

Whitewood Conceptual Scheme



Prepared for



Approved by Council on:

March 27, 2018



Carswell Planning



Adopted by Parkland County Council on March 27, 2018.

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WHITEWOOD CONCEPTUAL SCHEME

1.0 INTRODUCTION

1.1 Purpose of this Plan

The purpose of this Conceptual Scheme is to provide a general framework of future land use, major transportation and utility corridors for the former Whitewood mine, to assist with future land use resignation and subdivision.

This Conceptual Scheme offers future landowners valuable guidance regarding the possibilities for future development on the subject lands. At the same time, the Conceptual Scheme serves the County and its residents by providing a policy framework to guide the preparation of land use redesignation and subdivision applications in accordance with the principles of good planning and in conformance with the Capital Region Plan (CRP), the County of Parkland Municipal Development Plan (MDP) and the County of Parkland Land Use Bylaw (LUB).

1.2 Conceptual Scheme Objective

1. To demonstrate how the Conceptual Scheme address the requirements of the Capital Region Plan (CRP), the County of Parkland Municipal Development Plan (MDP) and the County of Parkland Land Use Bylaw (LUB).
2. To prepare a Conceptual Scheme to guide the County of Parkland Administration and Council while evaluating subsequent land use redesignation, subdivision and development applications.
3. To return the former Whitewood mine to active agricultural production and passive recreation lands in accordance with Alberta Environment reclamation certificates.
4. To balance Alberta Environment Reclamation requirements with local resident interests identified during the public engagement program and to summarize input received as part of the required public consultation program.
5. To provide an optimal internal transportation system required to service the local transportation network.
6. To identify existing constraints and opportunities for future land uses, subdivision and development within the Whitewood Conceptual Scheme.
7. To address requirements for future land use redesignation, subdivision and development permits applications.
8. To accommodate phased redesignation, subdivision and development of the lands in conjunction with approval of reclamation certificates.

2.0 POLICY CONTEXT

2.1 Alberta Provincial Policy

The purpose of the Conceptual Scheme is to provide a non-statutory framework, pursuant to the Municipal Government Act (MGA) and the Subdivision & Development Regulations:

- Provide a framework for the subsequent subdivision and/or development of land within the County; and,
- Establish a potential plan of future subdivision or development that applies to a specific parcel of land.

2.2 Capital Region Growth Plan

Parkland County is a member of the Capital Region Board and supports the Capital Region Growth Plan. The lands within the Whitewood Conceptual Scheme are outside of the identified Priority Growth Areas, and will not have an impact on the regional infrastructure, recreation, transportation and utility corridors identified in the Capital Region Growth Plan.

Parkland County Bylaws & Policies

2.3 Municipal Development Plan

Parkland County's MDP Bylaw No. 37-2007 indicates the Whitewood Mine as a major resource extraction site, surrounded by predominantly agricultural land with small areas of country residential, fringe and environmentally significant areas.

The MDP supports agricultural and recreation development throughout the document including at Brownfield development sites. Relevant clauses from the MDP include:

- *Conserve agricultural lands for agricultural and related uses. (Section 2)*
- *The County also recognizes that resource extraction may be a temporary use of the land so that it is important that adjoining land uses, as well as the environment, are not adversely impacted by extraction activities and that future reclamation is carried out according to Provincial and County standards. (Section 5)*
- *Provide a variety of recreational and open space opportunities while protecting the natural environment. (Section 8)*
- *Encouraging Brownfield development which involves redeveloping, expending, or reusing a property which may be complicated by the presence or potential presence of a pollutant or contaminant. (Section 1)*

Through consultation with Parkland County, the Whitewood Conceptual Scheme is intended to meet the intent of the MDP Update which is currently underway.

2.4 Parkland County Land Use Bylaw No. 20-2009

Pursuant to Parkland County's LUB, the entire site is currently designated as Direct Control to accommodate the former mine.

The conceptual scheme proposed the Direct Control district be replaced with agricultural and recreation land uses, in keeping with the pre-determined use as per the Reclamation Certificates. The intent of the proposed uses are to:

- Enable the lands to be returned to productive agriculture.
- Provide attractive recreation open space for passive recreation.

It is envisioned that the agricultural lands will be ANC – Agriculture/Nature Conservation District and AGG – Agricultural General District and the recreational lands will be designation PC – Conservation District. The precise nature of the future designations will be determined in conjunction with Parkland County Administration at the time of the Land Use Bylaw Redesignation application.

2.5 Additional Municipal Policies

In addition, to complying the County's MDP and LUB, the Whitewood Conceptual Scheme supports the intent of the Wabamun Lake Subwatershed Plan, the Environmental Conservation Master Plan, and the Future of Agriculture Study.

3.0 GUIDING PRINCIPLES

3.1 Four Guiding Principles

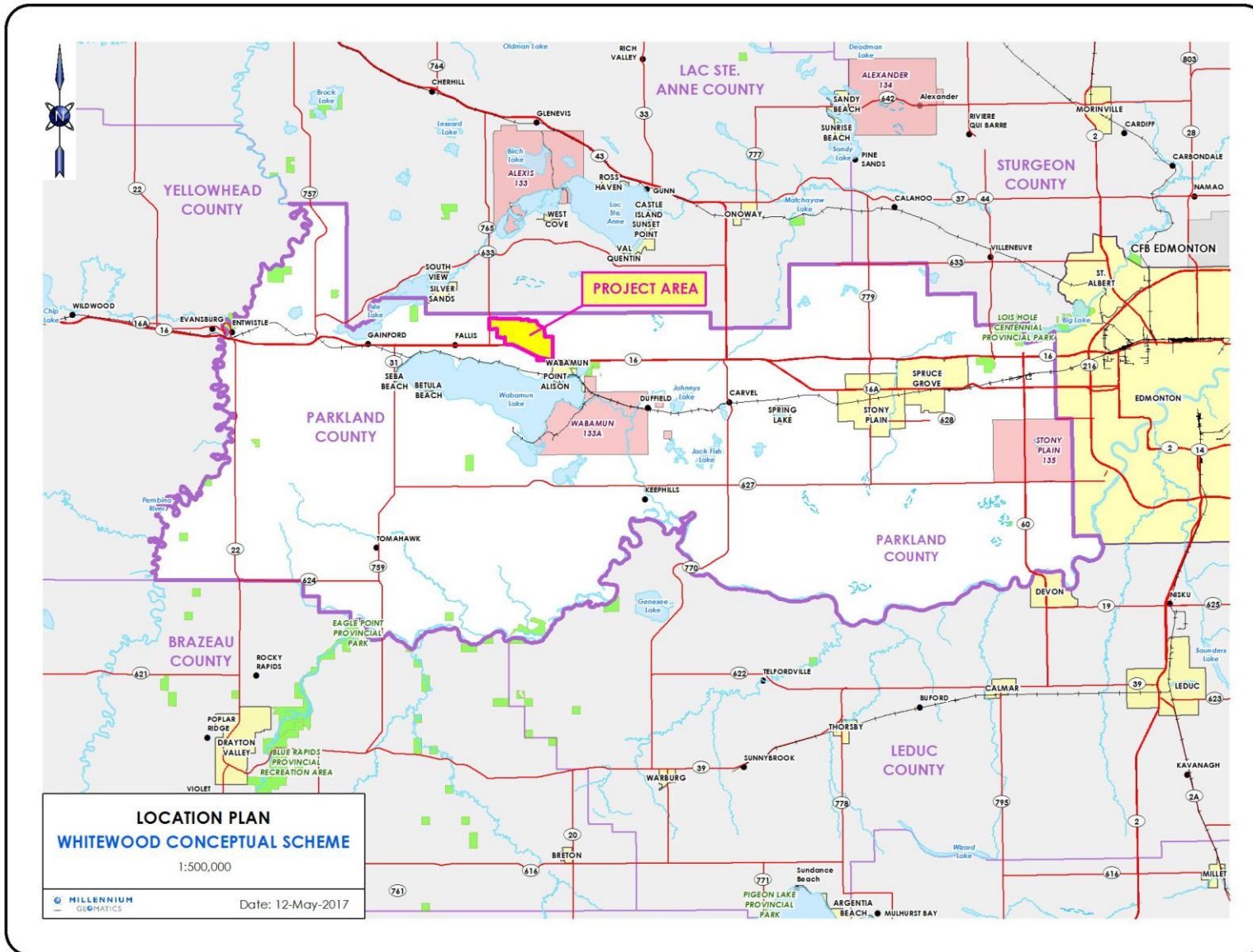
1. Facilitate an open and transparent stakeholder engagement process in accordance with Parkland County's Public Engagement Policy (Policy C-AD51). The stakeholder engagement process was developed to inform and consult with key stakeholders regarding the project details, solicit feedback about future land uses and achieve measurable community support for the project.
2. Integration into the surrounding community. By returning the Whitewood mine to recreation and agriculture, the lands will be returned to the community.
3. Connect to existing regional open space. Regional open space amenities will be enhanced with the additional passive recreation lands within the project.
4. Reintegrate former Whitewood mine lands into agricultural production.

4.0 DEVELOPMENT AREA DESCRIPTON

4.1 Location

Whitewood Mine is owned by TransAlta and located 65 km west of Edmonton near the Village of Wabamun, Alberta in Parkland County.

Figure 1: Whitewood Location



4.2 Reclamation History

Mining activities were undertaken in accordance with the mine permit granted by the Province of Alberta and the license to mine which is issued pursuant to the Environmental Protection and Enhancement Act (EPEA). As mining activities conclude, the Conservation and Reclamation Regulations within the EPEA determine the reclamation process. Reclamation has been ongoing at the site over the course of the Whitewood Mine's life.

Table 1: Reclamation Certificate History of Whitewood Mine and Figure 2: Map of Reclaimed Land shows the reclamation certificates that have been granted:

Table 1: Reclamation Certificate History of Whitewood Mine

Certificate	Date Received	Area (ha)	Certificate	Date Received	Area (ha)
C - 11	Oct. 1982	95.80	C - 102	Sep. 2000	9.25
C - 44	Nov. 1985	217.66	C - 103	Aug. 2000	14.82
C - 95	Sep. 1994	135.34	C - 104	Jan. 2001	177.66
C - 97	Oct. 1995	93.30	C - 100	May. 2001	67.51
C - 101	Sep. 1999	17.39	C - 105	Jun. 2001	61.57
			C - 106	Apr. 2015	235.20
			Total		1125.5

In addition, the relationship between the reclamation certificates, TransAlta retained lands, and the development concept can be found on Figure 16 - Development Concept, Reclamation Certificates & Lands To Be Retained by TransAlta.

Navus Environmental (2010) assessed the agricultural land capability of reclaimed lands located within the west pit area of Whitewood Mine. The reclamation assessment was conducted to fulfill the information requirements outlined in Part 12: Reclamation Certificates of the Guide to the Preparation of Applications and Reports for Coal and Oil Sands Operations (Alberta Land Conservation and Reclamation Council, 1991). Figure 3: Annual Mining Limits of the Whitewood Mine shows how operations progressed from the late 1960s through to the 2000s from east to west. Reclamation followed the same pattern from east to west as operations moved on.

