

APPENDIX N
LAND USE AND MANAGEMENT

SPRINGBANK OFF-STREAM RESERVOIR PROJECT
ENVIRONMENTAL IMPACT ASSESSMENT
VOLUME 4: APPENDICES
APPENDIX N: LAND USE AND MANAGEMENT

Attachment 12A Land Use and Management
March 2018

Attachment 12A

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12A.1 INTRODUCTION

This appendix includes information on land use and management that supports the environmental assessment for the Springbank Off-stream Reservoir Project (the Project). Specifically, the appendix:

- identifies methods used to assess potential effects of the project on land use and management
- lists data sources (e.g., historical records, field data)
- presents results of these analyses of data sources

12A.2 METHODS

12A.2.1 Spatial Boundaries

The following spatial boundaries are used in the assessment:

- project development area (PDA) is the anticipated area of physical disturbance associated with construction and operation of the Project and is 1,440 ha.
- local assessment area (LAA) encompasses the PDA and a 1 km buffer centered on the PDA. The LAA is 4,860 ha in extent.
- regional assessment area (RAA) extends 5 km beyond the PDA and is used to assess where Project-specific effects overlap with effects of past, present, and reasonably foreseeable future activities (i.e., cumulative effects). The RAA is 22,540 ha in extent.

12A.2.2 Use of Existing Information

- Existing relevant literature, such as government publications, land use surveys, regional studies, resource management plans and land use plans
- Websites for government and non-government agencies and organizations, such as hunting, fishing and trapping information from the Government of Alberta
- Government databases (e.g., the Alberta Geographic Land Information Management and Planning System [GLIMPS], Alberta Energy 2017) and digital datasets
- Database analyses conducted by Stantec's geographical information services. Examples of data sources accessed include AltaLIS, GeoLOGIC, Alberta Environment and Parks base mapping data, GeoBase, HIS
- Information provided during Consultation and Engagement for the Project

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12A.2.3 Field Surveys

Field surveys were not conducted as desktop information was readily available to perform much of the required analysis. Field data from other disciplines (e.g., terrain and soils, vegetation-wetlands, wildlife, heritage resources, and traditional land and resource use) were used to verify, correct or augment the desktop findings.

12A.3 RESULTS

12A.3.1 Public Transportation Infrastructure

Table 12A-1 presents a list of roads in the PDA, LAA, and RAA.

Table 12A-1 Roads in the PDA, LAA, and RAA

Study Area	Road
PDA	22 Highway
	Un-named
	Range Road 41
	Springbank Road
	Township Road 242
	Township Road 244
	Township Road 245
LAA	1 Highway
	22 Highway
	8 Highway
	Circle 5 Estates
	Un-named
	Range Road 35
	Range Road 40
	Range Road 41
	Range Road 42
	Range Road 43
	Springbank Road
	Township Road 242
	Township Road 244
	Township Road 245



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Table 12A-1 Roads in the PDA, LAA, and RAA

Study Area	Road
RAA	1 Highway
	22 Highway
	8 Highway
	Circle 5 Estates
	Commercial Drive
	Country Stone Green
	Gracewood Estates
	Gracewood Grove
	Gracewood View
	Grandarches Drive
	Grandview Grove
	Grandview Way
	Hillcrest Estates
	Huggard Road
	Hurricane Drive
	Jumping Pound Road
	Lower Springbank Road
	Maclaurin Drive
	Manyhorses Bay
	Manyhorses Circle
	Manyhorses Close
	Manyhorses Court
	Manyhorses Crescent
	Manyhorses Drive
	Manyhorses Gardens
	Manyhorses Gate
	Manyhorses Green
	Manyhorses Park
	Manyhorses Place
	Manyhorses Rise
Meadow Lark Lane	

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Table 12A-1 Roads in the PDA, LAA, and RAA

Study Area	Road
RAA (cont'd)	Morning Vista Green
	Morning Vista View
	Morning Vista Way
	Mountain River Estates
	Mountain Vista Estates
	Munro Road
	Murray Place
	Un-named
	Noorduyn Park
	Range Road 32
	Range Road 33
	Range Road 33A
	Range Road 34
	Range Road 35
	Range Road 40
	Range Road 41
	Range Road 42
	Range Road 43
	Range Road 50
	Redwood Meadows Close
	Redwood Meadows Court
	Redwood Meadows Drive
	Ridge Road
	Sleigh Drive
	Springbank Meadows
	Springbank Road
	Tower Ridge Estates
	Township Road 240
	Township Road 240A
	Township Road 242
Township Road 243	

