



BYLAW NO. 03.17

BEING A BYLAW TO ADOPT THE EDSON INTERMUNICIPAL DEVELOPMENT PLAN

WHEREAS, the Municipal Government Act, Being Chapter M-26, R.S.A., 2000, and amendments thereto, authorize a Council to adopt an Intermunicipal Development Plan.

AND WHEREAS, a public hearing was held in respect to the proposed Intermunicipal Development Plan on the date written below;

NOW THEREFORE, the Council for Yellowhead County, in the Province of Alberta, duly assembled, hereby enacts as follows:

1. That the document entitled "Edson Intermunicipal Development Plan", dated August 2017 attached hereto as Schedule "A" is hereby adopted as an Intermunicipal Development Plan;
2. That Bylaw 11.07, being the previous Edson Urban Fringe Intermunicipal Development Plan is hereby repealed;
3. This bylaw comes into force at the beginning of the day that it is passed in accordance with Section 189 of the Municipal Government Act, Being Chapter M-26, R.S.A., 2000.

READ a first time this 22 Day of August A.D., 2017

PUBLIC HEARING held this 12 Day of September A.D., 2017


READ a second time this 26 Day of September A.D., 2017

READ a third time this 26 Day of September A.D., 2017

SIGNED this 26 Day of September A.D., 2017



Mayor Gerald Soroka



Chief Administrative Officer, Jack Ramme












		
		
<h1>Edson Intermunicipal Development Plan</h1>		
	<p>prepared by</p>  <p>in association with</p>  <p>September 2017</p>	
		

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1 INTRODUCTION

1.1 Purpose

This Intermunicipal Development Plan (IDP) updates the 2007 Edson Urban Fringe IDP by providing a framework for the long-term growth and development of the lands located within the Edson Fringe Plan area. The Plan area includes lands in Yellowhead County and the Town of Edson as shown on Map 1. It extends north and west of the McLeod River to two miles north and west of the Town Boundary.

1.2 Plan Background

The completion of a functional plan for an alignment of the Yellowhead Highway (Highway 16) adjacent to the south boundary of Edson in 2006 provided the reason for the creation of the 2007 IDP. Many of the policies in the 2007 IDP directed amendments to the respective Municipal Development Plans and Land Use Bylaws, and the preparation of Area Structure Plans. Much of this work has been completed and is recognized by the updated 2017 IDP.

