DERIVED ECOSITE PHASE

(DEP)

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Executive Summary

The Derived Ecosite Phase (DEP) dataset will support the understanding and management of land-related issues in the area of the province that has AVI and LiDAR derived products. The DEP will provide a spatial ecologically based vegetation inventory for the forested subregions of the province. DEP will assist in decision making for land management, wildfire management, forest health, fish and wildlife management, forest management as well as land use planning. This inventory will also provide support to future challenges dealing with biodiversity, climate change and balanced economic, social and environmental decision making.

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1.0 Introduction

The province of Alberta is covered by a broad spectrum of vegetation regions from prairie in the South, to alpine vegetation in the mountains and dense forests in the Central and Northern parts of the province. These broad vegetation regions have been classified into 6 natural regions and 21 subregions for the province (Natural Regions and Subregions of Alberta 2006). Each of the regions consists of groups of plant communities which are influenced by environmental conditions and human impacts. Intensive management of these regions requires the ability to recognize the vegetative communities that have similar productivities and respond to disturbance in the same way. These vegetative communities are highly regarded by most resource managers for their ability to provide a wide variety of benefits. They are a classic example of multiple use land, providing timber, summer range for livestock, prime habitat for many species of wildlife, productive watersheds and recreational areas.

The purpose of this dataset was to develop a framework that would easily group the ecological sites and ecological site phases from AVI and LiDAR derived datasets. Ecological site classification helps to organize our current understanding about ecosystem function. This organization is achieved by grouping research plots into similar and functional units that respond to disturbance in a similar and predictable manner. The ecological site classification system outlined in this document organizes ecological information into a format that facilitates understanding and provides a structure for ecologically based management. The system has been developed primarily as a field tool to complement the user's knowledge about ecological site classification, soil description, and plant identification. The objectives of the ecological site phase classification are:

1. to facilitate the application of ecological information to decisions on a wide variety of activities within the realm of land resource management

2. to facilitate the collection and organization of information to expedite the development of resource management applications and decision support systems

3. to promote communication among resource managers and between managers and the public

4. to provide a common basis for integrated planning, and

5. to reduce resource management costs by integrating ecological information into the decision-making process.

Natural subregion, ecological site and ecological site phase is the main level of classification used in DEP and follows the Ecological Classification Hierarchy of Alberta.

2.0 Ecological classification hierarchy and terminology

The ecological classification system developed for Alberta follows the ecosystem classification system developed by Corns and Annas (1986) and Beckingham et al. (1996). The ecological classification system is nested within Alberta's geographically based natural region and subregion classification system (Natural Regions and Subregions of Alberta 2006). The ecological classification hierarchy in Alberta consists of the following levels (largest to smallest unit): Natural region, Natural subregion, Ecosection, Ecodistrict, Ecological site , Ecological site phase and Plant community (Figure 1).

