

Annual Report 2019

Land Use Changes in Alberta

South Saskatchewan Regional Plan Strategy 1.1:
Maintain an agricultural land base by reducing fragmentation
and conversion of agricultural land.



Preface

Historically, Agriculture and Forestry (AF) monitored and reported on conversion of agricultural land to non-agricultural uses for a 20-year period starting from 1976 until 1996. In 2008, public consultation under the provincial Land-use Framework (LUF) identified agricultural land loss (i.e., conversion to non-agricultural uses) as a major public concern. AF resumed reporting in 2011 and committed through the approved LUF regional plans to continue reporting on not only the conversion but also the fragmentation of agricultural land base. Reports are published annually for Alberta as a whole and for each of the seven LUF regions. These reports are used when assessing future needs for policies to preserve and protect agricultural land in Alberta.

According to 2019 reports, Alberta shows a net loss of over 13,700 hectare of agricultural land in 2019. Most of this loss has occurred in the North Saskatchewan Region. Fragmentation of agricultural land, measured by the increase in number of parcels smaller than 80 acre in size compared to the total number of parcels, has increased by 0.1 per cent in 2019 compared to the previous year.

Previous reports, maps, and analysis can be viewed [here](#).

Land Use Policy
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Land Use

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Land Use Changes in Alberta

Table 1a: Conversion – Land Use in Alberta

Year	Area by Land Use Class (hectares)			
	Agricultural	Non-Agricultural	Rural Residential	Urban
2011	21,013,670	38,130,450	210,440	428,850
2012	21,024,000	38,137,810	215,890	437,370
2013	21,037,100	38,076,320	217,910	437,240
2014	21,045,480	38,057,400	218,840	437,890
2015	21,024,610	38,038,140	224,180	438,520
2016	21,013,810	38,071,320	226,880	445,310
2017	21,006,492	38,061,231	229,791	451,911
2018	21,010,403	38,054,915	232,459	459,693
2019	20,996,654	38,058,760	234,275	466,800

Table 1b: Conversion – Land Use Change in Alberta

Year	Net Change in Area by Land Use Class (hectares)			
	Agricultural	Non-Agricultural	Rural Residential	Urban
2011-2012	10,330	7,360	5,450	8,520
2012-2013	13,100	-61,490	2,020	-130
2013-2014	8,380	-18,920	930	650
2014-2015	-20,870	-19,260	5,340	630
2015-2016	-10,800	33,180	2,700	6,790
2016-2017	-7,318	-10,089	2,911	6,602
2017-2018	3,911	-6,315	2,668	7,781
2018-2019	-13,749	3,845	1,816	7,107
Total (2011-2019)	-17,016	-71,690	23,835	37,950

Table 2a: Conversion – Area of Agricultural Land in Alberta by Land Suitability Rating System Class

Year	Area by LSRS Class (hectares)						
	2	3	4	5	6	7	0 ¹
2011	4,158,700	8,120,890	4,083,070	2,111,790	1,755,460	749,760	33,990
2012	4,156,360	8,119,080	4,087,880	2,114,800	1,762,070	750,300	33,500
2013	4,155,390	8,117,480	4,091,600	2,123,880	1,762,290	751,760	34,370
2014	4,153,520	8,122,340	4,090,670	2,122,940	1,769,850	751,610	34,560
2015	4,152,140	8,115,990	4,091,380	2,113,470	1,766,420	750,790	34,430
2016	4,151,320	8,110,070	4,089,390	2,112,710	1,765,730	750,290	34,300
2017	4,148,700	8,103,914	4,091,291	2,114,046	1,764,995	749,141	34,404
2018	4,147,599	8,096,882	4,090,997	2,120,195	1,770,834	749,593	34,303
2019	4,138,748	8,092,399	4,091,406	2,120,184	1,770,856	749,076	33,986

Table 2b: Conversion – Change in Area of Agricultural Land by LSRS Class in Alberta

Year	Net Change in Area by LSRS Class (hectares)						
	2	3	4	5	6	7	0
2011-2012	-2,340	-1,810	4,810	3,010	6,610	540	-490
2012-2013	-970	-1,600	3,720	9,080	220	1,460	870
2013-2014	-1,870	4,860	-930	-940	7,560	-150	190
2014-2015	-1,380	-6,350	710	-9,470	-3,430	-820	-130
2015-2016	-820	-5,920	-1,990	-760	-690	-500	-130
2016-2017	-2,620	-6,156	1,902	1,336	-735	-1,148	104
2017-2018	-1,101	-7,032	-294	6,149	5,839	451	-101
2018-2019	-8,851	-4,483	409	-11	21	-517	-317
Total (2011-2019)	-19,952	-28,491	8,336	8,394	15,396	-684	-4

¹ Not classified

Land Use

Table 3a: Fragmentation – Parcel Size Distribution in Alberta

Parcel Size (acres) Distribution in Alberta (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011	611,561	13	54,951	265,189	90,847	14.9
2012	639,044	13	53,742	266,036	92,997	14.6
2013	619,354	16	54,390	265,843	93,045	15.0
2014	622,723	15	54,319	265,920	93,946	15.1
2015	625,809	14	54,002	265,830	94,822	15.2
2016	628,713	15	53,579	266,023	95,331	15.2
2017	633,382	15	53,467	265,967	95,853	15.1
2018	635,252	15	53,342	266,106	96,409	15.2
2019	637,088	16	53,072	266,167	97,206	15.3

Table 3b: Fragmentation – Annual Change in Parcel Size Distribution in Alberta

Annual Change in Parcel Size (acres) Distribution in Alberta (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011-2012	27,483	0	-1,209	847	2,150	-0.3
2012-2013	-19,690	3	648	-193	48	0.5
2013-2014	3,369	-1	-71	77	901	0.1
2014-2015	3,086	-1	-317	-90	876	0.1
2015-2016	2,904	1	-423	193	509	0.0
2016-2017	4,669	0	-112	-56	522	0.0
2017-2018	1,870	0	-125	139	556	0.0
2018-2019	1,836	1	-270	61	797	0.1
Total (2011-2019)	25,527	3	-1,879	978	6,359	0.4

The data has been rounded to the nearest 10 in Tables 1a, 1b, 2a, and 2b (up until 2016) and to the nearest tenth in the percentage column of Tables 3a and 3b.

