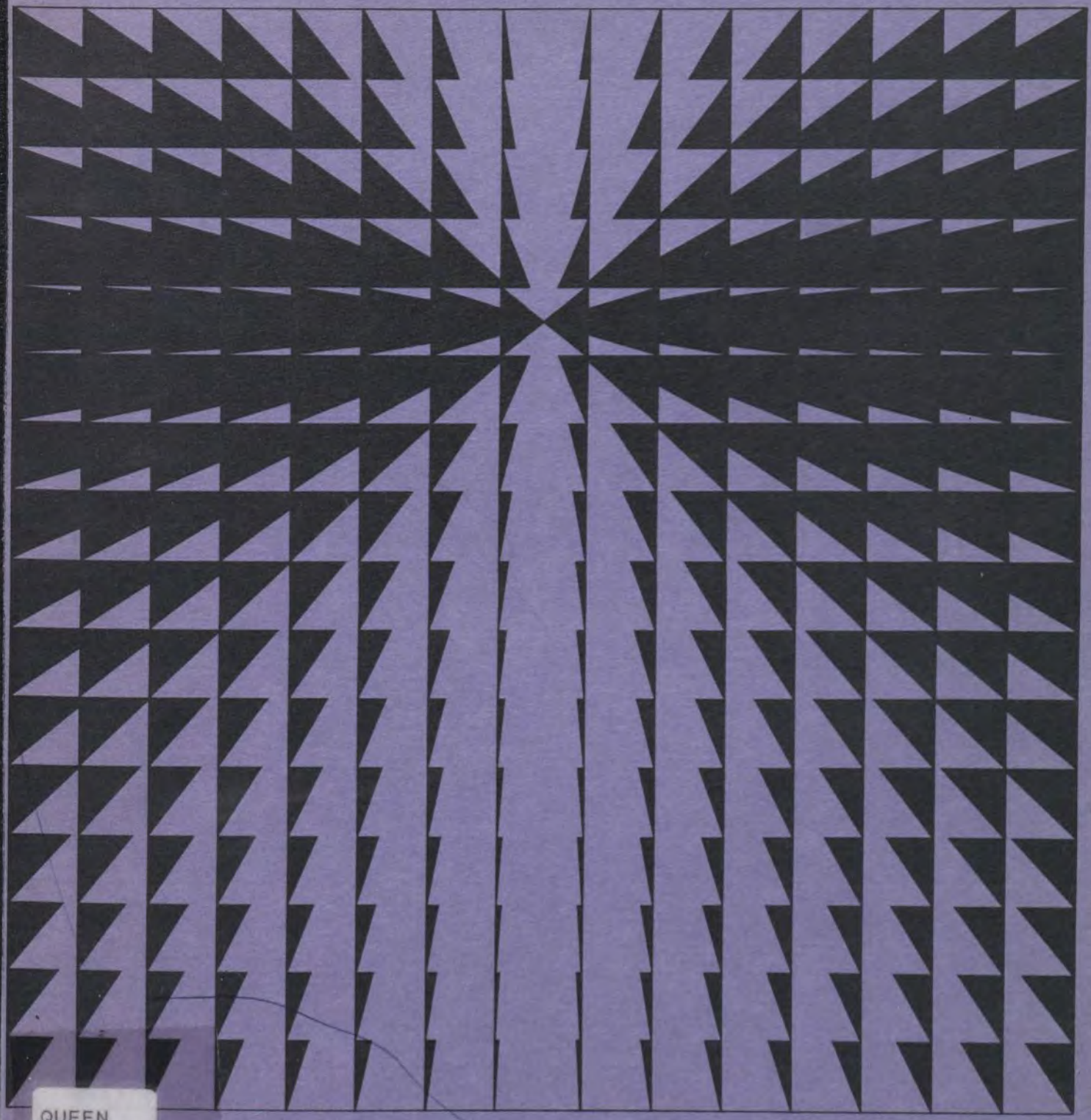
REGIONAL ECONOMIC EXPANSION CANADA
EXPANSION ÉCONOMIQUE RÉGIONALE CANADA



A·SPECIAL AREA PROFILE·LESSER SLAVE LAKE

SPECIAL AREA PROFILE SERIES

ALBERTA

Lesser Slave Lake

Issue: 1 April 1972

Prepared by Program Evaluation Branch Planning Division

REGIONAL ECONOMIC EXPANSION CANADA
EXPANSION ÉCONOMIQUE RÉGIONALE CANADA

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FOREWORD

PURPOSE

This is one of a series of Special Area Profiles prepared jointly by the Department of Regional Economic Expansion (Program Evaluation Branch) and the respective province. Its purpose is to provide a ready and valid source of base-line data concerning the Lesser Slave Lake Special Area against which the progress and degree of success of agreed programs and projects can be measured and evaluated.

CONTENT

The data in this profile is not original material; it was extracted from many sources. Recipients are invited to review the applicable data for usefulness and accuracy. If more accurate data is available, it is requested that the new data be forwarded to Program Evaluation Branch who will publish suitable amendments.

The contents describe the conditions which existed in the Lesser Slave Lake Special Area on the date the data was gathered. It is hoped to measure and evaluate changes in this base-line data which are brought about by the Special Area program over selected periods of time.

FORMAT

The profile has been designed for ease of use as a reference document. It will be reissued in updated form from time to time.

ACKNOWLEDGEMENTS

To all those who contributed to the compilation of this document, may we offer our thanks and invite your continuing co-operation in improving the accuracy of this profile.

RECORD OF AMENDMENTS

AMENDMENT		AMENDMENT ENTERED BY	DATE ENTERED
NUMBER	DATE		

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CHAPTER I

PHYSICAL SETTING

101. LOCATION

1. The Lesser Slave Lake Special Area lies about 120 miles to the northeast of Edmonton and 40 miles east of the Alberta-British Columbia border. The area extends due north, south and west of Lesser Slave Lake and its area is approximately 20,000 square miles.

2. A map of the area may be found at the back of this publication.

102. TOPOGRAPHY AND GEOLOGY

1. The area endured only light to moderate glaciation and the basic features of the region are attributed to post-glacial lacustrine and fluvial deposits. The area is primarily composed of silt and clay, sand and gravel, and intermittent occurrences of volcanic ash. The area is quite susceptible to erosion, particularly in the uplands regions which are dependent on surface vegetation for their stability.

2. Lesser Slave Lake is the largest lake in the area and numerous small lakes lie within its boundaries, the largest of which is Utikuma Lake. The Athabaska River flows through the southeastern boundary region and the Peace River through the northwestern boundary of the area. Several small rivers drain from the hills into the lowland.

3. Elevations range from 1-2,000 feet in the Lesser Slave Lake Lowlands to 3-4,000 feet in the Utikuma Lake region to the north, and 4-8,000 feet in the Swan Hills to the south. The area comprises the southwestern portion of the Arctic Ocean drainage basin and drains to the north and north east (Figure 1 - Topography, page 1-3).

4. Grey wooded soils with good to high productivity cover the major part of the area and concentrations of organic soils lie to the northeast of Lesser Slave Lake and to the south of Grande Prairie. North and east of Grande Prairie are substantial areas of brown soils. These are largely solonetzic and given to low productivity (Figure 1 - Mineral Occurrences, page 1-3).

5. There is no significant mineral occurrence in the area except for salt and a small area of pumicite to the east of Lesser Slave Lake. Oil and gas occurrences are abundant in limited quantities in and to the south of the Swan Hills and in the vicinity of Grande Prairie.

103. CLIMATE

1. Temperatures in the area may be described as moderate with a mean annual high and low of 60° and 2°F. respectively. Temperatures range above 50°F. in June, July and August only and are below freezing from November to March. Rainfall is known to occur the year round. Precipitation exceeds one inch in May, August and September and exceeds two inches in the summer months. Snow may fall as late as May and as early as September but annual fall averages only 82 inches.

2. The last spring frost usually occurs before May 15 in the lowlands and plains areas and as late as June 16-30 in the Swan Hills. The area generally has 80-100 frost-free days through the summer with the first fall frost generally occurring in the first weeks of September.

3. The prevailing wind blows from the east southeast between seven and twelve m.p.h. The occasional chinook from the Pacific coast will raise winter temperatures by about 10 degrees.

104. LAND UTILIZATION

1. Most of the 22,000 square miles of the area is devoted to the potential or actual exploitation of the forests for timber or pulp. The entire area between the western boundary of the area to Lesser Slave Lake is designated as a proposed pulp-cutting area. The land to the south and east of the Lake comprises timber quota blocks for potential lease; and, lying along most of the northern shore and north of the Lake and in the vicinity of Snipe Lake, are leased quota blocks.

2. Almost all lands east and north of High Prairie have been withdrawn from further settlement while the remainder is largely available for disposition. All of the agricultural use of the land in the area is concentrated around and to the north and east of Grande Prairie, to the western shore of the Lake. Of the land devoted to agriculture, about 1,200,000 acres is under crop and slightly under 1,000 acres is natural or cultivated pasture land. Beef cattle production is about 65% of total livestock farming.

3. The types of soils found in the area are found in Figure 1 - Soils, page 1-3.

LESSER SLAVE LAKE SPECIAL AREA ALBERTA

REGIONAL ECONOMIC EXPANSION CANADA
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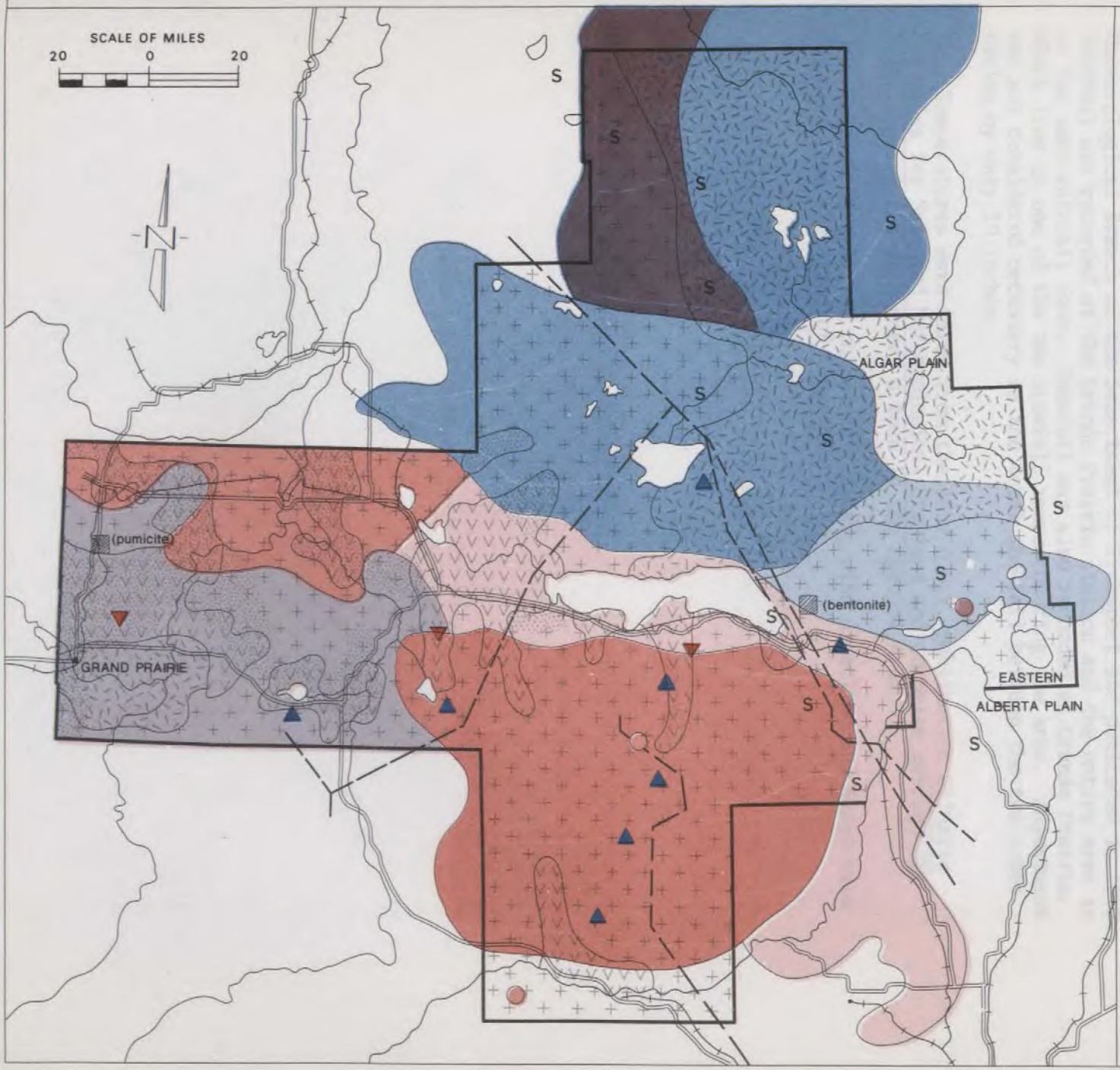


TOPOGRAPHY

- SWAN HILLS HIGHLAND
- PEMBINA MT. HIGHLAND
- LESSER SLAVE LOWLANDS
- UTIKUMA HIGHLAND
- PEACE RIVER LOWLAND
- WAPITI PLAIN
- BIRCH HILLS HIGHLAND
- LOON RIVER LOWLAND

MINERAL OCCURRENCES

- OIL FIELDS
- GAS RESERVES
- MINERAL DEPOSIT
- S SALT DEPOSITS
- COAL DEPOSIT
- PIPELINE

SOILS

- BROWN SOILS
- ORGANIC SOILS
- GREY WOODED SOILS
- SOLONETZIC SOILS

PUBLISHED 1971
CARTOGRAPHIC UNIT
PUBLIC INFORMATION DIVISION

10D. DATA SOURCES: PHYSICAL SETTING

1. Information on geology, topography and land curve was obtained from the Atlas of Alberta, a 1969 publication of the Government and the University of Alberta. The data was extracted from maps and descriptions contained in the Atlas.

2. Rain and snow information is from The Climate of Canada by the Meteorological Branch of the Department of Transport and published in 1962. Rainfall was recorded at the Grande Prairie station and the entire area is in the same rainfall zone. Snowfall was also recorded at Grande Prairie, which lies in one of the two snowfall zones covering the area. Adjustment was not considered necessary as the total snowfall between the two zones varies by only 10 inches.

3. Temperatures were taken from the 1959 D.O.T. publication Climatic Summaries for Selected Meteorological Stations and comprise average dry bulb temperatures at Wagner, a town in the Special Area.

4. General information on climatic zones, wind direction and frost were obtained from the Atlas of Alberta.

CHAPTER II

POPULATION

CHAPTER II

POPULATION

201. POPULATION GROWTH

1. The population of the area has grown steadily over the last decade, experiencing an increase from 42,834 in 1961 to 51,339 in 1970. This growth, however, has been due entirely to natural increase: natural increase has consistently exceeded the actual growth in population from year to year which seems to indicate a steady stream of emigration.

2. The composition of the population comprises slightly over 1% more of the total population than it did in 1961. The area was 53.3% male and 46.7% female in 1961. In 1970 this ratio has changed only slightly with males representing 52.6% and females representing 47.4% of the population. The 10-24 age group of the population has shown the greatest growth over the decade, representing in 1970, 4% more of the population than in 1961.

3. The population has grown in absolute terms but stands only very slightly changed from its position a decade ago as 32% of the provincial population. There are no significant variations of this general trend in the age or sex sub-groups.

4. Tables II-1 to II-5 give a detailed breakdown of the population.

202. ETHNIC ORIGINS

1. The majority of the population of the area is of British descent. This group occupies most of the western and southern portions of the area. A heavy concentration of French descendants lives between Grande Prairie and High Prairie and to the north of these towns, and a significant French population inhabits the area just west of Utikuma Lake. The Indian and Metis population of the area lives in the vicinity of Lesser Slave Lake; in and around the town of Slave Lake; in the expanse of territory north of the Lake to Utikuma Lake; and to the southwest of the Lake. There are also some native people located in the Valleyview and Grande Prairie areas to the West.

2. Because of the compounding nature of all problems with respect to native people, the next chapter will be dedicated to an analysis of the native people and their characteristics.