1.3 Locational Context

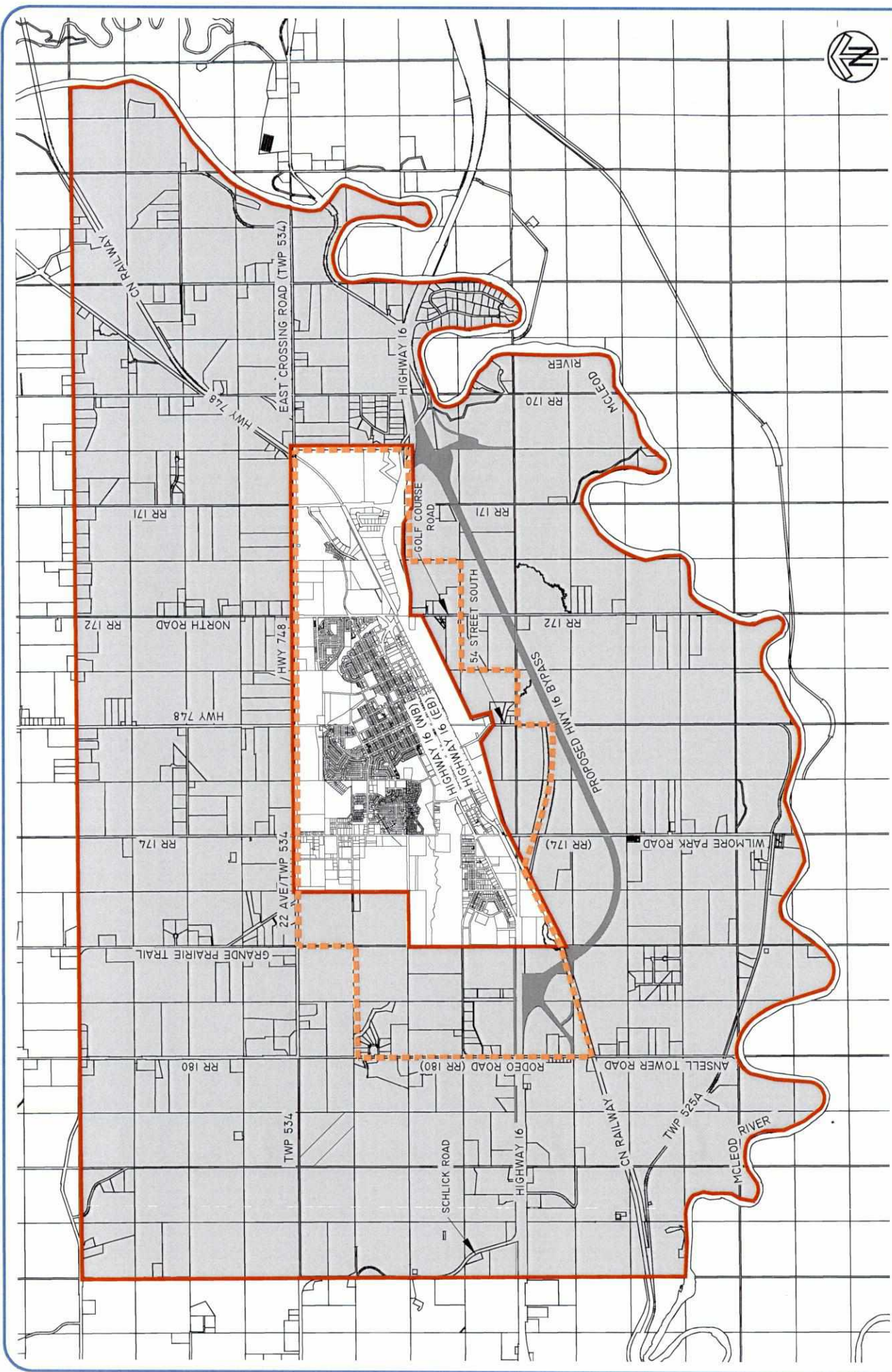
The Town of Edson is located between the City of Edmonton and the Town of Jasper on the Yellowhead Highway (Highway 16). The Town's growth has been based on three natural resource industries including coal, oil and gas, and forestry. Coal mining in Alberta's Coal Branch began in the 1930s followed by oil and gas exploration and extraction in the 1960s. As well, the forestry industry has been active during the same time frame. Although most resource activities occur in Yellowhead County, Edson is the region's major service and population centre.

The fringe lands surrounding Edson are a mix of cleared agricultural lands and forested areas that contain a significant country residential component. Industrial subdivisions exist along Highway 16 both to the east and west of Town. Repsol's sour gas facility is the largest industrial operation in the Edson Fringe and is located south west of the Town.

1.4 Growth Context

The Town's 2016 Alberta Municipal Affairs population is 8,646, an increase of 336 persons or four percent in the last decade. The 2006 census population was 8,098. The rate of population growth over the last 30 years is approximately 0.6 percent per year. The projected population for the purposes of this IDP assumes an enhanced trend line that is double the historic growth rate or 1.2 percent per year. An increase of 3,720 is forecast by 2046 for a total Town population of 12,336.

The steady stable growth forecast for Edson results in a land demand of some 225 hectares. The Town contains sufficient land within its current boundary to meet this demand.



Edson Intermunicipal Development Plan

Map 1 - IDP Area

September 2017
Scale 1:100,000



- Legend**
- IDP Boundary
 - Edson Town Boundary
 - IDP Area
 - Proposed Highway 16 Bypass

The population for the County portion of the IDP area is assumed to be 1,035 based on the number of existing dwelling units (414) and a household size of 2.5 persons unit. By applying the 1.2 percent enhanced trend line to the current population, the County population is forecast to be 1,480 by 2046. Land demand is not an issue in the County.

Detailed information regarding population and land demand projections is contained in **Appendix A – Background Report and Population and Land Demand Estimates**.

1.5 Natural Features and Infrastructure Context

Appendix A: Background Report & Population and Land Demand Statistics also provides information on natural features, existing and future roads, municipal servicing options and natural resource pipeline rights-of-way that are evident throughout much of the Plan area. An analysis of this information in terms of growth is illustrated by **Map 2 - Opportunities and Constraints**.

