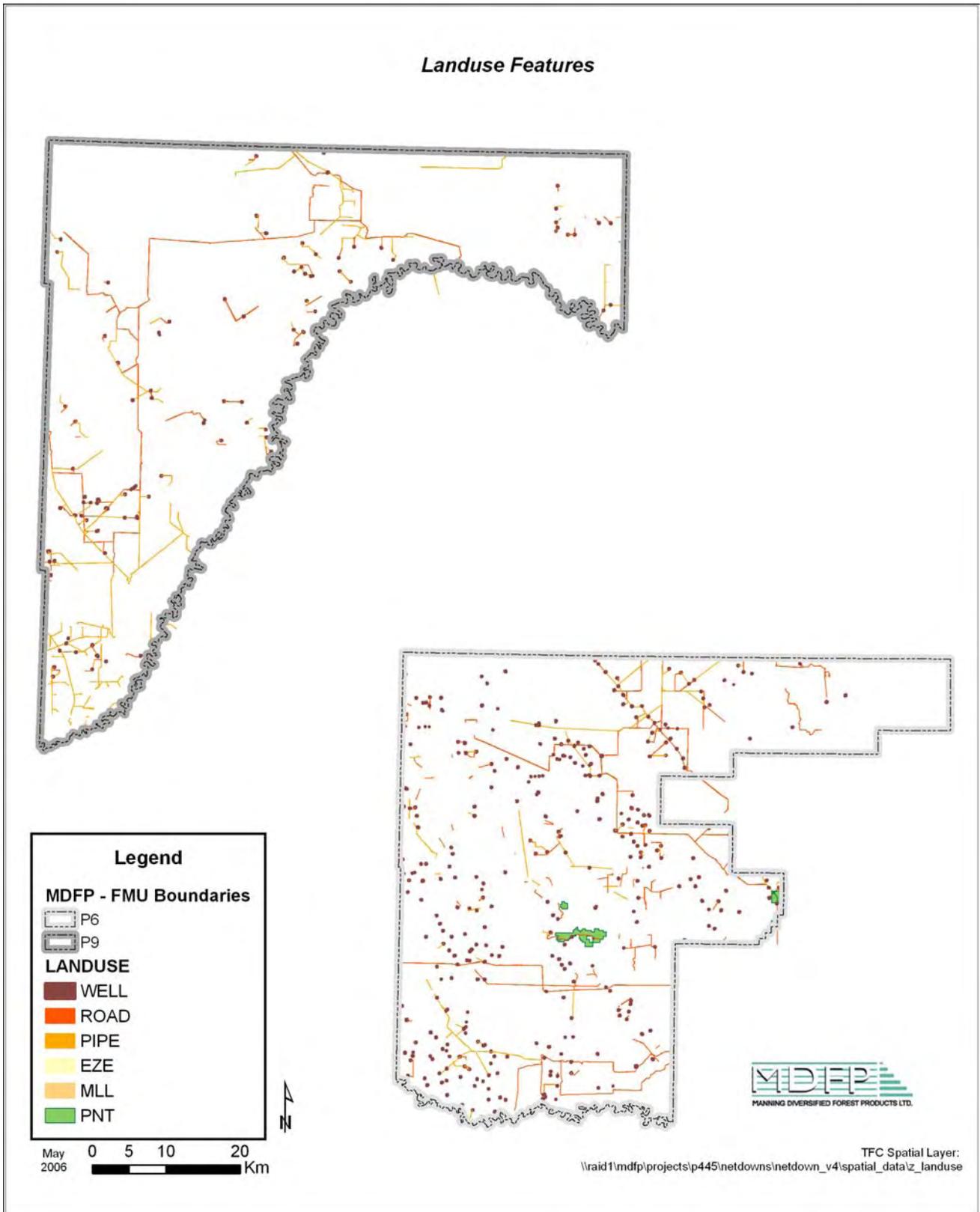
Figure 2-18. Map of landuse and access.

2.14 Seismic Lines

Seismic information for P6 is from the MDFP Library transport layer. P9 seismic information originated from the Greenlink landuse update. Further spatial updates from Greenlink and Ezra for both FMU's were also added and depletion width codes were added.

To assign depletion codes, all seismic arcs were first extracted from the linear update coverage. These arcs were then buffered and separate buffer coverages were produced with widths of 5, 10, 15, 20, 25 and 30 meters. The six buffer coverages were brought up on screen over digital orthophotos in different colors in the background and used as a depletion measurement guide. Once the depletion width was decided upon for each seismic line, the 'Depletion_Code' attribute was assigned. This procedure was carried out for each seismic arc, and visual quality check was completed for the entire area.

The final seismic coverages were unioned together and then buffered according to the depletion width specifications in Table 2-7. The final coverage is shown in Figure 2-19.

Table 2-7. Seismic buffer widths.

Depletion Width			
Code	**Class**	**ROW Width (m)**	**Code**
Cutlines			
0	0 - 1	0	SEISMIC
1	1.1 - 5	3.5	SEISMIC
2	5.1 - 10	8	SEISMIC
3	10.1 - 15	13	SEISMIC
4	15.1 - 20	18	SEISMIC
5	20.1 - 25	23	SEISMIC
6	25.1 - 30	28	SEISMIC
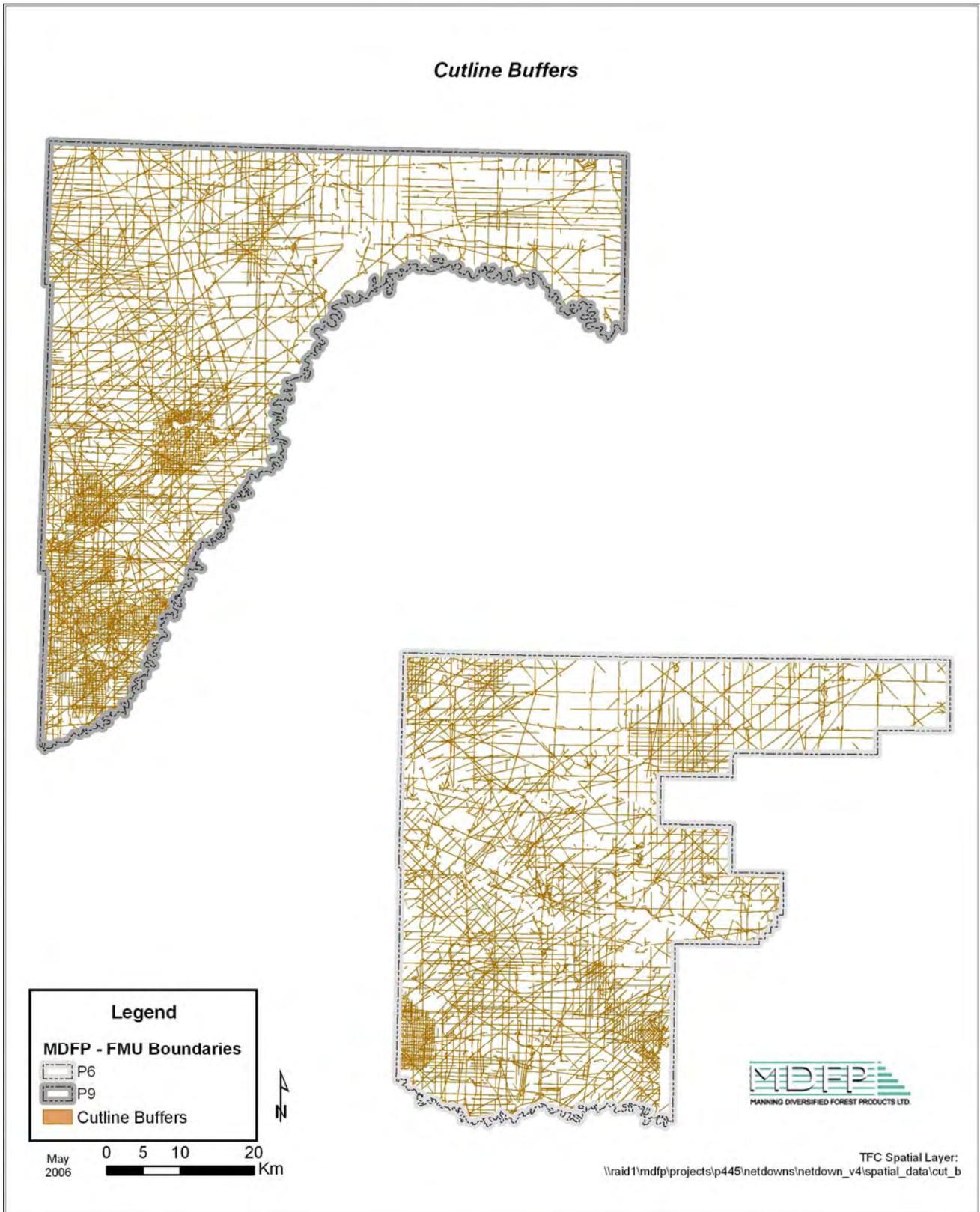
Figure 2-19. Map of seismic lines.

2.15 AVI Data Discrepancy

While compiling the different sources of data, an error in the P6 AVI was found. One polygon (Forestkey = 950260480) was labeled with ANTH_NON = AIH while the information provided by Greenlink showed this linear feature to be a pipeline (ANTH_NON should be CIP). This finding was confirmed by MDFP local knowledge. Unfortunately, this one polygon covered some actual road also, so it could not be re-coded to properly match the actual ground feature. This discrepancy is shown in Figure 2-20.
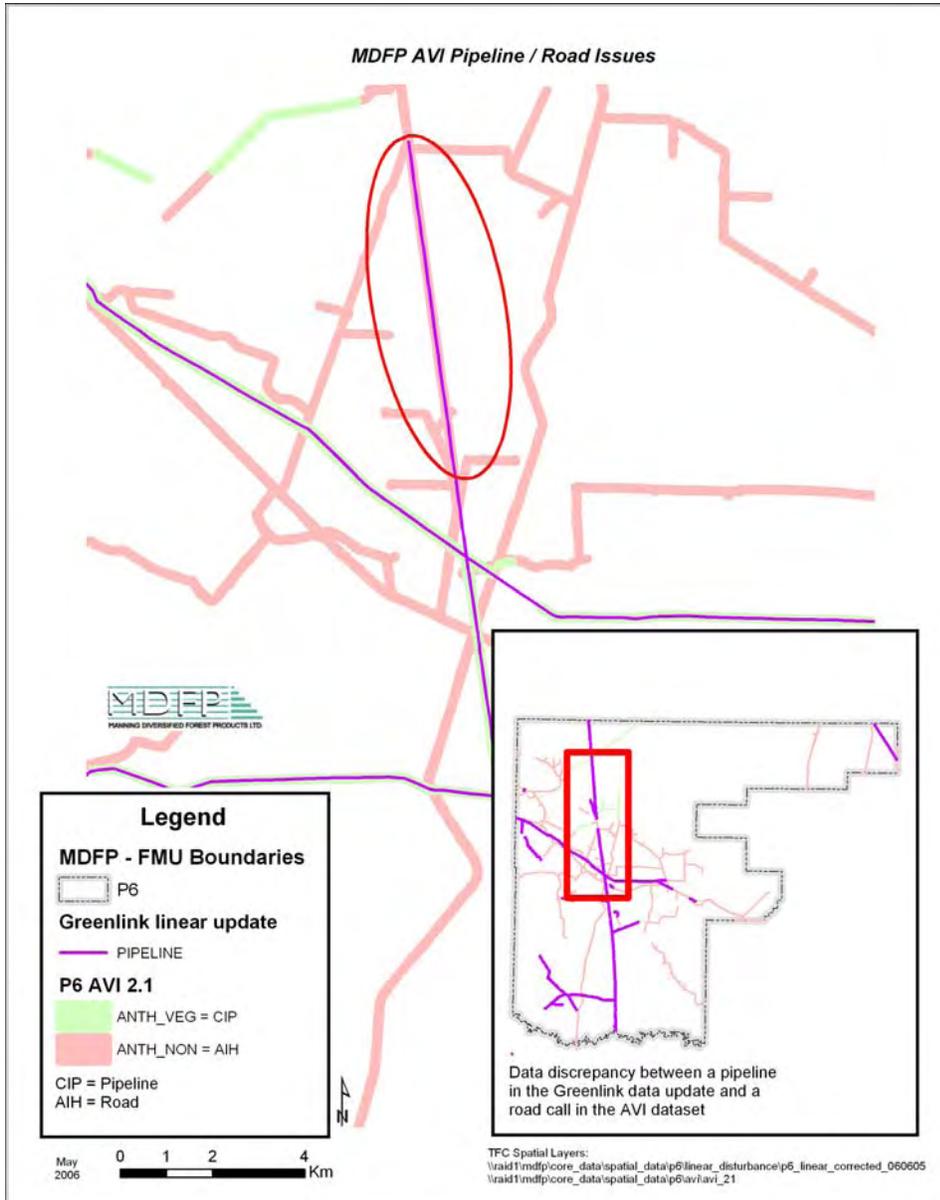
Figure 2-20. Map showing landuse discrepancy in AVI.

3. Spatial Data Processing

3.1 Overview

The landbase netdown process is shown conceptually in Figure 3-1. The processed data described in Section 2 are combined into one final dataset, where rules were applied to determine the final classifications.

3.2 Processing

ArcInfo technology was used to process the final source coverages identified in Section 2 to develop a final spatial coverage.

As shown in Figure 3-1, many of the submitted dataset coverages were first processed to create final Input Dataset coverages that are used in the landbase. Several were used to create buffer coverages, while others were reduced by selecting only the portions required of the original coverages. Four of the more general coverages had their attributes assigned to the AVI to allow their attributes to be carried through to the final coverage without adding any extra linework. The datasets that were added to the AVI are the following:
- Compartments,
- Natural Sub-Regions,
- Wildlife Management Zones (includes Caribou Zone),
- Breeding Regions,
- Alternative Patch Management Area.

Spatial Data Processing

Figure 3-1. Landbase netdown process.

Once all of the input dataset coverages were prepared, the following steps were taken:
- Fuzzy tolerances were set to 0.001

- Multi-union all input coverages except seismic buffers (multi-union = consecutive set of unions to combine several coverages into one coverage).

- Clip multi-union coverage with FMA boundary to remove extra data.

- Calculate: *UKEY4_TMP = P16_LB4_B# - 1*.

- Calculate the netdown attributes (with the exception of seismic) using Oracle.

- Bring calculated attributes back into the landbase coverage.

- Hard code arcs where the following attributes are different on each side to be 'fixed' and not allowed to be eliminated:

- *F_DEL1*, which included arcs between the operable and non-operable landbase,

- block boundaries,

- fire boundaries and

- MDFP PSP plots.

- Eliminate all polygons 0.1 ha or less on the slivers that were 'allowed' to be merged. KEEPEDGE option is used.

- Calculate *UKEY4_TSA = ((COMPART * 1000000) + (P16_LB4_TSA# - 1))*.

- Union the seismic buffer layer with the landbase.

- Calculate *UKEY4 = ((COMPART * 1000000) + (P16_LB4_CLS# - 1))*.

- Calculate final deletion field (*F_DEL*) and *AREA_HA* in Oracle.

- Export back to coverage.

The process of adding *UKEY4_TSA* and *UKEY4* was undertaken to allow the landbase polygons to be reduced by the amount of area in the seismic coverage without adding the extra linework of the seismic. The landbase with the seismic is P16_LB4_CLS and the version without seismic is P16_LB4_TSA and will be used in the timber supply analysis and is discussed further within Section 6. Both are submitted for review.

Table 3-1 shows the change in the landbase deletions and Table 3-2 shows the change in operable landbase before and after the elimination of slivers and the overlay with the seismic coverage.

Table 3-1. Comparison of total landbase before and after eliminations.

Landbase Category	v4b Base (ha)	TSA Arc Elim (0.1 ha) Change (ha)	%	(ha)	CLS Add Seismic Change (ha)	%	CLS Final LB (ha)
Gross Landbase	**595,677.2**	**0.0**	**0.0000%**	**595,677.2**	**0.0**	**0.0000%**	**595,677.2**
Patented Land (D_STATUS)							
SRD PSP Buffer	239.1	0.0	0.0000%	239.1	0.0	0.0000%	239.1
Protected Areas	269.5	0.0	0.0000%	269.5	0.0	0.0000%	269.5
Total Patented Land	508.6	0.0	0.0000%	508.6	0.0	0.0000%	508.6
Running Sum of Area Deleted	508.6	0.0	0.0000%	508.6	0.0	0.0000%	508.6
Landbase Remaining	595,168.6	0.0	0.0000%	595,168.6	0.0	0.0000%	595,168.6
Access (D_ACCESS, D_SEISMIC)							
Roads	3,148.8	0.0	0.0000%	3,148.8	0.0	0.0000%	3,148.8
Pipelines	2,045.4	0.0	0.0000%	2,045.4	0.0	0.0000%	2,045.4
Seismic Lines	0.0	0.0	0.0000%	0.0	11,479.5	100.0000%	11,479.5
Total Access	5,194.2	0.0	0.0000%	5,194.2	11,479.5	221.0078%	16,673.7
Running Sum of Area Deleted	5,702.8	0.0	0.0000%	5,702.8	11,479.5	201.2973%	17,182.3
Landbase Remaining	589,974.4	0.0	0.0000%	589,974.4	-11,479.5	-1.9458%	578,494.9
Non-Forested (D_NONFOR)							
Water Body	3,800.1	0.0	0.0000%	3,800.1	-1.6	-0.0433%	3,798.4
Anthropogenic Non-Vegetated	1,835.4	0.0	0.0000%	1,835.4	-119.7	-6.5198%	1,715.7
Non-Forested	59,117.4	0.0	0.0000%	59,117.4	-1,204.2	-2.0369%	57,913.3
Naturally Non-Vegetated	7,920.5	0.0	0.0000%	7,920.5	-114.6	-1.4475%	7,805.8
Total Non-Forested	72,673.4	0.0	0.0000%	72,673.4	-1,440.1	-1.9816%	71,233.3
Running Sum of Area Deleted	78,376.1	0.0	0.0000%	78,376.1	10,039.4	12.8092%	88,415.5
Landbase Remaining	517,301.0	0.0	0.0000%	517,301.0	-10,039.4	-1.9407%	507,261.6
Recent Burns (D_BURN)							
Recent Burn	330.1	0.0	0.0000%	330.1	-9.6	-2.8994%	320.5
Total Burn	330.1	0.0	0.0000%	330.1	-9.6	-2.8994%	320.5
Running Sum of Area Deleted	78,706.2	0.0	0.0000%	78,706.2	10,029.8	12.7434%	88,736.1
Landbase Remaining	516,970.9	0.0	0.0000%	516,970.9	-10,029.8	-1.9401%	506,941.1
Non-Productive (D_TPR)							
Unproductive	2,003.2	0.0	0.0000%	2,003.2	-28.2	-1.4080%	1,975.0
Decid TPR = F	2,935.8	0.0	0.0000%	2,935.8	-54.6	-1.8600%	2,881.2
Total Non-Productive	4,939.0	0.0	0.0000%	4,939.0	-82.8	-1.6766%	4,856.2
Running Sum of Area Deleted	83,645.3	0.0	0.0000%	83,645.3	9,947.0	11.8919%	93,592.3
Landbase Remaining	512,031.9	0.0	0.0000%	512,031.9	-9,947.0	-1.9427%	502,084.9
Water Buffers (D_BUF)							
River Breaks	23,243.8	0.0	0.0000%	23,243.8	-212.9	-0.9161%	23,030.9
Swan Lake Buffer	140.9	0.0	0.0000%	140.9	-4.0	-2.8430%	136.9
Water Buffers	1,286.9	0.0	0.0000%	1,286.9	-29.7	-2.3051%	1,257.3
Total Water Buffers	24,671.7	0.0	0.0000%	24,671.7	-246.6	-0.9996%	24,425.1
Running Sum of Area Deleted	108,317.0	0.0	0.0000%	108,317.0	9,700.4	8.9556%	118,017.4
Landbase Remaining	487,360.2	0.0	0.0000%	487,360.2	-9,700.4	-1.9904%	477,659.8
Subjective Deletions (D_SUBJ, D_ISO)							
Wetland	173,725.1	0.0	0.0000%	173,725.1	-3,791.4	-2.1824%	169,933.7
A Density Stands	8,333.9	0.0	0.0000%	8,333.9	-179.2	-2.1502%	8,154.7
Larch	94.0	0.0	0.0000%	94.0	-2.1	-2.2794%	91.8
Sb Leading and TPR < G	2,727.7	0.0	0.0000%	2,727.7	-45.2	-1.6583%	2,682.5
Caribou/APMA Black Spruce	345.1	0.0	0.0000%	345.1	-5.3	-1.5273%	339.8
Caribou/APMA White Spruce	1,180.8	0.0	0.0000%	1,180.8	-14.6	-1.2378%	1,166.2
Caribou/APMA Lodgepole Pine	0.0	0.0	0.0000%	0.0	0.0	0.0000%	0.0
Isolated Stands	0.0	0.0	0.0000%	0.0	0.0	0.0000%	0.0
Total Subjective Deletions	186,406.5	0.0	0.0000%	186,406.5	-4,037.8	-2.1661%	182,368.7
Total Area Deleted	294,723.5	0.0	0.0000%	294,723.5	5,662.6	1.9213%	300,386.1
Active Landbase	300,953.7	0.0	0.0000%	300,953.7	-5,662.6	-1.8815%	295,291.1

Table 3-2. Comparison of operable landbase before and after elimination, by yield strata.

Strata	v4b base (ha)	TSA Arc Elim (0.1 ha) change (ha)	%	(ha)	CLS add seismic change (ha)	%	CLS Final LB (ha)
D	73,256.8	2.8	0.00092%	73,259.6	-1,506.9	-0.51%	71,752.8
DU	100,623.9	22.9	0.00762%	100,646.9	-1,757.2	-0.60%	98,889.7
DC	6,330.8	-0.9	-0.00031%	6,329.8	-125.1	-0.04%	6,204.7
DCU	14,044.7	1.3	0.00042%	14,045.9	-237.4	-0.08%	13,808.5
CD	10,983.7	-0.6	-0.00021%	10,983.1	-212.3	-0.07%	10,770.8
CDU	7,880.0	-1.0	-0.00032%	7,879.0	-123.5	-0.04%	7,755.5
PL	27,019.1	0.5	0.00016%	27,019.6	-609.1	-0.21%	26,410.5
SB	4,353.9	-6.7	-0.00224%	4,347.2	-87.1	-0.03%	4,260.0
SW	56,460.7	-18.2	-0.00604%	56,442.5	-1,003.9	-0.34%	55,438.6
Total	300,953.7	0.0	0.00000%	300,953.7	-5,662.6	-1.92%	295,291.1

4. Attribute Processing

4.1 Overview

This section describes the attribute assignments that were performed once the landbase file was created. These attributes make the review of the final landbase more concise and makes it simpler to determine stand attributes.

4.2 AVI Stratification

This section describes the calculations done on the AVI attributes to assign yield strata. All of the coding described in this section was completed using SAS. The result of this code is a file called **ycstrata** which allowed the information to be passed along to the Oracle processing.

4.2.1 Copy AVI Attributes to Modified Fields

Certain fields were copied to 'modified' fields to allow modifications in later stages (Figure 4-1).
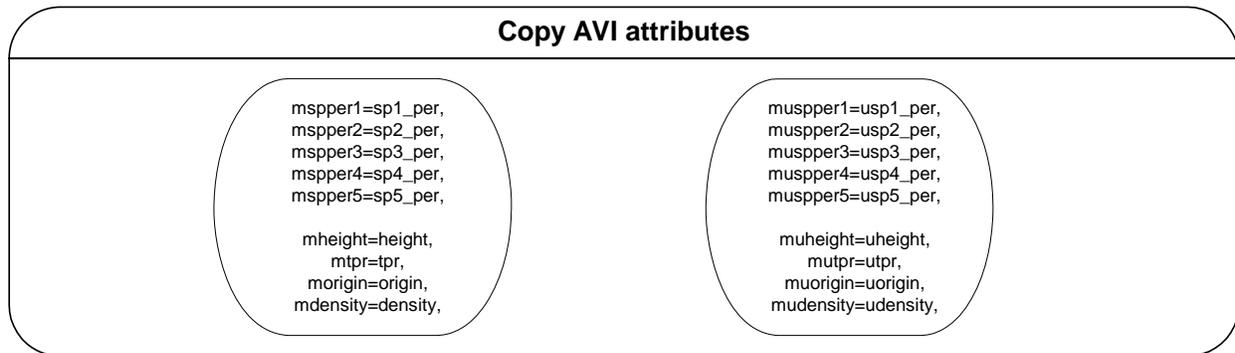
Figure 4-1. Copy AVI attributes to 'modified' fields.

4.2.2 Species Standardization

AVI species calls were converted to full uppercase. Furthermore, some species were grouped together to facilitate faster processing. The {i} indicates that this is repeated for each of the 5 species codes in each the overstory and understory (Figure 4-2 and Figure 4-3).

Standardization of Sp1 - Sp5

sp{i} = 'Aw' or 'AW'	msp{i} = 'AW'
sp{i} = 'Bw' or 'BW'	msp{i} = 'BW'
sp{i} = 'Fb' or 'FB'	msp{i} = 'FB'
sp{i} = 'Fa' or 'FA'	
sp{i} = 'Lt' or 'LT'	msp{i} = 'LT'
sp{i} = 'Pb' or 'PB'	msp{i} = 'PB'
sp{i} = 'P'	
sp{i} = 'Pl' or 'PL'	msp{i} = 'PL'
sp{i} = 'Pj' or 'PJ'	
sp{i} = 'Sb' or 'SB'	msp{i} = 'SB'
sp{i} = 'Sw'or 'SW'	msp{i} = 'SW'

Where {i} represents values from 1 to 5
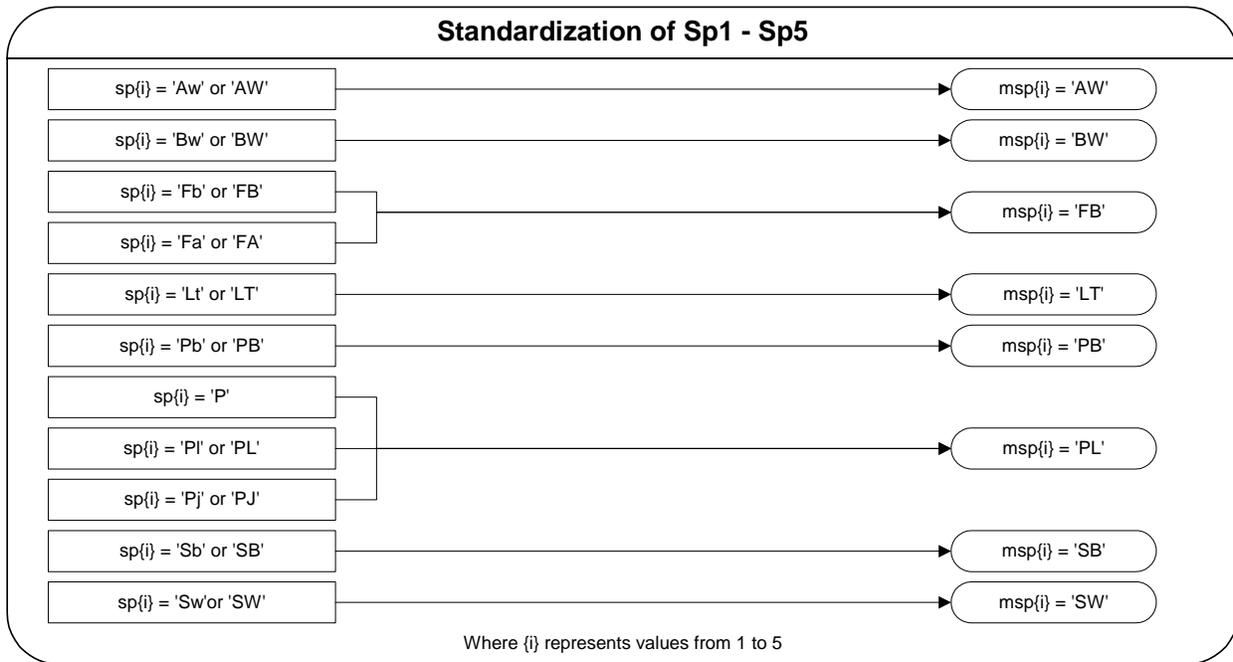
Figure 4-2. Standardization of overstory species

Standardization of Usp1 - Usp5

usp{i} = 'Aw' or 'AW'	musp{i} = 'AW'
usp{i} = 'Bw' or 'BW'	musp{i} = 'BW'
usp{i} = 'Fb' or 'FA'	musp{i} = 'FB'
usp{i} = 'Fa' or 'FA'	
usp{i} = 'Lt' or 'LT'	musp{i} = 'LT'
usp{i} = 'Pb' or 'PB'	musp{i} = 'PB'
usp{i} = 'P'	
usp{i} = 'Pl' or 'PL'	musp{i} = 'PL'
usp{i} = 'Pj' or 'PJ'	
usp{i} = 'Sb' or 'SB'	musp{i} = 'SB'
usp{i} = 'Sw' or 'SW'	musp{i} = 'SW'

Where {i} represents values from 1 to 5
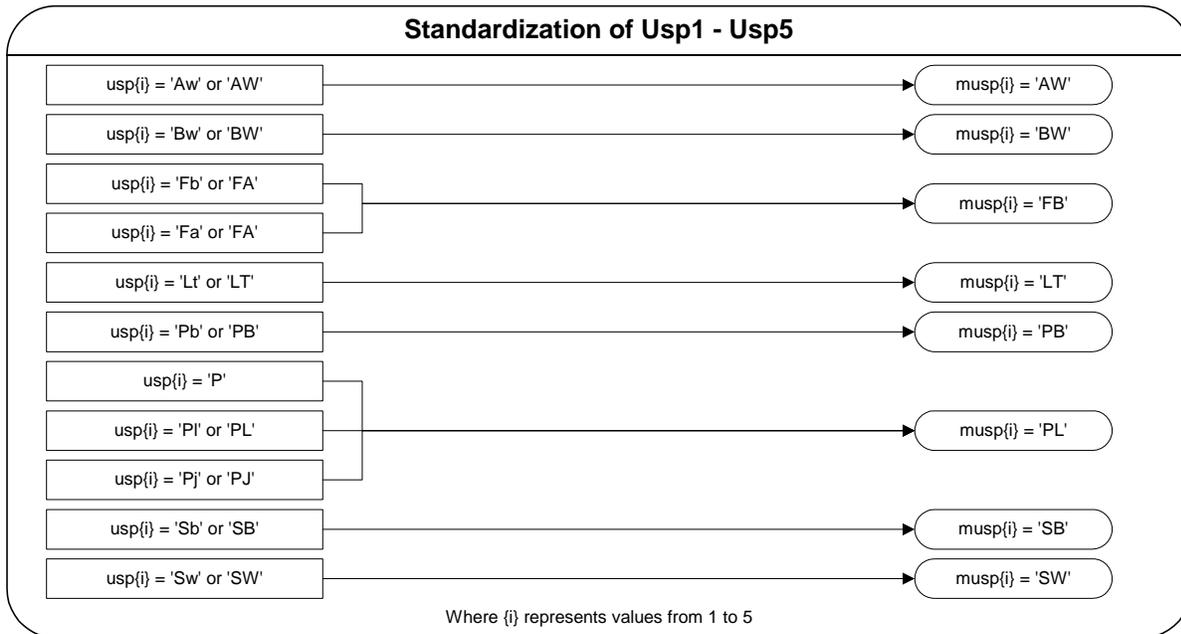
Figure 4-3. Standardization of understory species.

4.2.3 Species Percent

The species percent is used to determine strata groups in later steps. There are four fields that are calculated in this step; *DECID, CONIFER, UDECID* and *UCONIFER*. They are simply the sum of all

deciduous percentages and the conifer percentages for both the overstory and the understory (Figure 4-4). The {i} indicates that this is repeated for each of the 5 species codes in each the overstory and understory.
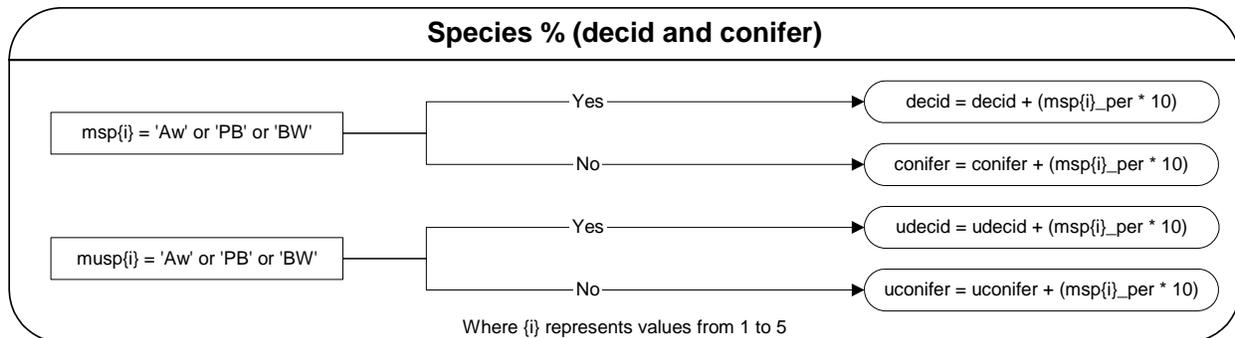
Figure 4-4. DECID, CONIFER, UDECID, UCONIFER - species percentages

4.2.4 *STORY_USED* – Defining Layer

The next step in AVI processing was to assign a single string of AVI attributes to each forest polygon. While there are a variety of stand structures on the landscape (single layer, multi-layer, etc.), each polygon was described by a single set of attributes which came from the *defining* layer of the polygon. The definition of *defining* layer depended on the polygon stand structure. The field STORY_USED indicates the results of this calculation. Descriptions of the valid entries are found in Table 4-1. Figure 4-5 details the logic, which can be summarized as follows:

- Single Story - For single story stands, the *defining* layer was the single story.
- Complex Stands – There were no complex stand structures in the AVI for the FMA Area.
- Horizontal Stands – There were no horizontal stands in P6 or P9 AVI.
- Multi-story Stands - For multi-storied stands, the AVI overstory (layer 1) was used as the *defining* layer with one exception. Open overstory and veteran stands with a productive understory were identified and the understory information was used as the *defining* layer. These are stands where 'A' density overstory was present with a productive, forested understory.

Once the *STORY_USED* field is determined, it is used as the defining layer in all other calculations. One exception to note however, is the *STORY_USED* field is modified from a 3 to a 1 in certain cases as outlined in Section 4.4.7.

Table 4-1. Description of the values in STORY_USED field.