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Table 12A-1 Roads in the PDA, LAA, and RAA

Study Area	Road
RAA (cont'd)	Township Road 243A
	Township Road 244
	Township Road 245
	Township Road 250
	Township Road 251A
	Township Road 252
	Tsuu T'ina Drive
	Vantage Ridge Estates
	Westview Estates
	Wolf Close
	Wolf Crescent
	Wolf Drive

12A.3.2 Public Lands Surface Activity Dispositions

A search of the Alberta GLIMPS database (Alberta Energy 2017) was conducted on January 31, 2017, to determine what public lands dispositions are present in the LAA. The results of the search are shown in Table 12A-2.

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Table 12A-2 Public Lands Surface Activity Dispositions in the LAA

Disposition Type	Disposition Number	Disposition Holder	Designated Purpose	Legal Land Description	Land Activity Area, ha	Expiry Date	Land Ownership
Department Licence of Occupation	DLO 595	Altalink Management Ltd.	Powerline	SW, SE-11-024-04-W5M	5.4	31/12/2999	Freehold
	DLO 010386	Alan Young	Bank stabilization	05-03-024-04-W5M	0.1	18/04/2026	No information
				06-03-024-04-W5M	0.1		
				11-03-024-04-W5M	0.1		
	DLO 4522	Mountain River Estates Ltd.	Water Intake	NE-10-024-03-W5	0.0*	31/12/2999	Freehold
	DLO 090367	Mountain River Estates Ltd.	Erosion protection	NW-10-024-03-W5	0.3	14/04/2034	Freehold
DLO 810776	The Glencoe Golf and Country Club	Water Intake	NW-11-024-03-W5	0.2	31/12/9999	Freehold	
Disposition Reservation	DRS 1006	Alberta Transportation	Surface material extraction site	NW 11-024-04-W5M	0.0*	09/09/9999	Crown
Easement	EZE 820117	Pirmez Creek Irrigation Society	Other Non-Industrial	NW-04-024-03-W5M	1.7	31/12/2999	Mixed
Grazing Permit	GRP 787362	Robert Copithorne	Not defined	NE-11-024-04-W5M	10.6	31/12/2017	Crown
				NW 11-024-04-W5M	10.6		
Pipeline Agreement	PLA 458	Nova Gas Transmission Ltd.	Pipeline	NE 10-024-04-W5M	0.0*	31/12/2999	Mixed
	PLA 883	Shell Canada Ltd.	Pipeline	SW 03-024-04-W5M	1.4	31/12/2999	Freehold
				SE 04-024-04 W5M	1.4		



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Table 12A-2 Public Lands Surface Activity Dispositions in the LAA

Disposition Type	Disposition Number	Disposition Holder	Designated Purpose	Legal Land Description	Land Activity Area, ha	Expiry Date	Land Ownership
Pipeline Agreement (cont'd)	PLA 3852	Pengrowth Energy Corporation	Pipeline	NE 10-024-04 W5M	0.3	31/12/2999	Mixed
	PLA 780394	Alberta Ethane Development Company Ltd.	Pipeline	NE 10-024-04 W5M	0.2	31/12/2999	Mixed
	PLA 800328	Foothills Pipe Lines (Alta). Ltd.	Pipeline	NE 10-024-04 W5M	0.2	31/12/2999	Mixed
	PLA 930671	Plains Midstream Canada ULC	Pipeline	SW 13-024-04 W5M	0.2	31/12/2999	Freehold
Protective Notation	PNT 753998	Calgary Office – Rangeland District – Lands Division (ESRD)	Watercourse protection – Elbow River Boy Scout Camp	NE 11-024-04 W5M	84.3	31/12/2999	Crown
				NW 11-024-04 W5M	84.3		
Recreation Lease	REC 2651	Hope Mission	Recreational campsites	NW 11-024-04 W5M	40.1	14/07/2018	Crown
Registered Roadway	RRD 8711214	Alberta Transportation	Not defined	SE 10-024-04 W5M	0.008	31/12/2999	Freehold
	RRD 9210472	Alberta Transportation	Not defined	NW 11-024-04 W5M	4.2	31/12/2999	Crown
NOTE: *Areas reported as 0.0 ha are data deficient							

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12A.3.3 Landowners Within the Boundaries of the PDA, LAA and RAA

Table 12A-3 presents individual landowners (residents, businesses, institutions and recreational organizations) in the PDA. Landowners in the PDA were compiled by parcel for the land use and management assessment as they have the greatest potential to be directly affected by the Project.