Figure 2: Map of Reclaimed Land

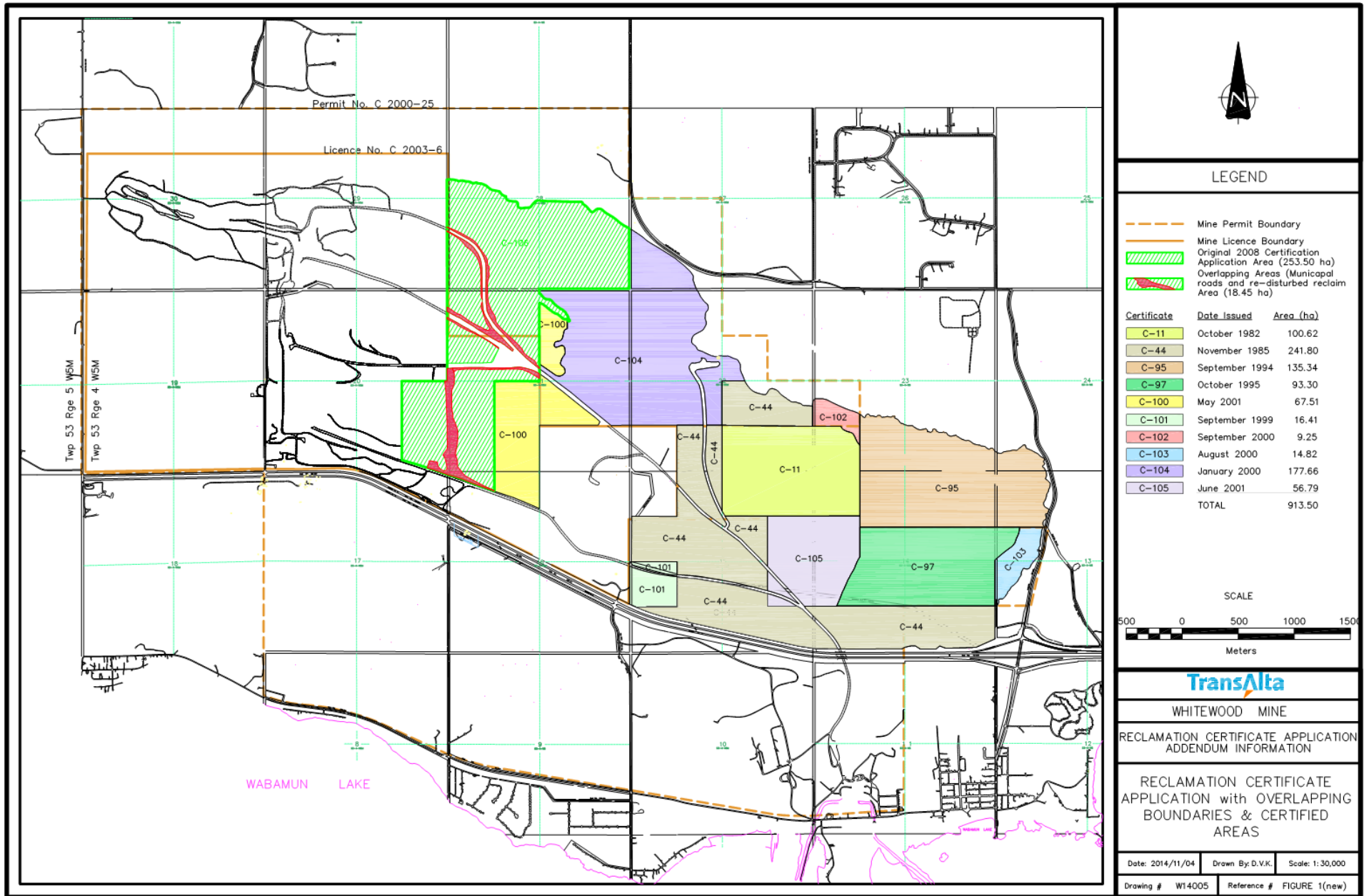
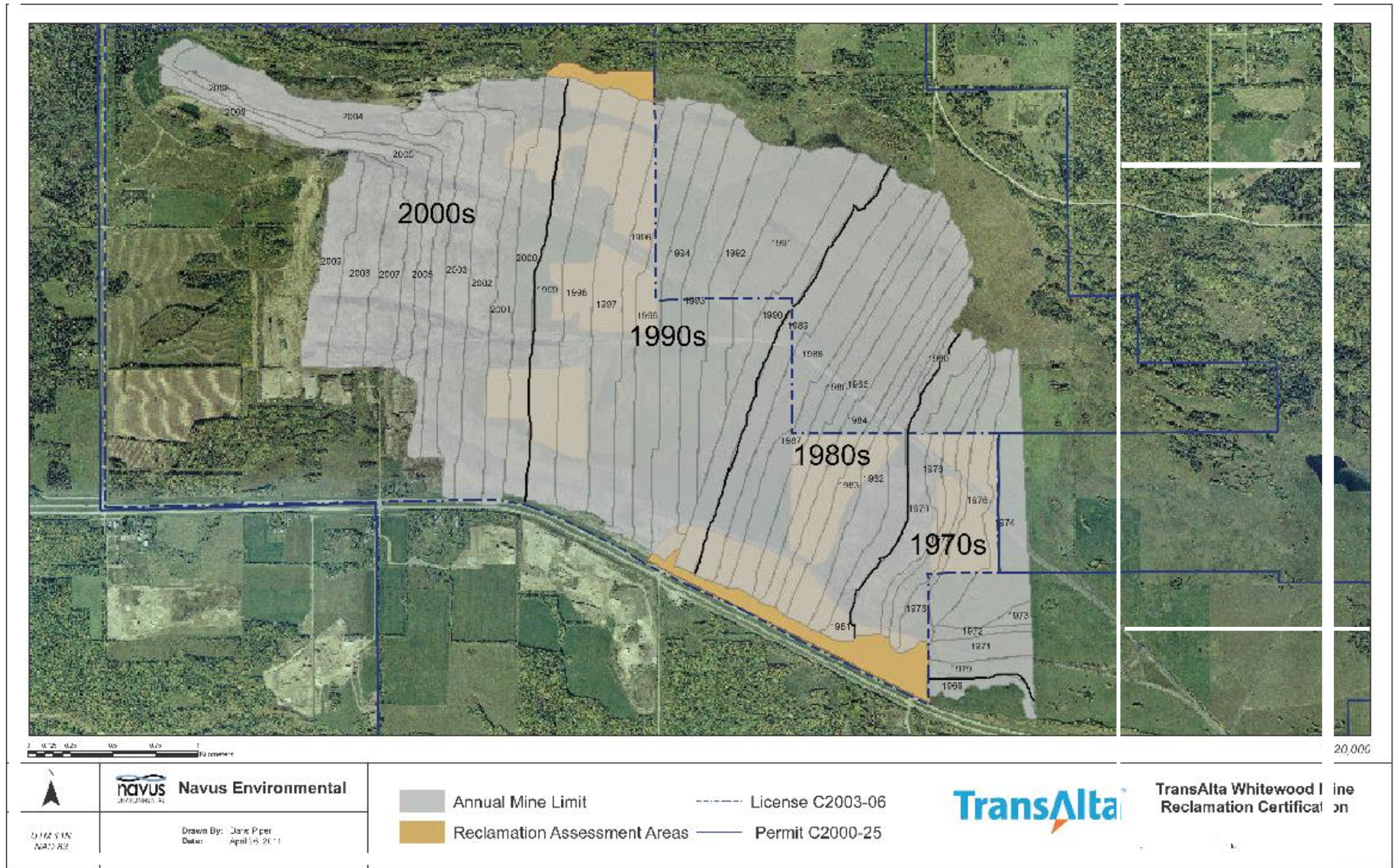


Figure 3: Annual Mining Limits of the Whitewood Mine



4.3 Current Ownership

Ownership of lands within the *Development Area* are shown in Table 2: Current Ownership and on Figure 4: Current Ownership. All parcels within the *Development Area* are owned by TransAlta Corporation.

Table 2: Current Ownership

OWNER	TITLE NUMBER	LEGAL DESCRIPTION	
		SHORT LEGAL	LONG LEGAL
TransAlta Corporation	162 054 733 +3	5;4;53;30;NW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 30 QUARTER NORTH WEST
TransAlta Corporation	142 008 846 +10	5;4;53;21;N,SW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 21 PORTIONS OF THE NORTH HALF AND SOUTH WEST QUARTER COMPRISING THE BED AND SHORE OF WHITEWOOD LAKE AND THE BED AND SHORE OF LAKE A
TransAlta Corporation	142 008 846 +11	5;4;53;20;SW	PORTION OF THE SOUTH WEST QUARTER OF SECTION 20 TOWNSHIP 53 RANGE 4 MERIDIAN 5 NOT COVERED BY THE WATERS OF WHITEWOOD LAKE
TransAlta Corporation	142 008 846 +12	5;4;53;16;NW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 16 ALL THAT PORTION OF THE NORTH WEST QUARTER WHICH LIES NORTH AND EAST OF THE ROAD
TransAlta Corporation	142 008 846 +14	5;4;53;21;SE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 21 QUARTER SOUTH EAST
TransAlta Corporation	142 008 846 +15	5;4;53;22;SW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 22 QUARTER SOUTH WEST
TransAlta Corporation	142 008 846 +16	5;4;53;15;SE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 15 QUARTER SOUTH EAST
TransAlta Corporation	142 008 846 +17	5;4;53;15;SW	MERIDIAN 5; RANGE 4 TOWNSHIP 53; SECTION 15 QUARTER SOUTH WEST
TransAlta Corporation	142 008 846 +18	5;4;53;15;NW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 15 QUARTER NORTH WEST
TransAlta Corporation	142 008 846 +19	5;4;53;15;NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 15 QUARTER NORTH EAST
TransAlta Corporation	142 008 846 +20	5;4;53;21;NW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 21 PORTION OF THE NORTH WEST QUARTER NOT COVERED BY THE WATERS OF WHITEWOOD LAKE AND LAKE 'A'
TransAlta Corporation	142 008 846 +21	5;4;53;21;SW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 21 ALL THAT PORTION OF THE SOUTH WEST QUARTER NOT COVERED BY THE WATERS OF WHITEWOOD LAKE
TransAlta Corporation	142 008 846 +3	5;4;53;20;NW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 20 QUARTER NORTH WEST
TransAlta Corporation	142 008 846 +5	5;4;53;16;NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 16 QUARTER NORTH EAST

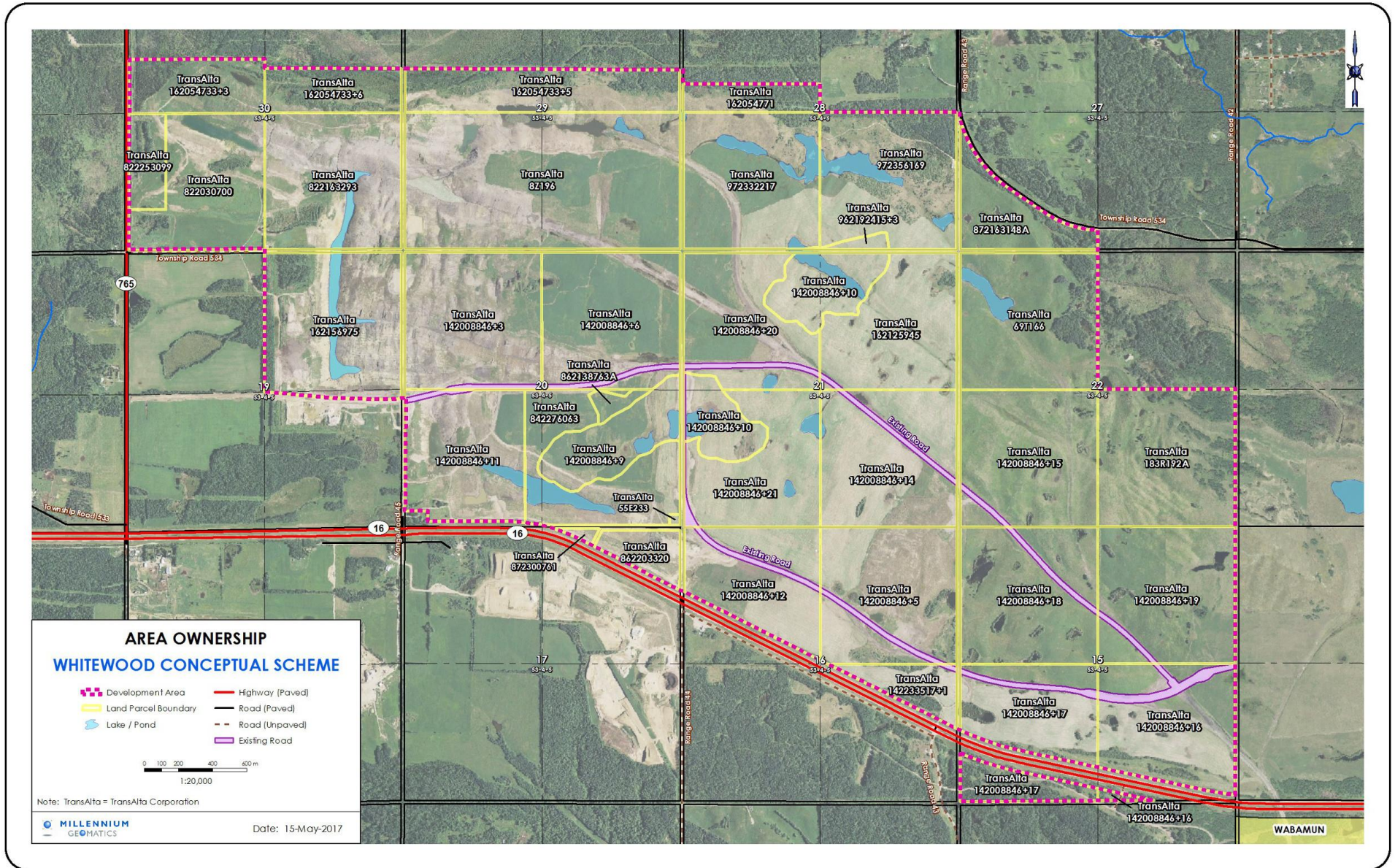
Whitewood

OWNER	TITLE NUMBER	LEGAL DESCRIPTION	
		SHORT LEGAL	LONG LEGAL
TransAlta Corporation	142 008 846 +6	5;4;53;20;NE	PORTION OF THE NORTH EAST QUARTER OF SECTION 20 TOWNSHIP 53 RANGE 4 MERIDIAN 5
TransAlta Corporation	142 008 846 +9	5;4;53;20;SE,NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 20 PORTIONS OF THE EAST HALF COMPRISING THE BED AND SHORE OF WHITEWOOD LAKE AND LAKE A
TransAlta Corporation	142 233 517 +1	1423382;1;2 (5;4;53;16)	DESCRIPTIVE PLAN 1423382; BLOCK 1; LOT 2
TransAlta Corporation	162 054 733 +5	5;4;53;29;NW 5;4;53;29;NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 29 QUARTER NORTH WEST AND MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 29 QUARTER NORTH EAST
TransAlta Corporation	162 054 733 +6	5;4;53;30;NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 30 QUARTER NORTH EAST
TransAlta Corporation	162 054 771	5;4;53;28;NW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 28 QUARTER NORTH WEST
TransAlta Corporation	162 125 945	5;4;53;21;NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 21 PORTION OF THE NORTH EAST QUARTER NOT COVERED BY THE WATERS OF LAKE (A)
TransAlta Corporation	162 156 975	1622233;1;1 (5;4;53;19;E)	PLAN 1622233, BLOCK 1; LOT 1
TransAlta Corporation	183R192A	5;4;53;22;SE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 22 QUARTER SOUTH EAST
TransAlta Corporation	55E233	1429MC;;A (5;4;53;20;SE)	PLAN 1429MC, LOT A
TransAlta Corporation	69T166	5;4;53;22;NW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 22 QUARTER NORTH WEST
TransAlta Corporation	822 030 700	5;4;53;30;SW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 30 QUARTER SOUTH WEST
TransAlta Corporation	822 163 293	5;4;53;30;SE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 30 QUARTER SOUTH EAST
TransAlta Corporation	822 253 099	5;4;53;30;SW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 30 QUARTER SOUTH WEST
TransAlta Corporation	842 276 063	8422558;A (5;4;53;20;S)	PLAN 8422558, BLOCK A
TransAlta Corporation	862 138 763 A	5;4;53;20;SE	PORTION OF THE SOUTH EAST QUARTER OF SECTION 20; TOWNSHIP 53; RANGE 4; MERIDIAN 5
TransAlta Corporation	862 203 320	5;4;53;17;NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 17 PORTION OF THE NORTH EAST QUARTER
TransAlta Corporation	872 163 148 A	5;4;53;27;SW	SOUTH WEST QUARTER OF SECTION 27; TOWNSHIP 53; RANGE 4; WEST OF THE FIFTH MERIDIAN
TransAlta Corporation	872 300 761	5;4;53;17;NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 17 PORTION OF THE NORTH EAST QUARTER