Story_Used	Description
0	Non-Forested or A-density deletion
1	Layer 1 only is used
2	Layer 2 becomes dominant layer
3	Layer 1 is used with Layer 2 as understory

Layer Values (STORY_USED)
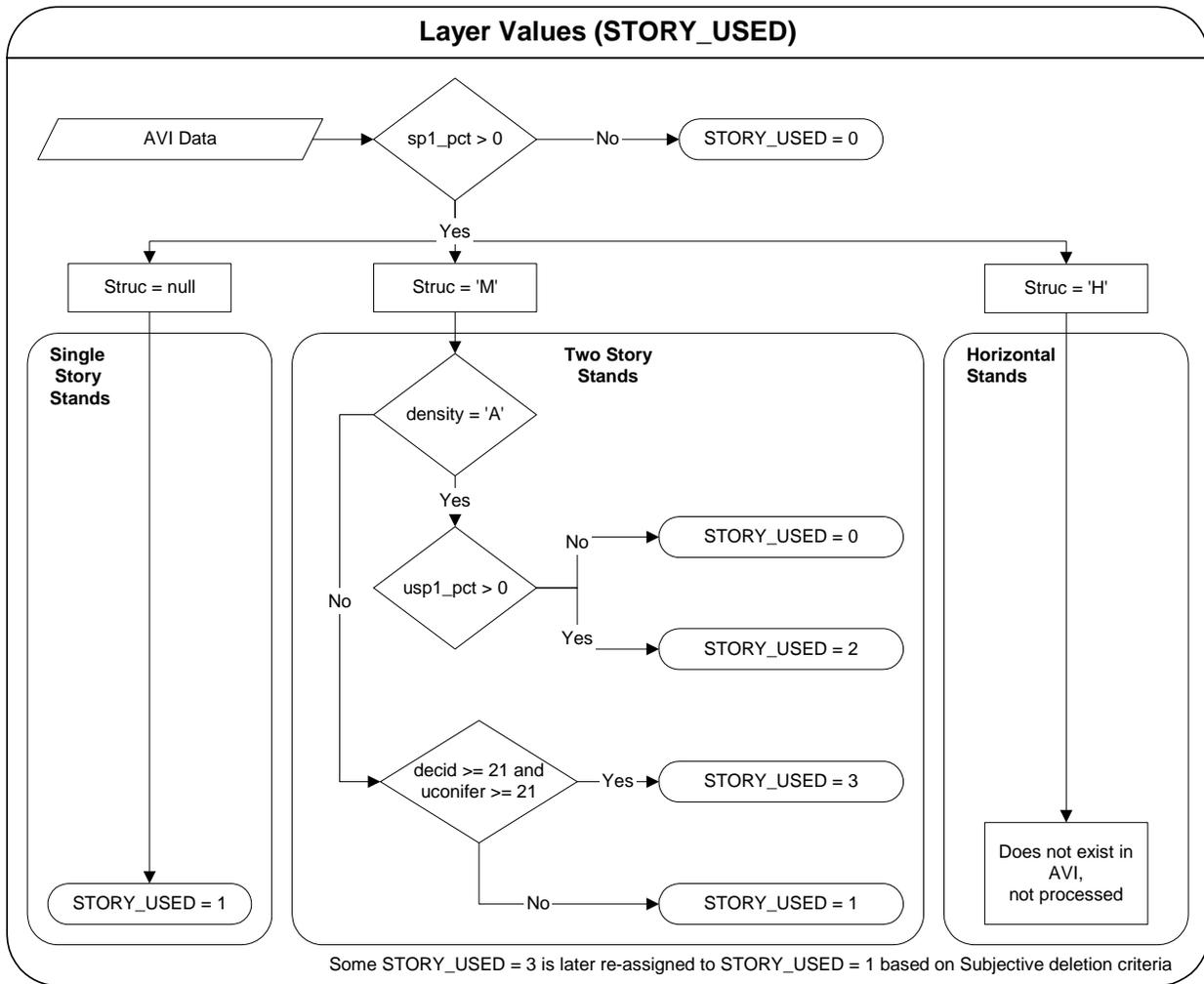
Figure 4-5. STORY_USED - assigning the 'defining' layer to AVI polygons.

4.2.5 Re-assign AVI for *STORY_USED = 2*

Table 4-1 defines the values in the *STORY_USED* field. When *STORY_USED* = 2, the overstory is an A density and the understory is a valid forested stand (Figure 4-6). As such, the overstory information was overwritten by the understory information to allow easier processing in later steps.

Re-set AVI call if STORY_USED = 2

STORY_USED = 2

mspper1=usp1_per,
mspper2=usp2_per,
mspper3=usp3_per,
mspper4=usp4_per,
mspper5=usp5_per,

msp1=usp1,
msp2=usp2,
msp3=usp3,
msp4=usp4,
msp5=usp5,

mheight=uheight,
mtpr=utpr,
morigin=uorigin,
mdensity=udensity,

muspper1=0,
muspper2=0,
muspper3=0,
muspper4=0,
muspper5=0,

musp1='',
musp2='',
musp3='',
musp4='',
musp5='',

muheight=0,
mutpr='',
muorigin=0,
mudensity=''
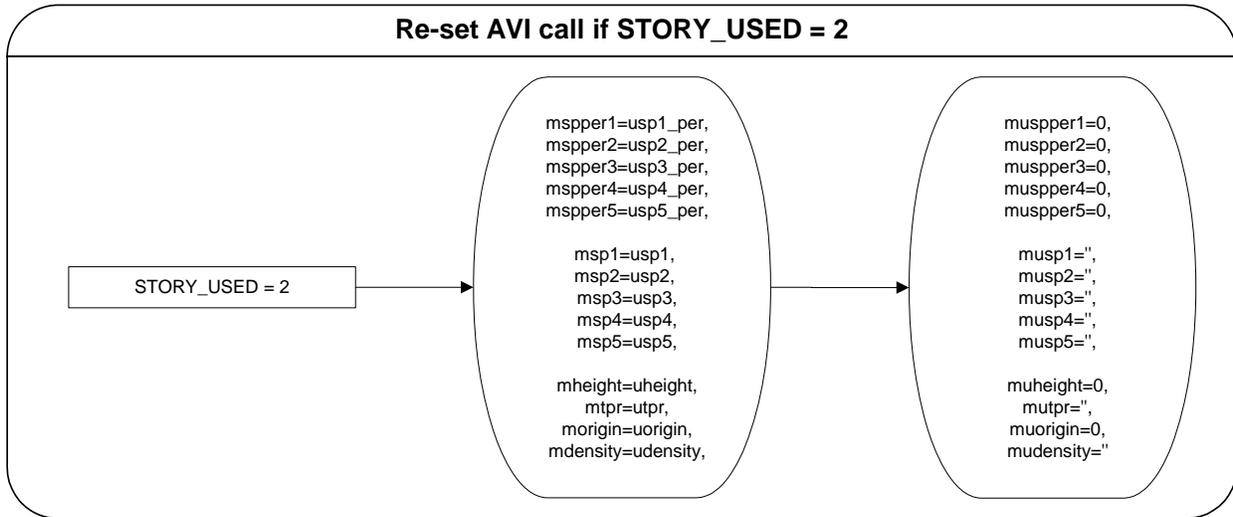
Figure 4-6. Re-assign AVI for STORY_USED = 2

4.2.6 Understory Strata Group

Strata group for the understory are assigned based on the udecid and uconifer fields (Figure 4-7).

Understory strata group (ustr_grp)

Yes — NFL = '' and NAT_NON = '' and ANTH_VEG = '' and ANTH_NON = '' — No

udecid = 0 and uconifer = 0 — Yes — ustr_grp = ''

No

udecid >= 80 and udecid <= 100 — Yes — ustr_grp = 'D'

No

udecid >= 51 and udecid <= 79 — Yes — ustr_grp = 'DC'

No

udecid >= 21 and udecid <= 50 — Yes — ustr_grp = 'CD'

No

udecid >= 0 and udecid <= 20 and uconifer > 0 — Yes — ustr_grp = 'C'
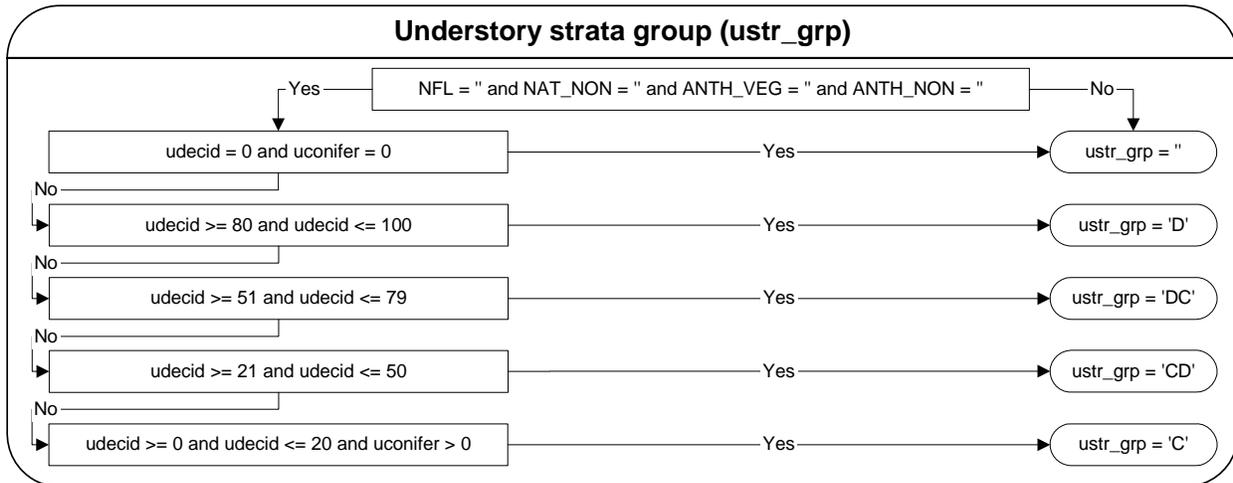
Figure 4-7. USTR_GRP - understory strata group.

4.2.7 Overstory Strata Group

Strata group for the understory are assigned based on the decid and conifer fields, as well as the *STORY_USED* field, as indicated in Figure 4-8.

Overstory strata group (str_grp)
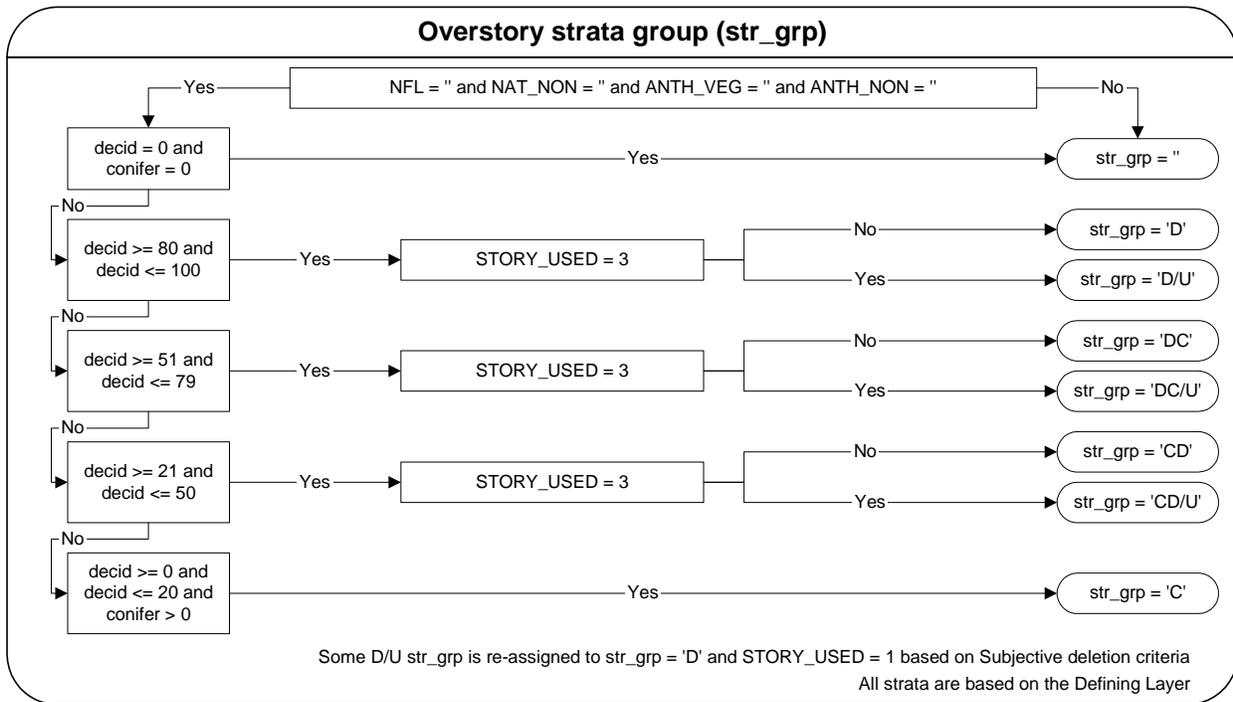
Figure 4-8. STR_GRP - overstory strata group.

4.2.8 Leading Conifer Species

Leading conifer species was determined from the defining layer as outlined in Figure 4-9.

Leading Conifer Species (leadsp)
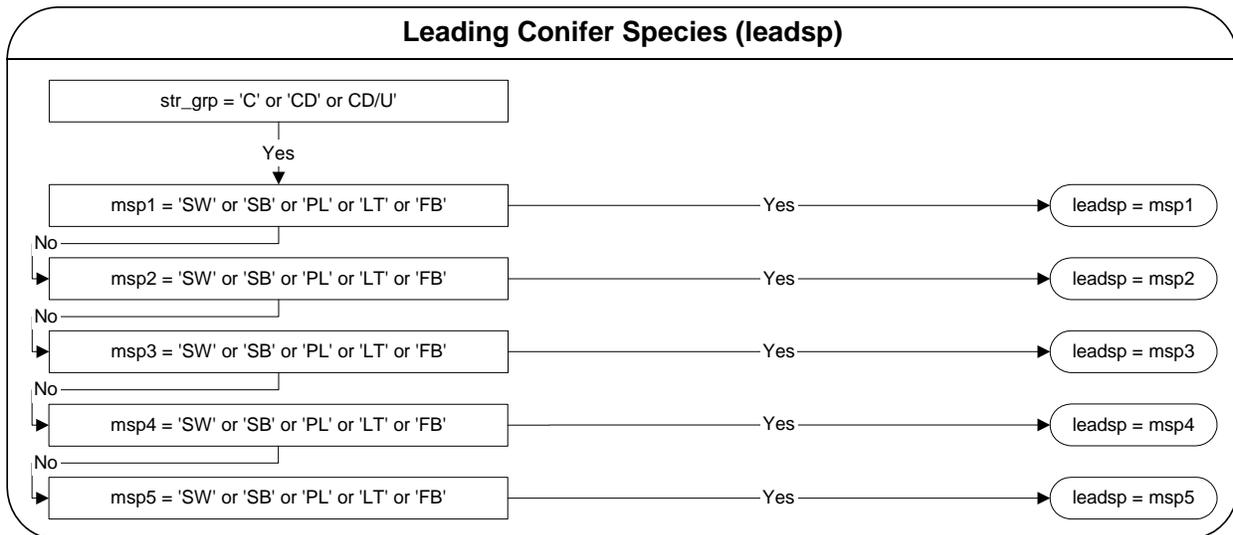
Figure 4-9. LEADSP - leading conifer species.

4.2.9 Understory Leading Conifer Species

Understory leading conifer species was determined from the understory layer as outlined in Figure 4-10.

Understory Leading Conifer Species (uleadsp)

Figure 4-10 content:

- musp1 = 'SW' or 'SB' or 'PL' or 'LT' or 'FB' — Yes → uleadsp = musp1
- No → musp2 = 'SW' or 'SB' or 'PL' or 'LT' or 'FB' — Yes → uleadsp = musp2
- No → musp3 = 'SW' or 'SB' or 'PL' or 'LT' or 'FB' — Yes → uleadsp = musp3
- No → musp4 = 'SW' or 'SB' or 'PL' or 'LT' or 'FB' — Yes → uleadsp = musp4
- No → musp5 = 'SW' or 'SB' or 'PL' or 'LT' or 'FB' — Yes → uleadsp = musp5
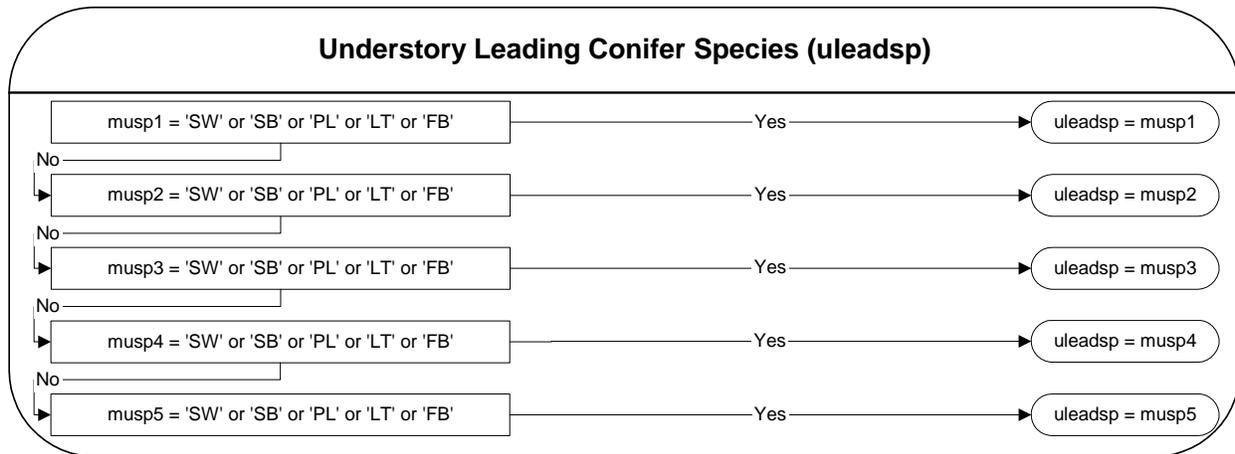
Figure 4-10. ULEADSP - understory leading conifer species.

4.3 TSA Items

The TSA items supply information to the timber supply analysis and do not indicate operability in the landbase. It is important to note at this point that the *D_TPR* and most *D_SUBJ* deletions were calculated prior to the calculation of the TSA items in section 4.3. *D_TPR* and *D_SUBJ* are presented in Section 4.4.7 along with the other deletion fields.

4.3.1 *LANDBASE* and *F_YC* - Landbase and Yield Strata

For existing harvest blocks, updated information in addition to AVI was available to assign yield strata (e.g. Polygon update in Appendix I, Appendix II and Appendix III). The polygons with updated information are assigned first based on block designations. The remaining yield strata are assigned on the basis of the cover group and density class of the *defining* layer of each forest polygon. Conifer and deciduous landbase assignments are based on the yield strata designation. The flow of these assignment decisions is shown in Figure 4-11.
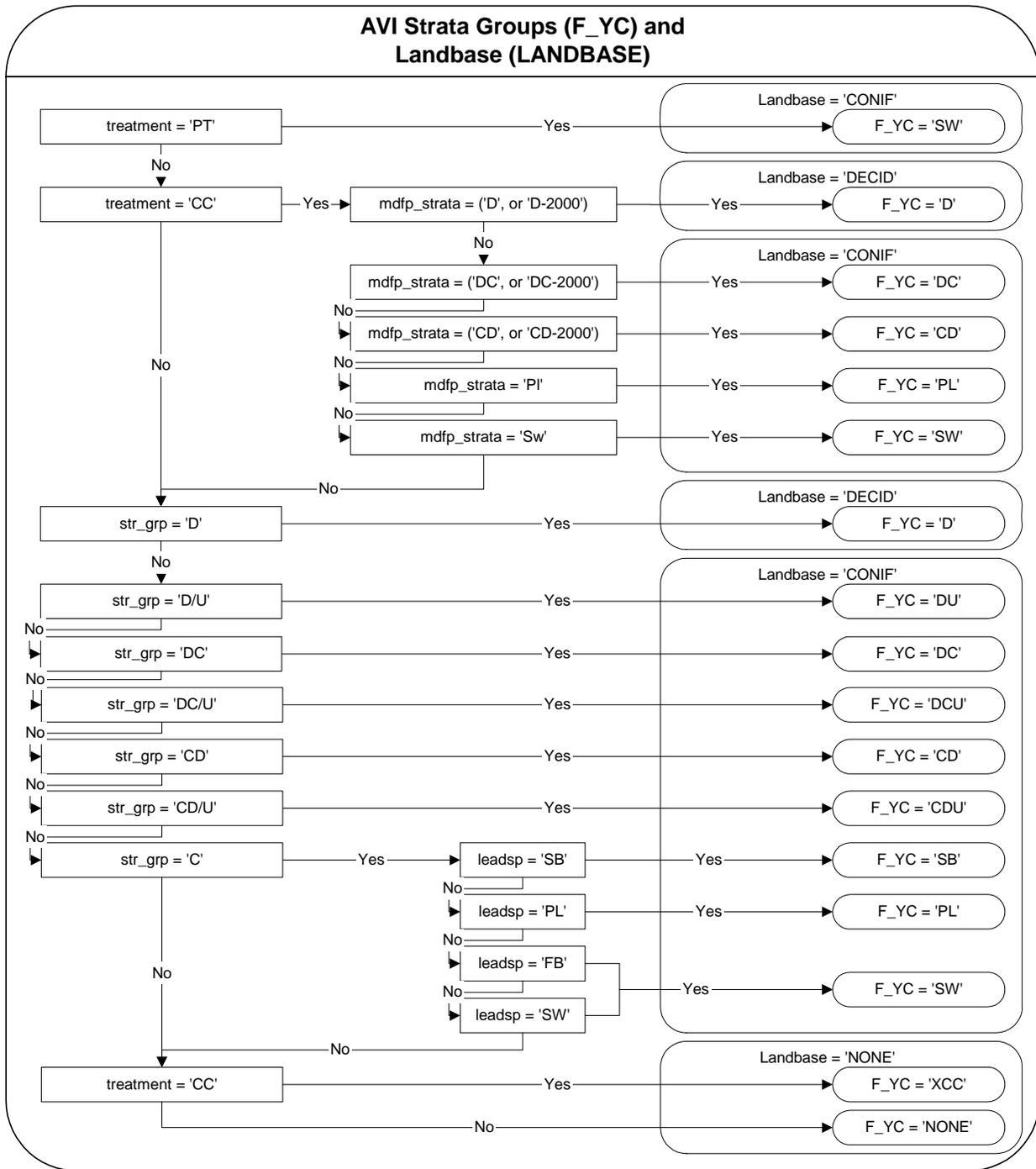
Figure 4-11. LANDBASE and F_YC - yield strata and landbase calculations.

4.3.2 *F_AGE* - Stand Age

Stand age (*F_AGE*) in years was calculated as 2005 (FMP base year) minus the stand origin for the *defining* layer for all areas except historic blocks. For historical blocks, the age was calculated as 2005

minus the year of cut. For recent fires not captured in the AVI, the age was calculated as 2005 minus the fire year. Figure 4-12 summarizes this calculation.
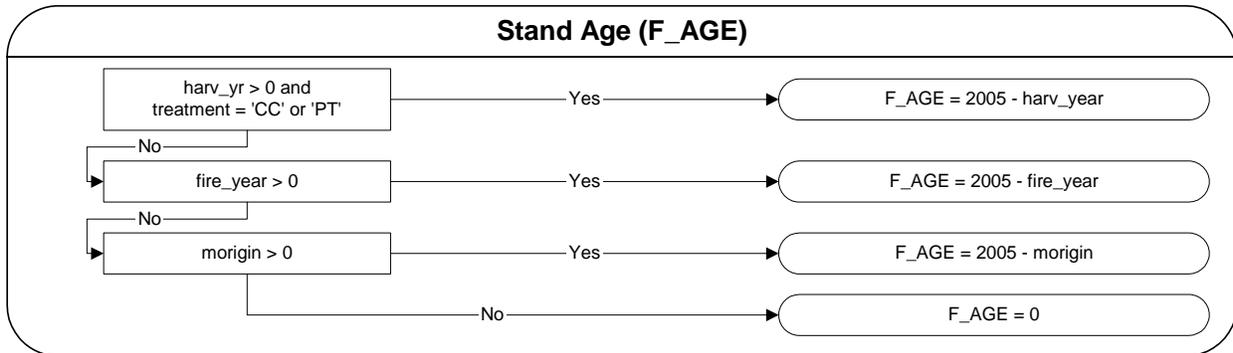
Figure 4-12. F_AGE - stand age calculation.

4.3.3 *F_DEN* - Density

Density was calculated based on the defining layer. If a previously harvested area did not have a density, then it was assigned to 'CD'. The four density categories were 'A', 'B', 'CD' and 'NONE'. This calculation is shown in Figure 4-13.
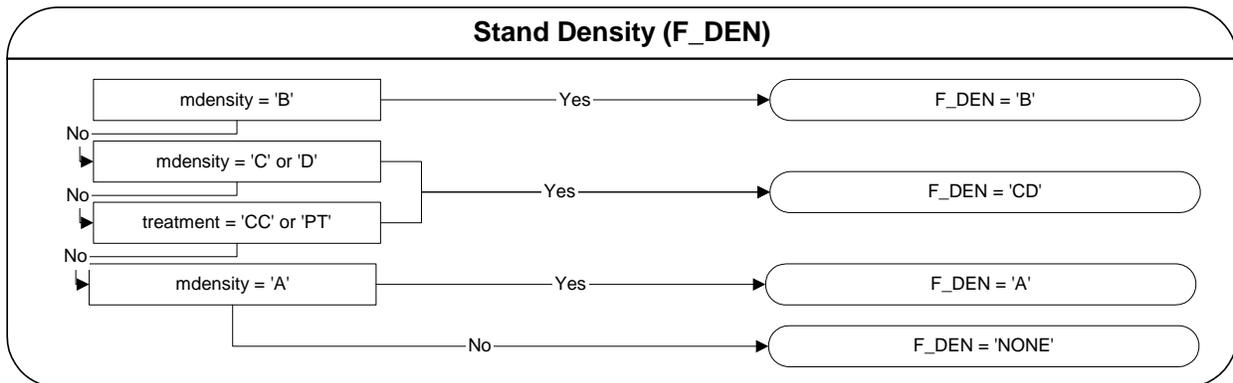
Figure 4-13. F_DEN - stand density calculation.

4.3.4 *AREA_HA* - Area

AREA_HA was calculated simply to convert the Arc/Info area from square metres into hectares. This calculation is shown in Figure 4-14.

Area in Hectares (AREA_HA)

| area | → | AREA_HA = area / 10,000 |
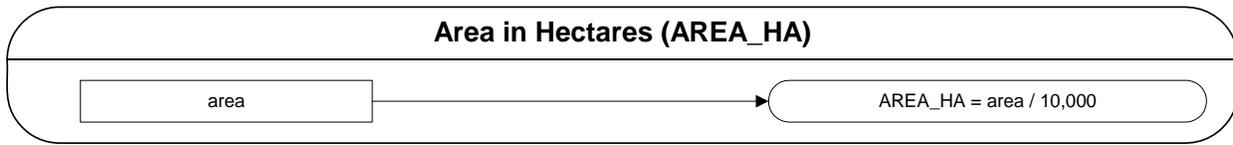
Figure 4-14. AREA_HA - area calculation.

4.3.5 *F_MGT* - Management Zones

Management zones are used to identify items which **may** be included in the timber supply to control the amount or timing of timber harvest. These include the following:
- MDFP PSP plots that may be open to harvest in 10 years,
- Twin Lake Lodge Management Zone which may be open to partial or thinning operations,
- Highway Management Zone which may be open to timber harvest operations,
- Twisted Bog Moss Zone is open for harvesting in limited amounts.

The calculations used are shown in Figure 4-15. Some of these areas were generated by applying a buffer. The buffer widths are shown in Table 4-2.

Special Mgmt Zones (F_MGT)

in_mdfp_psp_b = 100	—Yes→	F_MGT = 'PSP' *MDFP PSP*
No → in_twinlge_b = 100	—Yes→	F_MGT = 'TLG' *Twin Lake Lodge Mgmt Zone*
No → hwy_mgt = 100	—Yes→	F_MGT = 'HWY' *Highway Management Zone*
No → bog is not NULL	—Yes→	F_MGT = 'TBM' *Twisted Bog Moss*
—No→		F_MGT = 'NONE'
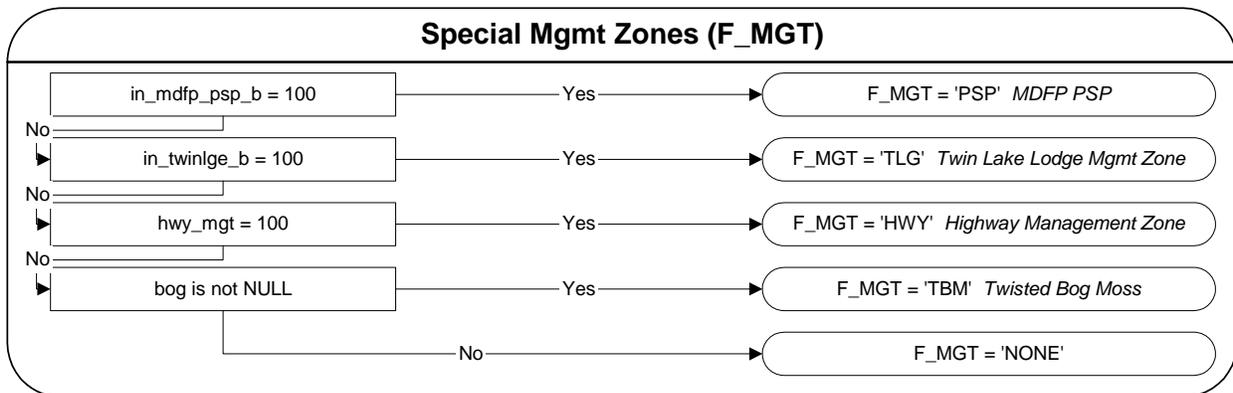
Figure 4-15. F_MGT - special management zone calculation.

Table 4-2. Management zone buffer widths.

Feature	Buffer Width (m)	Code
MDFP PSP	100	PSP
Twin Lake Lodge	100	TLG
Twisted Bog Moss	1000	TBM
Highways	125	HWY

4.3.6 *F_WILD* – Wildlife Management Zones

Further to the special management zones, several wildlife zones have been identified. These include the following:
- Caribou Zone,
- Ungulate Zone,

- Special Access Zone.

The calculations used to define the zones are shown in Figure 4-16.

Wildlife Zones (F_WILD)

| wild_mgt = 'Caribou' | —Yes→ | F_WILD = 'CBU' *Caribou Zone* |

No

| wild_mgt = 'Ungulate' | —Yes→ | F_WILD = 'UNG' *Ungulate Zone* |

No

| wild_mgt = 'SpecialAccess' | —Yes→ | F_WILD = 'WSA' *Wildlife Special Access Zone* |

| —No→ | F_WILD = 'NONE' |
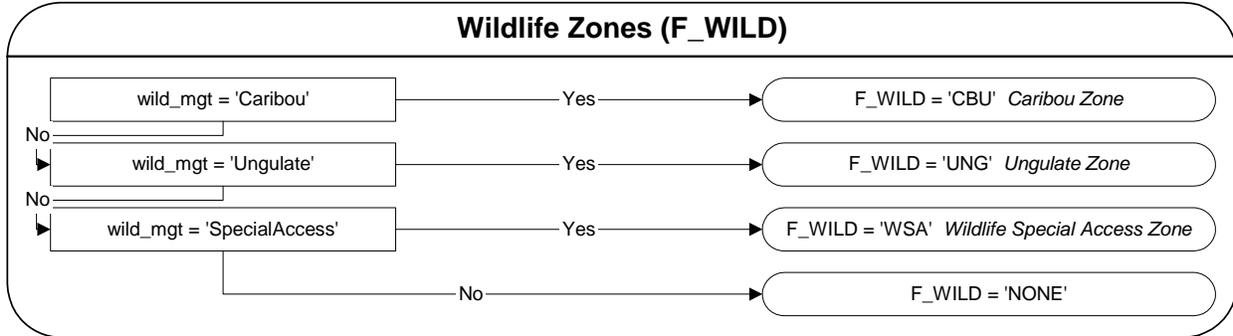
Figure 4-16. F_WILD - wildlife zone designation calculation.

4.3.7 *F_CBU* – Alternative Patch Management Area

The Alternative Patch Management Area was assigned as shown in Figure 4-17.

Alternative Patch Management Area (F_CBU)

| cbu_2005 = 'Caribou_2005' | —Yes→ | F_CBU = 'CBU_NEW' Patch Management Area |
| —No→ | F_CBU = 'NONE' |
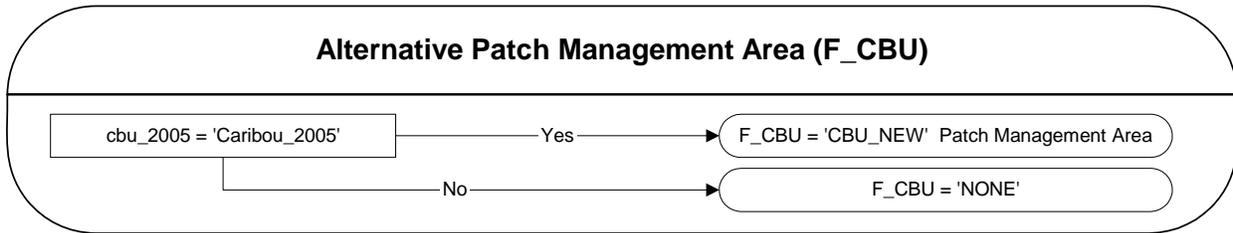
Figure 4-17.   F_CBU - Alternative Patch Management Area.

4.4 Landbase Exclusions

Landbase exclusions are calculated to show the areas that are removed from the operable landbase. These indicate areas that are considered not operable for the timber supply analysis and are not available for harvesting (i.e., Passive Landbase).

4.4.1 *D_STATUS* - Patented Land Deletions

Patented land deletions are areas that are protected by Alberta Government PNT legislation. These include Alberta Government PSP's and their buffers, as well as any other patented land. The Government PSP's have a square buffer around them which is 318m x 318m. Figure 4-18 shows the attributes used to calculate *D_STATUS*.

Patented Land (D_STATUS)

in_govt_psp_b = 100	——Yes——► D_STATUS = 'PSP' *SRD PSP Buffers*
No	
rec <> NULL	——Yes——
No	D_STATUS = 'PATENT' *Protected Areas*
PNT = 'PNT950022'	——Yes——
——No——	D_STATUS = ''
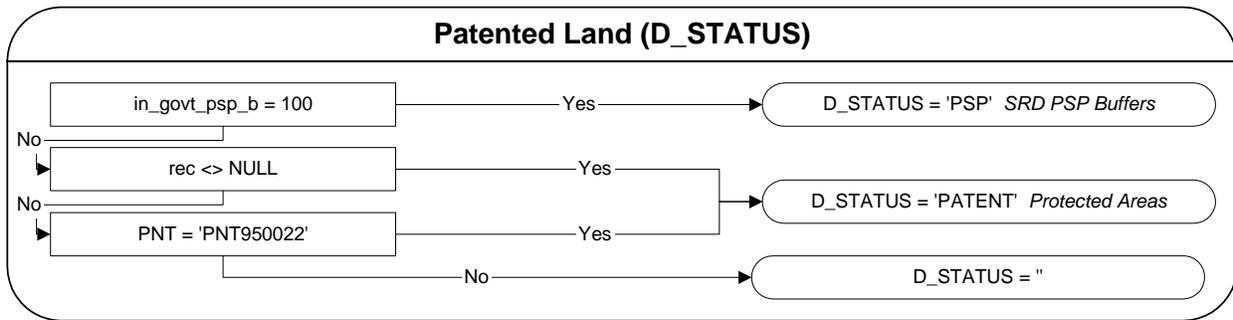
Figure 4-18. D_STATUS - patented land calculations.