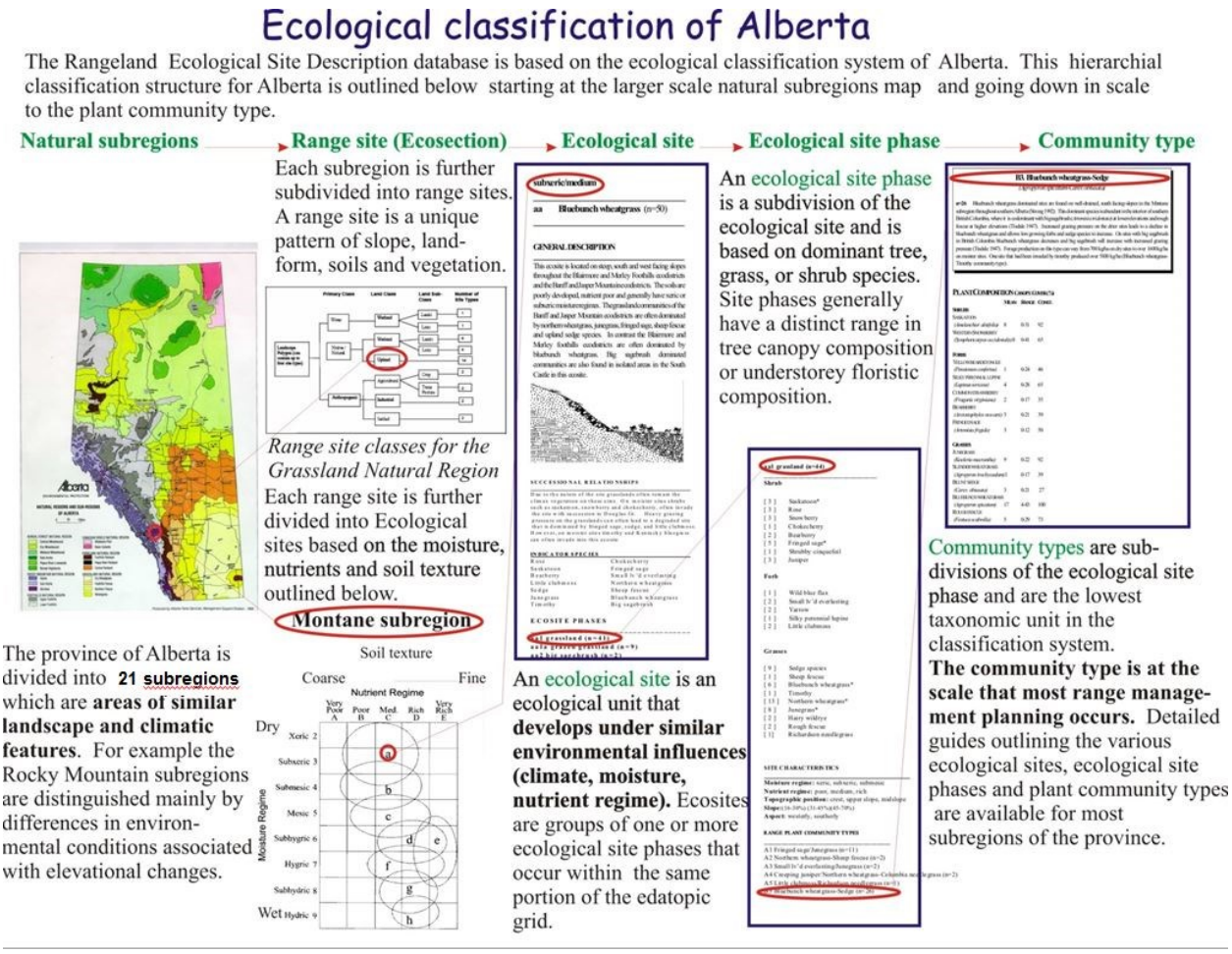


Figure 1. Ecological classification hierarchy of Alberta

2.1 Natural Regions

Alberta is subdivided into six natural regions. Natural regions have been defined geographically on the basis of landscape patterns (notably vegetation, soils and topographic features). These landscape patterns reflect the combined influence of climate, topography and geology (Natural Regions Committee 2006). Soils and climate are most significant in the plains of the southeast; elevation, topography and vegetation are major criteria in the foothills and mountains, while latitude, topography and vegetation

are significant in the northern plains and forests. The six regions are the Canadian Shield, Boreal Forest, Rocky Mountain, Foothills, Parkland and Grassland.

Some of these names correspond to physiographic units (Rocky Mountain, Foothills) where increasing elevation has modified the climate to create cooler and moister conditions, or where shallow soils and bedrock exposures (Canadian Shield) strongly influence the regional vegetation. Other region names are based on regional vegetation structure and physiography (Parkland, Grassland and Boreal Forest).

In these cases vegetation is the best single integrator of climate, topography and soil characteristics and is useful to describe a region.

2.2 Natural Subregions

A subregion is characterized by vegetation, climate, elevation, latitudinal and/or topographic differences within a natural region (Natural Regions Committee 2006). Each subregion has a reference site. This is defined as the vegetation-soil ecosystem that reflects the regional climate. It is the ecosystem that is found on deep, well to moderately well-drained sites, medium soil textures and mid-slope positions where soil or topographic conditions do not override that of climate. It may not be the most common ecosystem but it typifies the subregion. There are 21 natural subregions within Alberta.

2.3 Ecosection

The Ecosection will further split the Natural subregion and will represent areas with similar physiographic features (ie. areas of higher elevation, changes in climate between north and south etc.). An ecosection maybe defined by grouping various ecodistricts.

2.4 Ecodistrict

The ecodistrict level is a unique pattern of slope, landform, soils and vegetation. Mapping of this unit is usually done at a scale of 1:100,000 within the whole province. This level of the classification hierarchy may or may not be unique to a subregion.

2.5 Ecological Site

Ecological sites are ecological units that develop under similar environmental influences (climate, moisture regime, nutrient regime) (Beckingham, Corns and Archibald, 1996) and are unique to a subregion. An ecological site is a distinctive kind of land with specific physical characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation (Task Group on Unity and Concepts 1995).

2.6 Ecological Site Phase (Ecological range site)

An ecological site phase is a subdivision of the ecological site based on the dominant tree species or variations in specific environmental influences. Differences in phases of the same ecological site may be expressed as differences in plant species abundance or pedogenic processes. Ecological site phases have a distinct range in tree canopy composition and understory floristics. On meadow, grassland and

lowland sites where there is no tree canopy, the tallest structural vegetation layer with a cover greater than 5% determines the ecological site phase (Beckingham, Corns and Archibald 1996).