TABLE II-1

SPECIAL AREAS POPULATION ESTIMATES BY AGE GROUP

SEX	YEAR	AGE GROUPS										
		0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-69	70+
MALE	1961	3120	3051	2568	1985	1518	2915	2427	2123	1682	577	969
	1962	3182	3089	2649	1963	1546	2948	2503	2122	1696	585	981
	1963	3250	3133	2736	2046	1577	2985	2555	2123	1713	595	995
	1964	3318	3175	2824	2131	1609	3021	2667	2122	1729	604	1008
	1965	3386	3216	2914	2217	1640	3056	2751	2119	1744	613	1022
	1966	3454	3256	3005	2306	1671	3090	2837	2115	1759	623	1036
	1967	3521	3294	3097	2395	1701	3122	2923	2108	1772	631	1047
	1968	3589	3332	3190	2487	1732	3153	3010	2099	1784	640	1059
	1969	3656	3369	3284	2581	1763	3183	3099	2089	1795	649	1071
	1970	3724	3405	3380	2676	1793	3213	3189	2076	1807	658	1083
FEMALE	1961	3184	2798	2463	1815	1211	2493	2354	1652	1117	349	563
	1962	3176	2868	2523	1890	1284	2543	2380	1689	1142	360	585
	1963	3170	2945	2587	1971	1361	2598	2410	1729	1169	373	609
	1964	3162	3021	2652	2054	1440	2652	2439	1770	1196	385	633
	1965	3150	3099	2718	2138	1522	2707	2467	1811	1223	398	658
	1966	3135	3177	2784	2224	1606	2762	2494	1852	1251	412	684
	1967	3116	3255	2850	2311	1691	2816	2519	1893	1278	425	709
	1968	3095	3334	2916	2400	1779	2871	2544	1934	1305	438	736
	1969	3070	3414	2983	2491	1869	2925	2568	1975	1333	452	762
	1970	3042	3494	3051	2583	1961	2979	2592	2016	1361	466	790
TOTAL	1961	6304	5849	5031	3700	2729	5408	4781	3775	2799	926	1532
	1962	6358	5957	5172	3853	2830	5491	4883	3811	2838	945	1566
	1963	6420	6078	5323	4017	2938	5583	4995	3852	2882	968	1604
	1964	6480	6196	5476	4185	3049	5673	5106	3892	2925	989	1641
	1965	6536	6315	5632	4355	3162	5763	5218	3930	2967	1011	1680
	1966	6589	6433	5789	4530	3277	5852	5331	3967	3010	1035	1719
	1967	6637	6549	5947	4706	3392	5939	5442	4001	3050	1056	1756
	1968	6684	6666	6106	4887	3511	6024	5554	4033	3089	1078	1795
	1969	6726	6783	6267	5072	3632	6108	5667	4064	3129	1101	1833
	1970	6766	6899	6431	5259	3754	6192	5781	4092	3168	1124	1873

TOTAL BY SEX

	MALE	FEMALE	TOTAL
1961	22835	19999	42834
1962	23264	20440	43704
1963	23738	20922	44660
1964	24208	21404	45612
1965	24678	21891	46569
1966	25151	22381	47532
1967	25611	22863	48474
1968	26075	23352	49427
1969	26540	23842	50382
1970	27004	24335	51339

TABLE II-2

SPECIAL AREAS POPULATION PER SQ MILE BY AGE GROUP

SEX	YEAR	AGE GROUPS										
		0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-69	70+
MALE	1961	0.144	0.141	0.119	0.087	0.070	0.135	0.112	0.098	0.073	0.027	0.045
	1962	0.147	0.143	0.123	0.091	0.072	0.137	0.115	0.098	0.079	0.027	0.045
	1963	0.150	0.146	0.127	0.095	0.073	0.138	0.120	0.098	0.079	0.028	0.046
	1964	0.154	0.147	0.131	0.099	0.074	0.140	0.124	0.098	0.080	0.028	0.047
	1965	0.157	0.149	0.135	0.103	0.075	0.141	0.127	0.098	0.081	0.028	0.047
	1966	0.160	0.151	0.139	0.107	0.077	0.143	0.131	0.098	0.081	0.029	0.048
	1967	0.163	0.153	0.143	0.111	0.079	0.145	0.135	0.098	0.082	0.029	0.048
	1968	0.166	0.154	0.148	0.115	0.080	0.146	0.139	0.097	0.083	0.030	0.049
	1969	0.169	0.156	0.152	0.119	0.082	0.147	0.143	0.097	0.083	0.030	0.050
	1970	0.172	0.158	0.157	0.124	0.083	0.149	0.148	0.096	0.084	0.030	0.050
FEMALE	1961	0.147	0.130	0.114	0.084	0.056	0.115	0.109	0.076	0.052	0.016	0.026
	1962	0.147	0.133	0.117	0.085	0.059	0.119	0.110	0.078	0.053	0.017	0.027
	1963	0.147	0.136	0.120	0.091	0.063	0.120	0.112	0.080	0.054	0.017	0.028
	1964	0.146	0.140	0.123	0.095	0.067	0.123	0.113	0.082	0.055	0.018	0.029
	1965	0.146	0.143	0.126	0.099	0.070	0.125	0.114	0.084	0.057	0.018	0.030
	1966	0.145	0.147	0.129	0.103	0.074	0.128	0.115	0.086	0.058	0.019	0.032
	1967	0.144	0.151	0.132	0.107	0.078	0.130	0.117	0.088	0.059	0.020	0.033
	1968	0.143	0.154	0.135	0.111	0.082	0.133	0.118	0.090	0.060	0.020	0.034
	1969	0.142	0.158	0.138	0.115	0.087	0.135	0.119	0.091	0.062	0.021	0.035
	1970	0.141	0.162	0.141	0.120	0.091	0.138	0.120	0.093	0.063	0.022	0.037
TOTAL	1961	0.292	0.271	0.233	0.171	0.126	0.250	0.221	0.175	0.130	0.043	0.071
	1962	0.294	0.276	0.239	0.178	0.131	0.256	0.226	0.176	0.131	0.044	0.073
	1963	0.297	0.281	0.246	0.186	0.136	0.259	0.231	0.178	0.133	0.045	0.074
	1964	0.300	0.287	0.254	0.194	0.141	0.263	0.236	0.180	0.135	0.046	0.076
	1965	0.303	0.292	0.261	0.202	0.146	0.267	0.242	0.182	0.137	0.047	0.078
	1966	0.305	0.298	0.268	0.210	0.152	0.271	0.247	0.184	0.139	0.048	0.080
	1967	0.307	0.303	0.275	0.218	0.157	0.275	0.252	0.185	0.141	0.049	0.081
	1968	0.309	0.309	0.283	0.226	0.163	0.279	0.257	0.187	0.143	0.050	0.083
	1969	0.311	0.314	0.290	0.235	0.168	0.283	0.262	0.188	0.145	0.051	0.085
	1970	0.313	0.319	0.298	0.244	0.174	0.287	0.268	0.190	0.147	0.052	0.087

TOTAL BY SEX

	MALE	FEMALE	TOTAL
1961	1.057	0.926	1.983
1962	1.077	0.947	2.024
1963	1.099	0.969	2.068
1964	1.121	0.991	2.112
1965	1.143	1.014	2.156
1966	1.164	1.036	2.201
1967	1.186	1.059	2.245
1968	1.208	1.081	2.289
1969	1.229	1.104	2.333
1970	1.250	1.127	2.377

TABLE II-3

POPULATION ESTIMATES BY AGE GROUPS AS PERCENTAGE OF TOTAL POPULATION

SEX	YEAR	AGE GROUPS										
		0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-69	70+
MALE	1961	7.28	7.12	6.00	4.40	3.54	6.81	5.67	4.96	3.93	1.35	2.26
	1962	7.28	7.07	6.06	4.49	3.54	6.74	5.73	4.86	3.88	1.34	2.25
	1963	7.28	7.01	6.13	4.58	3.53	6.68	5.79	4.75	3.84	1.33	2.23
	1964	7.27	6.96	6.19	4.67	3.53	6.62	5.85	4.65	3.79	1.33	2.21
	1965	7.27	6.90	6.26	4.76	3.52	6.56	5.91	4.55	3.75	1.32	2.19
	1966	7.27	6.85	6.32	4.85	3.52	6.50	5.97	4.45	3.70	1.31	2.18
	1967	7.26	6.80	6.39	4.94	3.51	6.44	6.03	4.35	3.66	1.30	2.16
	1968	7.26	6.74	6.45	5.03	3.50	6.38	6.09	4.25	3.61	1.30	2.14
	1969	7.26	6.69	6.52	5.12	3.50	6.32	6.15	4.15	3.56	1.29	2.13
	1970	7.25	6.63	6.58	5.21	3.49	6.26	6.21	4.04	3.52	1.28	2.11
FEMALE	1961	7.43	6.53	5.75	4.24	2.83	5.82	5.50	3.86	2.61	0.81	1.31
	1962	7.27	6.56	5.77	4.33	2.94	5.82	5.45	3.86	2.61	0.83	1.34
	1963	7.10	6.59	5.79	4.41	3.05	5.82	5.40	3.87	2.62	0.84	1.36
	1964	6.93	6.62	5.81	4.50	3.16	5.81	5.35	3.88	2.62	0.85	1.39
	1965	6.76	6.65	5.84	4.59	3.27	5.81	5.30	3.89	2.63	0.86	1.41
	1966	6.60	6.68	5.86	4.68	3.38	5.81	5.25	3.90	2.63	0.87	1.44
	1967	6.43	6.71	5.88	4.77	3.49	5.81	5.20	3.90	2.64	0.88	1.46
	1968	6.26	6.74	5.90	4.86	3.60	5.81	5.15	3.91	2.64	0.89	1.49
	1969	6.09	6.77	5.92	4.94	3.71	5.81	5.10	3.92	2.65	0.90	1.51
	1970	5.93	6.81	5.94	5.03	3.82	5.80	5.05	3.93	2.65	0.91	1.54
TOTAL	1961	14.72	13.66	11.75	8.64	6.37	12.63	11.16	8.81	6.53	2.16	3.58
	1962	14.55	13.63	11.83	8.82	6.48	12.56	11.17	8.72	6.49	2.16	3.58
	1963	14.38	13.61	11.92	8.99	6.58	12.50	11.18	8.63	6.45	2.17	3.59
	1964	14.20	13.58	12.01	9.17	6.69	12.44	11.19	8.53	6.41	2.17	3.60
	1965	14.03	13.56	12.09	9.35	6.79	12.37	11.20	8.44	6.37	2.17	3.61
	1966	13.86	13.53	12.18	9.53	6.89	12.31	11.22	8.35	6.33	2.18	3.62
	1967	13.69	13.51	12.27	9.71	7.00	12.25	11.23	8.25	6.29	2.18	3.62
	1968	13.52	13.49	12.35	9.89	7.10	12.19	11.24	8.16	6.25	2.18	3.63
	1969	13.35	13.46	12.44	10.07	7.21	12.12	11.25	8.07	6.21	2.19	3.64
	1970	13.18	13.44	12.53	10.24	7.31	12.06	11.26	7.97	6.17	2.19	3.65

2-5

TOTAL BY SEX

	MALE	FEMALE	TOTAL
1961	53.310	46.689	100.000
1962	53.231	46.769	100.000
1963	53.152	46.848	100.000
1964	53.072	46.927	100.000
1965	52.993	47.007	100.000
1966	52.914	47.086	100.000
1967	52.834	47.165	100.000
1968	52.755	47.245	100.000
1969	52.676	47.324	100.000
1970	52.596	47.403	100.000

TABLE II-4

POPULATION ESTIMATES BY AGE GROUP AND SEX AS PERCENTAGE OF CANADIAN TOTAL

SEX	YEAR	AGE GROUPS										
		0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-69	70+
MALE	1961	0.2703	0.2858	0.2708	0.2586	0.2585	0.2317	0.2038	0.2215	0.2569	0.2407	0.2231
	1962	0.2722	0.2872	0.2705	0.2547	0.2573	0.2372	0.2072	0.2173	0.2530	0.2433	0.2224
	1963	0.2777	0.2856	0.2724	0.2506	0.2524	0.2436	0.2112	0.2139	0.2493	0.2452	0.2226
	1964	0.2841	0.2846	0.2755	0.2467	0.2448	0.2486	0.2148	0.2106	0.2449	0.2460	0.2232
	1965	0.2929	0.2841	0.2791	0.2442	0.2362	0.2515	0.2189	0.2070	0.2403	0.2457	0.2244
	1966	0.3067	0.2826	0.2826	0.2434	0.2262	0.2514	0.2229	0.2028	0.2353	0.2453	0.2260
	1967	0.3230	0.2783	0.2815	0.2477	0.2156	0.2431	0.2256	0.1986	0.2317	0.2431	0.2246
	1968	0.3447	0.2799	0.2830	0.2487	0.2068	0.2392	0.2320	0.1943	0.2267	0.2411	0.2252
	1969	0.3675	0.2851	0.2853	0.2513	0.1996	0.2316	0.2332	0.1895	0.2218	0.2389	0.2256
	1970	0.3837	0.2887	0.2885	0.2536	0.1927	0.2289	0.2451	0.1851	0.2174	0.2357	0.2253
FEMALE	1961	0.2889	0.2755	0.2713	0.2580	0.2030	0.2039	0.1964	0.1795	0.1760	0.1411	0.1199
	1962	0.2736	0.2791	0.2693	0.2553	0.2103	0.2102	0.1954	0.1787	0.1751	0.1439	0.1209
	1963	0.2836	0.2810	0.2694	0.2516	0.2161	0.2170	0.1954	0.1787	0.1744	0.1467	0.1224
	1964	0.2834	0.2836	0.2709	0.2478	0.2204	0.2222	0.1955	0.1787	0.1730	0.1486	0.1241
	1965	0.2854	0.2865	0.2729	0.2455	0.2231	0.2264	0.1960	0.1785	0.1713	0.1504	0.1257
	1966	0.2919	0.2883	0.2743	0.2449	0.2232	0.2282	0.1967	0.1779	0.1691	0.1516	0.1274
	1967	0.3017	0.2865	0.2715	0.2456	0.2164	0.2224	0.1974	0.1777	0.1679	0.1504	0.1262
	1968	0.3099	0.2925	0.2707	0.2481	0.2147	0.2203	0.1991	0.1770	0.1656	0.1515	0.1272
	1969	0.3254	0.3007	0.2705	0.2520	0.2129	0.2177	0.2014	0.1763	0.1633	0.1522	0.1283
	1970	0.3342	0.3115	0.2711	0.2551	0.2129	0.2138	0.2040	0.1759	0.1613	0.1525	0.1293
TOTAL	1961	0.2794	0.2813	0.2711	0.2583	0.2305	0.2180	0.2001	0.2010	0.2171	0.1901	0.1695
	1962	0.2729	0.2832	0.2699	0.2550	0.2336	0.2239	0.2013	0.1983	0.2146	0.1926	0.1693
	1963	0.2805	0.2833	0.2709	0.2511	0.2342	0.2304	0.2033	0.1965	0.2123	0.1947	0.1698
	1964	0.2838	0.2841	0.2733	0.2472	0.2327	0.2355	0.2051	0.1943	0.2093	0.1960	0.1705
	1965	0.2892	0.2853	0.2761	0.2448	0.2297	0.2391	0.2074	0.1928	0.2061	0.1966	0.1716
	1966	0.2995	0.2854	0.2785	0.2441	0.2247	0.2399	0.2098	0.1903	0.2023	0.1969	0.1728
	1967	0.3127	0.2823	0.2765	0.2467	0.2175	0.2328	0.2121	0.1881	0.1998	0.1948	0.1708
	1968	0.3277	0.2861	0.2770	0.2484	0.2117	0.2298	0.2157	0.1856	0.1961	0.1944	0.1712
	1969	0.3471	0.2917	0.2780	0.2517	0.2062	0.2262	0.2200	0.1829	0.1924	0.1935	0.1715
	1970	0.3622	0.2998	0.2800	0.2543	0.2028	0.2213	0.2248	0.1804	0.1891	0.1922	0.1717

TOTAL BY SEX

	MALE	FEMALE	TOTAL
1961	0.2477	0.2217	0.2349
1962	0.2482	0.2213	0.2348
1963	0.2490	0.2235	0.2364
1964	0.2496	0.2245	0.2372
1965	0.2503	0.2255	0.2380
1966	0.2507	0.2264	0.2386
1967	0.2500	0.2251	0.2376
1968	0.2506	0.2258	0.2382
1969	0.2513	0.2272	0.2393
1970	0.2521	0.2282	0.2402

TABLE II-5

POPULATION ESTIMATES BY AGE GROUP AND SEX AS PERCENTAGE OF PROVINCIAL TOTAL

SEX	YEAR	AGE GROUPS										
		0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-69	70+
MALE	1961	3.3803	3.7390	3.8501	3.7475	3.4189	2.9034	2.7705	3.1592	3.4969	3.3547	2.8754
	1962	3.3573	3.6961	3.7688	3.6764	3.4449	2.9367	2.7847	3.0715	3.4349	3.4052	2.9616
	1963	3.3861	3.6346	3.7180	3.6027	3.4304	3.0005	2.7767	2.9950	3.3501	3.4209	2.9603
	1964	3.4496	3.5917	3.6925	3.5520	3.4236	3.0863	2.8442	2.9277	3.3327	3.3968	2.8909
	1965	3.5101	3.5774	3.6889	3.5035	3.3817	3.1804	2.8967	2.9482	3.2982	3.3730	2.9120
	1966	3.8293	3.5702	3.7191	3.4729	3.3155	3.2872	2.9676	2.8125	3.2574	3.3495	2.9487
	1967	4.1093	3.5467	3.6913	3.5132	3.2231	3.1830	3.0578	2.7925	3.2701	3.3438	2.9099
	1968	4.3401	3.5267	3.6670	3.4551	3.0717	3.2581	3.0879	2.7093	3.1930	3.2695	2.9115
	1969	4.5982	3.5321	3.6660	3.4097	2.8950	3.1968	3.1243	2.6245	3.1463	3.1684	2.9122
	1970	4.7142	3.5960	3.6665	3.3707	2.7550	3.1225	3.1606	2.5418	3.0789	3.0896	2.9042
FEMALE	1961	3.6347	3.6150	3.8666	3.7269	2.7031	2.7039	2.7694	2.6949	2.9207	2.3904	2.0325
	1962	3.5175	3.6269	3.7658	3.6861	2.8161	2.7379	2.7271	2.6357	2.7587	2.4210	2.5679
	1963	3.4502	3.6135	3.6914	3.6245	2.9279	2.7878	2.7084	2.6052	2.7191	2.4396	2.0519
	1964	3.4258	3.6232	3.6489	3.5724	3.0722	2.8587	2.7073	2.5846	2.6885	2.4584	2.0645
	1965	3.4963	3.6417	3.6290	3.5284	3.1916	2.9493	2.7171	2.5726	2.6486	2.4775	2.0844
	1966	3.6369	3.6686	3.6345	3.5079	3.2843	3.0452	2.7467	2.5616	2.6062	2.4819	2.1111
	1967	3.8195	3.6537	3.5897	3.4603	3.0927	3.0059	2.7631	2.5755	2.5723	2.4443	2.0816
	1968	3.9329	3.6724	3.5357	3.4442	3.0629	2.9690	2.7572	2.5450	2.5212	2.4244	2.0912
	1969	4.0830	3.7436	3.4982	3.4412	3.0202	2.9343	2.7564	2.5165	2.4606	2.3944	2.0958
	1970	4.0730	3.8698	3.4636	3.4270	2.9947	2.8764	2.7546	2.4931	2.4095	2.3558	2.0847
TOTAL	1961	3.5042	3.6786	3.8581	3.7374	3.0594	2.8079	2.7700	2.9377	3.1916	2.9120	2.4951
	1962	3.4355	3.6625	3.7673	3.6812	3.1281	2.8411	2.7563	2.8615	3.1266	2.9484	2.7444
	1963	3.4175	3.6244	3.7051	3.6134	3.1778	2.8976	2.7433	2.8065	3.0757	2.9617	2.4881
	1964	3.4380	3.6070	3.6712	3.5620	3.2481	2.9755	2.7771	2.7610	3.0353	2.9570	2.5041
	1965	3.5543	3.6087	3.6598	3.5157	3.2874	3.0675	2.8089	2.7624	2.9954	2.9527	2.5109
	1966	3.7353	3.6181	3.6779	3.4900	3.3001	3.1684	2.8600	2.6895	2.9510	2.9403	2.5467
	1967	3.9679	3.5991	3.6419	3.4870	3.1569	3.0965	2.9139	2.6954	2.9363	2.9126	2.5070
	1968	4.1415	3.5981	3.6030	3.4498	3.0673	3.1136	2.9271	2.6279	2.8699	2.8638	2.5082
	1969	4.3429	3.6355	3.5842	3.4251	2.9581	3.0655	2.9461	2.5709	2.8124	2.7971	2.5062
	1970	4.4026	3.7296	3.5674	3.3981	2.8752	2.9990	2.9647	2.5176	2.7506	2.7361	2.4912

TOTAL BY SEX

	MALE	FEMALE	TOTAL
1961	3.3118	3.1122	3.2155
1962	3.2900	3.1134	3.2050
1963	3.2749	3.0730	3.1771
1964	3.2859	3.0802	3.1860
1965	3.3190	3.1043	3.2145
1966	3.3468	3.1412	3.2467
1967	3.3627	3.1276	3.2476
1968	3.3598	3.1148	3.2394
1969	3.3428	3.1097	3.2283
1970	3.3211	3.0936	3.2092

20D. DATA SOURCES: POPULATION

1. Population by age and sex for 1961 and 1966 was obtained from DBS Census Publications 1961 and 1966. Estimates for non-census years are linear fits calculated from census year details of age and sex, and qualified by yearly total population estimates obtained from DBS. The population figures included in this profile are exclusive of Indian reservations.