4.4.2 *D_ACCESS* - Access Deletions

Access deletions include roads and pipelines that are used to access natural resources. Figure 4-19 shows the criteria used to calculate *D_ACCESS*.

Access (D_ACCESS)

anth_non = 'AIH' or 'AIR' or 'IH' or 'IR'	
No	——Yes——► D_ACCESS = 'ROAD'
Landuse = 'ROAD'	
No	
anth_veg = 'CIP' or 'IP'	——Yes——► D_ACCESS = 'PIPE'
No	
Landuse = 'PIPE'	
——No——► D_ACCESS = ''	
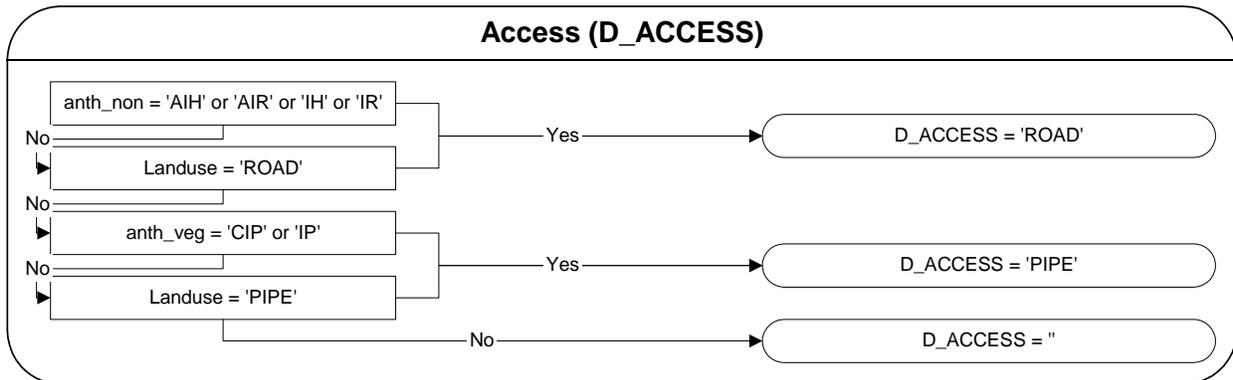
Figure 4-19.   D_ACCESS - access deletion calculations.

4.4.3 *D_SEISMIC* – Seismic Deletions

Figure 4-20 shows the criteria used to calculate the seismic deletions (*D_SEISMIC*). These are kept separate in the timber supply to remove the spatial boundaries of the seismic features and instead include a non-spatial area reduction in the final timber supply landbase.
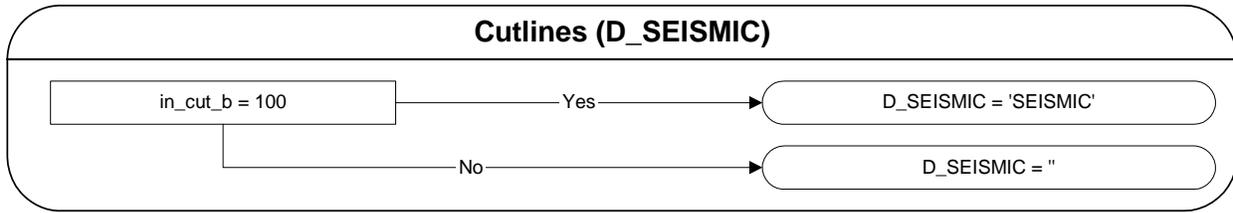
Figure 4-20. D_SEISMIC - cutline deletion calculations.

4.4.4 *D_NONFOR* - Non-forested Deletions

Non-forested deletions include features such as water bodies, anthropogenic (man-made) features, and naturally non-forested and non-vegetated areas. Figure 4-21 shows the attributes used to calculate *D_NONFOR* .
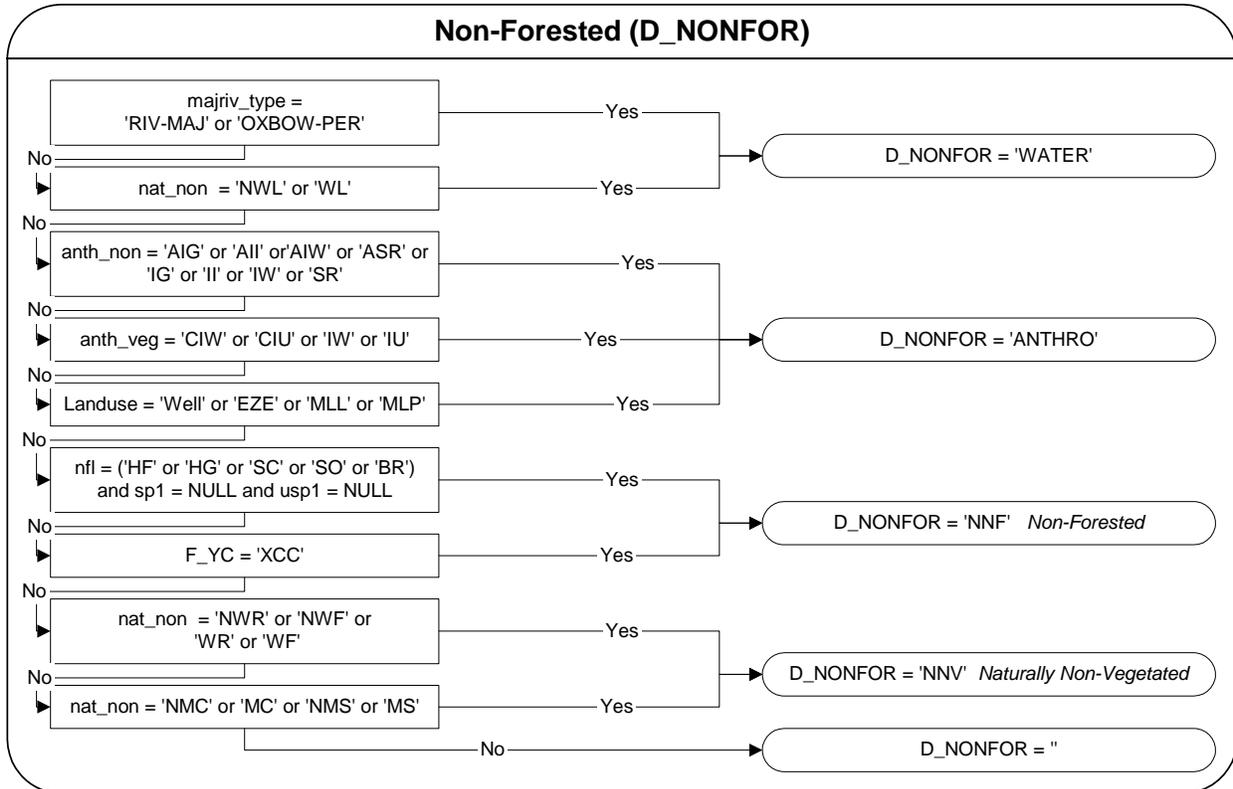
Figure 4-21. D_NONFOR - non-forested deletion calculation.

4.4.5 *D_BURN* - Burned Area Deletions

Recent burns are removed from the landbase unless the AVI has a valid species call. As the AVI is updated to 2001, the fires from 2002 to 2004 were cut in to update the AVI to September 2005 and supplement the fire information within the AVI. Figure 4-22 shows the attributes used to calculate *D_BURN*.

Burned Areas (D_BURN)

No ─ nat_non = 'NMB' ── Yes ──────────────► D_BURN = 'BURN'

fire_year >= 2002 and <= 2004 ─Yes► str_grp IS NOT NULL ─Yes

── No ──► D_BURN = ''
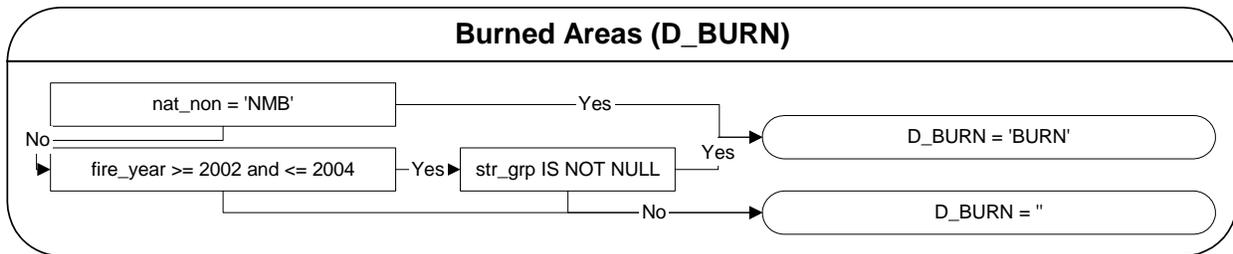
Figure 4-22. D_BURN - burned area deletion calculation.

4.4.6 *D_BUF* - Water Course Buffer Deletions

Operating ground rules stipulate that water feature buffers will be removed from the operable landbase. In addition to the standard ground rule buffers, MDFP has also removed the area within significant river bank breaks and around trumpeter swan nesting lakes.

During processing of the landbase, 33 polygons were found to not have a forestkey. On visual examination, all of these polygons were 'buffers' on islands along the south boundary of P9. These polygons were assigned to the water buffer category.

Table 4-3 shows the buffer widths for the water features. Figure 4-23 shows the attributes used to calculate *D_BUF* .

Table 4-3. Buffer widths for water features.

Feature	Buffer Width (m)	Code
Perennial Streams	30	WATER
Oxbow Lakes	30	WATER
Major Rivers	60	WATER
Lakes	100	WATER
Twin Lakes	200	WATER
Swan Lakes	200	SWAN

Water Course Buffers (D_BUF)
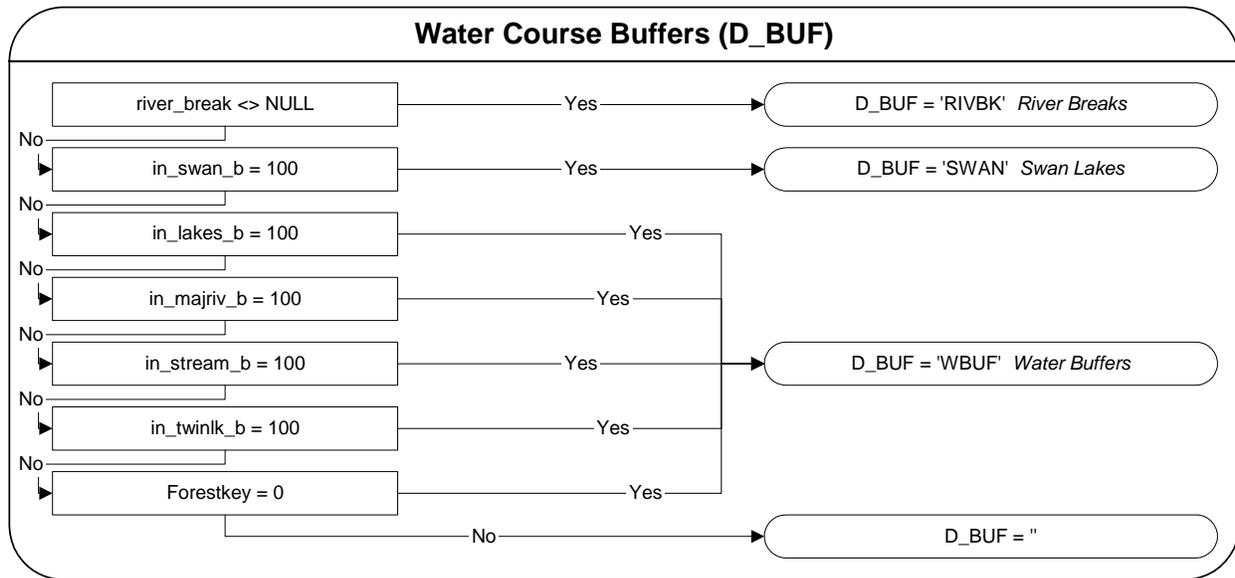
Figure 4-23. D_BUF - water course buffer deletion calculation.

4.4.7 *D_SUBJ* and *D_TPR* - Subjective and TPR Deletions

Subjective deletions and TPR deletions were calculated using SAS and the AVI as it existed at the time it was processed for yield curve development. They are presented here to improve understanding of the landbase netdown process.

The deletions used were dependant on the strata type. Conifer and mixedwood types have one set of rules, deciduous with understory has another, and pure deciduous has a third set. Figure 4-24 shows the attributes used and the decisions required to calculate *D_TPR* and *D_SUBJ*, (note that many stands were already assigned *D_SUBJ* = 'ADEN' as indicated in Section 4.2).

It should be emphasized that when a D/U stand does not meet the requirements for retention in the conifer landbase, it becomes part of the deciduous landbase and part of the D strata.

Subjective & TPR (D_SUBJ, D_TPR)
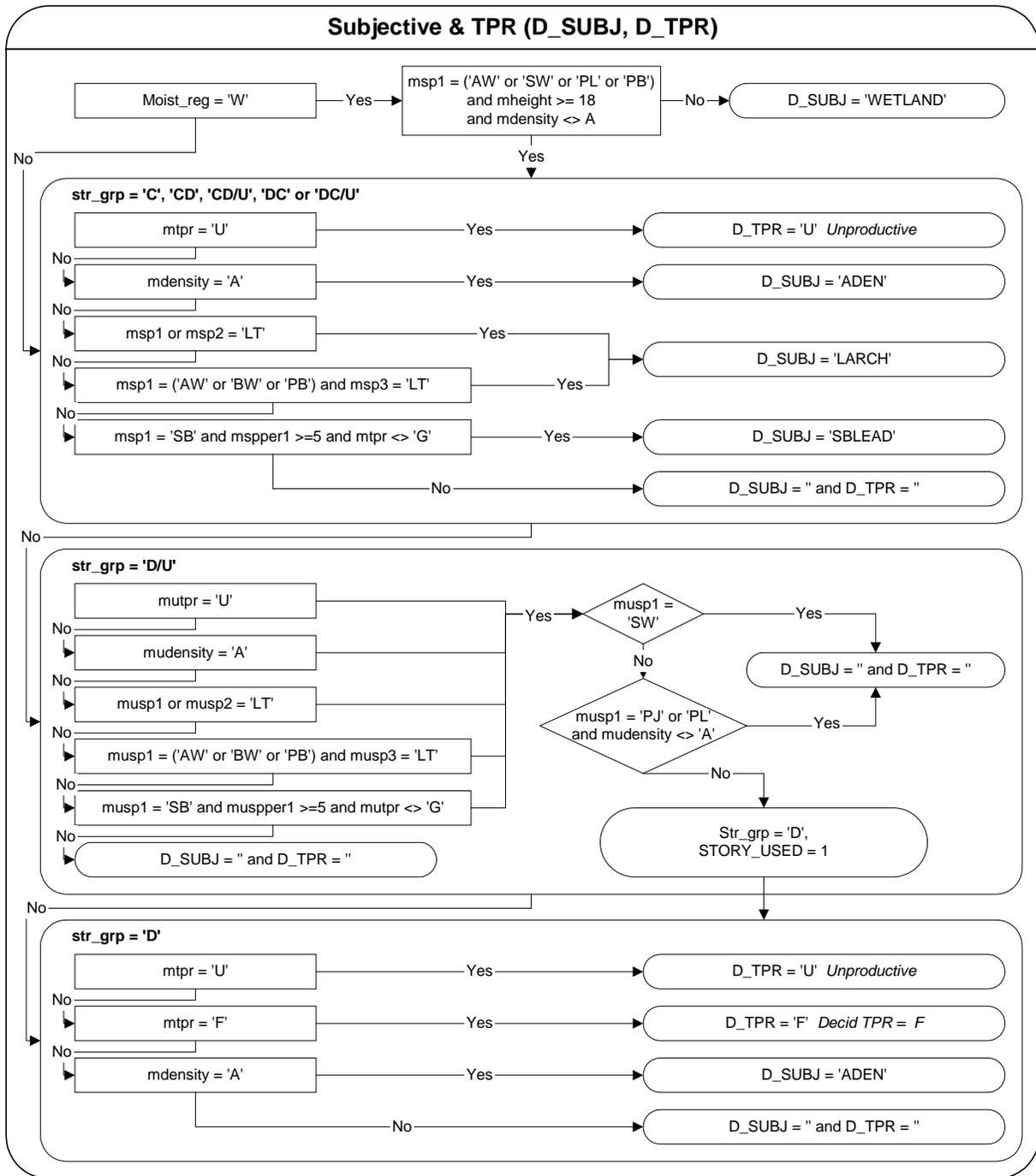
Figure 4-24. D_SUBJ and D_TPR - subjective and TPR deletion calculations.

Additional changes were made to the *D_SUBJ* field in Oracle to allow the deletion of certain stands in the P6 Caribou Zone and Alternative Patch Management Area. In the P6 Caribou Zone and Alternative Patch Management Area, all black spruce stands regardless of age and moisture regime were deleted. All white spruce and lodgepole pine stands on wet sites and are older than 95 years old were also deleted (see Figure 4-25).

Additional Subjective (D_SUBJ)
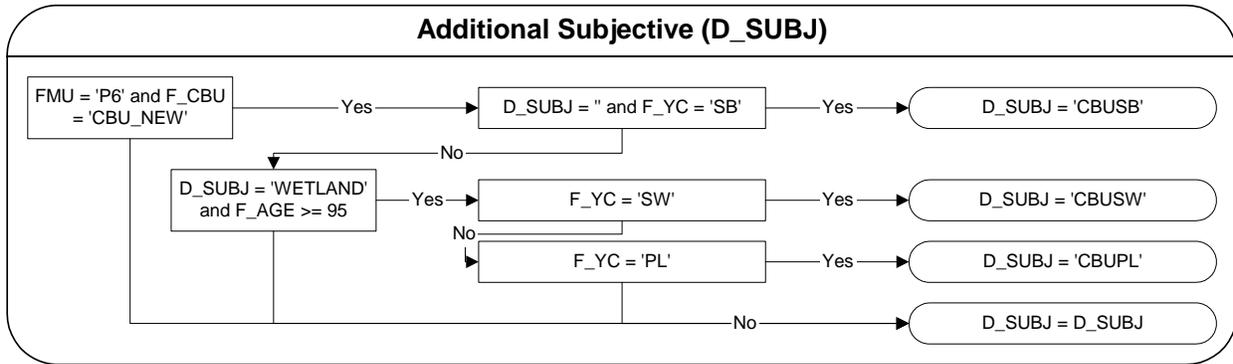
Figure 4-25. D_SUBJ - additional subjective deletion calculation within Alternative Patch Management Area in FMU P6.

4.4.8 *D_ISO* – Isolated Stands

Isolated stands created by interior spaces completely surrounded by water buffers or water features are identified in the landbase. Only contiguous areas less than 1 ha were selected for removal from the operable landbase. Figure 4-26 shows the fields used to calculate the isolated stands. The original fields were created when the water buffer coverage was generated, to allow the selection of the polygons before they were potentially split by other linework in the overlay process.

Isolated Stands (D_ISO)
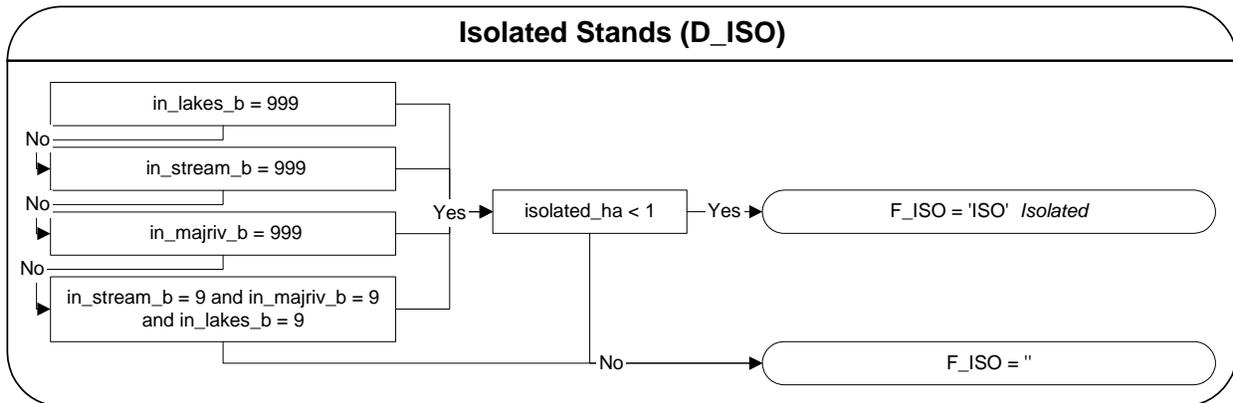
Figure 4-26. D_ISO - isolated stand deletion calculation.

4.5 Netdown Attributes

4.5.1 *F_DEL* – Netdown Hierarchy

The hierarchy part of the netdown process populates the *F_DEL* and *F_DEL1* fields with the appropriate code from the '*D_*' deletion attribute. It is based on a hierarchy of deletions, so that a deleted polygon is only accounted for in one category, based on which deletion type is higher in the hierarchy. Table 4-4 shows the hierarchy used in the MDFP landbase, with the lower numbers indicating a higher priority. In all of the descriptions, *F_DEL1* is calculated by simply omitting the seismic category while all other attributes are the same.

Table 4-4. Priority listing for netdown hierarchy.

Category			Value		
Priority	**Field**		**Priority**	**Name**	**Description**
1	D_STATUS		1	PSP	SRD PSP Buffer
			2	PATENT	Protected Areas
2	D_ACCESS		3	ROAD	Roads
			4	PIPE	Pipelines
3	D_SEISMIC		5	SEISMIC	Seismic Lines
4	D_NONFOR		6	WATER	Water Body
			7	ANTHRO	Anthropogenic Non-Vegetated
			8	NNF	Non-Forested
			9	NNV	Naturally Non-Vegetated
5	D_BURN		10	BURN	Recent Burn
6	D_TPR		11	U	Unproductive
			12	F	Decid TPR = F
7	D_BUF		13	RIVBK	River Breaks
			14	SWAN	Swan Lake Buffer
			15	WBUF	Water Buffers
8	D_SUBJ		16	WETLAND	Wetland
			17	ADEN	A Density Stands
			18	LARCH	Larch
			19	SBLEAD	Sb Leading and TPR < G
9	D_ISO		20	ISO	Isolated Stands

Each category is examined for values and if it is not null, then the *F_DEL* field is assigned to the corresponding deletion category. Once the polygon is assigned a value, it is no longer assigned a value from any subsequent fields. If none of the deletion fields have a value, then the polygon is assigned a 'NONE' in the *F_DEL* field which indicates that it is part of the active landbase. The decision criteria for the deletion hierarchy is presented in Figure 4-27.

Deletion Hierarchy
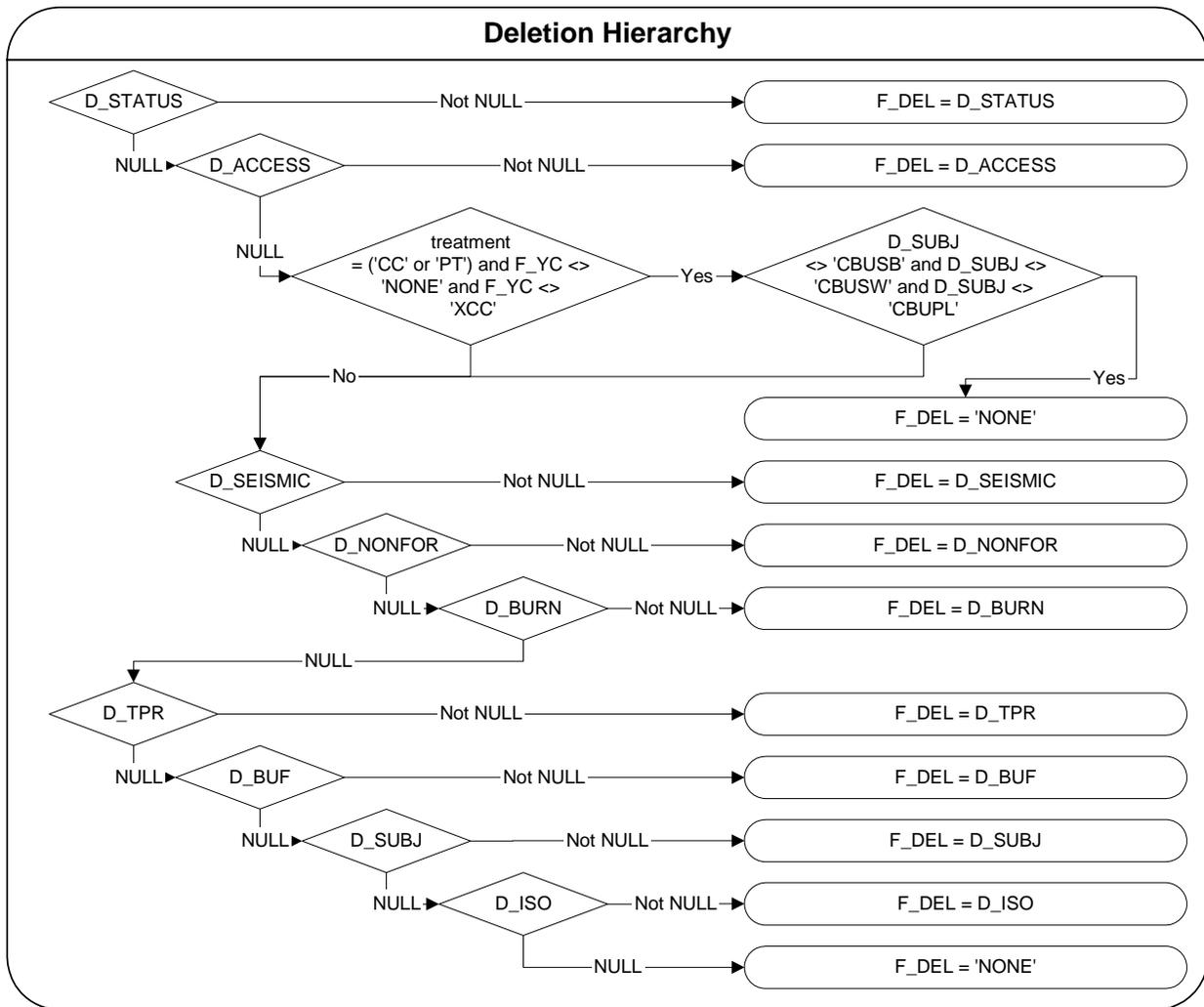
Figure 4-27. F_DEL - deletion hierarchy calculation.

5. Landbase Netdown Results

The final classified landbase for MDFP consists of 274,084 polygons. Table 5-1 shows the breakdown by FMU and landbase category resulting from the netdown process. The column *F_DEL* in the netdown landbase dataset reflects the classification from Table 5-1 and will duplicate these results when summarized by the *AREA_HA* field. Table 5-2 shows the active landbase by FMU, yield strata and special management zone.

Table 5-1. P6 and P9 landbase summary.

Landbase Category		Area (ha)			% Gross Area
		FMU P6	**FMU P9**	**Total**	
Gross Landbase		297,531	298,147	595,677	100%
Patented Land (D_STATUS)					
PSP	SRD PSP Buffer	239	0	239	0%
PATENT	Protected Areas	270	0	270	0%
Total Patented Land		509	0	509	0%
Running Sum of Area Deleted		509	0	509	0%
Landbase Remaining		297,022	298,147	595,169	100%
Access (D_ACCESS, D_SEISMIC)					
ROAD	Roads	2,394	755	3,149	1%
PIPE	Pipelines	1,037	1,009	2,045	0%
SEISMIC	Seismic Lines	5,154	6,326	11,479	2%
Total Access		8,584	8,089	16,674	3%
Running Sum of Area Deleted		9,093	8,089	17,182	3%
Landbase Remaining		288,438	290,057	578,495	97%
Non-Forested (D_NONFOR)					
WATER	Water Body	3,163	635	3,798	1%
ANTHRO	Anthropogenic Non-Vegetated	997	718	1,716	0%
NNF	Non-Forested	36,934	20,979	57,913	10%
NNV	Naturally Non-Vegetated	3,670	4,136	7,806	1%
Total Non-Forested		44,765	26,468	71,233	12%
Running Sum of Area Deleted		53,858	34,558	88,416	15%
Landbase Remaining		243,673	263,589	507,262	85%
Recent Burns (D_BURN)					
BURN	Recent Burn	319	2	321	0%
Total Burn		319	2	321	0%
Running Sum of Area Deleted		54,177	34,559	88,736	15%
Landbase Remaining		243,354	263,587	506,941	85%
Non-Productive (D_TPR)					
U	Unproductive	1,790	185	1,975	0%
F	Decid TPR = F	1,106	1,776	2,881	0%
Total Non-Productive		2,896	1,960	4,856	1%
Running Sum of Area Deleted		57,073	36,520	93,592	16%
Landbase Remaining		240,458	261,627	502,085	84%
Water Buffers (D_BUF)					
RIVBK	River Breaks	8,384	14,647	23,031	4%
SWAN	Swan Lake Buffer	137	0	137	0%
WBUF	Water Buffers	639	618	1,257	0%
Total Water Buffers		9,160	15,265	24,425	4%
Running Sum of Area Deleted		66,233	51,785	118,017	20%
Landbase Remaining		231,298	246,362	477,660	80%
Subjective Deletions (D_SUBJ, D_ISO)					
WETLAND	Wetland	54,160	115,774	169,934	29%
ADENS	A Density Stands	3,071	5,084	8,155	1%
LARCH	Larch	70	22	92	0%
SBLEAD	Sb Leading and TPR < G	1,835	847	2,682	0%
CBUSB	APM Area Black Spruce	340	0	340	0%
CBUSW	APM Area White Spruce	1,166	0	1,166	0%
CBUPL	APM Area Lodgepole Pine	0	0	0	0%
ISO	Isolated Stands	0	0	0	0%
Total Subjective Deletions		60,641	121,727	182,369	31%
Total Area Deleted		126,874	173,512	300,386	50%
Active Landbase		170,657	124,634	295,291	50%

Table 5-2. FMU and strata area by management zone.

FMU	Strata	No Special Mgt (ha)	Greenlink PSP (ha)	Highway Mgmt Zone (ha)	Twin Lake Lodge Mngm Zone (ha)	Twisted Bog Moss Mngm Zone (ha)	Total (ha)
P6							
	D	11,678	40	69	2	83	11,872
	DU	74,237	295	370	5	34	74,941
	DC	3,560	12	18	-	-	3,590
	DCU	9,376	41	50	-	6	9,474
	CD	8,634	45	34	-	12	8,725
	CDU	5,422	29	21	-	-	5,472
	PL	7,645	28	8	-	3	7,684
	SB	2,404	9	-	-	-	2,414
	SW	46,135	159	187	-	4	46,484
	P6 Total	169,092	659	757	6	143	170,657
P9							
	D	59,590	196	94	-	-	59,880
	DU	23,877	69	3	-	-	23,949
	DC	2,610	5	-	-	-	2,614
	DCU	4,321	14	-	-	-	4,335
	CD	2,041	4	-	-	-	2,045
	CDU	2,280	4	-	-	-	2,283
	PL	18,667	57	3	-	-	18,726
	SB	1,841	1	5	-	-	1,847
	SW	8,939	15	-	-	-	8,954
	P9 Total	124,165	365	104	-	-	124,634
Grand Total		293,257	1,024	861	6	143	295,291

5.1 Netdown Data Documentation

The final classified landbase (**p16_lb4_cls**) contains the results of all the analyses described in this landbase netdown documentation. It also contains the complete AVI polygon description for both layers of each stand. The final coverage contains four types of information:

- Flags for the spatial data elements so the user can identify lands contained in buffers, deletions, blocks and in various geoadministrative boundaries.

- The complete AVI attribute string for all layers of the polygons.

- Block attributes (regeneration status, species strata, etc.).

- Derived fields to be used in the timber supply (cover group, yield strata, etc.).

A complete data dictionary of the netdown file is presented in Appendix VI.

6. TSA Landbase

The TSA Landbase is similar to the Classified (CLS) landbase in many ways, but is modified to allow faster processing in the timber supply models (Woodstock and Patchworks). As noted in Section 3.2, the TSA Landbase coverage is created as an intermediate step when creating the CLS landbase. This section describes the further attribute calculations for the fields that are required for modeling. All steps in this section are performed in Oracle which maintains the record count and the spatial integrity of the TSA landbase coverage. Figure 6-1 gives an overview of the steps taken to create the TSA Landbase.

TSA Landbase Overview
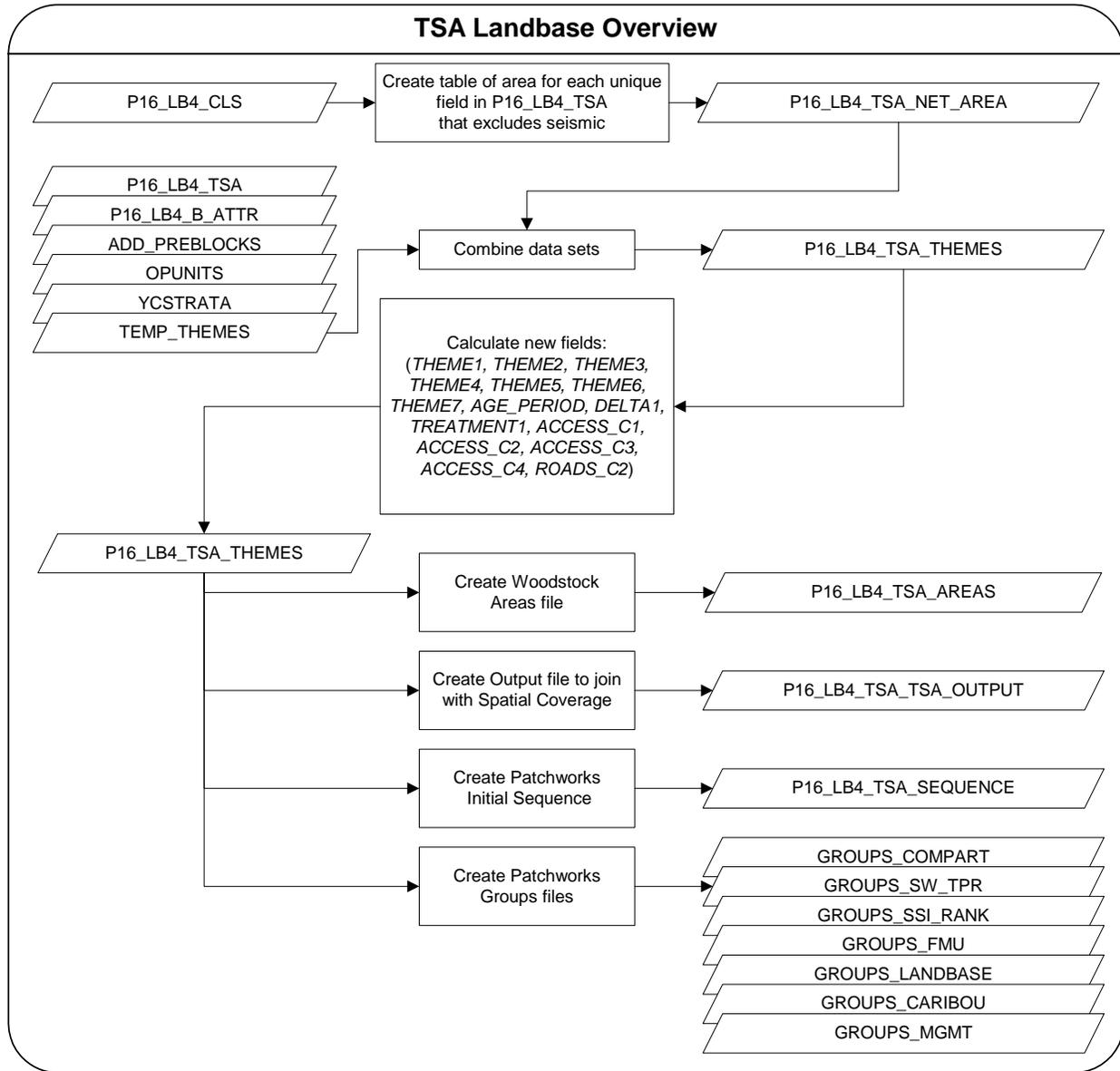
Figure 6-1. TSA landbase processing overview.

