Mackenzie County Sustainability Plan





The preparation of this updated sustainable community plan was carried out by administration and members of Mackenzie County Community Sustainable Committee. Approved January 12, 2016.

Table of Contents

Introduction	page 1
Approach	
Vision, Objective and Principles	
County Profile	
Economic Sustainability	page 11
Transportation	
Agriculture	
Oil and Gas	
Forestry	
Public Services	
Business Climate	
Potential for Tourism	
Growth Management	
Environmental Sustainability	page 42
Natural Environmental	
Built Environmental	
Environmental Footprint	
Energy Efficient	
Transportation	
Social and Cultural Sustainability	page 47
A Sense of Place	
Cultural Vibrancy and Inter-Cultural Relationships	
Growing Settlements	
Sustainability of Community Infrastructure	page 51
Recreational Infrastructure	
Utility Infrastructure	
Infrastructure Risk	
Conclusion	page 58
Plan Implementation and Evolution	
Using This Plan	

Appendices

- A: Executive Summary
- B: Goals and Strategies
- C: Reference List
- D: Water Supply Treatment and Distribution Study, Associated Engineering
- E: Carcajou/ Mackenzie County Restoration Project Kamie Currie
- F: REDI 2015 regional Census Breakdown
- G: Alberta Health Services, Northwest Alberta, Community Profile, Version 2
- H: Mackenzie County Special Interest Maps
 - H1: Hydrocarbon Resource Zones Mackenzie County
 - H2: Protected Wildlife Habitat Zones Special Area Conservation Mackenzie County
- I: Northwestel Operating Map
- J: Rogers Mobile Coverage Map
 - J1: Rogers Mobile Coverage Map North Mackenzie County Map
 - J2: Rogers Mobile Coverage Map South Mackenzie County Map
- K: TELUS Mobile Coverage Maps & Internet Availability
 - K1: TELUS Mobility Coverage South Mackenzie County
 - K2: TELUS Mobility Coverage North Mackenzie County
 - **K3: TELUS Internet Plans**
- L: Mackenzie County Land Sales Brochure
- M: FMA Map Mackenzie County & ESRD Web-page
 - M1: Alberta Environment Parks Forest Management Agreement Holders
 - M2: Forest Management Agreement- Boundary Map (May 2015)
 - M3: FMA Tolko/ Norbord /La Crete 2011
- N: CN Rail Capacity Map
- O: La Crete Ferry Movement Statistics
 - O1: La Crete Ferry Movements 2013
 - O2: La Crete Ferry Movements 2014
 - O3: La Crete Ferry Movements 2015
- P: Sustainability Committee Terms of Reference Document
- Q: Tourism Investment Opportunities Brochure, Northwest Alberta

Introduction

Mackenzie County's elected Council resolved to undertake the development of a long-term sustainability plan as a means to:

- Address its challenge with rapid changes in regional economic growth patterns and their impact on the municipality's long-term sustainability.
- Provide the County with a viable structured road-map for collaborative longterm planning and decision-making based on community input.
- Improve County residents' quality of life.

The County's **Community Sustainability Plan** is a specific type of strategic plan. It outlines the strategies necessary to build a strong economy that protects environmental integrity and contributes to strong social cohesion in this culturally diverse municipal jurisdiction. The strength of these variables are considered fundamental components of a sustainable community.

The primary challenge facing the County is the question of whether it needs or even wants to change. If so, what needs to change and how? These questions are at the heart of *community sustainability* and will be fully explored in the plan. The benefit of such a plan is that it seeks to ensure that incremental decisions about allocation of resources are linked and contemplate the community's long-term viability and sustainability.

The 4 Step Community Sustainability Plan was initially completed in 2010 and thoroughly reviewed and updated in 2015.

An Executive Summary of this report is available in Appendix A. The entire *Community Sustainability Plan* with its associated goals and strategies is available in Appendix B.

Approach

A Council Committee was re-established to review the Community Sustainability Plan 2010 and county staff was tasked with editing and updating changes.

VISION, OBJECTIVE AND PRINCIPLES FOR THE SUSTAINABILITY PLAN

The Alberta Urban Municipalities Association defines sustainability in its broadest terms as: living in a way that meets our needs without undermining the ability of our children and our children's children to meet their needs.

A Municipal Sustainability Plan's purpose is:

- To project a picture of what the community expects to look like in the future.
- To plan the means to achieve that future.

Unlike other planning documents that focus on specific projects and programs a sustainability plan addresses each of the major influences that build a community. Plans for specific projects and programs are all strategies to achieve the overall sustainability plan. These multiple influences can be summarized in terms of their capacity to influence sustainability in four domains:

- Economic Viability
- Environmental Integrity
- Social Cohesion and Cultural Vibrancy
- Sustainability of Community Infrastructure

Although cultural values appear to vary significantly, a common link between communities was most evident:

A community can only be sustained if its residents have access to the resources that sustain a quality family life.

Even though family values may be defined differently in each community, the priority focus on family life is consistent throughout the County.

Based on discussions with residents during the public meetings, the following vision has been adopted:

Vision

Mackenzie County is a community of diverse people and cultures who share a common desire to live in an environment that embraces the northern spirit and where family, friends, and faith are the cornerstones of their lives.

The word *family* in this context is focused on multi-generational units. Besides today's varying types of nuclear family, it includes parents whose children have left home as well as seniors. Mackenzie's *diverse communities* are characterized by significant differences in cultural values and in the nature of their respective economic base. While the vision is a long-term standard against which actions can be measured, the Strategic Priorities chart and Economic Development Strategy will be utilized to address the immediate conditions and goals.

Objective

Mackenzie County's objective is to cultivate social, cultural and economic links between the County's various communities so that they unite residents and stakeholders in the achievement of the County's vision.

The overall focus of Mackenzie's sustainability plan then, is to develop strategies to strengthen relations between communities that will strengthen the County's capacity to make its decisions and to move forward with its initiatives. At the same time, it is essential to maintain the elements that make up the County's unique character.

The County's diversity can be summarized as follows: The residents of the La Crete area focus on productivity. Fort Vermilion residents focus on a quality of lifestyle that is difficult to find elsewhere. The long-term residents of Zama City strive to ensure the long term viability and growth of their community. The region's citizens are vigilant about maintaining their cultural integrity while recognizing that they must better understand and appreciate diverse societies within the County.

As indicated earlier, what links the long-term residents of all of these communities at the social level is their focus on raising families. What links them at an economic level is their enterprising spirits. The geography of isolation and distance is what links them at an environmental level. There are certainly other common links that have yet to be identified. The importance of these links cannot be understated.

Principles That Shape Mackenzie's Sustainability Plan

Four principles serve as the foundation upon which Mackenzie's plan was built: autonomy, cohesion, pride, and change management. These principles are composed of several essential elements to ensure their success.

<u>Local Autonomy</u> is needed in County hamlets and settlements because of their diversity of cultures and functions. Local freedom and flexibility provides a forum to take advantage of creative opportunities that face limited encumbrances from regulation. It is also provided by a municipal regulatory framework that is specific to northern conditions.

Optimal local autonomy with equal opportunities provides for the unique cultural, environmental, and economic flavour of each of the County's communities.

This means that local post-secondary education will provide opportunities for the residents to learn skills locally that can be applied locally. It also means that local hiring and training will permit the north to increase its labour self-sufficiency in the unskilled, skilled and professional sectors.

<u>County Cohesion</u> requires that geographic distances be bridged to strengthen relationships both within and outside of municipal boundaries. The County could act as a catalyst for this effort by establishing community communication centres in County facilities. These could provide opportunities to learn and to share information both within and particularly between communities.

Managing Change

- Moderate yet sufficient population growth will preserve the culture and character of County communities. At the same time, it will permit under-served communities to reach the critical population mass necessary to sustain essential services such as educational and health facilities, daily postal, grocery and fuel needs.
- The County's capacity to absorb natural population growth will reinforce the potential for families to age together.
- Moderate and centralized commercial development in under-served areas will create a synergy between businesses that will optimize business sustainability.
- Municipal policy on development density will preserve residents' enjoyment of wide open spaces.
- Moderate change will permit renewal but will not interrupt the small-town atmosphere and the northern spirit inherent in County communities.

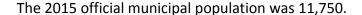
<u>Community Pride</u> is about efforts taken to create a positive experience for residents in, and visitors to the community. First impressions are so important; a physically appealing community is essential in sending the message that residents care about their community. Taking steps to strengthen community pride creates the incentive to attend to community maintenance, cleanliness, and aesthetic appeal.

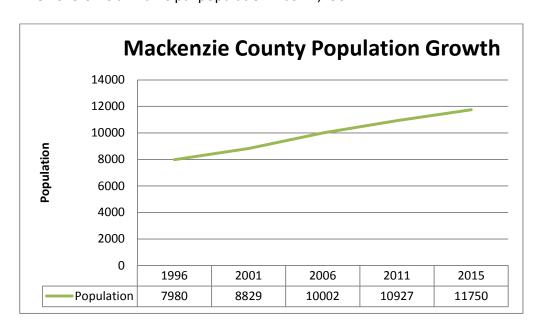
The County demonstrates its commitment to local autonomy, management of change, County cohesion and community pride by making any necessary changes to the bylaws, policies and daily practices of its staff. This in turn, motivates residents to act on these principles, to live by them and to plan their individual lives and businesses accordingly, knowing that the County will support these principles.

The County's economy is rooted in the resource sector; the economy tends to react quickly to somewhat volatile trends in the global resource sector. Strengthening the County's economy is a high priority and is the first step in Mackenzie County's *Community Sustainability Plan.*

COUNTY PROFILE

Located in the northwestern corner of the province, bordering British Columbia, Northwest Territories and Wood Buffalo National Park; Mackenzie County comprises over 12 per cent of Alberta's landmass which is approximately 80,500 square km. Larger than three of Canada's east-coast provinces or any other Alberta municipality, the County's residents are clustered in widely separated geographic areas. Two incorporated Towns and three hamlets are stretched east-west across the County. In addition, there are 18 First Nations communities spread throughout the County. Most of which are located within 100 km of one of the County's main thoroughfares. Several of these latter communities are not directly accessible by road.





The population encompassed by its geographic boundaries however, would include those in the communities below, for a total population of 27,214.

- The incorporated Town of High Level 3823 (2015)
- The incorporated Town of Rainbow Lake 938 (2015)
- Federally designated First Nations communities 10,703 (2015)

Beaver First Nation (1061)
 Tallcree (1302)
 Little Red River Cree Nation (5354)
 Dene Tha (2986)

Aboriginal Affairs and Northern Development Canada 2015 Registered Population

The region is served by three highways:

- Highway 35 runs through the west side of the region from north to south,
- Highway 58 runs east and west through the County,
- Highway 88 runs south out of the eastern side of the County.

Highway 697 and the Zama Access Road connect our hamlets to the rest of the transportation network.

CN rail has one line that runs north-south paralleling the full length of Highway 35 within County boundaries.

The County's general aviation airports are in Fort Vermilion and La Crete. Charter flights are available to La Crete, Fort Vermilion and Zama (Apache strip) and regular scheduled flights are offered at the High Level and Rainbow Lake airports.

Hamlet of La Crete

The Hamlet of La Crete and the surrounding area is a young and rapidly-growing community of pioneers who are predominantly of the Mennonite faith. The first Mennonite settlers arrived in the late 1930's, and they have built a vibrant agricultural and commercial community whose residents' first language increasingly tends to be English rather than the traditional Low German. Keeping the young people in the community is a high priority. Recent efforts to add more than 130 thousand acres of new agricultural land will hopefully encourage many of them to stay. Many residents travel out of the community to work.

La Crete is a traditional society where major decisions can be made and implemented by community leaders very quickly. The culture is deeply family-oriented. The average family size has been significantly larger than the national or provincial average. The availability and quality of local health services is a particular concern. According to residents, 270 births took place in 2009, all of which were delivered outside of the community.

La Crete residents want to grow their community as a means to strengthen their culture and values.

Tompkins/Blue Hills/Buffalo Head Prairie

These rural areas are located south of La Crete, and refer to a public facility (ie. school, church) that the rural residents would specify as the base of their community. Provincial land sales continued for many years, promoting the growth of the area. The programs that the province had at the time were very supportive of young farmers wishing to begin homesteads. This attracted a group of young, ambitious Mennonites, who continue to grow their farms and community. The language of daily interaction is a combination of Low German and English. Residents here also value community growth.

Blue Hills is considered its own community with a public school, fire hall, several churches, and truck stop that includes a general store, wash and mechanic bays and a hotel. Blue Hills is located about 70 km from La Crete and is primarily a farming region of more than 120,000 acres, however nearly all of their commerce takes place in La Crete. A post office and general store are available in Buffalo Head Prairie, 25 minutes from Blue Hills, but most Blue Hills residents choose to drive to La Crete for their needs because of the additional services available.

Blumenort

Blumenort is a rural area located midway between La Crete and Fort Vermilion. There is a school with some additional recreational facilities, general store and service garage located at the hub of this rural community that is predominately of Mennonite origin. The Low German language is strongly integrated into the homes and families of this community. Most Blumenort residents also consider themselves part of the larger La Crete community.

Hamlet of Fort Vermilion

The Hamlet of Fort Vermilion is the County seat and hosts a number of government-related services (e.g., school board, hospital, RCMP, provincial court). The hospital serves a catchment area that includes the area from Blue Hills to Rocky Lane and approximately 13 First Nations communities in the eastern portion of the County.

Fort Vermilion residents are very satisfied with the lifestyles within their community and are not keenly interested in aggressive economic growth. While modest growth would be acceptable, the lifestyle and the character of the community should not change. This is partially attributable to the heritage of the community, which is the

oldest European community in Alberta, founded in 1788.

Rocky Lane

Rocky Lane is a rural area west of Highway 88 near the First Nations community of Boyer. Settled primarily by Ukrainians in the early 20th century, it is an agricultural community with a diverse Caucasian population.

Although there are no commercial services provided in the community, there is a public school offering classes from kindergarten through grade 12, which also includes the accredited Rocky Acres farm education program. A recreational hall built by the community opened in 2010. It has space for events, a riding arena, and houses a ski rental shop to support the high-quality, cross-country ski trail network in the area. Residents travel to High Level (30 minutes) or Fort Vermilion (15 minutes) for services.

High Level Rural

This rural region is primarily serviced by the Town of High Level but has its own distinct sense of ideals and community. The Rural Hall is the social hub of the community, along with the Mosquito Creek Rodeo Grounds and the Machesis Lake and Hutch Lake recreational areas. The geographical separation between the various gathering points in the area makes this community distinct. It is also the most diverse of the County's rural publics, with an assortment of Caucasian and First Nations residents from diverse backgrounds. The regional landfill and a world class OSB mill are also located in this area.

Hamlet of Zama City

The Hamlet of Zama is located towards the northwest corner of the County, and finds its primary role in the region as a small hub for the natural resources sector. Zama is surrounded by active oil and gas fields, which encompass more than 8000 sq. km, and also plays a role in servicing the forestry sector during the winter months. Although the permanent population is small, they are staunchly devoted to their community and warmly welcome the many transient workers that frequent the camps in the area. As is typically the case with a small community, services are limited but the basic necessities are available. The community also has a beautiful public library and meeting space, large community hall, outdoor rink, fishing pond and other quaint features that leave a lasting impression.

County Challenges

Distance to market and deficient transportation infrastructure is the single greatest challenge that the County and its residents face. The distance between hamlets and populated rural areas challenge the County's ability to provide public services. The distance between communities contests the development of a County-wide perspective on meeting their needs. The County's distance from markets presents an obstacle to taking advantage of economic development opportunities and to attract people with needed skills.

Travel time between communities and the sheer size of the County are certainly hurdles. The distance to larger centres and the expensive air service to the region is a bigger challenge for most of the population. Special medical appointments routinely become a two or three day trip, as do meetings for the business community. This aggregate lost productivity has an impact on the local business community.