Land Use

Upper Athabasca Region

Table 1a: Conversion – Land Use in the Upper Athabasca Region

Area by Land Use Class (hectares)				
Year	Agricultural	Non-Agricultural	Rural Residential	Urban
2011	1,844,470	5,638,400	24,130	21,550
2012	1,844,390	5,637,340	24,940	21,550
2013	1,843,000	5,638,370	25,180	21,610
2014	1,840,390	5,640,200	25,530	21,610
2015	1,837,040	5,613,090	25,950	21,610
2016	1,837,060	5,642,440	26,330	21,610
2017	1,833,355	5,645,777	26,773	21,610
2018	1,832,844	5,645,827	26,978	21,606
2019	1,831,638	5,646,311	27,220	21,886

Table 1b: Conversion – Land Use Change in the Upper Athabasca Region

Net Change in Area by Land Use Class (hectares)				
Year	Agricultural	Non-Agricultural	Rural Residential	Urban
2011-2012	-80	-1,060	810	0
2012-2013	-1,390	1,030	240	60
2013-2014	-2,610	1,830	350	0
2014-2015	-3,350	-27,110	420	0
2015-2016	20	29,350	380	0
2016-2017	-3,705	3,337	443	0
2017-2018	-510	50	205	-5
2018-2019	-1,207	485	242	280
Total (2011-2019)	-12,832	7,911	3,090	336

Table 2a: Conversion – Area of Agricultural Land in the Upper Athabasca Region by Land Suitability Rating System Class

Area by LSRS Class (hectares)							
Year	2	3	4	5	6	7	0
2011	225,540	994,440	238,210	87,500	75,090	222,260	1,420
2012	225,330	994,410	237,400	87,460	74,840	223,500	1,440
2013	225,210	993,370	237,610	87,570	75,000	222,800	1,440
2014	225,160	991,300	237,390	87,510	74,920	222,700	1,410
2015	225,210	989,680	237,760	86,650	74,410	221,930	1,410
2016	225,110	989,650	237,060	86,740	75,250	221,840	1,410
2017	225,104	988,201	235,678	86,668	75,001	221,252	1,450
2018	225,038	987,749	235,656	86,686	75,005	221,250	1,460
2019	225,069	987,051	235,388	86,697	74,809	221,173	1,450

Table 2b: Conversion – Change in Area of Agricultural Land by LSRS Class in the Upper Athabasca Region

Net Change in Area by LSRS Class (hectares)							
Year	2	3	4	5	6	7	0
2011-2012	-210	-30	-810	-40	-250	1,240	20
2012-2013	-120	-1,040	210	110	160	-700	0
2013-2014	-50	-2,070	-220	-60	-80	-100	-30
2014-2015	50	-1,620	370	-860	-510	-770	0
2015-2016	-100	-30	-700	90	840	-90	0
2016-2017	-6	-1,449	-1,382	-72	-249	-588	40
2017-2018	-65	-452	-22	17	4	-3	10
2018-2019	31	-697	-269	12	-196	-77	-10
Total (2011-2019)	-471	-7,389	-2,822	-803	-281	-1,087	30

Land Use

Table 3a: Fragmentation – Parcel Size Distribution in the Upper Athabasca Region

Parcel Size (acres) Distribution in Alberta (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011	59,560	0	3,735	24,082	9,705	16.3
2012	62,909	0	3,557	24,140	10,131	16.1
2013	60,847	0	3,677	24,041	10,141	16.7
2014	61,039	0	3,637	24,018	10,290	16.9
2015	61,283	0	3,609	23,979	10,423	17.0
2016	61,564	0	3,564	24,008	10,551	17.1
2017	61,933	0	3,548	23,945	10,615	17.1
2018	62,213	0	3,526	23,946	10,768	17.3
2019	62,469	0	3,473	23,966	11,006	17.6

Table 3b: Fragmentation – Annual Change in Parcel Size Distribution in the Upper Athabasca Region

Annual Change in Parcel Size (acres) Distribution in Alberta (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011-2012	3,349	0	-178	58	426	-0.2
2012-2013	-2,062	0	120	-99	10	0.6
2013-2014	192	0	-40	-23	149	0.2
2014-2015	244	0	-28	-39	133	0.1
2015-2016	281	0	-45	29	128	0.1
2016-2017	369	0	-16	-63	64	0.0
2017-2018	280	0	-22	1	153	0.2
2018-2019	256	0	-53	20	238	0.3
Total (2011-2019)	2,909	0	-262	-116	1,301	1.3

The data has been rounded to the nearest 10 in Tables 1a, 1b, 2a, and 2b (up until 2016) and to the nearest tenth in the percentage column of Tables 3a and 3b.