6.1 Attribute Table Creation

Before the TSA Landbase attributes were calculated, several tables were created as shown in the subsections below.

6.1.1 Reducing area for Seismic – p16_lb4_tsa_net_area

The **p16_lb4_tsa_net_area** table contains the area for each polygon in the TSA Landbase excluding area within seismic. It is necessary to calculate this area as it is used in the models. Figure 6-2 shows the process to create this table. This table was calculated from the **p16_lb4_cls** landbase.
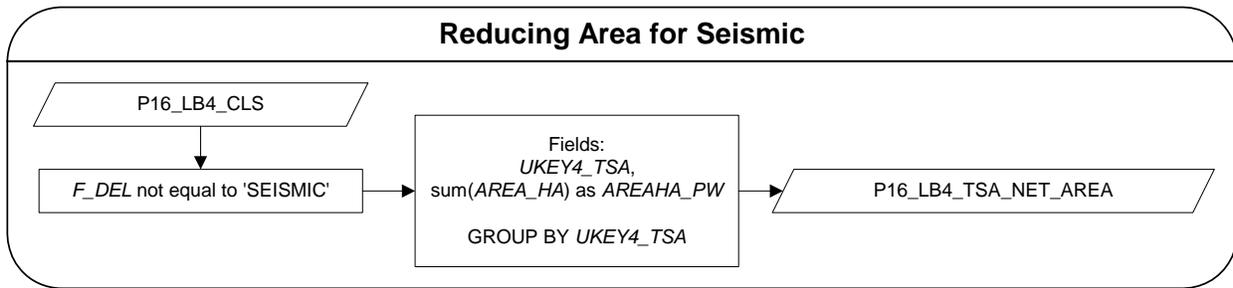
Figure 6-2. Reducing area for seismic reducing area calculation.

6.1.2 Add_preblocks

The **add_preblocks** table contains information regarding MDFP and DMI manual over-rides for the Spatial Harvest Sequence (SHS). It is made up of four fields as shown in Table 6-1. The preblock attribute determines how the AVI polygon is to be treated. If *PREBLOCK* = 'y', then the model is forced to harvest the stand. If *PREBLOCK* = 'n', then the stand is deferred for 20 years.

This table was created manually using input from MDFP and DMI and identifies blocks harvested in 2005 and 2006 and scheduled for harvesting in future years.

Table 6-1. Add_preblocks table description.

Field	Description
FORESTKEY	AVI key field
PREBLOCK	y, up or n
COMMENTX	MDFP/DMI comment
ORIGORDER	Original order from MDFP spreadsheet

6.1.3 Opunits

The **opunits** table was created to allow the model to choose which areas to open each period. The ability to allow the model to choose was developed late in the process, and therefore opunits were not included in the main landbase processing. Instead, they were chosen on screen from the **p16_lb4_tsa** coverage and then outputted to a flat file to be linked to the Oracle tables. There are only two fields, *UKEY4_TSA* and *OPUNIT*. The opunit field is an integer number between 0 to 5, which is concatenated to the compartment number and Alternative Patch Management Area.

6.1.4 Temp_themes

The **temp_themes** table is an empty table with the new theme fields created. This table is created simply to join with the existing tables.

6.1.5 P16_lb4_tsa_themes

The **p16_lb4_tsa_themes** table is simply the combination of several different tables as shown in Figure 6-3 and in Table 6-2. This is the Oracle table in which the themes and related modeling fields are calculated.
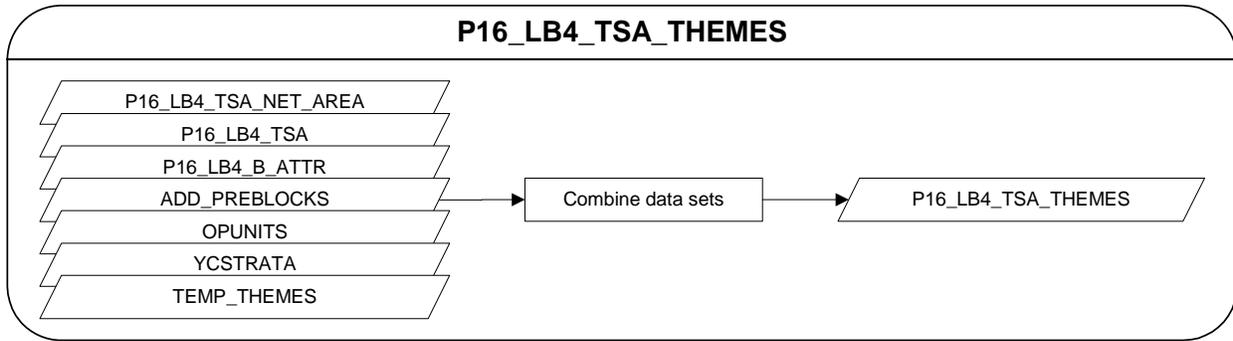
P16_LB4_TSA_THEMES

Figure 6-3. Creation of p16_lb4_tsa_themes table.

Table 6-2. Source tables for fields in p16_l1b4_tsa themes.

Field	Source Table
AREA	p16_lb4_tsa
UKEY4_TMP	p16_lb4_tsa
UKEY4_TSA	p16_lb4_tsa
UKEY4	p16_lb4_tsa
FORESTKEY	p16_lb4_tsa
COMPART	p16_lb4_tsa
MUHEIGHT	p16_lb4_tsa
MUDENSITY	p16_lb4_tsa
MUORGIN	p16_lb4_tsa
ULEADSP	p16_lb4_attr
REG_G_DOM	p16_lb4_tsa
REG_J_DOM	p16_lb4_tsa
PNT	p16_lb4_tsa
D_SUB	p16_lb4_tsa
D_TRP	p16_lb4_tsa
D_BUF	p16_lb4_tsa
D_STATUIS	p16_lb4_tsa
D_BIRM	p16_lb4_tsa
D_ACCESS	p16_lb4_tsa
D_SEISMIC	p16_lb4_tsa
D_NONFOR	p16_lb4_tsa
D_ISO	p16_lb4_tsa
F_MGT	p16_lb4_tsa
F_WILD	p16_lb4_tsa
F_CBU	p16_lb4_tsa
F_DELI	p16_lb4_tsa
F_DEL	p16_lb4_tsa

Table 6-2. Source tables for fields in p16_l1b4_tsa themes.(Continued).

Field	Source Table
F_YC	p16_lb4_tsa
F_DEN	p16_lb4_tsa
LANDBASE	p16_lb4_tsa
HARV_YR	p16_lb4_tsa
COMPANY	p16_lb4_tsa
TREATMENT	p16_lb4_tsa
F_AGE	p16_lb4_tsa
F_AGEC;ASS	p16_lb4_tsa
AREA_HA	p16_lb4_tsa
THEME 1	temp_themes
THEME 2	temp_themes
THEME 3	temp_themes
THEME 4	temp_themes
THEME 5	temp_themes
THEME 6	temp_themes
THEME 7	temp_themes
THEME 8	temp_themes
AGE_PERIOD	temp_themes
DELTA1	temp_themes
TREATMENT1	temp_themes
ACCESS_C1	temp_themes
ACCESS_C2	temp_themes
ACCESS_C3	temp_themes
ACCESS_C4	temp_themes
ROADS_C1	temp_themes
ROADS_C2	temp_themes
ROADS_C3	temp_themes
ROADS_C4	temp_themes
AREAHA_PW	p16_lb4_tsa_net_area
PREBLOCK AS ADDPREBLOCK	add_preblocks
DEFER	add_preblocks
COMMENTX AS PRE_COMMENT	add_preblocks
OPUNTIT	opunits
MTP R	ycstrat

6.2 TSA Landbase Attributes

The TSA Landbase has extra attributes calculated to allow the Woodstock and Patchworks models to function. This section describes the calculation of these attributes.

6.2.1 *THEME1* – Landbase

THEME1 is simply identifies the Landbase attribute as shown in Figure 6-4.
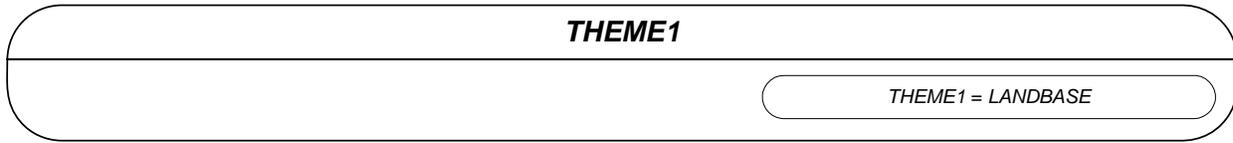
Figure 6-4. THEME1 calculation.

6.2.2 *THEME2* – FMU

THEME2 is the FMU designation and is calculated from the compart attribute as shown in Figure 6-5.
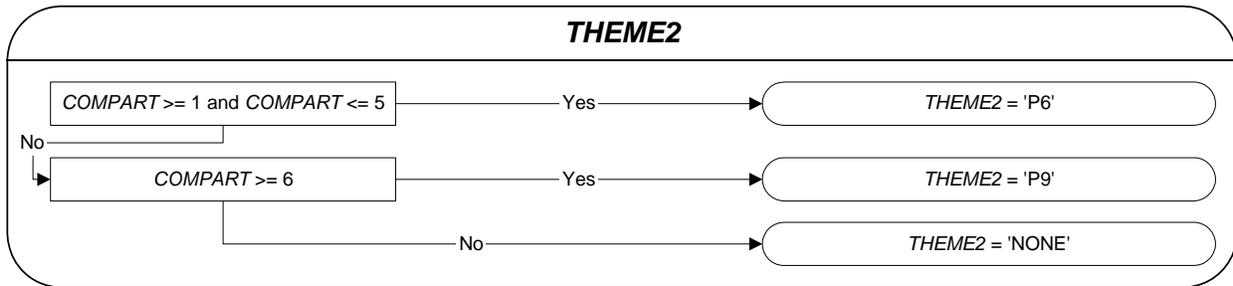
Figure 6-5. THEME2 calculation.

6.2.3 *THEME3* – Species Strata

The species strata theme is calculated the values from *F_YC* plus some additional non-forested values to allow the use of the Firesmart curves in the model. Furthermore, the 'DU' strata is split into white spruce leading and non white spruce leading as only white spruce leading stands are eligible for the Understory Protection treatment. The calculations are shown in Figure 6-6.
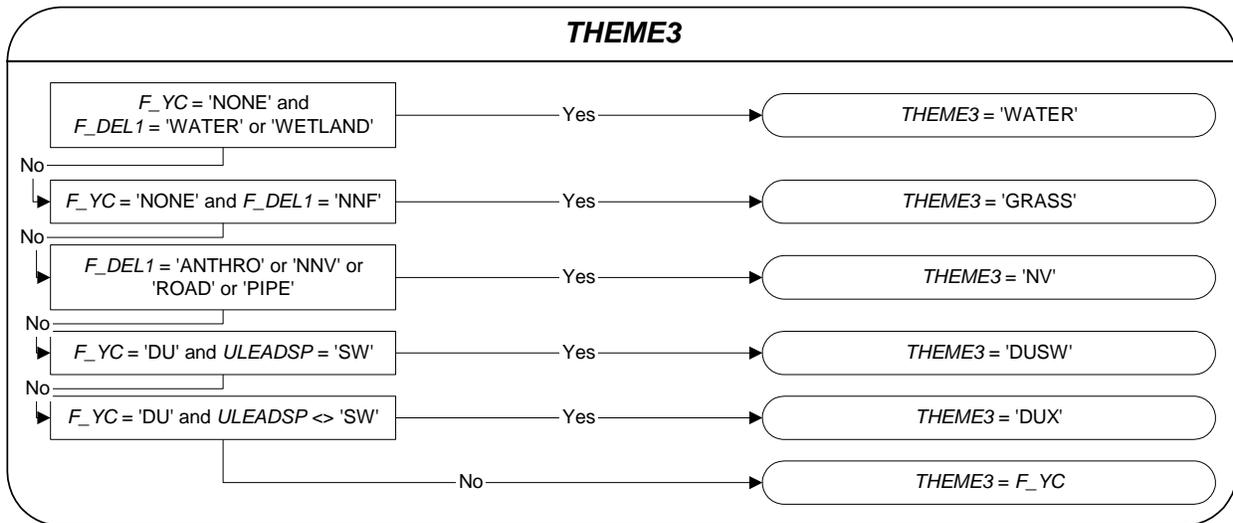
Figure 6-6. THEME3 calculation

6.2.4 *THEME4* – Density

THEME4 is a composite of the overstory density and the understory density of each polygon. Only the 'DUSW' strata uses the information for the understory layer, all other strata represent the understory density as an 'X'. The calculations are shown in Figure 6-7.
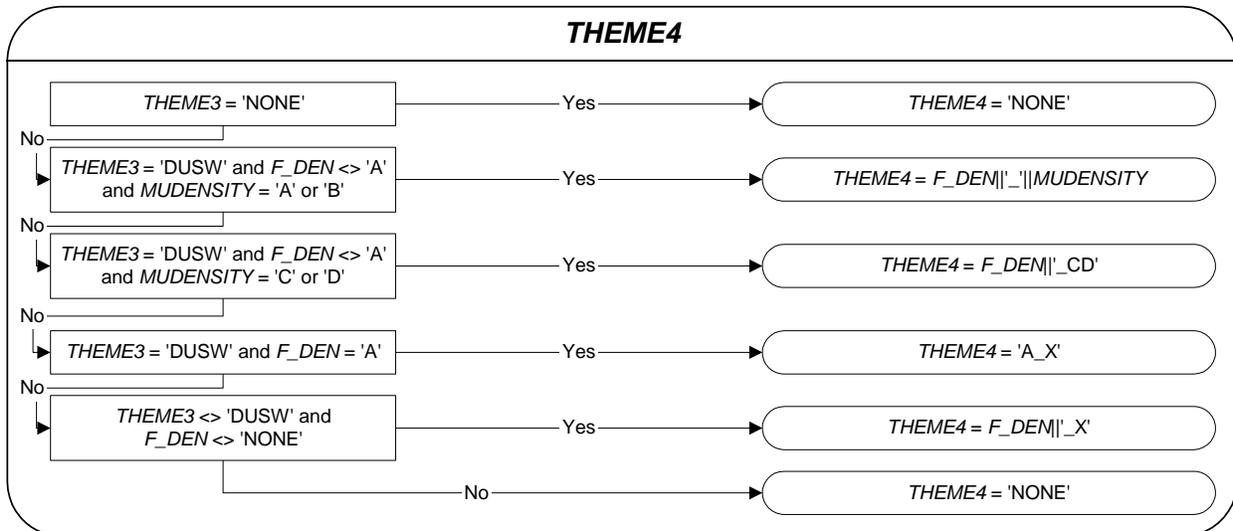
Figure 6-7. THEME4 calculation.

6.2.5 *THEME5* – Active Landbase

The active (OPER) landbase is simply the landbase where *F_DEL1* is not equal to 'NONE'. All other stands are part of the passive landbase (NONOP). This calculation is shown in Figure 6-8.

THEME5

F_DEL1 = 'NONE' ————————Yes————————► *THEME5* = 'OPER'

————————No————————► *THEME5* = 'NONOP'
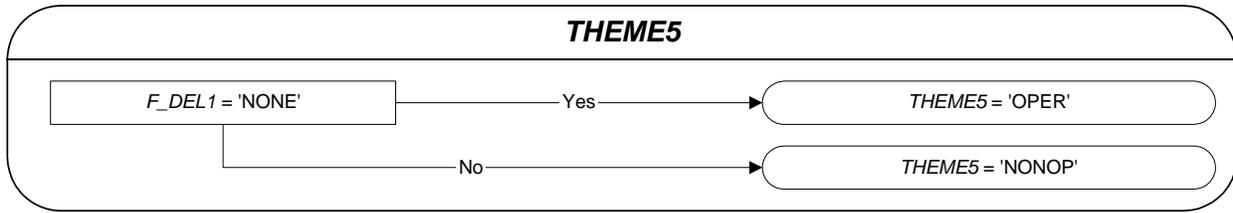
Figure 6-8. THEME5 calculation.

6.2.6 *THEME6* – Harvest State

THEME6 shows the existing harvest state of the polygon. Pre-91 blocks are assigned to the post-91 yield curves so they require a specific designation. Post-91 blocks and understory protection blocks are also assigned here. This calculation is shown in Figure 6-9.

THEME6

TREATMENT = 'CC' and *F_AGE* > 14 ————Yes————► *THEME6* = 'CCPRE'

No

TREATMENT = 'CC' and *F_AGE* <= 14 ————Yes————► *THEME6* = 'CC'

No

TREATMENT = 'PT' ————Yes————► *THEME6* = 'PROT'

No

TREATMENT = 'PL' and
HARV_YR = 2005 or 2006 ————Yes————► *THEME6* = 'PLANNED'

————————No————————► *THEME6* = 'NONE'
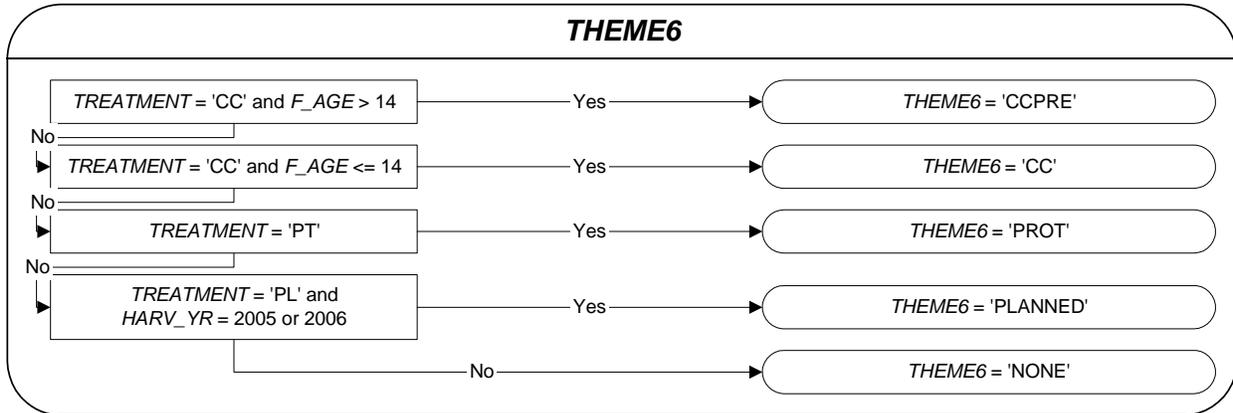
Figure 6-9. THEME6 calculation.

6.2.7 *THEME7* – Breeding Regions

THEME7 outlines which tree breeding region the polygon is part of to allow the correct application of the tree improvement planting within the model. This calculation is shown in Figure 6-10.
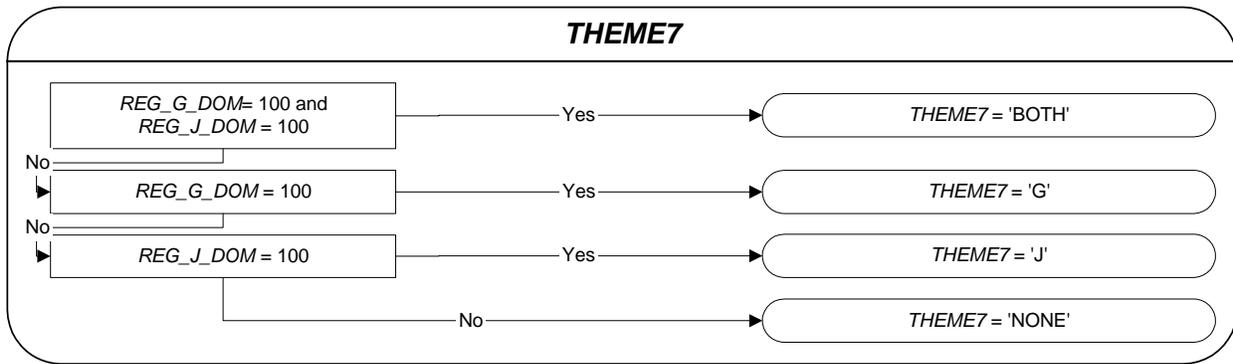
Figure 6-10. THEME7calculation.

6.2.8 AGE_PERIOD

AGE_PERIOD identifies the age in five year periods. For the 'DUSW' strata, the understory age is used to match the yield curve definition. The *AGE_PERIOD* calculations is shown in Figure 6-11.
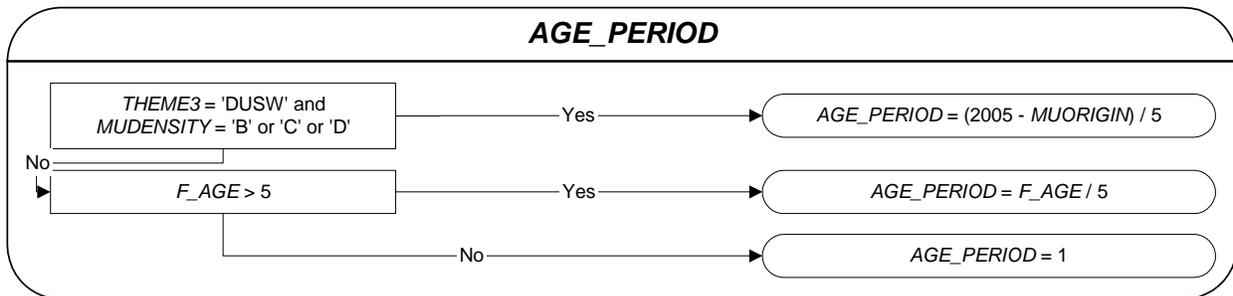
Figure 6-11. AGE_PERIOD calculation.

6.2.9 DUHGTCLASS

DUHGTCLASS groups the understory height in the DU strata into height classes as shown in Figure 6-12.
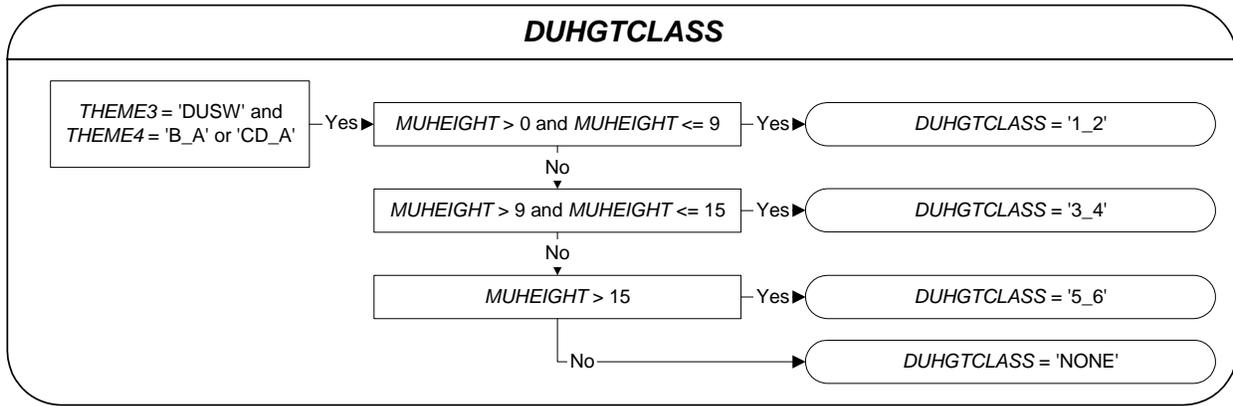
Figure 6-12. DUHGTCLASS calculation.

6.2.10 DELTA1

DELTA1 is the year that a pre-block is to be harvested. The first two years of the model are derived from existing and planned 2005 and 2006 harvesting. All other years of pre-blocks are based on MDFP and DMI correspondence. Further complexity arises when ensuring that planned blocks do not violate the chosen compartment sequence. This calculation is shown in Figure 6-13.
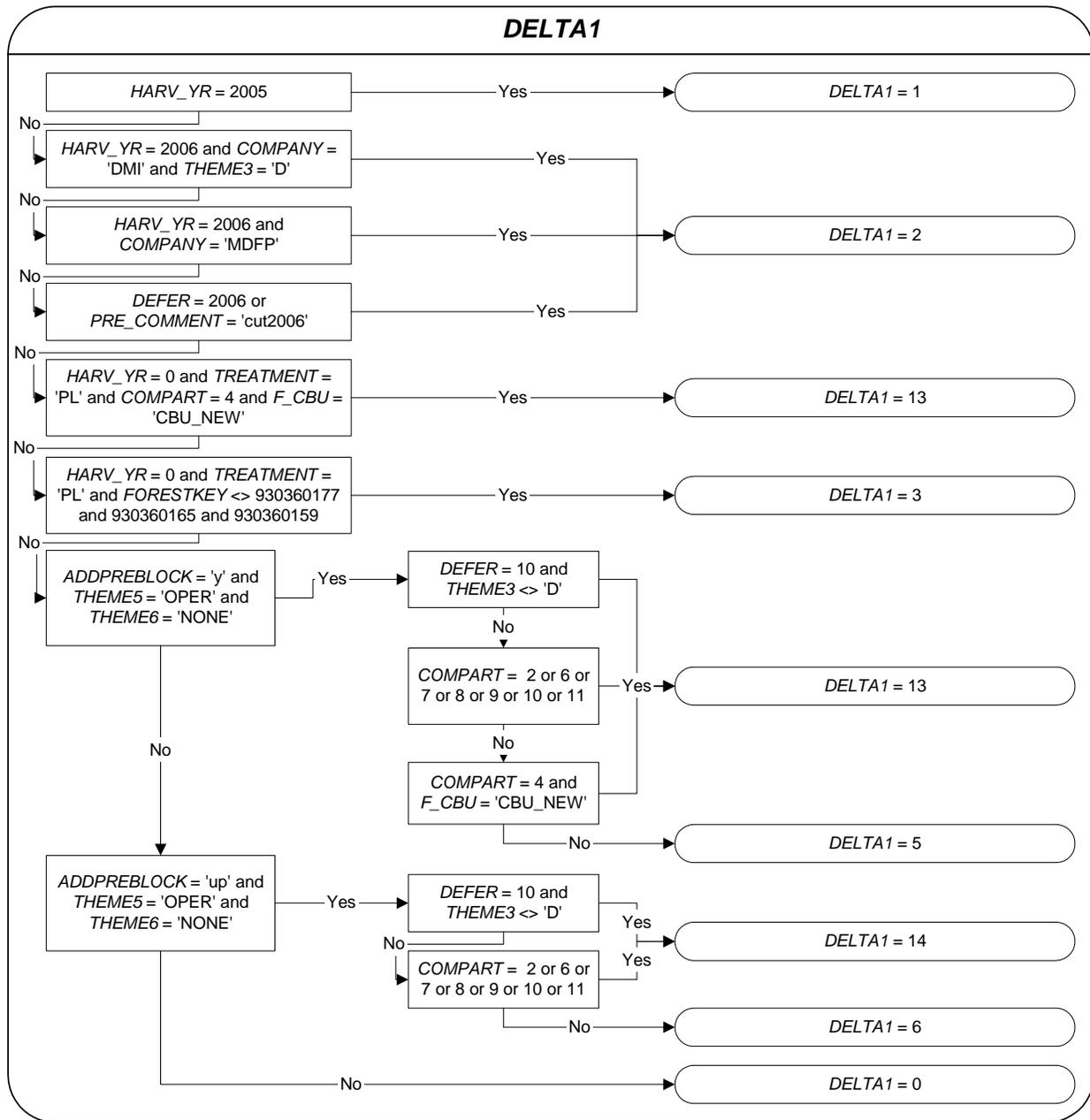
DELTA1

Figure 6-13. Delta1 calculation.

6.2.11 TREATMENT1

The *TREATMENT1* attribute is assigned based on the year of harvest in the *DELTA1* field. Where the *ADDPREBLOCK* field = 'up', the *DELTA1* field is calculated to be either 6 or 14. As a result, the treatment is understory protection. All other treatments are set to the clearcut action. These calculations are shown in Figure 6-14.
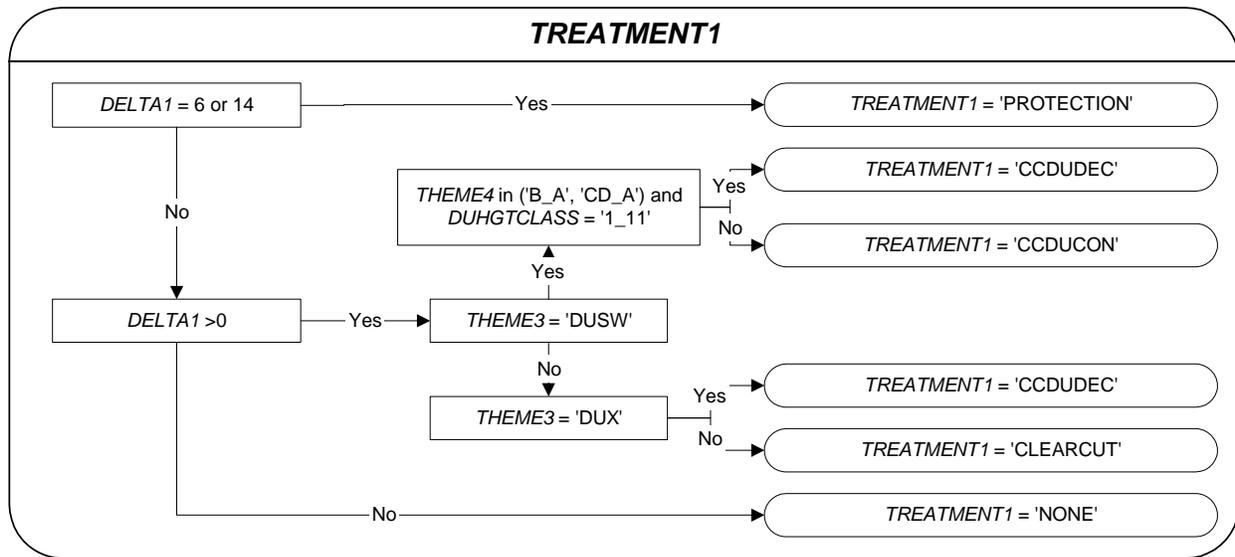
Figure 6-14. TREATMENT1 calculation.

6.2.12 ACCESS_C4

The *ACCESS_C4* attribute is created to allow access control within the Patchworks model. Several iterations of this attribute were created but only the final attribute access_c4 is documented. Essentially, the access control is based on the concatenation of several pieces of information: the compartments, AMPA, PSP's, other deferrals, a preblock flag and the landbase (conifer or deciduous).

The structure of this field allows compartment scheduling of the deciduous landbase to be separate from the coniferous landbase. However, to allow DMI access to the DUSW strata in the same compartments at the same time as they access D strata blocks, one notable deviation from the FMA Agreement is the inclusion of the DUSW strata as part of the DECID landbase for modeling purposes (Figure 6-15).
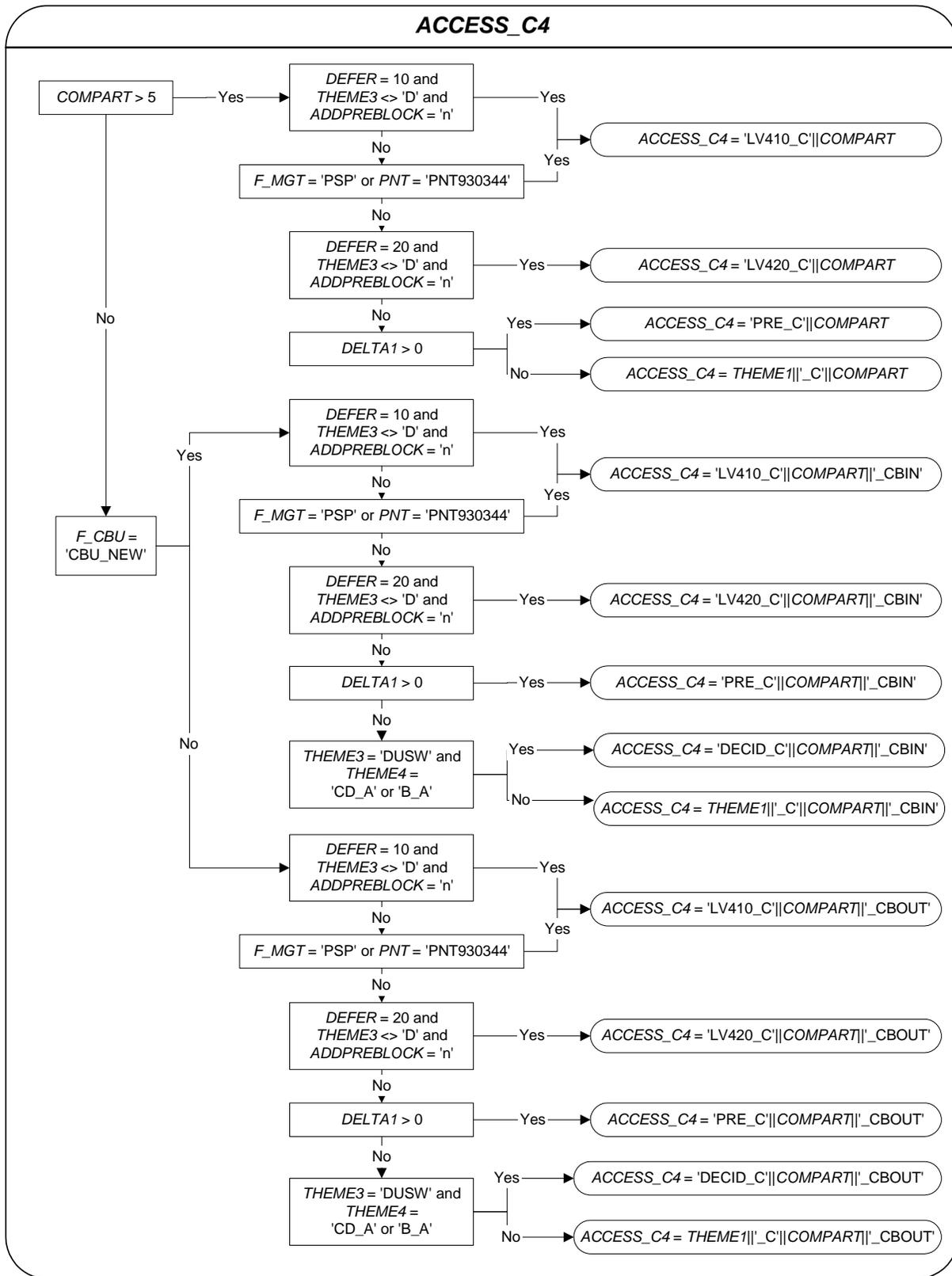
Figure 6-15. ACCESS_C4 calculation.

