APPENDIX 5

Mackenzie
County

MACKENZIE COUNTY

The largest county in Alberta, with the corporate office located in Fort Vermilion, and sub-offices in High Level, La Crete and Zama City. With a population of 12,500[1] in 2019, it has Canada's highest share of children accounting for 35.7% of the population.[2]

There are two towns within the County: High Level and Rainbow Lake,[3] three Hamlets including Fort Vermilion, La Crete and Zama City, and several unincorporated communities including Buffalo Head Prairie, Blue Hills, Tompkins Landing, Rocky Lane, and Rural High Level. There are several First Nations communities within the Mackenzie Region. They are all party to Treaty 8 and are members of the North Peace Tribal Council (NPTC). These include:

- Beaver First Nation – a First Nations community that is made up by Boyer 164 and Child Lake 164A, two reserves northwest of Fort Vermilion. Beaver First Nation is governed by a Chief and four member Council and has a registered population of 1,027, over half of whom live off-reserve.
- Tallcree First Nation – a First Nations community that is made up by seven reserves surrounding the Fort Vermilion area, with their origins being traced back to Montana. Tallcree First Nation is governed by a Chief and four member Council and their population is 1,044 with over half living off-reserve.
- Little Red River Cree Nation – a First Nations community that is represented by a Chief and ten member Council and includes the Fox Lake, John D'Or Prairie, and Garden Creek reserves. Currently their population exceeds 5,000 people.
- Dene Tha' First Nation – meaning "common people," is a First Nations community divided into the Bushe River, Meander River and Chateh reserves. Dene Tha' is governed by an elected Chief and eight member Council. These communities have a population of approximately 1,800 people who live on the reserves and 600 who live off the reserves.

Compromising 12% of Alberta's landmass, an area just over 80,000 km² it is larger than the province of New Brunswick. The primary industries are agriculture, forestry and some tourism, with oil and gas playing a significant role in the region's economy. It holds 36% of the Peace Region's natural gas reserves, and 80% of its light-medium crude oil reserves.

Needs and Priorities

Table 144[4] identifies the Needs & Priorities of Mackenzie County based on the primary and secondary data collected, as well as the data gaps identified[5]. Three key themes offer specific identification of the needs and priorities within, specific data can be found in the following indicators of this section.

[1] http://www.mackenziecounty.com/about-us/demographics
[2] http://www.mackenziecounty.com/images/Census/2018_Census_Results_-_Mackenzie_County.pdf
[3] **Important note**: The Towns of High Level and Rainbow Lake have their own sections in this report so data for these two towns will not be found in this section.
[4] CMR Consulting Inc., Open House Data Collection, January 13th, 2020.
[5] **Important note**: The venue for the Open House is 250 kms one way from some of the areas of the County. Therefore, many of the comments collected here are very focused to their individual communities (predominantly Fort Vermilion and La Crete) and not the county as a whole. Furthermore, many of the respondents from the North side of the County have been captured and printed under the Towns of High Level and Rain Lake sections. There are many other hamlets and reserves in the County that is not necessarily reflected in these comments.

1. Improved community services are needed to support residents of the County, recent funding cuts from AHS and the provincial government have led to reduced access to medical and mental health care, forcing residents to travel long distances for childbirth, surgery, counselling – the majority traveling to High Level and some as far as Grande Prairie or farther at great costs (time, fuel, highway safety) and often with dangerous wait times. Mackenzie County has Canada's highest share of children (35.7%)[6] which creates a high demand for childcare services to support and retain many sectors (education, energy, forestry, healthcare, etc.).
2. Industry Growth and Sustainability is essential for the long-term wellbeing and sustainability of Mackenzie County's economy and population retention and growth. Agricultural incentives are needed to support local farms, engage youth in farming, and to diversify agricultural production. The need to diversify the economy beyond agriculture is essential, to promote other industries such as recycling, retail and tourism development.
3. Population Retention is essential to the sustainability of the County; the loss of professionals was repeatedly identified as a growing concern. Furthermore, the need to support and retain youth through educational opportunities and trades training will reduce external reliance on many industries. Finally, the need for inclusion of, and collaboration with, Indigenous communities in Mackenzie County are essential and will sustain strong community growth and well-being.

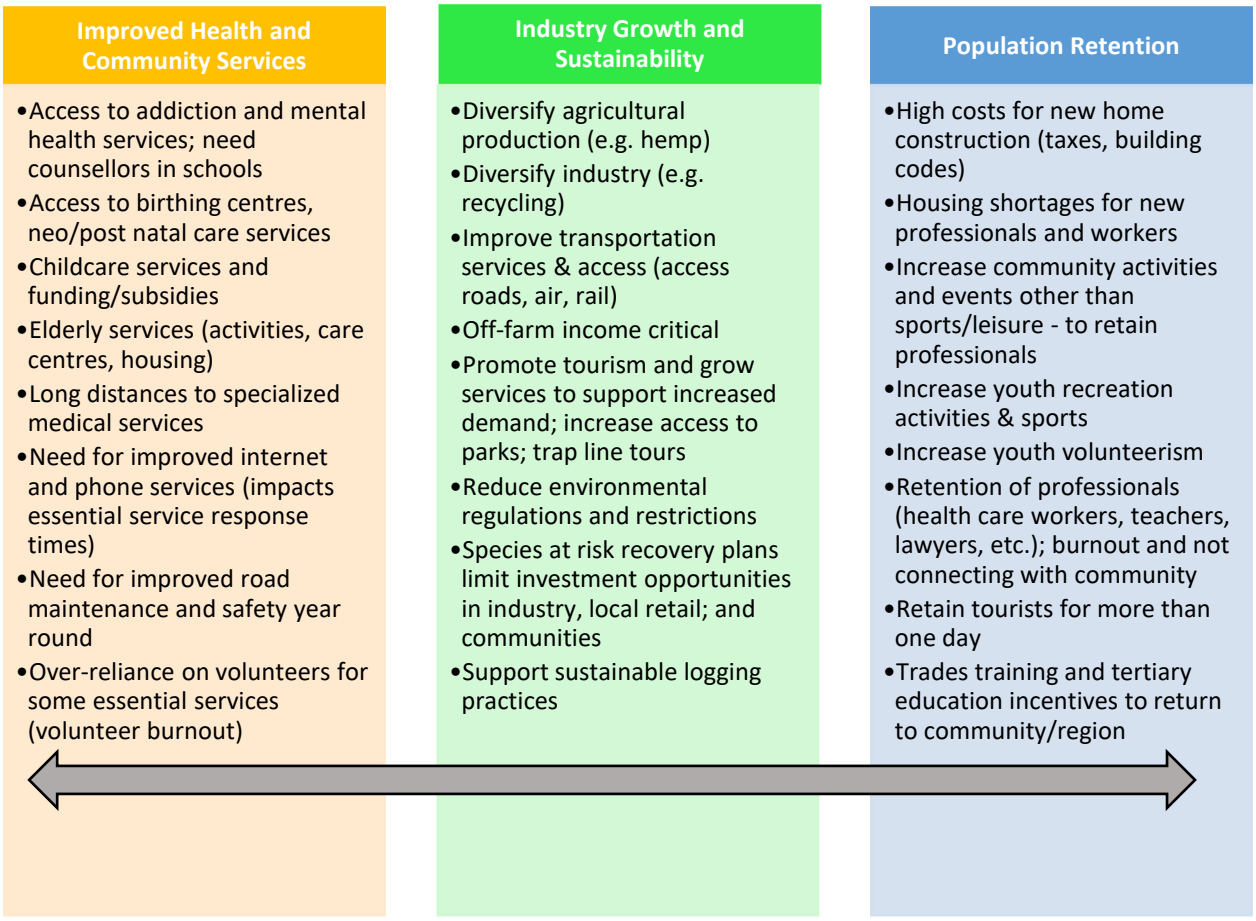

Table 144 Mackenzie County Needs and Priorities, 2020.

[6] https://www.mackenziecounty.com/images/Census/2018_Census_Results_-_Mackenzie_County.pdf

During the previous five years, Mackenzie County has had reports prepared related to municipal development, sustainability and economic development. In these documents key goals, priorities and opportunities for the County and its various communities have been identified.[7] Table 145 highlights the objectives and goals in each document.

Development Category	Objectives
General Development	○ Accommodate growth and development that is orderly, meets County guidelines and standards, and enhances Mackenzie County. ○ Maintain rural character of the County. ○ Involve the community in the planning process. ○ Ensure an adequate and suitable land base exists to accommodate Hamlet growth.
Agriculture	○ Preserve better agricultural land for agricultural land uses. ○ Encourage the diversification and sustainable intensification of agricultural practices. ○ Minimize the impact of non-agricultural uses on existing agricultural objectives. ○ Accommodate the separation of a farmstead from a quarter-section. ○ Accommodate single lot vacant country residential developments.
Country Residential	○ Recognize agriculture, its related activities and industries as the predominant land use in the rural area. ○ Recognize country residential development as legitimate land use in rural areas, while minimizing conflicts with non-residential uses. ○ Provide well established and planned country residential development. ○ Maintain rural character of County.
Hamlet	○ Plan for positive growth. ○ Promote orderly and economic growth. ○ Provide various housing types. ○ Plan for future subdivision and development of residential areas. ○ Facilitate growth of commercial and industrial areas. ○ Provide institutional, recreation and cultural opportunities. ○ Optimize existing infrastructure and services and prepare for long-term viability.
Hamlet Residential	○ Provide orderly and staged residential growth. ○ Allow a wide range of housing types. ○ Promote high standards of design, safety, convenience and amenities.
Commercial	○ Provide suitable areas for urban and rural commercial activities. ○ Emphasize hamlets as key retail and service centres. ○ Minimize conflicts between urban and rural commercial activities. ○ Promote home-based businesses. ○ Promote value-added products (minimize shipping raw and paying for finished products to return). ○ Broaden economic base by exploring retail opportunities. ○ Ensure commercial areas are attractive.

[7] CMR 2020; Municipal Development Plan; ISL Engineering and Land Services Ltd., 2013.

Industrial	○ Facilitate industrial development that supports agriculture. ○ Support concentrated pattern of industrial development. ○ Emphasize forestry. ○ Support the County as a centre for Oil and Gas exploration and development in the surrounding fields. ○ Promote a diversified economy. ○ Minimize negative impacts of rural industrial development. ○ Ensure industrial areas are attractive.
Environmental Stewardship	○ Outline requirements for development in or adjacent to natural areas. ○ Protect and enhance natural areas, areas susceptible to flood and erosion prone areas. ○ Protect wildlife, waterfowl areas, lakes, river shore-lands, valley slopes, unique topographic features, and environmentally sensitive vegetation. ○ Recognize Peace River as an important natural feature. ○ Maintain public accessibility to lakes and rivers though use of reserves at the time of subdivision. ○ Reduce wildfire risks to both property and life.
History, Recreation and Tourism	○ Ensure historical resources are protected. ○ Assist community with the preservation of historical resources. ○ Work with Alberta Community Development regarding existing and/or potential historic sites. ○ Identify and prepare inventory of historic sites. ○ Mackenzie Frontier Tourist Association – regional goals (promotion development.
Crownland	○ Encourage the appropriate use of Crown Lands. ○ Facilitate access to Crown Lands where appropriate.
Transportation	○ Provide efficient and effective transportation for people and goods. ○ Guarantee sufficient right-of-way provision in roads for future expansions. ○ Strive for attractive roadside environments.
Utility	○ Ensure the efficient and effective provision of water supply, sewage treatment, stormwater control and sanitary waste disposal facilities. ○ Maintain and upgrade existing utilities.
Inter-municipal Planning	○ Maintain mutually beneficial relationships with adjacent municipalities and other stakeholders. ○ Facilitate Intermunicipal communication ○ Collaborate on Intermunicipal development plans to provide infrastructure services with adjacent municipalities.

Table 145 Reports on Municipal Development, Sustainability and Economic Development.

Regional Travel Distances and Times

Many residents of the County travel to outside their communities, County, and sometimes Province, to access services (e.g. health care), retail and employment. Table 146 shows approximate travel distances and times (each way). The travel times, costs and safety concerns (winter driving conditions, logging trucks, etc.) add strain for many residents.

Though many stakeholders identified these challenges as the 'trade-off' for rural living, it is challenging for many youth and senior residents and can lead to isolation, as well as health and safety concerns.

↓ From / To →	High Level	Hay River (NWT)	Grande Prairie	Edmonton	Slave Lake
Fort Vermilion	~ 80 kms/ 50 mins	~ 390 kms/ 4 hrs	~ 530 kms/ 5.5 hrs	~ 660 kms/ 6.75 hrs	~ 400 kms/ 4 hrs
La Crete	~ 112 kms/ 1.25 hr	~ 420 kms/ 4.5 hrs	~ 480 kms/ 5.5 hrs	~ 670 kms/ 7 hrs	~ 420 kms/ 4.25 hrs
Rocky Lane	~ 58 kms/ 40 mins	~ 366 kms/ 4 hrs	~ 510 kms/ 5.5 hrs	~ 680 kms/ 7 hrs	~ 430 kms/ 4.5 hrs
Tompkins Landing/Blue Hills/Buffalo Head Prairie	~ 120 kms/ 1.25 hrs	~ 430 kms/ 4.5 hrs	~ 435 kms/ 5 hrs	~ 720 kms/ 7.5 hrs	~ 460 kms/ 4.5 hrs
Zama City	~ 150 kms/ 1.75 hrs	~ 290 kms/ 3 hrs	~ 600 kms/ 6.5hrs	~ 887 kms/ 9.25 hrs	~ 635 kms/ 6.5 hrs

Table 146 Approximate Travel Distances and Times for Mackenzie County Residents.

1.1 Community Health & Wellbeing

1.1.1 Addiction and Mental Health Services

The need for addiction and mental health services has been identified as urgent priority in the NWSAR Region. Tables 147 and 148 show substance addiction, FASD rates and available services for Mackenzie County.[8]

Services Accessed/Provided		April 2017 - March 2018	April 2018 - March 2019	April 2019 - March 2020
# of Emergency Department Visits	Alcohol	517	489	468
	Other Substance	85	69	62
	Mental Health	828	817	768
# of Discharges	Alcohol	100	92	78
	Other Substance	17	24	12
	Mental Health	125	104	110
# of New Enrolments to Programs at Community Health Clinics	Alcohol	144	83	73
	Other Substance	25	12	10
	Mental Health	655	773	1,089

Table 147 Addiction and Mental Health Services Accessed by Mackenzie County Residents, 2017–2020.[9]

[8] All addiction and mental health data presented includes all residents of Mackenzie County (including the Town of High Level and the Town of Rainbow Lake).

[9] Stakeholder Engagement, AHS, Addiction and Mental Health, North Zone, August 2020.

Facilities and Services

While Fetal Alcohol Syndrome Disorder (FASD) statistics are sparse for Canada and Alberta, estimates indicate 9 in every 1,000 babies are born with FASD. Estimates put Mackenzie County at having over 100 people suffering from FASD.[10]

Measurement	Rate Per Capita	Facilities	Programs	After Care Support	Trained Personnel (#)	Additional Information

Alcohol Addiction	Data Not Available	Nearest facility is Northern Addictions Centre for substance addiction in Grande Prairie (435–600 kms/5–6.5 hrs One Way drive, depending on origin)	Local Alcoholics Anonymous (AA) group meetings, and the AHS High Level Office provides some services[11]	AL-ANON (Hope and Help for Family and Friends of Alcoholics)[12]	None within Mackenzie County or the Towns of High Level and Rainbow Lake	Northern Addictions Centre offers:
						• Medically Assisted Detox;
						• 24hr Clinical Care; and
						• Individualized Treatment for:
						  ○ Substance Abuse;
						  ○ Opiate Addiction; and
						  ○ Alcoholism.
						• Individual and Group Therapy.[13]

Drug Addiction	Data Not Available		None within Mackenzie County, but the AHS High Level Office provides some support services[14]	None within Mackenzie County or the Towns of High Level and Rainbow Lake	None within Mackenzie County or the Towns of High Level and Rainbow Lake	
Fetal Alcohol Spectrum Disorder (FASD)	Data Not Available	Northwest Regional Fetal Alcohol Spectrum Disorder Society (NWR-FASD Society) in High Level (58–150 kms/40mins – 1.75hrs depending on origin)	NWR FASD Society offers: • PCAP • Prevention Conversation Project • Youth Coach Program • Family Coach Program • Life Coach Program • Mackenzie FASD Adult Diagnostic Clinic[15]	NWR FASD Society has a facility within High Level and a long-term goal of housing up-to 11 residents at a time. They also have a 4-bedroom supported residence with 24/7 supervision.	10+ within High Level and surrounding area[16]	See information below.

Table 148 Access to Substance Addiction and FASD services for residents within Mackenzie County, 2021.