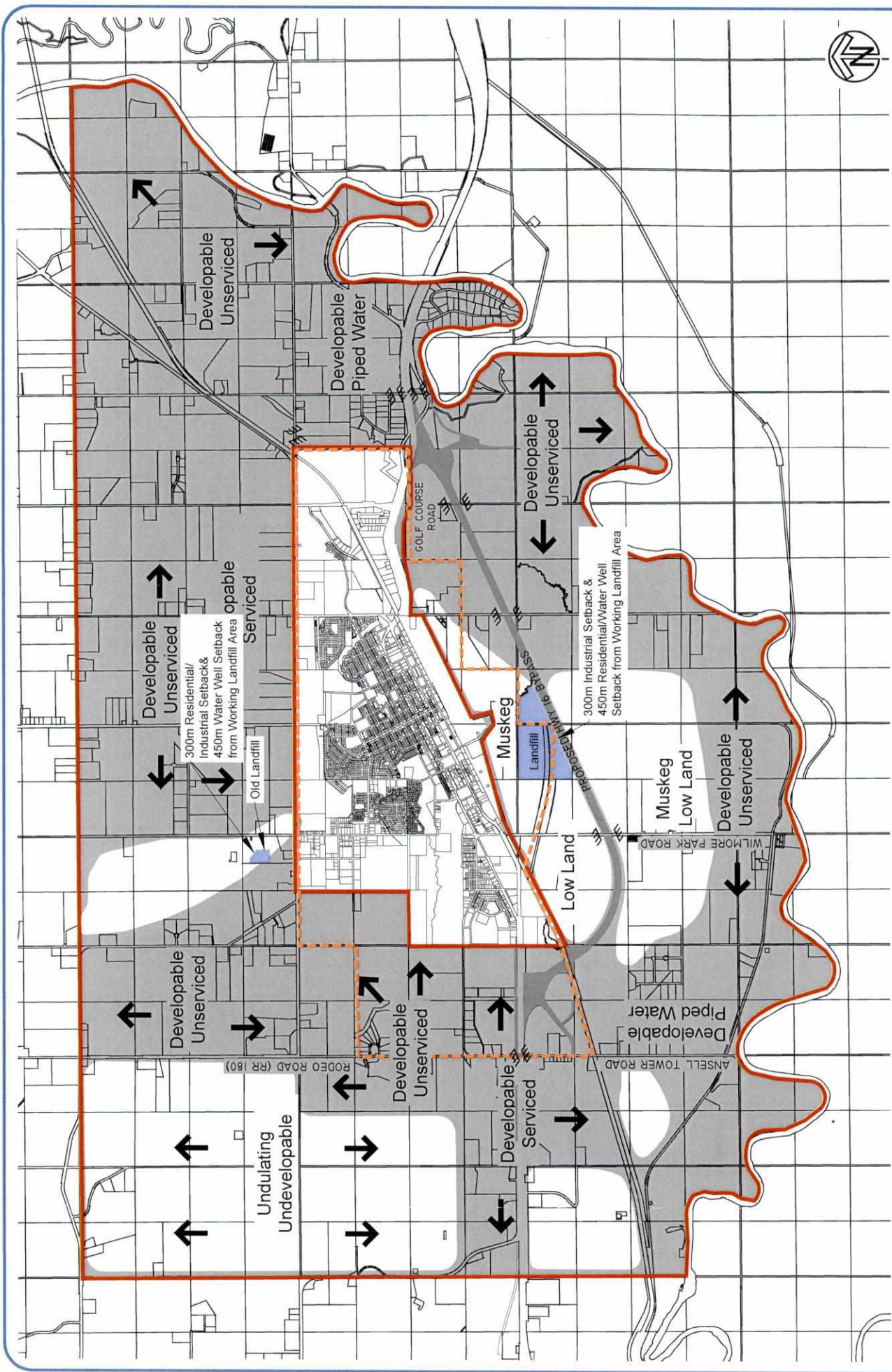
Appendix B: Discussions and Recommendations from Preliminary Geotechnical Report Desktop Study provides a geotechnical evaluation of the Plan area's suitability for development based on a Desktop Study and reinforces the future development opportunities as shown on **Map 2 – Opportunities and Constraints**.