6.2.13 *ROADS_C1*

ROADS_C1 is simply the landbase converted into a numerical value for use in calculating *ROADS_C2* (Figure 6-16).

ROADS_C1

THEME1 = 'CONIF'	—Yes→ ROADS_C1 = 1000000
↓ No	
THEME1 = 'DECID'	—Yes→ ROADS_C1 = 2000000
	—No→ ROADS_C1 = 3000000
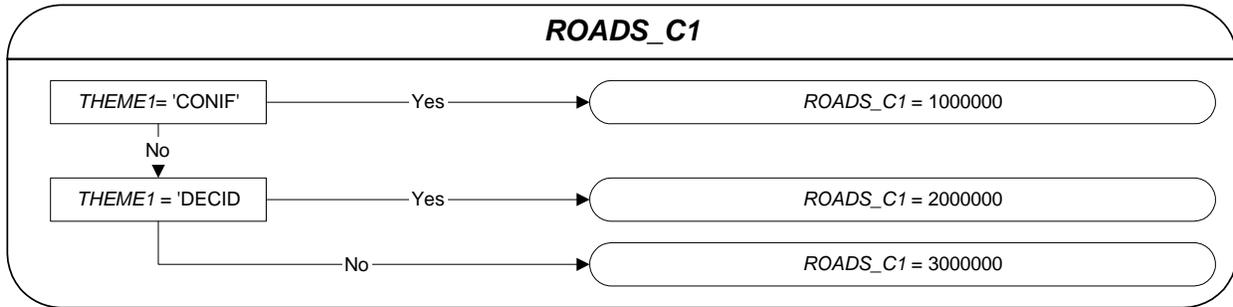
Figure 6-16. Calculation of ROADS_C1.

6.2.14 *ROADS_C2*

ROADS_C2 is used as part of the formulation to allow Patchworks to choose its own operating units to open. The *ROADS_C2* attribute is simply a number system that combines compartments, operating units, AMPA and landbase into one integer (Figure 6-17). This topic is described further in Section 6.10 in **Timber Supply Analysis**.

ROADS_C2

THEME1 = 'CONIF' or 'DECID' —Yes→ COMPART > 5 —Yes▶ $ROADS\_C2 = ROADS\_C1 + (COMPART * 10000)$

↓ No

F_CBU = 'CBU_NEW' —Yes→ $ROADS\_C2 = ROADS\_C1 + (COMPART * 10000) + (OPUINT * 100) + 99$

—No→ $ROADS\_C2 = ROADS\_C1 + (COMPART * 10000) + (OPUINT * 100)$

—No→ $ROADS\_C2 = 3000000$
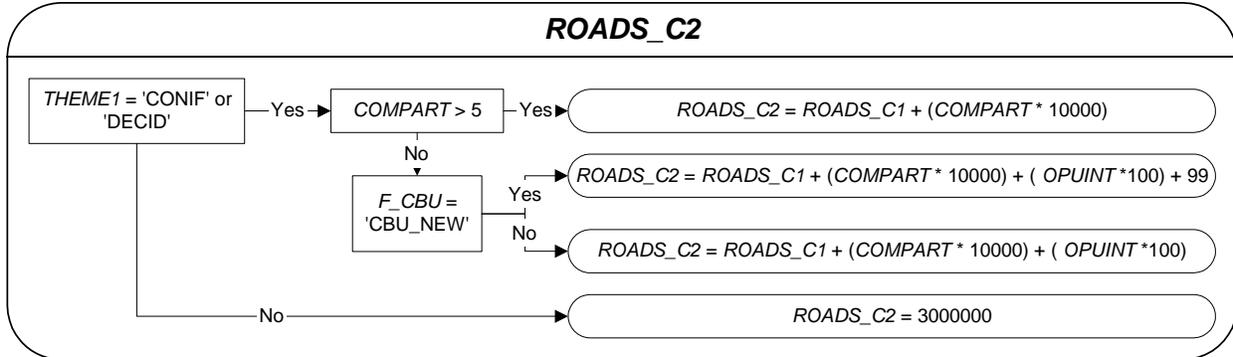
Figure 6-17. Calculation of ROADS_C2.

6.3 Exporting Modeling files

6.3.1 Woodstock Areas file

The Woodstock Areas file is generated in Oracle, and is simply the grouping of the seven themes and the *AGE_PERIOD* field for the active landbase. The area for each unique set of themes and age is calculated from *AREAHA_PW* to ensure that the seismic area is not included.

6.3.2 P16_lb4_tsa_output

The output file to join with the original coverage is simply a copy of the new fields (from **temp_themes**) in a separate table so that field names are not duplicated when joined with the coverage to create **p16_lb4_tsa.shp**.

6.3.3 Patchworks Initial Sequence

The initial sequence that is loaded into patchworks is created in Oracle. This file has three fields, *BLOCK, DELTA* and *TREATMENT*. The Block field is the relate field (*UKEY4_TSA*), the *DELTA* field is the year of treatment, and the *TREATMENT* field is the name of the treatment to perform. Calculation of the **preblock_schedule.csv** is shown in Figure 6-18.
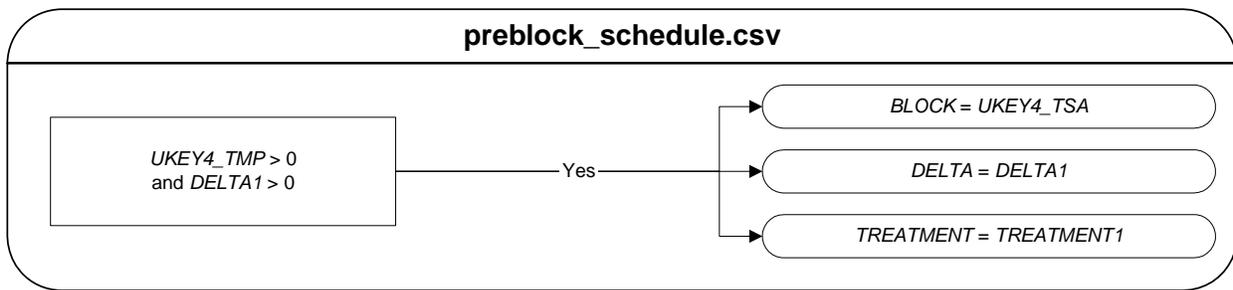
Figure 6-18. Creation of preblock_schedule.csv.

6.3.4 Patchworks Groups files

The Groups files are used by the Patchworks model to allow target creation based on attributes in the landbase that are not part of a theme. This allows the model matrix to be smaller (by having fewer themes) but still allows reporting or controlling flexibility. All of the group files have two fields, *BLOCK* and *GROUP*, where the *BLOCK* field is the key field (*UKEY4_TSA*) and the *GROUP* field contains the attribute of interest. A total of seven groups files were utilized.

6.3.4.1 Groups_mgmt.csv

The **groups_mgmt.csv** file is created from *F_MGT* as shown in Figure 6-19.

groups_mgmt.csv

UKEY4_TMP > 0
and *AREAHA_PW > 0* ——— Yes ———→ *BLOCK = UKEY4_TSA*

——— Yes ———→ *GROUP = F_MGT*
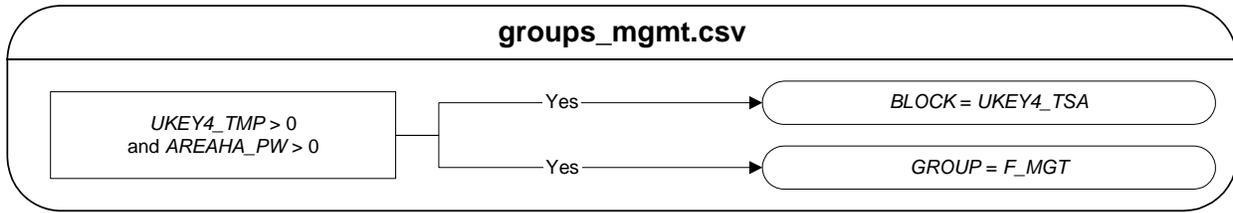
Figure 6-19. Creation of groups_mgmt.csv.

6.3.4.2 Groups_caribou.csv

This groups file is a concatenation of *THEME2* and *F_CBU* as shown in Figure 6-20. This allows for specific targets within each FMU and within the AMPA.

groups_caribou.csv

UKEY4_TMP > 0
and *AREAHA_PW > 0* ——— Yes ———→ *BLOCK = UKEY4_TSA*

——— Yes ———→ *GROUP = THEME2 || F_CBU*
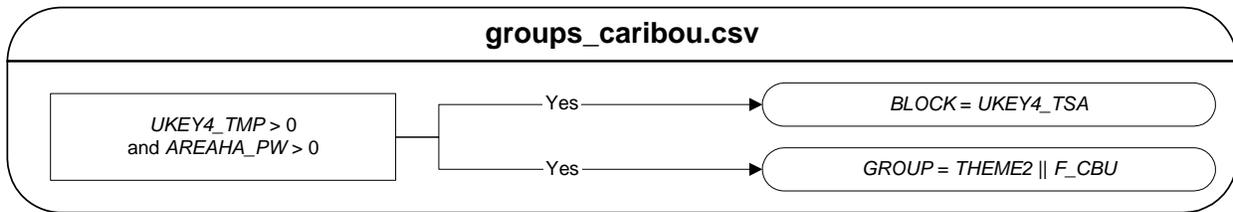
Figure 6-20. Creation of groups_caribou.csv.

6.3.4.3 Groups_landbase.csv

The **groups_landbase.csv** is comprised of *THEME5* and *THEME2* as shown in Figure 6-21. This allows the creation of zone of active and inactive landbase within each FMU.

groups_landbase.csv

UKEY4_TMP > 0
and *AREAHA_PW > 0* ——— Yes ———→ *BLOCK = UKEY4_TSA*

——— Yes ———→ *GROUP = THEME5 || THEME2*
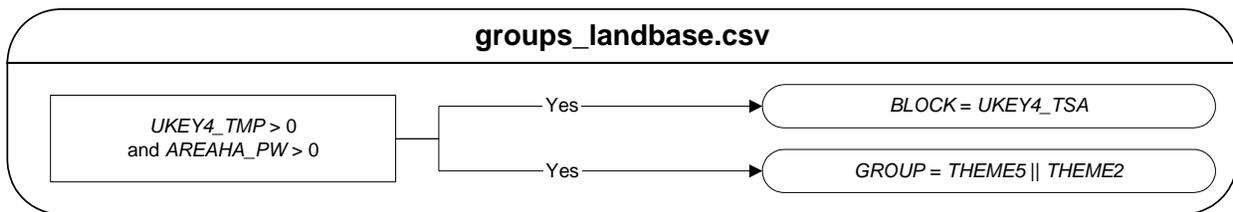
Figure 6-21. Creation of groups_landbase.csv.

6.3.4.4 Groups_fmu.csv

This group file is based on *THEME2* only and allows the creation of targets by FMU as shown in Figure 6-22.

groups_fmu.csv

$UKEY4\_TMP > 0$
and $AREAHA\_PW > 0$

Yes ——→ $BLOCK = UKEY4\_TSA$

Yes ——→ $GROUP = THEME2$
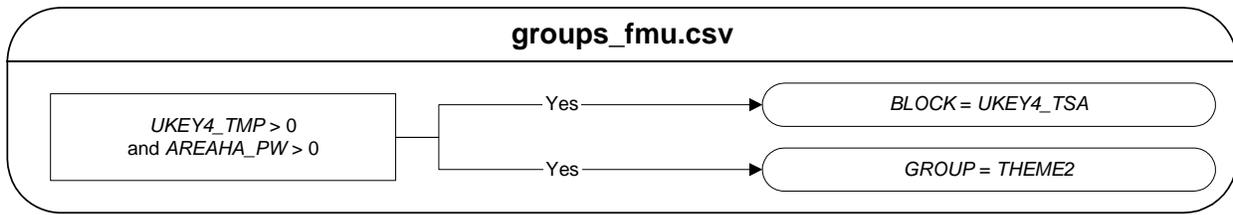
Figure 6-22. Creation of groups_fmu.csv.

6.3.4.5   Groups_ssi_rank.csv

The **groups_ssi_rank.csv** file is filtered for stands that have a valid mountain pine susceptibility ranking and have a lodgepole pine component greater than 20%. It is used to create targets relating to the MPB Rank1 and Rank2 initiatives (see Section 6.13 in **Timber Supply Analysis**). The creation of **groups_ssi_rank.csv** file is shown in Figure 6-23.

groups_ssi_rank.csv

$UKEY4\_TMP > 0$
and $AREAHA\_PW > 0$ and
$((MSP1 = \text{'PL'} \text{ and } MSPPER1 > 2)$
or $(MSP2 = \text{'PL'} \text{ and } MSPPER2 > 2)$
or $(MSP3 = \text{'PL'} \text{ and } MSPPER3 > 2)$
or $(MSP4 = \text{'PL'} \text{ and } MSPPER4 > 2)$
or $(MSP5 = \text{'PL'} \text{ and } MSPPER5 > 2))$

Yes ——→ $BLOCK = UKEY4\_TSA$

Yes ——→ $GROUP = THEME2 \; || \; SSIRANK$
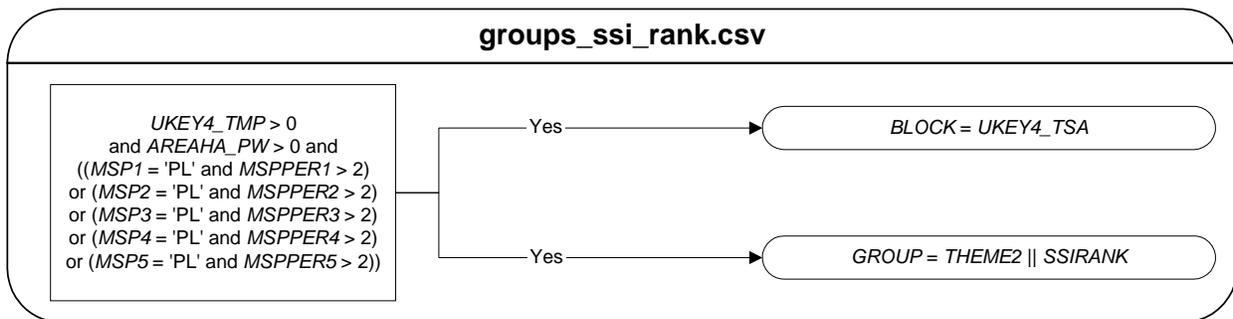
Figure 6-23. Creation of groups_ssi_rank.csv.

6.3.4.6   Groups_sw_tpr.csv

The **groups_sw_tpr.csv** file is comprised of *THEME3* and *MTPR* for stands where *THEME3* is 'SW' as shown in Figure 6-24. This allows the creation of a white spruce target for sites with a TPR of 'Fair'.

groups_sw_tpr.csv

$UKEY4\_TMP > 0$
and $AREAHA\_PW > 0$
and $THEME3 = \text{'SW'}$

Yes ——→ $BLOCK = UKEY4\_TSA$

Yes ——→ $GROUP = THEME3 \; || \; MTPR$
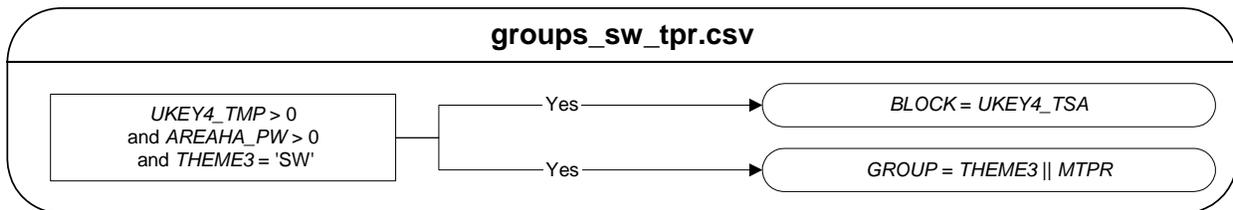
Figure 6-24. Creation of groups_sw_tpr.csv.

6.3.4.7   Groups_du_hgt.csv

The **groups_du_hgt.csv** file is comprised of *DUHGTCLASS* for stands in the DU strata.
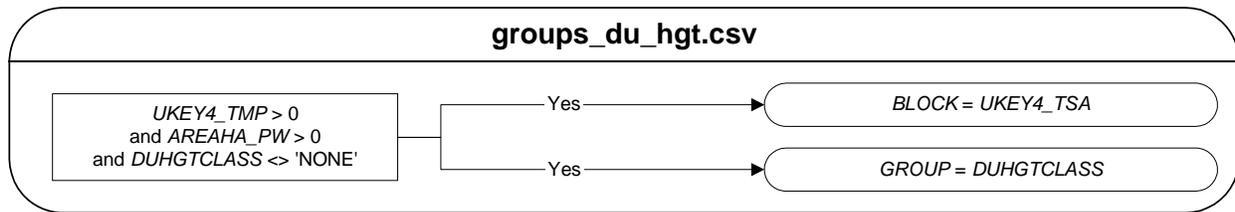
Figure 6-25. Creation of groups_du_hgt.csv.

6.4 TSA Landbase Shapefile Creation

GIS processing was used to link the **p16_lb4_tsa_output** table with the **p16_lb4_tsa** coverage and save as a shapefile for use in Patchworks. This last step ensures that the themes and other attributes are present in the Patchworks model.

Appendix I   Polygon Update Protocol

Appendix II   Polygon Update Protocol Field Manual

Appendix III Polygon Update Analysis Methods

Appendix IV Approval Letters

Alberta
SUSTAINABLE RESOURCE
DEVELOPMENT

Resource Data Branch

12th Floor, 9820 - 106 Street   Telephone 780-427-6467
Edmonton AB T5K 2J6   Fax   780-427-1215

November 23, 2001

Mr. J. P. Bielech, Woodland Manager
Manning Diversified Forest Products Ltd.
Bag 370
Manning, AB
T0H 2M0

Dear Mr. Bielech:

Alberta Sustainable Resource Development staff completed a review of the Alberta Vegetation
Inventory (AVI) completed by Manning Diversified Forest Products Ltd. for forest management
unit P6. The data have successfully passed an audit by Resource Data Branch. The final audit
report is attached. If you have any questions regarding this process, please feel free to contact
Daryl McEwan at (780) 415-0010.

Sincerely,

Mike Toomey, Director
Resource Data Branch

c: Doug Sklar, Director
        Forest Management Branch

        Craig Quintilio, Director
        Forest Protection Branch

Alberta
SUSTAINABLE RESOURCE
DEVELOPMENT

Resource Information Management Branch   12th Floor, 9820 - 106 Street   Telephone 780-427-6467
       Edmonton AB T5K 2J6   Fax   780-427-1215

January 31, 2005

Mr. J. P. Bielech, Woodland Manager
Manning Diversified Forest Products Ltd.
Bag 370
Manning, AB
T0H 2M0

Dear Mr. Bielech:

Alberta Sustainable Resource Development staff completed a review of the Alberta Vegetation Inventory (AVI) completed by Manning Diversified Forest Products Ltd. for forest management unit P9. The data have successfully passed an audit by Resource Information Management Branch. The final audit report will be completed in the near future.

If you have any questions regarding this process, please feel free to contact Daryl McEwan at (780) 415-0010.

Sincerely,

Craig Barnes, Executive Director
Resource Information Management Branch

c: Doug Sklar, Executive Director
      Forest Management Branch

      Don Harrison, Director
      Wildlife Service Branch

Alberta

SUSTAINABLE RESOURCE
DEVELOPMENT

COPY

Government of Alberta
2001 & 2002 IPAC
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for Innovative
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Public Lands and Forests Division
Forest Management Branch

8th Floor 9920 - 108 Street
Edmonton, Alberta
Canada T5K 2M4

Telephone (780) 427-8474
Fax (780) 427-0084

April 4, 2006

Ref: 06303 - 010
06302 - R01 - 01
06302 - F02 - 04

Mr. Jean-Paul Bielech
Woodlands Manager
Manning Diversified Forest Products Ltd.
P.O.Box 370
Manning, Alberta
T0H 2M0

Dear Mr. Bielech:

RE: **APPROVAL – MANNING DIVERSIFIED FOREST PRODUCTS POLYGON
UPDATE PROTOCOL**

The Forest Management Branch has completed its review of the following documents:

- "Manning Diversified Forest Products Ltd. Polygon Update Protocol: Sampling Results and Block Assignment" dated August 15, 2005,
- "Polygon Update Field Manual" dated October 26, 2004 (revised August 15, 2005),
- "Manning Diversified Forest Products Ltd. Polygon Update Protocol" dated September 13, 2004 (revised August 15, 2005),
- "Manning Diversified Forest Products Ltd. Polygon Update Protocol. Dataset submission to Alberta SRD, dated February 13, 2006".

We find that these documents accurately reflect the agreed-to protocols for which the overall goal is to assign older cutovers to yield strata specific to Manning Diversified Forest Products Ltd's (MDFP) FMA.

.../2

- 2 -

We are pleased to accept this package for use in MDFP's timber supply analysis of the 2007 Detailed Forest Management Plan.

Yours truly,
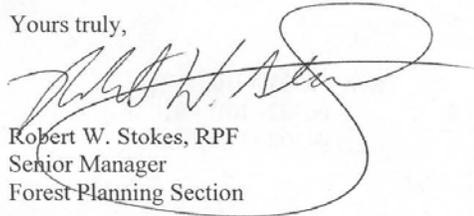
Robert W. Stokes, RPF
Senior Manager
Forest Planning Section

cc: Dave Morgan, Manager, Forest Biometrics Unit
       Daryl Price, Senior Manager, Resource Analysis Section
       Grant Klappstein, Growth and Yield Forester, Forest Biometrics Unit
       Darren Aitkin, Growth and Yield Forester, Forest Biometrics Unit
       Glen Gache, Area Manager, Peace Forest Area
       Kari White, Area Forester, Peace Forest Area

Appendix V   Data Dictionaries for Submitted and Input Datasets

EXAMPLE DATASET

Dataset Information

Description:	general description
Data Source:	who created the dataset or who supplied it
Creation Date:	year or date of creation
Processing:	processing required to ready the dataset for analysis
Data Format:	coverage or shapefile
Software Used:	software used to process dataset
Projection:	projection
Datum:	
Units:	
Data Precision:	double or single
Tolerance:	fuzzy tolerance
Scale of Capture:	scale of original capture photographs

AVI_21

Dataset Information

Description:	P6 AVI v2.1
Data Source:	Interpreted by Greenlink and based on 1997 photos
Date Generated:	1997
Processing:	Standard AVI protocols, originally AVI version 2.2, converted to AVI version 2.1
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	1:20,000

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
AVI_21#	4,5,B,0	Internal ArcInfo No.		
AVI_21-ID	4,10,B,0	ArcInfo User Id		
ID	10,10,I,0			
FORESTKEY	10,10,I,0	Unique key for AVI		
POLY_NUM	10,10,I,0	Duplicate of FORESTKEY		
OLDID	4,4,I,0			
SDBID	10,10,I,0			
TRM	6,6,I,0			

AVITWIN_LAKES

Dataset Information

Description:	Twin Lakes
Data Source:	Extracted from P6 AVI coverage
Date Generated:	1997
Processing:	Input coverage for buffering to create 200m protection buffer around lakes
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	1:20,000

Data Dictionary

Column Name	*Type W.D*	*Column*	*Item Value*	*Item Description*
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
AVITWIN_LAKES#	4,5,B,0	Internal ArcInfo No.		
AVITWIN_LAKES-ID	4,5,B,0	ArcInfo User Id		
TWIN_LAKES-ID	4,5,B,0			
AVI_21_	8,11,F,0	Internal ArcInfo No. from		
AVI_21_ID	8,11,F,0	ArcInfo User Id from AVI		
			0	
			972250509	
			972250521	

BLOCKS_ALL

Dataset Information

Description:	Final block coverage (planned and actual)
Data Source:	Various - MDFP_BLK, GREEN_BLK, PLAN_BLK.
Date Generated:	October 2005
Processing:	Overlaid the three coverages and manual edits to remove slivers and to update attribute information.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
BLOCKS_ALL#	4,5,B,0	Internal ArcInfo No.		
BLOCKS_ALL-ID	4,5,B,0	ArcInfo User Id		
INSIDE_BLK	3,3,I,0	Defines inside block		
			0	Not inside a block
			1	Not inside a block
			100	Within a block
OPENING	16,16,C,0	Opening Number		
BLK_ID	25,25,C,0	Block Id field		
HARV_YR	4,4,I,0	Harvest Year		
			0	Not harvested
			1940	
			1966	
			1967	
			1968	
			1969	
			1970	
			1971	
			1972	
			1973	
			1975	
			1978	
			1980	
			1983	
			1984	
			1987	
			1992	
			1993	
			1997	
			1998	
			1999	
			2000	
			2001	
			2002	
			2003	
			2004	
HARV_NOTE	25,25,C,0	Note		
			Andy provided new op_num	Block number provided by MDFP
			CONTINGENCY	Contingency block
			DMI - PLANNED	DMI planned block
			DMI - Understory Prot	DMI understory protection block
			DMI BLOCK	DMI existing block
			MDFP BLOCK	MDFP existing block
			Planned	Planned block
			SWAP - DMI to MDFP	Swap from DMI to MDFP
			SWAP - MDFP to DMI	Swap from MDFP to DMI
COMPANY	15,15,C,0	Company with Liability		
			CANFOR	Canadian Forest Products Ltd.
			DMI	Daishowa-Marubeni International Ltd.
			MDFP	Manning Diversified Forest Products Ltd.
BLK_SRC	25,25,C,0	Block Source		
			ANDY BLOCK UPDATE	Block updated by MDFP
			GREENLINK BLOCK UPDATE	Block updated by Greenlink
MDFP_STRATA	8,8,C,0	Strata Assignment		
			AVI	Strata to be based on AVI call
			CD	Conifer dominated Mixedwood

			CD-2000	Conifer dominated Mixedwood
			D	Deciduous
			D-2000	Deciduous
			DC	Deciduous dominated Mixedwood
			DC-2000	Deciduous dominated Mixedwood
			Pl	Lodgepole Pine leading Conifer
			Sw	White Spruce leading Conifer
TREATMENT	3,3,C,0	Treatment Applied		
			CC	Clearcut
			PL	Planned Block
			PT	Understory Protection

BREED_G_J

Dataset Information

Description:	Breeding Regions
Data Source:	SRD
Date Generated:	Summer 2005
Processing:	Converted to coverage and added items to allow easier processing
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
BREED_G_J#	4,5,B,0	Internal ArcInfo No.		
BREED_G_J-ID	4,5,B,0	ArcInfo User Id		
REG_G	4,10,B,0	Breeding region G		
			0	Not within Breeding Region G
			100	Within Breeding Region G
REG_J	4,10,B,0	Breeding region J		
			0	Not within Breeding Region J
			100	Within Breeding Region J

CBU_2005

Dataset Information

Description:	Alternative Patch Management Zone
Data Source:	Digitized in house
Date	December 2005
Processing:	Digitized on screen based on delineation of zone marked on 1:160,000 scale map
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	*Type W.D*	*Column*	*Item Value*	*Item Description*
AREA	8,18,F,5	Area (Sq. m)		
PERIMETER	8,18,F,5	Perimeter (m)		
CBU_2005#	4,5,B	Internal ArcInfo Num.		
CBU_2005-ID	4,5,B	ArcInfo User ID		
CBU_2005	16,16,C	Alternative Patch Management Zone		
			Caribou_2005	Alternative Patch Management Zone

COMPART

Dataset Information

Description:	Compartment boundaries
Data Source:	Manually generated by The Forestry Corp using MDFP recommendations
Date Generated:	January 2005
Processing:	FMU boundary used for outside edge, and the Hotchkiss, Meikle and Botha rivers along with the main Canfor
	haul road were used as boundaries. Compartment numbers were assigned sequential numbers, 1-6.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
FNODE#	4,5,B,0	From node number.		
TNODE#	4,5,B,0	To node number		
LPOLY#	4,5,B,0	Poly no. on left.		
RPOLY#	4,5,B,0	Poly no. on right.		
LENGTH	8,18,F,5	Length of arc segment (m.)		
			0	
			1	Working Circle # 1
			2	Working Circle # 2
			3	Working Circle # 3
			4	Working Circle # 4
			5	Working Circle # 5
			6	Working Circle # 6
COMPART#	4,5,B,0	Internal ArcInfo No.		
COMPART-ID	4,5,B,0	ArcInfo User Id		

CUT_B

Dataset Information

Description:	Cutline buffers
Data Source:	Created by buffering cutlines at various widths as specified in BUFFER column
Date Generated:	June 2005
Processing:	Arc/Info buffer command.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
CUT_B#	4,5,B,0	Internal ArcInfo No.		
CUT_B-ID	4,5,B,0	ArcInfo User Id		
IN_CUT_B	4,5,B,0	Inside cutlines		
			1	Not within a seismic buffer
			100	Within a seismic buffer

FIRES

Dataset Information

Description: Fires since AVI capture
Data Source: Selected set from Provincial Fires coverage
Date Generated: June 2005
Processing: Selected fires that are not in AVI and put to new coverage
Data Format: Arc/Info Coverage
Software Used: ESRI ArcGIS
Projection: UTM Zone 11
Datum: NAD 83
Units: Metres
Data Precision: Double
Tolerance: Fuzzy @ 0.001
Scale of Capture: Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
FIRES#	4,5,B,0	Internal ArcInfo No.		
FIRES-ID	4,5,B,0	ArcInfo User Id		
POLY#	4,5,B,0	Internal Region information		
SUBCLASS	13,13,C,0	Internal Region information		
SUBCLASS#	4,5,B,0	Internal Region information		
RINGS_OK	7,7,I,0	Internal Region information		
RINGS_NOK	7,7,I,0	Internal Region information		
FIRENUMBER	12,12,C,0		PWF-023-2003	
			PWF-050-2004	
			PWF-066-2002	
			PWF-067-2002	
			PWF-068-2002	
			PWF-069-2002	
			PWF-097-2004	
FIRE_NUMBE	12,12,C,0		PWF023	
			PWF050	
			PWF066	
			PWF067	
			PWF068	
			PWF069	
			PWF097	
FIRE_CLASS	1,1,C,0		B	
			C	
			E	
BURNCODE	6,6,C,0		B	
BURN_CLASS	4,1,B,0		0	No Fire
			5	
HECTARES_U	8,10,F,1			
FIRE_YEAR	4,4,B,0	Year of fire occurrence	0	No Fire
			2002	
			2003	
			2004	
ALIAS	40,40,C,0		N/A	
CAPTURE_DA	10,10,C,0			
TIME	4,4,C,0			
SOURCE	50,50,C,0		0 - hand sketch of any type	
			1 - non-corrected ground GPS	
			2 = non-corrected airborne GPS	
			3 - corrected ground GPS	
SOURCETHM	16,16,C,0		Pwf0502004.shp	
			Pwf0972004.shp	
HECTARES	8,19,F,3	Area converted to Hectares (ha)		

GOVT_PSP_B

Dataset Information

Description:	Polygon buffers of SRD Permanent Sample Plots
Data Source:	Square buffers of SRD_PSP (318m x 318m)
Date Generated:	June, 2005
Processing:	Square buffers of 318m x 318m were applies to the SRD PSP coverage
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
GOVT_PSP_B#	4,5,B,0	Internal ArcInfo No.		
GOVT_PSP_B-ID	4,5,B,0	ArcInfo User Id		
IN_GOVT_PSP_B	2,5,B,0	Inside PSP buffer		
			0	Not within a SRD PSP buffer
			100	Within a SRD PSP buffer

GPIPE_CUT

Dataset Information

Description:	Non-AVI pipelines
Data Source:	From Landuse2004 coverage (Greenlink)
Date Generated:	2004
Processing:	Extracted from Landuse2004 coverage where not found in AVI. This was a manual process.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
FNODE#	4,5,B,0	From node number.		
TNODE#	4,5,B,0	To node number		
LPOLY#	4,5,B,0	Poly no. on left.		
RPOLY#	4,5,B,0	Poly no. on right.		
LENGTH	8,18,F,5	Length of arc segment (m.)		
GPIPE_CUT#	4,5,B,0	Internal ArcInfo No.		
GPIPE_CUT-ID	4,5,B,0	ArcInfo User Id		
DESCRIPTIO	16,16,C,0	Description		
			PIPELINE	
			PIPELINE UPDATE	
BUFFER	8,16,F,3	Buffer width		
			0	No buffer required
			10	Buffer distance of 10 m each side

GPIPE_CUT_B

Dataset Information

Description:	Pipeline buffers
Data Source:	Created by buffering pipe 20m
Date Generated:	June 2005
Processing:	Arc/Info buffer command.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
GPIPE_CUT_B#	4,5,B,0	Internal ArcInfo No.		
GPIPE_CUT_B-ID	4,5,B,0	ArcInfo User Id		
INSIDE	4,5,B,0	Pipeline buffers		
			1	Not within a pipeline buffer
			100	Within a pipeline buffer

HIGHWAY

Dataset Information

Description:	Highways to be buffered
Data Source:	Extracted from Greenlink roads coverage.
Date Generated:	November 2004
Processing:	Extracted from Greenlink linear update coverage where Description = PAVED ROAD.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
FNODE#	4,5,B,0	From node number.		
TNODE#	4,5,B,0	To node number		
LPOLY#	4,5,B,0	Poly no. on left.		
RPOLY#	4,5,B,0	Poly no. on right.		
LENGTH	8,18,F,5	Length of arc segment (m.)		
HIGHWAY#	4,5,B,0	Internal ArcInfo No.		
HIGHWAY-ID	4,5,B,0	ArcInfo User Id		
CCOGIF	16,16,C,0	Feature code		
			DA62450200	
			DA62500020	
FEATTYPE	25,25,C,0	Feature type		
			ROAD-PAVED-DIVIDED	
			ROAD-PAVED-UNDIV-2 LANES	
DESCRIPTIO	16,16,C,0	Feature description		
			PAVEDRD	
PHOTO_YEAR	4,4,B,0	Photo Year		
BUFFER	8,13,F,3	Buffer width		
			0	No buffer required

HWY_MGT

Dataset Information

Description:	Highway management zone
Data Source:	Created by buffering HIGHWAY coverage 125m each side
Date Generated:	June 2005
Processing:	Buffer of major highway in FMU P6.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
HWY_MGT#	4,5,B,0	Internal ArcInfo No.		
HWY_MGT-ID	4,5,B,0	ArcInfo User Id		
HWY_MGT	4,5,B,0	Indicates highway management zone		
			1	Not within Highway Management zone
			100	Within Highway management zone

LAKE_B

Dataset Information

Description:	Lake buffers
Data Source:	Created by buffering p69_lakes 100m
Date Generated:	June 2005
Processing:	Arc/Info buffer command.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	1:20,000

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
LAKE_B#	4,5,B,0	Internal ArcInfo No.		
LAKE_B-ID	4,5,B,0	ArcInfo User Id		
IN_LAKES_B	3,3,I,0	Buffered Lakes		
			1	Not within lakes buffer
			100	Within lakes buffer
MAJRIV_TYPE	20,20,C,0	River type		
IN_MAJRIV_B	3,3,I,0	Buffered rivers		
			0	Not within major river buffer
			1	Not within major river buffer
IN_STREAM_B	3,3,I,0	Buffered streams		
			0	Not within stream buffer
			1	Not within stream buffer