[10] Stakeholder Interview, January 2020.
[11] See Appendix 6 of this report.
[12] https://al-anon.ab.ca/contacts/
[13] https://www.rehab.ca/northern-addictions-centre/1100682-r#methodology
[14] See Appendix 6 of this report.
[15] http://nwr-fasd.ab.ca/our-work/
[16] http://nwr-fasd.ab.ca/contact/staff-directory/

The NWR FASD Society – Mackenzie Network serves the region in the needs for those with FASD and their family and support networks. In last 12 years, they have worked with more than 800–1200 individuals over that time period. Within the region, they operate diagnostic clinics, about 16 for adults and 24–30 youth per year. In the last quarter worked with 314 individuals, many who are caregivers for adults and children, 130 under the age of 18 (rates for the first quarter of 2020). The annual number varies between 300 and 400 and depends which kids have moved out of the area; the variance is with youth. They have a waitlist of 80 youth and 150 adults awaiting diagnosis; they can wait up to 7–8 years.

The NWR FASD Society have programming for caregivers, children, youth, young adults and adults. But only for those who are suspected of or diagnosed have access to those programs. There is a prevention program, which is province-wide where they inform youth of the risks of alcohol during pregnancy. They currently have a supported residence – currently 4 adults and 1 baby; its a four bedroom house, with two workers and a supervisor 24/7. They purchased the Action North building to expand this capacity, but they will also have their offices within; long-term goal is 11 residents.[17]

At present, there is no addiction support in place in the County; Action North Addictions Centre closed its doors in November 2018. Some addiction services are offered at the hospitals in Fort Vermilion and High Level, only short term, and no one on staff is directly trained for this type of treatment. Table 149 identifies the facilities that residents visit for addiction and mental health services. Many services are not readily available, and County residents must travel long distances to Peace River, High Level, Grande Prairie and other large urban centres (e.g. Edmonton) to access drop-in and rehabilitation facilities.

Services Accessed/Provided	**Location and Occurrences (April 2019 – March 2020)**	
Addiction and Mental Health Discharge from Hospital	St. Theresa General Hospital	82
	Northwest Health Centre	73
	Queen Elizabeth II Hospital	22
	Northern Lights Regional Health Centre	3
	St. Therese – St. Paul Health Centre	2
	William J. Cadzow – Lac La Biche Healthcare Centre	1
	Total Number	**183**
Enrolment into Programs in Community Addiction and Mental Health Services	High Level	919
	La Crete	85
	Fort Vermilion	46
	Grande Prairie	43
	Rainbow Lake	24
	Peace River	18
	Virtual Mental Health	5
	Fort McMurray	4
	Athabasca	3
	Mayerthorpe	3

[17] Stakeholder Engagement, AHS, Addiction and Mental Health, North Zone, June 2020.

	Slave Lake	3
	St. Paul	3
	Paddle Prairie	2
	Lac La Biche	2
	Edson	1
	Grande Cache	1
	High Prairie	1
	Valleyview	1
	Total Number	**1,164**
Addiction and Mental Health Visit to the Emergency Department	Northwest Health Centre	739
	St. Theresa General Hospital	377
	La Crete Health Centre	97
	Queen Elizabeth II Hospital	50
	Peace River Community Health Centre	30
	Royal Alexandra Hospital	10
	Slave Lake Healthcare Centre	8
	Fairview Health Complex	7
	Grey Nuns Community Hospital	6
	Grimshaw/Berwyn and District Community Health Centre	6
	University of Alberta Hospital	5
	Edson Healthcare Centre	3
	William J. Cadzow – Lac La Biche Healthcare Centre	3
	Devon General Hospital	2
	Hinton Healthcare Centre	2
	Misericordia Community Hospital	2
	Northern Lights Regional Health Centre	2
	Manning Community Health Centre	2
	Rocky Mountain House Health Centre	2
	Sheldon M. Chumir Health Centre	2
	Strathcona Community Hospital	2

	Wabasca-Demariais Healthcare Centre	2
	Athabasca Healthcare Centre	1
	Barrhead Healthcare Centre	1
	Cold Lake Healthcare Centre	1
	Grande Cache Community Health Complex	1
	Red Deer Regional Hospital Centre	1
	Sacred Heart Community Health Centre	1
	South Health Campus	1
	St. Therese – St. Paul Health Centre	1
	Stollery Children's Hospital	1
	Sturgeon Community Hospital	1
	Sundre Hospital and Care Centre	1
	Westview Health Centre – Stony Plain	1
	Wetaskiwin Hospital and Care Centre	1
	Total Number	**1,372**

Table 149 Addiction and Mental Health Services Accessed by Mackenzie County Residents by Facility, 2017–2020.[18]

1.1.2 Health Care

Facilities and Services

Mackenzie County is in the Northern Region of Alberta Health Services (Area 1). Table 150 shows the current facilities and services available within the County, many residents will travel to High Level (Section 6) for a majority of their services and greater access to health care providers; some must travel to Grande Prairie and as far as Edmonton for specialized services. St. Theresa Hospital in Fort Vermilion offers 26 acute care beds and 8 continuing care beds.

This facility opened in 1983, and continues to offer a wide range of services, although in practice there are fewer services offered than provincial claims and that the staff are comfortable providing. Many services have been consolidated to High Level over the years, leaving the St. Theresa hospital underutilized and understaffed in a handful of critical areas.[19]

Facility	Facility Type	Primary Services	Public Programs/Services
Fort Vermilion Health Centre [Fort Vermilion]	Family general practice and specialist services; Walk-in clinic	• Adult Mental Health Treatment Services • Cafeteria Services • Continuing Care Services	• Mental Health Information, Promotion and Prevention • Nutrition Counselling – Adult and Paediatric

[18] Stakeholder Engagement, AHS, Addiction and Mental Health, North Zone, June 2020.
[19] Stakeholder Interviews, Fort Vermilion, February and March 2020.

		• Emergency Services • General Radiography (X-Ray) • Laboratory Services • Maternity • Medicine • Occupational Therapy Services • Palliative and End of Life Care • Pediatrics • Pharmacy Services • Physical Therapy Services	• Nutrition Counselling – Paediatric Weight Management • Pastoral Care Services
La Crete Community Health Centre [La Crete]	Family general practice and specialist services; Walk-in clinic	• Adult Mental Health Treatment Services • Adult Short Term Mental Health Services • Advanced Ambulatory Care • Cafeteria Services • Continuing Care Services • General Radiography (X-Ray) • Laboratory Services • Mental Health Services • Respite Care	• Adult Day Program • Healthy Beginnings • Pastoral Care Services • Patient Food Services
St. Theresa General Hospital [Fort Vermilion]	Hospital Services	• Adult Mental Health Treatment Services • Cafeteria Services • Continuing Care Services • Emergency Services • General Radiography (X-Ray) • Interpretive Services • Laboratory Services • Maternity • Occupational Therapy Services • Palliative and End of Life Care • Pediatrics • Pharmacy Services • Physical Therapy Services	• Mental Health Information, Promotion and Prevention • Nutrition Counselling – Adult and Paediatric • Nutrition Counselling – Paediatric Weight Management • Pastoral Care Services

Table 150 Health Care Facilities and Services, Mackenzie County, 2020.

Healthcare and Specialist Providers

Table 151 offers a breakdown of health care and specialist providers in Mackenzie County. Please note that many of the services and specialists are available in High Level at the Northwest Health Centre – please see Appendix 6.

Service/Specialization	# of Providers	Additional Information[20]
Cardiologist	0	
Chiropractor	1	La Crete 3 Registered Massage Therapists
Dentist	2	
Diagnostics	1	Peace Diagnostics (new ultrasound only CT scan HL)
Family Physician/ General Practitioner (GP)	8	Fort Vermilion: 6 La Crete: 2
Gynaecology	1	Health Nurse provides sexual health at the Nursing Clinic and GPs can also provide these services
Laboratory Services	2	
Licensed Practical Nurse (LPN)	Available – Unknown Number	Alberta Social Housing Corporation Long-Term Care Facilities, and available at the clinics and hospital
Maternity/Midwife		Midwifes in High Level OB-GYN come to La Crete from High Level for prenatal care not post
Mental Health	2	Fort Vermilion: 1 La Crete: 1 FVSD: 2 phycologists for staff and students
Nephrology	0	
Neurologist	0	
Occupational Therapist	0	High Level
Oncologist	0	
Ophthalmologist	0	Grande Prairie
Other	-	
Paediatrics	0	Grande Prairie
Physiotherapist	0	High Level
Registered Nurse (RN)	Available – Unknown Number	Alberta Social Housing Corporation Long-Term Care Facilities, and available at the clinics and hospital
Rheumatologist	0	
Special Needs	0	

Table 151 Health Care and Specialist Providers, Mackenzie County, 2020.

Recruiting doctors to the St. Theresa Hospital to service Fort Vermilion and to work at the clinics in the surrounding communities is incredibly challenging. There are currently no GPs in Fort Vermilion, only Locums (about 7-8 rotating through). The lack of doctors and other medical services in the County has

[20] Refer to Table 146 for distance and travel times across and outside of County boundaries.

caused a dependence on Medevac services. The provincial push to consolidate services and cut spending creates a contradicting reality in the region. It has been a struggle to keep the Medevac aircraft based in the region, yet the province continues to centralize services in urban centres outside our region, further cementing the need for reliable Medevac service.[21]

There are two dental clinics in High Level and one in La Crete, which is a satellite clinic from the University of Alberta, in which students come up every week or every other week. Usually practicum with 4 or 5 students in La Crete. Most residents are waiting up to 3 months for appointments, many are going to Slave Lake dental clinic (4-5 hours travel time).

Communities such as La Crete are deeply family-oriented, with large family sizes and high birth rates. The availability of local services is a concern, with an average of over 600 births/year taking place outside of the community. At present there are no birthing centres in La Crete, expectant mothers and new mothers must travel to Fort Vermilion for pre and post-natal care.

Fort Vermilion no longer provides deliveries so expectant mothers must travel further to High Level, putting their lives, and that of their child, at risk with the delay in delivery as well as any unforeseen travel challenges particularly during the winter months. These long travel risks apply to expectant mothers in Rainbow Lake and the hamlet of Zama City, as well as all other residents across the region.

Diagnostic Services – Mackenzie County Residents							
Diagnostic Service	Resident Community	Number of services per year					Other Information
		2015	**2016**	**2017**	**2018**	**2019**	
X-Ray	Fort Vermilion	4,337	4,679	4,573	4,370	4,512	Residents must travel to La Crete, Fort Vermilion, High Level or outside the County for this service
	La Crete	2,633	2,521	2,490	2,711	2,400	
	Tompkins/Blue Hill/Buffalo Head Prairie	-	129	120	153	155	
	Zama City	-	176	144	180	188	
Ultrasound	Fort Vermilion	96	92	74	111	51	All Ultrasounds are performed in High Level, and some residents may choose to travel outside of the County for this service
	La Crete	323	260	270	326	128	
	Tompkins/Blue Hill/Buffalo Head Prairie	29	17	16	24	12	
	Zama City	3	3	2	0	5	
CT Scan	Fort Vermilion	121	192	181	187	225	All CT Scans are performed in High Level, and some residents may choose to travel outside of the County for this service
	La Crete	354	414	421	405	360	
	Tompkins/Blue Hill/Buffalo Head Prairie	4	18	14	5	6	
	Zama City	3	1	2	9	2	

Table 152 Diagnostic Services for Mackenzie County Residents, 2015–2019.[22]

[21] Mackenzie County Sustainability Plan, Mackenzie County Community Sustainability Committee, 2016.
[22] Stakeholder Provided Data, March 2021.

1.1.3 Elderly Services

Senior Housing

Seniors and affordable housing are managed by the Boreal Housing Foundation (BHF), which was created by a ministerial order including members from Mackenzie County, High Level and Rainbow Lake, as well as the four First Nations each have one vote and the La Crete Municipal Nursing Association (LCMNA) has two votes. The BHF currently offers the following senior living facilities with in Mackenzie County.

Facility	# of Beds/Units	Description	Provider	Facility Owner	Location
Altenheim I & III	34	One bedroom units, senior independent living	Boreal Housing/ AHS	ASHC	La Crete
La Crete Altenheim II	13	Self-contained duplexes, senior independent living	Boreal Housing/ AHS	ASHC	La Crete
Fort Vermilion Community Health Centre	12	Long term care and palliative care	AHS	AHS	Fort Vermilion
Heimstaed Seniors Lodge	80	Independent living; supportive living (24 hr care if needed and nurses); dementia care	LCMNA[23]/ AHS	LCMNA	La Crete
Pioneer Homes	12	Self-contained units, senior independent living	Boreal Housing/ AHS	ASHC	Fort Vermilion
La Crete Continuing Care Centre		Long term care Palliative care centre	AHS	AHS	La Crete

Table 153 Senior Living and Care Facilities, Mackenzie County, 2020.

The Fort Vermilion & Area Seniors and Elders Lodge Board 1788 is leading a community-based initiative to create more supportive living space.[24] They are researching and actively working on options for building a designated supportive living facility in Fort Vermilion.[25]

Senior Services[26]

Centre/Club/Program	Services/Activities	Location
Fort Vermilion Senior's Drop In Centre Fort Vermilion Family and Community Support Services (FCSS)	• Assistance • Outreach • Recreation • Handy Bus	Fort Vermilion

[23] Owned by LCMNA (La Crete Municipal Nursing Association). The health care is provided through a contract with Alberta Health Services. Mackenzie County, Town of High Level, and Town of Rainbow Lake fund the requisitioning funds. http://borealhousing.ca/housing/supportive-living/
[24] https://aref.ab.ca/projects/fort-vermilion-area-seniors-elders-lodge/
[25] http://www.fortvermilionlodgeboard.ca/
[26] Other regional services are available within the Town of High Level.

La Crete Seniors Inn Society	• Recreation • Facility rental	La Crete
La Crete Family and Community Support Services (FCSS)	Workshops	La Crete
LA On Wheels Society	Handy Bus (seniors and mobility issues)	La Crete
La Crete Meals on Wheels	Meals on Wheels	La Crete

Table 154 Senior Services and Programs, Mackenzie County, 2020.[27]

1.1.4 Culture, Leisure and Tourism

All of the community facilities across the County are operated by Non-Profits and supported to varying degree by the County through annual grant funding. Ownership of the facilities vary, with the larger hamlet facilities being owned by the County and operated by Recreation Societies.

The Mackenzie County Library Board (MCLB) is the umbrella organization that operates three full libraries across the County (Zama City, Fort Vermilion and La Crete). The libraries are not members of a Provincial System Board but are under the Mackenzie County Library Consortium and offer digital and online services, interlibrary loans and regional programs to patrons. The MCLB has a partnership agreement with the Town of High Level Library Board that reciprocates services between town and county residents.

Agricultural Societies play a large role in providing facilities and services to the County and region as a whole. They own and operate community halls, rodeo grounds, riding arenas, and so much more.

The County supports golf courses with a fair tax rate (one of which is non-profit Fox Haven High Level, and La Crete and Fantasy North in Fort Vermilion being shared or private owned) with recognition of the services that they provide to the region.

Table 155 lists Public Facilities and Community Events in each Town/Hamlet/Reserve/Rural Community.

Town/Hamlet/ Community	Public Facilities	Community Clubs & Events
La Crete	• Bowling Alley • Community Hall • Golf Course • Elmwood RV Park • La Crete Mennonite Heritage Village • Rodeo Grounds with annual Pro Rodeo • Parks and Playgrounds • Northern Lights Recreation Centre • Tennis Courts • Organized Sports (minor hockey, recreational hockey,	There are three park areas in La Crete, adjacent to the public school, providing green space, recreation opportunities and community gathering spaces. La Crete events are often as fundraisers for the library or for a family in need.