The County must put mechanisms in place to compensate for travel times between communities and to destinations beyond its borders. In order to do so, the County and the province must make significant infrastructure investments to ensure the improvement and effective maintenance of all modes of transportation.

The second major challenge is to build a County-wide identity and perspective.

Residents' affinities are drawn to the hamlet that is in close proximity to where they live. They are fiercely protective of that community. In and of itself, this identification with their hamlet is admirable. It does present a challenge however, when it interferes with the need to address broader County interests, especially those that affect the County's long-term sustainability. It will be important for the County to raise residents' awareness of how individual hamlets' interests affect County sustainability and why such sustainability is important to the hamlet.

The County's sustainability is inextricably linked to local attitudes. Residents, community leaders and opinion setters must understand that achieving sustainability is not possible without building bridges between contrasting attitudes.

County Opportunities

The region has always been inhabited by people groups that enjoy a challenge and that want to make a better life. From the early fur traders that established the first European settlement in Alberta, to the indigenous groups, to the Ukrainian and Mennonite settlers afterwards, they all moved to the region in hope of a better life, and knowing that if they worked hard enough they would succeed. This work ethic still largely exists, and fosters an incredibly strong sense of community pride throughout the region.

Strong sense of place is very apparent throughout the County, and it is this characteristic that distinguishes the County from most other places. This has allowed the region to grow and prosper at a time when many other rural regions are faltering. The young demographic and high birthrate across the County also means a growing local work force, which will hopefully fill the need for more professionals (doctors, lawyers, dentists, etc.) in the area.

The abundance of forested land and agriculture provide many bio-industrial opportunities, many of which have yet to be capitalized upon. These opportunities, along with the entrepreneurial spirit and sense of place, bode well for the County moving forward.

The County has a large mixed farm base in excess of 650,000 acres that has remained profitable over the decades despite the apparent challenges of farming in the north. Climatic factors means that we consistently grow higher quality grains and oilseeds than any other jurisdiction in North America. The potential that this provides is nearly limitless. Adding value to the raw product by way of constructing de-hulling and crushing facilities would place our agricultural community in an enviable position.

The County, like most of Alberta, has copiousness amounts of untapped oil & gas reserves. In the coming years the extraction of these resources is likely to increase, further positioning the County favorably for financial sustainability.

Vast areas of virtually untouched and unexplored pristine habitat are located within the County, including Caribou Mountains Wildland Provincial Park (Alberta's biggest). The County also borders the largest national park in Canada, being Wood Buffalo National Park. Embracing and promoting this strong connection with the environment also presents many new tourism opportunities for the area.

ECONOMIC SUSTAINABILITY

A consistently thriving, local economy:

- Makes new and diverse jobs and training opportunities available.
- Attracts and maintains an adequate and stable workforce to meet the needs of the commercial and institutional sectors.
- Makes quality land and buildings available to support healthy economic activity and change.
- Provides for the creation and diversification of businesses and industries.
- Builds a strong business community that is well-connected with the wider economy.

Mackenzie County's economy is founded on the extraction of natural resources (oil, gas, and potential for diamonds), agriculture and forestry. There is also significant potential to expand tourism in the region in partnership with Mackenzie Frontier Tourist Association. To ensure the County's long-term economic sustainability, Council must take measures to close the distance between business and their markets.

For this reason, a discussion of transportation infrastructure will precede the discussion of the County's primary industries, their challenges and gaps. Discussions of the oil and gas, agriculture, and forest sectors underline the reality that cutting edge innovations and new opportunities are carving a new future for the County's economy. Making sound plans for building the necessary infrastructure to expand the tourist industry can only enhance that future. To sustain County growth it must develop and apply sound strategies to manage it and to work with the school and health boards to address significant gaps in the health and post-secondary sectors.

Goal E1 That the Region's transportation system:

- Reduces travel time and increases safe, comfortable and efficient travel between its communities and between the County and major destinations beyond its borders.
- Provides an economically efficient access to business and industrial markets outside of County boundaries.

Strategy E1.1 Maintain a strong and consistent approach with Provincial and Federal governments and other parties (i.e. NADC, NTAC) to request the completion and upgrade of northern transportation corridors:

 To facilitate the safe and efficient movement of goods to, from and within the County. To strengthen economically, socially and environmentally sustainable opportunities for the movement of people, as well as agricultural and resource sector goods.

Transportation: Roads and Highways



Northern Alberta

The County is served by primary north-south and east-west highways that intersect at the Town of High Level. Highway 35 is the primary north-south route through the County. It connects the area to the Northwest Territories in the north and to Peace River, Grande Prairie and Edmonton in the south.

A second north-south, recently-paved route, Highway 88 runs 420 km from Highway 58 near Boyer and ends at Highway 2 near Slave Lake.

Highway 88

Goal E2 That Highway 88 be a fully-paved, ban free, year-round link between Highway 58 north of Fort Vermilion and Slave Lake.

Highway 88 provides a more efficient route than Highway 35 to north-central and

northwestern Alberta as well as the NWT. Forest product companies have indicated that it is a preferred route. Unlike Highway 43 near Whitecourt, it does not have steep grades. For this reason, it is one to two hours faster to High Level from Edmonton than Highway 35. This translates to less cost for motor carriers.

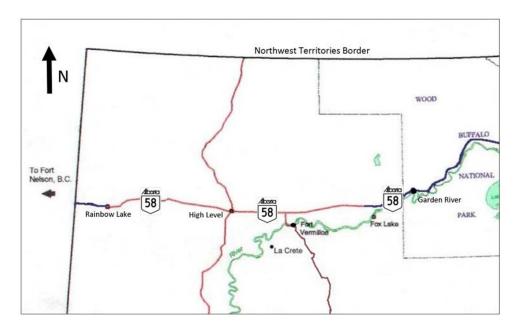
Now that Highway 88 is paved this will also assist County farmers trucking grain to markets in the Westlock/Edmonton area. During the winter season, it is used extensively by logging trucks, Super-B Trains hauling fuel and oil to the Northwest Territories (NWT), and trucks delivering supplies to oil and gas industry camps in the Zama and Rainbow Lake fields. Time and cost savings also apply for private and health-care-related travel.

With Highway 88 paved the area should be more attractive for potential developments, such as oil sands deposit southeast of Fort Vermilion and industrial corridor and highway development around Fort Vermilion.

Strategy E2.1 Encourage the development of Highway 88's tourism and economic development potential.

Highway 58

Goal E3 That Highway 58 becomes a paved, two-lane highway with shoulders and passing lanes that extends from Fort Nelson through Garden River in Wood Buffalo National Park to Fort Smith.



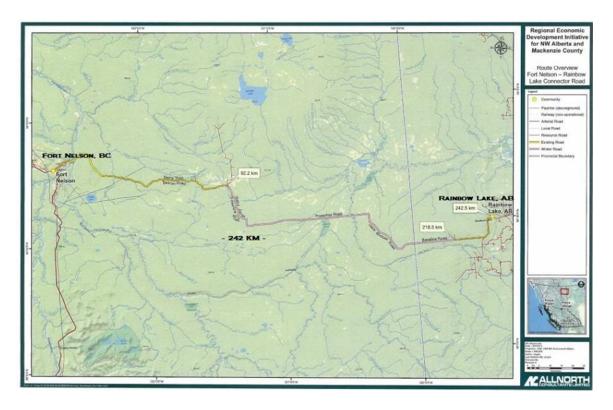
Highway 58 runs east-west from Garden River in the east through High Level to Rainbow Lake in the west, ending approximately 20 km east of the Alberta/BC border.

The highway hosts large, heavy equipment and significant levels of traffic. The portion of highway from High Level west to Rainbow Lake was upgraded in 2011, significantly increasing the safety along the highway.

There have been discussions in the past about extending the highway 20 kilometers from Rainbow Lake to the BC border but Alberta has only been willing to do so if BC extends its road from Fort Nelson to make the connection. The BC government has not been willing to consider it because of fear that Fort Nelson would lose economic activity to Alberta.

The province of BC recently spent \$187 million to pave the Sierra Yoyo Desan road (SYD) from Fort Nelson into the new Horn River gas field at Cordova Embayment. This may have the potential to make the inter-provincial link road more attractive to BC.

The value of the link road can be found in the similarity of the Fort Nelson and Mackenzie economic markets. The lack of a road connecting the two areas actually prevents the development of a larger market area that could benefit both provinces and provide the broader region with a spur to achieve its economic potential.



A road connection into BC is a key to the long-term economic well-being of Rainbow Lake. Being totally dependent upon oil and gas, it is essentially at "the end of the road." A connection to Fort Nelson would make the town a stop along a continuing road and would certainly facilitate new economic activity. (It) would also provide tourist and commercial traffic with an alternate route to the Yukon and Alaska.

Once Highway 58 is extended to the border, this would provide a shorter alternative into Northwestern BC from Edmonton than the current one along Highway 43 through Grande Prairie.

Strategy E3.1 Work with neighbouring First Nations and other parties to promote the link east to Fort Smith to the provincial, territories and federal governments.

Strategy E3.2 Work with relevant organizations and interested parties in northeastern BC to promote the link jointly with the two provincial governments.

Strategy E3.3 Work with the region's MLA, Alberta Transportation and regional stakeholders to assess the best alignment/route for connecting Highway 58 to BC's paved SYD road, while simultaneously identifying incentives for the corridor.

Strategy E3.4 Work with the federal government, NWT, First Nations and local residents to identify the best route to connect additional communities to Highway 58 at points east of Garden River and North to Fort Smith.

- Promote industry development in the region (resource sector or tourism).
- Creates alternate access to Fort Smith and many other northern communities.

Zama Access Road from Highway 35

Goal E4 That Zama Road becomes a paved secondary highway.

This road runs west from Highway 35 north of Meander River to Zama City. The wide gravel road is used primarily to transport oil and gas equipment into the Zama oil field during the winter season. It also provides Zama residents with access to various services and facilities.

An analysis of traffic volumes on the road suggests that its *Weighted Annual Average Daily Traffic* is almost 900 vehicles per day. This rate can be expected to increase in the coming years when enhanced oil recovery (EOR) activities begin. This will particularly be the case if the BC Horn River Gas field is extended into Alberta. Since the province's minimum criteria for paving a road is 200 vehicles per day, the road far exceeds the normal requirement.

Strategy E4.1 Work with stakeholders to encourage the province to designate Zama Road as a secondary highway and to pave it within a specific period of time.

Strategy E4.2 Lobby the province for additional funds and funding options.

Strategy E4.3 Complete a business case to help convince the province of this roads importance.

Highway 697, Tompkins Crossing and East Peace Resource Road

Goal E5 That the residents of Mackenzie County have paved access to:

• Highway 35 via a bridge that crosses the Peace River at Tompkins Landing with rail capability.

Currently the La Crete Ferry provides access to and from the South and West Peace Regions and Southern Alberta. Upgrading this crossing with a bridge is a long term priority for the region. Several saw mills and innumerable farmers use it to bring product to markets. It is also invaluable to residents to access a variety of medical, economic and social needs.

Each spring and fall the ferry/ice bridge is unpassable due to the river freeze up and breakup. Residents, farmers and other businesses face extra travel costs and travel time by having to drive north to cross the Peace River at Fort Vermilion. Residents and businesses must be able to plan their schedules around a dependable route.

The water levels on the Peace River also affect the reliability of the ferry crossing. When water levels are either too high or too low, the ferry is inoperable. These shutdowns typically come quickly and unannounced, and their duration is never predictable.

Between 2013 and 2015, an average of 239 vehicles used Highway 697 east of Highway 35 every day. (i.e., the only place to go is across the ferry) The ferry has carried an average of 42,837 vehicles per year.

The construction of a bridge over the river would significantly improve the transportation of goods in the region and provide efficient year-round access in and out of the area. The ferry landing area at Tompkins Landing is the preferred location for a bridge.

Strategy E5.1 Request that Northern Alberta Development Council assess the costs to utilize an alternate route when the river crossing at Tompkins Landing is unavailable against the benefit of a year-round bridge across the river.

Strategy E5.2 Work with the province to establish timely, reliable, year-round crossing across the Peace River at Tompkins Landing.

Strategy E5.3 Investigate opportunities and work with industry to generate interest

and momentum for constructing a dual purpose road and rail bridge across the Peace River at Tompkins Landing.

Goal E6 That Highway 697 is widened.

Strategy E6.1 Lobby the province to widen Highway 697.

LOC Road and Rights-of-Way

Goal E7 That the East Peace Resource Road from Blue Hills to Peace River be constructed to a two-lane gravel standard.

Strategy E7.1 Work with the province to establish a transportation corridor.

Strategy E7.2 Lobby the province and create partnerships with industry and neighboring municipalities to secure funding for the road construction.

Goal E8 That privately held industrial LOC roads become economically available for all potential users. Multiuse corridors should be established in strategic locations throughout the County. These corridors shall accommodate highways, railways, pipelines, powerlines and other linear infrastructure for both the public and private sectors. These corridors shall be established through an involved process, considering social, economic and environmental aspects.

Strategy E8.1 Lobby the province to revise the current regulations regarding user fees for privately held LOCs.

Strategy E8.2 Investigate the County's ability to acquire the LOCs and to operate the road as a public use road.

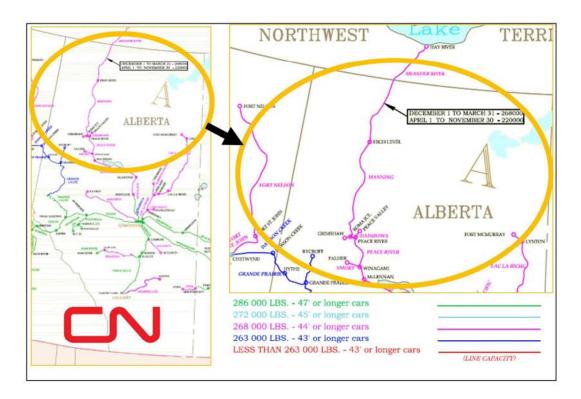
Strategy E8.3 Encourage multi-use LOC corridors to be shared between industries and to follow theoretical road allowances when possible.

Transportation: Rail

Goal E9 That County businesses and shippers:

- Are satisfied with communications and relationships with the company that provides rail service to Northern Alberta and Hay River.
- Have access to reliable rail service on a 268-lb 44' or longer cars.
- Have access to a sufficient number of grain hopper cars that can be loaded to full mainline standard potential to keep costs down.
- Enjoy comparable service to that provided elsewhere on Alberta's mainline.

When CN Rail repurchased the Mackenzie Northern Railway in 2006, it created single railroad access from the County to a large portion of the North American continent, and access via a single interchange to the rest of Canada, the US and parts of Mexico. Sixty-five percent of the line's annual 31,000 carloads carry forest products and 20% carry grain to southern markets while 13% carry fuel to the Northwest Territories.



The mainline rail standard has not been upgraded since the line was constructed in the early 1960s which has been a cause for concern for many years. Shippers cannot load cars to their full mainline standard potential resulting in an inefficient use of equipment and increased costs for transportation. The inability of the Richardson grain terminal in High Level to secure the requested number of rail cars has also caused many delays in regards to shipping grain. The inability to secure cars has also delayed the potential expansion of the terminal.

The County routinely raises concerns about the following issues to both CN and the federal government through various channels:

- Car spotting/car supply problems and possible solutions.
- CN Rail internal and external communications improvements.
- Need for continued infrastructure maintenance and upgrading\balanced accountability for both CN Rail and rail users.
- Demurrage and ancillary charges.

- Monopoly pricing of freight rates.
- Division of NW Alberta into two shipping blocks for rail grain car allocation.
- Running rights.
- Lack of producer car availability.

Strategy E9.1 Work with the province to encourage CN to upgrade the line to a 286- lb rail standard.