LANDUSE2004

Dataset Information

Description:	Ezra Landuse layer
Data Source:	Created from GPS (as builts) and plan information (theoretical) for dispositions added to LSAS since the creation of the AVI.
Date Generated:	April 2004
Processing:	Several components were used for updating roads, pipelines, wellsites, and any other spatial disposition not captured in the AVI.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
LANDUSE#	4,5,B,0	Internal ArcInfo No.		
LANDUSE-ID	4,5,B,0	ArcInfo User Id		
LANDUSE	8,8,C,0	Type of landuse deletion		
			EZE	Easements
			MLL	Misc. Land Leases
			MLP	Misc. Land Permits
			PIPE	Pipelines
			ROAD	Roads
			WELL	Wellsites

MAJRIV_B

Dataset Information

Description:	Major River buffers
Data Source:	Created by buffering P69_MAJ_RIV 60m
Date Generated:	June 2005
Processing:	Arc/Info buffer command.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
MAJRIV_B#	4,5,B,0	Internal ArcInfo No.		
MAJRIV_B-ID	4,5,B,0	ArcInfo User Id		
IN_LAKES_B	3,3,I,0	Buffered Lakes		
			1	Not within lakes buffer
MAJRIV_TYPE	20,20,C,0	River type		
IN_MAJRIV_B	3,3,I,0	Buffered rivers		
			1	Not within major river buffer
			100	Within major river buffer
IN_STREAM_B	3,3,I,0	Buffered streams		
			1	Not within stream buffer

MDFP_SLNET

Dataset Information

Description:	Small rivers and creeks
Data Source:	SRD SLNET coverage
Date Generated:	December 2004
Processing:	Selected from SRD - SLNET coverage where feature_type = STR-PER or OXBOW-PER
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
FNODE#	4,5,B,0	From node number.		
TNODE#	4,5,B,0	To node number		
LPOLY#	4,5,B,0	Poly no. on left.		
RPOLY#	4,5,B,0	Poly no. on right.		
LENGTH	8,18,F,5	Length of arc segment (m.)		
MDFP_SLNET#	4,5,B,0	Internal ArcInfo No.		
MDFP_SLNET-ID	4,5,B,0	ArcInfo User Id		
FEATURE_CODE	10,10,C,0	Cogif code		
			GA20700000	
			GA28362400	
			GA28362530	
			GA28363530	
			GA61700000	
			GA61700200	
			GA61750000	
			GA61750200	
			GA61900000	
			GA61900020	
			GB49800000	
			GB49850000	
			GE15870100	
			GE15870150	
FEATURE_TYPE	30,30,C,0	Hydrology feature type		
			DITCH	
			FLOW-ARB-DEM	
			FLOW-ARB-MANUAL	
			LAKE-REP-PRI	
			OXBOW-PER	
			OXBOW-RECUR	
			RIV-MAJ-REP-PRI	
			RIV-MAJ-REP-SEC	
			STR-INDEF	
			STR-PER	
			STR-RECUR	
NAME	80,80,C,0	Hydrology feature name		
			Botha River	
			Chinchaga River	
			Dryden Creek	
			Faria Creek	
			Friock Creek	
			Gerard Creek	
			Goffit Creek	
			Gravina Creek	
			Haig River	
			Haro Creek	
			Haro River	
			Havet Creek	
			Hotchkiss River	
			Lovet Creek	
			Meikle River	
			Notikewin River	
			Rambling Creek	
			Slims Creek	
			Sloat Creek	
			Stowe Creek	
			Thordarson Creek	
			Vader Creek	
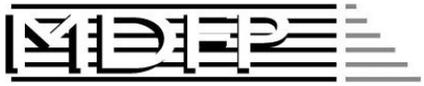
			Waniandy Creek	
PS_FLOW	1,1,C,0			
			P	
			S	
BUFFER	5,5,N,1	Buffer width		
			0.0	No buffer required
			30.0	Buffer distance of 30 m each side

MLL_PNT

Dataset Information

Description:	Additional PNT and MLL last minute additions
Data Source:	Digitized in house
Date Generated:	September 2005
Processing:	Digitized from paper maps
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	1:15,000

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
MLL_PNT#	8,18,F,5	Internal ArcInfo No.		
MLL_PNT-ID	8,18,F,5	ArcInfo User Id		
PNT	12,12,C,0	PNT Number		
			PNT020194	NIVMA Plot
			PNT930344	Understory Protection Research Site
			PNT950022	Spruce Budworm Research Site
LANDUSE_NEW	8,8,C,0	Type of landuse deletion		
			MLL	Misc. Land Leases
			PNT	Protective notation

NSR_1994

Dataset Information

Description:	1994 Natural Subregion coverage
Data Source:	Provincial coverage obtained from MDFP.
Date Generated:	1994
Processing:	None
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
NSR_1994#	4,5,B,0	Internal ArcInfo No.		
NSR_1994-ID	4,5,B,0	ArcInfo User Id		
POLY#	4,5,B,0	Internal Region information		
SUBCLASS	13,13,C,0	Internal Region information		
SUBCLASS#	4,5,B,0	Internal Region information		
NSN	25,25,C,0	Natural subregion name		
			Dry Mixedwood	
			Lower Foothills	
			Wetland Mixedwood	

P6_ALL_PLOTS

Dataset Information

Description:	P6 MDFP Permanent Sample Plots
Data Source:	Greenlink Permanent Sample Plots GPS locations for FMU P6
Date Generated:	2000 - 2002
Processing:	None
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	GPS

Data Dictionary

Column Name	*Type W.D*	*Column*	*Item Value*	*Item Description*
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
P6_ALL_PLOTS#	4,5,B,0	Internal ArcInfo No.		
P6_ALL_PLOTS-ID	4,5,B,0	ArcInfo User Id		

P69_AVI

Dataset Information

Description:	AVI v2.1 coverage for both P6 and P9.
Data Source:	Both input coverages were created by Greenlink in AVI V2.2. Coverages were converted to AVI v2.1 by SRD after approval.
Date	P6 current to 1997 and P9 current to 2000
Processing:	Created by appending P6_AVI_21 and P9_AVI_21 coverages. Furthermore, attributes from NSR_1994, COMPART, TRAPLINE_PV, WILD_MGT, and CBU_2005 were added to the AVI
Data Format:	Arc/Info Coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	Metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Photos @ 1:20,000

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
P69_AVI#	4,5,B,0	Internal ArcInfo No.		
P69_AVI-ID	4,10,B,0	ArcInfo User Id		
ID	10,10,I,0			
FORESTKEY	10,10,I,0	Unique AVI Polygon		
POLY_NUM	10,10,I,0	AVI Polygon Number		
OLDID	4,4,I,0			
SDBID	10,10,I,0			
TRM	6,6,I,0	Township/Range/Meridian		
COMPART	2,5,B,0	Working Circle number		
			0	
			1	Working Circle # 1
			2	Working Circle # 2
			3	Working Circle # 3
			4	Working Circle # 4
			5	Working Circle # 5
			6	Working Circle # 6
WILD_MGT	50,30,C,0	Wildlife management		
			9999	
			Caribou	Caribou management zone
			SpecialAccess	Special access management zone
			Ungulate	Ungulate management zone
NSR_CODE	2,5,B,0	Natural subregion codes		
			0	
			12	Lower Foothills
			2	Wetland Mixedwood
			9	Dry Mixedwood
NSR_NAME	30,30,C,0	Natural subregion names		
			Dry Mixedwood	
			Lower Foothills	
			Wetland Mixedwood	
REG_G_DOM	4,10,B,0	Breeding Region G		
			0	Not within Breeding Region G
			100	Within Breeding Region G
REG_J_DOM	4,10,B,0	Breeding Region J		
			0	Not within Breeding Region J
			100	Within Breeding Region J
CBU_2005	16,16,C	Alternative Patch Management Zone		
			Caribou_2005	Alternative Patch Management Zone

P69_AVI.ATT

Dataset Information

Description:	AVI v2.1 attributes for both P6 and P9.
Data Source:	Both input coverages were created by Greenlink in AVI V2.2. Coverages were converted to AVI v2.1 by SRD after approval.
Date	P6 current to 1997 and P9 current to 2000
Processing:	
Data Format:	
Software Used:	
Projection:	
Datum:	
Units:	
Data Precision:	
Tolerance:	
Scale of Capture:	

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
POLY_NUM	10,10,I,0	AVI Polygon Number		
MOIST_REG	1,1,C,0	Moisture Regime		
			a	Aquatic
			d	Dry
			m	Mesic
			w	Wet
DENSITY	1,1,C,0	Density Code		
			A	6 - 30% crown closure
			B	31 - 50% crown closure
			C	51 - 70% crown closure
			D	71 - 100% crown closure
HEIGHT	4,10,B,0	Height (m)		
SP1	2,2,C,0	Species 1 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
SP1_PER	4,10,B,0	Species 1 Percent		
SP2	2,2,C,0	Species 2 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
SP2_PER	4,10,B,0	Species 2 Percent		
SP3	2,2,C,0	Species 3 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
SP3_PER	4,10,B,0	Species 3 Percent		
SP4	2,2,C,0	Species 4 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch

			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
SP4_PER	4,10,B,0	Species 4 Percent		
SP5	2,2,C,0	Species 5 Code		
SP5_PER	4,10,B,0	Species 5 Percent		
STRUC	1,1,C,0	Structure Code		
			C	51 - 70% crown closure
			H	Horizontal
			M	Multi Storey
STRUC_VAL	4,10,B,0	Structure Percent		
ORIGIN	4,10,B,0	Year of Origin		
TPR	1,1,C,0	Timber Productivity		
			F	Fair
			G	Good
			M	Multi Storey
			U	Unproductive
INITIALS	2,2,C,0	Interpreter Initials		
NFL	2,2,C,0	Non Forest Land Code		
			BR	Bryophyte
			HF	Herbaceous Forb
			HG	Herbaceous Grassland
			SC	Shrub - Closed
			SO	Shrub - Open
NAT_NON	3,3,C,0	Naturally NonForest Code		
			NMC	Cutbank
			NMS	Sand
			NWF	Flooded
			NWI	Ice
			NWL	Lakes
			NWR	Rivers
ANTH_VEG	3,3,C,0	Anthropogenic Vegetated Code		
			CA	Annual Crops
			CIP	Transmission/Pipelines
			CIW	Geophysical Features Seeded
			CP	Perennial Crops
			CPR	Rough Pasture
ANTH_NON	3,3,C,0	Anthropogenic Non Vegetated Code		
			AIF	Farmsteads
			AIG	Gravel Pits
			AIH	Permanent Right-of-Way
MOD1	2,2,C,0	Modifier 1 Code		
			BU	Burn
			CC	Clearcut
			CL	Clearing
			SN	Snag
			ST	Scattered Timber
			TH	Thinning
MOD1_EXT	4,10,B,0	Modifier 1 Extent		
MOD1_YR	4,10,B,0	Modifier 1 Year		
MOD2	2,2,C,0	Modifier 2 Code		
			SC	Shrub - Closed
			SN	Snag
			ST	Scattered Timber
MOD2_EXT	4,10,B,0	Modifier 2 Extent		
MOD2_YR	4,10,B,0	Modifier 2 Year		
DATA	1,1,C,0	Data Reference		
			A	6 - 30% crown closure
			F	Fair
			I	Interpreted TPR
			V	Volume Plot
DATA_YR	4,10,B,0	Data Reference Year		
UMOIST_REG	1,1,C,0	US - Moisture Regime		
			d	Dry
			m	Mesic
			w	Wet
UDENSITY	1,1,C,0	US - Density		
			A	6 - 30% crown closure
			B	31 - 50% crown closure
			C	51 - 70% crown closure
			D	71 - 100% crown closure
UHEIGHT	4,10,B,0	US - Height (m)		
USP1	2,2,C,0	US - Species 1 Code		

			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
USP1_PER	4,10,B,0	US - Species 1 Percent		
USP2	2,2,C,0	US - Species 2 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
USP2_PER	4,10,B,0	US - Species 2 Percent		
USP3	2,2,C,0	US - Species 3 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
USP3_PER	4,10,B,0	US - Species 3 Percent		
USP4	2,2,C,0	US - Species 4 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
USP4_PER	4,10,B,0	US - Species 4 Percent		
USP5	2,2,C,0	US - Species 5 Code		
USP5_PER	4,10,B,0	US - Species 5 Percent		
USTRUC	1,1,C,0	US - Structure Code		
			H	Horizontal
USTRUC_VAL	4,10,B,0	US - Structure Percent		
UORIGIN	4,10,B,0	US - Year of Origin		
UTPR	1,1,C,0	US - Timber Productivity Rating		
			F	Fair
			G	Good
			M	Multi Storey
			U	Unproductive
UINITIALS	2,2,C,0	US - Interpreter Initials		
UNFL	2,2,C,0	US - NonForest Land		
			BR	Bryophyte
			HF	Herbaceous Forb
			HG	Herbaceous Grassland
			SC	Shrub - Closed
			SO	Shrub - Open
UNFL_PER	4,10,B,0	US - NonForest Percent Cover		
UNAT_NON	3,3,C,0	US - Naturally NonForest		
			NWF	Flooded
			NWL	Lakes
			NWR	Rivers
UANTH_VEG	3,3,C,0	US - Anthropogenic Vegetated		
			CIP	Transmission/Pipelines
			CP	Perennial Crops
			CPR	Rough Pasture
UANTH_NON	3,3,C,0	US - Anthropogenic Non Vegetated		
			AIF	Farmsteads
			AIG	Gravel Pits
UMOD1	2,2,C,0	US - Modifier 1 Code		

CL	Clearing
SC	Shrub - Closed
ST	Scattered Timber

UMOD1_EXT	4,10,B,0	US - Modifier 1 Extent
UMOD1_YR	4,10,B,0	US - Modifier 1 Year
UMOD2	2,2,C,0	US - Modifier 2 Code
UMOD2_EXT	4,10,B,0	US - Modifier 2 Extent
UMOD2_YR	4,10,B,0	US - Modifier 2 Year
UDATA	1,1,C,0	US - Data Reference

F	Fair
I	Interpreted TPR

UDATA_YR	4,10,B,0	US - Data Reference Year
TRM	6,6,I,0	Township/Range/Meridian
FORESTKEY	10,10,I,0	Unique AVI Polygon

P69_LAKES

Dataset Information

Description:	AVI Lakes
Data Source:	Extracted from AVI
Date Generated:	Same as AVI
Processing:	Selected from AVI where nat_non = NWL. Removed lakes that will be buffered in SWAN and AVITWIN_LAKES coverages.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	1:20,000

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
P69_LAKES#	4,5,B,0	Internal ArcInfo No.		
P69_LAKES-ID	4,5,B,0	ArcInfo User Id		

P69_MAJRIV

Dataset Information

Description:	Major rivers from avi and SRD hydropolys
Data Source:	Combined from AVI rivers and SRD hydropolys
Date Generated:	Unknown
Processing:	Polygons selected from the AVI where nat_non = NWR and updated from the SRD hydropolys coverage where required.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	1:20,000

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
P69_MAJRIV#	4,5,B,0	Internal ArcInfo No.		
P69_MAJRIV-ID	4,5,B,0	ArcInfo User Id		
IN_LAKES_B	3,3,I,0	Buffered Lakes		
			1	Not within lakes buffer
MAJRIV_TYPE	20,20,C,0	River type		
			OXBOW-PER	Oxbow lakes
			RIV-MAJ	Major rivers
IN_MAJRIV_B	3,3,I,0	Buffered rivers		
			1	Not within major river buffer
IN_STREAM_B	3,3,I,0	Buffered streams		
			1	Not within stream buffer

P69_PSP_B

Dataset Information

Description:	Polygon buffers of MDFP Permanent Sample Plots
Data Source:	Circular buffers of P6_ALL_PLOTS and P9_ALL_PLOTS
Date Generated:	June, 2005
Processing:	Buffers of P6_ALL_PLOTS and P9_ALL_PLOTS then append together. Command line process.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
P69_PSP_B#	4,5,B,0	Internal ArcInfo No.		
P69_PSP_B-ID	4,5,B,0	ArcInfo User Id		
IN_MDFP_PSP_B	3,3,I,0	MDFP PSP Buffers		
			0	Not within MDFP PSP buffer
			100	Within MDFP PSP buffer

P69_RIVBRK

Dataset Information

Description:	River Break deletion coverage
Data Source:	MDFP internal coverage. Digitized from orthophotos using local professional knowledge. Objective is to identify areas with large amount of inoperable slope associated with hydrology features.
Date Generated:	April 2004
Processing:	Appended P6 and P9 coverages into one coverage
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	1:20,000

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
P69_RIVBRK#	4,5,B,0	Internal ArcInfo No.		
P69_RIVBRK-ID	4,5,B,0	ArcInfo User Id		
RIVER_BREAK	5,5,C,0	River Breaks		
			NMZ	Notekewin Management zone
			P6	P6 river breaks
			P9	P9 river breaks

P6WELLS_CUT

Dataset Information

Description:	Oil and Gas non-linear dispositions
Data Source:	LANDBASE2004 coverage where disp_type = MSL and P6wells_indx2 where feature_type = wellsite
Date Generated:	2004 and 2003
Processing:	Selected items from each coverage were unioned together, selection further reduced where wellsite already exists in AVI
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
P6WELLS_CUT#	4,5,B,0	Internal ArcInfo No.		
P6WELLS_CUT-ID	4,5,B,0	ArcInfo User Id		
POLY#	4,5,B,0	Internal Region information		
SUBCLASS	13,13,C,0	Internal Region information		
SUBCLASS#	4,5,B,0	Internal Region information		
RINGS_OK	7,7,I,0	Internal Region information		
RINGS_NOK	7,7,I,0	Internal Region information		
P6WELLS_IN	8,9,F,0			
P6WELLS__1	8,9,F,0			
TILE_NAME	32,32,C,0			
FEATURE_TY	30,30,C,0	Type of feature		
			WELLSITE	Wellsite
QC	30,30,C,0	Quality Control		
			not in AVI	features not in current AVI

P9_ALL_PLOTS

Dataset Information

Description:	P9 MDFP PSP's
Data Source:	Greenlink Permanent Sample Plots GPS locations for FMU P9
Date Generated:	2000 - 2002
Processing:	None
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	GPS

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
P9_ALL_PLOTS#	4,5,B,0	Internal ArcInfo No.		
P9_ALL_PLOTS-ID	4,5,B,0	ArcInfo User Id		

P9_NOTWP

Dataset Information

Description:	P9 AVI v2.1
Data Source:	Interpreted by Greenlink and based on 2000 photos
Date Generated:	2000
Processing:	Standard AVI protocols, originally AVI version 2.2, converted to AVI version 2.1
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	1:20,000 and 1:60,000

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
P9_NOTWP#	4,5,B,0	Internal ArcInfo No.		
P9_NOTWP-ID	4,10,B,0	ArcInfo User Id		
ID	10,10,I,0			
FORESTKEY	10,10,I,0	Unique key for AVI		
POLY_NUM	10,10,I,0	Duplicate of FORESTKEY		
OLDID	4,4,I,0			
SDBID	10,10,I,0			
TRM	6,6,I,0			

ROADS

Dataset Information

Description:	Non-AVI roads
Data Source:	GPS coverages from MDFP and Landuse2004 coverage from Greenlink
Date Generated:	Various
Processing:	Manual process of extracting from Landuse2004 coverage where disp_type = LOC. Roads added from GPS files and removed where already existed in AVI.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
FNODE#	4,5,B,0	From node number.		
TNODE#	4,5,B,0	To node number		
LPOLY#	4,5,B,0	Poly no. on left.		
RPOLY#	4,5,B,0	Poly no. on right.		
LENGTH	8,18,F,5	Length of arc segment (m.)		
ROADS#	4,5,B,0	Internal ArcInfo No.		
ROADS-ID	4,5,B,0	ArcInfo User Id		
DESCRIPTION	50,50,C,0	Description		
			100 road	
			245 Haul road	
			262 Haul road	
			Cran road	
			Final main haul road	
			GRAVELRD	
			MAINRD	
			TRUCKTRAIL	
			UNIMPROVEDRD	
			Vista road	
BUFFER	8,10,F,3	Buffer width		
			0	No buffer required
			10	Buffer distance of 10 m each side
			15	Buffer distance of 15 m each side
			2.5	Buffer distance of 2.5 m each side
			20	Buffer distance of 20 m each side
			3	Buffer distance of 3 m each side
			30	Buffer distance of 30 m each side
			4	Buffer distance of 4 m each side
			5	Buffer distance of 5 m each side
			7.5	Buffer distance of 7.5 m each side
ROAD_SRC	14,14,C,0	Road Source		
			GPS	source = GPS
			GREEN_LINEAR	source = Greenlink linear update
			GREEN_RD_CUT	source = revised Greenlink linear update

ROADS_B

Dataset Information

Description:	Road buffers
Data Source:	Created by buffering road at various widths as specified in BUFFER column
Date Generated:	June 2005
Processing:	Arc/Info buffer command.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
ROADS_B#	4,5,B,0	Internal ArcInfo No.		
ROADS_B-ID	4,5,B,0	ArcInfo User Id		
INSIDE	4,5,B,0	Road buffers		
			1	Not within a road buffer
			100	Within a road buffer

SEISMIC

Dataset Information

Description:	P69 cutline coverage
Data Source:	P6 is from MADP Library - transport layer. P9 is from Greenlink Landuse update. Further updates from Greenlink also added.
Date Generated:	Both base coverages are current to 2003, updates were received May 2005.
Processing:	P6 and P9 coverages were appended together to create one coverage for the FMA.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
FNODE#	4,5,B,0	From node number.		
TNODE#	4,5,B,0	To node number		
LPOLY#	4,5,B,0	Poly no. on left.		
RPOLY#	4,5,B,0	Poly no. on right.		
LENGTH	8,18,F,5	Length of arc segment (m.)		
SEISMIC#	4,5,B,0	Internal ArcInfo No.		
SEISMIC-ID	4,5,B,0	ArcInfo User Id		
DEP_WIDTH	4,3,B,0	Depletion width code		
			0	Width code = 0, class = 0-1m
			1	Width code = 1, class = 2-5m
			2	Width code = 2, class = 6-10m
			3	Width code = 3, class = 11-15m
			4	Width code = 4, class = 16-20m
			5	Width code = 5, class = 21-25m
			6	Width code = 6, class = 26-30m
			99	Width code = Unknown, assumed 8m wide
BUFFER	6,6,N,2	Buffer width		
			0	No buffer required
			1.75	Buffer distance of 1.75 m each side
			11.5	Buffer distance of 11.5 m each side
			14	Buffer distance of 14 m each side
			4	Buffer distance of 4 m each side
			6.5	Buffer distance of 6.5 m each side
			9	Buffer distance of 9 m each side

SRD_PSP

Dataset Information

Description:	SRD Permanent Sample Plots
Data Source:	SRD
Date Generated:	Unknown
Processing:	None
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
SRD_PSP#	4,5,B,0	Internal ArcInfo No.		
SRD_PSP-ID	4,5,B,0	ArcInfo User Id		
PLOT	9,9,C,0	SRD plots		
			1	
			1069	

STREAM_B

Dataset Information

Description: Stream buffers
Data Source: Created by buffering selected features in mdfp_slnet 30m
Date Generated: June 2005
Processing: Arc/Info buffer command.
Data Format: Arc/Info coverage
Software Used: ESRI ArcGIS
Projection: UTM Zone 11
Datum: NAD 83
Units: metres
Data Precision: Double
Tolerance: Fuzzy @ 0.001
Scale of Capture: N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
STREAM_B#	4,5,B,0	Internal ArcInfo No.		
STREAM_B-ID	4,5,B,0	ArcInfo User Id		
IN_LAKES_B	3,3,I,0	Buffered lakes		
			1	Not within lakes buffer
MAJRIV_TYPE	20,20,C,0	River type		
IN_MAJRIV_B	3,3,I,0	Buffered rivers		
			1	Not within major river buffer
IN_STREAM_B	3,3,I,0	Buffered streams		
			1	Not within stream buffer
			100	Within stream buffer

SWAN

Dataset Information

Description:	Trumpeter Swan Lakes
Data Source:	Extracted from EOS dataset
Date Generated:	Unknown
Processing:	Extracted from EOS Dataset where scomname = trumpeter swan (outline follows outline of lakes in AVI)
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
SWAN#	4,5,B,0	Internal ArcInfo No.		
SWAN-ID	4,5,B,0	ArcInfo User Id		
BUFFER	6,6,N,1	Buffer width		
			0.0	No buffer required
			200.0	Buffer distance of 200 m
SWAN	3,3,C,0	Swan lakes		
			Y	Within a swan lake

SWAN_B

Dataset Information

Description:	Trumpter Swan Lakes buffer
Data Source:	Created by buffering SWAN 200m
Date Generated:	June 2005
Processing:	Arc/Info buffer command.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
SWAN_B#	4,5,B,0	Internal ArcInfo No.		
SWAN_B-ID	4,5,B,0	ArcInfo User Id		
IN_SWAN_B	4,5,B,0	Swan lake buffers		
			1	Not within a swan lake buffer
			100	Within a swan lake buffer

TRAPLINE_PV

Dataset Information

Description:	Fur management areas
Data Source:	From SRD - RFMA coverage
Date Generated:	January 2004
Processing:	Converted from dgn to coverage by TFC and projected to UTM Zone 11 - NAD 83 CNT. Some corrections were done on consultation with MDFP and SRD.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
TRAPLINE_PV#	4,5,B,0	Internal ArcInfo No.		
TRAPLINE_PV-ID	4,5,B,0	ArcInfo User Id		
TRAPLINE	4,10,B,0	Fur Management areas		
			0	No trapline
			1233	
			1236	
			1246	
			1258	
			1347	
			1397	
			1510	
			1514	
			1539	
			1601	
			1603	
			1655	
			1731	
			1755	
			1971	
			2031	
			2049	
			2147	
			2187	
			2208	
			2250	
			2269	
			2284	
			2303	
			2325	
			2357	
			2362	
			2364	
			2442	
			2478	
			2490	
			2596	
			2712	
			2758	
			2808	
			2809	

TWIN_LODGE

Dataset Information

Description:	Twin Lodge MLL
Data Source:	AVI
Date Generated:	Same as AVI
Processing:	Extracted polygon FORESTKEY = 972250504 from AVI with intent of buffering.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	1:20,000

Data Dictionary

Column Name	*Type W.D*	*Column*	*Item Value*	*Item Description*
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
TWIN_LODGE#	4,5,B,0	Internal ArcInfo No.		
TWIN_LODGE-ID	4,5,B,0	ArcInfo User Id		
AVI_21_	8,9,F,0			
AVI_21_ID	8,9,F,0			
			0	
			972250504	AVI forestkey that identifies Twin Lodge

TWINLGE_B

Dataset Information

Description:	Twin Lakes Lodge management zone
Data Source:	Created by buffering TWIN_LODGE 100m
Date Generated:	June 2005
Processing:	Arc/Info buffer command.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
TWINLGE_B#	4,5,B,0	Internal ArcInfo No.		
TWINLGE_B-ID	4,5,B,0	ArcInfo User Id		
IN_TWINLGE_B	4,5,B,0	Twin Lake Lodge buffer		
			1	Not within Twin Lodge deletion
			100	Within Twin Lodge deletion

TWINLK_B

Dataset Information

Description:	Twin Lakes buffer
Data Source:	Created by buffering AVITWIN_LAKES 200m
Date Generated:	June 2005
Processing:	Arc/Info buffer command.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
TWINLK_B#	4,5,B,0	Internal ArcInfo No.		
TWINLK_B-ID	4,5,B,0	ArcInfo User Id		
IN_TWINLK_B	4,5,B,0	Twin Lake buffer		
			1	Not within Twin lake deletion buffer
			100	Within Twin lake deletion buffer

TWINLK_REC

Dataset Information

Description:	Twin Lakes recreation area
Data Source:	Data provided by Parks and Protected Areas Division, Alberta Community Development
Date Generated:	June 2004
Processing:	Projected from 10TM to UTM Zone 11 - NAD 83
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
TWINLK_REC#	4,5,B,0	Internal ArcInfo No.		
TWINLK_REC-ID	4,5,B,0	ArcInfo User Id		
REC	40,40,C,0	Recreation areas		
			Twin Lakes	Twin lakes recreation area
TYPE	9,9,C,0	Recreation area type		
			PRA	Provincial Recreation Area

TWISTEDBOG

Dataset Information

Description:	Twisted Bog Moss management zone
Data Source:	Extracted from EOS dataset
Date Generated:	Unknown
Processing:	Extracted from EOS Dataset where scomname = twisted bog moss
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
TWISTEDBOG#	4,5,B,0	Internal ArcInfo No.		
TWISTEDBOG-ID	4,5,B,0	ArcInfo User Id		
POLY#	4,5,B,0	Internal Region information		
SUBCLASS	13,13,C,0	Internal Region information		
SNAME	254,254,C,0	Scientific name		
			Sphagnum contortum	Within twisted bog moss management zone
BOG	254,254,C,0	Twisted bog area		
			twisted bog moss	Within twisted bog moss management zone

WATERSHED

Dataset Information

Description:	Watershed boundaries
Data Source:	Digitized by MDFP
Date Generated:	Approved June 2005
Processing:	None
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
WATERSHED#	4,5,B,0	Internal ArcInfo No.		
WATERSHED-ID	4,5,B,0	ArcInfo User Id		
SUBCLASS	13,13,C,0	Internal Region information		
		WATERSHED_REG		
WSHED_ID	4,3,B,0	Watershed number		
			0	Not within an identified watershed
			1	
			10	
			11	
			12	
			13	
			14	
			15	
			16	
			17	
			18	
			19	
			2	
			3	
			4	
			5	
			6	
			7	
			8	
			9	

WILD_MGT

Dataset Information

Description:	Wildlife management zones
Data Source:	SRD Provincial layer originally called 'Wildlife'
Date Generated:	unknown
Processing:	Selected set where type = CARIBOU or UNGULATE or SPECIAL ACCESS
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	Unknown

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
WILD_MGT#	4,5,B,0	Internal ArcInfo No.		
WILD_MGT-ID	4,5,B,0	ArcInfo User Id		
TYPE	16,16,C,0	Wildlife management zone		
			Caribou	Caribou management zone
			SpecialAccess	Special access management zone
			Ungulate	Ungulate management zone

Z_HYDRO

Dataset Information

Description:	Unioned and dissolved hydro buffers (streams, rivers and lakes)
Data Source:	MAJRIV_B, LAKE_B and STREAM_B coverages.
Date Generated:	June 2005
Processing:	Union input from MAJRIV_B, LAKE_B and STREAM_B coverages.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
Z_HYDRO#	4,5,B,0	Internal ArcInfo No.		
Z_HYDRO-ID	4,5,B,0	ArcInfo User Id		
IN_LAKES_B	3,3,I,0	Buffered Lakes		
			1	Not within lakes buffer
			100	Within lakes buffer
MAJRIV_TYPE	20,20,C,0	River type		
			OXBOW-PER	Oxbow lakes
			RIV-MAJ	Major rivers
IN_MAJRIV_B	3,3,I,0	Buffered rivers		
			1	Not within major river buffer
			100	Within major river buffer
IN_STREAM_B	3,3,I,0	Buffered streams		
			1	Not within stream buffer
			100	Within stream buffer
ISOLATED_HA	4,9,F,2	Area of original isolated polygon		

Z_LANDUSE

Dataset Information

Description:	Unioned and dissolved landuse (roads, pipelines)
Data Source:	ROAD_B, PIPE_B and LANDUSE2004
Date Generated:	June 2005
Processing:	Union process combining ROAD_B, PIPE_B and LANDUSE2004 where features are not found in the AVI. These features are then assigned a hierarchy and dissolved where overlapped to reduce slivers in the final landbase.
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
Z_LANDUSE#	4,5,B,0	Internal ArcInfo No.		
Z_LANDUSE-ID	4,5,B,0	ArcInfo User Id		
LANDUSE	8,8,C,0	Type of landuse deletion		
			EZE	Easements
			MLL	Misc. Land Leases
			MLP	Misc. Land Permits
			PIPE	Pipelines
			PNT	Protective notation
			ROAD	Roads
			WELL	Wellsites
PNT	12,12,C,0	PNT Number		
			PNT020194	NIVMA Plot
			PNT930344	Understory Protection Research Site
			PNT950022	Spruce Budworm Research Site

Appendix VI Data Dictionary for CLS Landbase

P16_LB4_CLS

Dataset Information

Description:	Result of Multi-union process
Data Source:	Multiple coverages
Date	October 2005
Processing:	Multiunion process, as described in Section 3
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
P16_LB4_CLS#	4,5,B,0	Internal ArcInfo No.		
P16_LB4_CLS-ID	4,5,B,0	ArcInfo User Id		
UKEY4_TMP	10,10,I,0	Unique Key - initial key to assign attributes		
UKEY4_TSA	10,10,I,0	Unique Key - after arc elimination		
UKEY4	10,10,I,0	Unique Key - after union with seismic		
SNAME	254,254,C,0	Scientific name		
			Sphagnum contortum	Within twisted bog moss management zone
BOG	254,254,C,0	Twisted bog area		
			twisted bog moss	Within twisted bog moss management zone
IN_GOVT_PSP_B	2,5,B,0	Inside PSP buffer		
			0	Not within a SRD PSP buffer
			100	Within a SRD PSP buffer
IN_MDFP_PSP_B	3,3,I,0	MDFP PSP Buffers		
			0	Not within MDFP PSP buffer
			100	Within MDFP PSP buffer
RIVER_BREAK	5,5,C,0	River Breaks		
			NMZ	Notekewin Management zone
			P6	P6 river breaks
			P9	P9 river breaks
IN_SWAN_B	4,5,B,0	Swan lake buffers		
			1	Not within a swan lake buffer
			100	Within a swan lake buffer
IN_TWINLK_B	4,5,B,0	Twin Lake buffer		
			1	Not within Twin lake deletion buffer
			100	Within Twin lake deletion buffer
IN_TWINLGE_B	4,5,B,0	Twin Lake Lodge buffer		
			1	Not within Twin Lodge deletion
			100	Within Twin Lodge deletion
REC	40,40,C,0	Recreation areas		
			Twin Lakes	Twin lakes recreation area
TYPE	9,9,C,0	Recreation area type		
			PRA	Provincial Recreation Area
INSIDE_BLK	3,3,I,0	Defines inside block		
			0	Not inside a block
			1	Not inside a block
			100	Within a block
OPENING	15,15,C,0	Opening Number		
BLK_ID	25,25,C,0	Block Id field		
HARV_YR	4,4,I,0	Harvest Year		
			0	Not harvested
			1940	
			1966	
			1967	
			1968	
			1969	