[27] https://open.alberta.ca/dataset/6b7b2f1b-95a7-4d74-bbfa-5f94de5861c4/resource/d5065fa8-b7c8-41e7-9315-d3437811d397/download/seniors-centres-directory.pdf

	figure skating, basketball, etc.) • Outdoor Ice Rink • Soccer Fields • Walking Trails • Library • Jake's Lake Day Use and Boating Area	
Tompkins/Blue Hills/Buffalo Head Prairie	• Motel/Learning Store • Outdoor Rinks • Commercial Kitchen at the School • La Crete Ferry Campground • Ski Hill (currently under development)	Gospel Music Festivals
Fort Vermilion	• Nature Trails • Community Cultural Complex • Community Hall • Fitness Facility • Baseball Diamonds • Running Track • Outdoor Ice Rink • Seniors Centre • Legion (the only operated legion within the County) • Museum • Parks and Playground • Library • Golf Course • Rodeo Grounds	The oldest European community in Alberta, founded in 1788. The community has preserved many of the old original buildings, including a Hudson's Bay trading post and office and a trapper's shack. The 1923 dove-tailed log St. Germain House is now the Visitor Information Centre. The Lean To Museum and Archives, built in 1995, features exhibits depicting historical life in Fort Vermilion with artifacts dating back as far as the late 1700's. Fort Vermilion has dances, community parties, and community events including the return of Winter Carnival that is a community-wide event, which includes dog racing. Other events include Canada Day Wagon Train, River Daze, Farmers Day Celebration, Bike Races, Agricultural Days, and the Christmas Arts & Crafts Sale.
Rocky Lane	• Community Hall • Indoor riding arena • Cross country ski trails • Mountain bike trails • Hiking and horse trails • Agricultural Society	Agricultural community with no commercial offerings but a public school offering K-12. In 2010, a recreational hall was built with space for events, a riding arena, and cross-country ski rental shop.
Zama City	• Alberta's most Northern Public Library • Community Hall • Outdoor Rink • Memorial Garden • Swimming Pond	Services are limited however; there is a strong sense of community. Alberta's most northern Library with meeting space, large community hall, outdoor rink, and fishing pond. Many community events such as dances, bingos, craft events, holiday and family.

	• Campground (fully serviced) • Disc golf • Baseball Diamond • Fitness Facility (24hr)	
Rural High Level	• Community Hall • Golf Course • Hutch Lake and Campground • Machesis Lake and Campground	

Table 155 Public Facilities and Community Events, Mackenzie County, 2020.

Tourism is a growing and emerging industry within the Mackenzie Region (or Frontier as named by the Mackenzie Frontier Tourist Association). The Mackenzie Frontier has the largest National and Provincial Parks within its boundaries; Wood Buffalo National Park and the Caribou Mountains Wildland Park, as well as multiple others that currently have minimal access and offer little to no tourism services or facilities.

Mackenzie County has taken over some Provincial leases on discarded or de-listed Provincial Campgrounds and day-use sites, in order to continue to have these facilities available for public use. Mackenzie County continues to operate and improve the services and facilities without much or any assistance from the Province. There are also many other recreation and tourism facilities that are operated by non-profit groups that Mackenzie County also collaborates on for operations and management.

A challenge for Tourism in the region is unless operated on the minimal private land that is available; access to Crown land is required. The rules and legislation around Provincial leasing and the complete process to access, develop and maintain facilities and access on crown land is sometimes staggering and out of reach for many people and entities.

Mackenzie Frontier Tourist Association is the destination marketing organization that is responsible for the marketing and promotion of tourism in the region. The Municipalities are major partners with this organization and cooperation with the partners and operators across the region is vital for tourism to grow. Tourism statistics are collected from the County operated Campgrounds, and some from the Museums and Tourism Information Centers in the communities, but a data gap does exist that additional statistics from a wider range of operators could assist with to access the annual income generation.

A Partnership Report was completed in May 2020 in conjunction with MFTA and REDI (Regional Economic Development Initiative) that outlines some of the challenges as well as some of the opportunities to grow and increase tourism across the region.[28]

Table 156 shows the accommodation and food services available in the Mackenzie County. Data that is not available is the number of visitors annually and the income generation they bring to the region, this a clear data gap that warrants data collection to support tourism development in the County and for the NWSAR Region.

Town/Hamlet/ Community	# of Hotels & Guest Houses	# of Campgrounds	# of Restaurants[29]	# of Visitors/Year	Annual Tourism Income
La Crete & Area	3	1	7		

[28] See www.mackenziefrontier.com

[29] These include coffee houses that serve food.

Tompkins/Blue Hills/Buffalo Head Prairie	1	1	1	Data Not Available	Data Not Available
Fort Vermilion	2	2	3		
Rocky Lane	0	2	0		
Zama City	2	1	1		
Rural High Level	0	2	1		

Table 156 Accommodation & Food Services in Mackenzie County, 2020.

1.1.5 Food Security

Table 157 shows current data on food security in Mackenzie County, there are clear data gaps, which need to be filled to address residents' needs for access to fresh, healthy and fair-priced food. One of the biggest challenges in the NWSAR Region is the cost and distance of food transportation.

The data also demonstrates the need for more local food production to ensure a more sustainable and resilient food system in the region.

	# of facilities/ measurements	Location	Additional Information
Grocery Stores	1	Blumenort	General Store (Friesens)
	3	Fort Vermilion	First Town Foods, Tallcree Foods and Bulk City Foods
	2	La Crete	Co-op and Super J
	2	Tompkins/Blue Hills/Buffalo Head Prairie	Country Variety Store Buffalo Head Prairie Co-op with limited groceries options
	0	Rocky Lane	
	0	Zama City	Convenience store with limited grocery options
Farmers Markets	2	High Level 1788 Market	Saturdays Agricultural Society
Food Banks	3	La Crete Fort Vermilion High Level	Run by FCSS FCSS partnership with FVSD & Metis Association There is also a Food Bank in High Level at the Native Friendship Centre (Rural HL – Rocky Lane)
Locally Grown Food (%)	3+	La Crete Fort Vermilion North of High Level	Sunnybrook, Prairie Packers, Pilgrim Husbandry, and Sunscape Gardens all offer locally grown fresh food products

Table 157 Food Access, Mackenzie County, 2020.

Table 158 shows the average food costs for three grocery stores in Mackenzie County for July 2020, compared to average food costs for Canada in the same month.

Product	Quantity	Month	First Town	Co-op	Super J Foods	Av. Cost	Av. Cost

		(2020)	Foods (Fort Vermilion)	(La Crete)	(La Crete)	MC	Canada
Round Steak	1 kg	July	33.99	27.15	29.43	30.19	18.39
Ground Beef	1 kg	July	16.99	14.90	12.08	14.66	12.50
Chicken	1 kg	July	12.53	8.66	10.48	10.56	7.41
Bacon	500 g	July	9.98	8.66	8.49	9.04	7.25
Partly Skimmed Milk	4 l	July	6.26	5.99	5.99	6.08	5.34
Orange Juice	1.54l	July	6.49	5.56	6.19	6.08	4.26
Eggs	1 dz	July	4.55	4.29	4.32	4.39	3.62
Apples	1 kg	July	6.24	5.64	5.44	5.77	4.58
Bananas	1 kg	July	3.09	2.18	2.16	2.48	1.56
Onion	1 kg	July	3.56	4.39	4.05	4.00	2.50
Carrots	1 kg	July	2.59	3.49	2.59	2.89	2.72
Mushrooms[30]	1 kg	July	3.19	2.99	3.24	3.14	9.50
Potatoes	4.54 kg	July	11.98	11.98	12.03	12.00	11.15
Bread	675 g	July	3.32	4.63	4.10	4.02	2.82
Flour	2.5 kg	July	6.64	7.99	7.69	7.44	4.73
Peanut Butter	500 g	July	5.95	6.97	3.92	5.61	2.82
Paper Towels[31]	6 rolls	July	15.32	10.16	11.24	12.24	3.19
Bathroom Tissue[32]	12 Rolls	July	11.76	11.49	16.52	13.26	2.52
Shampoo	300 ml	July	8.40	7.82	10.41	8.88	3.88
Toothpaste	100 ml	July	6.09	6.07	5.76	5.97	3.37

Table 158 Average Food Costs, Mackenzie County, July 2020.[33]

1.1.6 Political Participation

Mackenzie County is divided into ten (10) Electoral Divisions or Wards, each of which has one (1) Council position. The County is in the Peace River – Westlock Provincial Electoral Boundary and the Grande-Prairie – Mackenzie Federal Electoral Boundary. Table 159 shows voter turnout rates for Mackenzie County in the most recent election years.

[30] Mushroom prices from the region were calculated for $/227g in store so the average price for the County has been adjusted to match the metrics for the Canada average prices.
[31] Canadian average price for paper towels was for two (2) rolls. NWSAR region provided packs of six (6) or more paper towels for sale.
[32] Canadian average price for bathroom tissue was for four (4) rolls. NWSAR region provided packs or twelve (12) or more bathroom tissue for sale.
[33] Local data was collected by NWSAR Committee member between July 12th and 17th 2020 at each store listed in the table. Pricing was collected across multiple brands in the stores, then divided by the number of items for the average cost per product. Average food prices for Canada were sourced from the monthly average retail prices for food and other selected products: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1810000201 this table uses the Consumer Price Index (CPI): https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=2301#a2.

% Municipal (2017)	% Provincial (2019)	% Federal (2019)
~ 32.02%[34]	~ 21.3%[35]	~ 26%[36]

Table 159 Voter Participation Rates, Mackenzie County, 2017–2019.

The 2017 election saw six Wards elected by acclamation and four Wards elect elected a new Councillor. The percentage is the amount of participation across the County, with 7,082 eligible voters and 1,905 residents participating in the vote.

1.1.7 Poverty

Tables 160 and 161 show a five-year trend for median family income, average income and poverty rates for Mackenzie County.

All Families Income[37]			Couple Families Income[38]			Lone-Parent Income[39]		
2018	2013	Change	2018	2013	Change	2018	2013	Change
$75,332	$73,362	**-2.6%**	$83,301	$77,664	**7.2%**	$33,982	$32,558	**4.3%**

Table 160 Median Family Incomes, Five-Year Trends, Mackenzie County, 2013–2018.

Average Household Income (MC)	Average Household Income (Alberta)	Prevalence of Low-Income (MC)	Prevalence of low-Income base (Alberta)
$ 95,477	$93, 835	12.2%	9.3%

Table 161 Average Income and Poverty Rates, Mackenzie County and Alberta, 2016.[40]

[34] Mackenzie County, 2021.
[35] Average of voter turnout rates for Buffalo Head Prairie, La Crete (South, Center, North, Rural), Fort Vermilion (including Rural), Rocky Lane, High Level Rural, Zama City. https://officialresults.elections.ab.ca/orResultsED.cfm?ED=77&EventId=60
[36] This is only an approximation pulling raw data from https://www.elections.ca/content.aspx?section=res&dir=rep/off/43gedata&document=byed&lang=e that accounts for Fort Vermilion, La Crete, and Rocky Lane, all of which are in the Peace River-Westlock Federal Election District. Important to note the Zama City is in the Grande Prairie-Mackenzie Federal Election District.
[37] The median income of families, including couple families, lone-parent families, and people without children. Half of families have income above this amount while half have income below this amount. https://regionaldashboard.alberta.ca/region/mackenzie-county/median-family-income/#/?from=2012&to=2016
[38] The median income of families with two parents and children. Half of families have income above this amount while half have income below this amount. https://regionaldashboard.alberta.ca/region/mackenzie-county/couple-families-median-income/#/?from=2012&to=2016
[39] The median income of families with one parent and children. Half of families have income above this amount while half have income below this amount. https://regionaldashboard.alberta.ca/region/northern-lights-county/lone-parent-families-median-income/#/?from=2011&to=2015
[40] https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CSD&Code1=4817095&Geo2=CD&Code2=4817&SearchText=mackenzie+county&SearchType=Begins&SearchPR=01&B1=Income&TABID=1&type=0 This data will include all other municipalities and residents within the Mackenzie County boundary.

1.1.8 Social Services

Ambulance Services

The ambulance for Zama City is shared part-time with the communities of Chateh and Town of Rainbow Lake – the community does not receive any form of communication when the ambulance service is unavailable. The ambulance service within the Town of High Level also provides services and back up to Zama City, rural High Level and Rocky Lane.

EMS Events by Station							
Community/Service	**# of Vehicles**	**# of Call Outs/ Year Events by Station**			**# of Volunteers**	**# of Paid Staff**	**Area Covered**
		2019	**2018**	**2017**			
La Crete	2	757	698	704	N/A	9	Regional coverage – no defined areas.
Fort Vermilion	1	652	658	523	N/A	4	
Zama City	1	-	22	28	N/A	4	

Table 162 EMS Events by Station, Mackenzie County, 2017–2019.[41]

EMS Events by Community							
Community/Service	**# of Vehicles**	**# of Call Outs/ Year Events by Station**			**# of Volunteers**	**# of Paid Staff**	**Area Covered**
		2019	**2018**	**2017**			
La Crete	2	410	320	298	N/A	9	Regional coverage – no defined areas.
Fort Vermilion	1	470	463	384	N/A	4	
Zama City	1	7	6	11	N/A	4	

Table 163 EMS Events by Community, Mackenzie County, 2017–2019.[42]

CanWest Air is currently Alberta's largest air ambulance provider, servicing eight out of ten location across Alberta. Their bases include Fort Vermilion, High Level, Peace River, Grande Prairie, Slave Lake, Edmonton, Calgary, and Medicine Hat.[43]

Fire Services

Mackenzie County has three volunteer fire departments located in La Crete (includes Tompkins area), Fort Vermilion, and Zama City. The rural area in High Level is served under an inter-municipal agreement with the Town of High Level. Other fire services are also provided from the High Level Fire Department (HLFD) for which the County Pays 50% for capital expenditures for units and equipment under service sharing.

Community	**Type of Facilities**	**# of Trucks**	**# of Volunteers**	**# of Paid Staff**	**Average Response Times**

[41] EMS SPI interactive data by 'Service Detail' & includes all types of events within regional footprint. Date Range: April 1st to March 31st of each year. Stakeholder Provided Data, January 2021.
[42] EMS SPI interactive data by 'Service Detail' & includes all types of events within regional footprint. Date Range: April 1st to March 31st of each year. Stakeholder Provided Data, January 2021.
[43] https://www.canwestair.com/about-us

Blue Hills	Fire Hall	3	37	• 0 # of Paid Staff • 3 Fire Chiefs receive monthly honorarium • All members receive compensation when responding to a call, training and practice sessions	Individual incident reports capture response times, and are not compiled into one report. On average, 8–14 mins from the Fire Hall to an incident
La Crete	Fire Hall	8			
Fort Vermilion	Fire Hall	5	13		
Zama City	Fire Hall	2	7		

Table 164 Fire Services, Mackenzie County, 2020.[44]

	Fort Vermilion			**La Crete**			**Zama City**		
Fire Call by Type	**2019**	**2018**	**2017**	**2019**	**2018**	**2017**	**2019**	**2018**	**2017**
Alarms (actual and false)	6	20	28	20	20	36	0	0	0
Medical (Co-) Response (MCR)	63	78	42	23	109	94	0	0	0
Motor Vehicle Accident (MVA)	13	27	18	27	34	30	0	1	0
Hazmat Response	1	0	2	3	1	0	0	0	0
Structural Fire	16	19	10	18	24	10	1	1	2
Exterior Fire/Wildland	6	11	2	11	13	4	2	0	0
Other	18	14	7	29	21	7	2	0	0

Table 165 Fire Call by Type, Mackenzie County, 2017–2019.[45]

Emergency Services

Type of Services	# of Facilities	# of Programs	# of Trained Personnel	Wait times	Additional Information
Homeless Shelter	0	0	N/A	N/A	The closest shelter is the Rotary House in Grande Prairie.
Women's Shelter	0	0	N/A	N/A	The closet shelter is the SAFE Home in High Level.
Victim Services	3	Unknown	Unknown	N/A	Victim Services are located at the RCMP Detachments within the region, and administered by volunteer associations.

Table 166 Emergency Services, Mackenzie County, 2020.

[44] Mackenzie County, 2020.
[45] Mackenzie County, 2020. High Level Fire Department data that includes responses in Mackenzie County is provided in the Town of High Level's section.

Crime & Justice

The crimes, and rates of occurrence and reporting, vary greatly across Mackenzie County with so many communities. Crimes related to drugs are higher in some communities, and incidence of domestic abuse and sexual assault differ across the region as well. This data is hard to secure with many incidents not reported due to cultural practices, stigma and RCMP response rates.[46]

Crime, Charges and Convictions	Fort Vermilion Detachment[47]			Chateh Detachment[48]			High Level Detachment[49]		
	Mackenzie County[50]			Mackenzie County[51]			Mackenzie County[52]		
(Total #)	2019	2018	2017	2019	2018	2017	2019	2018	2017
Homicides & Offences related to death	1	0	1	0	0	0	0	0	0
Charged / Charges Recommended	1	0	1	0	0	0	0	0	0
Sexual Assaults	7	3	7	0	0	0	3	0	1
Charged / Charges Recommended	3	3	3	0	0	0	1	0	0
Assault	33	37	33	2	0	0	4	9	18
Charged / Charges Recommended	11	23	11	2	0	0	4	4	8
Break and Enter	6	7	6	0	1	9	4	5	6
Charged / Charges Recommended	0	0	0	0	0	0	0	1	1
Theft of Motor Vehicle	20	15	20	0	3	3	3	2	4
Charged / Charges Recommended	1	1	1	0	0	0	0	0	0
Theft Over $5,000	1	5	1	1	0	0	0	0	0
Charged / Charges Recommended	0	1	0	0	0	0	0	0	0
Theft Under $5,000	21	26	21	0	0	2	8	2	3
Charged / Charges Recommended	2	2	2	0	0	1	0	0	0
Fraud	18	17	18	0	0	0	1	1	1

[46] Stakeholder Interview, February 2020.
[47] Catchment Area (Communities): Beaver Ranch, Blumenort, Boyer River, Buffalo Head Prairie, Butter Town, Fort Vermilion, Fox Lake, Garden River, La Crete, Lambert's Point, Jean D'Or Prairie, North Tallcree, North Vermilion, Rocky Lane, South Tallcree, Tompkins Landing for a total population served of 14,626 and 18 RCMP Police Officer positions (2019).
[48] Catchment Area (Communities): Amber River Basset Lake Chateh Habay Hay Lake Rainbow Lake Virgo Oilfield Zama Lake, for a total population served of 1,678 and 10 RCMP Police Officer positions (2019).
[49] Catchment Area (Communities): Amber Tower, Bistcho Lake, Bushe River, Eleske, High Level, Indian Cabins, Jackfish Point, Paddle Prairie Metis Settlement, Steen River, Meander River, Watt Mountain, Zama City for a total population served of 5,965 and 19 RCMP Police Officer Positions.
[50] Does not include Fox Lake data.
[51] Does not include Town of Rainbow Lake data.
[52] Does not include the Town of High Level data.