Table 12A-3 Landowners in the PDA

Parcel	Land Owner
NE3-24-4-5	Mary Ellen Robinson, Janet Dilys Hawes
SE3-24-4-5 Block 3 Lot 1; SE3-24-4-5 Block 2 Lot 1	Rhonda Elizabeth Gervais, Janet Dilys Hawes
SE3-24-4-5 Block 1 Lot 2	Janet Dilys Hawes
SW3-24-4-5	Mary Ellen Robinson
NE3-24-4-5	Mary Ellen Robinson and Janet Dilys Hawes
NW3-24-4-5; SW3-24-4-5; NE4-24-4-5; SW25-24-4-5; SE26-24-4-5; SW26-24-4-5	Brian James Copithorne
NE10-24-4-5, Lot 1, Block 2, Plan 0711819; SE10-24-4-5 (portion of); SW10-24-4-5	Janice Louise Gauthier
NW10-24-4-5	James G Jones and Suzanne C Jones
NW13-24-4-5	EL Copithorne Inc. (Ed Copithorne)
NE13-24-4-5	Ed Copithorne
NE14-24-4-5; SE14-24-4-5; NE23-24-4-5	Elbow River Cattle Company Ltd. (Alan Copithorne)
SE23-24-4-5	Alan Copithorne
SW14-24-4-5; NW14-24-4-5; SE15-24-4-5; SW23-24-4-5; NW23-24-4-5; SE25-24-4-5	Bob Copithorne

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Table 12A-3 Landowners in the PDA

Parcel	Land Owner
NW24-24-4-5	Kathleen R. Copithorne c/o Bob Copithorn
NE18-24-3-5	Copithorne Group Inc. (Phil Copithorne)
SE19-24-3-5	Philip Ross Copithorne
NW18-24-3-5; NW19-24-3-5	1576955 Alberta Ltd. (Deb Copithorne)
SW19-24-3-5	Deb Copithorne
NE22-24-4-5	Kevin Robert Baker
NE22-24-4-5, Block A, Plan 8110352	Bryan R Carter & Wanda M Pockar & Geoffrey Carter
NE24-24-4-5	John R Robinson
NW17-24-3-5	John Rodger Robinson
SE24-24-4-5	John Rodger Robinson and Ryan John Robinson
SW24-24-4-5	Keith Samuel Robinson c/o John Robinson
NE26-24-4-5; NW26-24-4-5	Diana Jane Drewry
NE27-24-4-5; SE27-24-4-5; SW27-24-4-5; NW27-24-4-5	Marsha Ethel Wagner
NE28-24-4-5; SW34-24-4-5	Raymond Allan Nicoll
SW 10-24-4-5	Community Service Fund of the Kiwanis Club of Calgary (Kiwanis Club of Calgary - Chris Sheasby)
SE 10-24-4-5	Jean Allison Weatherley
SE 22-24-4-5, SE22-24-4-5 - South 1/2 of Legal Subdivision 1	Bradley Shaw and Michelle Shaw
NE 15-24-4-5	Ernest Hon

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Table 12A-4 presents residences, business, institutions, and recreation organizations in the LAA and RAA that are less likely to be directly affected but have the potential to be indirectly affected by the Project. The list was compiled as receptors for the Air Quality, Acoustic Environment, and Human Health assessments. They are representative of residences, businesses, institutions, and recreation organizations in the study boundaries and may not be comprehensive.