			1970	
			1971	
			1972	
			1973	
			1975	
			1978	
			1980	
			1983	
			1984	
			1987	
			1992	
			1993	
			1997	
			1998	
			1999	
			2000	
			2001	
			2002	
			2003	
			2004	
HARV_NOTE	25,25,C,0	Note		
			Andy provided new op	
			CONTINGENCY	Contingency block
			DMI - PLANNED	DMI planned block
			DMI - Understory Pro	
			DMI BLOCK	DMI existing block
			MDFP BLOCK	MDFP existing block
			Planned	Planned block
			SWAP - DMI to MDFP	Swap from DMI to MDFP
			SWAP - MDFP to DMI	Swap from MDFP to DMI
COMPANY	16,16,C,0	Company With Liability		
			CANFOR	Canadian Forest Products Ltd.
			DMI	Daishowa-Marubeni International Ltd.
			MDFP	Manning Diversified Forest Products Ltd.
BLK_SRC	25,25,C,0	Block Source		
			ANDY BLOCK UPDATE	Block updated by MDFP
			GREENLINK BLOCK UPDA	
MDFP_STRATA	8,8,C,0	Strata Assignment		
			AVI	Strata to be based on AVI call
			CD	Conifer dominated Mixedwood
			CD-2000	Conifer dominated Mixedwood
			D	Deciduous
			D-2000	Deciduous
			DC	Deciduous dominated Mixedwood
			DC-2000	Deciduous dominated Mixedwood
			Pl	Lodgepole Pine leading Conifer
			Sw	White Spruce leading Conifer
TREATMENT	3,3,C,0	Treatment Applied		
			CC	Clearcut
			PL	Planned Block
			PT	Understory Protection
HWY_MGT	4,5,B,0	Indicates highway management zone		
			1	Not within Highway Management zone
			100	Within Highway management zone
FIRENUMBER	12,12,C,0			
FIRE_YEAR	4,4,B,0	Year of fire occurrence		
			0	No Fire
			2002	
			2003	
			2004	
TRAPLINE	4,10,B,0	Fur Management areas		
			0	No trapline
			1233	
			1236	
			1246	
			1258	
			1347	
			1397	
			1510	
			1514	
			1539	
			1601	
			1603	
			1655	
			1731	
			1755	
			1971	

2031
2049
2147
2187
2208
2250
2269
2284
2303
2325
2357
2362
2364
2442
2478
2490
2596
2712
2758
2808
2809

Field	Format	Description	Code	Value
WSHED_ID	4,3,B,0	Watershed number		
			0	Not within an identified watershed
			1	
			10	
			11	
			12	
			13	
			14	
			15	
			16	
			17	
			18	
			19	
			2	
			3	
			4	
			5	
			6	
			7	
			8	
			9	
LANDUSE	8,8,C,0	Type of landuse deletion		
			EZE	Easements
			MLL	Misc. Land Leases
			PIPE	Pipelines
			PNT	Protective notation
			ROAD	Roads
			WELL	Wellsites
PNT	12,12,C,0	PNT Number		
			PNT020194	NIVMA Plot
			PNT930344	Understory Protection Research Site
			PNT950022	Spruce Budworm Research Site
IN_LAKES_B	3,3,I,0	Buffered Lakes		
			1	Not within lakes buffer
			100	Within lakes buffer
MAJRIV_TYPE	20,20,C,0	River type		
			OXBOW-PER	Oxbow lakes
			RIV-MAJ	Major rivers
IN_MAJRIV_B	3,3,I,0	Buffered rivers		
			0	Not within major river buffer
			1	Not within major river buffer
			100	Within major river buffer
IN_STREAM_B	3,3,I,0	Buffered streams		
			0	Not within stream buffer
			1	Not within stream buffer
			100	Within stream buffer
ISOLATED_HA	4,9,F,2	Area of original isolated polygon		
ID	10,10,I,0			
FORESTKEY	10,10,I,0	Unique AVI Polygon		
POLY_NUM	10,10,I,0	AVI Polygon Number		
OLDID	4,4,I,0			
SDBID	10,10,I,0			
TRM	6,6,I,0	Township/Range/Meridian		
COMPART	2,5,B,0	Working Circle number		
			0	
			1	Working Circle # 1

			2	Working Circle # 2
			3	Working Circle # 3
			4	Working Circle # 4
			5	Working Circle # 5
			6	Working Circle # 6
NSR_CODE	2,5,B,0	Natural subregion codes		
			0	
			12	Lower Foothills
			2	Wetland Mixedwood
			9	Dry Mixedwood
NSR_NAME	30,30,C,0	Natural subregion names		
		Dry Mixedwood		
		Lower Foothills		
		Wetland Mixedwood		
WILD_MGT	50,30,C,0	Wildlife management		
		9999		
		Caribou		Caribou management zone
		SpecialAccess		Special access management zone
		Ungulate		Ungulate management zone
REG_G_DOM	4,10,B,0	Breeding Region G		
			0	Not within Breeding Region G
			100	Within Breeding Region G
REG_J_DOM	4,10,B,0	Breeding Region J		
			0	Not within Breeding Region J
			100	Within Breeding Region J
CBU_2005	16,16,C	Alternative Patch Management Zone		
		Caribou_2005		Alternative Patch Management Zone
FMU	8,8,C,0	FMU number		
			P6	P6 FMU
			P9	P9 FMU
MSP1	2,2,C,0	Modified Species 1 Code		
			AW	Trembling Aspen
			BW	White Birch
			LT	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MSPPER1	4,10,B,0	Modified Species 1		
MSP2	2,2,C,0	Modified Species 2 Code		
			AW	Trembling Aspen
			BW	White Birch
			LT	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MSPPER2	4,10,B,0	Modified Species 2		
MSP3	2,2,C,0	Modified Species 3 Code		
			AW	Trembling Aspen
			BW	White Birch
			Lt	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MSPPER3	4,10,B,0	Modified Species 3		
MSP4	2,2,C,0	Modified Species 4 Code		
			AW	Trembling Aspen
			BW	White Birch
			LT	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MSPPER4	4,10,B,0	Modified Species 4		
MSP5	2,2,C,0	Modified Species 5 Code		
			AW	Trembling Aspen
			BW	White Birch
			LT	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MSPPER5	4,10,B,0	Modified Species 5		
MHEIGHT	4,10,B,0	Modified Height (m)		
MDENSITY	1,1,C,0	Modified Density Code		
			A	6 - 30% crown closure

			B	31 - 50% crown closure
			C	51 - 70% crown closure
			D	71 - 100% crown closure
MTPR	1,1,C,0	Modified Timber Productivity Rating		
			F	Fair
			G	Good
			M	Multi Storey
			U	Unproductive
MORIGIN	4,10,B,0	Modified Year of Origin		
MUSP1	2,2,C,0	Modified US - Species 1 Code		
			AW	Trembling Aspen
			BW	White Birch
			LT	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MUSPPER1	4,10,B,0	Modified US - Species 1 Percent		
MUSP2	2,2,C,0	Modified US - Species 2 Code		
			AW	Trembling Aspen
			BW	White Birch
			LT	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MUSPPER2	4,10,B,0	Modified US - Species 2 Percent		
MUSP3	2,2,C,0	Modified US - Species 3 Code		
			AW	Trembling Aspen
			BW	White Birch
			LT	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MUSPPER3	4,10,B,0	Modified US - Species 3 Percent		
MUSP4	2,2,C,0	Modified US - Species 4 Code		
			AW	Trembling Aspen
			BW	White Birch
			LT	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MUSPPER4	4,10,B,0	Modified US - Species 4 Percent		
MUSP5	2,2,C,0	Modified US - Species 5 Code		
			AW	Trembling Aspen
			BW	White Birch
			LT	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MUSPPER5	4,10,B,0	Modified US - Species 5 Percent		
MUHEIGHT	4,10,B,0	Modified US - Height (m)		
MUDENSITY	1,1,C,0	Modified US - Density		
			A	6 - 30% crown closure
			B	31 - 50% crown closure
			C	51 - 70% crown closure
			D	71 - 100% crown closure
MUTPR	1,1,C,0	Modified US - Timber Productivity Rating		
			F	Fair
			G	Good
			M	Multi Storey
			U	Unproductive

MUORIGIN	4,10,B,0	Modified US - Year of		
CONIFER	16,16,F,4	Total Conifer Percent		
DECID	16,16,F,4	Total Deciduous Percent		
UCONIFER	16,16,F,4	US - Total Conifer Percent		
UDECID	16,16,F,4	US - Total Deciduous		
STORY_USED	8,18,F,4	Story used for defining		
			0	Non-Forested or A-density deletion
			1	Layer 1 only
			2	Layer 2 becomes defining layer
			3	Layer 1 is used with Layer 2 understory
STR_GRP	8,8,C,0	Strata Group		
			C	Conifer
			CD	Conifer Mixedwood
			CD/U	Conifer Mixedwood with Understory
			D	Deciduous
			D/U	Deciduous with Understory
			DC	Deciduous Mixedwood
			DC/U	Deciduous Mixedwood with Understory
USTR_GRP	8,8,C,0	US - Strata Group		
			C	Conifer
			CD	Conifer Mixedwood
			D	Deciduous
			D/U	Deciduous with Understory
			DC	Deciduous Mixedwood
LEADSP	2,2,C,0	Leading conifer species		
			FB	Balsam Fir
			LT	Larch
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
D_SUBJ	9,9,C,0	Subjective deletions		
			ADEN	A Density stands
			LARCH	Larch stands
			SBLEAD	Sb leading and TPR < G
			WETLAND	Wetland areas
D_TPR	1,1,C,0	Timber Productivity		
			F	Decid TPR = U or F
			U	Unproductive stands
D_BUF	8,8,C,0	Water Buffer deletions		
			RIVBK	River Breaks
			SWAN	Swan Lake Buffers
			WBUF	Water Buffers
D_STATUS	8,8,C,0	Patented land deletions		
			PATENT	Protected areas
			PSP	SRD PSP Buffers
D_BURN	8,8,C,0	Recent Burn deletions		
			BURN	Recent Burns
D_ACCESS	8,8,C,0	Road and Pipeline		
			PIPE	Pipelines
			ROAD	Roads
D_SEISMIC	8,8,C,0	Seismic deletions		
			SEISMIC	Seismic Lines
D_NONFOR	8,8,C,0	Non-Forested deletions		
			ANTHRO	Anthropogenic Non-Vegetated
			NNF	Non-Forested
			NNV	Naturally Non-Vegetated
			WATER	Water Body
D_ISO	8,8,C,0	Isolated stand deletions		
			ISO	Isolated stands
F_MGT	8,8,C,0	Special Management		
			HWY	Highway Management Zone
			NMZ	Notekewin Habitat Zone
			PSP	MDFP PSP plots
			TBM	Twisted Bog Moss Zone
			TLG	Twin Lake Lodge Management Zone
F_WILD	8,8,C,0	Wildlife Management		
			CBU	Caribou Zone
			UNG	Ungulate Zone
			WSA	Wildlife Special Access Zone
F_DEL1	8,8,C,0	Summary of deletions without Seismic		
			ADEN	A Density stands
			ANTHRO	Anthropogenic Non-Vegetated
			BURN	Recent Burns
			F	Decid TPR = U or F
			ISO	Isolated stands
			LARCH	Larch stands
			NNF	Non-Forested

			NNV	Naturally Non-Vegetated
			NONE	Not a Deletion
			PATENT	Protected areas
			PIPE	Pipelines
			PSP	SRD PSP Buffers
			RIVBK	River Breaks
			ROAD	Roads
			SBLEAD	Sb leading and TPR < G
			SWAN	Swan Lake Buffers
			U	Unproductive stands
			WATER	Water Body
			WBUF	Water Buffers
			WETLAND	Wetland areas
F_DEL	8,8,C,0	Summary of deletions including Seismic		
			ADEN	A Density stands
			ANTHRO	Anthropogenic Non-Vegetated
			BURN	Recent Burns
			F	Decid TPR = U or F
			ISO	Isolated stands
			LARCH	Larch stands
			NNF	Non-Forested
			NNV	Naturally Non-Vegetated
			NONE	Not a Deletion
			PATENT	Protected areas
			PIPE	Pipelines
			PSP	SRD PSP Buffers
			RIVBK	River Breaks
			ROAD	Roads
			SBLEAD	Sb leading and TPR < G
			SEISMIC	Seismic Lines
			SWAN	Swan Lake Buffers
			U	Unproductive stands
			WATER	Water Body
			WBUF	Water Buffers
			WETLAND	Wetland areas
F_YC	8,8,C,0	Modeling Species Strata		
			CD	Conifer Mixedwood
			CDU	Conifer Mixedwood with Understory
			D	Deciduous
			DC	Deciduous Mixedwood
			DCU	Deciduous Mixedwood with Understory
			DU	Deciduous with Understory
			NONE	No strata assigned
			PL	Lodgepole Pine Leading Conifer
			SB	Black Spruce Leading Conifer
			SW	White Spruce Leading Conifer
			XCC	Historical Cutblock without a strata
F_DEN	8,8,C,0	Modeling Density		
			B	B density Stands
			CD	C and D density stands
			NONE	No density assigned
LANDBASE	8,8,C,0	Landbase		
			CONIF	Coniferous Landbase
			DECID	Deciduous Landbase
			NONE	No Landbase assigned
F_AGE	2,5,B,0	Stand Age in Years		
F_AGECLASS	8,8,C,0	Stand Age classes		
			101-140	
			1-20	
			140+	
			21-40	
			41-60	
			61-100	
			NONE	No age class assigned
AREA_HA	14,14,N,6	Area in Hectares		
IN_CUT_B	4,5,B,0	Inside cutlines		
			1	Not within a seismic buffer
			100	Within a seismic buffer
POLY_NUM	10,10,I,0	AVI Polygon Number		
MOIST_REG	1,1,C,0	Moisture Regime		
			a	Aquatic
			d	Dry
			m	Mesic
			w	Wet
DENSITY	1,1,C,0	Density Code		
			A	6 - 30% crown closure
			B	31 - 50% crown closure

			C	51 - 70% crown closure
			D	71 - 100% crown closure
HEIGHT	4,10,B,0	Height (m)		
SP1	2,2,C,0	Species 1 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
SP1_PER	4,10,B,0	Species 1 Percent		
SP2	2,2,C,0	Species 2 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
SP2_PER	4,10,B,0	Species 2 Percent		
SP3	2,2,C,0	Species 3 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
SP3_PER	4,10,B,0	Species 3 Percent		
SP4	2,2,C,0	Species 4 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
SP4_PER	4,10,B,0	Species 4 Percent		
SP5	2,2,C,0	Species 5 Code		
SP5_PER	4,10,B,0	Species 5 Percent		
STRUC	1,1,C,0	Structure Code		
			C	51 - 70% crown closure
			H	Horizontal
			M	Multi Storey
STRUC_VAL	4,10,B,0	Structure Percent		
ORIGIN	4,10,B,0	Year of Origin		
TPR	1,1,C,0	Timber Productivity		
			F	Fair
			G	Good
			M	Multi Storey
			U	Unproductive
INITIALS	2,2,C,0	Interpreter Initials		
NFL	2,2,C,0	Non Forest Land Code		
			BR	Bryophyte
			HF	Herbaceous Forb
			HG	Herbaceous Grassland
			SC	Shrub - Closed
			SO	Shrub - Open
NAT_NON	3,3,C,0	Naturally NonForest Code		
			NMC	Cutbank
			NMS	Sand
			NWF	Flooded
			NWI	Ice
			NWL	Lakes
			NWR	Rivers
ANTH_VEG	3,3,C,0	Anthropogenic Vegetated Code		
			CA	Annual Crops
			CIP	Transmission/Pipelines

			CIW	Geophysical Features Seeded
			CP	Perennial Crops
			CPR	Rough Pasture
ANTH_NON	3,3,C,0	Anthropogenic Non Vegetated Code		
			AIF	Farmsteads
			AIG	Gravel Pits
			AIH	Permanent Right-of-Way
MOD1	2,2,C,0	Modifier 1 Code		
			BU	Burn
			CC	Clearcut
			CL	Clearing
			SN	Snag
			ST	Scattered Timber
			TH	Thinning
MOD1_EXT	4,10,B,0	Modifier 1 Extent		
MOD1_YR	4,10,B,0	Modifier 1 Year		
MOD2	2,2,C,0	Modifier 2 Code		
			SC	Shrub - Closed
			SN	Snag
			ST	Scattered Timber
MOD2_EXT	4,10,B,0	Modifier 2 Extent		
MOD2_YR	4,10,B,0	Modifier 2 Year		
DATA	1,1,C,0	Data Reference		
			A	6 - 30% crown closure
			F	Fair
			I	Interpreted TPR
			V	Volume Plot
DATA_YR	4,10,B,0	Data Reference Year		
UMOIST_REG	1,1,C,0	US - Moisture Regime		
			d	Dry
			m	Mesic
			w	Wet
UDENSITY	1,1,C,0	US - Density		
			A	6 - 30% crown closure
			B	31 - 50% crown closure
			C	51 - 70% crown closure
			D	71 - 100% crown closure
UHEIGHT	4,10,B,0	US - Height (m)		
USP1	2,2,C,0	US - Species 1 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
USP1_PER	4,10,B,0	US - Species 1 Percent		
USP2	2,2,C,0	US - Species 2 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
USP2_PER	4,10,B,0	US - Species 2 Percent		
USP3	2,2,C,0	US - Species 3 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
USP3_PER	4,10,B,0	US - Species 3 Percent		
USP4	2,2,C,0	US - Species 4 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar

			Pj	Jack Pine	
			Pl	Lodgepole Pine	
			Sb	Black Spruce	
			Sw	White Spruce	
USP4_PER	4,10,B,0	US - Species 4 Percent			
USP5	2,2,C,0	US - Species 5 Code			
USP5_PER	4,10,B,0	US - Species 5 Percent			
USTRUC	1,1,C,0	US - Structure Code			
			H	Horizontal	
USTRUC_VAL	4,10,B,0	US - Structure Percent			
UORIGIN	4,10,B,0	US - Year of Origin			
UTPR	1,1,C,0	US - Timber Productivity Rating			
			F	Fair	
			G	Good	
			M	Multi Storey	
			U	Unproductive	
UINITIALS	2,2,C,0	US - Interpreter Initials			
UNFL	2,2,C,0	US - NonForest Land			
			BR	Bryophyte	
			HF	Herbaceous Forb	
			HG	Herbaceous Grassland	
			SC	Shrub - Closed	
			SO	Shrub - Open	
UNFL_PER	4,10,B,0	US - NonForest Percent Cover			
UNAT_NON	3,3,C,0	US - Naturally NonForest			
			NWF	Flooded	
			NWL	Lakes	
			NWR	Rivers	
UANTH_VEG	3,3,C,0	US - Anthropogenic Vegetated			
			CIP	Transmission/Pipelines	
			CP	Perennial Crops	
			CPR	Rough Pasture	
UANTH_NON	3,3,C,0	US - Anthropogenic Non Vegetated			
			AIF	Farmsteads	
			AIG	Gravel Pits	
UMOD1	2,2,C,0	US - Modifier 1 Code			
			CL	Clearing	
			SC	Shrub - Closed	
			ST	Scattered Timber	
UMOD1_EXT	4,10,B,0	US - Modifier 1 Extent			
UMOD1_YR	4,10,B,0	US - Modifier 1 Year			
UMOD2	2,2,C,0	US - Modifier 2 Code			
UMOD2_EXT	4,10,B,0	US - Modifier 2 Extent			
UMOD2_YR	4,10,B,0	US - Modifier 2 Year			
UDATA	1,1,C,0	US - Data Reference			
			F	Fair	
			I	Interpreted TPR	
UDATA_YR	4,10,B,0	US - Data Reference Year			
TRM	6,6,I,0	Township/Range/Meridian			
FORESTKEY	10,10,I,0	Unique AVI Polygon			

Appendix VII Data Dictionary for TSA Landbase and Associated Files

ADD_PREBLOCKS

Dataset Information

Description:	List of AVI polygons to either preblock or defer.
Data Source:	Created in Oracle
Date Generated:	April 2007
Processing:	Oracle Code
Data Format:	Oracle Table
Software Used:	Oracle
Projection:	N/A
Datum:	N/A
Units:	N/A
Data Precision:	N/A
Tolerance:	N/A
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
FORESTKEY	10,10,I,0	Unique AVI polygon		
PREBLOCK	6,6,C,0	Flag to preblock or defer		
			n	Polygons to defer
			y	Polygons to add
DEFER	6,6,I,0	Years to defer		
			0	no deferral
			10	defer 10 years
			20	defer 20 years
COMMENTX	25,25,C,0	Comment field		
			Added March20 2007	
			added March20 2007	
			added_Dec 2006	
			Blowdown	
			cut2006	
			delay10	
			delay20	
			edited_Dec 2006	
			Field	
			manual deferrals Jan 2007	
			Original	
			P9	
ORIGORDER	6,6,C,0	Original order from MDFP spreadsheet		

OPUNITS

Dataset Information

Description:	Operating Units
Data Source:	Created in Oracle
Date Generated:	April 2007
Processing:	Manually selected from P16_LB4_TSA coverage
Data Format:	Oracle Table
Software Used:	Oracle
Projection:	N/A
Datum:	N/A
Units:	N/A
Data Precision:	N/A
Tolerance:	N/A
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
UKEY4_TSA	10,10,I,0	Unique Key - after Arc elimination		
OPUNIT	5,5,I,0	Operating unit - within each compartment		
			0	
			1	
			2	
			3	
			4	
			5	

P16_LB4_TSA_NET_AREA

Dataset Information

Description:	Contains polygon areas reduced by seismic area
Data Source:	Created in Oracle
Date Generated:	April 2007
Processing:	Oracle Code
Data Format:	Oracle Table
Software Used:	Oracle
Projection:	N/A
Datum:	N/A
Units:	N/A
Data Precision:	N/A
Tolerance:	N/A
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
UKEY4_TSA	10,10,I,0	Unique Key - After Arc elimination		
AREAHA_PW	10,10,I,0	Area reduced for Seismic		

P16_LB4_TSA_OUTPUT

Dataset Information

Description:	Oracle table with all modeling fields
Data Source:	Created in Oracle
Date Generated:	April 2007
Processing:	Oracle Code
Data Format:	Oracle Table
Software Used:	Oracle
Projection:	N/A
Datum:	N/A
Units:	N/A
Data Precision:	N/A
Tolerance:	N/A
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
UKEY4_TSA	10,10,I,0	Unique Key - after arc elimination		
THEME1	8,8,C,0	Theme1 - Landbase		
			CONIF	Coniferous Landbase
			DECID	Deciduous Landbase
			NONE	Non-Forested
THEME2	8,8,C,0	Theme2 - FMU		
			NONE	Outside FMA (slivers)
			P6	FMU P6
			P9	FMU P9
THEME3	8,8,C,0	Theme3 - Species Strata		
			CD	Conifer leading Mixedwood
			CDU	Conifer leading Mixedwood with understor
			D	Deciduous
			DC	Deciduous leading Mixedwood
			DCU	Deciduous leading Mixedwood with underst
			DUSW	Deciduous with White Spruce understory
			DUX	Deciduous with other conifer understory
			GRASS	Grass
			NONE	No strata defined
			NV	Non-vegetated
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
			WATER	Water bodies
			XCC	Harvested blocks without strata
THEME4	8,8,C,0	Theme4 - Density		
			A_X	A overstory - no understory
			B_A	B overstory with A understory
			B_B	B overstory with B understory
			B_CD	B overstory with CD understory
			B_X	B overstory - no understory
			CD_A	CD overstory with A understory
			CD_B	CD overstory with B understory
			CD_CD	CD overstory with CD understory
			CD_X	CD overstory - no understory
			NONE	No Density defined
THEME5	8,8,C,0	Theme5 - Active Landbase		
			NONOP	Passive landbase
			OPER	Active landbase
THEME6	8,8,C,0	Theme6 - Harvest State		
			CC	Clearcut historical blocks
			CCPRE	Pre-91 historical blocks
			NONE	No harvest action
			PLANNED	Blocks planned for years 2007+
			PREPLAN	Blocks planned for years 2005 and 2006
			PROT	Understory Protection
THEME7	8,8,C,0	Theme7 - Breeding		
			BOTH	Within both G2 and J breeding regions
			G	Only within G2 breeding region

			J	Only within J breeding region
			NONE	Not within breeding region
THEME8	8,8,C,0	Theme8 - Blank Extra		
AGE_PERIOD	12,12,I,0	Age in 5 year periods		
DUHGTCLASS	8,8,C,0	Understory height class in DU strata		
			1_11	1-11m tall understory
			12_15	12-15 m tall understory
			16+	16+ m tall understory
			NONE	Not in DU strata
DELTA1	6,6,I,0	Proposed year of treatment		
			0	
			1	
			13	
			2	
			3	
			5	
TREATMENT1	12,12,C,0	Proposed treatment		
			CCDUCON	Clearcut conifer priority
			CCDUDEC	Clearcut deciduous priority
			CLEARCUT	Clearcut action
			NONE	No future action defined
AREAHA_PW	10,10,I,0	Area reduced for Seismic		
ACCESS_C1	20,20,C,0	Access Control Version 1		
			C0_CBOUT	
			C1_CBIN	
			C1_CBOUT	
			C10	
			C11	
			C2_CBIN	
			C2_CBOUT	
			C3_CBIN	
			C3_CBOUT	
			C4_CBIN	
			C4_CBOUT	
			C5_CBOUT	
			C6	
			C7	
			C8	
			C9	
			PRE_C1_CBOUT	
			PRE_C11	
			PRE_C2_CBOUT	
			PRE_C3_CBIN	
			PRE_C3_CBOUT	
			PRE_C4_CBIN	
			PRE_C4_CBOUT	
			PRE_C5_CBOUT	
ACCESS_C2	20,20,C,0	Access Control Version 2		
			C0_CBOUT	
			C1_CBOUT	
			C10	
			C11	
			C2_CBIN	
			C2_CBOUT	
			C3_CBIN	
			C3_CBOUT	
			C4_CBIN	
			C4_CBOUT	
			C5_CBOUT	
			C6	
			C7	
			C8	
			C9	
			LV410_C0_CBOUT	
			LV410_C1_CBIN	
			LV410_C1_CBOUT	
			LV410_C10	
			LV410_C11	
			LV410_C2_CBIN	
			LV410_C2_CBOUT	
			LV410_C3_CBIN	
			LV410_C3_CBOUT	
			LV410_C4_CBIN	
			LV410_C4_CBOUT	
			LV410_C5_CBOUT	
			LV410_C6	
			LV410_C7	

			LV410_C8
			LV410_C9
			LV420_C1_CBIN
			LV420_C1_CBOUT
			LV420_C10
			LV420_C11
			LV420_C2_CBIN
			LV420_C2_CBOUT
			LV420_C3_CBIN
			LV420_C3_CBOUT
			LV420_C4_CBIN
			LV420_C4_CBOUT
			LV420_C5_CBOUT
			LV420_C6
			LV420_C7
			LV420_C8
			PRE_C1_CBOUT
			PRE_C11
			PRE_C2_CBOUT
			PRE_C3_CBIN
			PRE_C3_CBOUT
			PRE_C4_CBIN
			PRE_C4_CBOUT
			PRE_C5_CBOUT
ACCESS_C3	20,20,C,0	Access Control Version 3	
			CONIF_C1_CBOUT
			CONIF_C10
			CONIF_C11
			CONIF_C2_CBIN
			CONIF_C2_CBOUT
			CONIF_C3_CBIN
			CONIF_C3_CBOUT
			CONIF_C4_CBIN
			CONIF_C4_CBOUT
			CONIF_C5_CBOUT
			CONIF_C6
			CONIF_C7
			CONIF_C8
			CONIF_C9
			DECID_C1_CBOUT
			DECID_C10
			DECID_C11
			DECID_C2_CBIN
			DECID_C2_CBOUT
			DECID_C3_CBIN
			DECID_C3_CBOUT
			DECID_C4_CBIN
			DECID_C4_CBOUT
			DECID_C5_CBOUT
			DECID_C6
			DECID_C7
			DECID_C8
			DECID_C9
			LV410_C0_CBOUT
			LV410_C1_CBIN
			LV410_C1_CBOUT
			LV410_C10
			LV410_C11
			LV410_C2_CBIN
			LV410_C2_CBOUT
			LV410_C3_CBIN
			LV410_C3_CBOUT
			LV410_C4_CBIN
			LV410_C4_CBOUT
			LV410_C5_CBOUT
			LV410_C6
			LV410_C7
			LV410_C8
			LV410_C9
			LV420_C1_CBIN
			LV420_C1_CBOUT
			LV420_C10
			LV420_C11
			LV420_C2_CBIN
			LV420_C2_CBOUT
			LV420_C3_CBIN
			LV420_C3_CBOUT
			LV420_C4_CBIN

LV420_C4_CBOUT
LV420_C5_CBOUT
LV420_C6
LV420_C7
LV420_C8
NONE_C0_CBOUT
NONE_C1_CBOUT
NONE_C10
NONE_C11
NONE_C2_CBIN
NONE_C2_CBOUT
NONE_C3_CBIN
NONE_C3_CBOUT
NONE_C4_CBIN
NONE_C4_CBOUT
NONE_C5_CBOUT
NONE_C6
NONE_C7
NONE_C8
NONE_C9
PRE_C1_CBOUT
PRE_C11
PRE_C2_CBOUT
PRE_C3_CBIN
PRE_C3_CBOUT
PRE_C4_CBIN
PRE_C4_CBOUT
PRE_C5_CBOUT

| ACCESS_C4 | 20,20,C,0 | Access Control Version 4 |

CONIF_C1_CBOUT
CONIF_C10
CONIF_C11
CONIF_C2_CBIN
CONIF_C2_CBOUT
CONIF_C3_CBIN
CONIF_C3_CBOUT
CONIF_C4_CBIN
CONIF_C4_CBOUT
CONIF_C5_CBOUT
CONIF_C6
CONIF_C7
CONIF_C8
CONIF_C9
DECID_C1_CBIN
DECID_C1_CBOUT
DECID_C10
DECID_C11
DECID_C2_CBIN
DECID_C2_CBOUT
DECID_C3_CBIN
DECID_C3_CBOUT
DECID_C4_CBIN
DECID_C4_CBOUT
DECID_C5_CBOUT
DECID_C6
DECID_C7
DECID_C8
DECID_C9
LV410_C0_CBOUT
LV410_C1_CBIN
LV410_C1_CBOUT
LV410_C10
LV410_C11
LV410_C2_CBIN
LV410_C2_CBOUT
LV410_C3_CBIN
LV410_C3_CBOUT
LV410_C4_CBIN
LV410_C4_CBOUT
LV410_C5_CBOUT
LV410_C6
LV410_C7
LV410_C8
LV410_C9
LV420_C1_CBOUT
LV420_C10
LV420_C11
LV420_C2_CBIN

LV420_C2_CBOUT
LV420_C3_CBIN
LV420_C3_CBOUT
LV420_C4_CBIN
LV420_C4_CBOUT
LV420_C5_CBOUT
LV420_C6
LV420_C7
LV420_C8
NONE_C0_CBOUT
NONE_C1_CBOUT
NONE_C10
NONE_C11
NONE_C2_CBIN
NONE_C2_CBOUT
NONE_C3_CBIN
NONE_C3_CBOUT
NONE_C4_CBIN
NONE_C4_CBOUT
NONE_C5_CBOUT
NONE_C6
NONE_C7
NONE_C8
NONE_C9
PRE_C1_CBOUT
PRE_C11
PRE_C2_CBOUT
PRE_C3_CBIN
PRE_C3_CBOUT
PRE_C4_CBIN
PRE_C4_CBOUT
PRE_C5_CBOUT

ACCESS_C5	20,20,C,0	Access Control Version 5	
ROADS_C1	20,20,I,0	Operating unit control version 1	
			1000000
			2000000
			3000000
ROADS_C2	20,20,I,0	Operating unit control version 2	
			1010000
			1010099
			1010100
			1010199
			1010200
			1010300
			1010400
			1010500
			1020000
			1020099
			1020100
			1020199
			1020200
			1020300
			1020399
			1020400
			1020500
			1030000
			1030099
			1030100
			1030199
			1030200
			1030299
			1030399
			1030400
			1030499
			1030500
			1040000
			1040099
			1040100
			1040199
			1040200
			1040300
			1040399
			1040400
			1040499
			1050000
			1050100

```
                                      1050200
                                      1050300
                                      1050400
                                      1050500
                                      1060000
                                      1070000
                                      1080000
                                      1090000
                                      1100000
                                      1110000
                                      2010000
                                      2010099
                                      2010100
                                      2010200
                                      2010300
                                      2010400
                                      2010500
                                      2020000
                                      2020099
                                      2020100
                                      2020199
                                      2020200
                                      2020300
                                      2020399
                                      2020400
                                      2020500
                                      2030000
                                      2030099
                                      2030100
                                      2030199
                                      2030200
                                      2030299
                                      2030399
                                      2030499
                                      2030500
                                      2040000
                                      2040099
                                      2040100
                                      2040199
                                      2040200
                                      2040300
                                      2040399
                                      2040400
                                      2040499
                                      2050000
                                      2050100
                                      2050200
                                      2050300
                                      2050400
                                      2050500
                                      2060000
                                      2070000
                                      2080000
                                      2090000
                                      2100000
                                      2110000
                                      3000000
```

Field	Width	Description	Code	Meaning
ROADS_C3	20,20,C,0	Operating unit control version 3		
ROADS_C4	20,20,C,0	Operating unit control version 4		
ADDPREBLOCK	4,4,C,0	Preblock flag		
			n	Polygons to defer
			y	Polygons to add
DEFER	4,4,I,0	Years to Defer		
			0	no deferral
			10	defer 10 years
			20	defer 20 years
PRE_COMMENT	20,20,C,0	Pre-block comment		
		added March20 2007		
		Added March20 2007		
		added_Dec 2006		
		Blowdown		
		cut2006		
		delay10		
		delay20		
		edited_Dec 2006		
		Field		

			manual deferrals Jan 2007 Original P9	
OPUNIT	5,5,I,0	Operating Units		
			0	
			1	
			2	
			3	
			4	
			5	
MTPR	4,4,C,0	TPR		
			F	Fair
			G	Good
			M	Medium
			U	Unproductive

P16_LB4_TSA

Dataset Information

Description:	Timber supply Landbase with modeling attributes attached.
Data Source:	Multiple coverages
Date Generated:	April 2007
Processing:	Adding P16_LB4_TSA_OUTPUT to P16_LB4_TSA coverage
Data Format:	Arc/Info coverage
Software Used:	ESRI ArcGIS
Projection:	UTM Zone 11
Datum:	NAD 83
Units:	metres
Data Precision:	Double
Tolerance:	Fuzzy @ 0.001
Scale of Capture:	N/A

Data Dictionary

Column Name	Type W.D	Column	Item Value	Item Description
AREA	8,18,F,5	Area (sq.m.)		
PERIMETER	8,18,F,5	Perimeter (m.)		
P16_LB4_TSA#	4,5,B,0	Internal ArcInfo No.		
P16_LB4_TSA-ID	4,5,B,0	ArcInfo User Id		
UKEY4_TMP	10,10,I,0	Unique Key - initial key to assign attributes		
UKEY4_TSA	10,10,I,0	Unique Key - after arc elimination		
UKEY4	10,10,I,0	Unique Key - after union with seismic		
SNAME	254,254,C,0	Scientific name		
			Sphagnum contortum	Within twisted bog moss management zone
BOG	254,254,C,0	Twisted bog area		
			twisted bog moss	Within twisted bog moss management zone
IN_GOVT_PSP_B	2,5,B,0	Inside PSP buffer		
			0	Not within a SRD PSP buffer
			100	Within a SRD PSP buffer
IN_MDFP_PSP_B	3,3,I,0	MDFP PSP Buffers		
			0	Not within MDFP PSP buffer
			100	Within MDFP PSP buffer
RIVER_BREAK	5,5,C,0	River Breaks		
			NMZ	Notekewin Management zone
			P6	P6 river breaks
			P9	P9 river breaks
IN_SWAN_B	4,5,B,0	Swan lake buffers		
			1	Not within a swan lake buffer
			100	Within a swan lake buffer
IN_TWINLK_B	4,5,B,0	Twin Lake buffer		
			1	Not within Twin lake deletion buffer
			100	Within Twin lake deletion buffer
IN_TWINLGE_B	4,5,B,0	Twin Lake Lodge buffer		
			1	Not within Twin Lodge deletion
			100	Within Twin Lodge deletion
REC	40,40,C,0	Recreation areas		
			Twin Lakes	Twin lakes recreation area
TYPE	9,9,C,0	Recreation area type		
			PRA	Provincial Recreation Area
INSIDE_BLK	3,3,I,0	Defines inside block		
			0	Not inside a block
			1	Not inside a block
			100	Within a block
OPENING	15,15,C,0	Opening Number		
BLK_ID	25,25,C,0	Block Id field		
HARV_YR	4,4,I,0	Harvest Year		
			0	Not harvested
			1940	
			1966	
			1967	
			1968	
			1969	