Charged / Charges Recommended	2	2	2	0	0	0	1	0	0
Arson	1	3	1	0	1	1	0	0	0
Charged / Charges Recommended	0	0	0	0	0	0	0	0	0
Impaired Driving	21	16	21	2	2	2	15	21	11
Charged / Charges Recommended	21	16	21	2	2	2	15	21	11
Drug Enforcement Production	0	1	0	0	0	0	0	0	0
Charged / Charges Recommended	0	0	0	0	0	0	0	0	0
Drug Enforcement Possession	0	3	0	0	0	0	0	6	2
Charged / Charges Recommended	0	0	0	0	0	0	0	0	1
Drug Enforcement Trafficking	0	2	0	0	0	0	3	0	0
Charged / Charges Recommended	0	0	0	0	0	0	1	0	0

Table 167 Crime, Charges and Convictions, Mackenzie County, 2017–2019.[53]

Judicial and Child Services

	Name/ Location/ Total (#)
Court House Locations	Fort Vermilion, Chateh, High Level
Court House Catchment Area (Communities)	Amber River Amber Tower Basset Lake Beaver Ranch Blumenort Bistcho Lake Boyer River Buffalo Head Prairie Bushe River Butter Town Chateh Eleske Fort Vermilion Fox Lake Garden River Habay Hay Lake High Level Indian Cabins Jackfish Point

[53] Stakeholder data collection, Royal Canadian Mounted Police, Strategic Analysis and Research Unit, RCMP "K" Division, Alberta, 2020.

	Jean D'Or Prairie La Crete Lambert's Point Meander River, North Tallcree North Vermilion Paddle Prairie Metis Settlement Rainbow Lake Rocky Lane South Tallcree Steen River Tompkins Landing Virgo Oilfield Watt Mountain Zama City Zama Lake
Population Served (#)	22,269
Nearest Male Federal Institution	Grande Cache Institution, Grande Cache – AB
Nearest Female Federal Institution	Edmonton Remand Centre, Edmonton – AB
Nearest Male Correctional Centre (Provincial)	Peace River Correctional Centre, Peace River – AB
Nearest Female Correctional Centre (Provincial)	Edmonton Institution for Women, Edmonton – AB
Nearest Youth Offenders Centre	Edmonton Young Offender Centre, Edmonton – AB
Nearest Youth Group Home	High Prairie – AB
Probation Officers (#)	3[54]
Docket Days (Schedule)	FV – Criminal: Every 1st and 3rd Tuesday FV – Youth and Family: Every 1st and 3rd Tuesday CH – Criminal: Every 1st and 3rd Wednesday CH – Youth and Family: Every 1st and 3rd Wednesday HL – Criminal: Every Monday HL – Youth and Family: Every 2nd Thursday

Table 168 Judicial and Correctional Facilities, Mackenzie County, 2021.[55]

Mackenzie County[56]	**2019**	**2018**	**2017**
Cases Commenced	509	493	403
Cases Concluded	394	442	412
Tickets Filed	455	468	303

[54] 3 Probation Officers, 1 Admin and 1 Corrections Canada Contracted Parole Officer all based in High Level.
[55] Stakeholder Provided Data, January 2021.
[56] The numbers for Cases Commenced, Cases Concluded, Tickets Filed, and Trails Heard are broken down by fiscal years. For example, the values for 2017 represents the 2017/18 fiscal year.

Trials Heard	108	142	109

Table 169 Cases, Tickets and Trials, Mackenzie County, 2017–2019.[57]

1.2 Business and Employment

1.2.1 Economic Incentives and Community Development Incentives

Table 170 lists past and ongoing economic and community development incentives and initiatives in Mackenzie County.

Program/Incentive	Description	Additional Information
Bursary Program	Mackenzie County accepts applications towards tuition at a post-secondary or trade educational institution. Bursaries are available to first time university/college students within two years from their public school graduation date (the public school must be within the Mackenzie Region). Students returning to their second to fourth year of studies may also apply to receive a bursary. Mature students may also be eligible to receive a bursary. The students must be living within Mackenzie County.	• Contribute between $15,000 to $25,000 annually
Cemetery Maintenance Grant Application	A Cemetery Association and/or Church must make a written application prior to October 31st each year to be considered for grant funding (as per Policy ADM005). Grant funding shall be subject to Council and budget approval up to a maximum of $600.	• $3600 committed for 2021
Family & Community Support Services (FCSS)	Financial support for FCSS across the County – in all hamlets.	• $394,000 for 2021
Grants to Non-Profit Organizations	The County offers annual financial assistance to the local non-profit groups and organizations. Grants are provided according to Policy FIN013 Community Organization Funding. Includes support for agricultural societies, chambers of commerce, seniors supports, recreation, agricultural research.	• $384,000 for 2021
Library Funding/Grant		• $264,500 for 2021
Recreation Board Funding	La Crete, Fort Vermilion and Zama Rec Boards operate a variety of facilities and provide recreational opportunities throughout the County.	• $1,233,000 committed to capital and operating for 2021
Revenue/Service Sharing Agreements with Rainbow Lake & High Level	Separate agreements in place with each of the towns to equitably share costs and services. Based on nature of the agreements, the 2021 contribution is not completely defined at this time.	• Approximately $2M annual contribution to Rainbow Lake & High Level

Table 170 Economic and Community Development Incentives, Mackenzie County.

Grants for Agricultural Development and Climate Change[58]

- The Canadian Agricultural Partnership (CAP) is a combination of federal and provincial support; most of the program goes through the federal gov't since much of the provincial-related funding has been discontinued.

[57] Stakeholder Provided Data, January 2021.
[58] Stakeholder Interview, MARA, January 2020.

- Farm Water Supply Testing ($10K) – Although the Peace River is nearby, Mackenzie is a dry, warm environment so the water needs to be tested before it can be drawn for crop irrigation (the younger generation of farmers seem to be applying for this grant).
- Environment Stewardship and Climate Change Program (min $15K) – it is a grant to encourage farmers to conserve the environment by growing perennial foliage's year round.

  This allows carbon in the atmosphere to be trapped through photosynthesis; applicants must have a minimum 10% of land mass dedicated to perennial. This program typically sees only those with livestock applying for this grant (grass is considered perennial, grazing land is essentially year round and nutrient value increases when manure is dropped).

  This grant has not triggered any behavioural changes because farmers tend to simply continue activities that were in place with past generations, and farmers don not feel that the grant provides sufficient incentive to risk their existing income (or lower income in the first 3 years to reap the benefit of greater income in the future from perennial seedlings). Farmers can get $15K+ from canola in the first year or two.
- Mackenzie County Organic Success Program ($330K) – 41% of Alberta's organic farming is in Mackenzie County; funds are used for advocacy, marketing, consulting services, assistance in farmers accessing and receiving organic related training and accreditation, etc. as a way to further develop/grow this part of the farming industry.

A2A Alaska to Alberta Railway Development Plan

The Alaska-Alberta Railway Development Corporation (A2A Rail) wants to develop a rail line, which will address Alberta's challenges to move oil by pipeline to Canada's west coast.

A2A Rail has been working since 2015 on plans to build and operate a new 2,400 km railway connecting the existing Alaska Railroad to northern Alberta.[59] The current proposed route of the A2A would incorporate existing railway connections in Canada and would generally head along a south-easterly route through Yukon, Fort Nelson in northeast British Columbia, through Mackenzie County and finally connect with Fort McMurray in Alberta.

[59] http://www.pnwer.org/uploads/2/3/2/9/23295822/john_falcetta_-_alberta_to_alaska_railway.pdf

As envisioned, the $17-billion project could connect all of North America to global markets, through Alaska tidewater ports.[60] 'Just-in-time' shippers would benefit from the fact that south central Alaska ports are about four days closer to East Asia by vessel than ports in the Lower 48 and British Columbia despite the longer distance by train.[61]

Figure 45 Alaska to Alberta (A2A) Railway Proposed Route, 2020.

The rail project would consist initially of a single rail line with sidings that would allow trains to travel in both directions. Of the $17 billion construction budget, $14 billion would be spent in Canada[62]. This will offer employment and resource export from the region, offering substantial economic development

[60] https://canada.constructconnect.com/joc/news/infrastructure/2019/07/engineering-spotlight-a2a-rail-aims-carve-railway-corridor-alberta-alaska

[61] https://www.ttnews.com/articles/possibilities-costs-enormous-a2a-rail

[62] There is no promised or asked for capital funding or operating subsidy backup from the state of Alaska or the province of Alberta. On March 2, 2020 Motion 501 introduced in Alberta's Legislature by MLA. Shane Getson (UCP-Lac St Pierre - Parkland): "Be it resolved that the Legislative Assembly urge the Government to establish corridors for transportation and utility infrastructure including railways, roads, pipelines, and transmission lines, in order to improve access to global markets for Alberta products and resources via deep sea ports in locations including but not limited to Hudson Bay, Kitimat, and the state of Alaska." (https://a2arail.com/wp-content/uploads/2020/03/Press-Release_A2A_03.02.20_2.pdf)

opportunities and incentives.[63] The G7G group (Generating for Seven Generations) proposes a second plan, however, they are not as far along in their development and approval process at this time.

1.2.2 Employment

Table 171 shows the participation, employment and unemployment rates from 2011 and 2016 for Mackenzie County.

Participation Rate			Employment Rate			Unemployment Rate			Seasonal Labour Rate
2016	2011	Change	2016	2011	Change	2016	2011	Change	
65.2%	63.4%	**2.8%**	59.8%	58.3%	**2.5%**	8.3%	8.2%	**1.2%**	Data Not Available

Table 171 Participation, Employment and Unemployment rates, Mackenzie County, 2016.[64]

As of 2018, the employment status in Mackenzie County was as follows:

- 48% conventionally employed
- 15% self-employed
- 24% home makers
- 9% retired
- 4.5% unemployed

The breakdown of primary work is in the following locations:[65]

- 61% La Crete
- 11% Fort Vermilion
- 11% High Level
- 10% Other
- 5% Remote
- 1% Zama City
- 0.5% Rainbow Lake

1.2.3 Industry

The major industries within the County are agriculture, forestry, oil, gas and gravel extraction, and their support services. The County has rich, natural resources, which allows the extractive industries to thrive. Mackenzie County, which includes La Crete, Fort Vermilion and Zama City, has 60% of its employment base in businesses with between 1 and 4 employees and a further 22% in businesses with between 5 and 9 employees. In Mackenzie County however, the total number of businesses is listed at 1,352 and when

[63] Please note: the actual rail volume that might be moved, by commodity type, is not yet clear. The focus appears to be on moving crude oil out of Alberta for Pacific Rim nation export. A2A doesn't appear to be too concerned with possible pipeline competition. (https://www.freightwaves.com/news/commentary-financial-risk-assessment-for-alaska-to-alberta-rail-freight-awaits)

[64] https://regionaldashboard.alberta.ca/region/mackenzie-county/employment-rate/#/

[65] La Crete Industrial Lands, Cushing Terrell Architecture Inc., 2017; Mackenzie County Municipal Census 2018, Mackenzie County, 2018) **Please note**: the Cushing Terrell Architecture 2017 Report focused specifically on the Town of High Level and Hamlet of La Crete so there may be gaps associated with some of the data collected that may carry over into this report.

compared to elsewhere in the Peace Region there is a much higher representation (786) of businesses that fall under the non-incorporated or income of less than $30,000 per annum in revenue.[66]

Mackenzie County's existing industrial lands benefit from proximity to resources, access to key vehicle or rail transportation corridors or pipelines, and proximity to nearby communities for labour force housing and amenities. In industrial lands outside of incorporated areas, sectoral composition is fairly homogeneous and isolated with oil and gas predominant in the northwest, agriculture, transportation and support services in the southeast, and forestry throughout.[67]

In 2014, Mackenzie County introduced a mandatory annual business licensing system, inventoried using the North American Industry Classification System (NAICS). This requirement applies to all home-based, commercial, construction and industrial operations based within the County, as well as all contractors based outside but are providing services within the County. Business owners submit their business license application form annually and receive an updated certificate to display at their place of business.[68] Most businesses are also added to the business directory.

Table 172 shows the total number of business registrations by industry type within the last five years for Mackenzie County.[69]

	2020	2019	2018	2017	2016	5 Year Trend (%)
Annual Business Registrations	611	620	580	553	540	12.73
Business Size	**2020**	**2019**	**2018**	**2017**	**2016**	**Annual Change from 2019–2020 (%)**
Large (200+ employees)	4	3	3	3	2	33.33
Medium (50–199 employees)	16	14	15	16	14	14.33
Small (1–49 employees)	591	603	562	535	524	-1.99
Industry Type	**2020**	**2019**	**2018**	**2017**	**2016**	**Annual Change from 2019–2020 (%)**
Accommodation & Food Services	15	15	14	12	11	0.00
Admin & Support, Waste Management & Remediation Services	20	19	18	18	17	5.26
Agriculture, Forestry, Fishing & Hunting	164	170	154	138	135	-3.53
Arts, Entertainment & Recreation	7	8	7	9	7	-12.50
Construction	108	105	105	106	108	2.86

[66] Cushing Terrell Architecture Inc., 2017, Industrial Market Analysis, p.5.
[67] Cushing Terrell Architecture Inc., 2017, Industrial Market Analysis, p.41.
[68] https://www.mackenziecounty.com/departments-a-services/economic-development/annual-business-license
[69] https://regionaldashboard.alberta.ca/region/mackenzie-county/number-of-businesses/#/?from=2016&to=2020

Educational Services	6	7	7	6	4	-14.3
Finance & Insurance	3	3	4	3	5	0.00
Healthcare & Social Assistance	15	18	16	16	14	-16.70
Information & Cultural Industries	3	3	5	5	5	0.00
Management of Companies & Enterprises	4	3	0	0	0	33.33
Manufacturing	19	21	19	18	17	-9.52
Mining, Quarrying, Oil & Gas Extraction	7	5	5	5	6	40.00
Other Services (except Public Administration)	58	59	56	48	36	-1.69
Professional, Scientific & Technical Services	21	23	16	21	21	-8.70
Public Administration	2	2	2	2	3	0.00
Real Estate, Rental & Leasing	10	10	9	8	11	0.00
Retail Trade	47	46	47	39	42	2.17
Transportation & Warehousing	86	88	83	88	90	-2.27
Utilities	2	2	2	1	1	0.00
Wholesale Trade	14	13	11	10	7	7.69

Table 172 Business Registrations, Mackenzie County, 2016–2020.[70]

- In 2020, Mackenzie County had 611 businesses, a decrease of 1.45% from 620 in 2019, and the Mining, Quarrying, and Oil and Gas extraction segment saw the largest increase over the year.[71]
- In 2020, 96.7% of businesses in Mackenzie County were small businesses;
- The percentage of small businesses declined by 0.55% year-over-year, and decreased 0.23% in the last five years;[72] and
- 34 new business incorporated in 2019, reflecting a 21.4% increase year-over-year, and a decrease of 26.1% in the last five years.[73]

The 2016 Federal Census data is shown in Tables 173 and 174 with a breakdown of the Workforce by Occupation and Industry, as well as by gender for Mackenzie County.[74]

Occupation	**Total**	**Male**	**Female**
Management	705	540	165

[70] https://regionaldashboard.alberta.ca/region/mackenzie-county/number-of-businesses/#/stacked/industry/?from=2016&to=2020
[71] https://regionaldashboard.alberta.ca/region/mackenzie-county/number-of-businesses/#/?from=2016&to=2020
[72] https://regionaldashboard.alberta.ca/region/mackenzie-county/percent-small-businesses/#/?from=2016&to=2020
[73] https://regionaldashboard.alberta.ca/region/mackenzie-county/incorporations/#/?from=2015&to=2019
[74] https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CSD&Code1=4817095&Geo2=CD&Code2=4817&SearchText=mackenzie+county&SearchType=Begins&SearchPR=01&B1=Labour&TABID=1&type=0

Business, Finance and Administration	460	120	340
Natural and Applied Sciences	55	45	10
Health	110	40	75
Education, Law and Social, Community and Government Services	420	110	315
Art, Culture, Recreation and Sport	45	0	45
Sales and Service	930	325	600
Trades, Transport and Equipment Operators	1,320	1,240	80
Natural Resources, Agriculture and Related Production	480	375	105
Manufacturing and Utilities	145	135	10

Table 173 Breakdown of Workforce by Occupation, Mackenzie County, 2016.