Strategy E9.2 Lobby the federal government to revise the ownership and operating structure of railroads in Canada to allow dual running rights while allowing CN & CP to maintain ownership of track infrastructure.

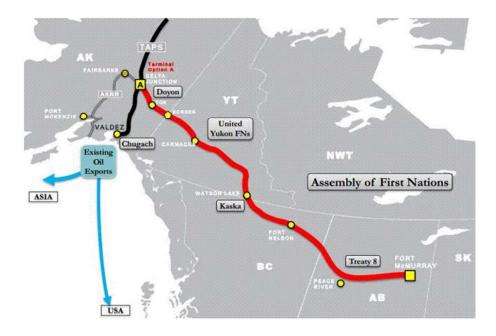
Goal E10 That the rail network in the region be expanded utilizing multi-use corridors:

- from High Level to Fort Nelson,
- from Highway 35 east to La Crete and Fort Vermilion (follow 697) and east to Fort McMurray.

Strategy E10.1 Encourage development of multi-use corridors that incorporate rail.

Strategy E10.2 Work with partners to lobby industry and government to create changes that will allow for a higher level of service.

Strategy E10.3 Encourage the G7G Railway Corp to realign their route to help meet local need for rail access.



Transportation: Air

Goal E11 That affordable scheduled air passenger services in Mackenzie region reduce the time needed to travel within and beyond County boundaries.

Strategy E11.1 Create a long term plan for the County's airports, anticipating future growth, and implementing restrictions now to ensure that future expansion can occur.

The County owns and operates two small airports; both Fort Vermilion and La Crete have municipal airports with paved strips. There are also paved municipal airports in Rainbow Lake and High Level, as well as a privately owned airstrip at the main Zama gas plant.

Fort Vermilion's airport is capable of handling an increase in traffic as economic conditions improve. Although the runway in La Crete has been upgraded, the airport's capacity is limited by the lack of an inclusive airport development plan, including restrictions on adjacent lands. It will be necessary for the County to impose the appropriate restrictions and/or purchase the surrounding property in the near term to avoid having to relocate the airport.

Strategy E11.2 That Mackenzie County implement a plan to protect existing airports.

Strategy E11.3 Ensure a long term agreement is in place between the County and the Zama gas plant for emergency services (Medevac).

Goal E12 Infrastructure to be sufficiently managed and maintained to allow for Medevac and other appropriate airport functions.

As a Medevac centre, lengthening the Fort Vermilion runway will enhance medical service in the County's east end as well as creating the potential for aviation-related economic activity. Zama City's population expands up to 5,000 for a significant portion of the year. The hamlet has no acute-care health service available to serve this *shadow* population and an authorized transportation option for rapid access to such service is critically needed.

Airports are an increasingly valuable part of northern transportation, especially for public services such as health care and professional services where time is critical. Without viable airports capable of all weather service, County residents may continue to be restricted in the level of service that they enjoy in comparison to other regions of the province.

Strategy E12.1 Continue to support a level of infrastructure for all weather airports in County communities.

Strategy E12.2 Promote air service providers to create services to, from and between the communities of the region and beyond the County by working with regional partners.

Strategy E12.3 Ensure a safe and accessible heliport is available in Zama.

Agriculture

Despite its location at 58.3° latitude, agriculture plays a very important role in the County's economy. Farming has a symbiotic relationship with logging, as many farmers are employed in logging during the winter months.

Early settlers established a farming community in the Fort Vermilion area in the early 1900's, with rapid expansion due to the settlement of the La Crete area in the late 1930's, and it has since grown to well over ten thousand people today. Working with MARA (Mackenzie Applied Research Association), the agricultural research station located at Fort Vermilion, local farmers have adapted traditional agricultural practices to the area's short growing season and its extra hours of summer sunlight each day, relative to the rest of the province.

The site at which MARA now resides was originally established in 1907 by Frederick S. Lawrence, and was named the Dominion Experimental Farm. Robert Jones was the first superintendent for the research station.

The site was a federally owned and run research station throughout most of its existence. In 2012 the County purchased the site from the federal government as the site was slated to be shut down. The County's intervention in keeping the site and committing to agricultural research in the region will help ensure that the regions farming community will continue to adapt and grow in the years to come.

The research centre has focused on several primary threads over the years which include:

- Adapting seed varieties to excel in our region
- Improving production practices
- Agricultural literacy, information, and education
- Annual field day

			% change	Share of Alberta -
	2011	2006	2006 to 2011	2011
Number of Farms	626	647	-3.2%	1.4%
Total Acreage	550,419	530,641	3.70%	1.10%
Number of Farm Operators	879	820	7.20%	
Number of Employees	362	n/a		
Gross Farm Receipts (\$ Millions)	79.3	42.5	8.70%	0.70%

Census of Agriculture - Mackenzie Region

The sustainability of agriculture in the area depends on four factors:

- The adoption of sustainable agricultural practices to cultivate new lands acquired from the province's Crown lands through a land exchange.
- The continued support of a northern research station to assist farmers to adapt traditionally effective agricultural practices to the northern climate and to the emerging changes in this climate in the coming decades.
- The expansion of agribusiness as a means to provide employment opportunities for young adults to find employment in the community rather than having to leave the area to find work.
- Innovative methods to reduce seasonal overland flooding while maintaining the water where it is needed.

Land Transfer

Goal E13 To complete the current land transfer and have the province create a policy for additional land transfers.

In 1997, the province requested that Mackenzie County return certain 136,320 acres of certain agricultural lands (white zone lands) so that these could be converted to lands protected by the Crown (green zone lands). These included areas such as agricultural lands bordering rivers and other environmentally sensitive areas. The County agreed to the transfer of land between the zone designations with the understanding that it was part of an "acre for acre land exchange." In other words, since the County agreed to white zone transfer to green zone land, the County expected the province to transfer an equal amount of green zone land to the white zone agricultural designation. Negotiations are still slowly ongoing about which green zone lands the province will agree to transfer. An agreement has been reached on about 100,000 acres; however the rest remains tied up in land claims, negotiation and bureaucracy.

Over 100,000 acres of new agricultural lands were auctioned from 2010 to 2013. Given that considerable work will need to be done to convert these lands for agricultural use, it would be in the County's best interest to encourage farmers to adopt sustainable agricultural practices for the conversion and ongoing cultivation of these lands

because:

- It will be of long-term benefit to farmers and agribusinesses.
- It will keep the door open for future such land zone transfers by demonstrating responsible land management to the provincial and the First Nations communities who have a growing voice in their eventual disposition.

Strategy E13.1 Continue to lobby the provincial government to develop a formal land expansion policy.

Strategy E13.2 Lobby the Federal and Provincial governments to strongly consider the negative socioeconomic impacts on our region of large scale conservation areas.

Agricultural Research

Goal E14 That Fort Vermilion hosts an applied research centre of excellence that focuses on human and technological adaptations to northern climates in four areas:



- Human ecology
- Sustainable resource management & development (especially agriculture)
- Energy production/distribution
- Information technologies

While the success of agriculture in such a northern climate is due primarily to the farmers' intent to make it work, their partnership with a local research station has made a significant contribution. The primary focus of MARA in Fort Vermilion is to adapt pertinent agricultural technologies to northern climates.

Our mission is to serve producers within our region by meeting the special needs that result from our unique climatic, geographic and soil conditions and to facilitate the transfer of Best Management Practices (BMPs) to producers on reducing production costs, marketing strategies, alternative practices and environmental sustainability.

Among tentative research trials and area educational activities targeted for 2015 are:

- Most suitable weed management practices
- Conventional vs Organic vs Intensive Farming
- Manure management
- Dugout water testing
- Flax, Hemp, and Tillage Radish trials
- Irrigation trials

Strategy E14.1 Explore options to establish an applied research centre of excellence in Fort Vermilion in collaboration with MARA whose interdisciplinary focus would be on adaptation to northern climates.

Strategy E14.2 Establish a research fund that would use accrued interest to grant funds for northern research projects.

Strategy E14.3 Encourage the County's Agricultural Services Board to work with the local agricultural societies and Mackenzie Applied Research Association to identify and implement sustainable agricultural practices.

Strategy E14.4 Explore and pursue opportunities to secure research funds for MARA/County.

Value Added Agriculture

Goal E15 That value added agricultural opportunities be pursued to ensure that sustainable employment opportunities are created and maintained within the County.

Area farmers could establish labour intensive agribusinesses that would provide employment and business opportunities for young people. Agribusiness products are marketed through marketing boards however, and are subject to regulations and controls that are not adapted to the unusual characteristics of farming at 58.3° latitude. La Crete's remote location leaves its farmers far from other farmers and out of the agricultural mainstream. This makes it most difficult to "get into the system."

Area farmers know their market and they know their constraints. Their challenge is to find ways to overcome the bureaucratic, regulatory and infrastructure constraints to become part of the system. This may involve the need for funding, for some adjustments to the bureaucracy, and possibly even for exemptions from certain regulations.

Provincial programs and initiatives such as Green Hectares, Alberta Innovates, and many others under Alberta Agriculture and Rural Development do provide information, support and various types of assistance. Distance to these facilities and markets, lack of existing business relationships in the sector, and general fear of the regulatory process are major stumbling blocks that need to be overcome before any local advancements will be seen.

Strategy E15.1 Work with partners to identify external sources of strategic expertise/assistance necessary to advocate for the establishment, distribution and sales of agri-businesses.

Strategy E15.2 Identify and promote establishment of local organizations that will be eligible to participate fully in provincial marketing boards as a means to distribute their products.

Strategy E15.3 Encourage the development of a local group that acquires and further shares knowledge on how to build value added businesses, marketing, certification, testing, etc. for the agricultural manufacturing/production industry.

Oil and Gas Production and Distribution

Goal E16 That non-renewable resource companies operating in Mackenzie County are able to make profits while minimizing their environmental footprint by:

- Operating to an acknowledged and/or legislated environmental standard.
- Optimizing the recovery or distribution of the resource with which they are working.
- Lobby for the government to create and enforce environmental remediation and restoration strategies when a site has been exhausted that will accelerate the recovery of the affected ecosystem (health, integrity and sustainability).

Revenues from the energy sector in Mackenzie County account for its largest source of tax revenues. The western portion of the County hosts two major oil fields. The field near the Town of Rainbow Lake (currently operated by Husky Oil):

- Manages active, light crude oil and gas wells.
- Has a 50% interest in and operates a large natural gas plant.
- Co-owns/operates a co-generation facility with ATCO Electric.

There are some 400 producing wells in the Zama oil field near the hamlet of Zama City and three gas plants (currently operated by Apache Canada).

The municipal assessment value for linear and machinery & equipment exceeded \$1.6 billion in 2015. The combined revenue from these sectors represents more than 68% of the County's tax revenue. Oil and gas activities and subsequent revenue are essential to Mackenzie County's sustainability given the current lack of diversification of the region's economy.

Fortunately, the oil fields hold a significant percentage of Alberta's total conventional oil capacity and have the potential to sustain the County's economy well into the next century, as new technologies come on line.

The sequestration of carbon from the oil extraction process will result in a significant

reduction of greenhouse gases in NE British Columbia over that period.

Strategy E16.1 Continue to advocate for enhanced oil recovery (EOR).

Strategy E16.2 Continue to advocate for the use of environmentally sustainable production and distribution practices in the County oil and gas fields.

Strategy E16.3 Lobby the province to support the maximum utilization of infrastructure of oil and gas leases prior to abandonment, allowing the sale of leases to junior oil & gas companies.

Strategy E16.4 Research the long-term prognosis for the life of the regional oil and gas field and identify a role that the County can play to support the industry to develop new technologies to increase the life of their field and to practice environmentally sustainable production and distribution.

Strategy E16.5 Remain informed and/or explore:

- The evolution of the plans for proposed Arctic pipelines including the Mackenzie Valley pipeline.
- Other exploration opportunities planned for the southern Northwest Territories.
- Their impact on the County's environment (e.g., need for roads/tributary lines).
- Barriers for economic development opportunities in the County.

To minimize their disruption to the environment, the provincial co-ordination must occur with the establishment of the infrastructure necessary to maintain the oil and gas pipeline(s).

Strategy E16.6 Lobby the province to regulate the co-ordination of plans for the establishment of new infrastructure being made by commercial, government and public service organizations in rural and wilderness areas.

Strategy E16.7 Promote a balanced and factual approach to protecting environmentally sensitive areas.

Strategy E16.8 Lobby the Federal and Provincial governments to strongly consider the negative socioeconomic impacts on our region of large scale conservation areas.

Forestry

Goal E17 That timber that has commercial value in Mackenzie County is harvested in a manner that is:

- Environmentally sustainable
- Financially feasible
- Optimally productive

Mackenzie's geography offers a blend of flat, arable land with boreal forest. Approximately 24% of the County's 1.9 million hectares is forested with mature timber. Norbord and Tolko Industries hold Alberta's largest joint Forest Management Agreement (FMA) with an area of more than 3.5 million hectares (35,000 square km). Daishowa Marubeni International 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.

The County has recently created an Industrial Area Structure Plan for the lands surrounding the Norbord site, and has invested in the development by constructing a potable water line from High Level to Norbord. This line has the capacity to service new, future industry as well.

One opportunity that recently presented itself relates to the newly acquired Crown lands. The County could encourage farmers who have purchased the land to sell the lumber that they will clear from these properties to forest companies.

Additional information and map is included in Appendix M.

Strategy E17.1 Promote efficient use of fiber/wood biomass.

Goal E18 Create a Sustainable Industry and Land Use Policy.

Strategy E18.1 Lobby the province to work with the federal government to amend the Species at Risk Act regarding habitat protection areas.

Strategy E18.2 Lobby the Federal and Provincial governments to strongly consider the negative socioeconomic impacts on our region of large scale conservation areas.

Strategy E18.3 Ensure that the County is consulted for the LPRP and in the creation of any and all Sustainable Industry and Land Use Policies that addresses natural items such as the protection of water and wildlife, development items such as FMA management and forest assessment, and requires joint use between various sectors such as agriculture, forestry and oil and gas.

Public Services

There are many social economic indicators worth highlighting that provide perspective to all of the topics covered in this section. All of the statistics in this section of the plan were obtained from Alberta Health, Alberta Health Care – Community Profile: High Level Health Data and Summary (Version 2, March 2015) as made available in Appendix G.

Statistic – indicated as a percent of population,	Mackenzie	Alberta
unless otherwise indicated.	Region	
Lone Parent families	16.5%	14.5%
First Nations/Inuit population	31.6%	34.0%
Low-income families	12.2%	10.7%
Average Family Income	\$ 78,708	\$ 116,232
Living in Owned Dwellings	57.2%	73.6%
Homes in need of Major Repairs	15.0%	7.0%
Don't speak English or French	3.6%	1.4%
Speak non-official language at home	45.8%	10.5%
No High School Diploma	52.7%	12.3%
College or University Certificate, Diploma, Degree	23.0%	51.7%
Birth rate (per 1000 population)	52.3	26.8
Fertility rate (per 1000 women 15 - 49 years)	101.4	52.1
Teen birth rate (per 1000 women 15 - 19 years)	65.3	17.4
Childhood Immunization Rates (by age 2) - DTaP-IPV-HiB	31.6%	74.3%
Childhood Immunization Rates (by age 2) - MMR	49.7%	85.7%

Public Services: Health Care

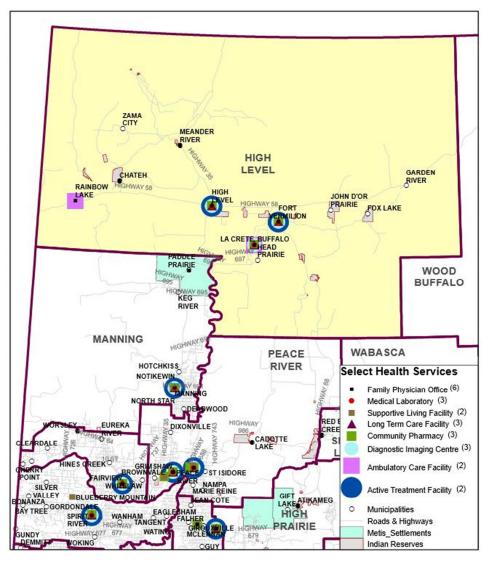
Goal E19 That the quality of and access to health services offered in the county is comparable to or exceeds those of other rural health regions in the province.