			1970	
			1971	
			1972	
			1973	
			1975	
			1978	
			1980	
			1983	
			1984	
			1987	
			1992	
			1993	
			1997	
			1998	
			1999	
			2000	
			2001	
			2002	
			2003	
			2004	
HARV_NOTE	25,25,C,0	Note		
		Andy provided new op		
			CONTINGENCY	Contingency block
			DMI - PLANNED	DMI planned block
		DMI - Understory Pro		
			DMI BLOCK	DMI existing block
			MDFP BLOCK	MDFP existing block
			Planned	Planned block
			SWAP - DMI to MDFP	Swap from DMI to MDFP
			SWAP - MDFP to DMI	Swap from MDFP to DMI
COMPANY	16,16,C,0	Company With Liability		
			CANFOR	Canadian Forest Products Ltd.
			DMI	Daishowa-Marubeni International Ltd.
			MDFP	Manning Diversified Forest Products Ltd.
BLK_SRC	25,25,C,0	Block Source		
			ANDY BLOCK UPDATE	Block updated by MDFP
			GREENLINK BLOCK UPDA	
MDFP_STRATA	8,8,C,0	Strata Assignment		
			AVI	Strata to be based on AVI call
			CD	Conifer dominated Mixedwood
			CD-2000	Conifer dominated Mixedwood
			D	Deciduous
			D-2000	Deciduous
			DC	Deciduous dominated Mixedwood
			DC-2000	Deciduous dominated Mixedwood
			Pl	Lodgepole Pine leading Conifer
			Sw	White Spruce leading Conifer
TREATMENT	3,3,C,0	Treatment Applied		
			CC	Clearcut
			PL	Planned Block
			PT	Understory Protection
HWY_MGT	4,5,B,0	Indicates highway management zone		
			1	Not within Highway Management zone
			100	Within Highway management zone
FIRENUMBER	12,12,C,0			
FIRE_YEAR	4,4,B,0	Year of fire occurrence		
			0	No Fire
			2002	
			2003	
			2004	
TRAPLINE	4,10,B,0	Fur Management areas		
			0	No trapline
			1233	
			1236	
			1246	
			1258	
			1347	
			1397	
			1510	
			1514	
			1539	
			1601	
			1603	
			1655	
			1731	
			1755	
			1971	

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                                                       2031
                                                       2049
                                                       2147
                                                       2187
                                                       2208
                                                       2250
                                                       2269
                                                       2284
                                                       2303
                                                       2325
                                                       2357
                                                       2362
                                                       2364
                                                       2442
                                                       2478
                                                       2490
                                                       2596
                                                       2712
                                                       2758
                                                       2808
                                                       2809
```

Name	Format	Description	Code	Value
WSHED_ID	4,3,B,0	Watershed number		
			0	Not within an identified watershed
			1	
			10	
			11	
			12	
			13	
			14	
			15	
			16	
			17	
			18	
			19	
			2	
			3	
			4	
			5	
			6	
			7	
			8	
			9	
LANDUSE	8,8,C,0	Type of landuse deletion		
			EZE	Easements
			MLL	Misc. Land Leases
			PIPE	Pipelines
			PNT	Protective notation
			ROAD	Roads
			WELL	Wellsites
PNT	12,12,C,0	PNT Number		
			PNT020194	NIVMA Plot
			PNT930344	Understory Protection Research Site
			PNT950022	Spruce Budworm Research Site
IN_LAKES_B	3,3,I,0	Buffered Lakes		
			1	Not within lakes buffer
			100	Within lakes buffer
MAJRIV_TYPE	20,20,C,0	River type		
			OXBOW-PER	Oxbow lakes
			RIV-MAJ	Major rivers
IN_MAJRIV_B	3,3,I,0	Buffered rivers		
			0	Not within major river buffer
			1	Not within major river buffer
			100	Within major river buffer
IN_STREAM_B	3,3,I,0	Buffered streams		
			0	Not within stream buffer
			1	Not within stream buffer
			100	Within stream buffer
ISOLATED_HA	4,9,F,2	Area of original isolated polygon		
ID	10,10,I,0			
FORESTKEY	10,10,I,0	Unique AVI Polygon		
POLY_NUM	10,10,I,0	AVI Polygon Number		
OLDID	4,4,I,0			
SDBID	10,10,I,0			
TRM	6,6,I,0	Township/Range/Meridian		
COMPART	2,5,B,0	Working Circle number		
			0	
			1	Working Circle # 1

Field	Format	Description	Code	Value
			2	Working Circle # 2
			3	Working Circle # 3
			4	Working Circle # 4
			5	Working Circle # 5
			6	Working Circle # 6
NSR_CODE	2,5,B,0	Natural subregion codes		
			0	
			12	Lower Foothills
			2	Wetland Mixedwood
			9	Dry Mixedwood
NSR_NAME	30,30,C,0	Natural subregion names		
			Dry Mixedwood	
			Lower Foothills	
			Wetland Mixedwood	
WILD_MGT	50,30,C,0	Wildlife management		
			9999	
			Caribou	Caribou management zone
			SpecialAccess	Special access management zone
			Ungulate	Ungulate management zone
REG_G_DOM	4,10,B,0	Breeding Region G		
			0	Not within Breeding Region G
			100	Within Breeding Region G
REG_J_DOM	4,10,B,0	Breeding Region J		
			0	Not within Breeding Region J
			100	Within Breeding Region J
CBU_2005	16,16,C	Caribou 2005 Zone		
			Caribou_2005	Caribou Zone 2005
FMU	8,8,C,0	FMU number		
			P6	P6 FMU
			P9	P9 FMU
MSP1	2,2,C,0	Modified Species 1 Code		
			AW	Trembling Aspen
			BW	White Birch
			LT	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MSPPER1	4,10,B,0	Modified Species 1 Percent		
MSP2	2,2,C,0	Modified Species 2 Code		
			AW	Trembling Aspen
			BW	White Birch
			LT	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MSPPER2	4,10,B,0	Modified Species 2 Percent		
MSP3	2,2,C,0	Modified Species 3 Code		
			AW	Trembling Aspen
			BW	White Birch
			Lt	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MSPPER3	4,10,B,0	Modified Species 3 Percent		
MSP4	2,2,C,0	Modified Species 4 Code		
			AW	Trembling Aspen
			BW	White Birch
			LT	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MSPPER4	4,10,B,0	Modified Species 4 Percent		
MSP5	2,2,C,0	Modified Species 5 Code		
			AW	Trembling Aspen
			BW	White Birch
			LT	Larch
			PB	Balsam Poplar
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
MSPPER5	4,10,B,0	Modified Species 5 Percent		
MHEIGHT	4,10,B,0	Modified Height (m)		
MDENSITY	1,1,C,0	Modified Density Code		
			A	6 - 30% crown closure

				B	31 - 50% crown closure
				C	51 - 70% crown closure
				D	71 - 100% crown closure
MTPR	1,1,C,0	Modified Timber Productivity Rating			
				F	Fair
				F	Fair
				G	Good
				G	Good
				M	Multi Storey
				M	Medium
				U	Unproductive
				U	Unproductive
MORIGIN	4,10,B,0	Modified Year of Origin			
MUSP1	2,2,C,0	Modified US - Species 1			
				AW	Trembling Aspen
				BW	White Birch
				LT	Larch
				PB	Balsam Poplar
				PL	Lodgepole Pine
				SB	Black Spruce
				SW	White Spruce
MUSPPER1	4,10,B,0	Modified US - Species 1 Percent			
MUSP2	2,2,C,0	Modified US - Species 2			
				AW	Trembling Aspen
				BW	White Birch
				LT	Larch
				PB	Balsam Poplar
				PL	Lodgepole Pine
				SB	Black Spruce
				SW	White Spruce
MUSPPER2	4,10,B,0	Modified US - Species 2 Percent			
MUSP3	2,2,C,0	Modified US - Species 3			
				AW	Trembling Aspen
				BW	White Birch
				LT	Larch
				PB	Balsam Poplar
				PL	Lodgepole Pine
				SB	Black Spruce
				SW	White Spruce
MUSPPER3	4,10,B,0	Modified US - Species 3 Percent			
MUSP4	2,2,C,0	Modified US - Species 4			
				AW	Trembling Aspen
				BW	White Birch
				LT	Larch
				PB	Balsam Poplar
				PL	Lodgepole Pine
				SB	Black Spruce
				SW	White Spruce
MUSPPER4	4,10,B,0	Modified US - Species 4 Percent			
MUSP5	2,2,C,0	Modified US - Species 5			
				AW	Trembling Aspen
				BW	White Birch
				LT	Larch
				PB	Balsam Poplar
				PL	Lodgepole Pine
				SB	Black Spruce
				SW	White Spruce
MUSPPER5	4,10,B,0	Modified US - Species 5 Percent			
MUHEIGHT	4,10,B,0	Modified US - Height (m)			
MUDENSITY	1,1,C,0	Modified US - Density Code			
				A	6 - 30% crown closure
				B	31 - 50% crown closure
				C	51 - 70% crown closure
				D	71 - 100% crown closure
MUTPR	1,1,C,0	Modified US - Timber Productivity Rating			
				F	Fair
				G	Good
				M	Multi Storey
				U	Unproductive
MUORIGIN	4,10,B,0	Modified US - Year of			
CONIFER	16,16,F,4	Total Conifer Percent			

DECID	16,16,F,4	Total Deciduous Percent			
UCONIFER	16,16,F,4	US - Total Conifer Percent			
UDECID	16,16,F,4	US - Total Deciduous			
STORY_USED	8,18,F,4	Story used for defining		0	Non-Forested or A-density deletion
				1	Layer 1 only
				2	Layer 2 becomes defining layer
				3	Layer 1 is used with Layer 2 understory
STR_GRP	8,8,C,0	Strata Group			
				C	Conifer
				CD	Conifer Mixedwood
				CD/U	Conifer Mixedwood with Understory
				D	Deciduous
				D/U	Deciduous with Understory
				DC	Deciduous Mixedwood
				DC/U	Deciduous Mixedwood with Understory
USTR_GRP	8,8,C,0	US - Strata Group			
				C	Conifer
				CD	Conifer Mixedwood
				D	Deciduous
				D/U	Deciduous with Understory
				DC	Deciduous Mixedwood
LEADSP	2,2,C,0	Leading conifer species			
				FB	Balsam Fir
				LT	Larch
				PL	Lodgepole Pine
				SB	Black Spruce
				SW	White Spruce
D_SUBJ	9,9,C,0	Subjective deletions			
				ADEN	A Density stands
				LARCH	Larch stands
				SBLEAD	Sb leading and TPR < G
				WETLAND	Wetland areas
D_TPR	1,1,C,0	Timber Productivity			
				F	Decid TPR = U or F
				U	Unproductive stands
D_BUF	8,8,C,0	Water Buffer deletions			
				RIVBK	River Breaks
				SWAN	Swan Lake Buffers
				WBUF	Water Buffers
D_STATUS	8,8,C,0	Patented land deletions			
				PATENT	Protected areas
				PSP	SRD PSP Buffers
D_BURN	8,8,C,0	Recent Burn deletions			
				BURN	Recent Burns
D_ACCESS	8,8,C,0	Road and Pipeline deletions			
				PIPE	Pipelines
				ROAD	Roads
D_SEISMIC	8,8,C,0	Seismic deletions			
				SEISMIC	Seismic Lines
D_NONFOR	8,8,C,0	Non-Forested deletions			
				ANTHRO	Anthropogenic Non-Vegetated
				NNF	Non-Forested
				NNV	Naturally Non-Vegetated
				WATER	Water Body
D_ISO	8,8,C,0	Isolated stand deletions			
				ISO	Isolated stands
F_MGT	8,8,C,0	Special Management			
				HWY	Highway Management Zone
				NMZ	Notekewin Habitat Zone
				PSP	MDFP PSP plots
				TBM	Twisted Bog Moss Zone
				TLG	Twin Lake Lodge Management Zone
F_WILD	8,8,C,0	Wildlife Management			
				CBU	Caribou Zone
				UNG	Ungulate Zone
				WSA	Wildlife Special Access Zone
F_DEL1	8,8,C,0	Summary of deletions without Seismic			
				ADEN	A Density stands
				ANTHRO	Anthropogenic Non-Vegetated
				BURN	Recent Burns
				F	Decid TPR = U or F
				ISO	Isolated stands
				LARCH	Larch stands
				NNF	Non-Forested
				NNV	Naturally Non-Vegetated
				NONE	Not a Deletion

			PATENT	Protected areas
			PIPE	Pipelines
			PSP	SRD PSP Buffers
			RIVBK	River Breaks
			ROAD	Roads
			SBLEAD	Sb leading and TPR < G
			SWAN	Swan Lake Buffers
			U	Unproductive stands
			WATER	Water Body
			WBUF	Water Buffers
			WETLAND	Wetland areas
F_DEL	8,8,C,0	Summary of deletions including Seismic		
			ADEN	A Density stands
			ANTHRO	Anthropogenic Non-Vegetated
			BURN	Recent Burns
			F	Decid TPR = U or F
			ISO	Isolated stands
			LARCH	Larch stands
			NNF	Non-Forested
			NNV	Naturally Non-Vegetated
			NONE	Not a Deletion
			PATENT	Protected areas
			PIPE	Pipelines
			PSP	SRD PSP Buffers
			RIVBK	River Breaks
			ROAD	Roads
			SBLEAD	Sb leading and TPR < G
			SEISMIC	Seismic Lines
			SWAN	Swan Lake Buffers
			U	Unproductive stands
			WATER	Water Body
			WBUF	Water Buffers
			WETLAND	Wetland areas
F_YC	8,8,C,0	Modeling Species Strata		
			CD	Conifer Mixedwood
			CDU	Conifer Mixedwood with Understory
			D	Deciduous
			DC	Deciduous Mixedwood
			DCU	Deciduous Mixedwood with Understory
			DU	Deciduous with Understory
			NONE	No strata assigned
			PL	Lodgepole Pine Leading Conifer
			SB	Black Spruce Leading Conifer
			SW	White Spruce Leading Conifer
			XCC	Historical Cutblock without a strata
F_DEN	8,8,C,0	Modeling Density		
			B	B density Stands
			CD	C and D density stands
			NONE	No density assigned
LANDBASE	8,8,C,0	Landbase		
			CONIF	Coniferous Landbase
			DECID	Deciduous Landbase
			NONE	No Landbase assigned
F_AGE	2,5,B,0	Stand Age in Years		
F_AGECLASS	8,8,C,0	Stand Ageclasses		
			101-140	
			1-20	
			140+	
			21-40	
			41-60	
			61-100	
			NONE	No ageclass assigned
AREA_HA	14,14,N,6	Area in Hectares		
IN_CUT_B	4,5,B,0	Inside cutlines		
			1	Not within a seismic buffer
			100	Within a seismic buffer
UKEY4_TSA	10,10,I,0	Unique Key - after arc elimination		
THEME1	8,8,C,0	Theme1 - Landbase		
			CONIF	Coniferous Landbase
			DECID	Deciduous Landbase
			NONE	Non-Forested
THEME2	8,8,C,0	Theme2 - FMU		
			NONE	Outside FMA (slivers)
			P6	FMU P6
			P9	FMU P9
THEME3	8,8,C,0	Theme3 - Species Strata		

			CD	Conifer leading Mixedwood
			CDU	Conifer leading Mixedwood with understor
			D	Deciduous
			DC	Deciduous leading Mixedwood
			DCU	Deciduous leading Mixedwood with underst
			DUSW	Deciduous with White Spruce understory
			DUX	Deciduous with other conifer understory
			GRASS	Grass
			NONE	No strata defined
			NV	Non-vegetated
			PL	Lodgepole Pine
			SB	Black Spruce
			SW	White Spruce
			WATER	Water bodies
			XCC	Harvested blocks without strata
THEME4	8,8,C,0	Theme4 - Density		
			A_X	A overstory - no understory
			B_A	B overstory with A understory
			B_B	B overstory with B understory
			B_CD	B overstory with CD understory
			B_X	B overstory - no understory
			CD_A	CD overstory with A understory
			CD_B	CD overstory with B understory
			CD_CD	CD overstory with CD understory
			CD_X	CD overstory - no understory
			NONE	No Density defined
THEME5	8,8,C,0	Theme5 - Active Landbase		
			NONOP	Passive landbase
			OPER	Active landbase
THEME6	8,8,C,0	Theme6 - Harvest State		
			CC	Clearcut historical blocks
			CCPRE	Pre-91 historical blocks
			NONE	No harvest action
			PLANNED	Blocks planned for years 2007+
			PREPLAN	Blocks planned for years 2005 and 2006
			PROT	Understory Protection
THEME7	8,8,C,0	Theme7 - Breeding		
			BOTH	Within both G2 and J breeding regions
			G	Only within G2 breeding region
			J	Only within J breeding region
			NONE	Not within breeding region
THEME8	8,8,C,0	Theme8 - Blank Extra		
AGE_PERIOD	12,12,I,0	Age in 5 year periods		
DUHGTCLASS	8,8,C,0	Understory height class in DU strata		
			1_11	1-11m tall understory
			12_15	12-15 m tall understory
			16+	16+ m tall understory
			NONE	Not in DU strata
DELTA1	6,6,I,0	Proposed year of treatment		
			0	
			1	
			13	
			2	
			3	
			5	
TREATMENT1	12,12,C,0	Proposed treatment		
			CCDUCON	Clearcut conifer priority
			CCDUDEC	Clearcut deciduous priority
			CLEARCUT	Clearcut action
			NONE	No future action defined
AREAHA_PW	10,10,I,0	Area reduced for Seismic		
ACCESS_C1	20,20,C,0	Access Control Version 1		
			C0_CBOUT	
			C1_CBIN	
			C1_CBOUT	
			C10	
			C11	
			C2_CBIN	
			C2_CBOUT	
			C3_CBIN	
			C3_CBOUT	
			C4_CBIN	
			C4_CBOUT	
			C5_CBOUT	
			C6	
			C7	
			C8	

			C9
			PRE_C1_CBOUT
			PRE_C11
			PRE_C2_CBOUT
			PRE_C3_CBIN
			PRE_C3_CBOUT
			PRE_C4_CBIN
			PRE_C4_CBOUT
			PRE_C5_CBOUT
ACCESS_C2	20,20,C,0	Access Control Version 2	
			C0_CBOUT
			C1_CBOUT
			C10
			C11
			C2_CBIN
			C2_CBOUT
			C3_CBIN
			C3_CBOUT
			C4_CBIN
			C4_CBOUT
			C5_CBOUT
			C6
			C7
			C8
			C9
			LV410_C0_CBOUT
			LV410_C1_CBIN
			LV410_C1_CBOUT
			LV410_C10
			LV410_C11
			LV410_C2_CBIN
			LV410_C2_CBOUT
			LV410_C3_CBIN
			LV410_C3_CBOUT
			LV410_C4_CBIN
			LV410_C4_CBOUT
			LV410_C5_CBOUT
			LV410_C6
			LV410_C7
			LV410_C8
			LV410_C9
			LV420_C1_CBIN
			LV420_C1_CBOUT
			LV420_C10
			LV420_C11
			LV420_C2_CBIN
			LV420_C2_CBOUT
			LV420_C3_CBIN
			LV420_C3_CBOUT
			LV420_C4_CBIN
			LV420_C4_CBOUT
			LV420_C5_CBOUT
			LV420_C6
			LV420_C7
			LV420_C8
			PRE_C1_CBOUT
			PRE_C11
			PRE_C2_CBOUT
			PRE_C3_CBIN
			PRE_C3_CBOUT
			PRE_C4_CBIN
			PRE_C4_CBOUT
			PRE_C5_CBOUT
ACCESS_C3	20,20,C,0	Access Control Version 3	
			CONIF_C1_CBOUT
			CONIF_C10
			CONIF_C11
			CONIF_C2_CBIN
			CONIF_C2_CBOUT
			CONIF_C3_CBIN
			CONIF_C3_CBOUT
			CONIF_C4_CBIN
			CONIF_C4_CBOUT
			CONIF_C5_CBOUT
			CONIF_C6
			CONIF_C7
			CONIF_C8
			CONIF_C9

DECID_C1_CBOUT
DECID_C10
DECID_C11
DECID_C2_CBIN
DECID_C2_CBOUT
DECID_C3_CBIN
DECID_C3_CBOUT
DECID_C4_CBIN
DECID_C4_CBOUT
DECID_C5_CBOUT
DECID_C6
DECID_C7
DECID_C8
DECID_C9
LV410_C0_CBOUT
LV410_C1_CBIN
LV410_C1_CBOUT
LV410_C10
LV410_C11
LV410_C2_CBIN
LV410_C2_CBOUT
LV410_C3_CBIN
LV410_C3_CBOUT
LV410_C4_CBIN
LV410_C4_CBOUT
LV410_C5_CBOUT
LV410_C6
LV410_C7
LV410_C8
LV410_C9
LV420_C1_CBIN
LV420_C1_CBOUT
LV420_C10
LV420_C11
LV420_C2_CBIN
LV420_C2_CBOUT
LV420_C3_CBIN
LV420_C3_CBOUT
LV420_C4_CBIN
LV420_C4_CBOUT
LV420_C5_CBOUT
LV420_C6
LV420_C7
LV420_C8
NONE_C0_CBOUT
NONE_C1_CBOUT
NONE_C10
NONE_C11
NONE_C2_CBIN
NONE_C2_CBOUT
NONE_C3_CBIN
NONE_C3_CBOUT
NONE_C4_CBIN
NONE_C4_CBOUT
NONE_C5_CBOUT
NONE_C6
NONE_C7
NONE_C8
NONE_C9
PRE_C1_CBOUT
PRE_C11
PRE_C2_CBOUT
PRE_C3_CBIN
PRE_C3_CBOUT
PRE_C4_CBIN
PRE_C4_CBOUT
PRE_C5_CBOUT

ACCESS_C4   20,20,C,0   Access Control Version 4
CONIF_C1_CBOUT
CONIF_C10
CONIF_C11
CONIF_C2_CBIN
CONIF_C2_CBOUT
CONIF_C3_CBIN
CONIF_C3_CBOUT
CONIF_C4_CBIN
CONIF_C4_CBOUT
CONIF_C5_CBOUT

CONIF_C6
CONIF_C7
CONIF_C8
CONIF_C9
DECID_C1_CBIN
DECID_C1_CBOUT
DECID_C10
DECID_C11
DECID_C2_CBIN
DECID_C2_CBOUT
DECID_C3_CBIN
DECID_C3_CBOUT
DECID_C4_CBIN
DECID_C4_CBOUT
DECID_C5_CBOUT
DECID_C6
DECID_C7
DECID_C8
DECID_C9
LV410_C0_CBOUT
LV410_C1_CBIN
LV410_C1_CBOUT
LV410_C10
LV410_C11
LV410_C2_CBIN
LV410_C2_CBOUT
LV410_C3_CBIN
LV410_C3_CBOUT
LV410_C4_CBIN
LV410_C4_CBOUT
LV410_C5_CBOUT
LV410_C6
LV410_C7
LV410_C8
LV410_C9
LV420_C1_CBOUT
LV420_C10
LV420_C11
LV420_C2_CBIN
LV420_C2_CBOUT
LV420_C3_CBIN
LV420_C3_CBOUT
LV420_C4_CBIN
LV420_C4_CBOUT
LV420_C5_CBOUT
LV420_C6
LV420_C7
LV420_C8
NONE_C0_CBOUT
NONE_C1_CBOUT
NONE_C10
NONE_C11
NONE_C2_CBIN
NONE_C2_CBOUT
NONE_C3_CBIN
NONE_C3_CBOUT
NONE_C4_CBIN
NONE_C4_CBOUT
NONE_C5_CBOUT
NONE_C6
NONE_C7
NONE_C8
NONE_C9
PRE_C1_CBOUT
PRE_C11
PRE_C2_CBOUT
PRE_C3_CBIN
PRE_C3_CBOUT
PRE_C4_CBIN
PRE_C4_CBOUT
PRE_C5_CBOUT

ACCESS_C5	20,20,C,0	Access Control Version 5	
ROADS_C1	20,20,I,0	Operating unit control version 1	
			1000000
			2000000
			3000000
ROADS_C2	20,20,I,0	Operating unit control	

version 2

1010000
1010099
1010100
1010199
1010200
1010300
1010400
1010500
1020000
1020099
1020100
1020199
1020200
1020300
1020399
1020400
1020500
1030000
1030099
1030100
1030199
1030200
1030299
1030399
1030400
1030499
1030500
1040000
1040099
1040100
1040199
1040200
1040300
1040399
1040400
1040499
1050000
1050100
1050200
1050300
1050400
1050500
1060000
1070000
1080000
1090000
1100000
1110000
2010000
2010099
2010100
2010200
2010300
2010400
2010500
2020000
2020099
2020100
2020199
2020200
2020300
2020399
2020400
2020500
2030000
2030099
2030100
2030199
2030200
2030299
2030399
2030499
2030500
2040000
2040099
2040100
2040199

			2040200		
			2040300		
			2040399		
			2040400		
			2040499		
			2050000		
			2050100		
			2050200		
			2050300		
			2050400		
			2050500		
			2060000		
			2070000		
			2080000		
			2090000		
			2100000		
			2110000		
			3000000		
ROADS_C3	20,20,C,0	Operating unit control version 3			
ROADS_C4	20,20,C,0	Operating unit control version 4			
ADDPREBLOCK	4,4,C,0	Preblock flag			
				n	Polygons to defer
				y	Polygons to add
DEFER	4,4,I,0	Years to Defer			
				0	no deferral
				10	defer 10 years
				20	defer 20 years
PRE_COMMENT	20,20,C,0	Pre-block comment			
			Added March20 2007		
			added March20 2007		
			added_Dec 2006		
			Blowdown		
			cut2006		
			delay10		
			delay20		
			edited_Dec 2006		
			Field		
			manual deferrals Jan 2007		
			Original		
			P9		
OPUNIT	5,5,I,0	Operating Units			
			0		
			1		
			2		
			3		
			4		
			5		
MTPR	4,4,C,0	TPR			
				F	Fair
				F	Fair
				G	Good
				G	Good
				M	Multi Storey
				M	Medium
				U	Unproductive
				U	Unproductive
POLY_NUM	10,10,I,0	AVI Polygon Number			
MOIST_REG	1,1,C,0	Moisture Regime			
				a	Aquatic
				d	Dry
				m	Mesic
				w	Wet
DENSITY	1,1,C,0	Density Code			
				A	6 - 30% crown closure
				B	31 - 50% crown closure
				C	51 - 70% crown closure
				D	71 - 100% crown closure
HEIGHT	4,10,B,0	Height (m)			
SP1	2,2,C,0	Species 1 Code			
				Aw	Trembling Aspen
				Bw	White Birch
				Lt	Larch
				P	Undifferentiated Pine
				Pb	Balsam Poplar
				Pj	Jack Pine
				Pl	Lodgepole Pine

			Sb	Black Spruce
			Sw	White Spruce
SP1_PER	4,10,B,0	Species 1 Percent		
SP2	2,2,C,0	Species 2 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
SP2_PER	4,10,B,0	Species 2 Percent		
SP3	2,2,C,0	Species 3 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
SP3_PER	4,10,B,0	Species 3 Percent		
SP4	2,2,C,0	Species 4 Code		
			Aw	Trembling Aspen
			Bw	White Birch
			Lt	Larch
			P	Undifferentiated Pine
			Pb	Balsam Poplar
			Pj	Jack Pine
			Pl	Lodgepole Pine
			Sb	Black Spruce
			Sw	White Spruce
SP4_PER	4,10,B,0	Species 4 Percent		
SP5	2,2,C,0	Species 5 Code		
SP5_PER	4,10,B,0	Species 5 Percent		
STRUC	1,1,C,0	Structure Code		
			C	51 - 70% crown closure
			H	Horizontal
			M	Multi Storey
STRUC_VAL	4,10,B,0	Structure Percent		
ORIGIN	4,10,B,0	Year of Origin		
TPR	1,1,C,0	Timber Productivity Rating		
			F	Fair
			G	Good
			M	Multi Storey
			U	Unproductive
INITIALS	2,2,C,0	Interpreter Initials		
NFL	2,2,C,0	Non Forest Land Code		
			BR	Bryophyte
			HF	Herbaceous Forb
			HG	Herbaceous Grassland
			SC	Shrub - Closed
			SO	Shrub - Open
NAT_NON	3,3,C,0	Naturally NonForest Code		
			NMC	Cutbank
			NMS	Sand
			NWF	Flooded
			NWI	Ice
			NWL	Lakes
			NWR	Rivers
ANTH_VEG	3,3,C,0	Anthropogenic Vegetated Code		
			CA	Annual Crops
			CIP	Transmission/Pipelines
			CIW	Geophysical Features Seeded
			CP	Perennial Crops
			CPR	Rough Pasture
ANTH_NON	3,3,C,0	Anthropogenic Non Vegetated Code		
			AIF	Farmsteads
			AIG	Gravel Pits
			AIH	Permanent Right-of-Way
MOD1	2,2,C,0	Modifier 1 Code		
			BU	Burn
			CC	Clearcut

				CL	Clearing
				SN	Snag
				ST	Scattered Timber
				TH	Thinning
MOD1_EXT	4,10,B,0	Modifier 1 Extent			
MOD1_YR	4,10,B,0	Modifier 1 Year			
MOD2	2,2,C,0	Modifier 2 Code		SC	Shrub - Closed
				SN	Snag
				ST	Scattered Timber
MOD2_EXT	4,10,B,0	Modifier 2 Extent			
MOD2_YR	4,10,B,0	Modifier 2 Year			
DATA	1,1,C,0	Data Reference		A	6 - 30% crown closure
				F	Fair
				I	Interpreted TPR
				V	Volume Plot
DATA_YR	4,10,B,0	Data Reference Year			
UMOIST_REG	1,1,C,0	US - Moisture Regime		d	Dry
				m	Mesic
				w	Wet
UDENSITY	1,1,C,0	US - Density		A	6 - 30% crown closure
				B	31 - 50% crown closure
				C	51 - 70% crown closure
				D	71 - 100% crown closure
UHEIGHT	4,10,B,0	US - Height (m)			
USP1	2,2,C,0	US - Species 1 Code		Aw	Trembling Aspen
				Bw	White Birch
				Lt	Larch
				P	Undifferentiated Pine
				Pb	Balsam Poplar
				Pj	Jack Pine
				Pl	Lodgepole Pine
				Sb	Black Spruce
				Sw	White Spruce
USP1_PER	4,10,B,0	US - Species 1 Percent			
USP2	2,2,C,0	US - Species 2 Code		Aw	Trembling Aspen
				Bw	White Birch
				Lt	Larch
				P	Undifferentiated Pine
				Pb	Balsam Poplar
				Pj	Jack Pine
				Pl	Lodgepole Pine
				Sb	Black Spruce
				Sw	White Spruce
USP2_PER	4,10,B,0	US - Species 2 Percent			
USP3	2,2,C,0	US - Species 3 Code		Aw	Trembling Aspen
				Bw	White Birch
				Lt	Larch
				P	Undifferentiated Pine
				Pb	Balsam Poplar
				Pj	Jack Pine
				Pl	Lodgepole Pine
				Sb	Black Spruce
				Sw	White Spruce
USP3_PER	4,10,B,0	US - Species 3 Percent			
USP4	2,2,C,0	US - Species 4 Code		Aw	Trembling Aspen
				Bw	White Birch
				Lt	Larch
				P	Undifferentiated Pine
				Pb	Balsam Poplar
				Pj	Jack Pine
				Pl	Lodgepole Pine
				Sb	Black Spruce
				Sw	White Spruce
USP4_PER	4,10,B,0	US - Species 4 Percent			
USP5	2,2,C,0	US - Species 5 Code			
USP5_PER	4,10,B,0	US - Species 5 Percent			
USTRUC	1,1,C,0	US - Structure Code		H	Horizontal
USTRUC_VAL	4,10,B,0	US - Structure Percent			
UORIGIN	4,10,B,0	US - Year of Origin			

UTPR	1,1,C,0	US - Timber Productivity Rating			
			F	Fair	
			G	Good	
			M	Multi Storey	
			U	Unproductive	
UINITIALS	2,2,C,0	US - Interpreter Initials			
UNFL	2,2,C,0	US - NonForest Land			
			BR	Bryophyte	
			HF	Herbaceous Forb	
			HG	Herbaceous Grassland	
			SC	Shrub - Closed	
			SO	Shrub - Open	
UNFL_PER	4,10,B,0	US - NonForest Percent			
UNAT_NON	3,3,C,0	US - Naturally NonForest			
			NWF	Flooded	
			NWL	Lakes	
			NWR	Rivers	
UANTH_VEG	3,3,C,0	US - Anthropogenic			
			CIP	Transmission/Pipelines	
			CP	Perennial Crops	
			CPR	Rough Pasture	
UANTH_NON	3,3,C,0	US - Anthropogenic Non Vegetated			
			AIF	Farmsteads	
			AIG	Gravel Pits	
UMOD1	2,2,C,0	US - Modifier 1 Code			
			CL	Clearing	
			SC	Shrub - Closed	
			ST	Scattered Timber	
UMOD1_EXT	4,10,B,0	US - Modifier 1 Extent			
UMOD1_YR	4,10,B,0	US - Modifier 1 Year			
UMOD2	2,2,C,0	US - Modifier 2 Code			
UMOD2_EXT	4,10,B,0	US - Modifier 2 Extent			
UMOD2_YR	4,10,B,0	US - Modifier 2 Year			
UDATA	1,1,C,0	US - Data Reference			
			F	Fair	
			I	Interpreted TPR	
UDATA_YR	4,10,B,0	US - Data Reference Year			
TRM	6,6,I,0	Township/Range/Meridian			
FORESTKEY	10,10,I,0	Unique AVI Polygon			

Appendix VIII   DVD of Landbase Netdown Documentation

Appendix I contains a DVD with all digital files relevant to this analysis. It includes:

Main Data:
- Full landbase spatial coverage in Arc Info coverage format.
- Full TSA landbase spatial coverage in Arc Info coverage format.

Supporting Data:
- All coverages listed in Table 2-1.
- All coverages used in multi-union process as listed in Table 2-2.
- All Data files used in creation of TSA landbase as listed in section 6.1.
- Programming Code.

Landbase Netdown Documentation:
- .pdf: digital PDF copy of report.

Limited copies of this DVD were produced:
- One copy provided to SRD;
- One copy provided to Manning Diversified;
- One copy provided to DMI; and
- One copy retained by The Forestry Corp.

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