Industry	Total	Male	Female
Agriculture, Forestry, Fishing & Hunting	990	750	240
Mining, Quarrying, and Oil and Gas Extraction	100	80	15
Utilities	30	30	0
Construction	570	530	40
Manufacturing	315	250	65
Wholesale Trade	95	85	10
Retail Trade	560	305	255
Transportation & Warehousing	320	270	50
Information & Cultural Industries	10	0	0
Finance & Insurance	70	25	50
Real Estate, Rental & Leasing	35	30	10
Professional, Scientific Services	80	30	50
Administrative and Support, Waste Management and Remediation Services	0	0	0
Educational Services	490	115	375
Health Care and Social Assistance	240	40	205
Arts, Entertainment and Recreation	45	30	15
Accommodation and Food Services	175	40	140
Other Services (except Public Administration)	270	185	85
Public Administration	140	70	70

Table 174 Breakdown of Workforce by Industry, Mackenzie County, 2016.

Agriculture

Farming and agriculture are a significant portion of employment in Mackenzie County, specifically in the La Crete area, with the Mennonite communities playing a large role in this. There is a big push to increase access to new agricultural land to increase this industry within the County.

Farming has the benefit of being symbiotic with logging, energy, trapping and outfitting industries due to their seasonal nature.[75] Figure 46 shows the 2017 allocation of industrial lands in La Crete.

NAICS Category	Acres	Percent of Total Acres	Employee Estimate	Percent of Employment
Vacant/Proposed/Unspecified	133	50%	-	-
Agriculture, Forestry, Fishing and Hunting	32.1	12%	96	12%
Mining, Quarrying, and Oil and Gas Extraction	18.3	7%	176	22%
Construction	17.9	7%	54	7%
Manufacturing	15.7	6%	110	14%
Wholesale	12.0	5%	115	14%
Retailers	11.3	4%	79	10%
Transportation	10.6	4%	68	8%
Real Estate and Rental and Leasing	5.3	2%	42	5%
Other Services (except Public Administration)	5.1	2%	33	4%
Public Administration	3.4	1%	27	3%
Total	**265**	**100%**	**799**	**100%**

Figure 46 Allocation of Industrial Lands, La Crete, 2017.[76]

The Mackenzie Applied Research Association (MARA) plays a significant role in agricultural industry in the region. The research station at Fort Vermilion, helps farmers adapt traditional agricultural practices to areas with short growing seasons, and long summer sunlight hours. MARA is able to access various sources of Agriculture and Agri-Food Canada funding to develop adaptation technologies, conduct applied research and perform demonstration trials.[77] As per the priorities of the County, sustainable agriculture is key, and it hinges on gaining land transfers for Crown lands; continued agriculture research in human ecology, sustainable resource management, energy productions and information technologies; value added agriculture and agribusiness; and innovative methods for water management.[78]

Alberta has 40% of all the organic oat production in Western Canada and Mackenzie County is one of the most concentrated regions for organic oats in all of North America.[79] In 2016, across 610 farms located in Mackenzie County, there were 150 organic products for sale, 123 certified organic products for sale, and 36 transitional organic products for sale. In 2018, the 272 organic operations within Mackenzie County include a significant percentage of the organic oat acreage in Canada, and 96% of the national organic pea acreage.[80]

[75] Mackenzie County Sustainability Plan, Mackenzie County Community Sustainability Committee, 2016.
[76] Cushing Terrell Architecture Inc., 2017, Industrial Market Analysis, p.20. This resource offers detailed data on Industrial Business Inventory for La Crete, Rainbow Lake and Zama City.
[77] Northern Alberta Broadband Preparedness Project, Taylor Warwick Consulting Limited, 2017.
[78] Mackenzie Regional Housing needs Assessment, SHS Consulting, 2014.
[79] https://www.mackenzieagriculture.com/organicoats
[80] https://www.mackenzieagriculture.com/organiccrops

Averaging farm cash receipts of $42 million, the Mackenzie Region accounts for 0.4% of Alberta's total farm receipts. There are approximately 650 farms in the region with a total acreage of 530,000 acres. The average farm size is 820 acres. The region's major crops include canola, spring wheat, oats, and alfalfa, hay, barley and field peas. The region accounted for 0.3% of Alberta's total value of on-farm livestock and poultry with a total market value of approximately $15 million. Table 175 shows the agricultural trends from 2011–2016.

	2016	2011	Difference from 2011 to 2016 (%)
# of Farms	610	626	-2.56%
Cropland (Acres)	365,563	502,350	-27.2%
Barley (Acres)	24,231	13,129	84.6%
Canola (Acres)	118,761	141,523	-16.1%
Durum Wheat (Acres)	909	1,096	-17.1%
Non-Durum Wheat (Acres)	68,082	57,031	19.4%
Oats (Acres)	52,983	38,396	38.0%
Other (Acres)	100,597	251,175	-59.9%
Cattle and Calves (#)	15,049	16,701	-9.89%
Pigs (#)	1,318	1,067	23.5%

Table 175 Agricultural Trends, Mackenzie County, 2011 and 2016.[81][82][83][84]

Forestry

There are five sawmills within Mackenzie County; Crestview Sawmills Ltd., Evergreen Lumber Inc., Tolko Industries Ltd., Norbord Inc.[85] and La Crete Sawmills. Crestview Sawmills Ltd. are the only mill in the County that can process the large, wide timber (i.e. 12x12, 12x16).

Approximately 24% of the County's 1.9 million hectares is forested with mature timber. Norbord, Tolko Industries and La Crete Sawmills hold Alberta's largest joint Forest Management Agreement (FMA) with an area of more than 3.5 million hectares (35,000 square km). Mercer – Peace River Pulp Mill harvests the deciduous timber in that area as well. Tolko's High Level site was successfully audited to the ISO 140001 International Environmental Management Standard in 2004 and continues to support the corporately held certification.

The world's largest single-line, continuous press operation producing Oriented Strand Board (OSB) and North America's largest three-line sawmill are both operated in the County. Changes in the forest industry in the past decade, in combination with the recent global recession, have certainly had their impact on the County. Ainsworth shut down its operations in late 2008 and reopened its doors in 2014 as Norbord. Tolko closed its site for several months in 2008-2009 but reopened and has been in production again ever since. La Crete Sawmills was able to stay open throughout the recession.[86]

[81] https://regionaldashboard.alberta.ca/region/mackenzie-county/number-of-farms/#/
[82] https://regionaldashboard.alberta.ca/region/mackenzie-county/cropland/#/
[83] https://regionaldashboard.alberta.ca/region/mackenzie-county/total-cattle-and-calves/#/
[84] https://regionaldashboard.alberta.ca/region/mackenzie-county/number-of-pigs/#/
[85] In February 2021, West Fraser completed their acquisition of Norbord Inc.: https://www.westfraser.com/investors/news/news-releases/west-fraser-completes-acquisition-norbord
[86] Mackenzie County Sustainability Plan, Mackenzie County Community Sustainability Committee, 2016.

Alberta's fifth largest producer of forest products, the Mackenzie Region accounted for 6.0% of all the wood fiber processed in 2010. All of the 1.3 million cubic metres of logs consumed in the Mackenzie Region in 2010 was used to produce lumber. Lumber production fell by 24% between 2005 and 2010. In 2010, forestry accounted for an estimated 1,000 jobs in the Mackenzie region, down from nearly 2,200 jobs in 2006. The loss of about 50% of forestry employment has had a serious impact on the entire region. The value of shipments by the Mackenzie Region's wood products sector totalled about $175 million in 2010; a 49% decrease from 2006.[87]

Forestry Company	Forest Management Unit (FMU)	FMA/FMU Area (km^2)
Mercer Peace River Pulp Ltd.	P21	3,794.76[88]
Tolko Industries Ltd./Norbord Inc./La Crete Sawmills	F26	35,581.69[89]

Table 176 Forestry Management Area Sizes, Mackenzie County, 2017 and 2021.

A timber quota is a type of forest tenure that last for 20 years, and is renewable so long as the quota holder is in good standing. In Alberta, timber quotas range from less than 1,000m^3 to over 1,000,000m^3.

Timber quota holders with a combined Annual Allowable Cut (AAC) of 10,000m^3 or more are responsible for reforestation. Timer quota holders with less than 10,000m^3 can either complete the reforestation work or pay a reforestation levy that allows organizations like the Forest Resource Improvement Association of Alberta (FRIAA) to complete the reforestation.[90]

Table 177 provides the AAC for the timber quotas for Forest Management Units that fall fully or partially within Mackenzie County in 2019.

Forestry Company	Forest Management Unit (FMU)	Tree Type	Annual Allowable Cut (m^3)
Crestview Sawmills Ltd.	F11	Conifer (softwood)	22,939
Evergreen Lumber Inc.	F11	Conifer (softwood)	9,955
Norbord Inc.	F11	Deciduous (hardwood)	22,000
Power Wood Canada Corp.	F11	Deciduous (hardwood)	32,491
Power Wood Canada Corp.	F11	Deciduous (hardwood)	34,522
Norbord Inc.	F11	Deciduous (hardwood)	47,969
NDEH Limited Partnership	F14	Conifer (softwood)	52,333
Tolko Industries Ltd.	F14	Conifer (softwood)	25,523
NDEH Limited Partnership	F14	Deciduous (hardwood)	77,771

[87] Accessing the Corridor Benefiting From Northwest Alberta's Proximity To Canada's Shortest Route To The Asia-Pacific, NCDC, 2013.
[88] Altalis, Geo-Administrative Areas, 2020.
[89] Altalis, Geo-Administrative Areas, 2020.
[90] PREDA and REDI Northwest Alberta Commodities, 2020.

Askee Development Corporation	F23	Conifer (softwood)	129,150
Askee Development Corporation	F23	Conifer (softwood)	129,150
Askee Development Corporation	F23	Deciduous (hardwood)	291,800
Power Wood Canada Corp.	F26	Deciduous (hardwood)	118,288
Power Wood Canada Corp.	F26	Deciduous (hardwood)	118,288
Netaskinan Development (GP) Ltd.	F26	Deciduous (hardwood)	30,000
Netaskinan Development (GP) Ltd.	F26	Deciduous (hardwood)	50,000
NDEH Limited Partnership	F26	Deciduous (hardwood)	2,230
Mercer Peace River Pulp Ltd.	F26	Deciduous (hardwood)	179,837
Norbord Inc.	F51	Deciduous (hardwood)	100,000
Boucher Bros. Lumber Ltd.	P21	Conifer (softwood)	40,930
Tolko Industries Ltd.	P21	Conifer (softwood)	76,219
Kee Tas Kee Now Sawmill Ltd.	P21	Conifer (softwood)	74,098
West Fraser Mills Ltd.	P21	Conifer (softwood)	193,209

Table 177 Annual Allowable Cuts for Timber Quotas within Mackenzie County, 2019.[91]

Energy

The Montney Shale Formation spans from Northwest British Columbia to Northwest Alberta and is a source of unconventional natural gas. This shale gas reservoir was once thought of uneconomic and tight, but can now be extracted using horizontal drilling and hydraulic fracturing. In 2018, there were 241.79km^2 of pipelines within the County.[92]

Table 178 shows the ten-year trends of energy resource production in Mackenzie County from 2009–2019. Between 2003 and 2019, 2,418 new wells were drilled within Mackenzie County. In 2003, there were 521 new wells and in 2015, there were 2 new wells. These represent the highest and lowest number of new wells drilled per year during this time period.[93]

Energy Resources	**2019**	**2018**	**2017**	**2016**	**2015**	**5 Year Trend (%)**	**10 Year Trend (%)**

[91] PREDA and REDI Northwest Alberta Commodities, 2020.
[92] Alberta Biodiversity Monitoring Institute, Human Footprint Inventory, 2018.
[93] https://regionaldashboard.alberta.ca/region/mackenzie-county/well-count/#/?from=2015&to=2019

Natural Gas Reserves (m^3)[94]	9.5B	12.3B	12.2B	10.1B	15.6B	-41.5%	-50.70% (*8 year trend)
Natural Gas Production (m^3)[95]	1.3B	1.4B	1.5B	1.5B	1.7B	-26.6%	-58.10%
Oil Production (m^3)[96]	378,927	478,357	482,167	518,504	620,013	-46.8%	-66.30%
Well Count[97]	3	16	15	8	2	-90.00%	-88.00%

Table 178 Energy Resources, Five and Ten Year Trends, Mackenzie County.[98][99][100][101]

Construction

The value of major projects in Mackenzie County between 2018–2020 was $0.00, reflecting a decline of 100% over the last five years. In 2017, the value of major project was $16.2 Million, all of which accounted for pipelines within Mackenzie County.[102]

	2019	2018	Difference from 2018 to 2019	5 Year Trend
Major Projects Value[103]	**$0.00**	**$0.00**	**0.00%**	**-100.00%**
Development Permits (#)[104]	**232**	**218**	**6.42%**	**46.06%**
Commercial Development Permits	20	32		
Industrial Development Permits	14	8		
Residential Development Permits	180	169		
Other Development Permits	18	9		
Development Permits Value ($)[105]	**$34.3 Million**	**$29.8 Million**	**15.30%**	**61.02%**
Commercial DP Project Value	7,208,400	5,111,000		
Industrial DP Project Value	800,000	2,110,317		
Residential DP Project Value	25,192,496	22,015,174		

[94] Reserves of raw gas or marketable gas or any constituent of raw gas, condensate, crude bitumen or crude oil that is recovered in processing and that is gaseous at the conditions under which its volume is measured or estimated.
[95] Production of raw gas or marketable gas or any constituent of raw gas, condensate, crude bitumen or crude oil that is recovered in processing and that is gaseous at the conditions under which its volume is measured or estimated.
[96] Conventional and non-conventional oil (including unprocessed bitumen and synthetic oil) production.
[97] Total development, exploratory, evaluation and experimental wells drilled including natural gas, coalbed methane, crude oil, crude bitumen and other wells.
[98] https://regionaldashboard.alberta.ca/region/mackenzie-county/natural-gas-reserves/#/?from=2015&to=2019
[99] https://regionaldashboard.alberta.ca/region/mackenzie-county/natural-gas-production/#/?from=2015&to=2019
[100] https://regionaldashboard.alberta.ca/region/mackenzie-county/oil-production/#/?from=2015&to=2019
[101] https://regionaldashboard.alberta.ca/region/mackenzie-county/well-count/#/?from=2015&to=2019
[102] https://regionaldashboard.alberta.ca/region/mackenzie-county/major-projects/#/stacked/sector/?from=2004&to=2020
[103] https://regionaldashboard.alberta.ca/region/mackenzie-county/major-projects/#/?from=2004&to=2020
[104] Mackenzie County, 2021.
[105] Mackenzie County, 2021.

Other DP Project Value	1,057,600	475,000		
Building Permits (#)[106]	**122**	**129**	**-5.43%**	**-37.91%**
Commercial Building Permits	10	17		
Industrial Building Permits	5	12		
Residential Building Permits	102	97		
Institutional Building Permits	5	3		
Building Permits Value ($)[107]	**$22.8 Million**	**$22.4 Million**	**1.94%**	**-49.07%**
Commercial BP Project Value	2,531,000	2,599,000		
Industrial BP Project Value	600,000	1,621,000		
Residential BP Project Value	19,142,000	17,327,000		
Institutional BP Project Value	518,000	810,000		

Table 179 Development and Building Permits, Mackenzie County, 2018–2019.

1.2.4 Municipal Tax Assessment

Table 180 shows the Equalized Assessment trends from 2008–2019 in Mackenzie County, with Table 181 providing the uncollectable and unpaid taxes from 2008–2020, and Table 182 offering the annual rate of the Property Assessment rates from 2018–2019.