2.7 Plant community

Plant communities are subdivisions of the ecological site phase and are the lowest taxonomic level in the hierarchy. Plant communities are a collection or association of plant species within a designated geographical unit, which forms a relatively uniform patch, distinguishable from neighboring patches of different vegetation types. Ecological guides outlining the ecological sites, ecological site phases and plant communities are available for nearly every subregion in the province (ECOSYS 2016).

3.0 Methodology

3.1 AVI and LiDAR

AVI, like other forest inventories, is based upon the interpretation of aerial photography. An aerial photograph is a record of ground conditions at a specified date and time. What an interpreter can "see" on a photograph depends first on his skill and experience and second on the features of the photo itself. Photos vary in terms of their scale, the emulsion and the filter used, the quality and type of processing applied ,the time of day and the year (or season) when the exposure was made, and the atmospheric conditions at the time. These include sun angle, the amount of cloud cover, and the clarity of the atmosphere between the camera and the ground at the time the photo was taken. Interpretation requires that the information on the photo be assessed in a logical, systematic and objective manner using as a guide the appropriate interpretation standards if interpretation of an acceptable standard is to be achieved. The Alberta Vegetation Inventory (2005) was intended to be a continuous inventory requiring a minimum of 1/20th of the land area to be re-inventoried annually. This procedure would provide an on-going opportunity to review and to revise specifications to meet changing needs and to take advantage of new technology.

Annual and periodic updates to AVI are also made to capture changes due to depletions like timber harvesting, forest fires, road construction and the activities of the petroleum industry. These changes may be "cut into" the inventory (i.e. the original polygons and their labels changed to reflect the depletions) or a depletion layer created can be overlaid using a GIS onto the AVI coverage as required for specific purposes such as timber supply analysis. If the latter approach is taken the original AVI polygons are only updated when a re-inventory is conducted, usually on a ten to twenty-year cycle.

LiDAR is a surveying technology that measures distance by illuminating a target with a laser light. A narrow laser-beam can map physical features with very high resolutions; for example, an aircraft can map terrain at 30 cm resolution or better. Airborne lidar (also airborne laser scanning) is when a laser scanner, while attached to a plane during flight, creates a 3D point cloud model of the landscape (Medina et al. 2006). This is currently the most detailed and accurate method of creating digital elevation models, replacing photogrammetry. One major advantage in comparison with photogrammetry is the ability to filter out vegetation from the point cloud model to create a digital surface model where areas covered by vegetation can be visualized, including rivers, paths, cultural

heritage sites, etc. Lidar derived Digital Elevation Model (DEM) was used to create a topographical map of the AVI interpreted areas. Terrain analysis using digital Elevation models (TAUDEM 2016) was used calculate the slope/area ratio to reveal slope positions in the topography (Figure 2). The slope position topographical information was then blended with AVI polygons to create 6 slope position classes (1=valley, 2=lower slope, 3=flat slope, 4=mid slope, 5=upper slope and 6=ridge)

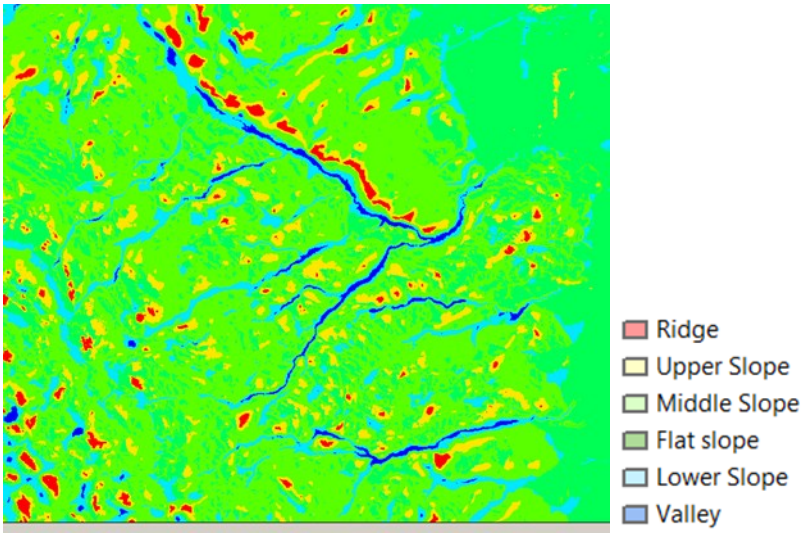
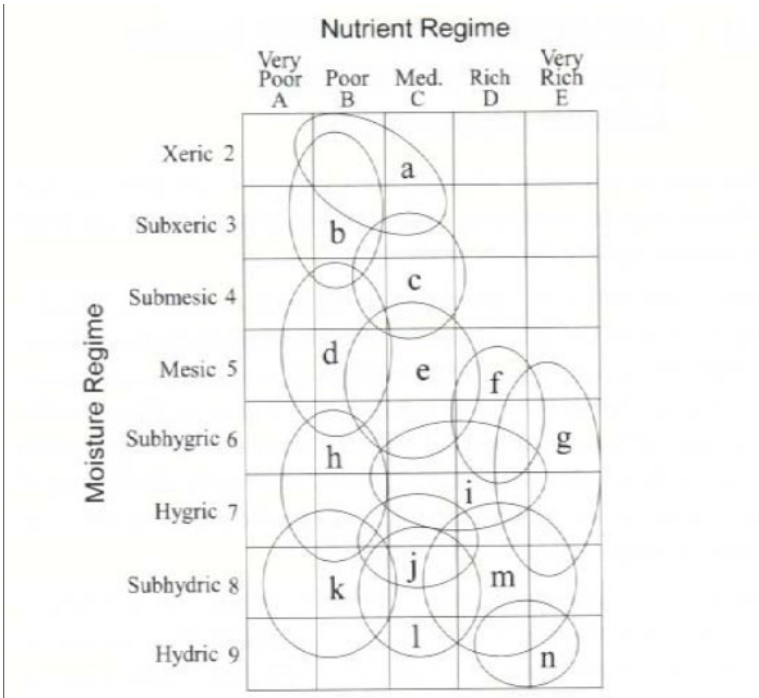