Whitewood

OWNER	TITLE NUMBER	LEGAL DESCRIPTION	
		SHORT LEGAL	LONG LEGAL
TransAlta Corporation	8Z196	5;4;53;29;SW 5;4;53;29;SE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 29 QUARTER SOUTH WEST AND MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 29 QUARTER SOUTH EAST
TransAlta Corporation	962 192 415 +3	5;4;53;28;SW,SE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 28 PORTIONS OF THE SOUTH HALF COMPRISING BED AND SHORE OF WHITEWOOD LAKE AND LAKE A
TransAlta Corporation	972 332 217	5;4;53;28;SW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 28 PORTION OF THE SOUTH WEST QUARTER NOT COVERED BY ANY OF THE WATERS OF LAKE 'A'
TransAlta Corporation	972 356 169	5;4;53;28;SE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 28 PORTION OF THE SOUTH EAST QUARTER NOT COVERED BY ANY OF THE WATERS OF LAKE 'A'

Figure 4: Current Ownership



4.4 Pre-Mining Regional Vegetation and Soils

Agricultural land use in the *Development Area* was generally devoted to rough grazing, pasture and hay land, with little crop land. This was characteristic of the lands between Lake Wabamun and Lac Ste. Anne, but not of the County of Parkland agricultural lands as a whole. Rough grazing and woodlot lands accounted for about two-thirds of the *Development Area* prior to mining (EPEC Consulting Western Ltd. And Earthscape Consultants, 1983, *Whitewood Future Land Use Study* prepared for Parkland County and TransAlta, p.16).

4.5 Adjacent Land Use

Adjacent land uses are generally depicted on Figure 5: Existing Land Use Districts, being: City/Town; Agriculture General District, County Residential District, Lakeshore Residential District, Recreation District, Resource Extraction District, and Rural Industrial Commercial District. The Resource Extraction District is a Direct Control Bylaw (Area 3) Whitewood.

Commercial uses outside the Village of Wabamun on Highway No. 16, the Yellowhead Highway include two service stations. Around Lake Wabamun are cottage resort land uses, the Provincial Park and urban uses associated with the Village of Wabamun. Other nearby summer communities include the Village of Lakeview and the Village of Point Alison. Other adjacent land uses include commercial gravel pits, isolated farmsteads and country residential parcels.

The Village of Wabamun sewage treatment lagoon is located on NE 23 and the County landfill site is located on SE16. Incorporated in 1980, the Village of Wabamun has a population of 682 (2016 Census).

Existing country residential includes 75 parcels created in 1976 on 480 acres of Section 26, known as Brookside Estates.

Existing Agriculture District is found to the west and dominates the rural landscape of Parkland County.

Existing Recreation District includes Wabamun Provincial Park, located north and east of Moonlight Bay, consists of 210 hectares. It has a beach area, boat launch, pier, day use picnic area, swimming area, boating facilities, and campsites.

Figure 6: Existing Transportation shows Highway No. 16, the Yellowhead Highway, being the major east-west connection in northern Alberta. In addition, the CNR hugs the north shore of Lake Wabamun and has been twinned. Within the *Development Area*, an existing road has an internal loop and extends west to Highway 765 and east to Range Road 42.

Figure 5: Existing Land Use Districts

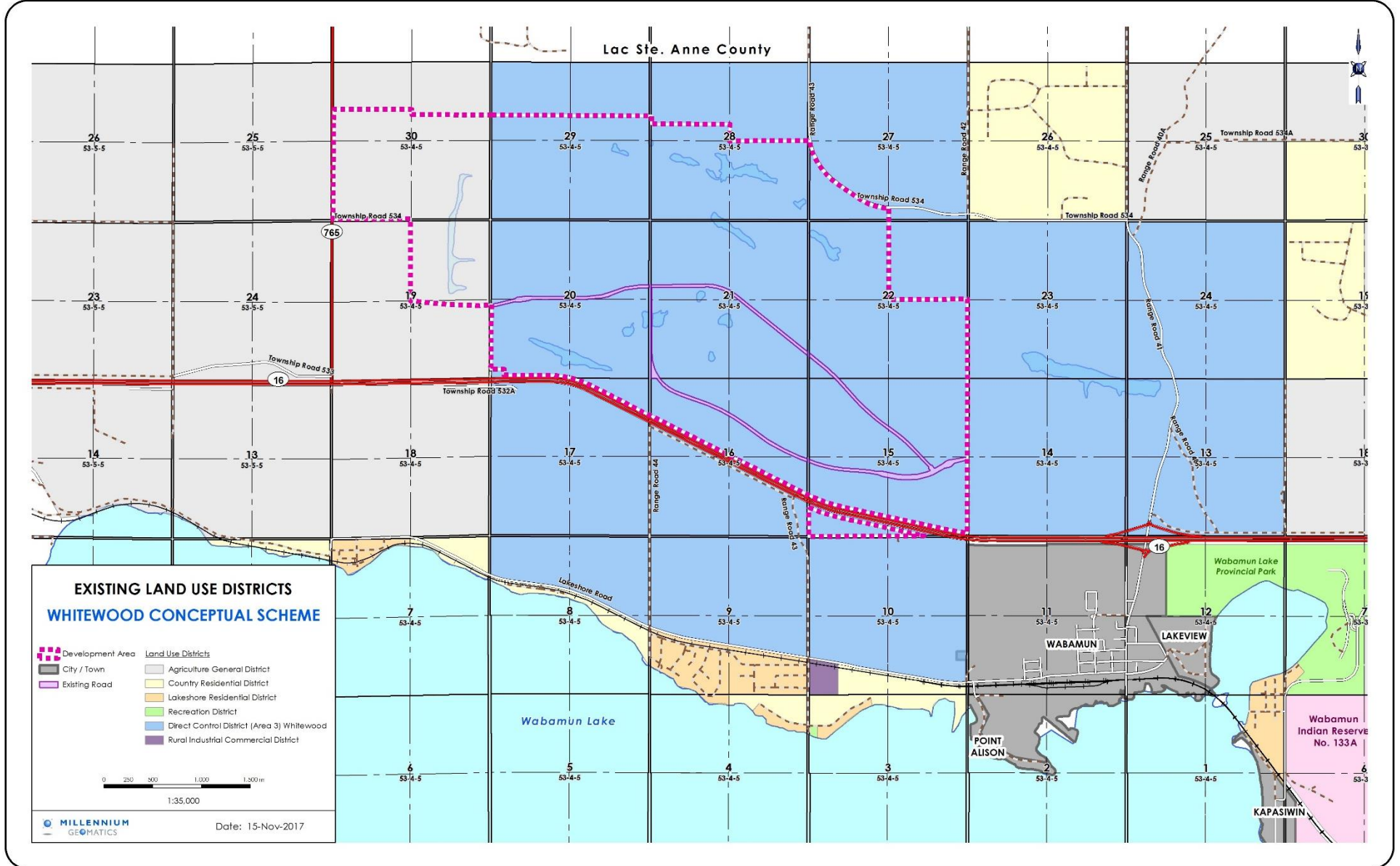
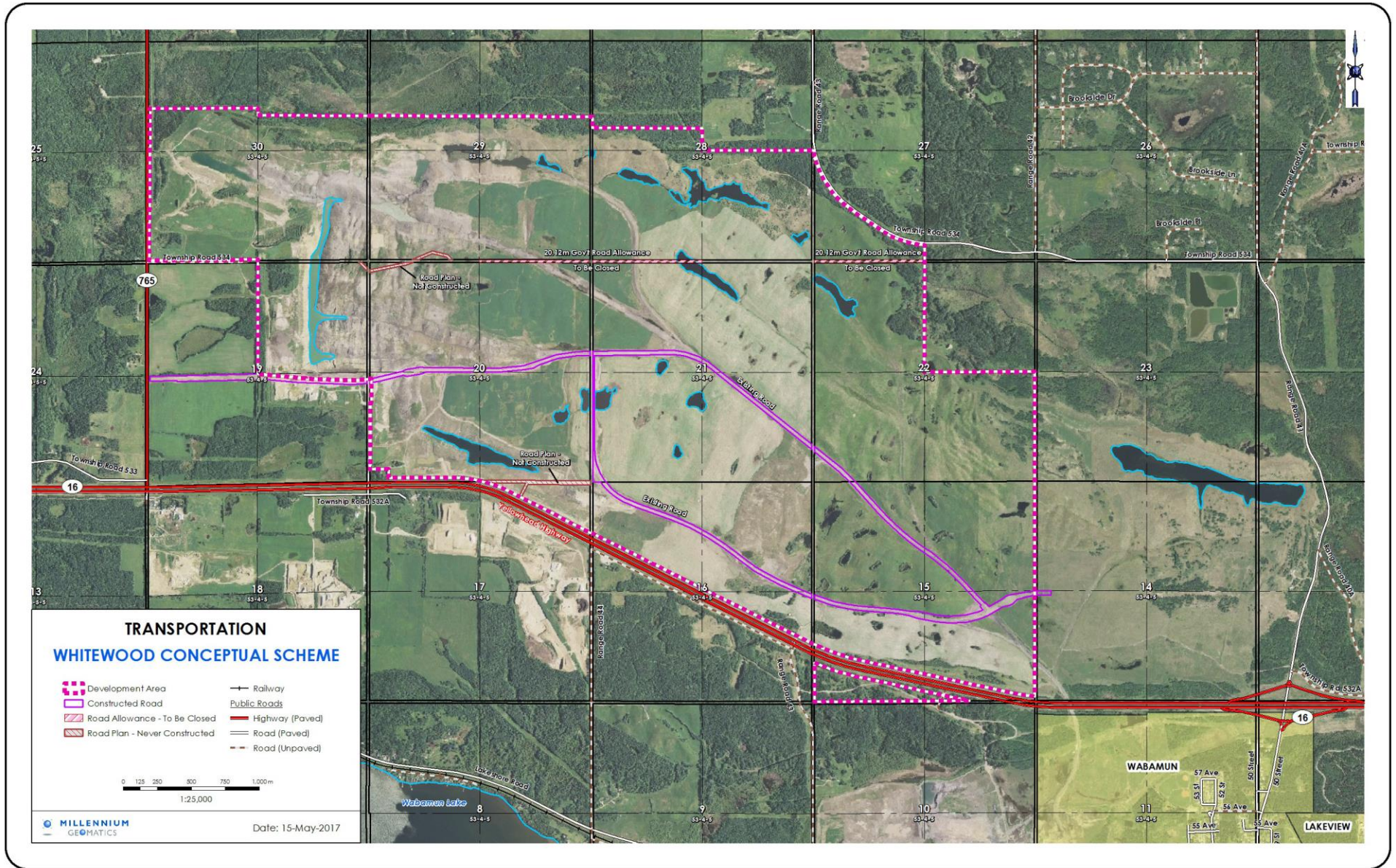


Figure 6: Existing Transportation



4.6 Existing Regional Vegetation and Soils

Predominantly Gray Luvisols soils were deposited by glacial ice as morainal material (till): a mixture of boulders, sand, silt, and clay. Mixed forest vegetation took hold with increased available moisture in conjunction with cooler temperatures. Upon removal of the forest vegetation for agricultural activities, the organic matter is incorporated into the mineral soil resulting in a dark gray surface colour. Organic matter content generally increases under long-term agricultural activities (Government of Alberta, 2017, Agricultural Land Resource Atlas of Alberta [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex10307/\\$file/pg_14_soil_groups.pdf?OpenElement](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex10307/$file/pg_14_soil_groups.pdf?OpenElement)).