Table 12A-4 Landowners in the LAA and RAA

Study Area	ID	Residence, Business, Recreation Organization	Description	Distance to PDA (m)
LAA	SR12	Residence	Rural residence 260 m from intersection of Springbank Road and Range Road 40	19.0
	SR1	Residence	Rural residence 1000 m from intersection of Highway 1 and Highway 22	21.6
	SR20	Residence	Rural residence adjacent to Township Road 242	35.1
	SR4	Residence	Rural residence adjacent to Springbank Road	43.5
	SR15	Residence	Rural residence 545 m from intersection of Springbank Road and Range Road 40 (originally SR18) - added it back since there is no obvious reason not to include it	52.6
	SR19	Residence	Rural residence adjacent to Township Road 242	52.8
	SR16	Residence	Rural residence adjacent to Range Road 35	58.8
	SR14	Residence, RiverCross Ranch	Private event centre home to the ROARR charity, which provides disadvantaged youth and seniors the opportunity to spend time at a family ranch. Located 245 m from intersection of Springbank Road and Range Road 40	61.6
	SR41	Residence	Rural residence adjacent to Township Road 242	68.6
	SR13	Residence	Rural residence 110 m from intersection of Springbank Road and Range Road 40 (originally SR16)	103.0
	SR25	Commercial premises	Commercial premises adjacent to intersection of Township Road 242 and Highway 22	179.5
	SR39	Kamp Kiwanis	Summer camp for underprivileged or disadvantaged children, outdoor school, and facility rental. Founded in 1951 by the Kiwanis Club of Calgary. Located east of the traffic circle at the intersection of Highway 22 and Highway 8.	200.2

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Table 12A-4 Landowners in the LAA and RAA

Study Area	ID	Residence, Business, Recreation Organization	Description	Distance to PDA (m)
LAA (cont'd)	SR9	Residence	Rural residence 520 m from intersection of Springbank Road and Highway 22	202.4
	SR40	Residence	Rural residence adjacent to Township Road 242	216.7
	SR5	Residence	Rural residence 255 m from intersection of Springbank Road and Range Road 40	230.9
	SR26	Residence, Moose Hill Ranch Equestrian Centre	Rural residence in wooded area adjacent to Elbow River. Equestrian riding and boarding stable.	301.4
	SR24	Residence	Rural residence in wooded area adjacent to Elbow River	307.1
	SR43	Residence	Rural residence 600 m from intersection of Highway 1 and Highway 22	321.7
	SR36	Residence	Rural residence adjacent to Range Road 35	354.6
	SR2	Residence	Rural residence 750 m from intersection of Highway 1 and Highway 22	390.4
	SR22	Residence	Rural residence in wooded area adjacent to elbow river	564.8
	SR10	Residence	Rural residence adjacent to Highway 22	616.3
	SR38	Hope Mission Camp Gardner	Summer camp for children ages 6-13. Previously operated by Scouts Canada and purchased by Hope Mission in 201X. A 100 acre property located off Highway 22 to the north of Highway 8	640.0
	SR57	Bragg Creek Paintball	Outdoor paintball facility, open April 1-October 31. Located adjacent to Highway 22 south of Township Road 240A.	689.4
	SR3	Residence	Rural residence 450 m south of Highway 1	729.6
	SR31	Residence	Rural residence in wooded area	731.7
	SR32	Residence	Rural residence in wooded area	750.0
	SR30	Residence	Rural residence in wooded area	754.7
	SR28	Residence	Rural residence in wooded area	845.2
SR51	River Spirit Golf Club	Golf course, driving range, and amenities located northwest of the intersection of Township Road 241 and Range Road 34	845.2	

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Study Area	ID	Residence, Business, Recreation Organization	Description	Distance to PDA (m)
LAA (cont'd)	SR27	Residence	Rural residence in wooded area	866.4
	SR23	Entheos Conference and Retreat Centre	Conference and retreat centre for churches, business groups, government agencies, and school and hospital staff. Located north of the intersection of Range Road 40 and Township Road 242	892.8
	SR29	Residence	Rural residence in wooded area	923.3
	SR6	Residence	Rural residence adjacent to Range Road 40	923.9
	SR33	Residence	Rural residence in wooded area	933.0
	SR37	Residence	Rural residence in wooded area adjacent to Elbow River	965.4
	SR21	Residence	Rural residence adjacent to elbow river	1007.8
	SR35	Residence	Rural residence in wooded area	1020.3
	SR34	Residence	Rural residence in wooded area	1041.3
RAA	SR42	Residence	Rural residence 1250 m from intersection of Highway 1 and Highway 22	1105.0
	SR7	Residence	Rural residence adjacent to Range Road 35	1457.1
	SR17	Residence	Rural residence adjacent to Range Road 34	1588.7
	SR8	Residence	Rural residence adjacent to Springbank Road	1619.3
	SR52	Redwood Meadows Community	The Townsite of Redwood Meadows was developed by the Tsuu T'ina Nation. It includes several residences, businesses, services such as the Tsuu T'ina Fire Department, and a community building. It also includes other recreational facilities (e.g., athletic field, tennis courts, skating rink). It is adjacent to Highway 22 approximately 5 km south of Highway 8	2132.2
	SR54	Curtis Field Park	Playground located within the Townsite of Redwood Meadows. Includes picnic tables and benches within the park and a designated skateboarding area	3177.4
	SR44	Springbank Community High School and Springbank Park For All Seasons	High school and facilities for recreation, meeting venues, and special events. Located to the northeast of the intersection of Springbank Road and Range Road 33	3892.2