2. Ethnic origins of the population were derived from the Atlas of Alberta, a 1969 publication of the Alberta Government and the University of Alberta in Edmonton.

3. Migration figures are not yet in a suitable form for detailed inclusion in the profile. Some comments have been made on the basis of preliminary information extracted from DBS 84-202, Vital Statistics.

CHAPTER III

NATIVE PEOPLE

CHAPTER III

NATIVE PEOPLE

301. METIS COLONIES

1. Population. Three of Alberta's eight Metis Colonies are located within the Lesser Slave Lake Special Area. The growth of the colonies has been highly irregular as their total population moved from 550 in 1959 to a high of 879 in 1966, thereafter declining to 730 in 1968, as shown in Table III-1.

TABLE III-1

POPULATION

Colony	1959	1962	1966	1967	1968
Big Prairie	204	276	251	242	206
Gift Lake	200	307	426	404	366
East Prairie	146	147	202	179	158
	550	730	879	825	730

2. Distribution by Age Group. The age group distribution, shown in Table III-2, indicates a high rate of growth for the native population. Of the total population, the majority of the people are below the age of 20.

TABLE III-2

POPULATION BY AGE GROUP - 1965

Age Group	Population	Percent
0-5	218	29.3
6-19	335	45.0
20-29	46	6.2
30-39	52	7.0
40-49	30	4.0
50-59	27	3.6
60-69	22	2.9
70 plus	15	2.0
	745	100.0

3. Education. Table III-3 shows the educational level of native adults in C.D. 15. Thirty-three percent have had no education and only 0.8% have had an education of Grade 10 or better. Assuming this distribution is applicable to the native people of the Lesser Slave Lake area, in 1961 out of approximately 3,305 adults, (16 plus), 1,101 would have had no education and only 26 would have had Grade 10 or better.

TABLE III-3

EDUCATIONAL LEVEL OF NATIVE ADULTS

C.D. 15 - 1961

Educational Level	Number	%
none	1,310	33.3
Pre 1	2	0.0
1-4	1,179	30.0
5-7	1,289	32.8
8-9	119	3.0
10	19	0.5
11	10	0.3
12	4	0.1
Some University	2	0.0
University Degree	1	0.0
	3,935	100.0

4. Drop-out Rate. The drop-out rate of native school children in the Lesser Slave area was 7.4% for 1966. It is nearly twice the Alberta average drop-out rate for the same year of 4.0%. School enrolment is shown in Table III-4.

TABLE III-4

SCHOOL ENROLMENT ON COLONIES - 1967

Colony	Number
Gift Lake	114
Big Prairie	92
East Prairie	63
	269

5. Agriculture on the Colonies. Tables III-5 and III-6 show the agricultural resources and potential of the three colonies. Table III-6 is based upon a grain unit comprised of 600 acres and a ranching unit of 160 animal units with 4,000 acres of pasture and 640 acres of hog land.

TABLE III-5

AGRICULTURAL RESOURCES OF COLONIES - 1967

Colony	Total Acreage	Cultivated	Potential Arable	Doubtful Arable	Pasture Woodland
Gift Lake	207,360	169	69,120	92,160	46,080
Big Prairie	203,200	1,235	24,960	139,840	38,400
East Prairie	80,640	873	58,240	5,760	16,640

TABLE III-6

AGRICULTURAL POTENTIAL OF COLONIES

Colony	Grain Land Acres	Potential Units	Pasture Acres	Potential Units	Total Potential Units
Gift Lake	-	-	184,320	40	40
Big Prairie	24,960	42	159,040	34	76
East Prairie	58,240	97	14,080	3	100

6. Agricultural Potential. Table III-7 shows that there is unused agricultural potential in East Prairie and Big Prairie, while Gift Lake has 18 more families than potential agricultural units.

TABLE III-7

AGRICULTURAL POTENTIAL COMPARED WITH NUMBER OF FAMILIES

Colony	Potential Agricultural Units	Present No. of Families
Gift Lake	40	58
Big Prairie	76	35
East Prairie	100	26

7. Farming on Colonies. Total acreage devoted to farming and average acreage per farm is shown in Table III-8.

TABLE III-8

FARM ACREAGE

Colony	No. of Farmers	Total Acreage	Average Acreage
Gift Lake	3	204	68
Big Prairie	18	1,227	68
East Prairie	25	771	31

8. Ranching on Colonies. Small scale ranching is carried on at all three colonies as shown in Table III-9.

TABLE III-9

RANCHING

Colony	No. of Ranchers	Total No. of Cattle	Average No. of Cattle
Gift Lake	3	141	47
Big Prairie	2	16	8
East Prairie	7	54	8

9. Lumbering on Colonies. The only lumbering activity on the colonies is that of logging as shown in Table III-10.

TABLE III-10

LUMBERING ON COLONIES - 1966-67

Colony	Lumber	Income
Gift Lake	2,089,700 fbm.	$17,762
Big Prairie	1,040,541 fbm. & 1,755 cords	23,662
East Prairie	3,073,543 fbm. & 133 cords	27,189

10. Welfare. The amount of welfare received per family in 1966-67 is shown in Table III-11.

TABLE III-11

WELFARE/FAMILY ON COLONIES - 1966-67

Colony	No. of Families on Colony	Welfare	Welfare/Family
Gift Lake	58	22,693	391
Big Prairie	35	20,895	597
East Prairie	26	16,856	648

11. Housing. Table III-12 shows that 9.6% of Metis families had no houses in 1967. About 53% were living in sub-standard houses.

TABLE III-12

METIS HOUSING

Colony	Families With Metis Branch Standard Frame House		Families With Other Frame House		Families With Log House		Families With No House		Total Families	
	No.	%	No.	%	No.	%	No.	%	No.	%
Gift Lake	29	44.6	13	20.0	17	26.2	6	9.2	65	100.0
Big Prairie	11	31.4	8	22.9	12	34.3	4	11.4	35	100.0
East Prairie	10	28.6	11	31.4	11	31.4	3	8.6	35	100.0
	50	37.0	32	23.7	40	29.7	13	9.6	135	100.0

12. Annual Income. The average annual income per family on the three colonies is estimated at $3,120 (1968). Assuming that $4,000 is a minimum income for a family of seven, the families on the Metis colonies, on the average, are below the poverty line, however, data are not available to determine how many families are below the poverty line. The average family income for each is given in the following Table III-13.

TABLE III-13

ANNUAL FAMILY INCOME ON METIS COLONIES - 1968

Colony	Total Income	No. of Families	Average Annual Income per Family
Big Prairie	$129,106	32	$4,034
Gift Lake	120,948	58	2,085
East Prairie	77,765	24	3,240
	$327,819	114	$2,875

302. INDIAN RESERVES

1. Population. There are eight reserves in the Lesser Slave Lake area with a population of 2,732 living on the reserve as shown in Table III-26. The population distribution by reserve and by age group is shown on Tables III-27 to 31.

2. Distribution by Age Group. The age group distribution indicates a high rate of growth for the native population. On Indian reserves in the area, the birthrate for 1967 was 49.9 per 1,000 compared to 20.9 for Alberta (1966). The mortality rate on these reserves was also higher (7.0 per 1,000) than for Alberta (6.6 per 1,000), and the average age at death for 1967 was only 43 while in 1965 the average age at death of Canadians generally was 62 for males and 65 for females as shown in Table III-26.

3. Education. The average educational level of native adults is given for C.D. 15, 1961, in the previous section under Metis colonies.

4. Drop-out Rate. As mentioned under the Metis section, the drop-out rate of native school children in the Lesser Slave Lake area was 7.4% for 1966. It is nearly twice the Alberta average drop-out rate for the same year of 4%.

5. The proportion of school-age children (6-20) attending school in Alberta is 82.7% while 66.3% of school-age native children on reserves or colonies are in school as shown in Table III-14.

TABLE III-14

SCHOOL ENROLMENT ON RESERVES - 1967

Reserve	School Enrolment
Grouard	13
Sucker Creek	94
Driftpile	100
Swan River	29
Sawridge	5
Wabasca	268
Whitefish Lake	98
	607

6. There are approximately 1,100 school-age children on the reserves, 55.8% of whom attend school.

7. Agriculture on Reserves. The most abundant resource on Lesser Slave Lake reserves is agricultural potential.

TABLE III-15

AGRICULTURAL RESOURCES OF RESERVES - 1967

Reserve	Total Acreage	Cultivated	Potential Arable	Pasture Woodland	Doubtful Arable
Grouard	946	260	640	306	-
Sucker Creek	14,925	995	8,000	6,925	-
Driftpile	15,793	590	8,300	7,493	-
Swan River	10,796	480	6,100	4,690	-
Sawridge	5,332	400	600	4,732	-
Wabasca	51,785	50	8,000	51,785	-
Whitefish Lake	11,924	10	-	5,962	5,962

8. The total agricultural potential of the reserves would be 49 units, 10 grain farms and 39 ranches (based upon one grain unit equals 600 acres, and a ranching unit having 160 animal units with 4,000 acres of pasture and 640 acres of hay land) as shown in Table III-16.

TABLE III-16

AGRICULTURAL POTENTIAL OF RESERVES

Reserve	Grain Land (acres)	Potential Units	Pasture (acres)	Potential Units	Total Potential Units
Grouard	640	1	153	-	1
Sucker Creek	8,000	13	3,463	1	14
Driftpile	8,300	14	3,747	1	15
Swan River	6,100	10	2,348	-	10
Sawridge	600	1	2,366	-	1
Wabasca	-	-	25,892	6	6
Whitefish Lake	-	-	8,943	2	2
		39		10	49

TABLE III-17

AGRICULTURAL POTENTIAL COMPARED WITH NUMBER OF FAMILIES ON RESERVES

Reserve	No. of Potential Units	Present No. of Families
Grouard	1	6
Sucker Creek	14	59
Driftpile	15	64
Swan River	10	19
Sawridge	1	6
Wabasca	4	156
Whitefish Lake	2	56
	49	366

9. There were 14 men on the reserves in 1967 farming 2,135 acres. The following Table III-18 gives the details.

TABLE III-18

FARMING ON RESERVES - 1967

Reserve	No. of Farmers	Total Acreage	Average Acreage
Grouard	-	260	-
Sucker Creek	5	995	199
Driftpile	5	590	118
Swan River	2	480	240
Sawridge	-	70	-
Wabasca	2	70	35
	14	2,135	152

10. Small scale ranching is carried on on these reserves. Fifteen ranchers keep an average of 18 cattle each as shown in Table III-19.

TABLE III-19

RANCHING ON RESERVES - 1967

Reserve	No. of Ranchers	Total No. of Cattle	Average No. of Cattle
Sucker Creek	5	60	12
Driftpile	3	55	18
Swan River	1	56	56
Wabasca	5	95	19
Whitefish Lake	1	2	2
	15	278	19

11. Fishing and Trapping on the Reserves. Several native people in the area are active in fishing and trapping. Incomes from these occupations are quite low. On Indian reserves an average income is $213 for trapping and $617 for fishing.

TABLE III-20

TRAPPING ON RESERVES - 1966-67

Reserve	No. of Trappers	Total Annual Income	Average Annual Income
Sucker Creek	16	$ 4,800	$300
Driftpile	25	4,000	160
Swan River	15	3,000	200
Wabasca	119	24,000	202
Whitefish Lake	40	10,000	250
	215	$45,800	$213

TABLE III-21

FISHING ON RESERVES - 1966-67

Reserve	No. of Fishermen	Total Annual Income	Average Annual Income
Sucker Creek	33	$20,000	$ 606
Wabasca	5	2,500	500
Whitefish Lake	1	1,000	1,000
	39	$23,500	$ 603

12. Welfare on the Reserves. The total welfare cost of the seven reserves (1966-67) was $169,596. This represents a per family cost of $470.

TABLE III-22

WELFARE PER FAMILY ON RESERVES - 1966-67

Reserve	No. of Families	Welfare	Welfare/Family
Grouard	1	$ -	$ -
Sucker Creek	39	19,440	498
Driftpile	47	20,760	442
Swan River	13	9,120	701
Sawridge	4	-	-
Wabasca	97	85,176	878
Whitefish Lake	46	35,100	763
	247	$169,596	$687

13. Housing on the Reserves. On Indian Reserves, 17.2% (44 houses) of homes are in poor condition and need to be rebuilt. If it may be assumed that, for the average Indian family of seven, a six room house is required, an additional 191 houses are undersized and need to be enlarged as shown in Table III-23.

TABLE III-23

HOUSING ON RESERVES - 1967

Reserve	Good No.	Good %	Fair No.	Fair %	Poor No.	Poor %	Total No.	Total %
Grouard	1	100	-	-	-	-	1	100
Sucker Creek	31	83.8	2	5.4	4	10.8	37	100
Driftpile	29	58.0	9	18.0	12	24.0	50	100
Swan River	8	50.0	2	12.5	6	37.5	16	100
Sawridge	3	60.0	-	-	2	40.0	5	100
Wabasca	85	75.9	14	12.5	13	11.6	112	100
Whitefish Lake	9	26.5	18	52.9	7	20.6	34	100
	166	65.1	45	17.6	44	17.2	255	100

TABLE III-24

SIZE OF HOUSES ON RESERVES - 1967

No. of Rooms	1		2		3		4		5		6		7	
Reserve	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Grouard	-	-	-	-	1	100	-	-	-	-	-	-	-	-
Sucker Creek	1	2.7	2	5.4	8	21.6	5	13.5	13	35.1	5	13.5	3	8.1
Driftpile	4	8.0	2	4.0	20	40.0	5	10.0	12	24.0	3	6.0	4	8.0
Swan River	-	-	2	12.5	4	25.0	2	12.5	5	31.2	3	18.8	-	-
Sawridge	1	20.0	1	20.0	-	-	-	-	1	20.0	-	-	2	40.0
Wabasca	9	8.0	24	21.4	51	45.5	10	8.9	18	16.1	-	-	-	-
Whitefish Lake	5	14.7	8	23.5	3	8.8	13	38.2	5	14.7	-	-	-	-
	20	7.9	39	15.3	87	34.1	35	13.7	54	21.2	11	4.3	9	3.5

14. Correctional Institutions. In a survey, Dr. G. Monture found that there is a disproportionately high crime rate among native people in Canada. The following Table III-25 shows the proportion of native people admitted to Alberta Correctional Institutions during August, 1966.

TABLE III-25

ADMISSIONS TO ALBERTA CORRECTIONAL INSTITUTIONS - AUGUST, 1966

	Total Admissions	Indians or Metis	% Native
Fort Saskatchewan (m)	648	181	28
Fort Saskatchewan (f)	109	81	74
Lethbridge	318	208	66
Calgary	563	88	16

15. The same study also showed that 15.9% of prisoners in the Saskatchewan Federal Penitentiary (December 31, 1965) were of Indian ancestry. Most Indians and Metis were committed for liquor infractions or crimes involving liquor. The report states: "For Indians, however, the number of liquor infractions is so great that it almost excludes other kinds of crime". For Alberta: "The magnitude of the Indian problem is obvious - at a minimum, seven times the committal rate of non-Indians. The pattern of offences shows little variety" (i.e. mostly liquor infractions).