Figure 2. Slope position classes from LiDAR derived DEM.

3.2 Mapcode and Ecosite phase attribution

Map codes are used by the photo interpreter to describe ecological sites. Ecological sites are ecological units that develop under similar environmental influences (climate, moisture regime, nutrient regime) (Beckingham, Corns and Archibald, 1996). An ecological site is a distinctive kind of land with specific physical characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation (Task Group on Unity and Concepts 1995). A lower-case letter is used to designate an ecological site. The one with the driest moisture regime is designated as “a” and each subsequent wetter one is assigned the next available letter. In the Lower Foothills letters range from “a” to “n” (Figure 2). Naming of ecological sites is based on a plant species that is common or typical of the ecological site. The edatopic grid (Figure 2) is a two-dimensional table with soil moisture regime on one axis and soil nutrient regime on the other. Soil moisture regime (SMR) is defined as the average amount of soil water available annually for evapotranspiration by vascular plants (Meidinger and Pojar 1991). The moisture regime is represented on the vertical axis and ranges from driest at the top (xeric (2)) to wettest at the bottom (hydric (9)). The moisture regime classes are defined and determined by criteria indicated in the ecosite guides (Beckingham et al. 1996). In practice very xeric (1) is uncommon and does not appear on most grids; however the code 1A was used to describe lichen stonefields in the Kazan Upland and Athabasca Plains subregions. The unique combination of moisture and nutrients creates conditions for a particular ecological site within a subregion. Sequencing of ecological sites occurs from low moisture/low nutrient to high moisture/high nutrient status. Thus it is possible to determine a location for an ecological unit in terms of moisture and nutrient status. The edatopic grid in

Figure 2 shows that ecological site “a” (grassland) occurs in the xeric portion of the moisture spectrum and the poor area of the nutrient regime. On the other hand, the marsh ecological site (“n”) occurs in the subhydric to hydric moisture regime and the rich to very rich portion of the nutrient regime.



Ecosites:

a = **grassland**
xeric/poor

b = **bearberry/lichen**
subxeric/poor

c = **hairy wild rye**
submesic/medium

d = **Labrador tea–mesic**
mesic/poor

e = **low-bush cranberry**
mesic/medium

f = **bracted honeysuckle**
subhygric/rich

g = **meadow**
subhygric/very rich

h = **Labrador tea–subhygric**
subhygric/poor

i = **horsetail**
hygric/rich

j = **Labrador tea/horsetail**
hygric/medium

k = **bog**
subhydric/poor

l = **poor fen**
subhydric/medium

m= **rich fen**
subhydric/rich

n = **marsh**
hydric/rich

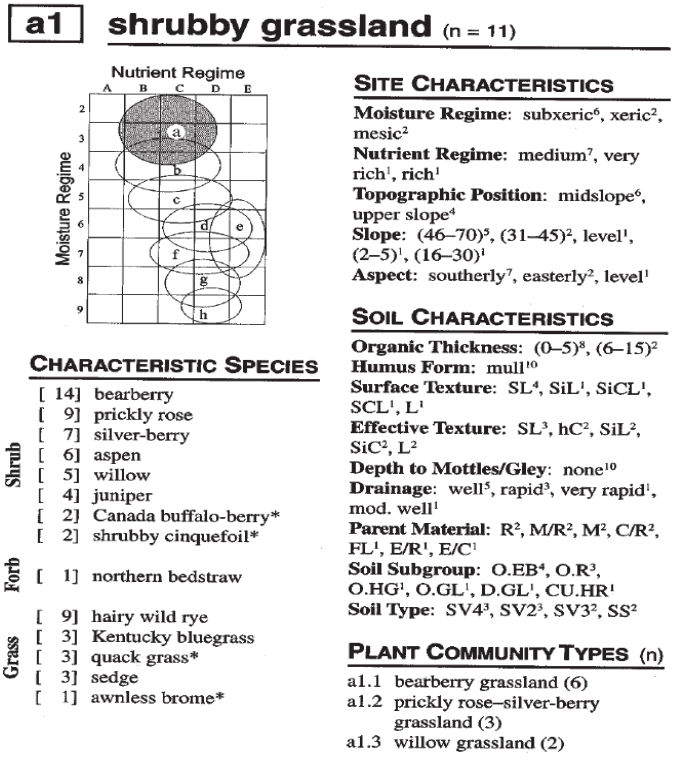
Figure 3. Edatopic Grid and Ecological Sites for the Lower Foothills Subregion.