For the *Development Area*, prior to mining the topography was nearly level to gently sloped (0 to 9%). Two lakes and pockets of peatland were present. Vegetation consisted of white spruce, jack pine and aspen forests on upland areas and steeper slopes with peatland vegetation in low lying areas.

Major soils in the area are Orthic and Dark Gray Luvisols with Brunisols on sandy sites. Mesisols and Gleysols are found in wetlands. Prior to disturbance, the west pit area of Whitewood Mine site was dominated by Orthic Gray Luvisols, Orthic Humic Gleysols and Humic Luvic Gleysols with pockets of organic soils. Typical topsoils were loam or silt loam over a loam or clay loam till.

Following 1983, topsoil was salvaged from all cultivated land and from forested land where there was greater than 0.15 m of topsoil. Waste from mining (flyash, baghouse dust, coal fines and wash bay sludge) was buried a minimum of 1.2 m below the surface of the reconstructed for croplands (Section 4.4 of EPEA Approval No. 1851-02-00). TransAlta intends to retain ownership of those lands.

Post-mining, the landscape was contoured and topsoil was replaced. The reconstructed topography was to be consistent with the pre-mined topography; maximum slopes of 15% and an agriculture capability rating between 3 and 6. Seed bed preparation on topsoiled land involved removing rocks followed by cultivation and fertilization. The land was seeded with the Whitewood Seed Mix, as shown in Table 3: Whitewood Seed Mix and a cover crop of fall rye or oats. Seed mixes were developed to increase soil organic matter.

Table 3: Whitewood Seed Mix

Species	Composition (%)					
	1984	1985	1986	1987 - 1990	1991-1997	1998-2009
Alfalfa	40	32	85	15	29	39
Canada Blue Grass	-	-	-	25	2	-
Carlton Brome	-	-	-	10	-	-
Creeping Red Fescue	20	20	-	25	10	4
Crested Wheat Grass	-	28	10	-	-	22
Medaow Fescue	-	-	-	-	-	-
Orchard Grass	-	-	5	-	-	-
Red Top Bent Grass	12	12.5	-	-	-	-
Slender Wheat Grass	28	-	-	25	40	-
Smooth Brome	-	-	-	-	19	29
Timothy	-	-	-	-	-	6
White Clover	-	-	-	-	-	-
Application Rate (kg/ha)	17	20	17	22.5	22	25

Areas of forest had been cleared and were used for pasture and forage crops. Short growing seasons, poorly drained soils and poor soil structure resulted in moderate to very severe limitations to agriculture production. Land that had been vegetated for several years was often leased to area farmers. Conventional farming methods were used to manage the land for hay, pasture and/or annual crops. Crop yields and soil condition on reclaimed land were monitored annually following reclamation from 1989 – 2000.

4.7 Utilities

Major pipe and power lines exist in the vicinity. The oil pipeline is located south of Highway No. 16 in the west portion of the area. The natural gas pipeline is located in Section NW3 and along the Highway. A second gas line right-of-way is located on Section 29 and 30.

A power transmission line of 240 KV is located south of Highway No. 16. One high voltage transmission line originally proceeded north through Sections 13, 24 and 25; which were relocated as mining advanced.

5.0 DEVELOPMENT CONCEPT

5.1 Development Concept

The Development Concept includes agricultural land and recreational land. Figure 7: Development Concept shows these lands and Table 4: Development Concept Acreages provides relative acreages for each. Table 5: Current & Proposed Designations lists the current designation and proposed designation for each existing land title. Figure 12: Future Transportation is intended to be part of the Development Concept as well.

Table 4: Development Concept Acreages

Land Use	Hectares (+/-)	Acres (+/-)	Percentage (%)
Recreational	780	1920	47
Agricultural	880	2180	53
Total	1660	4100	100

Table 5: Current & Proposed Designations

OWNER	TITLE NUMBER	LEGAL DESCRIPTION		CURRENT DESIGNATION	PROPOSED DESIGNATION
		SHORT LEGAL	LONG LEGAL		
TransAlta Corporation	162 054 733 +3	5;4;53;30;NW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 30 QUARTER NORTH WEST	AGG - Agriculture General District	PC - Conservation District
TransAlta Corporation	142 008 846 +10	5;4;53;21;N,SW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 21 PORTIONS OF THE NORTH HALF AND SOUTH WEST QUARTER COMPRISING THE BED AND SHORE OF WHITEWOOD LAKE AND THE BED AND SHORE OF LAKE A	Direct Control District (Area 3) Whitewood	ANC - Agriculture/Nature Conservation District and AGG - Agriculture General District
TransAlta Corporation	142 008 846 +11	5;4;53;20;SW	PORTION OF THE SOUTH WEST QUARTER OF SECTION 20 TOWNSHIP 53 RANGE 4 MERIDIAN 5 NOT COVERED BY THE WATERS OF WHITEWOOD LAKE	Direct Control District (Area 3) Whitewood	PC - Conservation District
TransAlta Corporation	142 008 846 +12	5;4;53;16;NW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 16 ALL THAT PORTION OF THE NORTH WEST QUARTER WHICH LIES NORTH AND EAST OF THE ROAD	Direct Control District (Area 3) Whitewood	PC - Conservation District and AGG - Agriculture General District
TransAlta Corporation	142 008 846 +14	5;4;53;21;SE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 21 QUARTER SOUTH EAST	Direct Control District (Area 3) Whitewood	ANC - Agriculture/Nature Conservation District and AGG - Agriculture General District
TransAlta Corporation	142 008 846 +15	5;4;53;22;SW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 22 QUARTER SOUTH WEST	Direct Control District (Area 3) Whitewood	ANC - Agriculture/Nature Conservation District and AGG - Agriculture General District
TransAlta Corporation	142 008 846 +16	5;4;53;15;SE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 15 QUARTER SOUTH EAST	Direct Control District (Area 3) Whitewood	ANC - Agriculture/Nature Conservation District and AGG - Agriculture General District

OWNER	TITLE NUMBER	LEGAL DESCRIPTION		CURRENT DESIGNATION	PROPOSED DESIGNATION
		SHORT LEGAL	LONG LEGAL		
TransAlta Corporation	142 008 846 +17	5;4;53;15;SW	MERIDIAN 5; RANGE 4 TOWNSHIP 53; SECTION 15 QUARTER SOUTH WEST	Direct Control District (Area 3) Whitewood	AGG - Agriculture General District
TransAlta Corporation	142 008 846 +18	5;4;53;15;NW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 15 QUARTER NORTH WEST	Direct Control District (Area 3) Whitewood	AGG - Agriculture General District
TransAlta Corporation	142 008 846 +19	5;4;53;15;NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 15 QUARTER NORTH EAST	Direct Control District (Area 3) Whitewood	ANC - Agriculture/Nature Conservation District and AGG - Agriculture General District
TransAlta Corporation	142 008 846 +20	5;4;53;21;NW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 21 PORTION OF THE NORTH WEST QUARTER NOT COVERED BY THE WATERS OF WHITEWOOD LAKE AND LAKE 'A'	Direct Control District (Area 3) Whitewood	ANC - Agriculture/Nature Conservation District and AGG - Agriculture General District
TransAlta Corporation	142 008 846 +21	5;4;53;21;SW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 21 ALL THAT PORTION OF THE SOUTH WEST QUARTER NOT COVERED BY THE WATERS OF WHITEWOOD LAKE	Direct Control District (Area 3) Whitewood	AGG - Agriculture General District
TransAlta Corporation	142 008 846 +3	5;4;53;20;NW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 20 QUARTER NORTH WEST	Direct Control District (Area 3) Whitewood	PC - Conservation District
TransAlta Corporation	142 008 846 +5	5;4;53;16;NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 16 QUARTER NORTH EAST	Direct Control District (Area 3) Whitewood	ANC - Agriculture/Nature Conservation District and AGG - Agriculture General District
TransAlta Corporation	142 008 846 +6	5;4;53;20;NE	PORTION OF THE NORTH EAST QUARTER OF SECTION 20 TOWNSHIP 53 RANGE 4 MERIDIAN 5	Direct Control District (Area 3) Whitewood	PC - Conservation District and ANC - Agriculture/ Nature Conservation District
TransAlta Corporation	142 008 846 +9	5;4;53;20;SE,NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 20 PORTIONS OF THE EAST HALF COMPRISING THE BED AND SHORE OF WHITEWOOD LAKE AND LAKE A	Direct Control District (Area 3) Whitewood	PC - Conservation District

OWNER	TITLE NUMBER	LEGAL DESCRIPTION		CURRENT DESIGNATION	PROPOSED DESIGNATION
		SHORT LEGAL	LONG LEGAL		
TransAlta Corporation	142 233 517 +1	1423382;1;2 (5;4;53;16)	DESCRIPTIVE PLAN 1423382; BLOCK 1; LOT 2	Direct Control District (Area 3) Whitewood	AGG - Agriculture General District
TransAlta Corporation	162 054 733 +5	5;4;53;29;NW 5;4;53;29;NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 29 QUARTER NORTH WEST AND MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 29 QUARTER NORTH EAST	Direct Control District (Area 3) Whitewood	PC - Conservation District
TransAlta Corporation	162 054 733 +6	5;4;53;30;NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 30 QUARTER NORTH EAST	AGG - Agriculture General District	PC - Conservation District
TransAlta Corporation	162 054 771	5;4;53;28;NW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 28 QUARTER NORTH WEST	Direct Control District (Area 3) Whitewood	PC - Conservation District
TransAlta Corporation	162 125 945	5;4;53;21;NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 21 PORTION OF THE NORTH EAST QUARTER NOT COVERED BY THE WATERS OF LAKE (A)	Direct Control District (Area 3) Whitewood	ANC - Agriculture/Nature Conservation District and AGG - Agriculture General District
TransAlta Corporation	162 156 975	1622233;1;1 (5;4;53;19;E)	PLAN 1622233, BLOCK 1; LOT 1	AGG - Agriculture General District	PC - Conservation District
TransAlta Corporation	183R192A	5;4;53;22;SE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 22 QUARTER SOUTH EAST	Direct Control District (Area 3) Whitewood	ANC - Agriculture/Nature Conservation District and AGG - Agriculture General District
TransAlta Corporation	55E233	1429MC;;A (5;4;53;20;SE)	PLAN 1429MC, LOT A	Direct Control District (Area 3) Whitewood	PC - Conservation District
TransAlta Corporation	69T166	5;4;53;22;NW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 22 QUARTER NORTH WEST	Direct Control District (Area 3) Whitewood	PC - Conservation District and ANC - Agriculture/Nature Conservation District
TransAlta Corporation	822 030 700	5;4;53;30;SW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 30 QUARTER SOUTH WEST	AGG - Agriculture General District	PC - Conservation District

OWNER	TITLE NUMBER	LEGAL DESCRIPTION		CURRENT DESIGNATION	PROPOSED DESIGNATION
		SHORT LEGAL	LONG LEGAL		
TransAlta Corporation	822 163 293	5;4;53;30;SE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 30 QUARTER SOUTH EAST	AGG - Agriculture General District	PC - Conservation District
TransAlta Corporation	822 253 099	5;4;53;30;SW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 30 QUARTER SOUTH WEST	AGG - Agriculture General District	PC - Conservation District
TransAlta Corporation	842 276 063	8422558;A (5;4;53;20;S)	PLAN 8422558, BLOCK A	Direct Control District (Area 3) Whitewood	PC - Conservation District
TransAlta Corporation	862 138 763 A	5;4;53;20;SE	PORTION OF THE SOUTH EAST QUARTER OF SECTION 20; TOWNSHIP 53; RANGE 4; MERIDIAN 5	Direct Control District (Area 3) Whitewood	PC - Conservation District
TransAlta Corporation	862 203 320	5;4;53;17;NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 17 PORTION OF THE NORTH EAST QUARTER	Direct Control District (Area 3) Whitewood	PC - Conservation District
TransAlta Corporation	872 163 148 A	5;4;53;27;SW	SOUTH WEST QUARTER OF SECTION 27; TOWNSHIP 53; RANGE 4; WEST OF THE FIFTH MERIDIAN	Direct Control District (Area 3) Whitewood	PC - Conservation District
TransAlta Corporation	872 300 761	5;4;53;17;NE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 17 PORTION OF THE NORTH EAST QUARTER	Direct Control District (Area 3) Whitewood	PC - Conservation District
TransAlta Corporation	8Z196	5;4;53;29;SW 5;4;53;29;SE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 29 QUARTER SOUTH WEST AND MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 29 QUARTER SOUTH EAST	Direct Control District (Area 3) Whitewood	PC - Conservation District and ANC - Agriculture/Nature Conservation District
TransAlta Corporation	962 192 415 +3	5;4;53;28;SW,SE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 28 PORTIONS OF THE SOUTH HALF COMPRISING BED AND SHORE OF WHITEWOOD LAKE AND LAKE A	Direct Control District (Area 3) Whitewood	PC - Conservation District and ANC - Agriculture/Nature Conservation District
TransAlta Corporation	972 332 217	5;4;53;28;SW	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 28 PORTION OF THE SOUTH WEST QUARTER NOT COVERED BY ANY OF THE WATERS OF LAKE 'A'	Direct Control District (Area 3) Whitewood	PC - Conservation District and ANC - Agriculture/Nature Conservation District