TABLE III-26

POPULATION: INDIANS ON RESERVES

SPECIAL AREA: LESSER SLAVE LAKE

AGE GROUP	1965		1966		1967		1968		1969		1970		1971	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0- 4	267	262	233	276	255	280	253	266	268	264				
5- 9	215	194	237	189	234	207	234	216	237	227				
10-14	162	168	163	167	180	176	187	172	193	180				
15-19	134	131	142	127	151	142	144	146	146	160				
20-24	118	108	117	80	121	91	118	93	123	92				
25-34	149	116	146	114	167	126	159	128	163	135				
35-44	82	80	92	74	94	74	98	74	111	80				
45-54	56	50	62	53	65	60	62	55	56	55				
55-64	54	52	59	58	56	59	50	58	57	62				
65-69	27	11	29	15	34	16	39	15	35	14				
70 plus	68	58	39	28	40	28	40	26	45	29				
TOTAL	1,332	1,230	1,319	1,181	1,397	1,259	1,384	1,249	1,434	1,298				
	2,562		2,500		2,656		2,633		2,732					

TABLE III-27

POPULATION: INDIANS ON RESERVES

SPECIAL AREA: LESSER SLAVE LAKE

AGE GROUP	Driftpile		Grouard		Sawridge		Sturgeon Lake		Sucker Creek		Swan River		Wabasca		White Fish Lake		TOTALS - 1965	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0- 4	44	39	6	4	2	1	53	60	26	27	7	10	88	92	41	29	267	262
5- 9	35	33	2	2	0	4	50	43	27	24	6	4	69	61	26	23	215	194
10-14	21	27	3	0	0	2	44	28	25	27	2	4	54	54	13	26	162	168
15-19	16	20	0	1	1	3	27	28	18	24	7	3	53	40	12	12	132	131
20-24	18	15	0	3	1	1	24	15	13	15	8	5	44	41	10	13	118	108
25-34	28	15	1	0	5	0	26	33	20	13	5	3	46	34	18	18	149	116
35-44	10	14	0	0	2	2	20	19	8	8	5	3	25	28	12	6	82	80
45-54	6	4	1	0	0	0	14	13	7	6	2	1	18	21	8	5	56	50
55-64	9	9	0	2	2	1	9	10	6	6	1	2	18	16	9	6	54	52
65-69	7	0	0	0	0	0	7	3	0	1	2	1	9	5	2	1	27	11
70 plus	10	14	2	0	1	2	16	8	6	6	4	2	25	18	4	8	68	58
TOTAL	204	190	15	12	14	16	290	260	156	157	49	38	449	410	155	147	1,332	1,230
																		2,562

TABLE III-28

POPULATION: INDIANS ON RESERVES

SPECIAL AREA: LESSER SLAVE LAKE

	Driftpile		Grouard		Sawridge		Sturgeon Lake		Sucker Creek		Swan River		Wabasca		White Fish Lake		TOTALS - 1966	
AGE GROUP	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0- 4	38	38	0	0	3	2	43	54	21	31	6	15	81	101	41	35	233	276
5- 9	27	26	4	0	0	3	56	50	26	17	5	8	84	66	35	19	237	189
10-14	17	19	1	0	0	3	43	28	23	30	5	5	65	59	9	23	163	167
15-19	12	15	3	0	2	2	32	25	22	23	7	2	55	49	9	11	142	127
20-24	16	8	1	0	3	3	25	13	15	11	7	5	40	28	10	12	117	80
25-34	25	15	0	0	5	0	27	35	18	9	5	4	49	33	17	18	146	114
35-44	10	8	0	0	2	1	20	17	11	9	4	3	29	30	16	6	92	74
45-54	5	5	0	0	0	0	15	11	7	6	2	0	27	25	6	6	62	53
55-64	9	11	0	2	2	1	10	8	7	7	1	3	20	19	10	7	59	58
65-69	7	2	0	0	0	0	5	5	0	1	1	1	13	5	3	1	29	15
70 plus	5	5	1	0	1	1	10	4	3	4	2	1	15	10	2	3	39	28
TOTAL	171	152	10	2	18	16	286	250	153	148	45	47	478	425	158	141	1,319	1,181
																		2,500

TABLE III-29

POPULATION: INDIANS ON RESERVES

SPECIAL AREA: LESSER SLAVE LAKE

AGE GROUP	Driftpile		Grouard		Sawridge		Sturgeon Lake		Sucker Creek		Swan River		Wabasca		White Fish Lake		TOTALS - 1967	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0- 4	41	36	0	0	3	3	47	54	22	29	10	8	95	107	37	43	255	280
5- 9	29	30	3	0	0	3	53	50	23	22	4	6	82	77	40	19	234	207
10-14	19	21	2	0	0	3	47	27	25	35	6	6	68	60	13	24	180	176
15-19	15	16	3	0	2	2	32	30	23	25	6	2	60	51	10	16	151	142
20-24	14	8	1	0	2	1	27	17	17	12	9	3	44	35	7	15	121	91
25-34	29	16	0	0	6	1	27	35	20	12	5	6	60	39	20	17	167	126
35-44	9	10	0	0	2	1	22	15	10	8	3	3	30	29	18	8	94	74
45-54	5	6	0	0	0	0	15	15	8	8	3	0	28	27	6	4	65	60
55-64	9	9	0	2	1	1	12	8	7	7	1	3	19	19	7	10	56	59
65-69	5	2	0	0	1	0	7	5	1	1	1	1	13	6	6	1	34	16
70 plus	7	5	1	0	0	1	9	4	3	3	2	1	16	11	2	3	40	28
TOTAL	182	159	10	2	17	16	298	260	159	162	50	39	515	461	166	160	1,397	1,259
																		2,656

TABLE III-30

POPULATION: INDIANS ON RESERVES

SPECIAL AREA: LESSER SLAVE LAKE

AGE GROUP	Driftpile		Grouard		Sawridge		Sturgeon Lake		Sucker Creek		Swan River		Wabasca		White Fish Lake		TOTALS - 1968	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0- 4	38	33	0	0	2	2	50	54	23	20	6	7	94	110	40	40	253	266
5- 9	23	28	2	0	1	4	51	50	25	21	6	6	89	86	37	21	234	216
10-14	18	20	3	0	0	2	50	31	27	27	4	5	67	61	18	26	187	172
15-19	14	16	2	0	2	2	33	31	17	24	5	3	60	54	11	16	144	146
20-24	10	7	2	0	2	2	24	16	15	10	7	3	51	40	7	15	118	93
25-34	25	15	0	0	5	1	30	36	17	15	7	5	58	39	17	17	159	128
35-44	8	7	0	0	2	1	24	16	8	7	2	3	35	31	19	9	98	74
45-54	5	5	0	0	0	0	15	13	10	7	2	0	26	28	4	2	62	55
55-64	7	5	0	2	1	1	6	9	6	7	2	3	20	20	8	11	50	58
65-69	4	2	0	0	1	0	13	5	2	1	1	0	12	6	6	1	39	15
70 plus	8	3	1	0	0	1	9	3	3	3	1	2	17	12	1	2	40	26
TOTAL	160	141	10	2	16	16	305	264	153	142	43	37	529	487	168	160	1,384	1,249
																		2,633

TABLE III-31

POPULATION: INDIANS ON RESERVES

SPECIAL AREA: LESSER SLAVE LAKE

AGE GROUP	Driftpile		Grouard		Sawridge		Sturgeon Lake		Sucker Creek		Swan River		Wabasca		White Fish Lake		TOTALS - 1969	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0- 4	35	33	0	0	4	3	57	52	22	24	6	6	102	110	42	36	268	264
5- 9	30	31	1	0	1	2	51	50	24	22	8	8	89	93	33	21	237	227
10-14	16	21	3	0	0	3	50	37	25	25	4	4	75	66	20	24	193	180
15-19	15	17	3	0	0	1	38	33	20	28	3	5	56	57	11	19	146	160
20-24	12	10	1	0	2	1	26	13	13	10	7	2	55	42	7	14	123	92
25-34	27	16	0	0	6	2	30	30	17	14	9	6	57	50	17	17	163	135
35-44	11	9	0	0	3	0	23	23	11	6	2	3	42	29	19	10	111	80
45-54	4	4	0	0	0	1	14	11	7	9	1	1	28	26	2	3	56	55
55-64	7	7	0	1	1	1	9	11	6	7	3	3	22	22	9	10	57	62
65-69	4	2	0	1	1	0	11	4	4	0	1	0	10	5	4	2	35	14
70 plus	7	5	1	0	0	0	11	4	3	3	1	2	20	13	2	2	45	29
TOTAL	168	155	9	2	18	14	320	268	152	148	45	40	556	513	166	158	1,434	1,298
																	2,732	

30D. DATA SOURCES - NATIVE PEOPLE

1. All data gathered on the Metis people was extracted from An Analysis of Resources in Alberta's Lesser Slave Lake Area, by the Development Research Branch, Economics Division, Alberta Department of Agriculture, June 28, 1968.

2. Data on the Indian people of the area was gathered from the above document and from the Department of Indian Affairs and Northern Development.

CHAPTER IV

COMMUNICATIONS

CHAPTER IV

COMMUNICATIONS

401. RAIL SERVICE

1. Canadian National Railways operates a freight service line from Edmonton to Windfall. This line formerly ran to Whitecourt but, in 1964, an additional 13 miles were added. Northern Alberta Railways provides passenger and freight service from Edmonton to the entire south shore of Lesser Slave Lake and east through Grande Prairie for a distance of some 154 miles within the area. No additions have been made to this service, which has scheduled passenger stops in the area. A total of 188 miles of railway services the area. There are no C.P.R. operations in the area (Table IV-1,-2,-3).

402. AIR SERVICE

1. Grande Prairie and High Prairie have airports with controlled service to Edmonton, Peace River, Prince George and Fort St. John. A water airport is situated at Grouard Mission on the northeast shore of Lesser Slave Lake.

403. RADIO AND T.V. BROADCASTING

1. Radio station CFGP-Grande Prairie (10,000 watts) broadcasts 24 hours daily to the surrounding region.

2. Both the CBC and CTV television networks provide relay service to the area from Edmonton. CFRN-TV (180,300 video watts) provides service to the Grande Prairie and Whitecourt areas and CBXT-TV (318,000 video watts) extends service to Grande Prairie, Whitecourt and High Prairie. There are no local television studios (Table IV-1).

404. TELEPHONES AND TELECOMMUNICATIONS

1. The extent of telephone service in the area increased considerably between 1961 and 1969. In 1961 there were 12.9 telephones per 100 population and this almost doubled to 23.4 per 100 population. The area is still well behind the Province in this respect, however, and the number of telephones per 100 population has increased as a per cent of the Provincial rate from

41.6% in 1961 to only 50% in 1969. It should be noted that there is no distinction made between domestic and commercial service in the data supplied so the low rate as a per cent of the Provincial rate could be due directly to a lack of concentrated commercial activity.

2. Located in the area to provide telecommunications service are wire lines of the Canadian National and Northern Alberta Railways, a microwave relay network and several mobile radio-telephone installations (Table IV-1).

TABLE IV-1

TELEPHONES

SPECIAL AREA: LESSER SLAVE LAKE

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
PHONES/100 Special Area		12.9	13.7	13.5	16.6	17.8	18.9	19.1	20.8	22.0	23.4
Province	29.2	31.1	32.5	33.6	35.1	37.0	39.1	39.9	41.9	44.0	
Canada	31.2	32.6	33.7	34.8	36.1	37.6	39.0	40.5	42.1	43.7	
PHONES %/100											
To Provincial Average		41.6	42.2	40.3	47.5	48.1	48.3	48.1	49.8	50.0	
To Canada Average		39.7	40.7	38.9	46.2	47.3	48.4	47.3	49.6	50.3	

RADIO AND TV BROADCASTING

TYPE	NAME	1961 WATTS	1961 % PROV.	1966 WATTS	1966 % PROV.	1971 WATTS	1971 % PROV.
Radio	CFGP	10,000		10,000		10,000	
TV	Booster for CBXT Ch. 10					318,000	
TV	Booster for CFRN Ch. 13					180,300	

TABLE IV-2

RAILWAYS WHICH SERVICE THE SPECIAL AREA

SPECIAL AREA: LESSER SLAVE LAKE

CODE NO.	NAME
529	Canadian National Railways
645	Northern Alberta Railways

ROADS IDENTIFICATION

CODE NO.	NAME	JUNCTION POINTS FROM	JUNCTION POINTS TO	YEARS	MILES	TYPE OF SERVICE
529.322	Whitecourt	Edmonton	Whitecourt	1960-1963	20	Freight
529.322	Whitecourt	Edmonton	Windfall	1964-1970	33[1]	Freight
645.1	Dawson Creek	Edmonton	Dawson Creek (B.C.)	1960-1970	154	Freight-Pas
645.3	Peace River	McLennan	Hines Creek	1960-1970	1	Freight

1 The Canadian Almanac and Directory (Copp Clark)
Canadian Guide (International Railway Publishing Co. Ltd.) - (for miles and type of service)

TABLE IV-3

RAILROAD INFORMATION

SPECIAL AREA LESSER SLAVE LAKE

YEAR	MILES OF RAILWAY				MILES OF RAILWAY PER CAPITA = A					(A)/SQ MILES
	CANADA	PROVINCE	SP AREA	%SA/PROV	CANADA	PROVINCE	SP AREA	%SA/PROV	%SA/CAN	SP AREA
1961	43297	5689	175	3.08	0.002379	0.004271	0.005735	134.26	241.07	0.00313
1962	43257	5683	175	3.08	0.002334	0.004148	0.005797	139.76	248.36	0.00317
1963	43226	5683	175	3.08	0.002292	0.004045	0.005861	144.91	255.70	0.00320
1964	42958	5682	188	3.31	0.002238	0.003968	0.005357	160.48	284.53	0.00345
1965	42950	5724	188	3.28	0.002199	0.003945	0.006439	163.24	292.83	0.00352
1966	42797	5680	188	3.31	0.002153	0.003880	0.006513	167.87	302.51	0.00356
1967	42771	5680	186	3.31	0.002101	0.003812	0.006588	172.83	313.64	0.00360
1968	42771	5650	188	3.33	0.002066	0.003702	0.006665	180.03	322.56	0.00364
1969	43216	5950	188	3.16	0.002057	0.003812	0.006745	176.95	327.95	0.00369

N.B. ((A)/SQ MILES) GIVES A NORMALIZED QUANTITY TAKING ACCOUNT OF THE DIMENSION OF THE SPECIAL AREA, IT MUST BE DIVIDED BY 1,000,000 TO OBTAIN THE REAL VALUE.

YUKON AND NORTHWEST TERRITORIES ARE EXCLUDED FROM CANADIAN FIGURES

PROVIDED BY PROGRAM EVALUATION BRANCH, DREE.

40D. DATA SOURCES - COMMUNICATIONS

1. Information on rail service was gathered from the following: The Canadian Almanac & Directory, 1960 to 1971, The Canadian Guide, Gazetteer and Shipper's Directory, topographic maps, and railroad maps of the area supplied by the Canadian Freight Association. In cases where road mileage was not indicated in any of the publications used, the distance was measured on the maps, using an odometer.

2. Miles of railway per capita was considered to be a meaningless figure unless the area of the Special Area was taken into account. Therefore, this information was calculated on the basis of population per square mile, to give a ratio that could more usefully be compared with other areas. Air service data was taken from the Atlas of Alberta, a 1969 publication of the Government and University of Alberta. There are no D.O.T. towers in the area, so more extensive data is not presently available.

3. The monthly issues of "Canadian Advertising Rates and Data" provided information on radio and television broadcasting. The listed stations have been in the area for the entire period covered by the profile.

4. The number of telephones in the Special Area was obtained from Alberta Government Telephones; the count was made on the basis of several exchanges servicing the area, and the one existing radio toll station. Telecommunications information was taken from the Atlas of Alberta.

CHAPTER V

SERVICES

CHAPTER V

SERVICES

501. HEALTH

1. Medical Services. The population of the Lesser Slave Lake area is served by two health units (excluding Grande Prairie). The Athabaska Health Unit (No. 18) serves the County of Athabaska and improvement districts (I.D.) 102, 107, 122 and 124. The Peace River Health Unit (No. 21) serves municipal districts (M.D.) 130, 135 and 136 and I.D.'s 138, 139 and 146 as well as all towns and villages in that area. I.D.'s 123 and 128 were not served by health units in 1966. The town of Swan Hills is served by a municipal nurse who travels from Fort Assiniboine. The Wabasca area is served by the Wabasca Municipal Nursing Service which employs two nurses. There is a municipal nurse who works under the Athabaska Health Unit at Kinuso and there is a municipal nurse from the Peace River Health Unit at Atikameg. There is an arrangement between the federal and provincial governments in the Wasbasca area in which the municipal nurses there supply medical services to the Indian people.

2. Nurse - Population Ratios. There are nine nurses (public health and municipal) in the Athabaska Health Unit who serve a population of 22,730 (1966). This is a ratio of 2,525 persons for every nurse. The Peace River Health Unit has nine public health and municipal nurses serving a population of 35,664 which is 3,963 people for every nurse. The Department of Public Health gives the nurse to population ratio as 1.3 (107) and 1.4 (257) respectively with the municipal nurses and the population they served excluded. Excluding the cities of Edmonton and Calgary, there are 751,242 people served by health units and these units are staffed by 158 nurses (including municipal nurses). This is a ratio of 4,755 people for every nurse. The Athabaska and Peace River units compare favourably with this Alberta average. Although the headquarters for these health units are located in Athabaska and Peace River respectively, the Athabaska Health Unit has a sub-office in Slave Lake and the Peace River Unit has one in High Prairie.

3. Hospital Capacity. There are seven hospitals presently servicing the area and these provide a total of 413 beds to the area's inhabitants. Hospital service is below the general level of the province with the number of available beds per capita in the area only 62.5% of the provincial average. The beds per capita ratio is less favourable in relation to the provincial average than it was a decade ago. More detailed information on each hospital is given in Table V-8.

4. Hospital Usage. In 1970 the hospitals recorded 125,476 patient-days and had available a total of 150,745 bed-days. This represents a margin of 25,269 bed-days. In 1969 this margin was 34,366 and in 1968, 50,615. Admissions have risen over the decade and in 1969 exceeded the previous peak of 12,241 in 1965. The figures appear to be rising (Table V-8).

5. Doctors. There are three doctors located at Slave Lake and four others at High Prairie. One of the Slave Lake doctors makes weekly visits to Wabasca. There is one dentist at High Prairie and another doctor at Grande Prairie.

6. Diseases. As shown in Table V-1, the incidence of selected diseases in the two health units are generally much higher than in Alberta. The rates for dysentery, infectious hepatitis, tuberculosis and venereal disease are much higher in the two health units than in Alberta generally.