Moisture and nutrient regimes are indicated for each ecological site. Note that some ecological sites on the wet end of the spectrum are designated as bog, poor fen, rich fen or marsh as opposed to using a name of a specific plant.

The **map code** generally follows the ecosite edatopic grid, but has been modified for ease of use by the interpreters. Generally the interpreters can distinguish from nine to seventeen map codes depending on the subregion. The map codes are coded from dry to wet (1 to 9) with nutrient codes poor to rich (A to E) and include these twenty one codes in the various interpretation databases for all subregions in the province (1A, 2B, 3B, 3C, 3D, 4B, 4C, 4D, 5B, 5C, 5D, 6C, 6D, 6E, 7B, 7C, 7D, 9B, 9C, 9D, and 9E).

An **ecological site phase** is a subdivision of the ecological site based on the dominant tree species or variations in specific environmental influences. Differences in phases of the same ecological site may be expressed as differences in plant species abundance or pedogenic processes. Ecological site phases have a distinct range in tree canopy composition and understory floristics. On meadow, grassland and lowland sites where there is no tree canopy, the tallest structural vegetation layer with a cover greater than 5% determines the ecological site phase (Beckingham, Corns and Archibald 1996). Ecological site phases can be mapped. Labelling of ecological site phases consists of a lower-case letter, a number and a name (plant species or physiognomic type). Sometimes the abundance of lower strata plant species and/or pedogenic processes may be used to name the ecological site phases. Each ecological site phase has a distinct range in canopy composition and lower strata floristics. The tree canopy, canopy-dependent factors such as understory species abundance and composition and litter pH interact to influence the type and quantity of organic matter, rate of decomposition and nutrient availability. Site characteristics are also used to characterize a site phase. They include moisture and nutrient regime, topographic position, slope class, aspect and soil characteristics (organic layer thickness, humus form, surface texture, effective texture, depth to mottles/gleying, drainage and soil subgroup). An example is

indicated in Figure 3 illustrating that there is a strong ecological basis for this approach.



a1 shrubby grassland (n = 11)

Nutrient Regime

Moisture Regime

SITE CHARACTERISTICS

Moisture Regime: subxeric[6], xeric[2], mesic[2]
Nutrient Regime: medium[7], very rich[1], rich[1]
Topographic Position: midslope[6], upper slope[4]
Slope: (46–70)[5], (31–45)[2], level[1], (2–5)[1], (16–30)[1]
Aspect: southerly[7], easterly[2], level[1]

SOIL CHARACTERISTICS

Organic Thickness: (0–5)[8], (6–15)[2]
Humus Form: mull[10]
Surface Texture: SL[4], SiL[1], SiCL[1], SCL[1], L[1]
Effective Texture: SL[3], hC[2], SiL[2], SiC[2], L[2]
Depth to Mottles/Gley: none[10]
Drainage: well[5], rapid[3], very rapid[1], mod. well[1]
Parent Material: R[2], M/R[2], M[2], C/R[2], FL[1], E/R[1], E/C[1]
Soil Subgroup: O.EB[4], O.R[3], O.HG[1], O.GL[1], D.GL[1], CU.HR[1]
Soil Type: SV4[3], SV2[3], SV3[2], SS[2]

CHARACTERISTIC SPECIES

Shrub
[14] bearberry
[9] prickly rose
[7] silver-berry
[6] aspen
[5] willow
[4] juniper
[2] Canada buffalo-berry*
[2] shrubby cinquefoil*

Forb
[1] northern bedstraw

Grass
[9] hairy wild rye
[3] Kentucky bluegrass
[3] quack grass*
[3] sedge
[1] awnless brome*

PLANT COMMUNITY TYPES (n)

a1.1 bearberry grassland (6)
a1.2 prickly rose–silver-berry grassland (3)
a1.3 willow grassland (2)

*Species characteristic of the phase but occurring in <70% of the sample plots with a rominence value <20.

Figure 4. Shrubby grassland ecological site phase description for the Lower Foothills subregion.