Highlights of the opportunities and constraint analysis are as follow:

1.5.1 Natural Features

a) South of Highway 16

- i) As is shown on Map 3 – Topographic Features, a large flat area southeast of Edson is capable of supporting intense forms of development although the lands east of the golf course adjacent the highway and Bench Creek are poorly drained and contain muskeg that is less than one metre in depth. The bypass and the easterly interchange will occupy much of this poorly drained area.
- ii) A large concentration of muskeg exists in the south central portion of the Plan area. Some of this muskeg is located on Crown land. Development opportunities on these lands are limited.
- iii) Similarly, some low intensity development is feasible on lands in the Town south of CN where the muskeg is not too deep. Much of this land is already cleared.
- iv) Further west, the high and sloping treed land that straddles Ansell Tower Road provides development opportunities for country residential uses in particular because of the amenity value of this area that is distant from the proposed bypass.
- v) The lands extending about one mile west of Edson also appear physically developable. However, low lying areas and a slough constrain development further west up to the Plan Area boundary.
- vi) Repsol Sour Gas plant is located on the west edge of the IDP area. Adjacent uses are restricted to industrial and commercial activities.



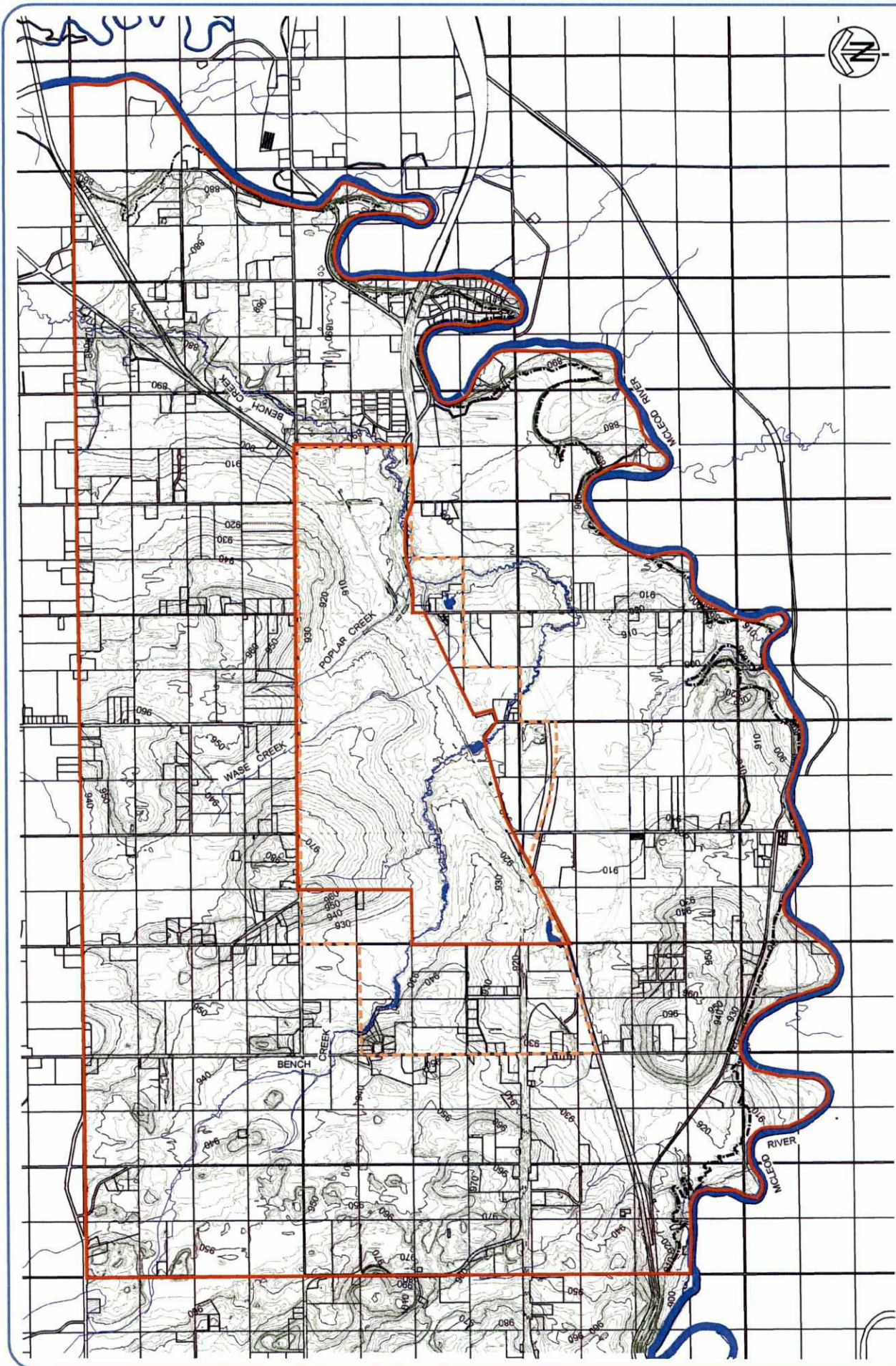
Edson Intermunicipal Development Plan

Map 2 - Opportunities and Constraints




- Legend**
- Opportunity Area
 - Constrained Area
 - Future Road Closures

September 2017
Scale 1:100,000





Legend

-  2m Contour
-  10m Contour
-  Top of Bank

Edson Intermunicipal Development Plan

Map 3 - Topographic Features

September 2017
Scale 1:100,000



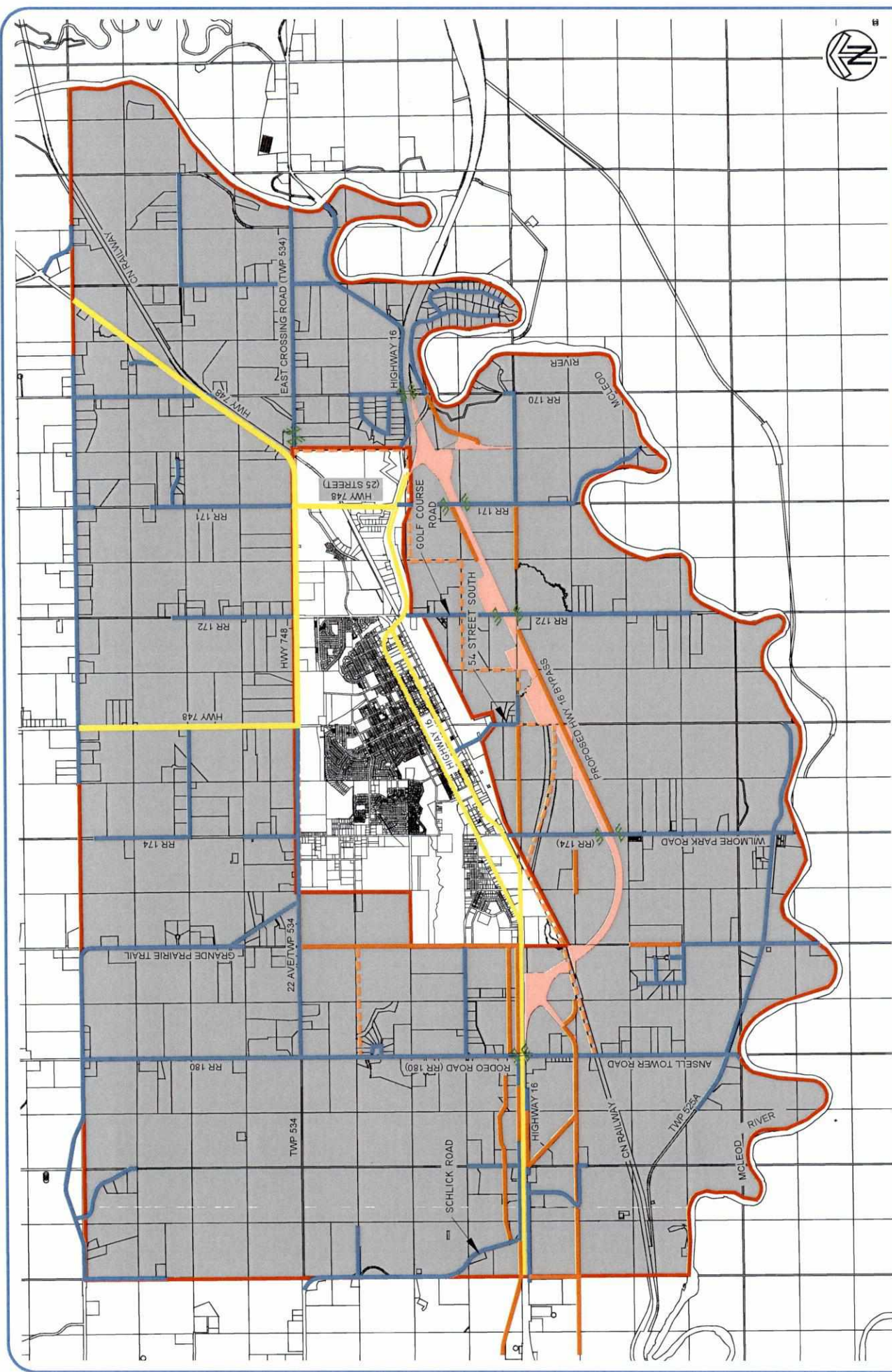
Lowatt
Planning Consultants Inc.