TABLE V-1

RATES FOR 100,000 POPULATION FOR SELECTED DISEASES BY HEALTH UNIT, ALBERTA AND WESTERN LESSER SLAVE LAKE

1966

Disease	Athabaska	Peace River	Western Lesser Slave Lake[1]	Alberta
Bacillary Dysentery	112.0	31.6	-	20.5
Food Poisoning	22.3	11.2	-	13.2
Infectious Hepatitis	94.2	46.0	90.2	37.6
Measles	1,134.8	993.9	391.0	459.3
Rubella	67.3	40.2	-	57.5
Scarlet Fever and Strep Throat	80.7	120.6	360.9	116.8
Tuberculosis	85.2	40.2	-	20.7
Venereal Disease	633.5	557.9	1,278.2	249.6

1 Includes I.D. 125, 129 and the town of High Prairie.

502. NEWSPAPERS AND LIBRARIES

1. A daily edition is published in Grande Prairie with a circulation of almost 4,500. Three smaller weeklies are published in the area with a combined circulation of 5,200. There are three municipal libraries, at Beaverlodge, Grande Prairie and High Prairie.

503. EDUCATION

1. Educational Levels. In 1961 there were 6,047 people in the southern Lesser Slave Lake area (I.D. 123, 124[1] and 125 and the towns and villages within the boundaries of these areas) who were over five years of age but not attending school. Of these people, 64.6% had only an elementary education or less as compared with 59.6% for all of C.D. 15 and 47.0% for all of Alberta. More detailed statistics are shown in Table V-2.

TABLE V-2

POPULATION FIVE YEARS OF AGE AND OVER NOT ATTENDING SCHOOL

BY HIGHEST GRADE ATTENDED

1966

	Southern Lesser Slave Lake Area		C.D. 15		Alberta	
	No.	%	No.	%	No.	%
Total	6,047	100.0	45,814	100.0	832,906	100.0
No School	888	14.7	5,473	11.9	58,434	7.0
Pre-School	4	0.1	33	0.1	1,001	0.1
Elementary 1-4 years	835	13.8	4,632	10.1	44,866	5.4
Elementary 5 years	2,178	36.0	17,193	37.5	253,959	30.5
High School 1-2 years	1,066	17.6	9,051	19.8	190,916	22.9
High School 3-4 years	707	11.7	6,402	14.0	184,302	22.2
High School 5 years	163	2.7	1,133	2.5	43,479	5.2
University 1-2 years	131	2.2	1,123	2.4	25,220	3.0
University 3-4 years	30	0.5	265	0.6	6,662	0.8
University Degree	45	0.7	509	1.1	24,067	2.9

[1] Other statistics for the Lesser Slave Lake area also include I.D. 128 and 129. Statistics on these two areas were not available for 1961 at the time of publication.

2. It is evident that education levels are lower in the Lesser Slave Lake area than in the rest of C.D. 15 and in Alberta. People from this area will probably find it difficult to compete with the people from other areas for skilled jobs because of their lack of education. This points out the need for additional training to enable these people to compete successfully in the labour market.

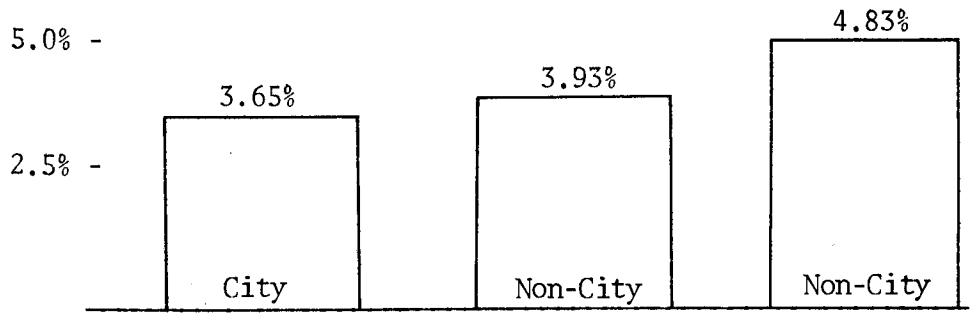
3. In the labour market today, jobs which require little training and skill are declining in number, while jobs which require more training and skill are increasing. Changes in technology increase the complexity of the jobs available and thus increase the training requirements for these jobs. Rapid changes in technology also require people who are adaptable and have the ability to continually learn new techniques and methods. Prospective employers look for educated employees because, through education, these people have acquired learning abilities and skills which enable them to make use of the technology that is available and to adapt to the changes which may occur in the future.

4. Enrolment. The present school system should be preparing students to either compete successfully in the labour market in the future or to take further training elsewhere. In the Lesser Slave Lake area in 1967 there were 4,159 students attending school but the 1966 Census of Canada indicates that there were 6,462 people between the ages of five and 24 years in the same area. In the Lesser Slave Lake area there were 64.4% of the people between five and 24 years who were attending school compared with 65.1% for Alberta (1965).

5. Drop-out Rates. Students leave school in the Lesser Slave Lake area at a slightly faster rate than they do in the rest of Alberta. In the Lesser Slave Lake area about 4.8% of the enrolled students left school for reasons other than further education while in rural Alberta 3.9% left. In the cities of Alberta 3.6% discontinued their education. This is shown in Figure 1.

FIGURE 1

PER CENT OF ENROLLED STUDENTS LEAVING SCHOOL



	Alberta 1965	Alberta 1965	5 I.D.'s 1967
Students Discontinuing	7,064	6,362	201
Enrolment	193,495	161,802	4,159

6. Although there is only a slight difference in the population of school age in school and the rate at which students leave school between the Lesser Slave Lake area and the rest of the province, there is a significant difference in the level of education attained by those who leave school. In the Lesser Slave Lake area 56.3% of the people leaving school have Grade 9 or less compared with 26.1% for rural Alberta and 10.4% for the cities of Alberta. Only 19.4% of the students leaving school in the Lesser Slave Lake area have Grade 12 compared to 47.2% for rural Alberta and 65.5% for the cities of Alberta. These comparisons are shown in more detail in Table V-3.

7. Educational Facilities. There are 21 schools with a total of 202 rooms in the Lesser Slave Lake area. Six of these schools teach Grades 1-12 while the rest of them have from Grades 1-6 to Grades 1-9. Driftpile has only Grades 1-3. Many of these schools are in Northland School Division and are generally small, isolated schools.

8. Teachers. There are a total of 198 teachers in the Lesser Slave Lake area. This is an average of 21 students per teacher. The average for all Alberta schools is also 21 students per teacher.

TABLE V-3

PERCENTAGE OF STUDENTS LEAVING SCHOOL BY HIGHEST GRADE ATTENDED[1]

1967

	Lesser Slave Lake Area	Rural Alberta	Cities of Alberta
Less than VI	1.5	2.2	0.3
VII	5.0	3.4	1.2
VIII	7.5	6.7	2.5
IX	42.3	13.8	6.6
X	12.9	10.4	9.7
XI	11.4	16.3	14.2
XII	19.4	47.2	65.5
	100.0	100.0	100.0

9. Statistics for the number of years of training and for numbers of resignations are given on a school division basis only so the following statistics are for the High Prairie School Division Number 48 and the Northland School Division Number 61. The High Prairie School Division includes the populated areas of I.D. 124 and 125 and M.D. 130. Northland School Division includes most of the isolated communities in northern Alberta. There were a total of 318 teachers in these two school divisions in 1967 and 60 of them had four years or more of university training. This is 18.9% of the total number of teachers which compares with approximately 38%, the Alberta average in 1965. If the High Prairie School Division is considered alone, then 21.3% of the teaching staff has at least four years of university education.

10. Teachers' resignations are also higher in the Lesser Slave Lake area than in Alberta generally. In this area, in 1967, about 1/3 of the teachers resigned while the Alberta average in 1965 was 17%. This is shown in Table V-4.

1 Students leaving school for all destinations other than further education.

TABLE V-4

TEACHER RESIGNATIONS[1]

SCHOOL DIVISIONS 61 & 48 FOR 1967

ALBERTA AND CITIES - 1965

	High Prairie No. 48	Northland No. 61	Total High Prairie & Northlands	Alberta 1965	Larger Cities 1965
Total Staff	146	172	318	-	-
Resignations	46	60	106	-	-
% Resigning	31.5	34.9	33.3	17	11

11. Operating Expenditures. Operating expenditures are much higher for Northland School Division and a little higher for the High Prairie School Division than the Alberta average. Since Northland operates under special conditions, its expenditures could be expected to be high. Total operating expenditures per student are shown in Table V-5.

TABLE V-5

TOTAL OPERATING EXPENDITURES PER STUDENT[2]

	Northlands	High Prairie	Total High Prairie & Northlands	Alberta 1966
Total Expenditure	2,977,583	1,953,881	4,931,464	191,383,845
Number of Students	3,522	3,307	6,829	365,002
Expenditure per Student	845	591[3]	722	524

12. Frequently, a large part of the operating expenditures for rural schools is in the area of transportation and pupil maintenance (room and board assistance in lieu of transportation). Table V-6 shows comparisons of operating expenditures, with expenditures for transportation and maintenance excluded.

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1 Alberta Department of Education

2 Abstracted from records of Alberta Department of Education

3 Expenditure per student in High Prairie in 1966 was $514.00

TABLE V-6

OPERATING EXPENDITURES EXCLUDING TRANSPORTATION

AND PUPIL MAINTENANCE

LESSER SLAVE LAKE AREA - 1967[1]

	Northlands	High Prairie	Total High Prairie & Northlands	Alberta 1966
Expenditures	2,742,883	1,715,041	4,457,924	177,468,020
Number of Students	3,522	3,307	6,829	365,002
Expenditures per Student	779	519[2]	653	486

13. Employment Opportunity. Students in the Lesser Slave Lake area who leave school find it more difficult to obtain employment than students in other parts of Alberta. Post-school records show that 31.6% of the students who leave school to enter the labour force in the Lesser Slave Lake area become unemployed compared with 4.7% for rural Alberta and 4.8% for the cities of Alberta. Post-school records also show that the less education possessed by a new entrant into the labour force the harder it is for him to find a job. Details of these relationships are shown in Table V-7. As the table shows, the Lesser Slave Lake area is not getting as good results as is Alberta for the money spent on education. Thirty-five per cent of Grade IX graduates in the Slave area become unemployed as compared to 8.4% for Alberta (non-city) and 12.8% (city).

1 Abstracted from records of Alberta Department of Education

2 Expenditure per student in High Prairie for 1966 was $446.00

TABLE V-7

UNEMPLOYMENT AMONST NEW ENTRANTS INTO THE LABOUR FORCE[1]

(a) Highest Grade Attained	Number to Labour Force		
		Unemployed	
5 I.D.'s (1967)	Total	No.	%
Less than Grade VII	1	1	100.0
Grade VII	11	6	54.5
Grade VIII	8	3	37.5
Grade IX	60	21	35.0
Grade X	20	4	20.0
Grade XI	17	2	11.8
Grade XII	33	-	-
Total	150	37	31.6
(b) Alberta (Non-City) (1965)			
Less than Grade VII	72	15	20.8
Grade VII	154	23	14.9
Grade VIII	308	38	12.3
Grade IX	645	54	8.4
Grade X	489	22	4.5
Grade XI	806	37	4.6
Grade XII	2,601	49	1.9
Total	5,075	238	4.7
(c) Alberta (City Districts) (1965)			
Less than Grade VII	8	1	12.5
Grade VII	53	5	9.4
Grade VIII	113	22	19.5
Grade IX	328	42	12.8
Grade X	497	32	6.4
Grade XI	783	54	6.9
Grade XII	3,816	110	2.9
Total	5,598	266	4.8
(d) Average unemployment for the Alberta labour force during 1965			2.6

[1] Abstracted from records of Alberta Department of Education

TABLE V-8

HOSPITAL FACILITIES AND BED UTILIZATION

SPECIAL AREA: LESSER SLAVE LAKE

Hospital	Year	Beds Available						Bed Days Avail.	Admissions	Avg. Stay	Bed Days Demand	% Utilization
		Med./ Surg.	Mat.	Paeds	ICU	Other	Total					
Holy Cross	1968	31	6	7	-	-	44	16,060	1,904	7.1	13,518	84
Hospital	1969	30	6	8	-	-	44	16,060	1,890	7.1	13,419	84
(Spirit River)	1970	30	6	8	-	-	44	16,060	1,784	8.1	14,450	90
McLennan	1968	33	4	22	-	1	60	21,900	1,532	8.0	12,256	56
General	1969	32	4	23	-	1	60	21,900	1,829	8.5	15,547	71
Hospital	1970	32	4	23	-	1	60	21,900	1,854	8.1	15,017	69
St. Martin's	1968	7	2	8	-	-	17	6,205	858	5.6	4,805	77
Hospital	1969	7	2	8	-	-	17	6,205	858	5.6	4,805	77
(Desmarais)	1970	17	-	-	-	-	17	6,205	862	(5.6)	(4,827)	78
Providence	1968	47	-	25	4	-	76	27,740	2,523	8.6	21,698	78
Hospital	1969	30	15	23	4	4	76	27,740	2,390	13.7	32,743	118
(High Prairie)	1970	32	15	25	4	-	76	27,740	2,428	7.7	18,696	67
Slave Lake	1968	20	4	10	-	-	34	12,410	-	-	-	-
General	1969	20	4	10	2	-	36	13,140	999	5.9	5,894	45
Hospital	1970	20	4	10	2	-	36	13,140	1,373	6.2	8,513	65
Grande Prairie	1968	-	-	-	-	50	50	18,250	79	159.2	12,577	69
Auxiliary	1969	-	-	-	-	50	50	18,250	35	274.1	9,594	53
Hospital	1970	-	-	-	-	50	50	18,250	65	358.1	23,277	128
Grande Prairie	1968	87	20	24	-	-	131	47,815	4,655	7.5	34,913	73
Municipal	1969	87	20	24	-	-	131	47,815	4,398	7.9	34,744	73
Hospital	1970	86	20	24	-	-	130	47,450	4,487	8.0	35,896	76
							1,205	439,825	36,803	9.03	332,382	75

50D. DATA SOURCES - SERVICES

1. Statistics on health services were obtained from merging figures from the Canadian Hospital Directory with that of a situation report published in An Analysis of Resources in Alberta's Lesser Slave Lake Area. The Rural Development Research Branch, Economics Division, Alberta Department of Agriculture.

2. Information on Newspapers and libraries in the area was obtained from the Atlas of Alberta, 1969.

3. Information on education services was extracted from the above publication, An Analysis of Resources in Alberta's Lesser Slave Lake Area.

CHAPTER VI

NATURAL RESOURCES

CHAPTER VI

NATURAL RESOURCES

601. FISHERIES

1. Commercial fishing has a long history in this area, beginning shortly after the railroad was built along the south shore of Lesser Slave Lake. This lake was the first to be exploited as a commercial fishery and has continued to the present to provide the largest volume caught. Over the years, other lakes have supported commercial fishing operations and these have taken on relatively more importance in the last few years. These comprise of Utikuma Lake, Sturgeon Lake, Nipisi Lake and Snipe Lake. In the 1964-65 harvest year, approximately 3,000 tons of fish were taken from these waters.

2. Over 90% of the tullibee is caught in Lesser Slave Lake. This species is present in other lakes in the area but the low value per pound (one quarter that of whitefish) does not provide a large enough margin to absorb high transportation costs. Sturgeon and Utikuma Lakes are the primary whitefish waters. The whitefish fishery has been closed since 1965 in an effort to re-establish the population of this species which had become severely depleted. The area is also beset by two other major problems:

1. drastic yearly fluctuations in catch;
2. increasing infestation of whitefish.

Because of the low value of the permit, it appears that too many people are engaged in the industry (Tables VI-21, -22).

602. MINERALS AND OIL

1. No minerals are mined in the area but substantial quantities of crude oil and natural gas are extracted from several producing fields in the area located at Sturgeon Lake South, Snipe Lake and Mitsue.

2. Exploration and development activity have been carried on fairly extensively in the area since 1956. In that year, three gas fields were discovered although only one was put into production. In 1957, a major oil and gas field was discovered in the Swan Hills and the economy flourished with the influx of oil workers. Activity decreased and no new oil pools or gas fields were discovered until 1961. During 1962, 222 wells were completed

in the area. A large gas field, Marten Hills, was delineated. In each of the succeeding years, at least one major oil pool or gas field was discovered - in 1962, Snipe Lake; 1963, Utikuma Lake; 1964, Mitsue; 1965, Loon Lake and Nipisi; 1966, a new pool in the Red Earth Field.

3. Crude Oil. As of December 31, 1967, production and reserves of crude oil were as shown in Table VI-1. This area contains about 19% of the provincial reserves of crude oil and produced 15% of the Alberta total in 1967.

TABLE VI-1

CRUDE OIL PRODUCTION AND RESERVES

Field	Discovery Year	Marketing Reserves Dec. 31/67 000 bbls.	Production 1967 000 bbls.	Cumulative Production to Dec. 31, 1967, 000 bbls.
Swan Hills	1957	830,007	22,755	100,993
Red Earth	1956 & 1966	39,290	873	1,895
Snipe Lake	1962	66,413	2,669	10,587
Utikuma Lake	1963	15,107	489	1,393
Mitsue	1964	156,466	4,917	11,561
Nipisi	1965	174,528	4,391	7,468
Loon Lake	1965	103	103	174
		1,281,914	36,197	134,071

4. Natural Gas. As of December 31, 1967, the reserves and production statistics for natural gas were as shown in Table VI-2. Reserves in this area comprised 3.5% of the provincial reserves of natural gas. In 1967, production of natural gas from this area amounted to 0.9% of the provincial total. However, gas production from this area will increase sharply in the next few years when pipeline shipments to Chicago commence from the Marten Hills Field.