Land Use

Upper Peace Region

Table 1a: Conversion – Land Use in the Upper Peace Region

Area by Land Use Class (hectares)				
Year	Agricultural	Non-Agricultural	Rural Residential	Urban
2011	2,185,110	4,868,420	14,390	24,330
2012	2,183,800	4,868,450	14,890	24,240
2013	2,183,360	4,868,630	15,080	24,260
2014	2,181,400	4,870,010	15,310	24,250
2015	2,179,490	4,871,500	15,740	24,260
2016	2,172,250	4,870,680	15,710	30,130
2017	2,170,540	4,874,043	15,967	30,133
2018	2,169,905	4,874,281	16,192	30,125
2019	2,168,943	4,878,340	16,531	26,499

Table 1b: Conversion – Land Use Change in the Upper Peace Region

Net Change in Area by Land Use Class (hectares)				
Year	Agricultural	Non-Agricultural	Rural Residential	Urban
2011-2012	-1,310	30	500	-90
2012-2013	-440	180	190	20
2013-2014	-1,960	1,380	230	-10
2014-2015	-1,910	1,490	430	10
2015-2016	-7,240	-820	-30	5,870
2016-2017	-1,710	3,363	257	3
2017-2018	-635	238	225	-8
2018-2019	-962	4,060	339	-3,626
Total (2011-2019)	-16,167	9,920	2,141	2,169

Table 2a: Conversion – Area of Agricultural Land in the Upper Peace Region by Land Suitability Rating System Class

Area by LSRS Class (hectares)							
Year	2	3	4	5	6	7	0
2011	298,670	1,266,860	338,420	92,920	147,670	40,020	550
2012	298,660	1,266,560	338,460	92,830	146,780	39,960	550
2013	298,610	1,266,330	338,390	92,930	146,760	39,780	550
2014	298,570	1,266,240	337,850	92,270	146,460	39,740	280
2015	298,400	1,265,440	337,740	91,950	145,930	39,750	280
2016	298,290	1,259,890	336,920	91,520	145,670	39,670	280
2017	298,185	1,259,693	336,606	91,259	145,033	39,482	281
2018	298,155	1,259,705	336,270	91,422	144,479	39,613	261
2019	298,139	1,259,072	336,071	91,154	144,442	39,614	451

Table 2b: Conversion – Change in Area of Agricultural Land by LSRS Class in the Upper Peace Region

Net Change in Area by LSRS Class (hectares)							
Year	2	3	4	5	6	7	0
2011-2012	-10	-300	40	-90	-890	-60	0
2012-2013	-50	-230	-70	100	-20	-180	0
2013-2014	-40	-90	-540	-660	-300	-40	-270
2014-2015	-170	-800	-110	-320	-530	10	0
2015-2016	-110	-5,550	-820	-430	-260	-80	0
2016-2017	-105	-197	-314	-261	-637	-188	1
2017-2018	-30	11	-336	163	-554	131	-20
2018-2019	-16	-633	-199	-268	-37	1	190
Total (2011-2019)	-531	-7,788	-2,349	-1,766	-3,228	-406	-99

Land Use

Table 3a: Fragmentation – Parcel Size Distribution in the Upper Peace Region

Parcel Size (acres) Distribution in Alberta (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011	51,533	1	7,876	25,853	6,529	12.7
2012	54,181	1	7,599	26,085	6,803	12.6
2013	52,359	1	7,772	25,927	6,818	13.0
2014	52,722	0	7,744	25,925	6,928	13.1
2015	53,142	0	7,688	25,949	7,082	13.3
2016	53,180	0	7,607	25,920	7,146	13.4
2017	53,411	0	7,575	25,925	7,242	13.6
2018	53,707	0	7,559	25,931	7,342	13.7
2019	54,257	1	7,524	25,956	7,363	13.6

Table 3b: Fragmentation – Annual Change in Parcel Size Distribution in the Upper Peace Region

Annual Change in Parcel Size (acres) Distribution in Alberta (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011-2012	2,648	0	-277	232	274	-0.1
2012-2013	-1,822	0	173	-158	15	0.5
2013-2014	363	-1	-28	-2	110	0.1
2014-2015	420	0	-56	24	154	0.2
2015-2016	38	0	-81	-29	64	0.1
2016-2017	231	0	-32	5	96	0.1
2017-2018	296	0	-16	6	100	0
2018-2019	550	1	-35	25	21	-0.1
Total (2011-2019)	2,724	0	-352	103	834	0.9

The data has been rounded to the nearest 10 in Tables 1a, 1b, 2a, and 2b (up until 2016) and to the nearest tenth in the percentage column of Tables 3a and 3b.

Land Use

Lower Athabasca Region

Table 1a: Conversion – Land Use in the Lower Athabasca Region

Area by Land Use Class (hectares)				
Year	Agricultural	Non-agricultural	Rural Residential	Urban
2011	545,850	7,067,460	8,350	24,080
2012	545,260	7,112,280	8,760	24,420
2013	544,520	7,066,790	9,020	24,400
2014	543,930	7,066,690	9,370	24,470
2015	542,380	7,066,680	9,540	24,750
2016	541,850	7,080,180	9,660	24,760
2017	541,366	7,065,200	10,088	25,731
2018	535,380	7,071,969	9,468	33,482
2019	534,495	7,071,980	9,499	34,124

Table 1b: Conversion – Land Use Change in the Lower Athabasca Region

Net Change in Area by Land Use Class (hectares)				
Year	Agricultural	Non-agricultural	Rural Residential	Urban
2011-2012	-590	44,820	410	340
2012-2013	-740	-45,490	260	-20
2013-2014	-590	-100	350	70
2014-2015	-1,550	-10	170	280
2015-2016	-530	13,500	120	10
2016-2017	-484	-14,980	428	971
2017-2018	-5,987	6,769	-619	7,751
2018-2019	-885	11	31	641
Total (2011-2019)	-11,355	4,520	1,149	10,044