b) North of Highway 16

- i) All of the lands located between the McLeod River and Bench Creek are potentially physically developable as well as much of the land west to Highway 748. The high points and sloping areas provide amenity opportunities for residential development.
- ii) West of Highway 748 a significant high point also has development potential although slivers of muskeg on either side of this point limit the size of the developable area.
- iii) Lands in the northwest segment of the IDP area are hilly but potentially developable.

1.5.2 Access and Roads

- a) Map 4 illustrates the existing and future road system. Because access to the Highway 16 bypass will be restricted to the two interchange locations, lands in the vicinity of these locations provide development opportunities for commercial and industrial uses that require high quality access to the highway system.
- b) Access for much of the land north of Edson will not be impacted by the bypass. However, traffic using Rodeo Road will access the west interchange via a service road. Similarly, development along Highway 16 east of Edson will be required to use service roads to access the east interchange.
- c) Development opportunities in the northeast will be restricted because of lack of sufficient road crossings on the CN line until such time as connections to the south are constructed.
- d) For the landowners located in the south central portion of the Plan Area that are will be required to use the interchanges to gain entry into the Town. For some, the convenience of access into Edson will be reduced considerably.
- e) The interchanges constructed as part of the Highway 16 realignment will provide for uninterrupted local flyover access across the very busy CN mainline.
- f) Lands located within the Town between the bypass and CN will continue to have access to Highway 16 using the existing Highway 16 couplet system but access will be restricted to the south. However, businesses located in this area may benefit from the highway visibility that provides a free form of advertising.
- g) The same benefit will apply to future businesses that may locate south of the bypass although, as is noted above, access will be restricted to the two highway interchanges and service roads. The deep muskeg that extends along much of the south side of the bypass alignment will continue to impact the development potential of this area.



Edson Intermunicipal Development Plan

Map 4 - Existing and Future Road System

September 2017
Scale 1:100,000



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Legend

- Existing Highway Right of Way
- Future Highway Right of Way
- Existing Road
- Future Road
- ▨ Road Closed

1.5.3 Municipal Services

- a) Map 5 shows existing and future water and sanitary sewer opportunities in the Plan area and identifies directions for potential extension of services. The direction of the Municipal Servicing Plan prepared for the Town in 2011 is recognized.
- b) Well water is currently sufficient to accommodate the Town's needs but will need to be monitored to support growth and expansion of the Town beyond the near term (after 2025).
- c) Future construction of a new water intake and treatment plant may be required in the southwest corner of the Plan Area that will provide Edson with a secure water source for the long term. The construction of the new system also will result in a corridor extending through County lands that may be serviced with piped water. This system is not currently contemplated in the current 2011 Municipal Servicing Plan.
- d) Sanitary sewer may be extended into the west area that can drain by gravity to the Town's lagoon so that the southwest lands and lands along Highway 16 west of the built up area of Edson may potentially be fully serviced.