The Northwest Health Centre in High Level was opened in 2004, and is a hospital providing acute care and 10 continuing care beds. The hospital provides a wide range

of services to the region, from addiction counselling to diagnostic imaging to day surgeries to environmental public health.

St. Theresa Hospital is located in Fort
Vermilion, and offers
26 acute care beds and
8 continuing care beds.
The facility opened in
1983, and continues to
offer a wide range of
services, although in
practice there are
fewer services offered
than what the province
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. Additionally, recruiting doctors to the St. Theresa Hospital to service Fort Vermilion and to work

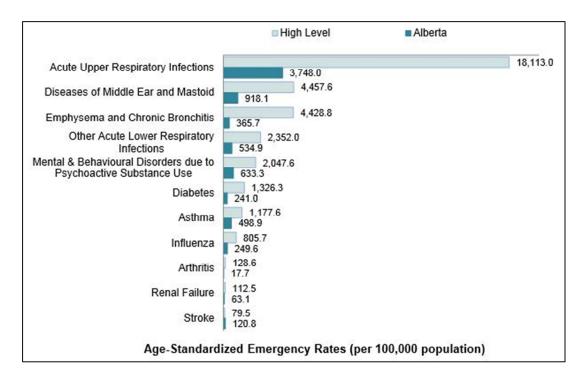


at the clinics in the surrounding communities is incredibly challenging.

The lack of doctors and other medical services in the County has caused a particular dependence on Medevac services. The provincial push to consolidate services and cut spending creates a contradicting reality in our 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.

25% of all inpatient separations were made outside the region, and nearly 22% of ambulatory care services were performed outside the region. This means that more than one in four hospital visits results in the patient needing to leave the region to get

the medical attention they need, which is 1.8 times higher than the provincial average.



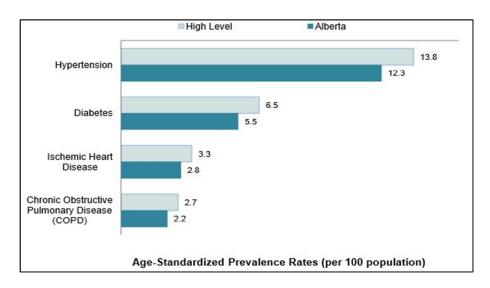
Strong leadership from a group with a genuine passion for improving the quality and availability of health across the entire region is needed. This is a role that the local Health Advisory Council is trying hard to succeed in, but is facing resistance at various levels.

Some health statistics from our region are alarming, and indicative of a fundamental problem in addressing basic health needs.

- Life expectancy is nearly four years less than provincial average 76.8 years compared to 80.5 years.
- Semi-urgent and non-urgent emergency visits account for nearly 85% of all emergency room visits which is over 5 times the provincial average.
- Acute Upper Respiratory Infections are nearly 5 times more prevalent than the provincial average.
- The rate of mental and behavioural disorders is over 3 times the provincial average.
- Obesity rates of 27.4% compared to 19.3% for the province.
- Number of smokers is 21.5% compared to the provincial average of 15.2%.
- Rank between 35 and 48 of 132 Alberta regions for highest levels of Hypertension, Diabetes, Ischemic Heart Disease and Chronic Obstructive Pulmonary Disease.
- STI rates for: Chlamydia is nearly 3 times the provincial average; Gonorrhea is nearly 6 times the provincial average; Non-Gonococcal Urethritis is nearly 2

times the provincial average; Mucopurulent Cervicitis is over 2 times the provincial average.

The distance to medical facilities outside the region is also a barrier for residents. A specialist appointment typically means a trip to Edmonton or Grande Prairie as do many diagnostic imaging needs. Chronic diseases are nearly untreatable in the region, often requiring families to move to an urban centre for the treatment of a disease. These challenges place an unprecedented strain on families and individuals during a time when the additional stresses are certainly not needed.



Strategy E19.1 Ensure optimal use of existing facilities and resources.

Strategy E19.2 Work with community stakeholders to establish a strong voice with both the department of *Alberta Health and Wellness* and *Alberta Health Services* in order to ensure that ongoing provincial planning meets local health needs.

Strategy E19.3 Work towards the provision of Continuing Care and Health Services in each of the communities in the region by working with the applicable local and provincial agencies mandated to provide these services in the region.

Strategy E19.4 Work together with the provincial government to ensure residents have access to doctors and other medical resources for non-urgent medical needs.

The region is underserviced by preventative and non-urgent health services such as dental, vision, chiropractic and physiotherapy. While there is access to these services in the region, access is limited which causes extended waits or additional travel to other nearby communities. In many cases this also leads to trips out of the region for these types of health services.

There is a University of Alberta Dental Outreach Clinic located in La Crete however provincial funding for the facility has recently proven unreliable. The clinic is vital to providing dental care to the community, especially the lower income demographic.

Strategy E19.5 Work with the province to provide additional services in the region to improve access to emergency care, dental, vision, chiropractic, physiotherapy, etc. services.

Public Services: Post-Secondary Education

Goal E20 That eventually residents can remain living in the County while pursuing post-secondary educational opportunities in the fields of service, technology and the trades.

To keep youth and young adults studying and employed locally, residents have prioritized the need for post-secondary opportunities to be offered in the region. 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. Because of the cost of the technical diagnostic programs, it would be necessary to offer these in a more centralized location such as Grande Prairie in order to attract a sufficient number of students.

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.

It is inevitable that the region will not be able to provide post-secondary programs in all of its potential students' interest areas. For this reason, those involved in planning for post-secondary education in the region must consider what it would take to increase the attractiveness of distance-learning to regional residents. Obstacles faced by students involved in distance learning include:

- Loneliness
- The need for a structured study environment
- The need for relationships with others who are going through similar experiences
- The lack of understanding of how to apply a remote learning format to one's own learning style

Highly creative strategies are needed to address the reality that distance education must be a viable and attractive option for residents of remote communities.

Strategy E20.1 Advocate for equitable provincial post- secondary funding for the County that is based on recognition of the County's unique demographic profile.

Strategy E20.2 Identify and advocate for the implementation of strategies that would increase the attractiveness of distance learning in the region.

Strategy E20.3 Expand the availability and local awareness of high quality distance learning opportunities.

Strategy E20.4 Advocate for student housing and dormitories at current facilities.

Public Services: Telecommunications

Goal E21 That County residents and businesses have access to the most current telecommunication technologies to permit them to participate in global opportunities.

Telus, Rogers and Bell currently serve the region with cellular coverage and there are several internet providers; however, many of the internet options are slow, unreliable and relatively expensive.

Mackenzie County currently lacks internet speeds that are competitive with other regions in Alberta. NorthwesTel currently serves High Level with adequate internet speeds but their services do not currently expand into the County. Corridor Communications Inc. (CCI) does a respectable job serving the farmers and rural customers although there are still gaps in their service area as well.

Reliability of the internet and cellular service are both big concerns for the region. There is only one fiber optic line feeding most of northwest Alberta including the entire County.

NorthwesTel is the only service provider that has their primary infrastructure north of the County and does not rely on the fiber optic line that comes up from southern Alberta. This positions them uniquely as a possible alternative to the current service providers and offers opportunities for communications backup, especially in case of emergencies.

La Crete and Zama are particularly underserved by internet. It is difficult to obtain a new hardwired internet connection and the current upload and download speeds are also at the lowest end of the entire high speed service spectrum with no option to upgrade your service.

Cellular coverage while generally quite comprehensive considering both the County's population and area still has several gaps along both key transportation routes and First Nations settlements.

Power to the portion of the County located south of the river is only provided by one line. This highlights another vulnerability to telecommunications within this region. During long duration power outages (20+ hours) the backup batteries are insufficient to maintain cellular service for the duration of the outage. This then leads to the County needing to make large investments in communications equipment for their emergency personnel.

Given the size of our region and the distribution of the people within the region the availability of world-class telecommunications is essential to the growth of our region. Better connectivity supports all aspects of the region; medical, business, family, which increases the quality of life of the region.

Strategy E21.1 Encourage the existing internet service providers in the region to continue to upgrade their systems, both in terms of reliability and speed.

Strategy E21.2 Encourage existing cellular service providers to continue to expand their coverage areas along existing highway corridors and areas with First Nations peoples.

Strategy E21.3 Encourage existing cellular service providers to install better battery backup infrastructure at the towers that will allow for improved service during times of crisis.

Strategy E21.4 Lobby the province to invest in additional fiber optic infrastructure improvements in order to reduce the reliance on the existing infrastructure.

Strategy E21.5 Explore the possibility of other businesses such as Shaw, CCI, SIS, NorthwesTel, Axia, etc. expanding their service in the region to serve the hamlets within the County.

Strategy E21.6 Lobby government and telecommunications industry to increase cooperation between providers to allow greater network access, especially during emergencies.

Tourism

Goal E22 Mackenzie County accommodates a thriving tourist sector without compromising the natural environment that hosts it.

Tourism does not yet play a significant role in the County's economy but the region has potential for a strong tourist sector. In addition to the adjacent Caribou Mountains Wildland Provincial Park and Wood Buffalo National Park, the County is host to numerous provincial recreation areas, natural and wildland parks, day-use and

overnight campgrounds.

- Caribou River Natural Area*
- Child Lake Meadows Natural Area*
- Harper Creek Natural Area*
- Fort Vermilion Recreation Area
- Machesis Lake Recreation Area
- Rainbow Lake Recreation Area
- Hay-Zama Lakes Wildland Park*
- Hutch Lake Campground
- Wadlin Lake Campground
- Zama Community Park
- La Crete Ferry Campground & Day Use Area
- Buffalo Head Tower Day Use Are

There are a handful of local businesses that are utilizing our natural environment to draw tourists to the area. These businesses are primarily hunting outfitters and fishing lodges. There are additional remote lakes that could host fishing lodges and countless other opportunities also exist.

Existing facilities such as the horse camp at Machesis Lake, the current Wadlin Lake Campground expansion, and the La Crete ferry campground development utilized unique partnerships between the County, non-profits and the public to develop the facilities.

A site selection project has been completed that identified the Buffalo Head Hills as an ideal location for a downhill ski facility. No development has occurred to date but a group of volunteers are slowly working towards developing the facility.

To attract tourists two things are needed: product and access. Mackenzie County's primary product for tourism is its pristine wilderness, a significant portion of which is untouched by development of any kind. Most eco-tourists do not want to interrupt their dream holiday by stumbling across an oil well.

Fort Vermilion has the closest access to this type of wilderness to its north and east near the Caribou Mountains Wilderness Park and beyond it to the Wood Buffalo National Park.

The first steps in promoting this type of tourism would be for the County to:

Designate an area with specific boundaries as a zero-development area in the

^{*} Asterisked areas do not have developed facilities.

Municipal Development Plan.

Put measures in place to protect its environmental integrity.

Thoughtful consideration of the long term socioeconomic benefits of protecting lands must be at the forefront of the decision making process as such a designation has long-term implications and cannot be made lightly.

Some opportunities that are worthy of consideration are:

- Designating the County as a Dark Sky Preserve
- Developing a York Boat tour
- Creating geo-caches and tenting facilities along the Peace River
- Developing a historical sites tour and history centre showcasing the First Nations, Ukrainian and Mennonite history
- Registering existing trails and creating new trails as part of Alberta's Wild Rose Trail System (www.albertatrailnet.com)

Additional opportunities are identified in Carcajou/ Mackenzie County Restoration Project available in Appendix E.

Strategy E22.1 Work with Mackenzie Frontier Tourist Association to develop strategies to adapt County infrastructure and its natural environment in ways that will lay the groundwork for the development of an environmentally sustainable tourist sector (e.g., agricultural and/or eco-tourism).

Strategy E22.2 Assess whether the County's existing tourism facilities, businesses and industries are based on environmental values that are, or have the potential to be consistent with the establishment of a County-wide eco-tourist industry.

Strategy E22.3 Develop bylaws that outline environmental requirements for all tourist facilities and practices which operate in the County.

Strategy E22.4 Continue to partner with various local groups and provincial groups such as Alberta Trail Network to develop tourism and recreational infrastructure.

Business Climate & Growth

Goal E23 Mackenzie County's business communities can provide local products and services to meet consumer demand.

Running profitable businesses in Mackenzie County can be a considerable challenge. It is important to understand that the County's relatively small population is spread over a large area. This means that the target market for most types of small business can be

very limited. In fact, with the inclusion of its First Nations' communities and the shadow population, Mackenzie County's market exceeds 27,000 people. A large proportion of the population has to travel considerable distance to reach each hamlet and therefore limit the amount of travel that they do.

This means that in order to succeed, local entrepreneurs must maintain a high degree of creativity on an ongoing basis to manage their operations.

Strategy E23.1 Consult with the County's business community to identify strategies that would strengthen the municipality's "open-for-business" attitude.

Strategy E23.2 Undertake an assessment to determine if and how the County may be of assistance or can provide support to businesses operating under County business licenses.

Strategy E23.3 Develop strategies to attract small and medium-sized enterprises that provide support to the County's existing businesses and industries.

Goal E24 Mackenzie County is an attractive destination for non-residents to visit or to decide to relocate, and remains an attractive home for County residents at all stages of their lives.

To promote growth in a remote area of the province it is essential to be able to convey the nature of the community's unique and most attractive qualities as articulately as possible. Given the unique identities of each of the County's hamlets however Mackenzie County itself has yet to develop a unique identity that distinguishes it from other rural Counties. Residents of each of the hamlets however perceive that their community as one that places a high value on family life. To compete, Mackenzie County must convey what is authentic, unique and special about its family orientation.

On the basis of its unique identity, Mackenzie County can build a marketing plan that authentically represents its vision. The greatest marketing resource available is the residents: people encouraging good friends to come and live here. They are the ones that can communicate what makes the area an attractive place to live. The friends in the 45-50 year old age group are not as likely to be in the market to move to a new community as the friends of those in the 25-35 year old group would be. They are often first-time home buyers and are beginning to raise families.

Between 2001 and 2006, communities in Mackenzie County grew an average of 11%. Between 2006 and 2011, the County's population growth rate was 9.3%. The Hamlet of La Crete and its surrounding rural area are growing much more rapidly than other areas of the County.

The average age of the population within the County is 22.6 years. For comparison, the average age in Alberta is 36.5 years and Canada is 40.6 years. This incredibly young demographic is a result of a high birth rate in the region. This demographic and high birthrate is a trend also observed in neighbouring First Nations communities.

A municipal census was completed in 2015, providing a detailed population and demographic breakdown of the hamlets and other areas within the County for the first time. As shown in Appendix F.

It should be noted that it is imperative that the quality of service delivery in the County's health sector improve substantially in order to attract and sustain new residents. All County promotion plans and programs must factor this variable into all timing considerations for the implementation of strategic initiatives.

Strategy E24.1 Partner with regional organizations to develop relocation initiative strategies that promote living in the County; primarily through public endorsement aimed towards distant friends and family.

Strategy E24.2 Youth have sustainable employment opportunities that enable them to continue to live and work in the County.

Another strategy to promote the County is to initiate and support a *Buy Local* initiative. The first place to start is at home with residents that are producing products that appeal to the local population (e.g., fresh produce for a farmer's market in all three hamlets and other services that might meet resident's daily needs).

Strategy E24.3 Encourage the establishment of, promote and support *Buy Local* initiatives.