TABLE VI-2

RESERVES AND PRODUCTION OF NATURAL GAS

Field	Discovery Year	Marketable Reserves Dec. 31/67 MMcf.	Production 1967 MMcf.	Cumulative Production Dec. 31/67 MMcf.	Comments
Swan Hills	1957	305,000	7,713	38,632	
Red Earth	1956	-	234	488	Primarily an oil field.
West Prairie	1956	20,000	-	-	Presently beyond economic reach.
Faust South	1956	10,000	-	-	Presently beyond economic reach.
Marten Hills	1961	689,000	23	201	Start major production soon.
Snipe Lake	1962	-	790	3,002	Primarily an oil field.
Utikuma	1963	-	159	400	Primarily an oil field.
Mitsue	1964	162,000	2,678	6,110	Presently beyond economic reach.
Nipisi	1965	110,000	1,338	2,237	Presently beyond economic reach.
Loon Lake	1965	-	21	34	Primarily an oil field.
Heart River	1965	3,000	167	1,007	Supplies local utility.
		1,299,000	13,123	52,111	

5. Drilling Activity. Total drilling activity fluctuated widely from 1961 to 1966. At the same time, the centre of activity shifted from south to north. Table VI-3 illustrates the drilling activity in the area and the changes by improvement districts.

TABLE VI-3

NUMBER OF WELLS COMPLETED

	1961	1962	1963	1964	1965	1966
I.D. 123	231	176	225	352	318	38
I.D. 124	6	4	6	80	165	39
I.D. 125	10	24	106	95	48	7
I.D. 128	9	7	10	14	36	64
I.D. 129	9	11	38	80	187	155
	265	222	385	621	754	303

6. In 1962, most of the drilling activity was centred in I.D. 123, in particular, the Swan Hills Field. Most of the economic effects were felt either in I.D. 123 or further south. While the largest percentage of well completions occurred in I.D. 123 from 1961 to 1965, the other I.D.'s saw increasing activity. The peak year for drilling activity was 1965 which saw the completion of 754 wells. In 1966, completions fell to 303, with the greatest decrease in I.D. 123 where completions decreased from 318 in 1965 to 38 in 1966.

7. Employment in the Oil Industry. These figures trace out much of the impact of the oil industry on the area's economy. For example, in 1961 an estimated 700 men were employed on the oil rigs in the area. This was a decrease from peak activity from 1957 to 1959 when the Swan Hills Field was discovered. By 1965, total employment had risen to an estimated 2,400 employees on the rigs. In both 1961 and 1965 activity continued throughout most of the year with lull periods of about one month occurring both at spring break-up and the beginning of winter freeze-up.

8. However, by 1966, the complexion of oil exploration activity changed as operations moved further north. Of the 303 wells completed in that year, about 230 or 75% were finished in the seven month period from October to April. The remaining 24% were completed during the summer months, mainly in June, July and August. About 600 men were employed on the rigs during the winter season while another 200 worked on the rigs during the summer season.

9. As well as those people employed on the rigs, a large number of people found work in complementary occupations: seismic crews ran lines throughout most of the area; bush clearing crews were required; personnel to service the rigs with drilling mud; fuel and food were also necessary.

10. All of the above employment resulted in additional income in the area. A large percentage of those employed were imported with the result that much of their income would have been spent outside of the area. Residents of the area would spend most of their income in the local communities with the resulting stimulus to the economy. The service industry expanded to satisfy the increased demand for hotels, motels, restaurants, barber shops, etc. Another result was the construction of new homes, warehouses and commercial establishments.

11. Impact of the Oil Industry. In summary, the oil industry has contributed substantially to the level of income in the area during the past ten years. However, oil exploration and drilling activity are moving to other areas and income resulting from this industry in the area is declining. This is particularly true for the communities on the south shore of Lesser Slave Lake as activity is moving further north. Employment in the industry has decreased from the peak levels in 1964 and 1965 and is concentrated in the northern parts of the area. One consequence of the lower level of employment and income is that some of the businesses in the area which were established primarily to satisfy the additional demands of the oil workers are under-utilized. Some continuing impact will remain from pipeline installations, development drilling and the gas plant to be built in the Marten Hills Field.

12. Future Prospects. It is impossible to predict the future effect of the oil industry on the area. However, since most of the land south of Lesser Slave Lake has been intensively explored, it seems safe to conclude that future drilling activity will be located north of the lake. Should oil exploration and drilling increase in the latter area, the communities most likely to receive the economic impacts would be on the east or west ends of Lesser Slave Lake or in the Peace River country.

603. AGRICULTURE

1. Farming in the Lesser Slave Lake area began in approximately 1915, when the Northern Alberta Railroad was completed to McLennan. Since then, agricultural development has centred largely in the western part of this area in the vicinity of High Prairie.

2. The area of concern in this article involves Improvement Districts 124, 125, 128 and 129. Since much of the data required for the analysis of the agricultural sector is available from census sources on an improvement district basis, the area boundaries were made coterminous with improvement district boundaries.

3. Effect of Climate on Agriculture. Annual precipitation in the Lesser Slave Lake area averages 18 inches.[1] The western half of the area is in the 'G' moisture zone which is characterized by 12-13 inches of precipitation from May to September and by 10-13 days under 2,600 degree days[2] which determine plant growth. The eastern half of the Lesser Slave Lake area is in the 'H' and 'K' zones which receive 13-16 inches of precipitation from May to September. This section has 12-18 days under the 2,600 degree days.

4. Most of the area under consideration is in the '6th temperature zone' which is characterized by 75-90 frost free days[3]. Approximately 10 miles north of Lesser Slave Lake the zone changes to '7' which has less than 75 frost free days. This imposes restrictions on grain production in Improvement Districts 128 and 129.

5. Moisture at seeding and harvest is another crop production hazard faced by farmers in the area.

6. Soils in the Lesser Slave Lake Area. Estimated acreage of various types of soil in four I.D.'s is as follows:

1. Improvement District 125. The good to very good arable land is located in the area surrounding High Prairie and north of Enilda.

Total Acreage	1,465,000
Pasture and woodland (non-arable)	325,000
Poor to fair arable land	135,000
Fair to good arable land	855,000
Good to very good arable land	60,000
Water	90,000

2. Improvement District 124. Acreages were estimated from the soil survey of the High Prairie and McLennan Sheets, Research Council of Alberta, Report No. 63, 1952.

Total Acreage	948,000
Pasture and woodland	300,000
Doubtful arable land	230,000
Potentially arable land	200,000
Water	218,000

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1 The Canada Land Inventory, Report No. 3, Department of Forestry and Rural Development, Ottawa, Figure 15.

2 Ibid., p. 14. The 90-day frost free Isotherm corresponds to the 2,200 degree day isotherm. Degree days are above 42°F. When the temperature drops below 42°F., plant growth ceases. Degree days are tabulated during the growing season, when temperatures are over 42°F.

3 Ibid., Figure 22.

3. Improvement District 129. Acreages were estimated from the Exploratory Soil Survey, Report 64-1, Research Council of Alberta, 1963.

Total Area	2,703,000
Pasture and woodland	1,663,000
Doubtful arable land	400,000
Potentially arable land	300,000
Water	340,000

4. Improvement District 128. Estimated acreages are taken from the Exploratory Soil Survey, Report 64-1 and 58-1, Research Council of Alberta, 1963 and 1957 respectively.

Total Area	4,838,000
Pasture and woodland	4,000,000
Doubtful arable land	500,000
Potentially arable land	-
Water	338,000

5. Summary

Total acreage (I.D.'s 125, 124, 128, 129)	9,954,000
Pasture and woodland	6,288,000
Doubtful arable land	1,265,000
Arable or potentially arable land	1,415,000
Water	986,000

7. Soil Use. A time series showing the changes in soil use over the period 1951 to 1966 is shown in Table VI-4.

TABLE VI-4

LAND USE[1]

(in Acres)

	1951	1956	1961	% Change (10 years)	1966	% Change (15 years)	Projected to 1981
Improvement District 124							
In Farms	50,192	55,638	49,492		67,248[2]	40	84,000
Improved	14,510	19,244	20,743		25,327		36,000
In Crop	12,159	13,105	14,904	23	14,209		
Improvement District 125							
In Farms	152,100	203,022	200,862		214,602[2]	41	275,000
Improved	82,211	88,234	100,146		126,747		170,000
In Crop	54,503	67,006	76,380	40	94,209		
Improvement District 128							
In Farms	N.A.	1,216	N.A.		881[4]		2,000[3][5]
Improved	N.A.	397	N.A.		-[4]		-
In Crop	N.A.	98	N.A.		-[4]		-
Improvement District 129							
In Farm	N.A.	N.A.	1,791		2,953		6,000[3]
Improved	N.A.	N.A.	726		1,696		4,000
In Crop	N.A.	N.A.	669		851		
Total							
In Farms	202,292	259,876	252,145		285,684		367,000
Improved	96,721	107,875	121,615		153,770		210,000
In Crop	66,662	80,209	91,953		109,269		160,000

During the fifteen year period 1951-1966, land in farms increased 39% while improved acreage increased 49%.

N.A. - Not Available

1 Dominion Bureau of Statistics

2 Annual Report, 1966, Alberta Department of Municipal Affairs, Edmonton, p. 331

3 Estimate

4 Data for two farms is included in I.D. 129

5 Included in I.D. 129

8. Number of Farms. The number of farms in the area was almost the same for 1961 and 1966 (Table VI-5), while the number of commercial farms decreased 40%. The drop in commercial farm numbers appears to be due largely to a redefinition of commercial farms by Dominion Bureau of Statistics. In 1961, commercial farms were defined as those which grossed $1,200 in farm sales, while in 1966, commercial farms were defined as those which grossed $2,500. In classifying farms, D.B.S. considers the value of agricultural product sales, the number of days the farm operator worked off the farm, and the proportion of farm to non-farm income received during one year. Table VI-5 shows the number of farms by size for I.D.'s 124 and 125. The size of farms in I.D. 128 and I.D. 129 has not been described, due to the very low numbers involved. The numbers of farms by farm size is shown in Table VI-6.

TABLE VI-5

NUMBERS OF FARMS

LESSER SLAVE LAKE AREA

	1951	1956	1961	1966
Improvement District 124				
Commercial	N.A.	N.A.	133	101
Total	279	259	210	196
Improvement District 125				
Commercial	N.A.	N.A.	298	193
Total	514	590	480	489
Improvement District 128				
Commercial	N.A.	N.A.	-	-
Total	N.A.	2	-	2
Improvement District 129				
Commercial	N.A.	N.A.	3	3
Total	N.A.	N.A.	5	6
TOTAL: Area farms	793	851	695	693
TOTAL: Commercial farms	N.A.	N.A.	434	297

TABLE VI-6

FARM SIZES

	Improvement District 124				Improvement District 125			
	1951	1956	1961	1966	1951	1956	1961	1966
Less than 3 acres	39	33	19	18	-	-	2	1
3 - 9	50	29	38	35	3	4	1	-
10 - 69	29	25	28	25	4	2	2	1
70 - 239	72	86	46	37	209	233	125	113
240 - 399	50	49	42	28	183	213	171	155
400 - 559	19	21	15	23	67	68	86	89
560 - 759	8	9	7	14	31	31	36	52
760 - 1,119	3	3	10	11	22	24	36	48
1,120 - 1,599	1	2	3	3	8	6	15	22
1,600 - 2,239	-	-	1	2	2	7	5	6
2,240 - 2,879	-	1	1	-	-	2	-	1
Over 2,880	1	1	-	-	-	-	1	1
Average farm size in acres	185	215	236	268	293	344	418	468

9. Number of Farms by Sales. Farmers retain 30 to 40% of the gross farm sales as family income. On this basis, the $5,000 to $9,999 range in Table VI-7 become the marginal grouping in which farmers would likely earn $3,000 per year for their families after paying for all the farm operating expenses. In 1966, 36% of the total farms and 70% of the commercial farms in I.D. 124 had this earning power. In I.D. 125, 21% of the total farms and 53% of the commercial farms had this earning power in 1966. The better position of farmers in I.D. 124 is due to the inclusion of mink ranchers in the total farm numbers. Since the costs of production are different for mink ranchers than they are for other agricultural enterprises, there is a separate section in this article dealing with mink ranching.

TABLE VI-7

NUMBERS OF FARMS BY FARM SALES

	I.D. 124			I.D. 125			I.D. 128		I.D. 129	
	1956	1961	1966	1956	1961	1966	1956	1966	1961	1966
Small Scale farms										
Less than $250	N.A.	31	27	N.A.	56	93	-	-	-	-
$250 - 2,499	N.A.	86	68	N.A.	244	203	-	2	4	3
Commercial farms										
$ 2,500 - 4,999	N.A.	37	30	N.A.	106	90	-	-	-	3
5,000 - 9,999	N.A.	36	29	N.A.	61	74	-	-	1	-
10,000 - 14,999	N.A.	11	9	N.A.	10	19	-	-	-	-
15,000 - 24,999	N.A.	4	22	N.A.	3	6	-	-	-	-
25,000 and over	N.A.	4	11	N.A.	-	4	-	-	-	-
Total commercial	N.A.	93	101	N.A.	180	193	-	-	1	3
Total farms	259	210	196	590	480	489	2	2	5	6

10. Classification of Farms by Sales. In 1966 farms with sales over $2,500 were classified by D.B.S. as 'commercial'. The Table below shows the numbers of commercial farms categorized by amount of farm sales.

TABLE VI-8

FARMS CLASSIFIED BY FARM SALES

		Alberta		C.D. 15		L.S.L. Area	
		No.	% of Comm. Farms	No.	% of Comm. Farms	No.	% of Comm. Farms
1961:	2,500- 4,999	19,017	42	2,374	59	143	52
1966:	" - "	13,862	28	1,960	41	77	39
1961:	5,000- 9,999	15,976	35	1,328	33	98	36
1966:	" - "	17,117	35	1,776	37	63	32
1961:	10,000-14,999	5,076	11	198	5	21	8
1966:	" - "	8,012	16	612	13	21	11
1961:	15,000-24,999	3,155	7	71	2	7	3
1966:	" - "	5,909	12	358	7	24	12
1961:	Over 25,000	1,979	5	21	1	4	1
1966:	" "	4,071	9	118	2	13	6
Total Commercial Farms			% of Total Farms		% of Total Farms		% of Total Farms
1961		45,203	61	3,992	45	273	39
1966		48,971	71	4,824	54	198	29
Total Farms							
1961		73,212		8,955		697	
1966		69,411		8,868		691	

11. Farm Size - Labour. The labour requirements shown in Table VI-9 may be substantially reduced by changing the level of technology such as the use of more or bigger machines. There are, currently, farmers in the area operating units considerably larger than those shown above, indicating the possibilities for further farm growth.

TABLE VI-9

FARM SIZE BASED ON 3,000 HOURS OF LABOUR

30 dairy cows	@	100	hours per	cow
750 acres of wheat, oats or barley	@	4	" "	acre
200 beef cows	@	15	" "	cow
600 ewes	@	5	" "	ewe
375 yearling steers	@	8	" "	head
750 hogs	@	4	" "	hog
3,000 hens	@	1	" "	hen

12. Livestock Production. Tables VI-9 and VI-10 show time series on livestock production and size of livestock enterprises respectively.

TABLE VI-10

LIVESTOCK PRODUCTION

	1951	1956	1961	1966
Improvement District 124				
Milk cows	579	357	287	136
Other livestock	1,060	2,314	2,649	3,466
Pigs	1,181	1,639	2,568	453
Sheep	363	440	518	263
Poultry	11,887	14,548	12,973	7,662
Improvement District 125				
Milk cows	1,117	737	769	427
Other livestock	2,198	5,928	7,567	10,794
Pigs	6,611	6,644	7,553	3,769
Sheep	646	850	783	411
Poultry	27,300	32,175	29,643	23,908
Improvement District 128				
Milk cows	N.A.	21	N.A.	1
Other livestock	N.A.	81	N.A.	378
Pigs	N.A.	33	N.A.	120
Sheep	N.A.	-	N.A.	-
Poultry	N.A.	210	N.A.	-
Improvement District 129				
Milk cows	N.A.	N.A.	5	-
Other livestock	N.A.	N.A.	69	-
Pigs	N.A.	N.A.	74	-
Sheep	N.A.	N.A.	-	-
Poultry	N.A.	N.A.	51	-

TABLE VI-11

SIZE OF LIVESTOCK ENTERPRISES

C.D. 15

	1956	1961	1966
Cow and heifers milked (or to be milked)	14,638	13,343	9,081
Farms reporting	4,684	3,998	2,781
Dairy cows per farm reporting	3.1	3.3	3.3
Beef cows - 2 yrs. and over	24,841	36,477	58,789
Farms reporting cattle	3,409	3,235	3,184
Cows per farm reporting	7.3	11.3	18.5
Sows - 6 months and over	28,070	12,935	8,035
Sow to pig ratio	N.A.	1 : 8.8	1 : 7.4
Farms reporting	4,566	3,104	2,610
Sows per farm reporting	6.2	4.2	3.1
Sheep on farms	11,010	20,071	11,367
Farms reporting	473	487	287
Sheep per farm reporting	23.3	41.2	39.6

13. Crop Production. Table VI-12 shows crop production for I.D.'s 124, 125, 128 and 129. Hay, barley and rapeseed production increased in the area during the period 1951 to 1961, while oats production has shown a decline. Wheat production has increased in the most recent five year period. Other crops include rye, flax, mixed grain, corn and potatoes.

TABLE VI-12

CROP PRODUCTION
(in acres)

	1951	1956	1961	1966
Improvement District 124				
Wheat	1,983	1,587	1,826	2,101
Oats	5,443	4,580	4,198	1,730
Barley	3,406	4,758	4,593	2,647
Rapeseed	-	N.A.	575	2,112
Other crops	260	419	115	930
Hay	990	1,477	3,444	4,741
Improvement District 125				
Wheat	9,917	4,465	5,003	12,495
Oats	13,516	9,170	10,722	6,334
Barley	25,861	44,229	43,266	38,789
Rapeseed	-	N.A.	1,716	9,553
Other crops	758	1,636	1,665	5,264
Hay	4,850	7,499	13,487	20,948
Improvement District 128				
Grains	-	56	N.A.	N.A.
Hay	-	41	N.A.	N.A.
Improvement District 129				
Wheat	N.A.	N.A.	75	-
Oats	N.A.	N.A.	54	16
Barley	N.A.	N.A.	89	141
Other crops	N.A.	N.A.	128	302
Hay	N.A.	N.A.	323	232

14. Mink Ranching. Mink ranches are included in the agricultural census by the Dominion Bureau of Statistics. As a group, then, the mink ranchers have been considered with other kinds of farmers in the agricultural section of this report. Since mink ranching, however, involves very small amounts of soil resources, it is sometimes considered as a non-agricultural enterprise. For this reason, and because it comprises a large portion of farming in I.D. 124, mink ranching is given separate attention.