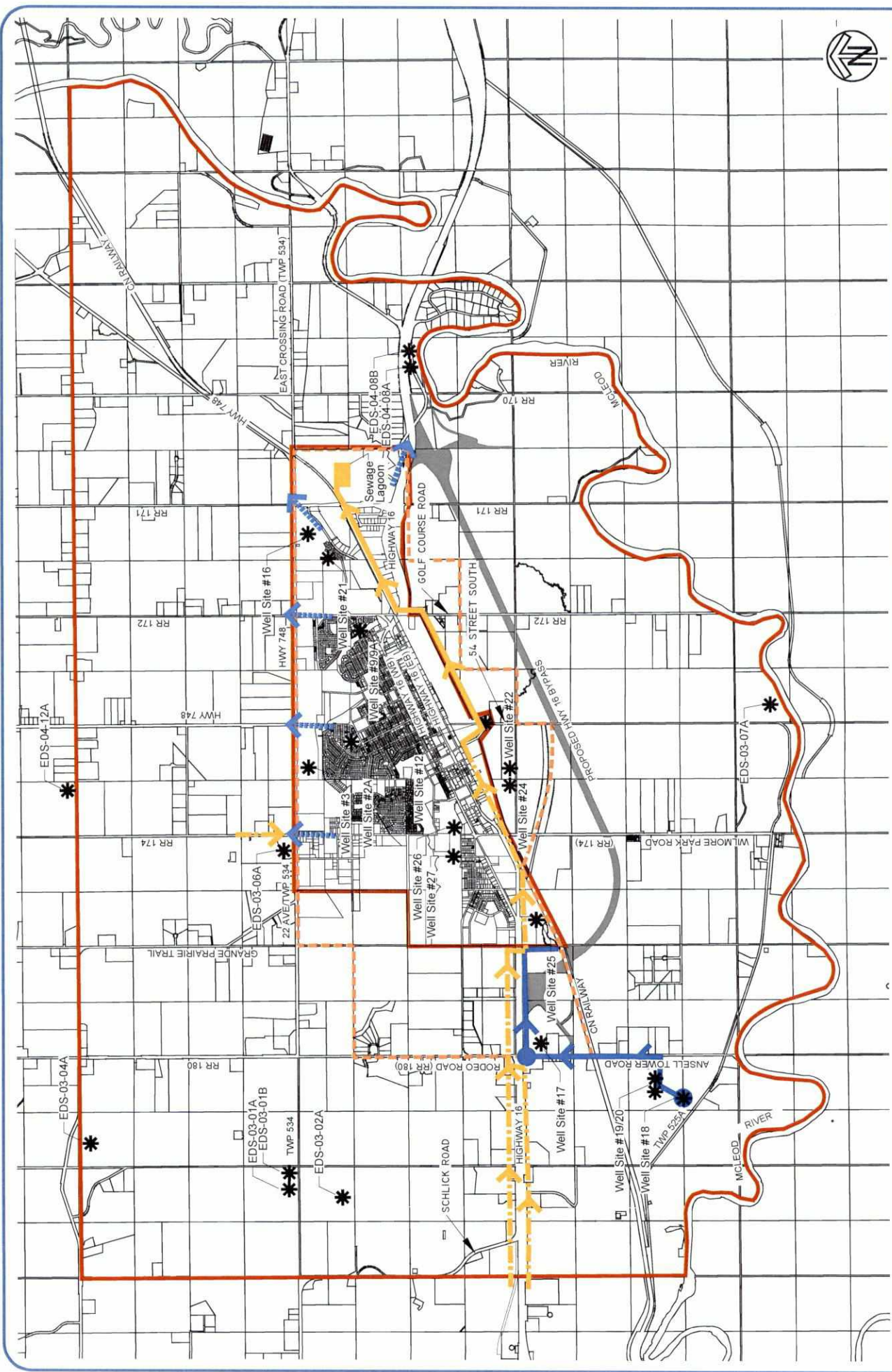
1.5.4 Pipelines

- a) Pipeline rights-of-way are shown on Map 6. Those lines that carry sour gas and will need to apply development setbacks determined by the Alberta Energy Regulator.

1.6 Policy Context

This IDP provides statutory policy direction for implementing the goals and guiding principles listed in section 2.0 and meets the provisions of the *Municipal Government Act*. The Act requires that an IDP address:

- a) The future land use within the Plan area;
- b) the manner of and proposals for future development in the area;
- c) the provision of transportation systems for the Plan area, either generally or specifically;
- d) proposals for financing and programming of intermunicipal infrastructure for the Plan area;
- e) the coordination of intermunicipal programs relating to the physical, social, and economic development of the Plan area;
- f) environmental matters within the Plan area, either generally or specifically;
- g) a procedure to resolve conflicts between the two municipalities;
- h) a procedure to be used by one or more municipalities, to amend or repeal the plan; and,
- i) provisions relating to the administration of the plan.