Table 2a: Conversion – Area of Agricultural Land in the Lower Athabasca Region by Land Suitability Rating System Class

Area by LSRS Class (hectares)							
Year	2	3	4	5	6	7	0
2011	170	472,050	9,590	19,980	15,070	27,740	1,260
2012	0	471,460	9,420	20,040	14,800	28,840	700
2013	0	471,190	9,280	20,150	14,790	28,410	700
2014	40	470,660	9,280	20,120	14,790	28,370	680
2015	40	470,090	9,240	20,020	14,620	28,080	300
2016	30	469,840	9,240	19,990	14,630	27,830	290
2017	29	469,700	9,236	20,003	14,627	27,476	294
2018	29	464,108	9,005	19,843	14,600	27,601	193
2019	29	463,304	9,005	19,762	14,598	27,597	200

Table 2b: Conversion – Change in Area of Agricultural Land by LSRS Class in the Lower Athabasca Region

Net Change in Area by LSRS Class (hectares)							
Year	2	3	4	5	6	7	0
2011-2012	-170	-590	-170	60	-270	1,100	-560
2012-2013	0	-270	-140	110	-10	-430	0
2013-2014	40	-530	0	-30	0	-40	-20
2014-2015	0	-570	-40	-100	-170	-290	-380
2015-2016	-10	-250	0	-30	10	-250	-10
2016-2017	0	-139	-4	13	-3	-354	4
2017-2018	0	-5,592	-231	-160	-27	125	-101
2018-2019	0	-805	0	-81	-2	-5	7
Total (2011-2019)	-141	-8,746	-585	-218	-472	-143	-1,060

Land Use

Table 3a: Fragmentation – Parcel Size Distribution in the Lower Athabasca Region

Parcel Size (acres) Distribution in the Lower Athabasca Region (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011	19,343	1	1,359	7,087	2,805	14.5
2012	21,521	2	1,139	7,251	2,952	13.7
2013	19,985	2	1,351	7,076	2,888	14.5
2014	20,308	2	1,340	7,071	2,932	14.4
2015	20,414	0	1,334	7,060	2,958	14.5
2016	20,565	0	1,314	7,075	2,964	14.4
2017	21,328	0	1,315	7,065	2,971	13.9
2018	19,900	0	1,309	6,990	2,842	14.3
2019	19,798	0	1,297	6,992	2,775	14.0

Table 3b: Fragmentation – Annual Change in Parcel Size Distribution in the Lower Athabasca Region

Annual Change in Parcel Size (acres) Distribution in the Lower Athabasca Region (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011-2012	2,178	1	-220	164	147	-0.8
2012-2013	-1,536	0	212	-175	-64	0.7
2013-2014	323	0	-11	-5	44	0.0
2014-2015	106	-2	-6	-11	26	0.1
2015-2016	151	0	-20	15	6	-0.1
2016-2017	763	0	1	-10	7	-0.5
2017-2018	-1,428	0	-6	-75	-129	0.4
2018-2019	-102	0	-12	2	-67	-0.3
Total (2011-2019)	455	-1	-62	-95	-30	-0.5

The data has been rounded to the nearest 10 in Tables 1a, 1b, 2a, and 2b (up until 2016) and to the nearest tenth in the percentage column of Tables 3a and 3b.

Land Use

Lower Peace Region

Table 1a: Conversion – Land Use in the Lower Peace Region

Area by Land Use Class (hectares)				
Year	Agricultural	Non-Agricultural	Rural Residential	Urban
2011	789,510	16,757,270	6,310	3,680
2012	816,430	16,724,890	6,530	3,780
2013	817,260	16,723,730	6,640	3,680
2014	818,140	16,720,310	6,750	3,680
2015	807,340	16,726,930	6,920	3,680
2016	805,970	16,721,240	7,110	3,680
2017	805,859	16,723,947	7,420	3,680
2018	805,521	16,724,205	7,524	3,680
2019	805,088	16,724,599	7,630	3,680

Table 1b: Conversion – Land Use Change in the Lower Peace Region

Net Change in Area by Land Use Class (hectares)				
Year	Agricultural	Non-Agricultural	Rural Residential	Urban
2011-2012	26,920	-32,380	220	100
2012-2013	830	-1,160	110	-100
2013-2014	880	-3,420	110	0
2014-2015	-10,800	6,620	170	0
2015-2016	-1,370	-5,690	190	0
2016-2017	-111	2,707	310	0
2017-2018	-337	258	104	0
2018-2019	-434	394	106	0
Total (2011-2019)	15,578	-32,671	1,320	0

Table 2a: Conversion – Area of Agricultural Land in the Lower Peace Region by Land Suitability Rating System Class

Area by LSRS Class (hectares)							
Year	2	3	4	5	6	7	0
2011	42,590	557,290	64,440	52,640	43,660	28,410	470
2012	43,070	567,080	68,920	55,320	51,760	29,810	470
2013	43,050	567,450	68,900	55,670	51,870	29,160	1,150
2014	43,010	568,170	69,470	55,970	51,990	29,030	500
2015	42,960	565,780	69,450	49,790	49,840	29,040	480
2016	42,950	565,470	69,430	49,780	48,910	28,960	480
2017	43,058	565,645	69,427	49,644	48,758	28,849	478
2018	43,052	565,596	69,068	49,658	48,766	28,923	459
2019	43,044	565,290	69,086	49,664	48,762	28,783	459

Table 2b: Conversion – Change in Area of Agricultural Land by LSRS Class in the Lower Peace Region