TABLE VI-13

MINK RANCHERS IN LESSER SLAVE LAKE AREA[1]

Location	No. of Ranchers			No. of Mink		
	1966 (Aug. 31)	1967-1968	% Change	1966 (Aug. 31)	1967-1968	% Change
Canyon Creek	24	14	- 41	19,314	19,260	
Kinuso	9	5	- 44	3,571	1,609	
Faust	24	16	- 33	21,674	17,559	
Slave Lake	9	5	- 44	6,535	44,505	
Joussard	29	14	- 52	12,985	8,394	
Widewater	35	32	- 8	42,697	1,609	
	130	86	- 34	106,776	92,936	- 13

15. Since the table above was prepared, additional mink ranchers have closed their operations, but no estimates are available of the number of departures from the industry.

16. Impact of Mink Ranching. The sale of mink pelts returned nearly $1,000,000 to the mink ranchers in the 1967-1968 season. Mink rations consist of 60-70% fish and animal by-products. The industry uses approximately 5,000,000 pounds of fish annually. Lesser Slave Lake has produced this amount of fish, primarily tullibee, in recent years. At 4¢ per pound, this adds $200,000 in income to the area. The total impact at a primary level amounts to approximately $1.2 million. Mink ranching is an important industry in the area because of a substantial contribution to the gross regional product and because of the multiplier effect of income injection at the primary level.

1 Data provided by Robert W. Gilles, Supervisor, Alberta Fur Farms Branch, Edmonton.

17. Educational Level in the Rural Sector. The educational level of the labour force in the rural sector of the area is low. Approximately three out of four people (75%) have not attained more than an elementary school education. This compares to less than one in two (43%) for the province of Alberta. The number of rural residents completing elementary education is 29% lower for the Lesser Slave Lake area than it is for Alberta. This indicates a need for additional emphasis on education if the rural people of the area are to be competitive in vocational skills and management ability presently demanded.

TABLE VI-14

EDUCATION LEVEL OF RURAL POPULATION
(not attending school)[1]

1961

	I.D. 124	I.D. 125	I.D. 128	I.D. 129
No school	487	790	95	178
- under 5 years	320	489	N.A.	N.A.
- older residents	167	301	N.A.	N.A.
Pre-school	4	-	-	-
Elementary (1-4 years)	181	319	50	104
Elementary (5-8 years)	485	740	18	70
Elementary (9-10 years)	200	281	2	6
Elementary (11-12 years)	105	181	3	5
University (1-2 years)	17	22	-	2
University (2-3 years)	7	5	-	4
University (Degree)	5	3	-	-
Total Population	1,491	2,341	73	191
- less those under 5 years	320	489	N.A.	N.A.
Net Total	1,171	1,852		
Per cent of non-attenders (minus 5 year olds) who have less than Grade 8 education	71%	73%	N.A.	N.A.

1 Alberta Bureau of Statistics - Special tabulation. The figures in the table include small hamlets such as Driftpile and Enilds in I.D. 124.

604. FORESTRY

1. Lumbering activity in the Lesser Slave Lake area began in the late 1800's, mainly to supply local construction needs. From 1912 to 1915, construction of the N.A.R. along the south edge of the lake created a demand for ties which were produced from lumber in the area. This rail link ensured the establishment of a continuing lumbering industry in the area by the creation of a transportation link to major centres.

2. Since 1956, timber production in the total area has varied from 70 to 100 MM fbm per year. From 1954 to 1959, the average annual cut amounted to 78.0 MM fbm. From 1960 to 1966, the average annual cut was almost the same at 78.8 MM fbm.

3. However, these average annual production figures do not show the changes within the region and the corresponding effects on the towns and villages. The following outlines these changes and provides an indication of the direction of future growth in the area.

4. Timber production by management unit is shown in Table VI-15. The figures include both coniferous and deciduous species and refer to the total which was 'logged' in the area. The map on Page 6-19 outlines the management unit boundaries.

TABLE VI-15

TIMBER PRODUCTION BY MANAGEMENT UNIT

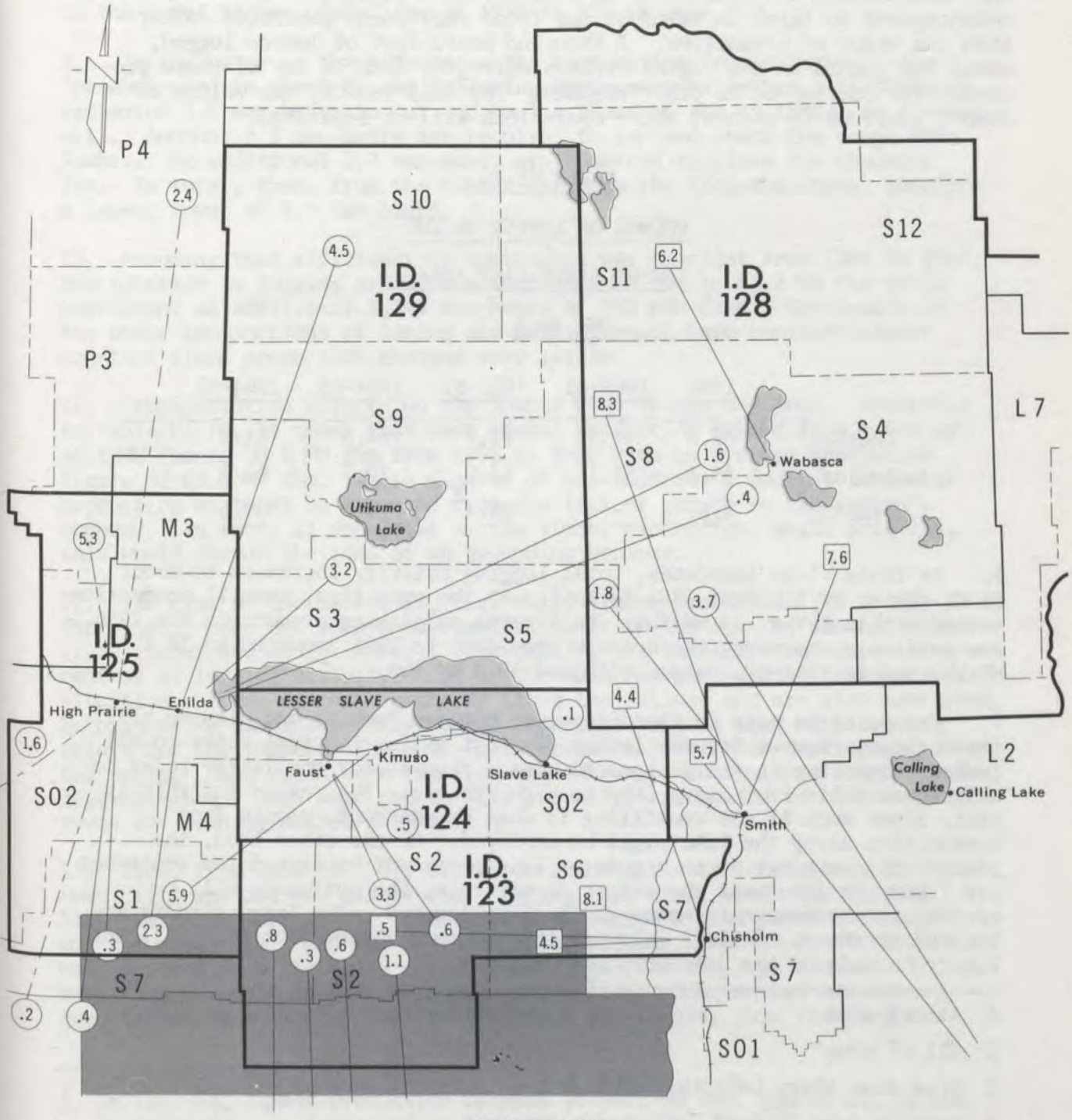
	1956[1]	1960-61[2]	1962-63	1964-65	1966-67
S 1	5.1	11.3	27.3	31.5	17.4
S 2	19.5	8.0	4.2	8.8	7.8
S 3	3.0	3.2	5.0	6.3	7.8
S 4	-	-	4.1	6.3	6.3
S 5	11.1	13.9	13.7	15.9	11.4
S 6	30.3	26.8	12.9	10.1	13.0
S 8	-	0.7	1.4	3.5	9.5
S 10	-	-	1.8	-	3.5
Sub-Total	69.0	63.9	70.4	82.4	76.7
S02	-	3.5	8.3	2.1	4.5
Total	69.0	67.4	78.7	84.5	81.2

1 Calendar year

2 Fiscal years

MOVEMENT OF LOGS OR ROUGH LUMBER TO PLANER MILLS

REGIONAL ECONOMIC EXPANSION CANADA
EXPANSION ÉCONOMIQUE RÉGIONALE CANADA



REFERENCE

Whole log operations, in millions of f.b.m. ○ — Logs sawn in bush, in millions of f.b.m. □

Forest management district. S 2 — MacMillan-Bloedel Reserve area. ■

5. Product Mix or Make-up of Timber Production. The significance of the above figures as they relate to the region's growth can best be shown by summarizing some of the past developments affecting the forest industry. When considering the effects of an industry on a region, it is advantageous to think in terms of the total employment generated rather than the value of production. A thousand board feet of lumber logged, sawed and planed in the region creates more jobs than if any of these processes are carried on in other regions. For this reason, the volume of lumber involved in each of these operations will be separated.

TABLE VI-16

VOLUME OF LUMBER IN THE

LESSER SLAVE LAKE AREA

(MM fbm)

	1956	1960-61	1962-63	1964-65	1966-67
Logging[1]	69.0	67.4	78.7	84.5	81.2
Sawing[2]	65.8	56.1	63.0	70.5	61.6
Planing[3]	N.A.	-	38.4[4]	-	39.5

6. As Table VI-16 indicates, total logging activity increased to about 81 MM fbm or by 15% from 1956 to 1966. At the same time, sawmill production varied within 10% of 63 MM fbm. No figures on planing production for 1956 are available; however, the average from 1960 to 1965 amounted to 38.4 MM fbm and in 1966-67, output totalled 39.5 MM fbm.

7. One point to note is the difference between sawmill and planing mill production. Figures for the former (as well as for logging) refer to all lumber rough sawn in the designated area: figures for the latter refer to only those mills from Slave Lake to High Prairie. The reason for this is that, since much of the sawmilling is done by contract, people from communities along the lake might be employed. On the other hand, the planer mills are set up on a more or less permanent basis and the employees are likely to live near the site. At any rate, the influence will be centred in the community where the mill is located. Two large planers are located southeast of Slave Lake and the economic impact from them will not likely be felt in the lakeshore communities.

1 All of area

2 All of area

3 Area from Slave Lake to High Prairie

4 Average from 1960-65

8. The difference between the logging and sawing figures arises because of the logging berths which supply logs to plywood plants in Edmonton.[1] Another reason is that small amounts of timber have been (and are) cut for posts, poles and pulpwood. Timber cut for the plywood mills rose from 4% of the total timber production in 1956 to 22% in 1966.

9. An indicator of the effects on the communities from changes in the 'product-mix' is given by the following employment estimates. It takes an estimated 3.8 man-hours to cut and haul a thousand fbm of timber to a sawmill. Another 2.5 man-hours are required to saw and stack the rough sawn lumber. An additional 2.7 man-hours are required to plane the thousand fbm. In total, then, from the timber state to the finished state, requires a labour input of 9.0 man-hours.

10. Assuming that efficiency of operations was constant from 1960 to 1966, the increase in logging production from 67.4 MM fbm to 81.2 MM fbm would have meant an additional 5,244 man-hours or 655 man-days. Employment in the other two sections of sawing and planing would have remained almost constant since production changed very little.

11. Transportation Effects on the Timber Flow Within the Area. Referring to Table VI-16, it shows that sawn lumber production varied from a low of 56.1 MM fbm to 70.5 MM fbm from 1956 to 1966 with an average production figure of 63.0 MM fbm. These figures do not indicate a decline in lumber production as might be expected from the lack of growth in the region's economy. In fact, if one looks at the timber production, which rose 15%, this would favour the idea of an expanding economy.

12. The crux of the matter is, that while timber production (in total) increased, there has been a substantial shift in the flow of raw materials (i.e. timber and rough lumber). Previously, the lakeshore communities were centres of logging activity. One of the main reasons was the transportation situation. These centres sprang up along the railway and are also connected by highway to Edmonton. They became important because they were loading points for the lumber. The Swan Hills formed a barrier to development from the south. Haul roads were cut from the lakeshore communities south to the logging sites. Logs were cut on site (usually) and hauled to one of these towns for planing and/or shipment.

13. Then, from 1956 to 1961, oil exploration activity intensified in the Swan Hills and oil was discovered. During this time, roads and seismic lines were cut through the forest and soon formed a grid pattern throughout the area. This had two or three major effects. Access to the forest was improved from the south side and no longer did the logs necessarily have to move north to the lakeshore communities. Substantial amounts of good timber were slashed out for the roads and trails, thus reducing the

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1 In 1967-68, timber production dropped to 68.1 MM fbm, almost all of the decrease due to closure of an Edmonton plywood mill.

potential cut by an estimated 10 to 12%. Another indirect problem which occurred was that, with the population increasing in the area, forest fires became a more serious problem. From 1956 to 1961, an average of 80% of the forest fires were caused by man. Causes of fires ranged from smoking and campfires to industrial and lumbering activity. The large total burn during the period, combined with the large fire in 1953, resulted in a reduction of the potential cut. In 1967-68 over 800,000 acres were burned.

TABLE VI-17

FOREST FIRES - SLAVE LAKE DISTRICT

Fiscal Year	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
No. of forested acres burned in 000's of acres	75.0	1.0	1.0	56.0	3.4	21.0	5.6	1.1	18.6	0.3	0.8	0.9	0.1	1.5

14. Government Regulation. Prior to 1965, licences were sold to operators which permitted them to cut a certain quantity of timber from a given area. This system did not encourage a sustained yield and, in 1965, the quota system was implemented.

15. The most significant point of the quota system was that each management unit had a quota cut established which would result in a sustained yield of timber.

16. By the time this was introduced, a number of areas on the south shore of the lake had been over-cut. For example, in 1956 in management unit S6, production was 30.3 MM fbm; in 1960, 26.8 MM fbm; in 1964, 10.1 MM fbm; and 13.0 MM fbm for 1966. Consequently the operators in the areas received quota cuts which were considerably smaller than what they had been cutting in prior years. Compounding this situation was the presence of the MacMillan Bloedel Lease and Reserve areas (see Map on page 6-19). The timber rights in this area were set aside prior to 1965 as one of the conditions necessary for the construction of a pulp mill near Whitecourt. While a number of operators are presently logging raw timber from the lease and reserve areas, there is little chance for increased quotas being sold in the special area. A number of operators in this reserved area are headquartered along the lake and this limit to expansion has seriously affected their economic viability.

17. Efficiency. One other important influence has been the change in the general level of efficiency in the forest industry. Power saws have replaced hand saws, newer saw mills and larger trucks have been introduced and the net result has been a lower labour requirement per thousand board feet. As noted previously, total timber production increased slowly from 1956 to 1966. To maintain the same level of employment meant that output would have had to rise by a larger percentage than the increases in efficiency. It is estimated that the efficiency in logging increased by 25%; that of saw milling by 50-100%; and that of planing by 40-50%. Therefore, in order to maintain the same total level of employment, output in each of the three operations would have had to increase by at least the same percentages. Table VI-18 below summarizes the employment effects.

TABLE VI-18

EMPLOYMENT CHANGES DUE TO EFFICIENCY INCREASES

	Output Increase	Estimated change in efficiency	Change in Employment
Logging	18%	25%	Decrease
Sawing	Constant	50-100%	Decrease
Planing	Constant	40-50%	Decrease

18. The employment decreases would be most noticeable in the sawmilling sector, followed by the planing sector and then the logging sector.

19. Consequences of Change. The result of the above variables was that logging and lumbering had to move to points other than Faust and Kinuso or other points on the lake. A large sawmill-planermill complex is located at Smith. This is mainly supplied with timber from management units S4 and S5. Another large sawmill-planermill is located at Chisholm. Timber for this mill is cut from S5 and S6. Most of the timber cut south of Canyon Creek is sent to Smith or Chisholm for sawing and planing.

20. At the other end of the lake, there are two planer mills at Enilda and two at High Prairie. Timber for these mills is supplied mainly by contract bush mills in S1 and north of the lake in S3, S4, S8 and S10. Another large quota will be developed by the Wabasca Indian Band. This leaves the area south of the lake to consider. A planer mill at Kinuso receives about 1/3 of its rough lumber from the area and the remaining 2/3 from around High Level. One other operator has a quota south of Faust and operates a small sawmill and planer in the hamlet.

21. The total quota cut not committed to either the east or west ends of the lake, and within an economical hauling distance, amounts to 11.1 MM fbm. Presently, this is divided among four different operators, two of which account for 9.8 MM fbm.

605. RECREATION AND TOURISM

1. The Lesser Slave Lake area has a number of natural features which could provide a basis for major recreational developments. A brief outline of these is presented in the following paragraphs.

2. Water-based Recreation. Table VI-19 summarizes the quality and quantity of lake shoreline available for development in the central part of the area and includes lakes north of township 80 such as North Wabasca, Graham and Peerless.