OWNER	TITLE NUMBER	LEGAL DESCRIPTION		CURRENT DESIGNATION	PROPOSED DESIGNATION
		SHORT LEGAL	LONG LEGAL		
TransAlta Corporation	972 356 169	5;4;53;28;SE	MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 28 PORTION OF THE SOUTH EAST QUARTER NOT COVERED BY ANY OF THE WATERS OF LAKE 'A'	Direct Control District (Area 3) Whitewood	PC - Conservation District

5.2 Land Use Concept

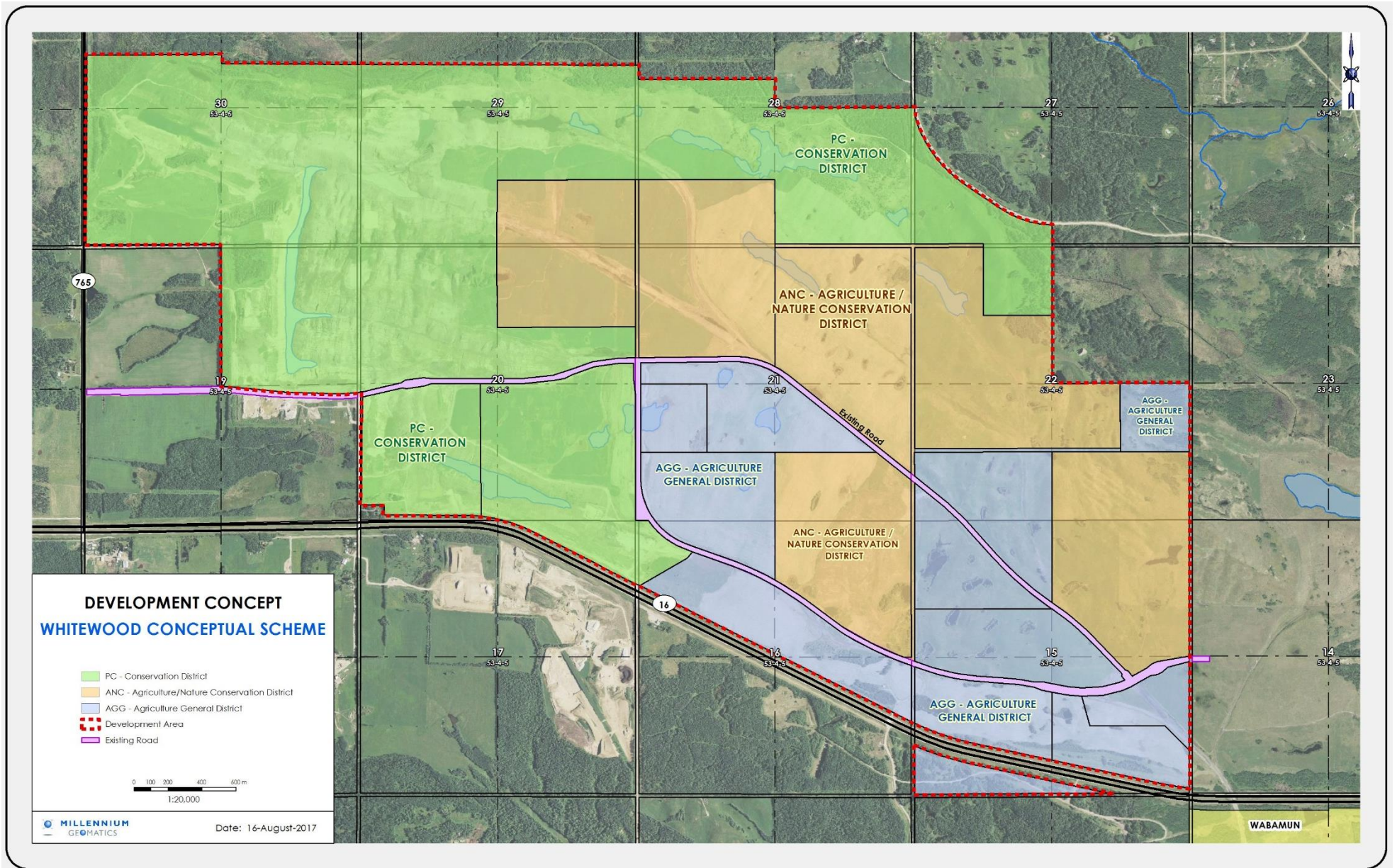
Whitewood Development Area provides an opportunity for Parkland County to make use of reclamation lands following decades of operations at Whitewood Mine for the extraction of coal. In anticipation of rehabilitation, topsoil was retained for use on lands with the topography and drainage that would support agriculture. A seed mix was applied to add to the organic content of soils and the land was leased for crops. The agricultural lands are now at a state that would support croplands on large tracts of land. The optimal use of these lands is for agricultural purposes and not residential or other non-agricultural pursuits.

Lands to the northwest have more pronounced topography and have Whitewood Lake and West Pit Lake to add to the area for recreational land. An opportunity exists to provide hiking trails for passive recreational enjoyment and tree planting for cover for wildlife corridors along with lakes for fishing, swimming and views. The creation of this area will also serve to attract people from neighbouring villages, country residential, lakeshore residential, and visitors. Given its large size, it is well suited to conservation purposes similar to East Pit Lake.

Policy

5.2.1 Arrangement of the land-use areas shall be in general conformance with illustrated in Figure 7: Development Concept.

Figure 7: Development Concept



5.3 Topography

It is critical for topography to be relatively flat in support of crops and use of heavy agricultural machinery on agricultural lands. Topography was nearly level to gently sloped (0 to 9%) and displays a hummocky terrain in places. Contour intervals with minor 2 m intervals are widely spaced for the eastern portion of the *Development Area* as shown in Figure 9: Site Drainage. This supports the agricultural lands identified in the Development Concept

Topography is less critical in recreational lands. Topography is steeper with vegetation planted for increased slope stability and erosion mitigation. Valleys may contain water features. Contour intervals with major 10 m intervals are more closely spaced for the western portion of the *Development Area* as also shown in Figure 8: Site Topography.

5.4 Drainage

It is critical that the site be relatively well-drained and without a high water table in support of crops on the agricultural lands. A drainage divide towards the centre of the agricultural land separates lands draining northwest to those draining southeast. The predicted water flow displays a dendritic pattern where the agricultural is well-drained and somewhat evenly spaced as shown in Figure 9: Site Drainage.

Drainage actually enhances the recreational land by providing corridors for wildlife and recreational opportunities within in water bodies. The diversity of the landscape makes the recreational experience better for recreational lands where trails could eventually take into account both topography and drainage.

Figure 8: Site Topography

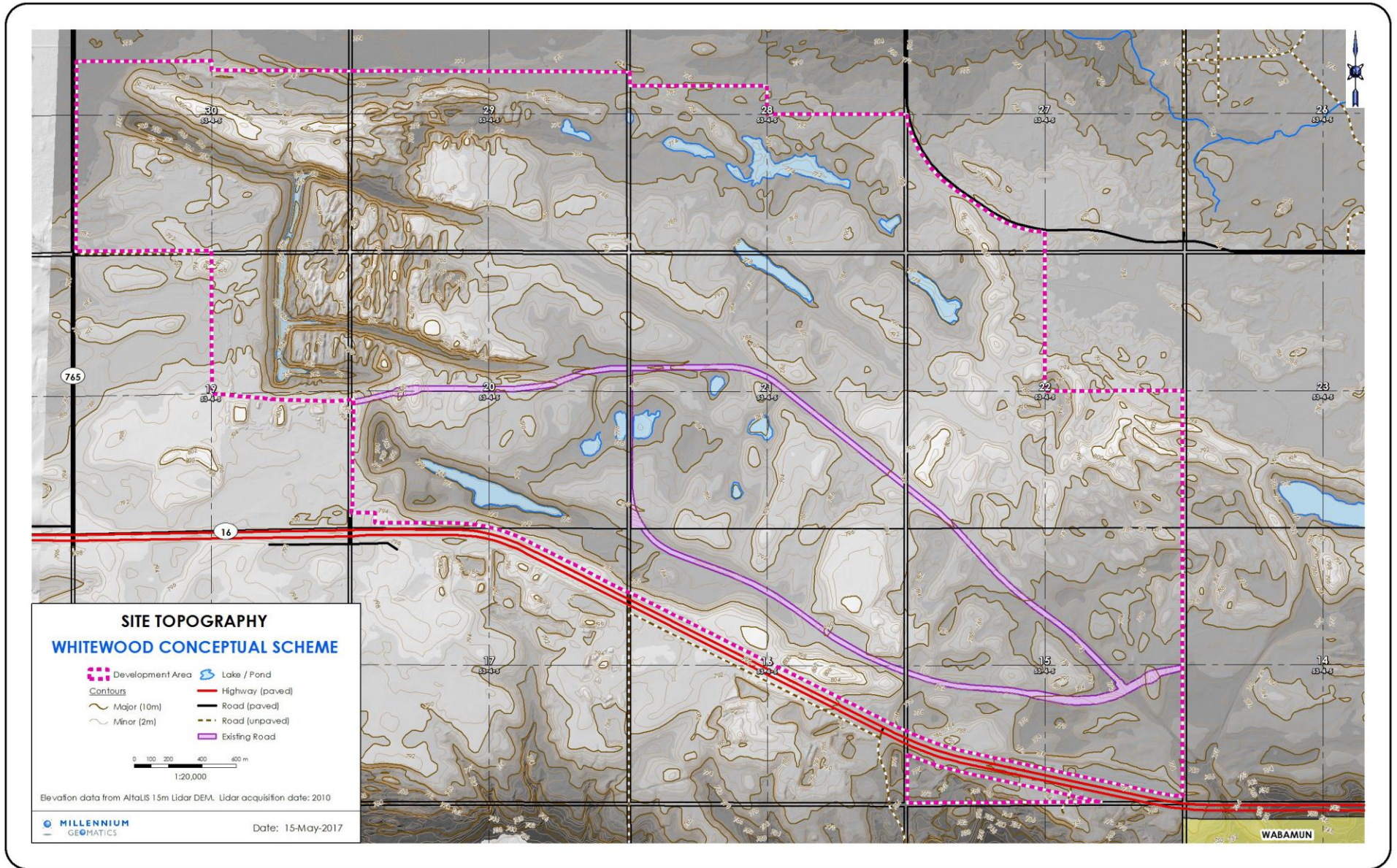
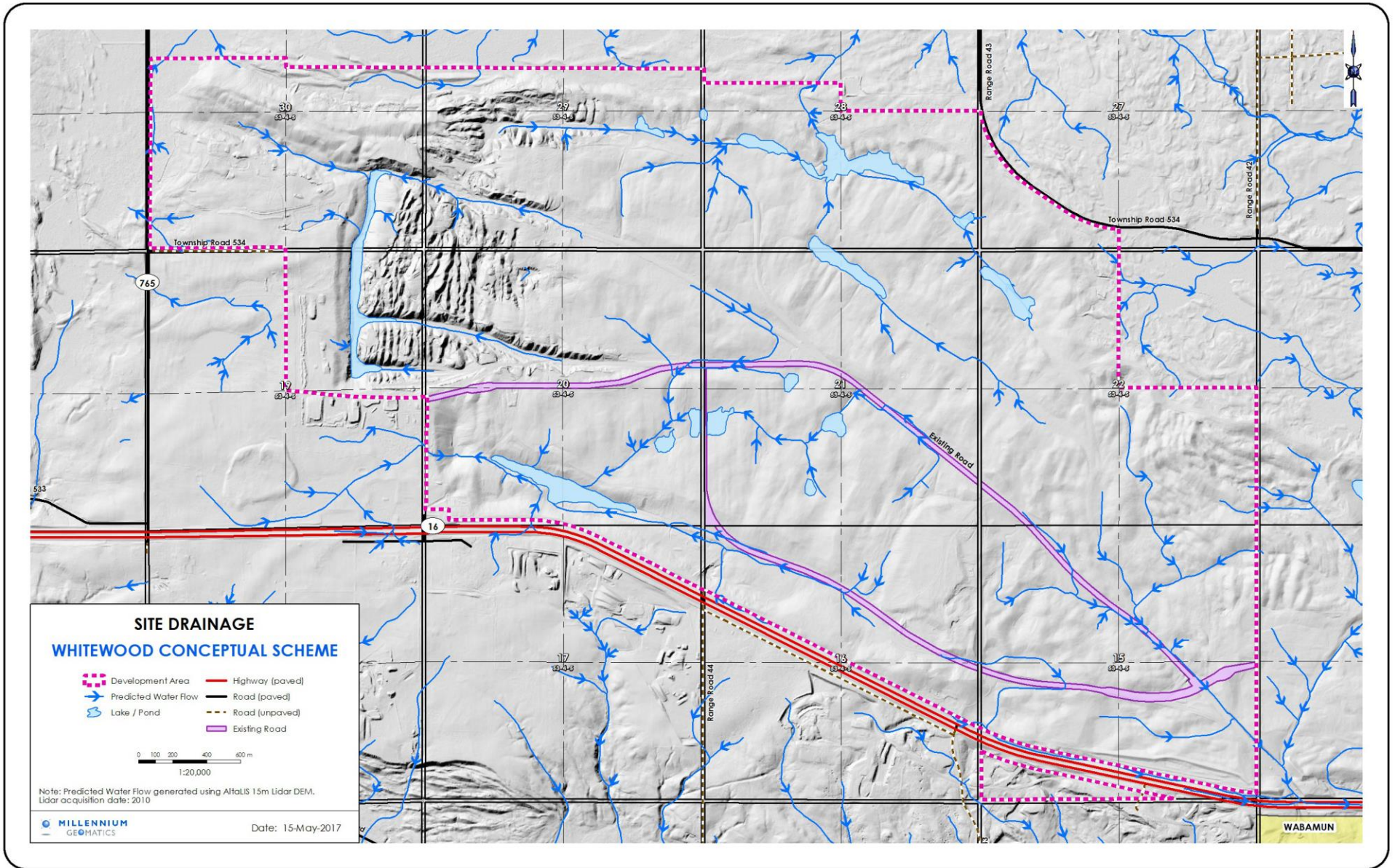


Figure 9: Site Drainage



5.5 Agricultural Land

The Land Suitability Rating System (LSRS) assesses the agricultural suitability or capability of land before and after disturbance. The component factors of climate, soil or landscape features that affect plant growth are all measurable. Characteristics of pre- and post-conditions may differ, but specific limitations would be identified and remedial measures could be designed (Agronomic Interpretations Working Group. 1995. Land Suitability Rating System for Agricultural Crops: 1.