Goal E25 That Mackenzie County's workforce lives in the County with their children and families.

Zama City has developed with a more transient population base and fewer permanent residents than some of the other communities. Poor corporate and municipal policies and the remote location of the region led to this situation. Moving forward there are several strategies that could be applied to reverse the trend.

The County's risk involves making the financial investment necessary to provide municipal services that are initially disproportionate to the size of the population. The County has already invested by building the multiplex facility and renewing the water and sewer system.

There are several challenges that a developer wanting to invest in Zama would have to

overcome:

- The cost of developing land in Zama is higher than in other areas because of the high costs of housing labourers and of transporting supplies to the remote community.
- There is weak evidence that they would be able to recuperate their costs.

Strategy E25.1 Work with the Oil & Gas and the forestry sector to:

- Identify strategies to attract employees' families to relocate to Mackenzie County.
- Identify what their employees would expect before they would be willing to move their family to the County and determine whether the County or Apache are in a position to address these priorities.
- Develop a joint plan to address those needs and to promote family relocation.

Strategy E25.2 Identify and promote each hamlet's strengths in relation to fostering family-friendly environments.

Strategy E25.3 Encourage companies to adopt policies that hire locals and discourage transient workers.

Strategy E25.4 Develop a promotional program for relocation targeted at the employees/contract workers with families that are working in the natural resources industry.

Population growth requires responsible municipal management. Notwithstanding the perception that there is a great deal of land available in the region, it is essential that the County minimize the creeping sprawl of urban development.

Goal E26 That Mackenzie County is prepared with infrastructure and services for a continually growing population.

Strategy E26.1 Infrastructure is adequate and there are plans in place to manage additional growth.

Strategy E26.2 Provide exceptional services that enhance the quality of life in County hamlets and existing rural areas as a means to dissuade residents and newcomers from moving to undeveloped areas to establish small lots or acreages.

Strategy E26.3 Take proactive measures to anticipate growth by preparing evidence-based plans for it.

Goal E27 That the County has reliable and comprehensive population data to make sound decisions and municipal plans.

Official population figures in Mackenzie County very likely underestimate the actual population for several reasons:

- The cultural history of counting First Nations peoples living off reserve in municipal jurisdictions.
- The number of immigrants to the area whose personal history includes poor experiences with official government interaction and who are fearful of being officially recognized by the governments under which they live.
- The presence of residents whose express purpose for moving to the region is to acquire and maintain anonymity.

The absence of accurate data gives rise to inaccurate estimates of the demand for services. Since these often require major capital investments, there are risks for both over and under estimates:

- Developing/maintaining services that are not financially sustainable resulting in tax revenues from the population that are insufficient to support them.
- Making investments to establish facilities and services that turn out to be insufficient to meet demand resulting in unanticipated major investments that must be made to meet the demand.

Strategy E27.1 Consult with remote, northern municipalities in other provinces to share strategies that address the difficulties in acquiring accurate municipal census data.

As mentioned earlier, the County has a significant shadow population. While First Nations communities are governments unto themselves as are the two Towns in the County, the latter communities provide a level of infrastructure and community services that are not yet available in First Nations communities. For this reason, some do use certain County services on a regular basis.

Thousands of seasonal oil and gas workers use County services for six months of the year (winter season) but are not present when censuses are mandated by legislation to be taken (April to June).

Strategy E27.2 Work with the province to develop a responsible yet equitable method to ensure the County's shadow population can be counted so that the true population can be recorded, enabling it to access its fair share of transfer payments.

Strategy E27.3 Undertake a timely municipal census during major population shifts.

One size does not fit all. Each of the three hamlets face different needs and have different opportunities. Each community requires a separate strategy requiring different levels of County intervention and support. Each community's goals must be validated and supported.

Goal E28 Mackenzie County's economy has the capacity to moderate the local impacts of dramatic economic ups and downturns in resource sector activities.

Mackenzie County's overall sustainability will be based on its capacity to adapt to changing conditions and to develop strategies to cope with the volatility inherent in a resource-based economy. Since the County does not have direct control over the global marketplace, measures must be considered to minimize the impact of the economy's peaks and valleys. Although a concerted effort continues to be made to attract new commercial activity, the County is limited in what it can actually do. A dedicated approach to ensuring that the County's overall infrastructure framework will meet its needs in the coming decades is essential. Growth pressure points tend to be in the areas of transportation, health and educational services.

Strategy E28.1 When making County growth projections for planning major capital expenditures, continue to use average *20-year growth rates* rather than using *current growth rates* that may not represent enduring growth patterns.

Strategy E28.2 The County will support efforts to diversify its economic base.

Fostering growth while strengthening the elements that make up its unique character will be an important element to strengthen the prognosis for the County's future.

Mackenzie County must cope with the implementation of potential major projects with very limited, if any, direct involvement in the timing of their implementation. These include:

- Diamond mining in the Buffalo Head Hills
- Other enhanced oil recovery projects
- The decades-long wait for the Mackenzie pipeline
- New initiatives for forestry by-products and for value-added agriculture

ENVIRONMENTAL SUSTAINABILITY

High quality natural and well-designed built environments:

- Create a sense of place.
- Are designed so that residents can live in ways that minimize negative environmental impact and that enhance positive impact.
- Protect and improve natural resources and biodiversity.
- Include local public and green spaces that are well-maintained and user-friendly, and that have facilities for people of all ages.
- Include an ongoing, efficient use of resources in the provision of services and in the built environment.
- Are of a size, scale, density, design and layout that complement the distinctive local character of the communities that make up the municipality.
- Have considered the needs of future generations in current decision-making processes and action plans.
- Contain buildings that are adaptable, durable, and in mixed-use patterns.

Natural Environment

Goal N1 Mackenzie County's river valleys are maintained in their natural state and are legislated to remain as such in perpetuity.

Strategy N1.1 Protect the natural state of Mackenzie County's river valleys with strongly worded municipal bylaws that control development.

Strategy N1.2 Develop municipal bylaws and policies to support continuing public access to the County's river valleys.

Strategy N1.3 Develop municipal policy to ensure that sound environmental protection, maintenance and utilization practices serve to preserve the health and safety of the valleys (especially sound practices to guide the development of any future roadways that must be built over a river).

Goal N2 Mackenzie County's environmentally sensitive land areas are well preserved.

Mackenzie County's natural environment consists of several types of land areas: agricultural lands, Crown lands, commercial private property, and residential private property. An environmentally sensitive area is one that may require special protection because of the:

• Landscape (e.g., wetlands, woodlands, valleylands, sand hills, wildlife corridors,

- natural heritage features)
- Wildlife (wildlife and fish habitats)
- Historical value

The federal government has protected Wood Buffalo National Park on Mackenzie County's eastern border and the province has protected the Caribou Mountains Wildland area in the form of a provincial park. Mackenzie County must:

- Decide whether it is necessary to protect any particular lands within its boundaries from surface and/or underground development.
- Clearly articulate the reasons for this protection to ensure that future councils will continue to protect the area(s) in question

The Provincial and Federal governments have also placed many other protective notations on the land, protecting a variety of natural areas and wildlife. Many of these areas are depicted below, as well as in Appendix H. These protected areas currently affect about 75% of the County's land base with varying degrees of protective measures.

As discussed under the economic pillar topic on tourism, the County may choose to designate a wilderness area northeast of Fort Vermilion as one that will remain free from surface or underground development. The County should also decide if there are other areas under its jurisdiction that require the County:

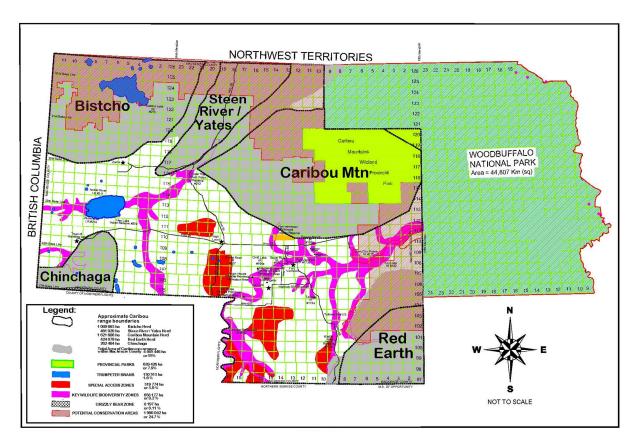
- To be aware of their somewhat sensitive nature for public education or future decision-making purposes.
- To monitor activity in the area.
- To take steps to protect the area.

Prior to designating additional lands as a wilderness area the County shall commission a socio-economic impact assessment. Should other governments wish to designate lands within the County as a protected area, the County shall strongly lobby that a socio-economic study be commissioned prior to any designation being placed.

The County shall also explore implementing policies and lobbying other levels of government and regulatory bodies to help ensure that natural resource exploitation is completed in a responsible manner. This effort shall focus on initiatives such as Enhanced Oil Recovery (EOR) and other innovations that maximize the economic return for industry while having little or no negative environmental impact.

Strategy N2.1 Identify and maintain an up-to-date inventory of Mackenzie County's environmentally sensitive land areas or ones that are at risk of becoming environmentally sensitive.

Strategy N2.2 If applicable, select land area(s) that the County wishes to protect from development and develop rationales and strong municipal policies/standards for their protection to ensure that sound environmental protection, maintenance and on-going utilization practices serve to preserve environmentally sensitive lands.



Built Environment

Goal N3 Optimal use is made of County farm land.

The County initially transferred over 136,000 acres of agricultural land in 1994 to the province for redesignation as Crown land in the green zone. Over 100,000 acres have been sold by the Province, since 2010, for agriculture purposes within the County as they have been fulfilling their portion of the land exchange. The County desires this type of agriculture land offering continue after the land exchange commitments have been fulfilled.

Working with the Province to establish a process for converting crown land into private agricultural land will help ensure long term viability for the regions agriculture sector.

Strategy N3.1 Ensure that the County's Land Use Bylaw and Municipal Development

Plan limit urban or non-agricultural development in unused lands that are best-suited for agriculture.

Strategy N3.2 Ensure that agricultural land expansion continues through private development and with land sales from the province.

Environmental Footprint

Once rail services are improved in Mackenzie County their increased use will reduce greenhouse gas emissions from trucks moving goods and services to markets. The strategy to address rail service is included earlier in this plan.

The County will seek to utilize alternative energy sources such as wind and solar to power small buildings and remote sites such as campground caretaker facilities.

Goal N4 County residents will consistently recycle a large majority of their bottles, paper, plastics, cardboard, and electronics.

Solid waste in Mackenzie County is managed by the Mackenzie Regional Waste Management Commission. Most recycling is handled through its transfer stations in Blue Hills, Buffalo Head Prairie, La Crete, Blumenort, Fort Vermilion, Rocky Lane, and Zama City. At these sites, residents can drop off:

- Tires
- Electronics
- Paint, antifreeze, oil, pesticides, propane tanks and household hazardous waste

Bottle depots are available in Fort Vermilion, High Level and La Crete.

Residents would appreciate a higher level of recycling available to them. Unfortunately, the costs of collection, facility construction, and transportation far exceed the revenues that can be recuperated from companies that purchase the material to be recycled. In addition, the distance of shipping to southern destinations has an environmental cost that may outweigh the benefit of recycling.

It is clear that paper, plastic, glass, cardboard and other standard recycling services available in urban settings must be considered a long-term goal as the means to do so is not yet evident.

Other northerly jurisdictions have had some success. The Northwest Territories announced a paper and cardboard initiative in 2009. The population there is about twice the size of the region served by the Mackenzie Regional Waste Commission and the NWT have a federal source for funding initiatives. Each northern situation tends to

be unique.

When Highway 58 is eventually extended to the BC border, the County could explore the feasibility of developing partnerships with northeastern BC, the NWT and Yukon as well as the Towns of High Level and Rainbow Lake to promote the establishment of facilities that could make use of recycled materials.

Strategy N4.1 Continue to monitor new developments in recycling technologies that would be economically feasible for use by the County.

Strategy N4.2 Work in collaboration with Mackenzie Regional Waste Management, community organizations and groups to strengthen local recycling initiatives.

SOCIAL AND CULTURAL SUSTAINABILITY

A socially sustainable community is one that is characterized by:

- A sense of community identity and belonging
- Social inclusiveness where all citizens have similar life opportunities
- Respectful engagement with people from different backgrounds
- Friendly, helpful behaviour in neighborhoods
- Opportunities for leisure, recreation, sport and social support activities
- Low levels of crime and anti-social behaviour
- Diversity and affordability of housing
- The availability of opportunities for artistic expression
- A strong sense of community heritage
- Community pride

A Sense of Place

Goal S1 Each County hamlet and rural area hosts a concentration of social, cultural and commercial activity in strategic locations.

Residents of any community need opportunities to meet and interact with others in a neutral way, one that builds relationships and more importantly trust.

A sense of place or place of assembly is one where numerous types of activity take place in a central area of the community and provide opportunities for residents to meet and interact. This is typically where the stores and businesses are but can also be centred by recreational facilities or features. Establishing or fostering the growth of a place of assembly in each hamlet is vital to the continued presence of a small town atmosphere and a family-friendly environment. It requires a certain concentration of activity, though:

- Diverse activities in a 1-2 square block area (the more there are, the more likely it will be to succeed as a place of assembly).
- Places for residents of all demographic characteristics to gather both in demographically distinct (e.g., youth) and in heterogeneously blended groups.
- Space designed to be people-friendly (e.g., has protected spaces to sit in the sun in comfort, is "senior friendly,").

Such community hub should be active from at least 8:00 a.m. to 9:00 p.m. daily. This will trigger sufficient hourly activity consistently to draw new added-value commercial services that in turn will enhance the concentration of activity. While the intensity of

activity may vary throughout the day, the more diversity in the area's functions, the greater its use and viability will be and hence its value as a place to meet and interact with others in the community.

Strong community volunteer groups in each of the hamlets provide many of the cultural, social and recreational opportunities. Volunteering also creates a sense of ownership for the residents and has allowed for many facilities to be constructed and events to take place that otherwise would have been unattainable.

La Crete's Mennonite roots have led to the establishment of a strong sense of community in the hamlet. Its hub is located on both sides of 100 Street and the hamlet's layout is conducive to reinforcing the place of assembly that builds a sense of community. In 2012 the County took a big step forward towards reinforcing the need for a place of assembly in La Crete by re-zoning some residential properties to commercial. It's anticipated that this will build a more vibrant down town core. A streetscape and building design standard is currently under development for La Crete, which will further enhance the vitality of the area.

Fort Vermilion has no clearly defined area of community assembly at this time but the Community Cultural Centre with its recreational opportunities provides much social interaction. The area around the 50th Street and River Road intersection, and River Road as a whole, is ideally situated to become the place of assembly in Fort Vermilion. Situated along the banks of the Peace River, there is currently a mix of commercial services in the area which provides a good base from which to attract additional businesses. The Area Structure Plan for Fort Vermilion was revised in 2012, and it implemented several items to help facilitate this transition. Additionally, 2015 will see Fort Vermilion acquire a Heritage Design plan for the area, which will help to create a visually attractive neighborhood.

Zama City is a community founded by and dependent on the oil and gas industry. As is typical with the industry, a large portion of Zama's population is transient and lives in camps or rental accommodations. That said there is a strong core of residents in Zama City that strive to grow the community and provide a sense of place for the transient population. In keeping with the existing development, the 2012 ASP did not identify or attempt to create a traditional down town core. The Cornerstone Building and the campground currently provide the strongest core in Zama, and additional light commercial development around these areas would reinforce its role as Zama City's core.

Strategy S1.1 Implement policies that encourage cultural development in the core areas of the hamlets that foster social interaction with the residents in each hamlet.

Strategy S1.2 Promote recreational activity and opportunity within the County through future hamlet development plans.

Strategy S1.3 Implement policies that place stronger emphasis on commercial development in each hamlet, in conjunction with the County's hamlet development plans.