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Table 12A-4 Landowners in the LAA and RAA

Study Area	ID	Residence, Business, Recreation Organization	Description	Distance to PDA (m)
RAA (cont'd)	SR45	Springbank Middle School and Elbow Valley Elementary School	Middle school and elementary school adjacent to Range Road 33 south of Highway 1	4317.1
	SR55	Redwood Meadows Golf and Country Club	Owned and operated by the Tsuu T'ina Nation at the southwest end of the Townsite of Redwood Meadows	4638.2
	SR46	Calaway Park	Amusement park located to the southwest of the intersection of Range Road 33 and Highway 1	4652.8

The following water wells are located in the PDA, LAA, and RAA (Table 12A-5).

Table 12A-5 Water Wells in the PDA, LAA, and RAA

Study Area	PDA	LAA	RAA
Null*	0	0	3
Commercial	0	0	1
Dewatering	0	0	1
Domestic	11	93	603
Domestic & Stock	1	14	45
Industrial	1	2	31
Investigation	1	1	2
Irrigation	0	0	1
Municipal	0	3	6
Observation	0	4	11
Other	0	2	3
Stock	4	24	95
Unknown	2	4	23
Grand Total	20	147	825
NOTE: * well type/use unknown			

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12A.3.4 Agriculture

Table 12A-6 Land Cover Classes in the LAA and PDA

	LAA (ha/%)	PDA (ha/%)
Cultivated Lands		
Annual cropping	547.2/11.3	138.5/9.6
Hayland	469.5/9.7	82.8/5.8
Tame/Improved Pasture	1325.2/27.3	411.5/28.6
Subtotal	2341.9/48.2	632.8/44.0
Natural/Undisturbed Lands		
Forested	793.0/16.3	105.6/7.3
Shrubland	409.2/8.4	197.6/13.7
Grassland	425.1/8.8	213.0/14.8
Wetlands	310.9/6.4	121.8/8.5
Subtotal	1,938.2/39.9	638.0/44.3
Anthropogenic Features		
Transportation Corridors	156.3/3.2	30.4/2.1
Settled/Rural Residential	137.6/2.8	35.2/2.4
Mineral Development	0.6/<0.1	0.0/0.0
Dugouts	2.0/<0.1	0.5/<0.1
Subtotal	296.5/6.1	65.5/4.5
Water		
Subtotal	283.5/5.8	103.1/7.2
Total	4,860.0/100	1439.9/100

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Table 12A-7 Land Use Classes in the Study Areas

Land Cover Class	Project Development Area, (ha)	Project Perimeter, (ha)	Local Assessment Area, (ha)	Regional Assessment Area, (ha)
Agriculture		416.0	1,888.7	12,717.4
Broadleaf Forest			97.4	6,040.3
Coniferous Forest		58.7	402.5	40,834.3
Mixed Forest			6.6	6,279.0
Shrubland			2.7	6,181.2
Grassland		839.3	1,775.5	14,993.2
Water		47.5	209.2	1,969.3
Developed Areas		99.4	486.5	10,443.4
Exposed Land				138.4
Rock/Rubble				24,025.2
Snow/Ice				7.1
Total	154.7	1,460.9	4,869.1	123,628.8

12A.3.5 Industrial Development

Table 12A-8 presents oil and gas well sites in the PDA, LAA, and RAA.

Table 12A-8 Oil and Gas Wells by Operator in the PDA, LAA, and RAA

Study Area	Operator	Number of Wells
PDA	-	0
LAA	-	0
RAA	172746 CANADA INC.	2
	BRITISH CANADIAN OILS LIMITED	1
	GULF CANADA LIMITED	1
	MFC ENERGY CORPORATION	3
	SHELL CANADA ENERGY	1
	SHELL CANADA LIMITED	4
	TALISMAN ENERGY INC.	1
	VERMILION ENERGY INC.	4
	WESRESERVE OIL COMPANY LIMITED (NO PERSONAL LIABILITY)	1
Total		19

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12A.3.6 Consumptive Recreation

12A.3.6.1 Hunting

Table 12A-9 presents Wildlife Management Zones and Wildlife Management Units (WMU) that intersect the PDA, LAA, and RAA.