Spring-seeded small grains. Tech. Bull. 1995-6E, Agriculture and Agri-Food Canada, p.62 <http://sis.agr.gc.ca/cansis/publications/manuals/1995-lsrs/lrs.pdf>). This system for suitability of land for agricultural crops provides a better understanding of the reclamation use to agriculture for some of the *Development Area* lands. Spring-seeded small grains, which include wheat, barley and oats are used for the classification because they can be grown throughout the agricultural land of Canada. LSRS also applies to hardy oilseeds such as canola and flax.

Annual croplands require: topography to be relatively flat, well-drained and without a high water table, have access and the ability of the land to accept heavy agricultural machinery. Pasture lands require topography can be gently rolling, well-drained, have access and able to withstand heavy machinery. Grazing lands require: topography with undulating slopes greater than those normally found in pasture areas, only poorly drained areas to grow vegetation for grazing, and may be suitable for wildland use.

To verify agricultural capability, forty-one detailed inspection pits and 123 inspection points were dug. Figure 2: Map of Reclaimed Land and accompanying Table 1: Reclamation Certificate History of Whitewood Mine is where agricultural capability has been verified. It is interesting to note that the areas which received topsoil replacement are Class 3 lands having moderate limitations to agriculture and considered suitable for croplands, while the margins are Class 4 lands with slightly greater limitations.

The reclaimed land that was assessed within Whitewood Mine is consistent with the regulatory criteria described in EPEA Approvals. Overall, land capability is equal to or greater than the pre-disturbance land capability. Most of the limitations of the soil are due to physical properties and not chemical properties. Prior to disturbance soil physical parameters, such as structure, were also limiting to agriculture productivity. Use of the reclaimed lands is mostly agriculture for hay, although several wooded areas and sloughs create wildlife habitat and landscape diversity along drainage corridors. Overall, most lands are Class 3 which are suitable for supporting crops on the relatively flat, well-drained and without a high water table reclaimed lands.

5.6 Agricultural Land Use Districting Rational

ANC – Agricultural / Nature Conservation Lands is the preferred districting for the future agricultural lands adjacent to the PC – Conservation District lands. ANC is intended for conservation, passive recreation and education purposes. By utilizing the ANC district as a buffer along the PC District, these lands will further foster and promote conservation by limiting future density and potentially providing additional wildlife corridors. Further, this district prevents undue fragmentation of land as the number of future subdivisions and future density is more restricted. Additionally, the permitted and discretionary uses are more limited to ensure the Whitewood Mine lands remain predominantly agricultural in nature.

AGG – Agricultural General District is also provided within the Whitewood Mine Conceptual Scheme. These lands are typically further away from the PC District and may have more opportunity beyond conservation agricultural uses. While the goal of the Whitewood Mine Conceptual Scheme is to return the lands to their pre-mining state for preservation, conservation, education and increased natural capabilities the AGG district in these select locations allows more agriculturally focused permitted and discretionary uses which may be of a benefit to future land owners.

Policy

- 5.6.1 Continue to permit agricultural production and related farming activities, while permitting uses associated with operations towards reclamation in the *Development Area* within the mine permit area.
- 5.6.2 Protect areas with distinctive natural features and/or resources, while providing opportunity for compatible agricultural and non-agricultural land uses.
- 5.6.3 As lands within the *Development Area* receive Reclamation Certificates from the Alberta Environment deemed suitable for agricultural capability, Parkland County should support these lands for agricultural production and related farming activities.
- 5.6.4 Notwithstanding the above Policy, other forms of development may be considered where justification and supporting documentation provides, as part of the overall evaluation of development proposals.
- 5.6.5 Additional AGG subdivisions beyond the scope of those proposed in this Whitewood Mine Conceptual Scheme shall require an amendment to this plan illustrating the capabilities of the site prior to subdivision approval.

5.7 Recreational Land

The reclamation process for recreational lands is intended to return the land to productive use by people and wildlife. Reclamation work consisted of recontouring the land, planting grasses to start the soil regeneration cycle and planting trees to begin the forest regeneration cycle. Lakes within the *Development Area* prior to mining were replaced as part of reclamation for recreational opportunities. It was noted on a recent site visit 2017 that sand had been placed at one end of a lake to create a recreational beach. Areas containing lakes and vegetated areas in ravines provide wildlife habitat areas. Portions of the area can sustain picnic and day use activities, while the remainder can be used for passive recreation and interpretive trails.



Vegetation in agricultural lands near recreational uses should be developed to foster vegetation growth and the movement of wildlife population. This is especially necessary where movement across wildlife across large areas is required. Trees and shrubs also provide an aesthetic asset and add to panoramic views of surrounding areas.

A wildlife area for training and showing hunting dogs is a use that is currently being provided to the Alberta Clipper Hunting Retriever Association (ACHRA) via a land lease. The ACHRA leased lands are depicted in Figure 10: ACHRA Land Lease. Such Outdoor Participant Recreation Services are an example of compatible with the PC – Conservation District.

5.8 Recreational Land Use Districting Rational

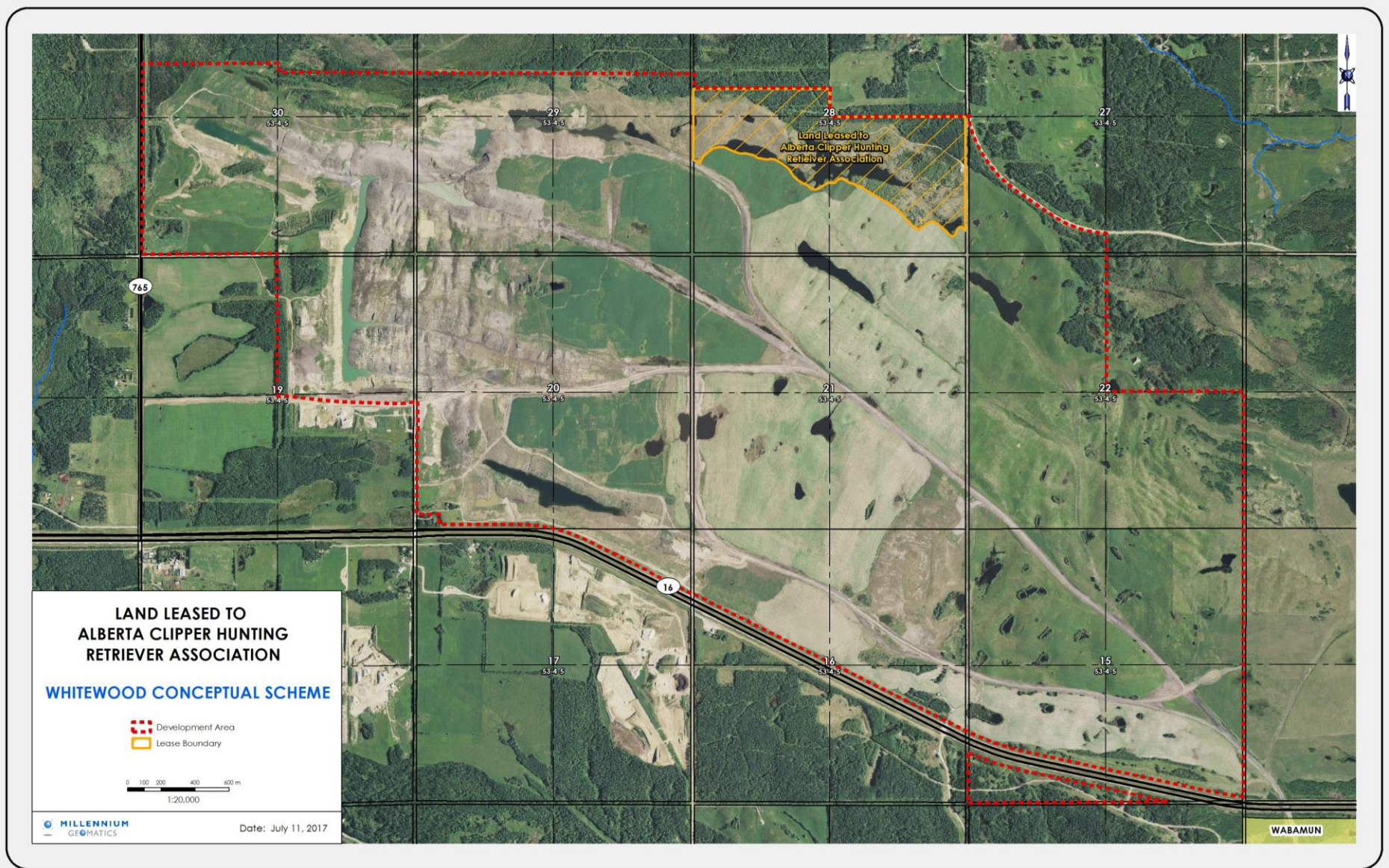
The future recreation lands are intended to be PC - Conversation District as per Land Use Bylaw NO. 20-2009. The purpose of this district is *to provide for the preservation of environmentally sensitive and significant areas and lands having significant natural capability for conservation, passive recreation and education*. As the lands are being reclaimed by TransAlta with the purpose of providing valuable natural wildlife habitat with passive recreational opportunities, the PC District aligns with the vision.

Policy

5.8.1 Provide for the protection of environmentally sensitive and significant areas and lands having significant natural capability for conservation, passive recreation and education.

- 5.8.2** As lands within the *Development Area* receive Reclamation Certificates from the Alberta Environment deemed suitable for natural environment capability, Parkland County should support these lands for passive recreational use, while maintaining their natural features.
- 5.8.3** Notwithstanding Policy 5.8.2, other forms of development may be considered where justification and supporting documentation provides, as part of the overall evaluation of development proposals.
- 5.8.4** Recreational lands' should foster vegetation growth in: ravines, steep slopes, natural features and large areas where there is a potential of corridor connectivity for wildlife.
- 5.8.5** Recreational lands should have limited road access and trailheads for parking connected to a trail system in the *Development Area* with opportunities to connect to trails on adjacent lands.
- 5.8.6** Recreational lands should encourage wildlife areas for training and showing of hunting dogs, waterbodies for recreational fishing, forest and vegetated areas for hiking, and other compatible passive recreation and education activities.

Figure 10: ACHRA Land Lease



5.9 Future Potential for Highway Commercial Area

Future uses may include highway commercial areas in the vicinity of Highway No. 16, the Yellowhead Highway. Site requirements include: topography that is relatively flat, well-drained, good engineered soils with stability characteristics, and highway exposure. Locations are preferred at highway intersection nodes in order to protect the through-traffic function of the highway. Locations near intersections, with appropriate planning and design, allow service of the largest number of users. Assurances of safe access and egress without disrupting the function of the highway needs to be determined and will likely be provided via service roads and intersection nodes. Highway visibility, acceptable signage, pedestrian safety, parking, traffic flow, service roads, landscaping and aesthetic design are also considerations.

Policy

- 5.9.1 As lands within the *Development Area* receive Reclamation Certificates from Alberta Environment are deemed suitable and not posing a threat to the public in the vicinity of Highway No. 16, the Yellowhead Highway, Parkland County may give consideration to development proposals for a diverse range of commercial, recreation and tourism type of uses to serve the travelling public.
- 5.9.2 Commercial development applications shall require a biophysical assessment, a traffic impact assessment, a storm water management study and a geotechnical report prior to development.
- 5.9.3 Should highway commercial uses be developed within the Conceptual Scheme Area in the future, road access shall be through the local road system as no new accesses will be granted from Highway 16.

5.10 Future Potential of TransAlta Retained Lands

Waste from mining (flyash, baghouse dust, coal fines and wash bay sludge) was buried at least 1.2 m below the surface of the reconstructed croplands (Section 4.4 of EPEA Approval No. 1851-02-00). TransAlta intends to retain ownership of those lands, as depicted in Table 6: Lands To Be Retained By TransAlta and Figure 11: Lands To Be Retained By TransAlta. The relationship between the TransAlta retained lands, reclamation certificates and the development concept can be found on Figure 16 - Development Concept, Reclamation Certificates & Lands To Be Retained by TransAlta.