Strategy S1.4 Develop a community standards bylaw for residential and industrial properties.

Cultural Vibrancy and Inter-Cultural Relationships

Goal S2 The hamlets, rural areas and First Nations communities each have distinct and thriving cultures yet they are linked by common, broad economic and environmental conditions.

Strategy S2.1 Showcase the unique features of each of the County's cultures throughout the County's hamlets and populated rural areas.

County – First Nations Relations

Goal S3 Mackenzie County and the four First Nations located within its geographical boundaries share a common vision for the region, one that maintains cultural autonomy and that harmonizes economic pursuits.

In 1999, the province established a memorandum of understanding with the Little Red River Cree and Tallcree Nations giving them control of a large region of Crown land and resources within County boundaries. This has presented the County with numerous logistical and consultative challenges and the County has since taken numerous steps to try to understand how to work with the First Nations communities to address mutual interests.

Discussions between the County and its First Nations neighbors remain infrequent, but preliminary steps have been taken towards establishing a relationship. In early 2014 County council initiated a workshop, facilitated by FCM, to get to know our First Nations neighbors. There was a strong response from the Little Red River Cree Nation and while dialogue remains intermittent the relationship is growing. Prioritizing the relationship with First Nations leaders and people needs to occur before any meaningful results or agreements will be reached. All parties need to be willing to remove the lines in the sand that seem so prevalent in order to facilitate meaningful discussion.

Engage the assistance of a cultural interpreter or cultural mediator to:

Deepen Councillors and staff members understanding of both the differences

- between their own culture and that of others in the region.
- Teach key County participants basic skills in inter-cultural sensitivity.
- Act as an ongoing advisor for future negotiations as a means to mediate any misunderstandings that may arise due to cultural differences.
- Work with the County and First Nations Councillors to develop a protocol to manage inter-cultural communication and to resolve mutual concerns.

The County has been lobbying the province for the enhancement of health services. Its efforts would be significantly strengthened by evidence of a regional partnership where all voices are heard and have equal weight.

If Mackenzie County is to succeed in establishing a strong network of health services that address local needs, it will be imperative that these services be carefully designed to meet the cultural needs of the targeted service recipients including First Nations communities.

Strategy S3.1 Use a cultural interpreter to develop joint protocols with each First Nation to manage inter-cultural communication and to resolve mutual concerns.

Strategy S3.2 Identify and prioritize goals that are common to both the County and specific First Nations, and develop joint strategies to address them.

Strategy S3.3 Develop public awareness activities to assist residents to understand the reasons for, and how to welcome an increased number of members of another culture to their community activities.

Strategy S3.4 Invite the First Nations and Mennonite communities to create and display icons of their cultures in each County hamlet.

Strategy S3.5 Encourage local organizations to involve members of First Nations communities in the planning processes for local activities and events.

Strategy S3.6 Develop strategies to encourage all residents of the County to participate in public activities and events throughout the County, and to ensure they feel genuinely welcome during such experiences (e.g., local festivals, cultural, and recreational activities).

Sustainability of Community Infrastructure

Municipally-owned facilities and structures:

- Operate at optimal usage levels given the size of the population.
- Have the capacity to absorb growth.
- Are well-maintained on a schedule that maximizes life expectancy.
- Have accumulated reserve funds in place to ensure replacement when needed.
- Have replacement capital plans in place that take the needs of future generations into account.
- Attract and maintain an adequate, stable workforce to meet their needs.
- Have operating budgets that reflect staffing levels necessary to achieve their objectives.
- Are of a size, scale, density, design and layout that complement the distinctive local character of the communities that make up the municipality.
- Have considered the needs of future generations in current decision-making processes and action plans.
- Contain high-quality buildings that are adaptable, durable, and in mixed-use patterns.

There are many challenges to construct and maintain services and infrastructure in remote rural Alberta. Most residents within the region have embraced this challenge and dutifully volunteer and support many local initiatives, significantly reducing or eliminating the cost on government to provide amenities such as parks and recreational facilities.

Only municipal infrastructure is addressed in this section and it represents those facilities or *hard services* that are owned and operated by Mackenzie County (local roads, water and wastewater systems, parks, recreational facilities and County office spaces). Infrastructure for highway, rail and air transportation as well as power and telecommunications are outside of the County's jurisdiction. They are addressed under Economic Sustainability earlier in this report.

Goal C1 The capacity of infrastructure in County hamlets and rural communities keeps pace with their growth and is planned in a way that ensures their sustainability.

Strategy C1.1 Ensure that multi-year operating and capital plans are established and reviewed annually by Council.

Strategy C1.2 Ensure that administration has the appropriate tools and resources to continually assess and evaluate infrastructure capacity.

Strategy C1.3 Create and follow infrastructure plans that are created for the purpose of protecting current assets and that identify the anticipated demand for future infrastructure.

Recreational Infrastructure

Goal C2 Community parks, recreational facilities and community halls are available to each community consistent with local, cultural needs.

To assess the sustainability of the County's recreational facilities is complex. Each community has developed recreational facilities and programs suited to its particular community character and size.

The County should consider diversifying the recreational offerings by thinking creatively and developing multiple low cost recreational opportunities. Many recreational opportunities are available in the region however residents may need to initiate the opportunity rather than simply partake in an existing one.

One of the primary ways the County attempts to efficiently provide adequate recreational opportunities for the communities is by utilizing recreational boards. Zama's recreation is completely run by volunteers, while La Crete and Fort Vermilion have paid staff to help coordinate and run the facilities.

Perhaps it would be prudent for the County to explore additional opportunities to support recreational opportunities such as cross country skiing, cycling, soccer, baseball, mountain biking and skateboarding that have relatively low capital costs. The lack of recreational opportunities in many ways is only a perception, but the desire for two capital and operational intensive facilities persists; a swimming pool and a ski hill.

Strategy C2.1 Assess life expectancy for current recreational facilities and prepare long-term plans to ensure the timely availability of funds to address:

- Expected maintenance requirements during the typical life cycle of each facility.
- Facility upgrades or replacement.

Strategy C2.2 Undertake a financial and operational review of County recreational facilities and equipment to:

- Ensure adequacy of capital, operating funding and reserves.
- Identify opportunities for increased usage, increased revenues and decreased costs.
- Ensure optimal use of funds.

• Identify other efficiencies that could mitigate the size of the annual grant required from the County to operate the facilities.

Strategy C2.3 Establish and adhere to current policies that will ensure that residents of each hamlet have access to an attractive and well-managed community park site that:

- Is easily accessible,
- Reflects community values,
- Is linked to other parks in a manner that will eventually provide for a Countywide linked park system.

Goal C3 Enhance the existing campgrounds in Mackenzie County.

Strategy C3.1 Work with stakeholders to enhance and expand recreational opportunities.

Goal C4 Capital-intensive recreational facilities are designed with the goal of generating significant and consistent levels of tourism from outside of the region.

The Regional Economic Development Initiative for Northwestern Alberta (REDI) carried out a study in 2008 to assess the feasibility of a downhill ski facility in the region. Such a facility would be very attractive to local residents but these would not be able to support a privately owned facility or even one that is co-owned by the Municipality and a private operator. A tourism study carried out in 2009 suggests what a downhill ski facility could provide to the region. The County has attended a handful of events in hopes of attracting an investor for the ski facility but has been unsuccessful thus far. The more likely scenerio for a ski hill to be developed is that it be spear headed by a local volunteer group with support from the business community. In fact, there is a real reason to be optimistic that a ski hill will be operational by 2020, complete with a snowmobile trail network that will also be utilized for mountain biking during the summer.

Strategy C4.1 Encourage local volunteers to pursue the development of a downhill ski facility and commit to providing assistance.

A feasibility study has been completed for the *Buffalo Head* slopes site investigating if it could be designed to attract sufficient tourism to ensure financial viability of a downhill ski facility. Based on the financial information used it would not be viable but if development costs were reduced by harnessing the local business community it projects to be a viable development.

Utility Infrastructure

Goal C5 Mackenzie County continues to provide high quality utility services (water distribution and treatment as well as waste water collection and treatment) and ensures that they:

- Are available in each hamlet.
- Meet quality standards consistent with current national standards and demand.
- Are stable and reliable.
- Are each financially self-sustaining at both operational and capital levels.

The following lists demonstrate the existing utility services provided by the County or in the County:

County operated water treatment plants are located in:

- Fort Vermilion
- La Crete
- Zama City
- Rural Water line for residents between Fort Vermilion and La Crete, south of High Level, and to La Crete Sawmills

County operated rural water points can be found in:

- Rocky Lane
- Buffalo Head Prairie
- Wolfe Lake Water Point
- High Level Water Point
- Tompkins Water Point
- La Crete Water Point

Mackenzie County operates:

- Blue Hills Transfer Station
- Buffalo Head Prairie Transfer Station
- La Crete Transfer Station
- Blumenort Transfer Station
- Fort Vermilion Transfer Station
- Rocky Lane Transfer Station
- Zama Transfer Station

Natural Gas and electricity is provided by local enterprises.

An economic development study undertaken last year indicates that the County water supply, as well as treatment and distribution facilities are adequate to sustain moderate or even rapid growth in most communities. There are upgrade or expansion projects either planned or underway for those that are not.

The La Crete water treatment system for example currently treats ground water and may soon reach its capacity. The waterline between La Crete and Fort Vermilion provides options should the treatment plant reach capacity, however an engineered assessment is currently underway to accurately determine phasing options, timelines, and future plans. This study will be attached in Appendix D.

The County has constructed a rural water line between La Crete and Fort Vermilion. The line currently services a handful of residences but is also serves as an emergency supply for each of the communities should a treatment facility fail.

Wastewater collection and treatment facilities are also adequate to sustain moderate or even rapid growth in most communities. A new treatment facility opened in Zama City in 2009 and the collection system in Fort Vermilion was upgraded in 1999. The lagoon in La Crete received a significant upgrade in 2015 that should provide capacity for an additional 20 years.

Mackenzie County is in the process of preparing master plans for potable water distribution, wastewater collection, stormwater management systems as well as an off-site levy review. It will:

- Provide an evaluation of the performance of County's existing systems
- Recommend system performance standards and upgrading criteria
- Identify system performance deficiencies
- Determine performance upgrading requirements complete with conceptual cost estimates
- Identify any revised growth projections and land use plans since the Municipal Development Plan was last updated
- Recommend upgrades and new infrastructure requirements to service future growth conditions

Strategy C5.1 Assess life expectancy for current facilities and prepare long-term plans to prepare for their replacement.

Strategy C5.2 Provide additional rural potable water truck fill sites so all residents reside within 35 minutes of potable water.

Infrastructure Risk

Goal C6 The risk of various types of damage to municipal infrastructure is minimized due to the availability of up-to-date risk assessments as well as up-to-date plans for managing each type of risk.

Strategy C6.1 Work with the province to determine the ice jam event flood levels for Fort Vermilion.

Strategy C6.2 Integrate FireSmart principles into all levels of the County's planning documents to ensure that all reasonable measures are taken to reduce the risk of forest fires devastating a community.

Goal C7 The risk associated with damage to local infrastructure comparable to the levels of infrastructure risk in other parts of the province.

Two types of risk will be addressed in this portion of the report. The first relates to the risk of damage to local infrastructure under various conditions. The second relates to the risk that a municipality must take when it must make growth projections to decide how many residents that a facility will serve over the course of its expected life.

Municipalities have been managing infrastructure risk for some time. The most important reason for this is that this type of risk has changed the way that risk is assessed. Traditionally, risk has been assessed on the basis of what has happened in the past, e.g., rate of highway accidents, historical frequency of floods (some every 10 years, every 50 years, every 100 years, every 300 years), historical rate of forest fires based on seasonal temperatures.

Fortunately, municipalities can predict and plan for certain types of environmental phenomena. These include increases and decreases in:

- Wind and water loads
- Energy and water demands
- Average seasonal temperatures
- Average seasonal precipitation
- A combination of the above

Measures that can be taken to reduce risk include the enhancement of emergency preparedness plans, annual inspections, improving GIS capacity, technical evaluations, and gathering information from stakeholders. Local farmers for example, could work with the Fort Vermilion research station to make plans for changes in farming practices necessary to address both an annual 3 degree Celcius increase and decrease in summer temperatures.

Strategy C7.1 Carry out full risk assessments of regional infrastructure every five years and update plans to mitigate identified risks (liability, property, errors and omissions, vehicle, and environmental assessments including those associated with hazardous goods and climate change).

Strategy C7.2 Work with regional partners on regional emergency disaster planning initiatives.

As mentioned earlier, the second type of risk that a municipality must take relates to the accuracy of growth projections when deciding how many residents that a facility will serve over the course of its expected life. When communities undergo periods of rapid growth, residents tend to expect the municipality to project the necessary size of new facilities on the basis of recent high growth rates. However, it is rare for a rapid growth rate to be sustained over time.

La Crete has grown in spurts throughout its history and if the trend continues planning properly will always be a challenge. Ensure that when using statistics for planning purposes, a minimum 5 year rate of growth shall be utilized.

Growth rates are an unknown factor when a municipality plans for the size of new facilities. What makes things even more difficult is that the cost of planning for increased size is not proportionate. For example, it may only cost 10% more to build for 25% more capacity. It can be very tempting to plan for higher capacity than is necessary, just in case.

Staffing

Goal C8 Mackenzie County's staffing complement keeps pace with the County's growing need for infrastructure and services.

Municipal Councils tend to expect that their municipalities are administered in the most efficient and cost-effective manner possible and they should expect nothing less. At the same time, they plan for new structures, programs and activities and sometimes are not aware of the burden that detailed planning places on existing staff.

Current staff that respond to today's programs cannot be expected to take on additional tasks to plan for major new projects.

Strategy C8.1 Continue to review staffing needs annually.

Conclusion

Plan Implementation and Evolution

Goal Z1 Mackenzie County has a well-organized, ongoing process to monitor the implementation of, and to assess the results of its sustainability plan.

To implement this plan, Council must make decisions that involve risk and that affect existing interests. To assure a healthy, long-term future for the County, Council must educate the community on the steps necessary for Council, residents and stakeholders to transform it. Mistakes may be made but taking risks are part of any successful community's evolution.

The Municipal Sustainability Plan presented in this report is a long-term plan for the community. This statement contains two critical components: a time frame and a guide. The plan proposed in this report will not be easy to implement and will take a very long time to complete. Council and community residents alike must remind themselves periodically that many of the strategies assume the establishment of a sound foundation. Laying foundations can be the most time-consuming element of implementing a plan whether it be in constructing buildings or in building communities. To implement the plan, Council must first establish its objective through the economic development strategy, medium-term, and long term objectives as established by Council. It will be necessary to articulate strategies in more detail, to set target dates, and to update the plan annually, as goals are met, reframed or delayed.

Councillors and residents must also understand that by its very nature, a plan cannot be rigidly adhered to. It must take into account changing conditions in the community as well as new opportunities or threats. As conditions change, the plan must be updated to accommodate these changes. For this reason, the plan should be considered as a guide to meet the vision rather than a legislated document that must be implemented in every detail.

It is essential however, to:

- Keep the vision and the long-term objectives as targets,
- Review the strategies needed to achieve them on a regular basis and
- Adjust them as necessary.

Steps that will be important to achieve the County's goals and vision are to establish a long-term calendar that indicates target dates for their achievement and to monitor the results of the strategies used to achieve the goals.

The calendar outlines dates for the achievement of each goal and for any short-term objectives developed to achieve the overall goal. It also includes dates for the completion of each strategy used to achieve the goal. Obstacles arise from time to time and the achievement of some targets may be delayed. The plan's calendar is then modified accordingly. This provides Council and ratepayers with an overall picture of what the steps are to meet each goal and when they can expect that they will be met.