TABLE VI-19

MILES OF SHORELINE BY CLASS

IN THE LESSER SLAVE LAKE AREA

	In Miles	
	Area Shoreline	Lesser Slave Lake Shoreline
Class 1	9.0	8.0
Class 2	9.6	5.0
Class 3	59.0	35.0
Class 4	59.0	17.2

3. Class 1 shoreline is the highest quality resource, Class 2 shoreline requires minor improvements to realize potential, Class 3 requires fairly significant improvements and Class 4 requires major capital inputs to realize potential. The last two classes lend themselves to cottage and boating activities, while the first two classes are suitable for swimming as well.

4. The same natural conditions which formed the Class 1 beaches on Lesser Slave Lake are also a detriment to development, that is, the prevailing west winds create currents from west to east in the lake, and this tends to build up sand deposits on the southeastern edge. These winds can quickly churn up very rough water which makes boating dangerous and swimming unpleasant.

5. The biggest obstacle to development is the distance problem and the lack of a paved road all the way into the area. The area is too far from Edmonton (taking the existing road into consideration) to attract week-end visitors, and does not have the facilities to attract holidayers. Once the highway is paved to High Prairie from Slave Lake, there should be an increase in traffic which should, in turn, result in increased knowledge of the recreational potential and subsequently, increased use.

6. Sports Fishing. The area including Lesser Slave Lake and to the north, contains a number of lakes which abound with pike, pickerel, and lake whitefish. Lake trout are found in a few of these lakes as well. The major obstacle to any sports fishery development is the lack of good access roads. In addition, the area south of Lesser Slave Lake has few large lakes. However, trout and mountain whitefish are found in a network of the creeks and rivers throughout the region. Access to these creeks and rivers in the south is fairly good since oil exploration has been underway there for the past ten years.

7. Big Game Hunting. Large populations of moose are present in the area and have been lightly harvested during past years. In 1967, a program to attract non-resident moose hunters was undertaken by the Fish and Wildlife Division, with the result that 10,000 non-resident hunters came to Alberta. It was evident that guiding, camping and other facilities were not adequate to handle this large influx.

8. The estimated moose population in the area south of Lesser Slave Lake is 5,600 while in the northern part of the area the population is estimated at 11,700. The annual harvest in the former area is estimated to be 1,400 while in the latter, 2,900. Based on expenditure surveys from 1967, the harvest of 4,300 animals would involve the expenditure of from $860,000 to $1,376,000; perhaps 50% of this within the area.

9. There are small populations of deer, elk, and caribou in the area as well as fairly large numbers of bear. Grizzly bears are also present but these have been protected for the last few years as they are the last survivors of a particular species.

10. Bird Hunting. At the present time, the inventories of upland birds are very high. However, these populations follow a ten year cycle which is presently at its peak. In one or two years, the populations will decrease rapidly.

11. The area offers fairly good duck hunting, especially for canvass backs and redheads. Utikuma Lake is a staging ground for these birds so that from 250,000 to 500,000 ducks congregate there in the fall for the flight south. Mallards and geese are also present in relatively small numbers.

12. Present tourist facilities are summarized in Table VI-20.

TABLE VI-20

ACCOMMODATIONS IN LESSER SLAVE LAKE AREA

	Hotels		Motels	
	No.	Rooms	No.	Units
Slave Lake	1	24	6	49
Faust	1	16	-	-
Kinuso	1	22	1	Closed
Canyon Creek	1	12	-	-
High Prairie	2	56	2	33
Swan Hills	1	18	1	20

13. The following is a list of camping facilities:

(a) Lesser Slave Lake Provincial Park.

(b) Lands and Forests Recreation Areas - Wabasca, Snipe Lake, Freeman Lake.

(c) Department of Highways Campsites - five roadside camping areas.

14. Summary. The area has excellent potential for recreation and tourism. In the former instance, the resource is being lightly utilized by big game and bird hunters and sports fishermen. The latter resource has been neglected almost entirely. Whether a significant rise in the demand for these resources can be stimulated by better access facilities and advertising remains a question.

TABLE VI-21

ALBERTA FISHERIES

YEAR	($'000) VALUE LANDED	NO. OF PERMITS[1]	$ VALUE/PERMIT
1960	1,158.2	5,730	202
1961	882.8	5,422	162
1962	713.6	4,563	156
1963	676	5,117	132
1964	799	4,211	189
1965	677	4,507	150
1966	844	4,360	193
1967	758	4,750	159
1968	917	4,758	193
1969	935		
1970			

1 One permit for one man to fish one lake

TABLE VI-22

FISHERIES

SPECIAL AREA: LESSER SLAVE LAKE

YEAR	($'000) VALUE LANDED	NO. OF PERMITS	$ VALUE/PERMIT
1960	384.8	391[1]	984
1961	524.8	826	635
1962	322.5	775	416
1963	319.3	626	510
1964	282.6	539	524
1965	311.0	555	560
1966	241.4	504	479
1967	277.1	511	542
1968	235.2	573	410
1969	308.5	300[2]	1,028
1970	351.1	341[3]	1,030

1960-67 - license fee of $5,00 per lake fished
1968 - license fee of $50.00 for any lake in a zone or $15.00 to fish in one lake in zone when lake is open

i.e. - up until 1968, one fisherman could have five or ten licenses and be counted five or ten times as a worker employed
- after 1968, only one license was necessary to fish any number of lakes, so each fisherman was counted only once
- this shows up when considering zones, not under our lake-by-lake analysis.

1 N/A for Calling Lake, Fawcett Lake and Sturgeon Lake

2 N/A for Muskwa Lake

3 N/A for Snipe Lake

TABLE VI-23

MINERAL FUELS AND QUARRIES

SPECIAL AREA: LESSER SLAVE LAKE

VOLUME OF OUTPUT

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
MINERAL FUELS - $000											
Crude Oil Barrels	3,419.1	3,857.0	3,318.7	4,168.3	5,519.0	9,269.4	15,084.0	17,921.3	18,733.8	25,395.3	31,901.3
Petroleum and Gas Natural Gas - MMscF	3,136.3	3,597.4	3,299.4	3,960.9	4,222.4	6,183.8	9,040.6	10,070.9	10,393.0	17,793.3	53,846.9
Oil Shale and Bituminous Sand Pits											
QUARRIES AND SAND PITS											
Stone Quarries - cu. yds.	749,637	612,714	423,244	80,211	380,041	323,591	259,417	436,919	282,469	208,307	210,207
Sand Pits - cu. yds.	-	-	60,890	66,837	53,430	39,329	-	-	-	129,354	76,150

VALUE OF OUTPUT

MINERAL FUELS - $000											
Crude Oil Barrels	8,182.1	9,234.9	7,936.1	10,116.5	13,439.0	22,074.7	38,367.6	45,841.0	48,147.6	66,899.6	84,299.2
Petroleum and Gas Natural Gas											
Oil Shale and Bituminous Sand Pits											

MMscF - 1,000,000 cu. ft.

TABLE VI-24

OIL AND GAS FIELDS IN LESSER SLAVE LAKE AREA

Oil Fields

Red Earth
Lubicon
Loon Lake
Utikuma Lake
Nipisi
Nutsue
Meekwap
Snipe Lake
Sunset
Sturgeon Lake South
Sturgeon Lake
Gilwood
Senese
Swan Hills C
Bellay

in Whitecourt area*

Swan Hills South
Ethel
Judy Creek
Judy Creek South
Carson Creek North
Virginia Hills
Freeman

Gas Fields

Marten Hills
McMullen
Pelican
Francis
Calais
Sexsmith
Woking
Rycroft
Eaglesham
Neart River
Bellay

in Whitecourt area*

Carson Creek
Whitecourt

* Note:

Those fields in Whitecourt area have not been added into the Special Area totals as Whitecourt was to be dropped from the area.

The fields are listed under their primary resources but they will often be producing both gas and oil so that both must be checked.

60D. DATA SOURCES - NATURAL RESOURCES

1. Information on Fisheries was gathered from D.B.S. publication 24-212, but material acquired from the Province of Alberta proved to be more accurate and appropriate, and this information comprises most of what is presently available. Information was also obtained from the "Analysis of Resources in Alberta's Lesser Slave Lake Area".

2. The information on oil and gas came from a Summary of Monthly Statistics Alberta Oil and Gas Industry and the above publication on resources.

3. Information on livestock and farming was obtained from summaries of the Canadian Wheat Board and the above analysis on resources.

4. Information on forestry and recreation was amalgamated from provincial publications and the above analysis on resources.

CHAPTER VII

INDUSTRY

CHAPTER VII

INDUSTRY

NOTE: Observations made in this Chapter are based upon Census year data only and include all of Census Divisions 13 and 15; this represents the only reliable data available at present.

701. NUMBER OF FIRMS

1. Between 1961 and 1966, the total number of firms in the study area declined from 157 to 146. There does not appear to be a trend in this decline, however: the five year period has experienced both increase and decline of short duration.

2. The wood industries appear to be responsible for a large part of the fluctuations which have occurred; for example, between 1964 and 1965, the number of firms in this group declined from 97 to 83 and this represented all but one of the total firms which disappeared in the same period in the area.

3. After wood industries, the next largest group is food and beverage processing, almost half of which is dairy production. This group appears to be quite stable. Third in rank is non-metallic mineral processing, which seems to be in a slow state of decline.

4. Wood products firms in the area comprised over 1/3 of the total number of firms in that group in the Province. The 33 firms in the food and beverage group in 1966 represented only 7% of the Provincial group total, although the 15-firm dairy component represented 14% of the Provincial total. Non-metallic mineral processing in the area represented 11% of the total number of firms of that group in the Province. In terms of total numbers of firms, the area comprised 9% of the Provincial total.

5. Details are given in Tables VII-1,-7,-8 at the end of the chapter.

702. VALUE OF OUTPUT

1. Value of output in the area rose 33% between 1961 and 1966, from $21 million to $26.9 million.

2. Of the 1966 total of $26.9 million, wood products accounted for 63% or $16.8 million. Food and beverage processing had a total 1966 output value of $6.9 million, 26% of the Provincial total. Of the $6.9 million total, however, the dairy produce industries accounted for $5.1 million (73%).

3. Details are given in Tables VII-3,-4,-9,-10 at the end of this chapter.

703. NUMBER OF WORKERS

1. The number of workers in the area has fluctuated as a function of the number of firms. However, while over the 6-year period of 1961-1966 the number of firms declined, the number of workers rose slightly, from 1,234 in 1961 to 1,362 in 1966. This indicates some growth in the industrial base, when viewed in terms of the increase in output value of the firms. In manufacturing, 83% of the workers were employed in the wood processing group, which had the highest worker/firm rate. The second largest employer, the food and beverages group, had the lowest worker/firm rate.

2. Details are given in Table VII-2.

704. VALUE ADDED

1. Value added experienced a 48% increase between 1961 and 1966, rising from $8.3 million to $12.3 million in that period.

2. More details are given in Tables VII-5,-6.

705. VALUE ADDED AS A PERCENT OF VALUE OF OUTPUT

1. This factor increased moderately as a composite average between 1961 and 1966, and maintained a level of 46% from 1963 to 1966. The industries with the highest value added as a percent of value of output were wood products, printing and publishing and mineral products. The lowest was dairy products, with exactly half the composite average. Foods and beverages were generally low.

2. Details are given in Table VII-11.

TABLE VII-1

NUMBER OF FIRMS

Industry	1965	1966
Foods and Beverages	32	33
Dairy Products	15	15
Wood Industries	97	83
Furniture and Fixtures		4
Printing and Publishing	6 (only C.D. 15)	10 (includes C.D. 13)
Non-metallic Minerals	13	11
Miscellaneous	13	5

Total Number of Firms

1961	1962	1963	1964	1965	1966
157	153	152	162	161	146

N.B. - Addition of Number of Firms for 1965 and 1966 differs from Total Number of Firms due to an incomplete listing of individual firms.

TABLE VII-2

NUMBER OF WORKERS

Industry	1965	1966
Foods and Beverages	108	110
Dairy Products	60	59
Wood Industries	1,259	1,136
Furniture and Fixtures		1
Printing and Publishing	29	41
Non-metallic Minerals	58	53
Miscellaneous	33	21

Total Number of Workers

1961	1962	1963	1964	1965	1966
1,234	1,260	1,398	1,602	1,487	1,362

N.B. - Addition of Number of Workers for 1965 and 1966 differs from Total Number of Workers due to an incomplete listing of individual firms.

TABLE VII-3

VALUE OF OUTPUT ($000)

Industry	1965	1966
Foods and Beverages	6,413	6,948
Dairy Products	4,513	5,073
Wood Industries	17,712	16,872
Furniture and Fixtures		47
Printing and Publishing	520	729
Non-metallic Minerals	1,635	1,844

Total Value of Output ($000)

1961	1962	1963	1964	1965	1966
21,049	20,814	24,082	26,173	26,945	26,933

N.B. - Addition of Value of Output for 1965 and 1966 differs from Total Value of Output due to an incomplete listing of individual firms.

TABLE VII-4

VALUE OF OUTPUT/WORKER ($000)

Industry	1965	1966
Foods and Beverages	59.4	63.2
Dairy Products	75.2	86.0
Wood Industries	14.1	14.9
Furniture and Fixtures		47.0
Printing and Publishing	17.9	17.8
Non-metallic Minerals	28.2	34.8
Miscellaneous	20.2	23.5

Total Value of Output/Worker ($000)

1961	1962	1963	1964	1965	1966
17.1	16.5	17.2	16.3	18.1	19.8

N.B. - Arithmetic averaging of figures for 1965 and 1966 will not correspond to Total Value of Output/Worker percentage due to an incomplete listing of firms.

TABLE VII-5

VALUE ADDED ($000)

Industry	1965	1966
Foods and Beverages	2,060	2,101
Dairy Products	1,143	1,175
Wood Industries	8,767	8,357
Furniture and Fixtures		21
Printing and Publishing	371	531
Non-metallic Minerals	855	959
Miscellaneous	331	263

Total Value Added ($000)

1961	1962	1963	1964	1965	1966
8,540	8,061	10,233	12,152	12,384	12,232

N.B. - Addition of Value Added for 1965 and 1966 differs from Total Value Added due to an incomplete listing of individual firms.

TABLE VII-6

VALUE ADDED/WORKER ($000)

Industry	1965	1966
Foods and Beverages	19.1	19.1
Dairy Products	19.1	19.9
Wood Industries	7.0	7.4
Furniture and Fixtures		21.0
Printing and Publishing	12.8	13.0
Non-metallic Minerals	14.7	18.1
Miscellaneous	10.0	12.5

Total Value Added/Worker ($000)

1961	1962	1963	1964	1965	1966
6.9	6.4	7.3	7.6	8.3	9.0

N.B. - Arithmetic averaging of figures for 1965 and 1966 will not correspond to Total Value Added/Worker percentage due to an incomplete listing of firms.

TABLE VII-7

NUMBER OF FIRMS AS A PERCENT OF CANADIAN TOTAL

Industry	1965	1966
Foods and Beverages	.45	.48
Dairy Products	1.06	1.14
Wood Industries	2.31	2.12
Furniture and Fixtures		.18
Printing and Publishing	.17	.29
Non-metallic Minerals	.96	.80
Miscellaneous	.08	.03

Total Number of Firms as a Percent of Canadian Total

1961	1962	1963	1964	1965	1966
.47	.46	.46	.48	.48	.44

TABLE VII-8

TOTAL NUMBER OF FIRMS AS A PERCENT OF PROVINCIAL TOTAL

Industry	1965	1966
Foods and Beverages	6.8	6.9
Dairy Products	13.6	13.9
Wood Industries	36.5	32.2
Furniture and Fixtures		3.8
Printing and Publishing	2.8	4.9
Non-metallic Minerals	11.0	9.7
Miscellaneous	1.9	0.7

Total Number of Firms as a Percent of Provincial Total

1961	1962	1963	1964	1965	1966
9.8	9.1	9.0	9.3	9.1	8.2

TABLE VII-9

VALUE OF OUTPUT AS A PERCENT OF CANADIAN TOTAL

Industry	1965	1966
Foods and Beverages	.10	.10
Dairy Products	.43	.44
Wood Industries	1.19	1.06
Furniture and Fixtures		.01
Printing and Publishing	.05	.06
Non-metallic Minerals	.16	.16
Miscellaneous	.003	.002

Total Value of Output as a Percent of Canadian Total

1961	1962	1963	1964	1965	1966
.09	.08	.09	.08	.08	.07

TABLE VII-10

VALUE OF OUTPUT AS A PERCENT OF PROVINCIAL TOTAL

Industry	1965	1966
Foods and Beverages	1.25	1.19
Dairy Products	6.21	7.03
Wood Industries	30.37	20.95
Furniture and Fixtures		.29
Printing and Publishing	4.78	6.05
Non-metallic Minerals	2.04	2.13
Miscellaneous	.11	.07

Total Value of Output as a Percent of Provincial Total

1961	1962	1963	1964	1965	1966
2.25	2.05	2.22	2.19	2.10	1.88

TABLE VII-11

VALUE ADDED/VALUE OF OUTPUT ($000)

Industry	1965	1966
Foods and Beverages	.32	.30
Dairy Products	.25	.23
Wood Industries	.50	.50
Furniture and Fixtures		.45
Printing and Publishing	.71	.73
Non-metallic Minerals	.52	.52
Miscellaneous	.50	.53

Total Value Added/Total Value of Output ($000)

1961	1962	1963	1964	1965	1966
.41	.39	.42	.46	.46	.46

70D. DATA SOURCES - INDUSTRY

1. Most of the present information on industry in the Special Area has been compiled on the basis of the two census divisions - 13 and 15 - which comprise the area.

2. Total figures only for the number of firms, value of output, value added and number of workers for 1961 and 1964 were obtained from D.B.S. publication 31-209 (1964). Information on subsequent years in the above categories was taken from D.B.S. publication 31-209 for the years in question. Provincial totals are from D.B.S. publication 31-207, and Canadian figures, from 31-203.

3. The apparent inconsistency of some of the industry-worker ratios is due to the non-listing of administrative and supervisory personnel in the industries.

CHAPTER VIII

COMMUNITY ANALYSIS

(To be issued separately)