Year	Residential	Farmland	Non-Residential (Non-Regulated)	NR Linear Property	NR Railway	Machinery & Equipment	Annual Total
2019	878,882,236	44,584,980	301,430,686	801,637,440	3,671,130	351,971,880	2,382,178,352
2018	804,565,895	44,369,220	275,525,641	825,912,530	3,590,440	347,068,660	2,301,032,386
2017	762,728,801	44,886,360	275,567,433	998,801,290	3,644,020	390,359,080	2,475,986,984
2016	689,873,499	44,924,220	262,647,136	1,171,219,970	3,429,670	411,478,000	2,583,572,495
2015	589,485,365	44,866,980	244,324,425	1,182,792,130	3,295,680	429,507,410	2,494,271,990
2014	530,150,820	43,667,130	243,545,531	1,112,090,020	3,268,890	340,055,290	2,272,777,681
2013	471,673,897	43,564,430	212,228,693	1,091,272,460	2,744,350	361,642,160	2,183,125,990
2012	456,293,709	42,804,810	205,173,077	1,095,984,390	2,618,460	369,546,680	2,172,421,126
2011	421,868,642	42,799,210	208,473,880	1,155,158,020	2,744,340	389,279,600	2,220,323,692
2010	417,180,000	42,821,420	202,651,250	1,284,629,630	2,970,970	445,515,770	2,395,769,040

[106] https://regionaldashboard.alberta.ca/region/mackenzie-county/number-of-building-permits/#/stacked/building-type/?from=2015&to=2019
[107] https://regionaldashboard.alberta.ca/region/mackenzie-county/value-of-building-permits/#/stacked/building-type/?from=2015&to=2019

2009	355,545,895	36,830,940	174,516,253	1,224,960,920	2,440,250	496,825,290	2,291,119,548
2008	319,082,847	36,897,220	161,535,119	1,167,371,340	2,670,450	491,296,420	2,178,853,396

Table 180 Equalized Assessment Trends, Mackenzie County, 2008-2019.[108]

Year	Total Uncollectable Taxes[109]	Total Unpaid Taxes[110]
2020	$6,062,895.29	$8,353,164.51
2019	$4,545,958.42	$5,044,588.63
2018	$8,354,476.35	$2,668,244.30
2017	$4,454,476.35	$5,426,891.27
2016	$3,728,368.49	$5,022,073.53
2015	$3,750,968.22	$3,431,213.41
2014	$1,504,319.92	$1,945,075.78
2013	$132,802.14	$1,363,656.13
2012	$104,822.51	$893,199.65
2011	$86,393.89	$749,708.05
2010	$86,283.20	$589,156.20
2009	$59,937.00	$553,187.68
2008	$20,00.00	$482,685.35

Table 181 Total Uncollectable and Unpaid Taxes, Mackenzie County, 2008–2020.[111]

Property Type	2018	2019	Annual Change
Farmland	$44.4M	$44.6M	0.49%
Machinery & Equipment (M&E)	$347.1M	$352.0M	1.41%
Non Residential (Non Regulated)	$275.2M	$301.4M	9.53%
Non Residential Co-Generating M&E	$0.00	$0.00	N/A
Non Residential Linear Property	$825.9M	$801.6M	-2.94%
Non Residential Railway	$3.6M	$3.7M	2.25%
Residential	$803.5M	$878.7M	2.25%

[108] https://open.alberta.ca/publications/1844032
[109] Total uncollectable taxes are taxes that are unable to be collected due to age or bankruptcy.
[110] Total unpaid taxes is the outstanding amount of taxes owing as of the corresponding years, as taxes accumulate each year.
[111] Mackenzie County, April 2021.

Grand Total	$2.3B	$2.4B	3.58%

Table 182 Annual Change Rate, Property Assessment Rates, Mackenzie County, 2008–2019.[112]

1.2.5 Retail Centres

Most retail shops and services for the County are located in Fort Vermilion and La Crete; these include grocery stores, pharmacy, home improvement and financial services. Most residents of the region travel to High Level or Grande Prairie to shop at Walmart, Costco and other larger retail and box stores. Table 183 breaks down retail businesses by community within Mackenzie County.

Community	# of Retail Stores	# of 'Big Box' Stores[113]	More Information
La Crete	34	0	Travel to High Level, Slave Lake, Grande Prairie or Edmonton
Tompkins/Blue Hills/ Buffalo Head Prairie	4	0	Travel to High Level, Slave Lake, Grande Prairie or Edmonton
Fort Vermilion	6	0	Travel to High Level, Slave Lake, Grande Prairie or Edmonton
Rocky Lane	1	0	Travel to High Level, Slave Lake, Grande Prairie or Edmonton
Zama City	2	0	Travel to High Level, Peace River, Grande Prairie or Edmonton
Rural High Level	0	0	Travel to High Level, Peace River, Grande Prairie or Edmonton

Table 183 Retail Business, Mackenzie County, 2020.

1.3 Services and Infrastructure

1.3.1 Access to Professional Services and Trades

Table 184 lists Trades and Certifications for 2015 in Mackenzie County.

Trade	New Apprentices[114]	Registered Apprentices[115]	Certified Apprentices[116]
Total All Trades	**37**	**172**	**14**
Agricultural Equipment Technician	1	2	0
Appliance Service Technician	1	1	0
Auto Body Technician	0	1	0
Automotive Service Technician	6	18	2
Baker	0	1	0

[112] https://regionaldashboard.alberta.ca/region/mackenzie-county/property-assessments/#/stacked/property-type/?from=2015&to=2019

[113] 'Big Box' Store is defined as a physically large retail establishment, often part of a chain of stores, and offering a variety of products (e.g. Walmart, Superstore).

[114] https://regionaldashboard.alberta.ca/region/mackenzie-county/new-apprentices-registered/#/stacked/trade/

[115] https://regionaldashboard.alberta.ca/region/mackenzie-county/total-apprentices-registered/#/stacked/trade/

[116] https://regionaldashboard.alberta.ca/region/mackenzie-county/apprentices-certified/#/stacked/trade/

Boilermaker	0	1	0
Cabinetmaker	0	6	1
Carpenter	4	17	0
Concrete Finisher	1	1	0
Cook	0	2	0
Crane and Hoist Equipment Operator	0	5	0
Electrician	3	27	2
Floor covering Installer	0	0	0
Gasfitter	1	1	0
Hairstylist	2	3	0
Heavy Equipment Technician	5	36	4
Ironworker	1	2	0
Millwright	1	1	0
Motorcycle Mechanic	1	1	0
Outdoor Power Equipment Technician	1	4	0
Parts Technician	2	3	3
Plumber	4	22	1
Power line Technician	1	6	0
Refrigeration and Air Conditioner Mechanic	0	4	0
Sheet Metal Worker	0	1	0
Steamfitter-Pipefitter	0	1	0
Welder	2	5	1

Table 184 Trades and Apprentice Certifications, Mackenzie County, 2015.

1.3.2 Access to Transportation

One of the largest barriers to development identified in Mackenzie County is the distance to markets combined with deficient transportation infrastructure. Both distances to external markets and between key communities are significant hurdles.[117]

[117] Mackenzie County Sustainability Plan, Mackenzie County Community Sustainability Committee, 2016.

Air

There are airports at La Crete and Fort Vermilion with helicopter staging areas, which are utilized by private aircraft owners, medivac and charter plane services. The hamlet of Zama City has a helicopter staging area, and there is a gravel/grass strip at Bistcho Lake used for tourism.

The closet airport for passenger services:

- High Level Airport, High Level AB (80 km – 150 km drive depending on origin);
- Grande Prairie Airport, Grande Prairie AB (435 km – 600 km drive depending on origin); and
- Edmonton International Airport, Edmonton AB (680 km – 887 km drive depending on origin).

Road

The road system includes Highway 35 also known as the Mackenzie Highway, Highway 88 also known as the Bicentennial Highway and Highway 697, which are the primary entrances into Mackenzie County from the south. The Zama Access Road from Hwy 35 is the main access to the Community of Zama City as well as 8,000 sq. kms of crown land that Industry relies on.

Highway 58, which runs east and west, serves the Town of Rainbow Lake and the oil and gas fields in the western portion of the County, and several Indigenous Settlements and agricultural areas in the east. There is discussion of the expansion of Highway 58 to the west to Fort Nelson, BC and northeast to Fort Smith.

Much of the industry in the Rainbow Lake and Zama areas of Mackenzie County is serviced by road infrastructure that Industry themselves maintain (lease costs, maintenance and bridges). This is another cost that is higher for industry partners than in other areas of the province, which can make it is a challenge for them to remain competitive.

Northern Express Line operates long distance buses along Highways 35, 88 and 58. An individual by the name of Ron Antoine also operates a bus service north of High Level into the Northwest Territories.[118] Table 185 shows the breakdown of road ownership within the County; each owner is responsible for maintaining their roads.

Road Ownership	Classification	Material	Length/Area (km/km^2)
Mackenzie County	Local Government Road	Asphalt	41.39 km
	Local Government Road	Dirt/Gravel/Oil	3,779.00 km
Mackenzie County Total: 3,779.05 km[119]			
Government of Alberta	Primary Highway	Asphalt	675.26 Km
	Unknown	Gravel	90.01 km
Government of Alberta Total: 765.28 km[120]			
Natural Resource Industries	DLO – Licence of Occupation	Unknown	298.39 km^2
	LOC – License of Occupation	Unknown	203.38 km^2

[118] Alberta Provincial Bus Service, Alberta Transportation, 2018.
[119] Alberta Municipal Data Sharing Partnership, 2014.
[120] Alberta Municipal Data Sharing Partnership, 2014.

	PLC – License of Occupation	Unknown	2.95 km^2
Natural Resource Industries Total: 131.41 km[2121]			
Other	Winter Road and Access	Unknown	6,417.17 km
	Unimproved, Unclassified Roads and Truck Trails	Unknown	7,717.20 km
Other Total: 4,343.28 km[122]			

Table 185 Road Ownership and Total Kilometers, Mackenzie County.

Rail

Great Slave Railway Line, operated by CN Rail, runs through the Mackenzie County to Hay River, Northwest Territories. Lumber and grain make up the majority of transportation south, while fuel to Hay River is the major commodity freighted north. There is a total of 484.88 km of railway lines within Mackenzie County.[123]

Water

La Crete Ferry (also called Tompkins Landing Ferry) operates 24 hours a day from late April until late November (weather and conditions dependant) every year along Highway 697 over the Peace River.[124] In the winter, an ice bridge is maintained at the same spot, but only allows limited crossings. In November 2020, a recently introduced bill would allow Alberta Transportation Ministry to collect tolls to finance the construction of new or expanded highway infrastructure projects. Planning and design work could begin on construction of the new bridge on Highway 697 over the Peace River at Tompkins Landing. This bridge would replace the winter ice road crossing and aging seasonal ferry at Tompkins Landing with an expected cost of $200 million. It would create year round access with increased traffic, improving the movement of goods and people in the region.

1.3.3 Childcare

The Head Start Programs offers childcare services within Mackenzie County, in Fort Vermilion and La Crete, and there are an unknown number of unregistered day homes across the County. Table 186 shows childcare availability and demand for Mackenzie County from 2018–2020.

		2018	2019	2020
# of children in registered day care	Head Start Program (Fort Vermilion)[125]	9	15	12
	Head Start Program (La Crete)[126]	30	30	30
# of children in registered day homes	Unknown			
# of waitlist	Head Start Program (Fort Vermilion)	0	0	0

[121] Alberta Biodiversity Monitoring Institute, Human Footprint Inventory, 2018.
[122] Alberta Biodiversity Monitoring Institute, Human Footprint Inventory, 2018.
[123] Alberta Biodiversity Monitoring Institute, Human Footprint Inventory, 2018.
[124] Alberta Ferry Schedules, Alberta Government, 2020.
[125] Stakeholder Data, November 2020: https://www.northwestalbertabrighterfutures.com/fort-vermilion-head-start.html
[126] https://www.northwestalbertabrighterfutures.com/la-crete-head-start.html

	Head Start Program (La Crete)	5-10	5-10	5-10
# of children in informal childcare	Unknown			

Table 186 Childcare Availability & Demand, Mackenzie County, 2018–2020.

1.3.4 Child Intervention

Child Intervention offers a range of supports and resources for children, youth and families in five regions across Provincial, Metis and Indigenous Children's Services offices and Delegated First nation Agencies.[127]

There are no child intervention facilities within Mackenzie County. Children, youth and young adults from the County who require intervention services would likely access these services from the High Level or Slave Lake worksites, and the average number of intakes coming from Mackenzie County is unknown.

There are four (4) group care or treatment focused facilities accessed by the Ministry of Children's Services, which are located in relative proximity to Mackenzie County. These facilities are located in Grande Prairie (2), the Town of Sexsmith (1) and the Town of High Prairie (1).[128]

	Grande Prairie	Sexsmith	High Prairie
Fort Vermilion	~ 532 kms/5.75 hrs	~ 512 kms/5.5 hrs	~ 419 kms/4.25 hrs
La Crete	~ 479 kms/5.5 hrs	~ 460 kms/5 hrs	~ 429 kms/4.25 hrs
Rocky Lane	~ 509 kms/5.5 hrs	~ 489 kms/5.25 hrs	~ 440 kms/4.5 hrs
Tompkins Landing/Blue Hills/Buffalo Head Prairie	~ 431 kms/5 hrs	~ 411 kms/4.5 hrs	~ 400 kms/4.5 hrs
Zama City	~ 600 kms/6.5 hrs	~ 581 kms/6.25 hrs	~ 570 kms/6.25 hrs

Table 187 Approximate Travel Distances & Times for Mackenzie County Residents to the Group Care or Treatment Facilities accessed by the Ministry of Children's Services.[129]

1.3.5 Education

The education system for the County employs 578 people across the region with 225 teachers and 353 support staff (the majority of which are local/long-time residents). However, with the growing economic recession across the province, and hitting the northern region particularly hard some schools have started to close (e.g. Zama City). These school closures have detrimental impacts on their communities; families leave and take their income with them affecting local businesses and recreational activities. Closures of larger schools in the County could have economic impacts of up to $50 million lost in local income and revenue.

In many communities there is also large numbers of children who are homeschooled or private schooled, across the County this accounts for up to 900 students, these students are taught outside of the Alberta curriculum, many not completing secondary studies. Many of these same schools have exceptionally low retention rates of 8-10%.[130]

[127] Ministry of Children's Services, 2021.
[128] Ministry of Children's Services, 2021.
[129] Ministry of Children's Services, 2021.
[130] Stakeholder Interview, FVSD, January 2020.

There is also a challenge with teacher retention, they are not given the Northern Allowance, and many find it hard to secure accommodations and find the work particularly challenging, especially when many are first-time teachers. Many are often expected to play the role of councillor for students facing traumas. It was noted that many teachers leave ahead of their contract, often suffering from PTSD.[131]

Mackenzie County had 1,944 students registered in kindergarten through ninth grade in 2019, increasing 14.4% from 2018. There were 386 students enrolled in high school in 2019, decreasing 1.53% from 2018.[132] Community data suggests this number is as high as 3,500 students. There is also a population of 'transient' students whose families move dependant on work in the region, or professionals who come and go across the region.

Table 188 provides a breakdown of schools by grade, students registered and location within the County for the 2018–2019 school year; as well as [select] Annual Education Results.[133]

School	Measure (Local compared to Alberta)					Measure Evaluation Overall
		Current Results	Prev 3 Yr. Average	Current Result (AB)	Prev 3 Yr. Average (AB)	
Blue Hills Community School K–12 143 Students [Buffalo Head Prairie]	Safe & Caring			89.4	89.2	
	Program of Studies			82.4	82.0	
	Education Quality			90.3	90.1	
	Drop Out Rate			2.7	2.7	
	High School Completion Rate			79.7	78.4	
	PAT: Acceptable			73.8	73.6	
	PAT: Excellence			20.6	19.6	
	Diploma: Acceptable			83.6	83.1	
	Diploma: Excellence			24.0	22.5	
	Diploma Exam Participation Rate			56.4	55.6	

[131] Stakeholder Interview, FVSD, January 2020.
[132] https://regionaldashboard.alberta.ca/region/mackenzie-county/high-school-enrollments/#/?from=2015&to=2019
[133] http://www.prsd.ab.ca/Departments.php; https://hfcrd.ab.ca/. Data values have been supressed where the number of respondents/students is fewer than 6. Suppression is marked with an asterisk (*). Other relevant report notes are available directly in the document sourced.