Net Change in Area by LSRS Class (hectares)							
Year	2	3	4	5	6	7	0
2011-2012	480	9,790	4,480	2,680	8,100	1,400	0
2012-2013	-20	370	-20	350	110	-650	680
2013-2014	-40	720	570	300	120	-130	-650
2014-2015	-50	-2,390	-20	-6,180	-2,150	10	-20
2015-2016	-10	-310	-20	-10	-930	-80	0
2016-2017	108	175	-3	-136	-152	-111	-2
2017-2018	-6	-49	-359	14	8	73	-19
2018-2019	-8	-306	18	6	-4	-140	0
Total (2011-2019)	454	8,000	4,646	-2,976	5,102	373	-11

Land Use

Table 3a: Fragmentation – Parcel Size Distribution in the Lower Peace Region

Parcel Size (acres) Distribution in the Lower Peace Region (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011	21,082	0	1,776	10,406	2,422	11.5
2012	22,298	0	1,831	10,751	2,520	11.3
2013	21,811	2	1,837	10,763	2,550	11.7
2014	21,871	0	1,822	10,803	2,601	11.9
2015	21,819	0	1,726	10,731	2,607	11.9
2016	21,951	0	1,715	10,724	2,638	12.0
2017	22,394	0	1,708	10,723	2,723	12.2
2018	22,485	0	1,703	10,722	2,758	12.3
2019	22,559	0	1,692	10,731	2,818	12.5

Table 3b: Fragmentation – Annual Change in Parcel Size Distribution in the Lower Peace Region

Annual Change in Parcel Size (acres) Distribution in Alberta (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011-2012	1,216	0	55	345	98	-0.2
2012-2013	-487	2	6	12	30	0.4
2013-2014	60	-2	-15	40	51	0.2
2014-2015	-52	0	-96	-72	6	0.1
2015-2016	132	0	-11	-7	31	0.1
2016-2017	443	0	-7	-1	85	0.1
2017-2018	91	0	-5	-1	35	0.1
2018-2019	74	0	-11	9	60	0.2
Total (2011-2019)	1,477	0	-84	325	396	1.0

The data has been rounded to the nearest 10 in Tables 1a, 1b, 2a, and 2b (up until 2016) and to the nearest tenth in the percentage column of Tables 3a and 3b.

Land Use

North Saskatchewan Region

Table 1a: Conversion – Land Use in the North Saskatchewan Region

Area by Land Use Class (hectares)				
Year	Agricultural	Non-Agricultural	Rural Residential	Urban
2011	5,153,380	2,427,150	73,080	146,260
2012	5,151,580	2,424,560	75,120	148,260
2013	5,160,780	2,414,820	75,760	148,110
2014	5,160,400	2,412,910	76,960	148,590
2015	5,158,570	2,413,220	78,100	148,810
2016	5,158,280	2,411,910	79,250	148,860
2017	5,160,582	2,406,638	79,827	151,159
2018	5,160,143	2,406,209	80,520	151,215
2019	5,148,978	2,407,175	81,078	160,570

Table 1b: Conversion – Land Use Change in the North Saskatchewan Region

Net Change in Area by Land Use Class (hectares)				
Year	Agricultural	Non-Agricultural	Rural Residential	Urban
2011-2012	-1,800	-2,590	2,040	2,000
2012-2013	9,200	-9,740	640	-150
2013-2014	-380	-1,910	1,200	480
2014-2015	-1,830	310	1,140	220
2015-2016	-290	-1,310	1,150	50
2016-2017	2,302	-5,272	577	2,299
2017-2018	-439	-429	693	56
2018-2019	-11,165	966	557	9,354
Total (2011-2019)	-4,402	-19,975	7,998	14,310

Table 2a: Conversion – Area of Agricultural Land in the North Saskatchewan Region by Land Suitability Rating System Class

Area by LSRS Class (hectares)							
Year	2	3	4	5	6	7	0
2011	2,315,540	1,648,620	617,250	292,870	141,240	123,270	14,580
2012	2,314,410	1,646,080	619,780	292,670	141,170	123,030	14,430
2013	2,313,930	1,645,560	622,320	299,920	141,100	123,110	14,540
2014	2,312,850	1,646,440	621,860	300,620	141,080	123,090	14,460
2015	2,311,970	1,645,920	621,530	300,590	141,020	123,060	14,470
2016	2,311,300	1,646,760	621,180	300,590	141,000	123,060	14,390
2017	2,308,754	1,646,141	624,886	302,389	140,962	123,033	14,416
2018	2,308,157	1,646,139	624,891	302,288	140,965	123,232	14,472
2019	2,299,440	1,644,800	624,837	302,132	140,522	123,059	14,188

Table 2b: Conversion – Change in Area of Agricultural Land by LSRS Class in the North Saskatchewan Region

Net Change in Area by LSRS Class (hectares)							
Year	2	3	4	5	6	7	0
2011-2012	-1,130	-2,540	2,530	-200	-70	-240	-150
2012-2013	-480	-520	2,540	7,250	-70	80	110
2013-2014	-1,080	880	-460	700	-20	-20	-80
2014-2015	-880	-520	-330	-30	-60	-30	10
2015-2016	-670	840	-350	0	-20	0	-80
2016-2017	-2,546	-619	3,706	1,799	-38	-26	26
2017-2018	-597	-2	5	-102	3	198	56
2018-2019	-8,716	-1,339	-54	-156	-443	-172	-284
Total (2011-2019)	-16,100	-3,820	7,587	9,262	-718	-211	-392

Land Use

Table 3a: Fragmentation – Parcel Size Distribution in the North Saskatchewan Region