Using attributes from AVI (Subregion, Moisture, SP1, SP2, USP1, NFL, UNFL, ANTH_VEG, UANTH_VEG, ANTH_NON, UANTH_NON, NAT_NON, UNAT_NON, pct_conif, upct_conif, MOD1) and products derived from LiDAR (5m) (slope position) or Base Features DEM (25 m) (slope position) rules were created that derive mapcode and ecosite phase within the area of AVI interpretation.

Below is an example of two rules that derive Mapcode 5D and ecosite phase ff2 in the Upper Foothills (UF) subregion using ArcMap.

1. MAP_CODE,10,**5D**,MC_CL,10,""""NSR2005"" = 'UF' AND (""NFL"" = 'SC' OR ""NFL"" = 'SO') AND ""ANTH_VEG"" <> 'CPR' AND ""MOD1"" <> 'CC' AND ""MOIST_REG"" = 'w' AND (""SlPosCl"" IN (4,5,6))"
2. FIN_ECO_PHASE,10,**ff2**,EP_CL,53,""NSR2005"" = 'UF' AND (""NFL"" = 'SC' OR ""NFL"" = 'SO') AND ""ANTH_VEG""<>'CPR' AND ""MOD1"" <> 'CC' AND ""MAP_CODE"" = '5D'

Where:

NSR2005=UF (Upper Foothills subregion)

NFL = SC (shrub closed) or SO (shrub open)

ANTH_VEG <> CPR (rough pasture)

MOD1 = CC (Clearcut)

MOIST_REG = w (wet)

SlPosCl = (4,5,6) (Slope position midslope,upper slope,ridge)

MAP_CODE=5D (mesic/rich ecological site)

(see AVI specification manual v2.1.1 (2005) for further description of codes)

Once all polygons were attributed to mapcode and ecosite phase the polygons were dissolved (ArcMap) to natural subregion, mapcode and final ecosite phase. Finally, subregion, ecosection, ecological site, and ecological site phase codes and names from ECOSYS were then assigned to all dissolved polygons.

3.3 Riparian and Wetland Classification

Wetlands are land saturated with water long enough to promote formation of water altered soils, growth of water tolerant vegetation, and various kinds of biological activity that are adapted to a wet environment. The Alberta Wetland Classification System (2015) recognizes the hydrological, biogeochemical and biotic processes that affect differing characteristics that can be used to define a wetland. The AWCS recognizes five classes of wetlands in Alberta: bogs, fens, marshes, shallow open water, and swamps. These five classes align with the Canadian Wetland Classification System (CWCS) at its most basic level and are recognized by the Alberta Wetland Policy.

Once ecosite phase was determined we selected the phases that represent riparian (wet influenced/swamps) areas and the areas that represent wetlands (bog, poor fens, rich fens, marshes). This determination comes from the Alberta Wetland Classification System (http://www.wetlandpolicy.ca/alberta-wetland-classification-system/Appendix one). An example of phases that represent riparian and wetland areas in the various subregions are outlined in Table 1.

Table 1. Wetland and Riparian Ecosite phases for the various subregions interpreted to AVI specifications.

Subregion	Wetland (Ecosite phase codes)	Riparian (Ecosite phase codes)
Subalpine (includes Alpine)*	i2,j1,j2,j3	ee1,ee2,f1,f2,f3,f4,g1,g2,g3,h1,h2
Montane	ij1,ij2,ij3,k1	e1,e2,e3,e4,g1,g2,h1,h2,h3,f1
Foothills Parkland (includes Foothills fescue, Mixedgrass)*	h1,h2	f1,f2,f3,f4,g1,g2
Upper Foothills	k1,k2,l1,l2,l3,m1,m2,m3	f1,f2,f3,f4,f5,f6,g1,g2,g3,h1,i1,j1,j2

Lower Foothills	k1,k2,l1,l2,m1,m2,m3,n1	f1,f2,f3,f4,f5,f6,f7,g1,g2,g3,h1,i1,i2,i3,i4,j1
Central Mixedwood	i1,i2,j1,j2,j3,j4,k1,k2,k3,l1	e1,e2,e3,e4,e5,f1,f2,f3,f4,f5,g1,g2,h1,h2,h3
Dry Mixedwood	i1,i2,j1,j2,j3,j4,k1,k2,k3,l1	e1,e2,e3,e4,e5,f1,f2,f3,f4,f5,g1,g2,h1,h2,h3
Lower Boreal Highlands (Foothills Ecosection)	h1,h2,i1,i2,j1,j2,j3,j4,k1	e1,e2,e3,e4,e5,f1,f2,f3,g1,g2
Lower Boreal Highlands (Boreal Ecosection)	h1,h2,h3,i1,i2,i3,j1,j2,j3,k1	e1,e2,e3,e4,e5,f1,f2,f3,g1,g2
Upper Boreal Highlands	g1,g2,h1,h2,h3,i1,i2,i3,j1,k1,k2,k3,k4	e1,e2,e3,e4,e5,f1,f2
Boreal Subarctic	h1,h2,h3,i1,i2,i3,j1,j2,j3,k1,k2,k3,k4,k5,k6, k7,k8,l1	e1,e2,e3,f1,f2,f3,g1,g2,g3
Northern Mixedwood	h1,h2,h3,i1,i2,i3,j1,j2,j3,k1	e1,f1,g1,g2,g3,g4,g5
Peace Parkland	hh1,i1,j1,j2,k1	g1,g2,g3,g4,h1,h2,h
Kazan Upland	h1,h2,i1,i2,i3,j1,j2,j3,k1	f1,f2,f3,g1,
Athabasca Plain	i1,i2,i3,j1,j2,j3,k1,k2,k3,l1	g1,g2,g3,g4,g5,h1