Table 12A-9 Wildlife Management Zones and Wildlife Management Units by Area in the PDA, LAA, and RAA

Study Area	Wildlife Management Zone	Wildlife Management Unit	Area (ha)
PDA	Parkland	Calgary – 212	1,078.1
	Foothills	Priddis – 312	361.9
LAA	Parkland	Calgary – 212	2,934.4
	Foothills	Priddis – 312	1,925.6
RAA	Parkland	Calgary – 212	14,489.0
	Foothills	Priddis – 312	8,051.2

Big game species with specified hunting seasons in WMUs 312 and 212 include white-tailed deer, mule deer, moose, and elk. Porcupine, rabbit, hare, skunk, raccoon, and woodchuck may be hunted (but not trapped) without a licence at any time. Red fox and badger may be hunted only on privately owned land to which the hunter has the right of access. Game birds with specified hunting seasons may be hunted in WMUs 312 and 212, including Snow or Ross's Geese, Canada or White-fronted Geese, ducks, coots, and snipe, male pheasant, Spruce grouse, sharp-tailed grouse, ptarmigan and blue grouse (WMU 312 only), and gray partridge.

Table 12A-10 presents hunting seasons for species in WMUs 312 and 212 (GoA 2016a, b, c, d).

Table 12A-10 Hunting Seasons for Species in Wildlife Management Units 212 and 312

Species	Type/Limit	Season	WMU
White-tailed deer	Antlered and Antlerless	General: - Archery: September 1 – November 30	212
		General: November 1-30 Archery: September 1 – October 31	312
Mule deer	Antlered and Antlerless	General: - Archery: September 1 – November 30	212
		General: November 1-30 Archery: September 1 – October 31	312



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Table 12A-10 Hunting Seasons for Species in Wildlife Management Units 212 and 312

Species	Type/Limit	Season	WMU
Moose	Antlered and Antlerless	General: - Archery: September 1 – November 30	212
		General: November 1-30 Archery: September 1 – October 31	312
Elk	Antlered and Antlerless	General: - Archery: September 1 – November 30	212
	Antlered (3-point or larger)	General: October 25-November 30 Archery: September 1 – October 24	312
Snow or Ross's Geese	Daily Limit: 50 combined No possession limit	September 1-December 21/ March 15-July 15	212, 312
Canada or White-fronted Geese	Daily limit: 8 combined ^a Possession limit: 24 combined ^b	September 8-December 21	212, 312
Ducks, Coots, and Snipe	Daily limit: 8 combined ^{c,d} Possession limit: 24 combined ^{e,f}	September 8-December 21	212, 312
Male Pheasant	Daily limit: 2 Possession limit: 6	September 1-June 15	212
		October 15-November 30	312
Ruffed Grouse	Daily limit: 5 Possession limit: 15	September 1-June 15	212, 312
Spruce Grouse	Daily limit: 5 Possession limit: 15	September 1-June 15	212, 312
Sharp-tailed Grouse	Daily limit: 5 Possession limit: 15	October 1-October 31	212, 312
Ptarmigan	Daily limit: 5 Possession limit: 15	September 1-June 15	312
Blue Grouse	Daily limit: 5 Possession limit: 15	September 1-June 15	312
Gray Partridge	Daily limit: 5 Possession limit: 15	September 1-June 15	212, 312
NOTES:			
(a) of which not more than five may be white-fronted geese.			
(b) of which not more than fifteen may be white-fronted geese.			
(c) of which not more than four ducks may be pintail.			
(d) of which not more than two ducks may be goldeneye for non-resident aliens.			
(e) of which not more than twelve ducks may be pintail.			
(f) of which not more than six ducks may be goldeneye for non-resident aliens.			