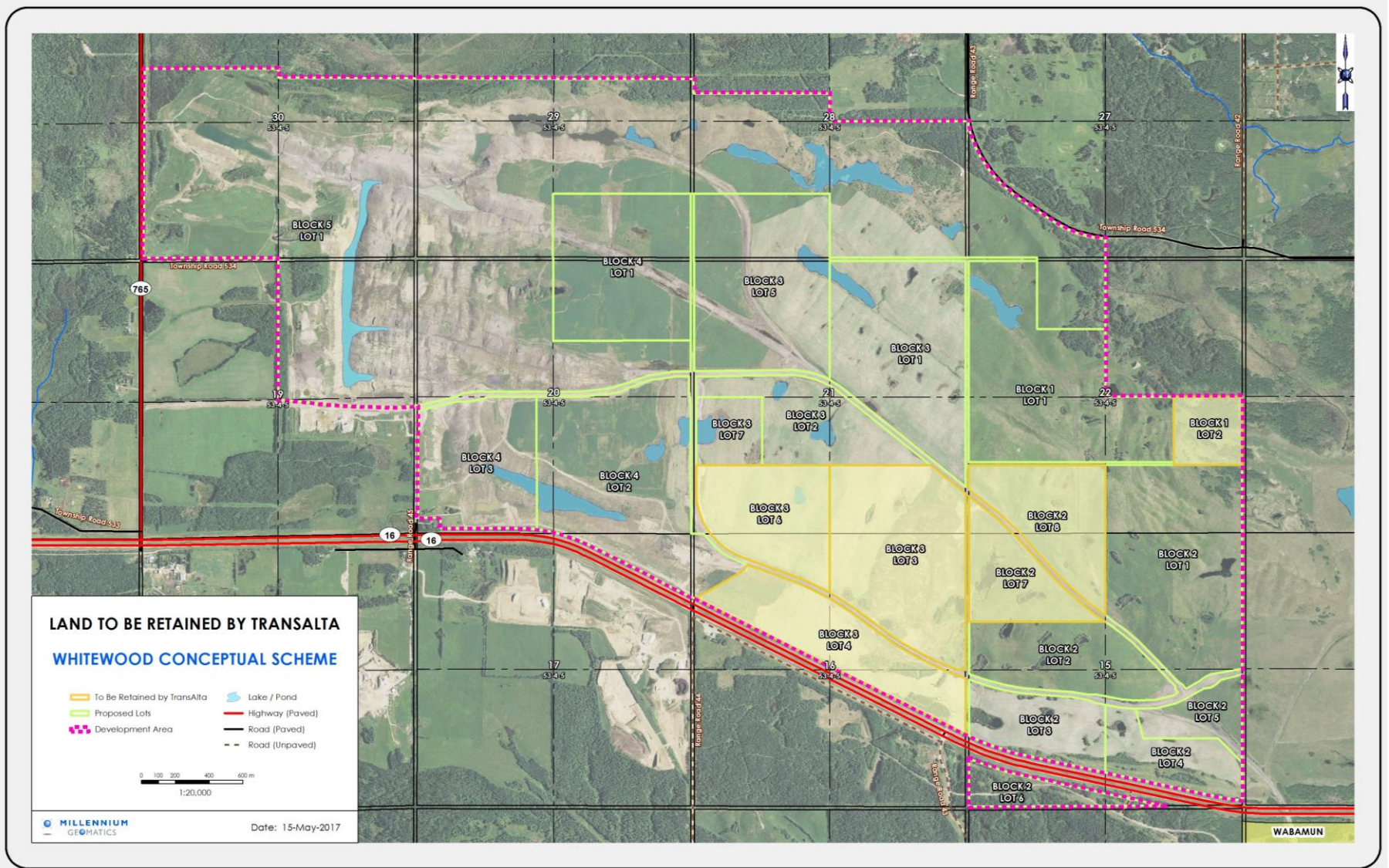
Table 6: Lands To Be Retained By TransAlta

OWNER	PROPOSED PARCEL TO RETAIN	EXISTING TITLE NUMBER(S)	LEGAL DESCRIPTION	
			SHORT LEGAL	LONG LEGAL
TransAlta Corporation	Block 1 Lot 2	183R192A	Portion of 5;4;53;22;SE	PORTION OF MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 22; QUARTER SOUTH EAST
TransAlta Corporation	Block 2 Lot 7	142 008 846 +18 142 008 846 +15	Portion 5;4;53;15;NW Portion of 5;4;53;22;SW	PORTION OF MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 15; QUARTER NORTH WEST AND PORTION OF MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 22; QUARTER SOUTH WEST
TransAlta Corporation	Block 2 Lot 8	142 008 846 +15 142 008 846 +18	Portion of 5;4;53;22;SW Portion of 5;4;53;15;NW	PORTION OF MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 22; QUARTER SOUTH WEST AND PORTION OF MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 15; QUARTER NORTH WEST
TransAlta Corporation	Block 3 Lot 3	142 008 846 +5 142 008 846 +14	Portion of 5;4;53;16;NE Portion of 5;4;53;21;SE	PORTION OF MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 16; QUARTER NORTH EAST AND PORTION OF MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 21; QUARTER SOUTH EAST
TransAlta Corporation	Block 3 Lot 4	142 233 517 +1 142 008 846 +5 142 008 846 +12	1423382;1;2 (5;4;53;16) Portion of 5;4;53;16;NE Portion of 5;4;53;16;NW	DESCRIPTIVE PLAN 1423382; BLOCK 1; LOT 2 AND PORTION OF MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 16; QUARTER NORTH EAST AND PORTION OF MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 16; NORTH WEST QUARTER
TransAlta Corporation	Block 3 Lot 6	142 008 846 +21 142 008 846 +12	Portion of 5;4;53;21;SW Portion of 5;4;53;16;NW	PORTION OF MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 21; SOUTH WEST QUARTER AND PORTION OF MERIDIAN 5; RANGE 4; TOWNSHIP 53; SECTION 16; NORTH WEST QUARTER

Policy

5.10.1 As lands within the *Development Area* where waste from mining existed or remains, valid documentation verifying the lands are deemed suitable and not posing a threat to the public shall be provided to Parkland County in consideration of development proposals on or adjacent to such lands.

Figure 11: Lands To Be Retained By TransAlta



5.11 Future Transportation

During mining operations, coal was transported to the plant in large (135 tonne) coal haulers which travelled entirely on private roads. The major haul road used to provide access to the Wabamun Plant during coal mining operations and is now used as a collector roadway. After mining, the major haul roads offer the best compacted road beds in the *Development Area*. The former haul road has been built to a County standard and have been conveyed to Parkland County. Access to Highway No.16 is limited and it is anticipated the future upgrades may be required when deemed appropriate by Parkland County and Alberta Transportation. Traffic is significantly reduced following mining operations, meaning a traffic impact study is not required.

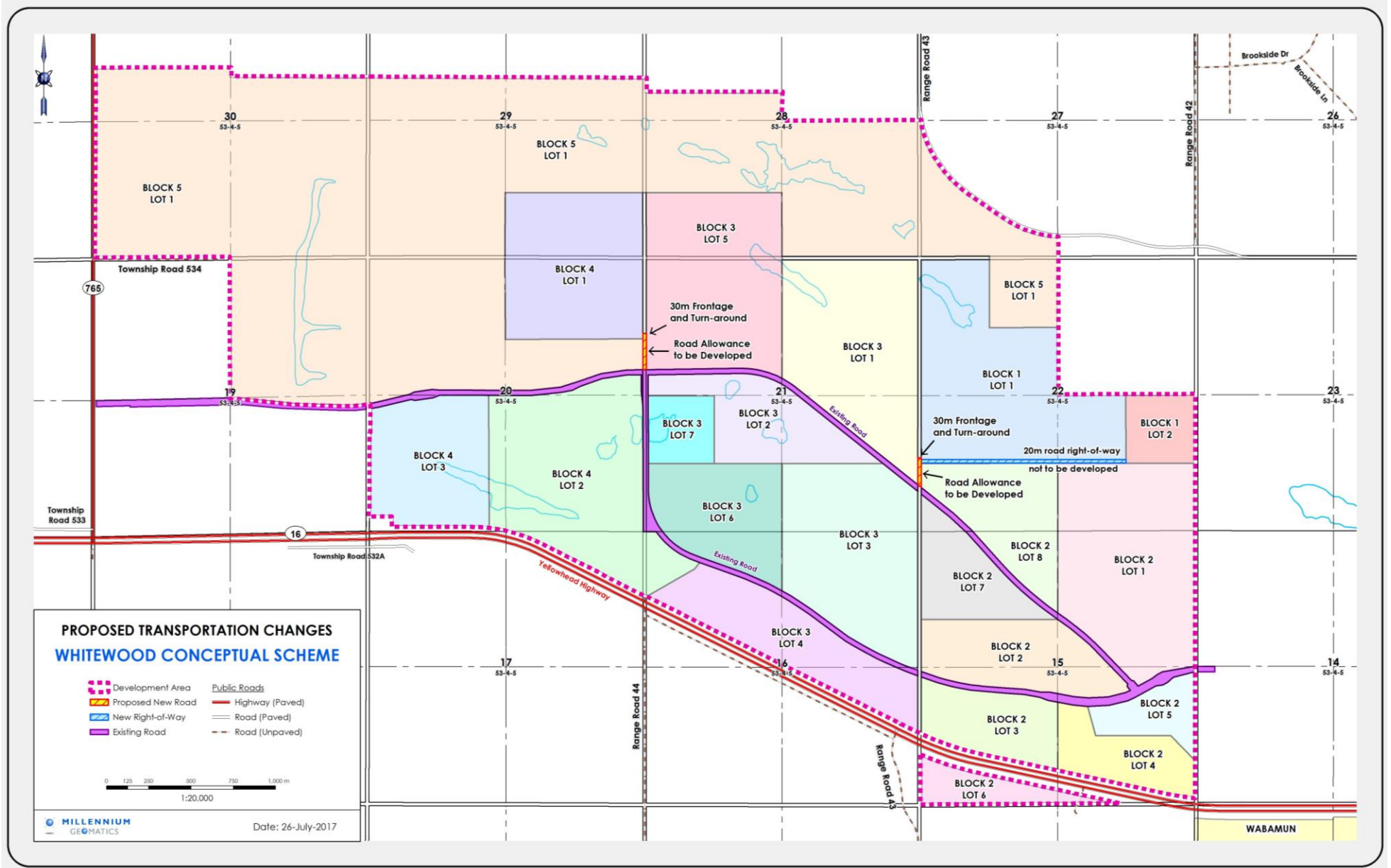


An existing road has an internal loop and extends west to Highway 765 and east to Range Road 42. The future main transportation route is shown in Figure 12: Future Transportation.

Policy

- 5.11.1 Where additional roads are proposed, the developer shall enter into a development agreement with Parkland County regarding the construction of internal roadways.
- 5.11.2 Roads shall be constructed in accordance with Parkland County Standards.
- 5.11.3 Upon subdivision all future parcels shall have legal and physical road access as per Figure 12: Future Transportation.

Figure 12: Future Transportation



6.0 PHASING

6.1 Phasing Plan

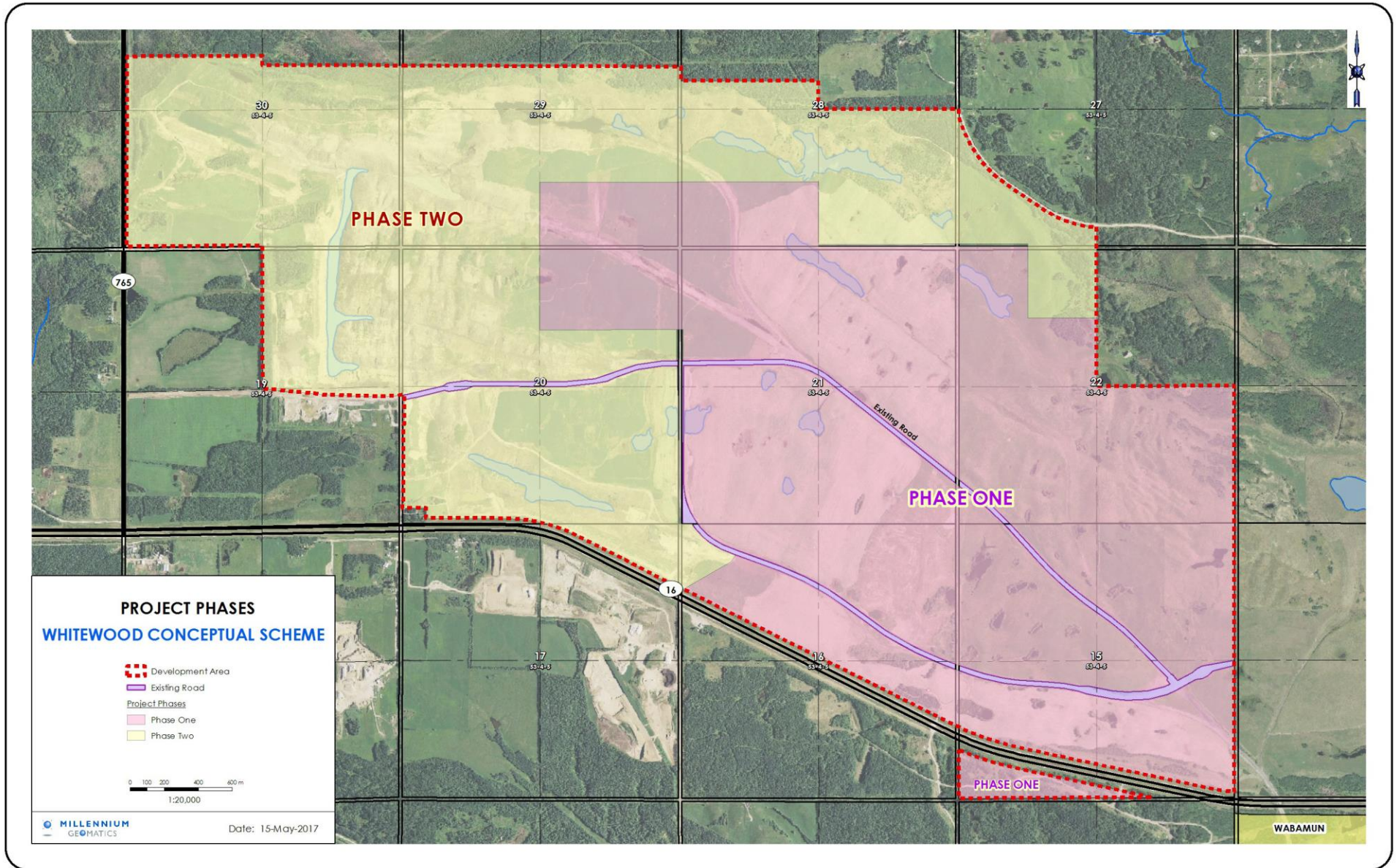
The phasing of development in the *Development Area* will generally proceed according to market demand, subject to the completion of reclamation on mined lands. Infrastructure, including utility corridors and road circulation systems, will be developed in a phased manner along with the land uses.