***Note:** Alpine, Foothills fescue and Mixedgrass subregions treed ecological site phases have not been described, treed polygons described in AVI are likely in the Subalpine for Alpine subregion and are likely in the Foothills Parkland for the Foothills fescue and Mixedgrass subregions.

3.4 ArcMap and LiDAR tools, AVI specifications and ECOSYS

AVI Standards and Specifications were developed by Forest Management Branch (Version 2.1.1). LiDAR processing and development of products (slope position) was developed by Forest Management Branch. ArcMap tools for processing of mapcode and ecosite phase rules were developed by Forest Management Branch. Alberta's classification hierarchy and ECOSYS database was developed and is maintained by Rangeland Resource Stewardship Section, Land Policy Branch.

4.0 RESULTS

4.1 Database Attributes

The following database attributes have been populated for the Derived Ecosite Phase database (DEP).

4.1.1 Field NSR2005 - Natural Subregion 2005 (Table 2)

Table 2. Natural subregion description code and class

NR_CL	Description code	Description
1	A	Alpine
2	AP	Athabasca Plain
3	BSR	Boreal Subarctic
4	CM	Central Mixedwood
5	CP	Central Parkland
6	DMG	Dry Mixedgrass
7	DMW	Dry Mixedwood
8	FF	Foothills Fescue
9	FP	Foothills Parkland
10	KU	Kazan Upland
11	LBH	Lower Boreal Highlands
12	LF	Lower Foothills
13	M	Montane
14	MG	Mixedgrass
15	NF	Northern Fescue
16	NM	Northern Mixedwood
17	PAD	Peace-Athabasca Delta
18	PRP	Peace River Parkland
19	SA	Subalpine
20	UB	Upper Boreal Highlands
21	UF	Upper Foothills

4.1.2 Field FIN_ECO_PHASE - Final Ecosite phase code from model (refer to subregion guides, internal access through ECOSYS or external access http://aep.alberta.ca/lands-forests/grazing-range-management/range-plant-community-guides-stocking-rates.aspx)

4.1.3 Field MAP_CODE - Mapcode from model (1A,2B,3B,3C,4C,4D,5C,5D,6E,&B,7C,7D,9B,9C,9D,9E)

4.1.4 Field EP_CODE - Ecosite phase code (refer to subregion guides, internal access through ECOSYS or external access http://aep.alberta.ca/lands-forests/grazing-range-management/range-plant-community-guides-stocking-rates.aspx)

4.1.5 Field EP_NAME - Ecosite phase name (refer to subregion guides, internal access through ECOSYS or external access http://aep.alberta.ca/lands-forests/grazing-range-management/range-plant-community-guides-stocking-rates.aspx)

4.1.6 Field ES_CODE - Ecological Site (refer to subregion guides, internal access through ECOSYS or external access http://aep.alberta.ca/lands-forests/grazing-range-management/range-plant-community-guides-stocking-rates.aspx)

4.1.7 Field ES_NAME - Ecological Site Name (refer to subregion guides, internal access through ECOSYS or external access http://aep.alberta.ca/lands-forests/grazing-range-management/range-plant-community-guides-stocking-rates.aspx)

4.1.8 Field ESC_CODE - Ecosection code (refer to subregion guides, internal access through ECOSYS or external access http://aep.alberta.ca/lands-forests/grazing-range-management/range-plant-community-guides-stocking-rates.aspx)

4.1.9 Field ESC_NAME - Ecosection name (refer to subregion guides, internal access through ECOSYS or external access http://aep.alberta.ca/lands-forests/grazing-range-management/range-plant-community-guides-stocking-rates.aspx)

4.1.10 Field NASR_NAME - Natural subregion name (refer to subregion guides, internal access through ECOSYS or external access http://aep.alberta.ca/lands-forests/grazing-range-management/range-plant-community-guides-stocking-rates.aspx)

4.1.11 Field Map_Label - Subregion code, mapcode, ecosite phase code (eg. SA5Ce1)

SA – Subalpine

5C – Mapcode (mesic/medium)

e1 – false azalea-grouseberry Pl

4.1.12 Field Class_Key - Subregion code and ecosite phase code (eg. SAe1)

4.1.13 Field Shape_Length - Length of feature in internal units.

Description of values Positive real numbers that are automatically generated.