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The following outfitters and guides are registered in WMU 212 and 312 (Table 12A-11; APOS 2017):

Table 12A-11 Registered Outfitters and Guides in Wildlife Management Units 212 and 312

WMU	Company Name	Operator
212	925879 Alberta Ltd.	Jon McMahon
	Blue Dog Outfitting Ltd.	Shane Usipuik
	Bruno Martel Hunting Adventure Inc.	Bruno Martel
	Friesen, Lyn R.	Lyn R. Friesen
	Guinn Outfitters Ltd.	Rick Guinn
	Kirschner, Martin	Martin Kirschner
	Massig's Migrators	Doug Massig
	Pekisko Creek Ranch & Cattle Co. Ltd.	M. Bruce Chernoff
	Skyline Outfitters Ltd.	William E. Moynihan
	Triple S Outfitters	Stuart Sinclair-Smith
	Trophy Hunters Alberta Inc.	Tyler Brill
312	Chez Outdoors Ltd.	Greg S. Semrau
	Double Diamond Outfitters	Gordon Burton
	Goss, Bill	Bill Goss
	Great Plains Outfitters Ltd.	Darryl Giesbrecht
	Guinn Outfitters Ltd.	Rick Guinn
	Nelson, Laurel M.	Laurel M. Nelson
	Skyline Outfitters Ltd.	William E. Moynihan

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12A.3.6.2 Trapping

The PDA, LAA, and RAA are in Fur Management Zone 8. The PDA, LAA, and RAA do not intersect any Registered Fur Management Areas (RFMAs).

Furbearer species with specific trapping seasons in Fur Management Zone 8 are presented in Table 12A-12. Yearly quotas have been established for trapping fisher, Canada lynx, river otter, and wolverine for each RFMA and Fur Management Zone. For Zone 8, there is a quota of zero animals for each of these species as these seasons are closed (GoA 2016-2017).

Table 12A-12 Trapping Seasons for Species in Fur Management Zone 8

Species	Fur Management Zone 8
Badger	December 1 – March 31
Beaver	October 15 – April 30
Bobcat	November 1 – February 28
Coyote	October 1 – February 28
Fisher	Closed
Fox	October 1 – February 28
Lynx	Closed
Marten	Closed
Mink	November 1 – January 31
Muskrat	October 15 – April 30
Otter	Closed
Squirrel	November 1 – February 28
Weasel	November 15 – February 14
Wolf	October 1 – February 28
Wolverine	Closed

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12A.3.6.3 Sportfishing

The PDA, LAA, and RAA are within Fish Management Zone 1 – Eastern Slopes, Watershed Unit ES1. In addition to the ES1 Watershed Unit Regulations there are additional ES1 Site-Specific angling regulations (GoA 2016e):

- Elbow River from Canyon Creek to Highway 22:
 - June 16 to October 31 – trout and mountain whitefish limit: 0; bait ban
 - November 1 to June 15: closed
- Elbow River from Highway 22 to the Glenmore Reservoir:
 - June 16 to October 31 – trout limit: 2 (cutthroat and rainbow over 35 cm); mountain whitefish limit: 5 (over 30 cm); maggots are the only bait permitted and only in the river from August 16 to October 31
 - November 1 to June 15: closed

12A.4 REFERENCES

- Alberta Energy. 2017. Geographic Land Information Management and Planning System. Available at: <http://www.energy.alberta.ca/OurBusiness/1019.asp>.
- APOS (Alberta Professional Outfitters Society). 2017. Personal Communication (Danielle Hollman), February 9, 2017.
- GoA (Government of Alberta). 2016a. Alberta Guide to Hunting Regulations: Big Game Regulations. Available online: <http://www.albertaregulations.ca/huntingregs/gameregs.html>. Accessed February 2017.
- GoA 2016-2017. Alberta Guide to Trapping Regulations: Quotas and Fur Seasons. Available online: <http://albertaregulations.ca/trappingregs/quotas-seasons.html>. Accessed February 2017.
- GoA 2016e. Alberta Guide to Sportfishing Regulations: Zone 1 Eastern Slopes – ES1. Available online: <http://www.albertaregulations.ca/fishingregs/es1.html>. Accessed February 2017
- GoA. 2016b. Alberta Guide to Hunting Regulations: Parkland WMU Seasons (200 Series & 728, 730, 936). Available online: <http://www.albertaregulations.ca/huntingregs/wmu/wmu200.html>. Accessed February 2017.

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GoA. 2016d. Alberta Guide to Hunting Regulations: Game Bird Seasons and Bag Limits. Available online: <http://www.albertaregulations.ca/huntingregs/wmu/bird-seasons.html>. Accessed February 2017