Parcel Size (acres) Distribution in the North Saskatchewan Region (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011	174,414	2	9,971	67,156	28,983	16.6
2012	180,808	2	9,607	67,293	29,693	16.4
2013	177,348	2	9,813	67,254	29,873	16.8
2014	178,634	2	9,753	67,250	30,211	16.9
2015	179,784	3	9,702	67,208	30,573	17.0
2016	181,130	3	9,608	67,254	30,791	17.0
2017	182,412	3	9,574	67,293	31,011	17.0
2018	183,242	3	9,519	67,294	31,267	17.1
2019	183,509	3	9,393	67,256	31,488	17.2

Table 3b: Fragmentation – Annual Change in Parcel Size Distribution in the North Saskatchewan Region

Annual Change in Parcel Size (acres) Distribution in the North Saskatchewan Region (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011-2012	6,394	0	-364	137	710	-0.2
2012-2013	-3,460	0	206	-39	180	0.4
2013-2014	1,286	0	-60	-4	338	0.1
2014-2015	1,150	1	-51	-42	362	0.1
2015-2016	1,346	0	-94	46	218	0.0
2016-2017	1,282	0	-34	39	220	0.0
2017-2018	830	0	-55	1	256	0.1
2018-2019	267	0	-126	-38	221	0.1
Total (2011-2019)	9,095	1	-578	100	2,505	0.5

The data has been rounded to the nearest 10 in Tables 1a, 1b, 2a, and 2b (up until 2016) and to the nearest tenth in the percentage column of Tables 3a and 3b.

Land Use

Red Deer Region

Table 1a: Conversion – Land Use in the Red Deer Region

Area by Land Use Class (hectares)				
Year	Agricultural	Non-Agricultural	Rural Residential	Urban
2011	4,347,670	301,360	28,850	50,370
2012	4,354,340	292,680	29,810	50,760
2013	4,355,220	291,410	30,110	50,820
2014	4,356,740	289,120	30,470	50,840
2015	4,359,380	285,580	31,000	50,850
2016	4,358,800	285,050	31,340	51,560
2017	4,359,016	283,761	31,655	52,090
2018	4,359,013	283,378	31,928	52,042
2019	4,359,473	282,632	32,121	52,038

Table 1b: Conversion – Land Use Change in the Red Deer Region

Net Change in Area by Land Use Class (hectares)				
Year	Agricultural	Non-Agricultural	Rural Residential	Urban
2011-2012	6,670	-8,680	960	390
2012-2013	880	-1,270	300	60
2013-2014	1,520	-2,290	360	20
2014-2015	2,640	-3,540	530	10
2015-2016	-580	-530	340	710
2016-2017	216	-1,289	315	530
2017-2018	-3	-383	273	-48
2018-2019	461	-746	193	-4
Total (2011-2019)	11,803	-18,728	3,271	1,668

Table 2a: Conversion – Area of Agricultural Land in the Red Deer Region by Land Suitability Rating System Class

Area by LSRS Class (hectares)							
Year	2	3	4	5	6	7	0
2011	726,800	1,404,520	868,850	624,650	599,700	118,780	4,370
2012	726,540	1,405,580	869,930	626,680	602,170	119,010	4,430
2013	726,160	1,405,660	870,230	627,260	602,270	119,210	4,430
2014	725,890	1,405,630	870,820	627,550	602,980	119,470	4,400
2015	725,630	1,405,770	871,980	628,480	603,360	119,740	4,430
2016	725,620	1,405,090	872,100	628,550	603,290	119,720	4,430
2017	725,679	1,404,445	872,428	628,592	603,635	119,819	4,417
2018	725,479	1,404,399	872,568	628,616	603,661	119,848	4,441
2019	725,352	1,404,194	872,706	628,767	603,988	120,031	4,434

Table 2b: Conversion – Change in Area of Agricultural Land by LSRS Class in the Red Deer Region

Net Change in Area by LSRS Class (hectares)							
Year	2	3	4	5	6	7	0
2011-2012	-260	1,060	1,080	2,030	2,470	230	60
2012-2013	-380	80	300	580	100	200	0
2013-2014	-270	-30	590	290	710	260	-30
2014-2015	-260	140	1,160	930	380	270	30
2015-2016	-10	-680	120	70	-70	-20	0
2016-2017	59	-645	328	42	345	99	-13
2017-2018	-200	-46	140	24	25	29	24
2018-2019	-127	-205	138	151	327	183	-7
Total (2011-2019)	-1,448	-326	3,856	4,117	4,288	1,251	64

Land Use

Table 3a: Fragmentation – Parcel Size Distribution in the Red Deer Region

Parcel Size (acres) Distribution in Alberta (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011	108,593	1	9,419	58,434	11,618	10.7
2012	110,323	1	10,426	57,526	11,665	10.6
2013	109,967	1	9,303	58,661	11,992	10.9
2014	110,465	1	9,268	58,709	12,134	11.0
2015	111,005	1	9,236	58,780	12,264	11.0
2016	111,428	1	9,195	58,810	12,325	11.1
2017	111,839	1	9,225	58,767	12,402	11.1
2018	112,214	1	9,203	58,794	12,500	11.1
2019	112,648	1	9,188	58,792	12,779	11.3

Table 3b: Fragmentation – Annual Change in Parcel Size Distribution in the Red Deer Region

Annual Change in Parcel Size (acres) Distribution in Alberta (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011-2012	1,730	0	1,007	-908	47	-0.1
2012-2013	-356	0	-1,123	1,135	327	0.3
2013-2014	498	0	-35	48	142	0.1
2014-2015	540	0	-32	71	130	0.0
2015-2016	423	0	-41	30	61	0.0
2016-2017	411	0	30	-43	77	0.0
2017-2018	375	0	-22	27	98	0.1
2018-2019	434	0	-15	-2	279	0.2
Total (2011-2019)	4,055	0	-231	358	1,161	0.6

The data has been rounded to the nearest 10 in Tables 1a, 1b, 2a, and 2b (up until 2016) and to the nearest tenth in the percentage column of Tables 3a and 3b.