4.1.14 Field Shape_Area - Area of feature in internal units squared.

Description of values Positive real numbers that are automatically generated.

4.1.15 Field RIP_NSR - Riparian identified in Natural subregion (eg. RIP_DM)

RIP_DM – polygon designated riparian in Dry Mixedwood subregion (DM)

4.1.16 Field RIP_CL - Riparian class yes or no (1-21 subregion class,-1)

4.1.17 Field WLD_NSR - Wetland identified by Natural subregion (eg. WLD_DM)

WLD_DM – polygon designated wetland in Dry Mixedwood subregion (DM)

4.1.18 Field WLD_CL - Wetland class Yes or No (1-21 subregion class,-1)

5.0 DISCUSSION

This material has been provided with the intent that it be readily available for use by the public and except where otherwise prohibited, may be reproduced, in part or in whole and by any means, without charge or further permission from the Forest Management Branch. We only ask that: The materials not be modified, users exercise due diligence in ensuring the accuracy of the materials, the Forest Management Branch be identified as the source of the materials, the reproduction is not represented as an official version of the materials reproduced, nor as having been made in affiliation with or with the endorsement of the Branch, reproduction of multiple copies of materials, in whole or in part, for the purposes of commercial distribution is prohibited, except with written permission from the Forest Management Branch. To obtain permission to reproduce materials on this site for commercial purposes, please contact the Forest Management Branch. The accuracy of the mapcode and ecological site phase polygon information is only as good as the original AVI interpretation. Quality control of older AVI inventories 20+ years did not follow the strict quality control audits of present inventories. This has led some inconsistencies in the attribution of Mapcode and ecological site phase. For example an AVI call NFL=HF with an understory call of UANTH_VEG= NWL (water) and moisture call of ”w”(wet) leads to a mapcode call of “9C” and ecosite phase call of “ij3”(graminoid fen), but the imagery indicates the area should be water (Mapcode ‘W’) (Figure 5).

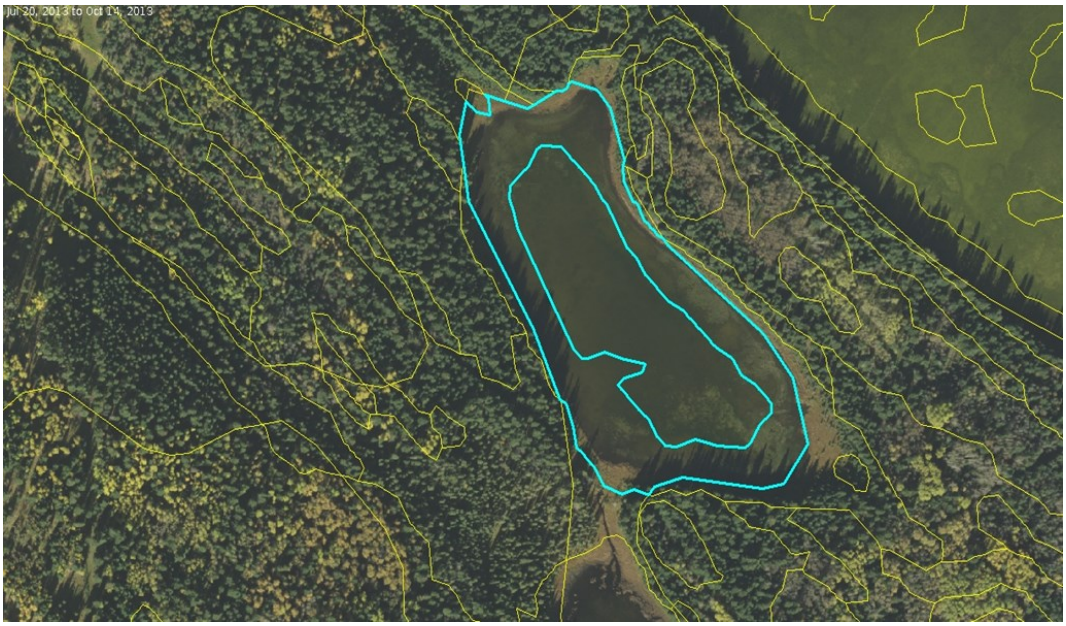


Figure 5. Montane subregion (35 yr old AVI), Mapcode=9C, NFL=HF, UANTH_VEG=NWL, Moist=w leads to an Ecosite phase call ij3 (graminoid fen) and Mapcode 9C

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