Phasing of lands tend to be agricultural lands first since they were provided reclamation certificates first. Following this, recreational lands are expected to receive reclamation certificates from Alberta Environment. Overall, the phasing of the *Development Area* can be described as being from east to west. No phase precludes the development of another. It indicates the preference of how development could proceed. The phasing is shown in Figure 13: Phasing Plan.

Policy

- 6.1.1 Phasing of development on the lands shall generally follow lands with existing reclamation certificates, then additional lands as reclamation certificates are issued.
- 6.1.2 Phasing should generally be in accordance with the Phasing Plan.
- 6.1.3 The proposed Phasing Plan is conceptual only and will be confirmed at the time of redesignation.
- 6.1.4 No amendments to this plan will be required due to changes in the boundary or number of phases.

Figure 13: Phasing Plan



7.0 ENGAGEMENT SUMMARY

7.1 Principles

Prior to completing the Whitewood Conceptual Scheme, the applicant prepared a Public Engagement and Consultation Plan which was submitted to Parkland County for review. This was prepared on the principles of:

- Inclusion of stakeholder perspectives, ideas and feedback in TransAlta's decision making and the acknowledgement that stakeholder engagement improves project/business decision making;
- Communication to stakeholders on how their perspectives, ideas or feedback was considered by the company during decision making;
- Transparency, which recognizes that certain information must remain confidential for both the company and stakeholders/Aboriginal communities;
- Consistency in our approach to stakeholder and Aboriginal engagement across TransAlta;
- Fairness, integrity, honesty, respect, collaboration, and accountability in relationships;
- Deliver on our environmental, social, and economic commitments; and
- Proactive approach to building and maintaining stakeholder relationships.



7.2 Notification

The engagement strategy included stakeholder notification and targeted stakeholder conversations, including notification to all adjacent landowners. In addition, a public information session / open house was held on May 3, 2017. Notice of the open house was sent to everyone in the Wabamun postal code, posted on transalta.com and posted in the local newspapers during the weeks of April 17 and April 24. Social media, including Twitter and Facebook, was utilized on the week of May 1 to further promote the open house.

7.3 Outcome

Approximately 30 people attended the open house with the majority being local residents. The majority of the questions and conversations were in regards to:

- Discussions regarding future uses envisioned on the future recreation lands with a preference for passive recreation.
- A desire for limited road access into the future recreation lands.
- Questions regarding the timing and process to be utilized for the divestiture of the agricultural lands.

- A desire for limited residential development.
- Future of the other mines in the area.
- Questions regarding the long term plans for the Alberta Clipper Hunting Retriever Association (ACHRA) training grounds and facility located on the site.
- Questions and conversations regarding the reclamation certificate process.

Parkland County will be hosting a Public Hearing in compliance with the Municipal Government Act, prior to Council approval of the Conceptual Scheme Bylaw.

8.0 IMPLEMENTATION FRAMEWORK

8.1 The Conceptual Scheme Implementation Process

Adoption of this Conceptual Scheme will establish specific expectations that will guide the implementation of the **Whitewood Conceptual Scheme**. The Conceptual Scheme policies must be considered prior to a land use amendment and/or subdivision approval. Consideration of this Conceptual Scheme by Council will occur following a statutory Public Hearing. Parkland County will consider adoption pursuant to the MGA. Subsequently, consideration of land use amendment, subdivision and development permit applications may follow.

8.2 Land Use Redesignation

In support of the Whitewood Conceptual Scheme a land use redesignation/redistricting application is to be submitted to the County changing a portion of the Direct Control Bylaw District to Agriculture Districts and a Recreation District and a portion of existing AGG – Agricultural General District to a Recreation District. Redesignation/redistricting showing individual property zoning will need to be changed to allow the uses that are identified in the Conceptual Scheme and currently occurring on site. While redistricting may occur immediately, TransAlta does not intend to divest any lands until Reclamations Certificates are issued by the Provincial Regulator.

TransAlta is committed to the reclamation process as required by the Provincial Regulator. Their continual commitment and dedication to reclamation activities has been demonstrated throughout Alberta, including past reclamation activities conducted at the Whitewood Mine site which began in the 1960s. TransAlta's obligations for the Whitewood Mine site are outlined in their current Environmental Protection and Enhancement Act (EPEA) approval for the Whitewood Mine lands. TransAlta is bound to complete all the activities described within the approval and as such, retaining ownership is necessary to complete these activities. Under the EPEA approval, TransAlta is required to submit yearly reporting to the Provincial Regulator on the status of the reclamation process. This approval remains in effect until the obligations of it are fulfilled and until it is lifted by the Provincial Regulator. Thus, the EPEA approval is in effect until Reclamation Certificates are issued.

Future land use mapping is shown in Figure 15: Tentative Plan. As well, Figure 16 - Development Concept, Reclamation Certificates & Lands To Be Retained by TransAlta illustrates the future development concept overlayed with the reclamation certificates currently issued and the lands to be retained by TransAlta as per .

Policy

- 8.2.1** Conservation Land is identified in Figure 7: Development Concept. These lands are expected to be designated ANC - Agriculture/Nature Conservation District and PC – Conservation District.
- 8.2.2** Agricultural Land is identified in Figure 7: Development Concept. These lands are expected to be designated AGG – Agricultural General District.

8.2.3 Redesignations/redistricting as per Figure 7: Development Concept will be permitted prior to reclamation certification issued by the Province of Alberta.

8.3 Subdivision Application

A subdivision application may be submitted after the redesignation/redistricting application in support of the **Whitewood Conceptual Scheme**. The subdivision Plan has been designed to utilize the existing transportation network and minimize additional land disturbance due to future road construction. Future draft subdivision mapping is shown in Figure 14: Draft Subdivision Plan. While subdivision may occur immediately, TransAlta will not divest any lands until Reclamations Certificates are granted by the Province of Alberta

Policy

- 8.3.1** Subdivision should generally be in accordance with the Draft Subdivision Plan identified in Figure 14: Draft Subdivision Plan.
- 8.3.2** Lot boundaries and networks identified on Figure 14: Draft Subdivision Plan are conceptual. Changes are permitted and will be finalized at the time of redesignation or subdivision.
- 8.3.3** No amendments to this plan will be required due to changes in the boundary or number of future lots and blocks indicated on Figure 14: Draft Subdivision Plan.
- 8.3.4** Subdivision as per Figure 14: Draft Subdivision Plan will be permitted prior to reclamation certification.
- 8.3.5** Prior to future commercial subdivision approval, subdivision applications shall require a biophysical assessment, a traffic impact assessment, a storm water management study, a geotechnical report and any other documentation deemed necessary by the subdivision or development authority.

8.4 Development Application

Future development permit applications may be submitted after subdivision. Development in the Whitewood Mine Conceptual Scheme is intended to be kept to a minimum. Specifically, all future development within the PC district should be limited to buildings which support passive recreation. Development within ANC and AGG districts should also be limited to those buildings required to support agricultural production.

Policy

- 8.4.1** All development permit applications shall require a geotechnical report prior to development permit approval.
- 8.4.2** Future commercial development permit applications shall require a traffic impact assessment prior to development permit approval.
- 8.4.3** All future development within close proximity of the powerlines and pipelines must meet minimum setback requirements as required by the federal, provincial and County regulations.
- 8.4.4** All future development must meet the requirements outlined within the County's Land Use Bylaw.
- 8.4.5** Additional technical studies may be required by the County as part of a development permit application. These studies may include, but are not limited to, transportation impact assessments and potable water assessments.

Figure 15: Tentative Plan

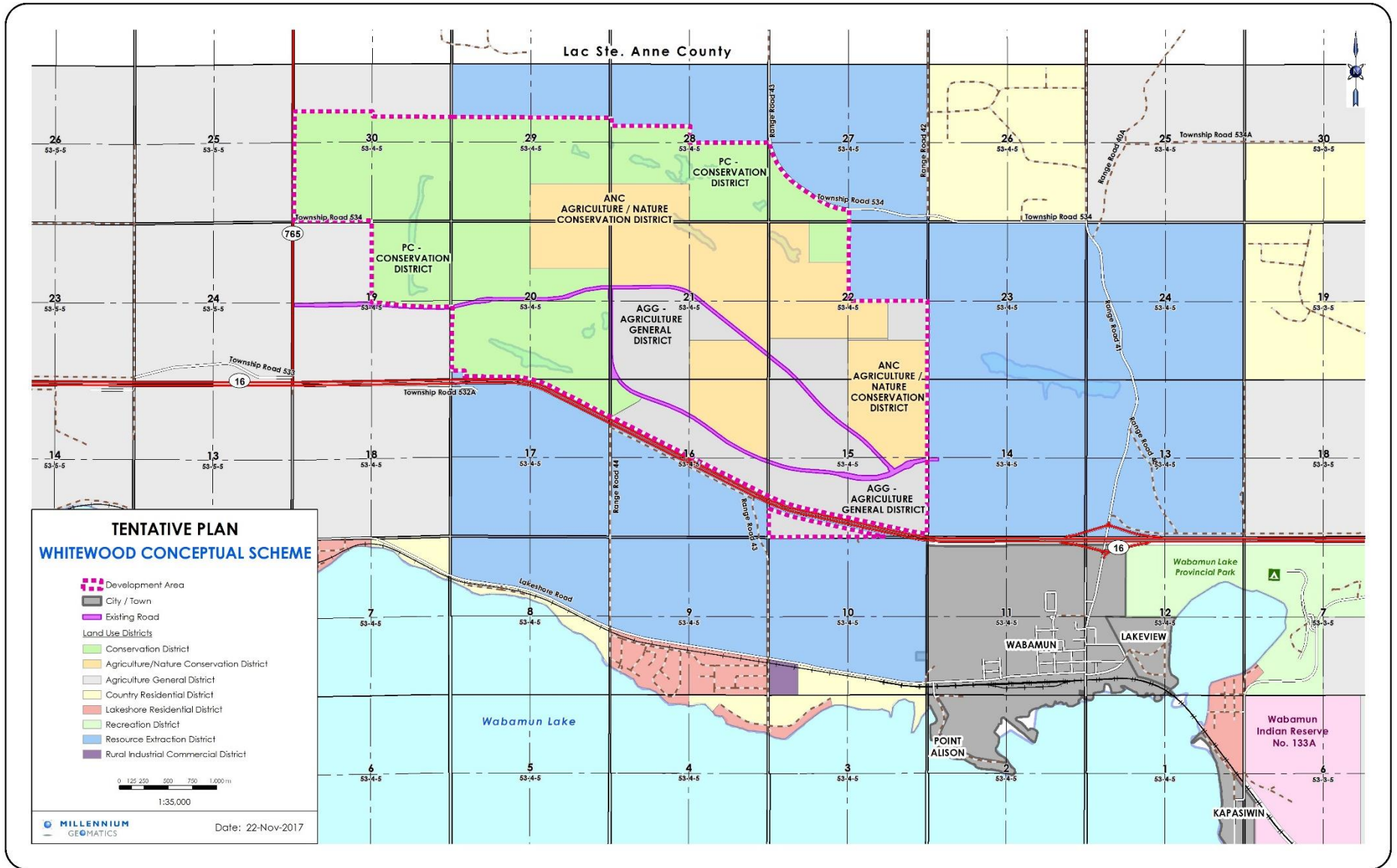


Figure 16 - Development Concept, Reclamation Certificates & Lands To Be Retained by TransAlta