Land Use

South Saskatchewan Region

Table 1a: Conversion - Land Use in the South Saskatchewan Region

Area by Land Use Class (hectares)				
Year	Agricultural	Non-Agricultural	Rural Residential	Urban
2011	6,147,680	1,070,390	55,330	158,580
2012	6,128,200	1,077,610	55,840	164,360
2013	6,132,960	1,072,570	56,120	164,360
2014	6,144,480	1,058,160	54,450	164,450
2015	6,140,410	1,061,140	56,930	164,560
2016	6,139,600	1,059,820	57,480	164,710
2017	6,135,775	1,061,866	58,063	167,508
2018	6,147,597	1,049,046	59,849	167,542
2019	6,148,039	1,047,722	60,197	168,004

Table 1b: Conversion - Land Use Change in the South Saskatchewan Region

Net Change in Area by Land Use Class (hectares)				
Year	Agricultural	Non-Agricultural	Rural Residential	Urban
2011-2012	-19,480	7,220	510	5,780
2012-2013	4,760	-5,040	280	0
2013-2014	11,520	-14,410	-1,670	90
2014-2015	-4,070	2,980	2,480	110
2015-2016	-810	-1,320	550	150
2016-2017	-3,825	2,046	583	2,798
2017-2018	11,822	-12,820	1,786	34
2018-2019	442	-1,325	349	462
Total (2011-2019)	359	-22,668	4,867	9,424

Table 2a: Conversion – Area of Agricultural Land in the South Saskatchewan Region by Land Suitability Rating System Class

Area by LSRS Class (hectares)							
Year	2	3	4	5	6	7	0
2011	549,390	1,777,110	1,946,310	941,230	733,030	189,280	11,340
2012	548,350	1,767,910	1,943,970	939,800	730,550	186,150	11,480
2013	548,430	1,767,920	1,944,870	940,380	730,500	189,290	11,560
2014	548,000	1,773,900	1,944,000	938,900	737,630	189,210	12,830
2015	547,930	1,773,310	1,943,680	935,990	737,240	189,190	13,060
2016	548,020	1,773,370	1,943,460	935,540	736,980	189,210	13,020
2017	547,891	1,770,089	1,943,030	935,490	736,978	189,229	13,067
2018	547,688	1,769,186	1,943,539	941,683	743,358	189,126	13,016
2019	547,674	1,768,688	1,944,313	942,009	743,733	188,819	12,803

Table 2b: Conversion - Change in Area of Agricultural Land by LSRS Class in the South Saskatchewan Region

Net Change in Area by LSRS Class (hectares)							
Year	2	3	4	5	6	7	0
2011-2012	-1,040	-9,200	-2,340	-1,430	-2,480	-3,130	140
2012-2013	80	10	900	580	-50	3,140	80
2013-2014	-430	5,980	-870	-1,480	7,130	-80	1,270
2014-2015	-70	-590	-320	-2,910	-390	-20	230
2015-2016	90	60	-220	-450	-260	20	-40
2016-2017	-129	-3281	-430	-50	-2	19	47
2017-2018	-203	-902	509	6,192	6,380	-103	-51
2018-2019	-14	-498	774	326	375	-308	-213
Total (2011-2019)	-1,716	-8,422	-1,997	779	10,703	-461	1,463

Land Use

Table 3a: Fragmentation - Parcel Size Distribution in the South Saskatchewan Region

Parcel Size (acres) Distribution in the South Saskatchewan Region (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011	177,036	8	20,815	72,171	28,785	16.3
2012	187,004	7	19,583	72,990	29,233	15.6
2013	177,037	8	20,637	72,121	28,783	16.3
2014	177,684	10	20,755	72,144	28,850	16.2
2015	178,362	10	20,707	72,123	28,915	16.2
2016	178,895	11	20,576	72,232	28,916	16.2
2017	180,065	11	20,522	72,249	28,889	16.0
2018	181,491	11	20,523	72,429	28,932	15.9
2019	181,848	11	20,505	72,474	28,977	15.9

Table 3b: Fragmentation - Annual Change in Parcel Size Distribution in the South Saskatchewan Region

Annual Change in Parcel Size (acres) Distribution in the South Saskatchewan Region (number of parcels)						
Year	Total Parcels	>240	160-240	80-160	10-80	% < 80
2011-2012	9,968	-1	-1,232	819	448	-0.6
2012-2013	-9,967	1	1,054	-869	-450	0.6
2013-2014	647	2	118	23	67	0.0
2014-2015	678	0	-48	-21	65	0.0
2015-2016	533	1	-131	109	1	0.0
2016-2017	1,170	0	-54	17	-27	-0.1
2017-2018	1,426	0	1	180	43	-0.1
2018-2019	357	0	-18	45	45	0.0
Total (2011-2019)	4,812	3	-310	303	192	-0.3

The data has been rounded to the nearest 10 in Tables 1a, 1b, 2a, and 2b (up until 2016), and to the nearest tenth in the percentage column of Tables 3a and 3b.

Appendix

Definition of Terms

Agricultural Land: Any parcel of land that does not qualify as Urban, is outside the Green Area and privately owned, and has an area between 10 acres (4 hectares) and 240 acres (97 hectares); or any public land parcel (either within or outside of the Green Area) under an agricultural disposition (e.g., grazing lease).

Non-agricultural Land: Any parcel of land that doesn't qualify as Urban, Rural Residential, or Agricultural. This includes all non-urban parcels that are privately owned (outside the Green Area) and are larger than 240 acres (97 hectares), and all publicly owned parcels (inside the Green Area) provided they are not under an agricultural disposition. This class also includes National Parks, Provincial Parks and protected areas.