Once the County has finalized its plan and its calendar, it will be necessary to develop "key performance indicators" or KPIs to measure progress on County goals. This will provide Council with the information it needs to monitor and evaluate the plan's implementation over time.

Strategy Z1.1 Develop a plan calendar.

Strategy Z1.2 Develop key performance indicators to measure progress on key County goals.

Strategy Z1.3 Schedule a dedicated item at each annual Council planning session to:

- Review the sustainability plan's key performance indicators,
- Update or amend any goals, strategies, key performance indicators and/or timelines as required.

Strategy Z1.4 Prepare a sustainability plan implementation report every two years and circulate it to residents.

In summary,

- Be prepared to take risks.
- Always keep the vision and the objectives in the foreground and be cautious about getting caught prematurely in detail.
- Educate the community on the steps necessary for Council, residents and stakeholders to transform the community.
- Expand on the plan with time frames.
- Use the plan as a guide, not as a law.
- All of Council's efforts should be directed toward the achievement of Council's objective at hand, whatever it may be, rather than spending too much time fleshing out details of Plan B before they are needed.
- Once hamlets' future core areas are identified, find ways to drive activity to those areas now.
- Make it easy and attractive to walk between business areas.
- Improve maintenance on main pedestrian routes.
- Keep store fronts active.

Using this Plan

To keep this Municipal Sustainability Plan off the shelf and in the minds of current and future Councillors, several steps can be taken to integrate it into ongoing decision-making processes. To ensure its implementation, a Municipal Plan must have life and must connect to Council's decision-making process. The assumption is that if the Municipal Sustainability Plan (MSP) is sufficiently comprehensive, it will serve as a guide for all Council decisions. The County can require that requests to Council for funding or for decisions can state explicitly the goal or strategy in the MSP that it addresses. When Council makes other types of decisions, the related goal or strategy in the MSP can be reflected in the relevant Council meeting minutes. MDPs, Area Structure Plans, Business Plans, Strategic Plans, Emergency Management Plans and other planning tools can all tie their goals and strategies explicitly to the County's MSP.

To facilitate this explicit linking process, a decision-making template can be developed. When requests for decisions are submitted to Council, the template would pose a series of questions about:

- Which sustainability step(s) will be addressed by the proposed action?
- Which specific goals and strategies will be addressed (referred to by a unique number identifier)?
- Measures to use to demonstrate the effectiveness of proposed actions.

Clearly, the plan included in this report does not cover all of the potential decisions that will be made by Council. It is up to the County then to take this plan and to modify it to meet needs not currently addressed in the plan. Only then can Council embrace the plan as its own.

Goal Z2 Councillors share a common vision for the directions that the County should take and the strategies to get there.

In conclusion, the obstacle to overall County sustainability that most urgently needs attention is the apparent tendency of decision-makers and community leaders to place local interests before County interests. In the long-term, local interests are at considerable risk if the County itself is not sustainable. Councillors in particular must learn to withstand the inevitable jealousies that arise when one region perceives that their needs are more important than those of another region. To ensure that the County's strongest communities thrive, its weakest ones must be strengthened. Council, community leaders, residents and stakeholders must work to increase the level of harmony amongst themselves in order to achieve this objective. To assist them to do so, Council must dedicate resources, time and commitment to navigate the cultural and attitudinal differences that arise while working to address County needs.

Strategy Z2.1 Undertake a systematic approach to sensitizing Councillors to the situations faced in other Councillors' jurisdictions by requesting that they make a sincere commitment to listen to what one another are saying and by requesting their participation in:

- At least 80% of expanded road tours,
- At least 80% of community meetings in other jurisdictions,
- At least 80% of targeted public social events in other jurisdictions.

Appendix A

Executive Summary

Executive Summary

The County's Community Sustainability Plan is a strategic plan that outlines goals and strategies to build a strong economy, to protect environmental integrity and promote social cohesion. The plan was originally created by a consultant in 2010 and included a rigorous public consultation process. This update did not include public consultation but rather was entirely created by administration as guided by Mackenzie County Council.

Identifying and then taking the steps required in order to encourage sustainable growth of our communities is essential if we want our needs met today and also for generations to come.

Residents and community leaders alike recognize the need for sustainable growth, and want to take the steps needed in order to ensure a vibrant future for everyone. It is important to recognize the diversity of the County, whether that is heritage, culture, faith, education or occupation. It is equally important to recognize our common needs and work together to build our communities based on merging common interests and efforts and recognizing the strengths of others.

The Community Sustainability Plan was broken down into four primary areas for achieving sustainability, those being: Economic, Environmental, Social and Infrastructure.

Economic Sustainability

The County's economy is founded on the extraction of natural resources, agriculture and forestry. These products tend to be captured in our region and sent out in bulk, largely unprocessed formats. This current mode of business places a particularly high emphasis on the transportation industry and highlights how poorly served the region is by transportation, whether that be road, rail or air.

Improving access to markets by improving transportation links and methods is vital to sustaining the local economy. Equally important will be the development of additional processing and/or manufacturing in the region to provide employment and create additional efficiencies.

There are multiple transportation goals regarding:

- Highway improvements, extensions, river crossings
- Improved rail service in terms of capacity, reliability, and routes
- Improved air transportation for passenger and medical use

There are several goals for the resource sector which focus on:

- Advance local agricultural research
- Agricultural land expansion
- Value added processing for agriculture and forest products
- Enhance oil & gas extraction processes to ensure environmental needs are met while increasing the amount of recoverable resources
- Coordination of multiple sectors to more efficiently utilize resources

Health and public services are also critical, and those goals focused on:

- Increased access to primary health care, including services such as vision, dental, physiotherapy, etc.
- Access to better health care
- Provide access to post-secondary education locally
- Improved telecommunications especially internet speeds and network reliability

Additional goals regarding tourism and business climate were also identified:

- Promote our region's natural environment
- Establish tourism mini-clusters
- Co-develop employee (family) recruitment and retention strategies with employers
- That the economic base be diversified

Environmental Sustainability

With the abundance of natural, relatively undisturbed, wilderness in the region it can be a challenge to appreciate the vast resource that we hold. This makes it no less important, but leads to a somewhat nonchalant attitude towards environmental protection in the region. However, there are several goals identified to better protect and secure our natural environment:

- Preserve the river valleys and other environmentally sensitive lands
- Optimally utilize agriculture land
- Improve recycling availability to residents
- Encourage multi-industry utilization of winter roads

Social Sustainability

Creating places of social interaction is perhaps the single most important aspect of community building. Residents need opportunities to meet and interact with others in a neutral way, one that builds relationships and trust. A "sense of place" is what allows people to feel like they belong, like they are actually a part of the community.

Creating a sense of place for each community by encouraging the development of mixed use spaces where people will meet and interact is a key County responsibility.

In order to achieve social sustainability we must:

- Encourage development of hubs in each community which social, cultural and commercial activity occur simultaneously.
- Promote each community's culture while emphasizing the common values and dependence on each other.
- Have an improved relationship with the First Nations in our region.

Community Infrastructure Sustainability

The County's infrastructure is currently in relatively good condition but improvements will be needed in order to maintain the same level of service. Residents, particularly in La Crete, are requesting an increased level of recreational infrastructure and this will be a particular challenge to meet in a sustainable way.

Road, building and utility infrastructure must be continuously monitored to ensure that they safely and adequately serve the public needs.

Goals regarding the sustainability of community infrastructure focused on:

- Recreational facilities, including rec centres, parks and campgrounds
- Critical infrastructure such as water, sewer, roads, solid waste
- Preventative planning through strategies such as FireSmart
- Providing adequate resources to monitor, maintain and utilize infrastructure assets

Conclusion

To be a successful County our diversity must be embraced while working collaboratively as a region. The majority of the needs and wants transcend community barriers and impact the region as a whole. By working together, by utilizing the collective resources of public and private sectors, and by following the goals identified we will be a sustainable County.

This document must be followed and be the overarching guiding document for all County priorities in order to achieve the identified goals. There are many goals listed; covering a diverse array of interests. Additional prioritization and work plans will be required in order to successfully champion the County toward a sustainable future.

Appendix B

Goals and Strategies

STEP I: ECONOMIC SUSTAINABILITY

Page 11:

Goal E1 That the Region's transportation system:

- Reduces travel time and increases safe, comfortable and efficient travel between its communities and between the County and major destinations beyond its borders,
- Provides an economically efficient access to business and industrial markets outside of County boundaries.

Strategy E1.1 Maintain a strong and consistent approach with Provincial and Federal governments and other parties (i.e. NADC, NTAC) to request the completion and upgrade of northern transportation corridors:

- To facilitate the safe and efficient movement of goods to, from and within the County,
- To strengthen economically, socially and environmentally sustainable opportunities for the movement of people, as well as agricultural and resource sector goods.

Page 12:

Goal E2 That Highway 88 be a fully-paved, ban free, year-round link between Highway 58 north of Fort Vermilion and Slave Lake.

Strategy E2.1 Encourage the development of Highway 88's tourism and economic development potential.

Page 13:

Goal E3 That Highway 58 be a paved, two-lane highway with shoulders and passing lanes that extends from Fort Nelson through Garden River in Wood Buffalo National Park to Fort Smith.

Strategy E3.1 Work with neighboring First Nations and other parties to promote the link east to Fort Smith to the provincial, territories and federal governments.

Strategy E3.2 Work with relevant organizations and interested parties in northeastern BC to promote the link jointly with the two provincial governments.

Strategy E3.3 Work with the region's MLA, Alberta Transportation and regional stakeholders to assess the best alignment/route for connecting Highway 58 to BC's paved SYD road, while simultaneously identifying incentives for the corridor.

Strategy E3.4 Work with the federal government, NWT, First Nations and local residents to identify the best route to connect additional communities to Highway 58 at points east of Garden River and North to Fort Smith.

- Promote industry development in the region (resource sector or tourism)
- Creates alternate access to Fort Smith and many other northern communities

Page 15:

Goal E4 That Zama Road becomes a paved secondary highway.

Strategy E4.1 Work with stakeholders to encourage the province to designate Zama Road as a secondary highway and to pave it within a specific period of time.

Strategy E4.2 Lobby the province for additional funds and funding options.

Strategy E4.3 Complete a business case to help convince the province of this roads importance.

Page 16:

Goal E5 That the residents of Mackenzie County have paved access to:

 Highway 35 via a bridge that crosses the Peace River at Tompkins Landing with rail capability.

Strategy E5.1 Request that Northern Alberta Development Council assess the costs to utilize an alternate route when the river crossing at Tompkins Landing is unavailable against the benefit of a year-round bridge across the river.

Strategy E5.2 Work with the province to establish timely, reliable, year-round crossing across the Peace River at Tompkins Landing.

Strategy E5.3 Investigate opportunities and work with industry to generate interest and momentum for constructing a dual purpose road and rail bridge across the Peace River at Tompkins Landing.

Page 17:

Goal E6 That Highway 697 be widened.

Strategy E6.1 Lobby the province to widen Highway 697.

Goal E7 That the East Peace Resource Road from Blue Hills to Peace River be constructed to a two-lane gravel standard.

Strategy E7.1 Work with the province to establish a transportation corridor.

Strategy E7.2 Lobby the province and create partnerships with industry and neighboring municipalities to secure funding for the road construction.

Goal E8 That privately held industrial LOC roads be economically available for all potential users. Multiuse corridors should be established in strategic locations throughout the County. These corridors shall accommodate highways, railways, pipelines, powerlines and other linear infrastructure for both the public and private sectors. These corridors shall be established through an involved process, considering social, economic and environmental aspects.

Strategy E8.1 Lobby the province to revise the current regulations regarding user fees for privately held LOCs.

Strategy E8.2 Investigate the County's ability to acquire the LOCs and to operate the road as a public use road.

Strategy E8.3 Encourage multi-use LOC corridors to be shared between industries and to follow theoretical road allowances when possible.

Goal E9 That County businesses and shippers:

- Are satisfied with communications and relationships with the company that provides rail service to Northern Alberta and Hay River,
- Have access to reliable rail service on a 268-lb 44' or longer cars
- Have access to a sufficient number of grain hopper cars that can be loaded to full mainline standard potential to keep costs down,
- Enjoy comparable service to that provided elsewhere on Alberta's mainline.

Strategy E9.1 Work with the province to encourage CN to upgrade the line to a 286-lb rail standard.

Strategy E9.2 Lobby the federal government to revise the ownership and operating structure of railroads in Canada to allow dual running rights while allowing CN & CP to maintain ownership of track infrastructure.

Page 19:

Goal E10 That the rail network in the region be expanded utilizing multi-use corridors:

- From High Level to Fort Nelson
- From Highway 35 east to La Crete and Fort Vermilion (follow 697) and east to Fort McMurray

Strategy E10.1 Encourage development of multi-use corridors that incorporate rail.

Strategy E10.2 Work with partners to lobby industry and government to create changes that will allow for a higher level of service.

Strategy E10.3 Encourage G7G Railway Corp to realign their route in order to help meet local need for rail access.

Page 20:

Goal E11 That affordable scheduled air passenger services in Mackenzie region reduce the time needed to travel within and beyond County boundaries.

Strategy E11.1 Create a long term plan for the County's airports, anticipating future growth, and implementing restrictions now to ensure that future expansion can occur.

Strategy E11.2 That Mackenzie County implement a plan to protect existing airports.

Strategy E11.3 Ensure that long term agreements are in place with the Zama gas plant to allow for emergency use (Medevac)

Goal E12 Infrastructure to be sufficiently managed and maintained to allow for Medevac and other appropriate airport functions.

Strategy E12.1 Continue to support a level of infrastructure for all weather airports in County communities.

Strategy E12.2 Promote air service providers to create services to, from and between the communities of the region and beyond the County by working with regional partners.

Strategy E12.3 Ensure that a safe and accessible heliport is available in Zama.

Page 22:

Goal E13 To complete the current land transfer and have the province create a policy for additional land transfers.

Strategy E13.1 Continue to lobby the provincial government to develop a formal land expansion policy.

Page 23:

Goal E14 That Fort Vermilion hosts an applied research centre of excellence that focuses on human and technological adaptations to northern climates in four areas:

- Human ecology,
- Sustainable resource management & development (especially agriculture),
- Energy production/distribution,
- Information technologies.

Strategy E14.1 Explore options to establish an applied research centre of excellence in Fort Vermilion in collaboration with MARA whose interdisciplinary focus would be on adaptation to northern climates.

Strategy E14.2 Establish a research fund that would use accrued interest to grant funds for northern research projects.

Strategy E14.3 Encourage the County's Agricultural Services Board to work with the local agricultural societies and Mackenzie Applied Research Association to identify and implement sustainable agricultural practices.

Strategy E14.4 Explore and pursue opportunities to secure research funds for MARA/County

Page 24:

Goal E15 That value added agricultural opportunities be pursued to ensure that sustainable employment opportunities are created and maintained within the County.

Strategy E15.1 Work with partners to identify external sources of strategic expertise/assistance necessary to advocate for the establishment of agri-businesses,

Strategy E15.2 Identify and promote establishment of local organizations that will be eligible to participate fully in provincial marketing boards as a means to distribute their products.

Page 25:

Goal E16 That non-renewable resource companies operating in Mackenzie County are able to make profits while minimizing their environmental footprint by:

- Operating to an acknowledged and/or legislated environmental standard,
- Optimizing the recovery or distribution of the resource with which they are working,
- Lobby for the government to create and enforce environmental remediation and restoration strategies when a site has been exhausted that will accelerate the recovery of the affected ecosystem (health, integrity and sustainability).

Strategy E16.1 Continue to advocate for enhanced oil recovery (EOR).

Strategy E16.2 Continue to advocate for the use of environmentally sustainable

production and distribution practices in the County oil and gas fields.

Strategy E16.3 Lobby the province to support the maximum utilization of infrastructure of oil and gas leases prior to abandonment, allowing the sale of leases to junior oil and gas companies.