	Rutherford Scholarship Eligibility Rate					
Buffalo Head Prairie School K–9 212 Students [Buffalo Head Prairie]		**Current Results**	**Prev 3 Yr. Average**	**Current Result (AB)**	**Prev 3 Yr. Average (AB)**	
	Safe & Caring			89.4	89.2	
	Program of Studies			82.4	82.0	
	Education Quality			90.3	90.1	
	Drop Out Rate			2.7	2.7	
	PAT: Acceptable			73.8	73.6	
	PAT: Excellence			20.6	19.6	
Fort Vermilion Public School 7–12 99 Students [Fort Vermilion]		**Current Results**	**Prev 3 Yr. Average**	**Current Results (AB)**	**Prev 3 Yr. Average (AB)**	
	Safe & Caring			89.4	89.2	
	Program of Studies			82.4	82.0	
	Education Quality			90.3	90.1	
	Drop Out Rate			2.7	2.7	
	PAT: Acceptable			73.8	73.6	
	PAT: Excellence			20.6	19.6	
Hill Crest Community School K–9 201 Students [La Crete]		**Current Results**	**Prev 3 Yr. Average**	**Current Results (AB)**	**Prev 3 Yr. Average (AB)**	
	Safe & Caring			89.4	89.2	
	Program of Studies			82.4	82.0	
	Education Quality			90.3	90.1	

	Drop Out Rate			2.7	2.7	
	High School Completion Rate			79.7	78.4	
	PAT: Acceptable			73.8	73.6	
	PAT: Excellence			20.6	19.6	
	Diploma: Acceptable			83.6	83.1	
	Diploma: Excellence			24.0	22.5	
	Diploma Exam Participation Rate			56.4	55.6	
	Rutherford Scholarship Eligibility Rate			66.6	63.5	
La Crete Public School 8–12 416 Students [La Crete]		**Current Results**	**Prev 3 Yr. Average**	**Current Results (AB)**	**Prev 3 Yr. Average (AB)**	
	Safe & Caring			89.4	89.2	
	Program of Studies			82.4	82.0	
	Education Quality			90.3	90.1	
	Drop Out Rate			2.7	2.7	
	PAT: Acceptable			73.8	73.6	
	PAT: Excellence			20.6	19.6	
Northern Home Education Centre K–12 277 Students [La Crete]		**Current Results**	**Prev 3 Yr. Average**	**Current Results (AB)**	**Prev 3 Yr. Average (AB)**	
	Safe & Caring			89.4	89.2	
	Program of Studies			82.4	82.0	
	Education Quality			90.3	90.1	

	Drop Out Rate			2.7	2.7	
	PAT: Acceptable			73.8	73.6	
	PAT: Excellence			20.6	19.6	
Ridgeview Central School 4-6 231 Students [La Crete]		**Current Results**	**Prev 3 Yr. Average**	**Current Results (AB)**	**Prev 3 Yr. Average (AB)**	
	Safe & Caring			89.4	89.2	
	Program of Studies			82.4	82.0	
	Education Quality			90.3	90.1	
	Drop Out Rate			2.7	2.7	
	PAT: Acceptable			73.8	73.6	
	PAT: Excellence			20.6	19.6	
Rocky Lane School K–12 159 Students [Fort Vermilion]		**Current Results**	**Prev 3 Yr. Average**	**Current Results (AB)**	**Prev 3 Yr. Average (AB)**	
	Safe & Caring			89.4	89.2	
	Program of Studies			82.4	82.0	
	Education Quality			90.3	90.1	
	Drop Out Rate			2.7	2.7	
	High School Completion Rate			79.7	78.4	
	PAT: Acceptable			73.8	73.6	
	PAT: Excellence			20.6	19.6	
	Diploma: Acceptable			83.6	83.1	
	Diploma: Excellence			24.0	22.5	

	Diploma Exam Participation Rate			56.4	55.6	
	Rutherford Scholarship Eligibility Rate			66.6	63.5	
Sandhills Elementary School K–3 366 Students [La Crete]		**Current Results**	**Prev 3 Yr. Average**	**Current Results (AB)**	**Prev 3 Yr. Average (AB)**	
	Safe & Caring			89.4	89.2	
	Program of Studies			82.4	82.0	
	Education Quality			90.3	90.1	
	Drop Out Rate			2.7	2.7	
	High School Completion Rate			79.7	78.4	
	PAT: Acceptable			73.8	73.6	
	PAT: Excellence			20.6	19.6	
	Diploma: Acceptable			83.6	83.1	
	Diploma: Excellence			24.0	22.5	
	Diploma Exam Participation Rate			56.4	55.6	
	Rutherford Scholarship Eligibility Rate			66.6	63.5	
St. Mary's Elementary School K–3 120 Students [Fort Vermilion]		**Current Results**	**Prev 3 Yr. Average**	**Current Results (AB)**	**Prev 3 Yr. Average (AB)**	
	Safe & Caring			89.4	89.2	
	Program of Studies			82.4	82.0	
	Education Quality			90.3	90.1	
	Drop Out Rate			2.7	2.7	

	High School Completion Rate			79.7	78.4	
	PAT: Acceptable			73.8	73.6	
	PAT: Excellence			20.6	19.6	
	Diploma: Acceptable			83.6	83.1	
	Diploma: Excellence			24.0	22.5	
	Diploma Exam Participation Rate			56.4	55.6	
	Rutherford Scholarship Eligibility Rate			66.6	63.5	

Table 188 Schools by grade, registration, annual education results, Mackenzie County, 2018–2019.

Post-Secondary

Post-Secondary Enrollment[134]			**High School Enrollment[135]**			**K–9 Enrollment[136]**		
2019	**2015**	**5 Year Change**	**2019**	**2015**	**5 Year Change**	**2019**	**2015**	**5 Year Change**
238	212	**10.33%**	386	390	**-1.07%**	1,944	1,618	**17.42%**

Table 189 Education Enrollments Five-Year Trends, Mackenzie County.

Mackenzie County had 249 students attending a public post-secondary institution in 2018, declining -2.73% from 256 in 2017.[137]

There are numerous post-secondary and continuing education programs available through Northern Alberta Institute of Technology, Northern Lakes College, Kayas Cultural College (Little Red River Cree Nation), and Athabasca University.[138]

Enhanced post-secondary offerings have been identified as priorities to help keep youth studying and employed locally. These include:

- Alberta Health Services has indicated that it would be feasible to make Health Care Aides and Licensed Practical Nurse programs available locally through remote and onsite courses using linked learning centres. However, because of the cost of the technical diagnostic programs, it would be

[134] https://regionaldashboard.alberta.ca/region/mackenzie-county/post-secondary-enrollment/#/?from=2015&to=2019
[135] https://regionaldashboard.alberta.ca/region/mackenzie-county/high-school-enrollments/#/?from=2015&to=2019
[136] https://regionaldashboard.alberta.ca/region/mackenzie-county/k-9-enrollments/#/?from=2015&to=2019
[137] https://regionaldashboard.alberta.ca/region/mackenzie-county/post-secondary-enrollment/#/?from=2014&to=2018
[138] Northern Alberta Broadband Preparedness Project, Taylor Warwick Consulting Limited, 2017.

necessary to offer these in a more centralized location such as Grande Prairie in order to attract enough students.[139]

- To keep youth studying and locally employed, prioritizing the need for post-secondary opportunities to be offered in the region. A centre for apprenticeship training could be offered in the County through a partnership between the school division and Northern Lakes College. This would target high-school graduates, adults and Registered Apprenticeship Program graduates.[140]
- The University of Calgary holds 20 seats for students from the region in their Bachelor of Education program, which is designed to allow students to do a majority of their studies in their home communities. Students receive full tuition and the program is having a high completion and retention rate to date.

Table 190 shows 2018 education levels for Mackenzie County, including those that are school aged.[141]

Education Level	Percentage
K-8	28
Some High School	25
High School Diploma	28
University Degree	6
Post-Secondary Diploma	8
Some Higher Education, No Degree	9
Other	2

Table 190 Education Levels for Mackenzie County, 2018.

1.3.6 Housing

In 2019, there were 3,088 dwelling units in Mackenzie County.[142] Of these homes, 69.5% were single-family homes, which has declined by 11.6% over five years between 2011 and 2016.[143]

There is an average of 3.3 people per household, 66% of people living in the rural and 34% in the urban, with 86% of individuals owning their own and 14% renting.[144]

While La Crete has a good variety of rental properties and Zama City has rental properties available through Mackenzie County, Fort Vermilion has a chronic lack of availability of rental properties.

Table 191 provides the average purchase price for a variety of homes and land transfers within Mackenzie County between 2010 and 2020.

[139] Mackenzie County Sustainability Plan, Mackenzie County Community Sustainability Committee, 2016.
[140] Mackenzie County Sustainability Plan, Mackenzie County Community Sustainability Committee, 2016.
[141] Mackenzie County Municipal Census 2018, Mackenzie County, 2018.
[142] https://regionaldashboard.alberta.ca/region/mackenzie-county/dwelling-units/#/?from=2015&to=2019
[143] https://regionaldashboard.alberta.ca/region/mackenzie-county/percent-single-family-houses/#/
[144] Mackenzie County Municipal Census 2018, Mackenzie County, 2018.

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	Value Change
Number of Owned Properties											
Average Housing Sold Prices (Thousands $) Fort Vermilion[145]	$233	$270	$196	-	$115	$135	$110	$155	$68	$42	81.99%
Average Housing Sold Prices (Thousands $) La Crete[146]	$210	$200	$197	$207	$174	$214	$168	$168	$133	$167	-109.8%
Average Housing Sold Prices (Thousands $) Zama City[147]	$100	-	-	$65	-	-	$67	$42	-	-	37.3%
Number of Rental Properties											
Average Housing Rental Prices ($) Fort Vermilion											
Average Housing Rental Prices ($) La Crete											
Average Housing Rental Prices ($) Zama City											
Value of Land Transfers[148] (Millions $)	$78.3	$91.6	$85.8	$95.2	$84.3	$76.6	$81.1	$72.7	$115	$46	105.5%
Number of Land Transfers[149]	291	375	380	415	383	415	426	430	314	337	-10.7%
Average Land Prices											

Table 191 Housing Prices and Values for Mackenzie County, 2009–2019.

Low-Income Housing

The Boreal Housing Foundation (BHF) is currently providing the following low-income housing within the County:[150]

- 200 low-income housing units in (High Level, Fort Vermilion and La Crete):

[145] Stakeholder Provided Data, August 2020.
[146] Stakeholder Provided Data, August 2020.
[147] Stakeholder Provided Data, August 2020.
[148] https://regionaldashboard.alberta.ca/region/mackenzie-county/value-of-land-title-transfers/#/?from=2009&to=2013
[149] https://regionaldashboard.alberta.ca/region/mackenzie-county/number-of-land-title-transfers/#/?from=2009&to=2013
[150] Stakeholder Interview, Boreal Housing Foundation, January 2020.

    - 30% of their income is taken towards this housing; and
    - there are currently waitlists in High Level and Fort Vermilion for low-income housing (20 units needed in High Level and 10 units needed in Fort Vermilion).
- 15 SRHI [Sustainable Remote Housing Unit] which is a rent-to-own program.
- 30 participants in the Direct to Tenant Rent Supplement (DTT), which is paid directly to the tenant. This program is a relationship between Boreal Housing Foundation and the tenant. Rent is calculated on 30% of a households' adjusted income, and is reviewed annually. The subsidy paid is the difference between what the tenant should pay, based on their income, and the actual market rate to a maximum of $400.00 each month. We confirm the details of the property and terms of rental with the landlord, but other than that, everything is between the tenant and BHF. The tenant must submit a receipt to BHF, to confirm that rent has been paid each month in full in order to receive supplement for the next month.[151]
- The group that always 'fall through the cracks' is the 'newly-senior' single person – so not ready for senior homes, but don't have families so often don't qualify for low-income housing, and many of these units are two-bedrooms.
- Single mothers are the biggest group that occupies the low-income housing as well as Assured Income for the Severely Handicapped (AISH) & Supports for Independence (SFI) clients.

[151] Stakeholder Interview, September 2020.

1.3.7 Utilities, Services and Waste Management

Electricity

Mackenzie County has approximately 968.29 km of transmission lines[152] and is located within ATCO Electric's transmission and distribution territory.[153]

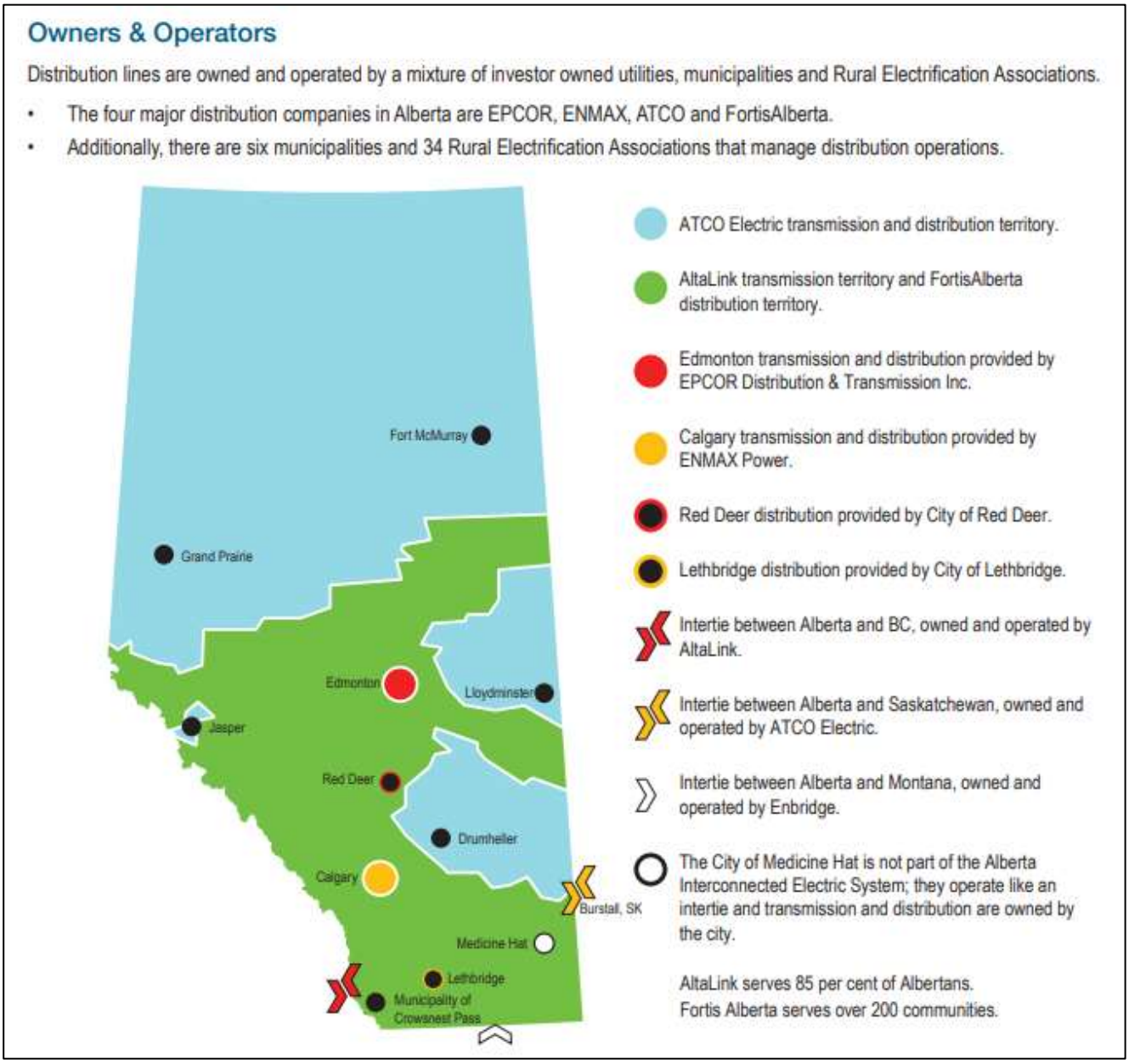

Figure 47 Owners and Operators – Electricity Distribution, Government of Alberta, 2014.[154]

[152] Alberta Biodiversity Monitoring Institute, Human Footprint Inventory, 2018.
[153] https://open.alberta.ca/dataset/eb73a7a5-7b54-4510-920d-a820fb9bc41a/resource/0497733c-2716-445f-b151-6d26a61c1a3d/download/2014-12-electricity-distribution.pdf
[154] https://open.alberta.ca/dataset/eb73a7a5-7b54-4510-920d-a820fb9bc41a/resource/0497733c-2716-445f-b151-6d26a61c1a3d/download/2014-12-electricity-distribution.pdf

The average cents per kilowatt-hour for electricity regulated rates in 2020 across all four distributors were relatively similar province-wide. However, consumption rates are likely increased in the North zone due to sustained colder temperatures during the winter season.

While the average monthly transmission charges have been similar from 2004 to 2019 across all four distributors, monthly distribution charges have been significantly higher in the North zone since 2004.

Distributor	EPCOR Distribution	Fortis Alberta Inc.	ENMAX Power Corporation	ATCO Electric
Average 2020 Electricity Regulated Rates in cents/kWh	6.809	6.708	6.360	6.590

Table 192 2020 Regulated Electricity Rates, Utilities Consumer Advocate 2020.[155]

Transmission Charges

Transmission rates are approved and regulated by the Alberta Utilities Commission. The transmission charge on an electricity bill is based on how much electricity the customer has used.