Rural Residential: Any parcel of land that does not qualify as Urban, but is privately owned and has an area of approximately 10 acres (4 hectares) or less.

Urban: Any land under the jurisdiction of a city, urban service area, town, village, or summer village.

Conversion: An actual, observable land-use change from an agricultural use to a non-agricultural use (or vice versa), such as agricultural to urban development. Conversion can be temporary (e.g., upstream oil and gas development) or permanent (e.g., urban development). Conversion may be positive or negative (i.e., a gain or loss of agricultural land, respectively).

Fragmentation: Occurs when once contiguous agricultural areas become divided into separate fragments isolated from each other by non-agricultural land uses. Fragmentation can also occur within a given agricultural parcel of land by access roads, oil and gas developments and/or linear infrastructure.

Land Suitability Rating System (LSRS): Developed in 1995, the LSRS is a comprehensive approach to integrating and modeling soil, landscape and climate factors. Universally, LSRS 1, 2 and 3 lands are considered suitable for crop production, and LSRS 4 lands are considered marginal for crop production. LSRS 4 and 5 are suitable for pasture. Alberta does not have any LSRS 1 lands, mainly due to climatic factors.

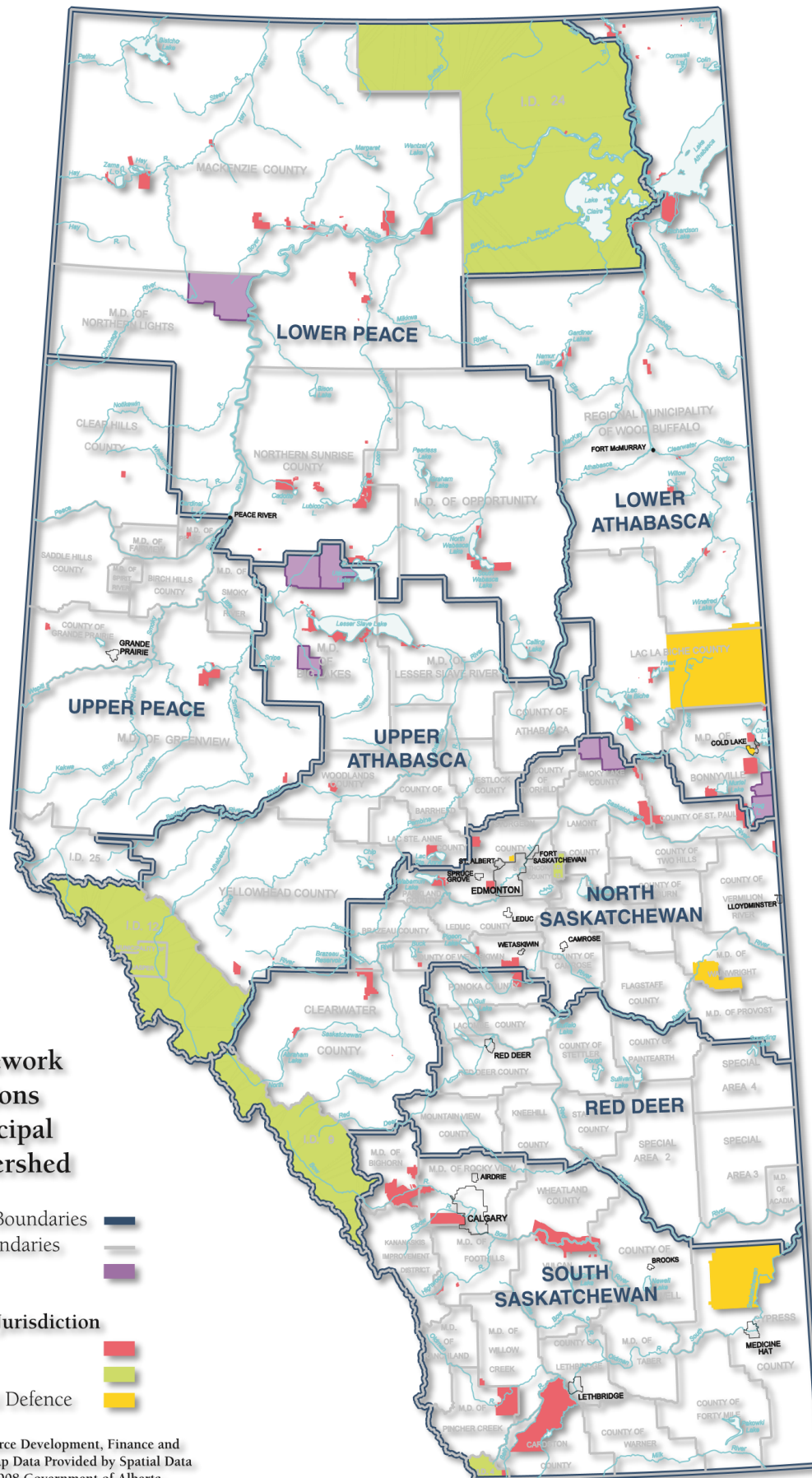
Methodology

The background and methodology to calculate agricultural land fragmentation and conversion can be viewed [here](#).

Land Use

Map: Alberta Land Use Framework Regions

Land-use Framework Regions



Land-use Framework Planning Regions based on Municipal Districts & Watershed

- LUF Planning Regions Boundaries █
- Municipal Districts Boundaries █
- Métis Settlements █
- Lands Under Federal Jurisdiction
- Indian Reserves █
- National Parks █
- Department of National Defence █

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