Strategy E16.4 Research the long-term prognosis for the life of the regional oil and gas field and identify a role that the County can play to support the industry to develop new technologies to increase the life of their field and to practice environmentally sustainable production and distribution.

Strategy E16.5 Keep informed about and/or explore:

- The evolution of the plans for proposed Arctic pipelines including the Mackenzie Valley pipeline,
- Other exploration opportunities planned for the southern Northwest Territories,
- Their impact on the County's environment (e.g., need for roads/tributary lines),
- Barriers for economic development opportunities in the County.

To minimize their disruption to the environment, the provincial co-ordination must occur with the establishment of the infrastructure necessary to maintain the oil and gas pipeline(s).

Strategy E16.6 Lobby the province to regulate the co-ordination of plans for the establishment of new infrastructure being made by commercial, government and public service organizations in rural and wilderness areas.

Strategy E16.7 Promote a balanced and factual approach to protecting environmentally sensitive areas.

Strategy E16.8 Lobby the Federal and Provincial governments to strongly consider the negative socioeconomic impacts on our region of large scale conservation areas.

Page 27:

Goal E17 That timber that has commercial value in Mackenzie County is harvested in a manner that is:

- Environmentally sustainable
- Financially feasible,
- Optimally productive.

Strategy E17.1 Promote efficient use of fiber/wood biomass

Goal E18 Sustainable Industry and Land Use Policy

Strategy E18.1 Lobby the province to work with the federal government to amend the Species at Risk Act regarding habitat protection areas.

Strategy E18.2 Lobby the Federal and Provincial governments to strongly consider the negative socioeconomic impacts on our region of large scale conservation areas.

Strategy E18.3 Ensure that the County is consulted for the LPRP and in the creation of any and all Sustainable Industry and Land Use Policies that addresses natural items such as the protection of water and wildlife, development items such as FMA management and forest assessment, and requires joint use between various sectors such as agriculture, forestry and oil & gas.

Page 28:

Goal E19 That the quality of and access to health services offered in the county is comparable to or exceeds those of other rural health regions in the province.

Strategy E19.1 Ensure Optimal use of existing facilities and resources.

Strategy E19.2 Work with community stakeholders to establish a strong voice with both the department of *Alberta Health and Wellness* and *Alberta Health Services*, to ensure that ongoing provincial planning meets local health needs.

Strategy E19.3 Work towards the provision of Continuing Care and Health Services in each of the communities in the region by working with the applicable local and provincial agencies mandated to provide these services in the region.

Strategy E19.4 Work together with the provincial government to ensure residents have access to doctors and other medical resources for non-urgent medical needs.

Strategy E19.5 Work with the province to provide additional services in the region to improve access to emergency care, dental, vision, chiropractic etc. services.

Page 32:

Goal E20 That residents can remain living in the County while pursuing post-secondary educational opportunities in the fields of service, technology and the trades.

Strategy E20.1 Advocate for equitable provincial post- secondary funding for the County that is based on a recognition of the County's unique demographic profile.

Strategy E20.2 Identify and advocate for the implementation of strategies that

would increase the attractiveness of distance learning in the region.

Strategy E20.3 Expand the availability and local awareness of high quality distance learning opportunities.

Strategy E20.4 Advocate for student housing and dormitories at current facilities.

Page 33:

Goal E21 That County residents and businesses have access to the most current telecommunication technologies to permit them to participate in global opportunities.

Strategy E21.1 Encourage the existing internet service providers in the region to continue to upgrade their systems, both in terms of reliability and speed.

Strategy E21.2 Encourage existing cellular service providers to continue to expand their coverage areas along existing highway corridors and areas with First Nations peoples.

Strategy E21.3 Encourage existing cellular service providers to install better battery backup infrastructure at the towers that will allow for improved service during times of crisis.

Strategy E21.4 Lobby the province to invest in additional fiber optic infrastructure improvements in order to reduce the reliance on the existing infrastructure.

Strategy E21.5 Explore the possibility of other businesses such as Shaw, CCI, SIS, NorthwesTel, Axia, etc. expanding their service in the region to serve the hamlets within the County.

Strategy E21.6 Lobby government and telecommunications industry to increase cooperation between providers to allow greater network access, especially during emergencies

Page 34:

Goal E22 Mackenzie County accommodates a thriving tourist sector without compromising the natural environment that hosts it.

Strategy E22.1 Work with Mackenzie Frontier Tourist Association to develop strategies to adapt County infrastructure and its natural environment in ways that will lay the groundwork for the development of an environmentally sustainable tourist sector (e.g., agricultural and/or ecotourism).

Strategy E22.2 Assess whether the County's existing tourism facilities, businesses and industries are based on environmental values that are, or have the potential to be consistent with the establishment of a County-wide eco-tourist industry.

Strategy E22.3 Develop bylaws that outline environmental requirements for all tourist facilities and practices which operate in the County.

Strategy E22.4 Continue to partner with various local groups and provincial groups such as Alberta Trail Network to develop tourism and recreational infrastructure.

Page 36:

Goal E23 The County's business communities can provide local products and services to meet consumer demand.

Strategy E23.1 Consult with the County's business community to identify strategies that would strengthen the municipality's "open-for-business" attitude.

Strategy E23.2 Undertake an assessment to determine if and how the County may be of assistance or can provide support to businesses operating under County business licenses.

Strategy E23.3 Develop strategies to attract small- and medium-sized enterprises that provide support to the County's existing businesses and industries.

Page 37:

Goal E24 Mackenzie County is an attractive destination for non-residents to visit or to decide to relocate, and remains an attractive home for County residents at all stages of their lives.

Strategy E24.1 Partner with regional organizations to develop relocation initiative strategies that promote living in the County; primarily through public endorsement aimed towards distant friends and family.

Strategy E24.2 Youth have sustainable employment opportunities that enable them to continue to live and work in the County.

Strategy E24.3 Encourage the establishment of, promote and support "Buy Local" initiatives.

Page 38:

Goal E25 That Mackenzie County's workforce lives in the County with their children and families.

Strategy E25.1 Work with the Oil & Gas and the forestry sector to:

- Identify strategies to attract employees' families to relocate to Mackenzie County,
- Identify what their employees would expect before they would be willing to move their family to the County and determine whether the County or Apache are in a position to address these priorities,
- Develop a joint plan to address those needs and to promote family relocation.

Strategy E25.2 Identify and promote each hamlet's strengths in relation to fostering family-friendly environments.

Strategy E25.3 Encourage companies to adopt policies that hire locals and discourage transient workers.

Page 39:

Goal E26 That Mackenzie County is prepared with infrastructure and services for a continually growing population

Strategy E26.1 Infrastructure is adequate and there are plans in place to manage additional growth

Strategy E26.2 Provide exceptional services that enhance the quality of life in County hamlets and existing rural areas as a means to dissuade residents and newcomers from moving to undeveloped areas to establish small lots or acreages.

Strategy E26.3 Take proactive measures to anticipate growth by preparing evidence- based plans for it

Goal E27 The County has reliable and comprehensive population data to make sound decisions and municipal plans.

Strategy E27.1 Consult with remote, northern municipalities in other provinces to share strategies that address the difficulties in acquiring accurate municipal census data.

Strategy E27.2 Work with the province to develop a responsible yet equitable method to ensure the County's "shadow" population can be counted so that its true population can be recorded enabling it to access its fair share of transfer payments.

Strategy E27.3 Undertake a timely municipal census during major population shifts. One size does not fit all. Each of the three hamlets face different needs and have different opportunities. Each community requires a separate strategy requiring different levels of County intervention and support. Each community's goals must be validated and supported.

Page 41:

Goal E28 Mackenzie County's economy has the capacity to moderate the local impacts of dramatic economic up and downturns in resource sector activities.

Strategy E28.1 When making County growth projections for planning major capital expenditures, continue to use "average 20-year growth rates" rather than using "current growth rates" that may not represent enduring growth patterns.

Strategy E28.2 The County will support efforts to diversify its economic base.

STEP II: ENVIRONMENTAL SUSTAINABILITY

Page 42:

Goal N1 Mackenzie County's river valleys are maintained in their natural state and are legislated to remain as such in perpetuity.

Strategy N1.1 Protect the natural state of Mackenzie County's river valleys with strongly worded municipal bylaws that control development.

Strategy N1.2 Develop municipal bylaws and policies to support continuing public access to the County's river valleys.

Strategy N1.3 Develop municipal policy to ensure that sound environmental protection, maintenance and utilization practices serve to preserve the health and safety of the valleys (especially sound practices to guide the development of any future roadways that must be built over a river).

Goal N2 Mackenzie County's environmentally sensitive land areas are well preserved.

Strategy N2.1 Identify and maintain an up-to-date inventory of Mackenzie County's environmentally sensitive land areas or ones that are at risk of becoming environmentally sensitive.

Strategy N2.2 If applicable, select land area(s) that the County wishes to protect from development and develop rationales and strong municipal policies/standards for their protection to ensure that sound environmental protection, maintenance and ongoing utilization practices serve to preserve environmentally sensitive lands.

Page 44:

Goal N3 Optimal use is made of County farm land.

Strategy N3.1 Ensure that the County's Land-Use Bylaw and Municipal Development Plan limit urban or non-agricultural development in unused lands that are best-suited for agriculture.

Strategy N3.2 Ensure that agricultural land expansion continues through private development and with land sales from the province.

Page 45:

Goal N4 That County residents consistently recycle a large majority of their bottles, paper, plastics, cardboard, and electronics.

Strategy N4.1 Continue to monitor new developments in recycling technologies that would be economically feasible for use by the County.

Strategy N4.2 Work in collaboration with Mackenzie Regional Waste Management, community organizations and groups to strengthen local recycling initiatives.

STEP III: SOCIAL AND CULTURAL SUSTAINABILITY

Page 47:

Goal S1 Each County hamlet and rural area hosts a concentration of social, cultural and commercial activity in strategic locations.

Strategy S1.1 Implement policies that encourage cultural development in the core areas of the hamlets that foster social interaction with the residents in each hamlet.

Strategy S1.2 Promote recreational activity and opportunity within the County through future hamlet development plans.

Strategy S1.3 Implement policies that place stronger emphasis on commercial development in each hamlet, in conjunction with the County's hamlet development plans.

Strategy S1.4 Develop a community standards bylaw for residential and industrial properties.

Page 49:

Goal S2 The County's hamlets, rural areas and First Nations communities each have distinct and thriving cultures yet they are linked by common, broad economic and environmental conditions.

Strategy S2.1 Showcase the unique features of each of the County's cultures throughout the County's hamlets and populated rural areas.

Goal S3 The County and the four First Nations located within its geographical boundaries share a common vision for the region, one that maintains cultural autonomy and that harmonizes economic pursuits.

Strategy S3.1 Use a cultural interpreter to develop joint protocols with each First Nation to manage inter-cultural communication and to resolve mutual concerns.

Strategy S3.2 Identify and prioritize goals that are common to both the County and specific First Nations, and develop joint strategies to address them.

Strategy S3.3 Develop public awareness activities to assist residents to understand the reasons for, and how to welcome an increased number of members of another culture

to their community activities.

Strategy S3.4 Invite the First Nations and Mennonite communities to create and display icons of their cultures in each County hamlet.

Strategy S3.5 Encourage local organizations to involve members of First Nations communities in the planning processes for local activities and events.

Strategy S3.6 Develop strategies to encourage all residents of the County to participate in public activities and events throughout the County, and to ensure they feel genuinely welcome during such experiences (e.g., local festivals, cultural, and recreational activities).

STEP IV: SUSTAINABILITY OF COMMUNITY INFRASTRUCTURE

Page 51:

Goal C1 The capacity of infrastructure in County hamlets and rural communities keeps pace with their growth and is planned in a way that ensures their sustainability.

Strategy C1.1 Ensure that multi-year operating and capital plans are established and reviewed annually by Council.

Strategy C1.2 Ensure that administration has the appropriate tools and resources to continually assess and evaluate infrastructure capacity.

Strategy C1.3 Create and follow infrastructure plans that are created for the purpose of protecting current assets and that identify the anticipated demand for future infrastructure.

Page 52:

Goal C2 Community parks, recreational facilities and community halls are available to each community consistent with local, cultural needs.

Strategy C2.1 Assess life expectancy for current recreational facilities and prepare long-term plans to ensure the timely availability of funds to address:

- Expected maintenance requirements during the typical life cycle of each facility,
- Facility upgrades or replacement.

Strategy C2.2 Undertake a financial and operational review of County recreational facilities and equipment to:

- Ensure adequacy of capital, operating funding and reserves,
- Identify opportunities for increased usage, increased revenues and decreased costs,
- Ensure optimal use of funds,

• Identify other efficiencies that could mitigate the size of the annual grant required from the County to operate the facilities.

Strategy C2.3 Establish and adhere to current policies that will ensure that residents of each hamlet have access to an attractive and well-managed community park site that:

- Is easily accessible,
- Reflects community values,
- Is linked to other parks in a manner that will eventually provide for a County- wide linked park system.

Page 53:

Goal C3 Enhance the existing campgrounds in Mackenzie County.

Strategy C3.1 Work with stakeholders to enhance and expand recreational opportunities.

Goal C4 Capital-intensive recreational facilities are designed with the goal of generating significant and consistent levels of tourism from outside of the region.

Strategy C4.1 Encourage local volunteers to pursue the development of a downhill ski facility and commit to providing assistance.

Goal C5 The County continues to provide high quality utility services (water distribution and treatment as well as waste water collection and treatment) and ensures that they:

- Are available in each hamlet,
- Meet quality standards consistent with current national standards and demand,
- Are stable and reliable.
- Are each financially self-sustaining at both operational and capital levels.

Strategy C5.1 Assess life expectancy for current facilities and prepare long-term plans to prepare for their replacement.

Strategy C5.2 Provide additional rural potable water truck fill sites so all residents reside within 35 minutes of potable water.

Page 55:

Goal C6 The risk of various types of damage to municipal infrastructure is minimized due to the availability of up-to-date risk assessments as well as up-to-date plans for managing each type of risk.

Strategy C6.1 Work with the province to determine the ice jam event flood levels for Fort Vermilion.

Strategy C6.2 Integrate FireSmart principles into all levels of the County's planning documents to ensure that all reasonable measures are taken to reduce the risk of forest fires devastating a community.

Page 56:

Goal C7 The risk associated with damage to local infrastructure comparable to the levels of infrastructure risk in other parts of the province.

Strategy C7.1 Carry out full risk assessments of regional infrastructure every five years and update plans to mitigate identified risks (liability, property, errors and omissions, vehicle, and environmental assessments including those associated with hazardous goods and climate change).

Strategy C7.2 Work with regional partners on regional emergency disaster planning initiatives.

Page 57:

Goal C8 The County's staffing complement keeps pace with the County's growing need for infrastructure and services.

Strategy C8.1 Continue to review staffing needs annually.

Page 58:

Goal Z1 The County has a well-organized, ongoing process to monitor the implementation of, and to assess the results of its sustainability plan.

Strategy Z1.1 Develop a plan calendar.

Strategy Z1.2 Develop key performance indicators to measure progress on key County goals.

Strategy **Z1.3** Schedule a dedicated item at each annual Council planning session to:

- Review the sustainability plan's key performance indicators,
- Update or amend any goals, strategies, key performance indicators and/or timelines as required.

Strategy Z1.4 Prepare a sustainability plan implementation report every two years and circulate it to residents.

Page 60:

Goal Z2 Councillors share a common vision for the directions that the County should

take and the strategies to get there.

Strategy Z2.1 Undertake a systematic approach to sensitizing Councillors to the situations faced in other Councillors' jurisdictions by requesting that they make a sincere commitment to listen to what one another is saying and by requesting their participation in:

- At least 80% of expanded road tours,
- At least 80% of community meetings in other jurisdictions,
- At least 80% of targeted public social events in other jurisdictions.