As shown in Figure 48, Alberta has seen an increase in transmission charges since 2004 due to the expansion of infrastructure. There have been a number of large transmission projects, which have led to an increase in costs being passed on to consumers. In 2019, monthly transmission charges paid by the average residential customer with 600kWh of consumption ranged from $21.04 (in EPCOR's service area) and $27.59 (in ENMAX's service area). Transmission charges constitute between 14% and 24% of a customer's total bill.[156]

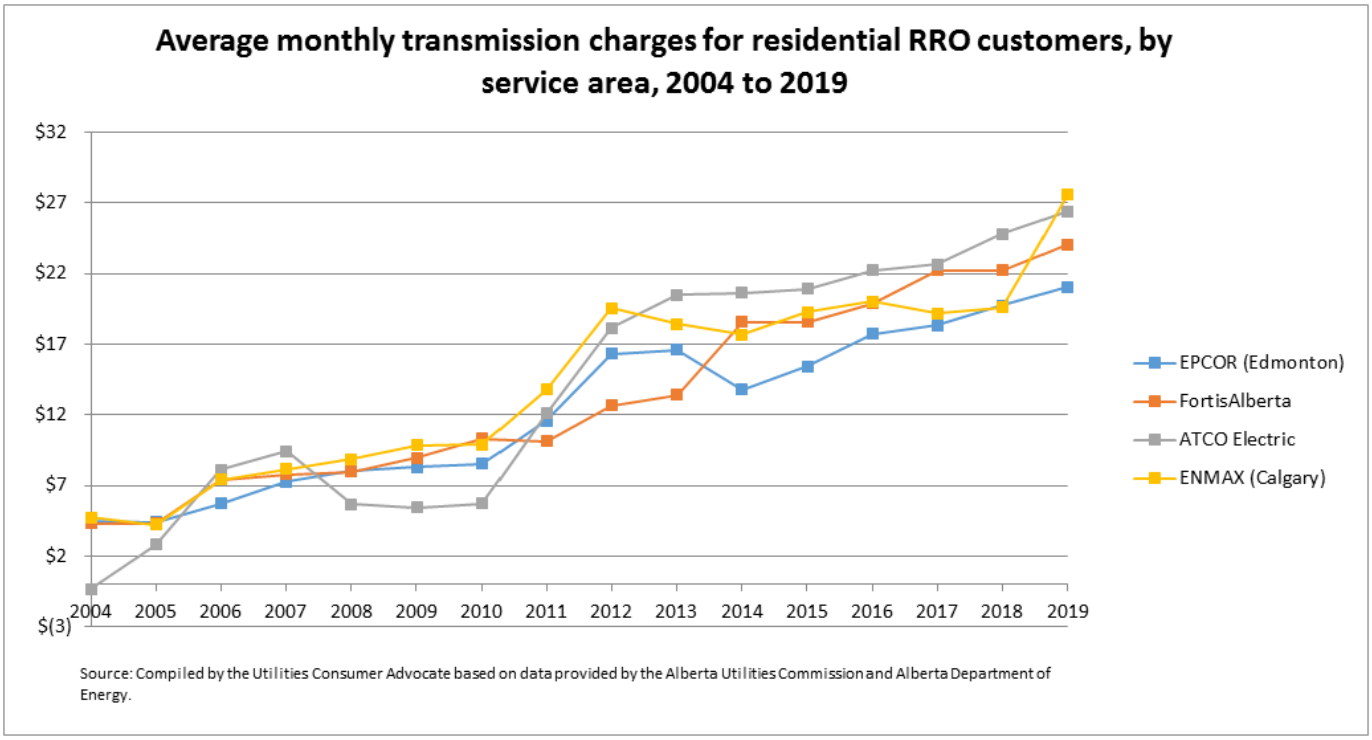

Figure 48 Average Monthly Transmission Charges in Alberta, 2020.

[155] https://ucahelps.alberta.ca/regulated-rates.aspx
[156] https://ucahelps.alberta.ca/electricity-transmission-and-distribution-charges.aspx

Distribution Charges

The Alberta Utilities Commission also regulates distribution rates for Calgary (Enmax), Edmonton (EPCOR), Fortis Alberta and Atco Electric. Distribution rates for Cardston, Ponoka, Red Deer and Lethbridge are approved by local municipal governments and town councils. Rural electrification associations have boards of directors that approve distribution rates on behalf of members.

As shown in Figure 49, distribution costs vary with location and consumption. Distribution charges are higher for customers in rural Alberta than for customers in urban areas because of the low population density and longer distances between customer sites. In 2019, monthly distribution charges paid by the average residential customer with 600kWh of consumption ranged from $22.13 (in ENMAX's service area) to $85.77 (in ATCO's service area). Distribution charges constitute between 20% and 47% of a customer's total bill.[157]

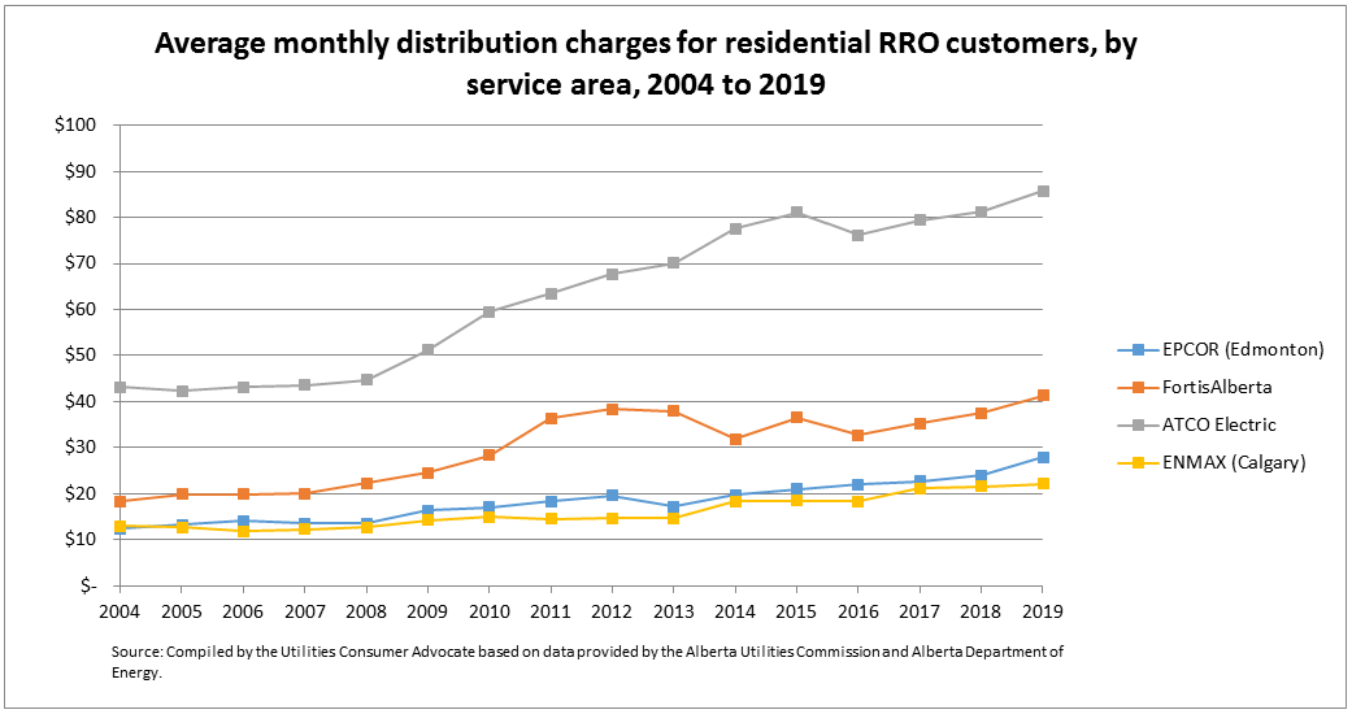

Figure 49 Average Monthly Distribution Charges in Alberta, 2020.

Internet

Internet and cellular coverage are based and strongest around urban centres in the region (Northern Alberta Broadband Preparedness Project, Taylor Warwick Consulting Limited, 2017).

Telus, Rogers, and Bell serve the cellular coverage for the region, with Norwest, Rainbow Lake Coaxial Cable, Telus, Arrow Technology Group, Corridor Communications, Little Red River First Nations and XplorNet are the various internet providers, with internet speed and reliability being a significant concern.[158]

[157] https://ucahelps.alberta.ca/electricity-transmission-and-distribution-charges.aspx

[158] Northern Alberta Broadband Preparedness Project, Taylor Warwick Consulting Limited, 2017; Mackenzie County Sustainability Plan, Mackenzie County Community Sustainability Committee, 2016.

Internet Provider	Average Upload Speed (Mb per second)	Average Download Speed (Mb per second)	Average Latency Speed (Milli-seconds)	Type of Connection Available (Fibre-Optic, DSL, Fixed-Wireless)	Cost for Connection by Type	Cost for Consumption (per Mb or Unlimited)
Alberta SuperNet (Public Sector)	25 Mbps/ 1Gbps	25 Mbps/ 1Gbps	30	Fibre-Optic	Variable – can be significant (>$2,500.00)	Average monthly rate for 1Gbps $99 .00 Residential $599.00 Business
Arrow	2 Mbps	20 Mbps	-	Fixed Wireless	$250.00	Average monthly $100.00 – data cap not disclosed
CCI Wireless	2.83 Mbps	30.83 Mbps	46.67	Fixed Wireless	-	Average monthly rate for Unlimited is $97.50
Telus Smart HUB	1 Mbps	25 Mbps	-	Fixed Wireless	$45.00[159]	Average monthly rate for Unlimited is $89.99
Xplornet	1 Mbps	10 Mbps/ 25 Mbps	-	Satellite	$99.00	Average monthly rate for Unlimited is $121.99/ $179.99
Measurement Lab[160]	0.82 Mbps[161]	8.02 Mbps[162]	226.4 milliseconds[163]	-	-	-

Table 193 Internet Services Availability, Mackenzie County, 2021.

Landfills

The Mackenzie Regional Waste Management Commission operates a class 2B landfill 3km west of High Level, and seven solid waste transfer stations across the county, as well as curbside pick-up in La Crete.[164] The Commission includes two members from each of the three municipalities; Mackenzie County, Town of High Level and Town of Rainbow Lake.

Recycling

There are bottle depots in Fort Vermilion and La Crete; residents of Rural High Level and Zama can access the bottle depot in High Level.

[159] If an antenna is required, add an additional $99.00 installation fee.
[160] https://www.measurementlab.net/tests/ndt/
[161] https://regionaldashboard.alberta.ca/region/mackenzie-county/median-upload-speed/#/?from=2015&to=2019
[162] https://regionaldashboard.alberta.ca/region/mackenzie-county/median-download-speed/#/?from=2015&to=2019
[163] https://regionaldashboard.alberta.ca/region/mackenzie-county/average-latency/#/?from=2015&to=2019
[164] https://www.mackenziecounty.com/departments-a-services/environmental-services

The Mackenzie Regional Waste Management Commission accepts and recycles white good at the class 2B landfill west of High Level, for a pay by user fee.

The Mackenzie Regional Waste Management Commission used to provide a wider recycling service, but the transportation of recyclable goods became too costly and the program has seen ceased.

Natural Gas

Northern Lights Gas Co-op and ATCO are the primary utility providers in the area, with ATCO and three other natural gas co-ops providing electricity and gas for the region. The gas co-ops are from the 1960s and are non-profit, and also include the Dena Tha' Natural Gas Utility and the Town of Rainbow Lake.[165]

Costs to install new Northern Lights Gas Co-op natural gas service:

- Rural Domestic Service: $8,000.00;
- Urban Domestic Service: $2,000.00;
- Urban Commercial Service: $3,000.00 per 1million BTU, plus $2,000.00 per every additional million BTU; and
- Graindryers:
    - 0–2 million BTUs: $10,000.00;
    - 2–4 million BTUs: $10,550.00; and
    - 4 – 6 million BTUs: $11,100.00.[166]

The County has historical challenges with natural gas and power shortages in the southern part of the County, which may have prevented new industry from coming into the region. The west side of Highway 35 does not suffer from these shortages of power and/or natural gas but with the continued provincial closures of natural gas wells, the province as a whole will be short or need to import energy from outside the province. Parts of the region has been shortlisted by potential investors, but this challenge is often a limiting factor. That has been one of the biggest economic constraints for La Crete; the community has grown at a steady rate, but has not seen a boom to warrant significant infrastructure upgrades from industry or the private sector.

In 2020, Northern Lights Gas Co-op Ltd. received a $16 million grant from the Government of Alberta to construct a natural gas supply line to support Mackenzie County. This investment went towards the construction of 92 km of six-inch high-pressure natural gas supply line from the NOVA Gas Transmission Ltd. Wolverine River Lateral pipeline Northeast of Peace River, north to La Crete.[167]

Distributor	ATCO Gas	Alta Gas Utilities
Average 2020 Natural Gas Regulated Rates in cents/kWh	2.238	2.348

Table 194 2020 Regulated Natural Gas Rates, Utilities Consumer Advocate, 2020.[168]

Other sources of heat for Mackenzie County residential and farm dwellings include:

- propane;[169]

[165] Northern Alberta Broadband Preparedness Project, Taylor Warwick Consulting Limited, 2017.
[166] http://northernlightsgas.com/2014-natural-gas-installation-prices/
[167] https://www.dailyheraldtribune.com/news/local-news/province-investing-in-natural-gas-supply-line-for-mackenzie-county
[168] https://ucahelps.alberta.ca/regulated-rates.aspx
[169] Price per litre of propane in March 2021 was 0.58 cents.

- wood stoves burning wood pellets or logs;[170] and
- diesel generators.[171]

Water

Mackenzie County has water, wastewater and stormwater management facilities and strategies in the various hamlets. Table 195 provides details for each area. Funding for these facilities has come from a variety of sources including Alberta Municipal Water/Wastewater Partnership and Federal Small Communities Fund.[172]

Location	Water	Wastewater	Storm Water and Snowmelt
Fort Vermilion	Water is drawn from the Peace River, and the water treatment plant is capable of producing 1.900m^3/day. The system was upgraded in 2008.	Anaerobic Lagoon Systems The communities lift-station and gravity sewer network are both adequate for the population and future growth.	Notable issues in management but use a combination of surface and pipe drainage.
La Crete	Water is from groundwater wells, with a treatment system of greensand filtration and ion exchange. The water treatment plant is capable of producing 3,900 m^3/day and wells can produce 2,800 m^3/day. The water treatment plant was replaced in 2005.	Anaerobic Lagoon System La Crete's system is nearly at capacity.	Notable issues due to flat landscape, but they use ditches and culvert crossings to manage water.
Zama City	Water is drawn from 4 groundwater wells, and the water treatment plant uses greensand filtration and nano-filter membranes. The water treatment plant was replaced in 2009 and can produce 1,970 m^3/day. Fire pump and distribution pumping needs upgrading to meet future demand.	Anaerobic Lagoon System Systems supports a population of 1900, was upgraded in mid-2009, and the lift station requires upgrades.	Notable issues but use open ditches and culvert road crossings.

Table 195 Utilities by Hamlet, Mackenzie County.

Tables 196 summarizes costs of water and wastewater services from 2015 in comparison to other areas.[173]

Mackenzie County[174]	**Monthly Fee**	**Consumption Rate**
Water Rates	$37.04/month	$3.43/$m^3$ of consumption
Sewer Rates	$31.52/month	$0.73/$m^3$ of water consumption
High Level	**Monthly Fee**	**Consumption Rate**
Residential	$39.50	$1.75/$m^3$
Non-Residential	$64.00	$2.00/$m^3$
Sewer - Residential	$7.50	NA
Sewer – Non-Residential	$20.00	0.0495% of water consumed
County of Northern Lights	**Monthly Fee**	**Consumption Rate**

[170] The average cost of a Cord of wood in 2020 was approximately $150.00.
[171] Price per litre of diesel in February 2021 was $1.0469.
[172] Municipal Development Plan (MDP), ISL Engineering and Land Services Ltd., 2013.
[173] Economic Development Strategy; Innovasions & Associates, 2016.
[174] https://docs.mackenziecounty.com/docushare/dsweb/Get/Document-20322/Bylaw%201194-20%20Fee%20Schedule%202020-12-16.pdf

Truck Fill Metered	$40	$2.42/m^3
Rural	$40	$2.42/m^3 up to 2000, $4.84/m^3
Wastewater	$15	

Table 196 Cost of Water and Wastewater – Regional Comparison, Mackenzie County, 2020.