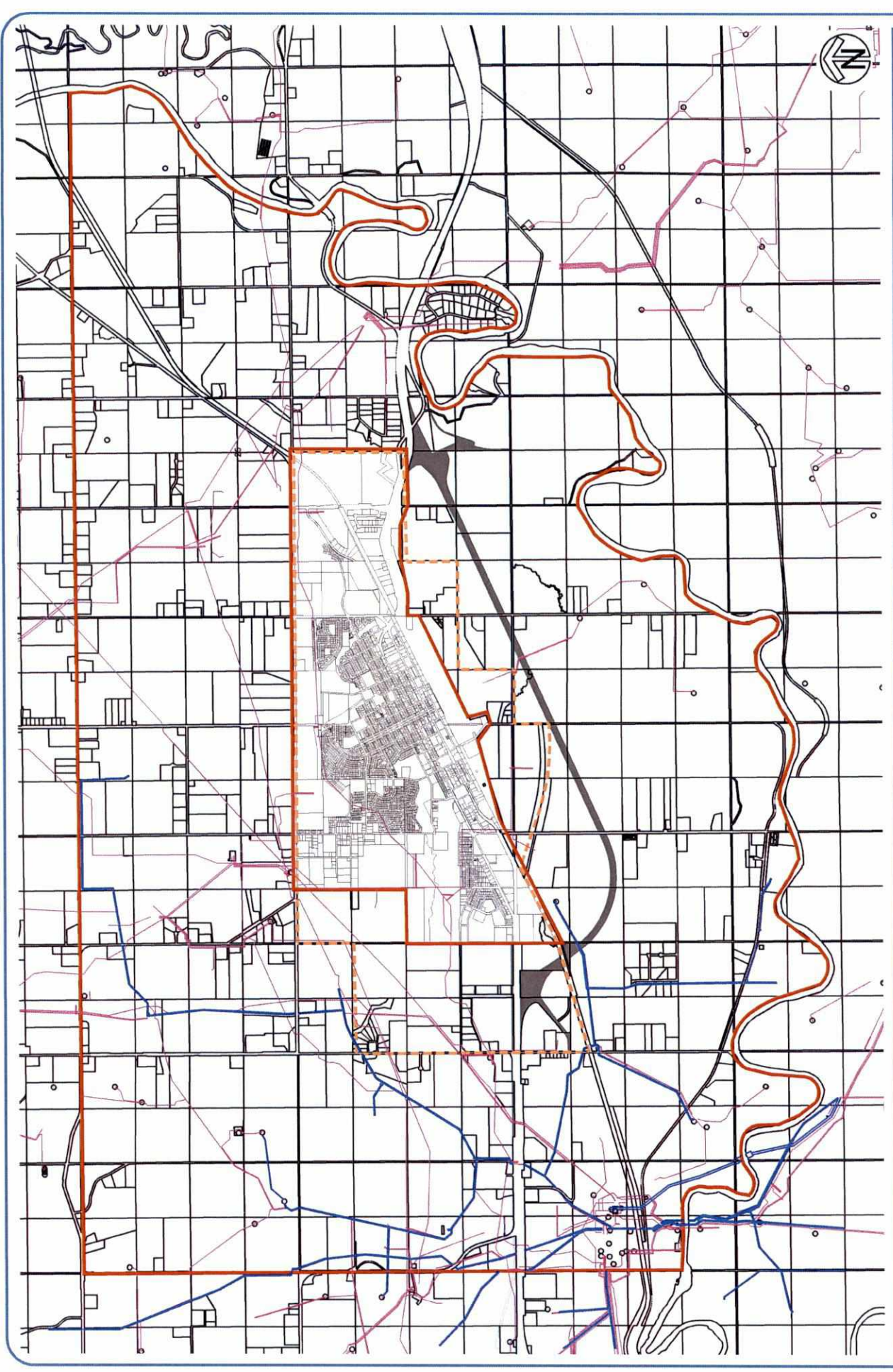
Edson Intermunicipal Development Plan

Map 5 - Municipal Services

September 2017
Scale 1:100,000



- Legend**
- Existing Water Distribution Line
 - Possible Future Water Extension
 - Existing Gravity Trunk Main
 - Possible Future Gravity Trunk Connection
 - Water Well Site



Edson Intermunicipal Development Plan

Map 6 - Pipelines

September 2017
Scale 1:100,000



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- Legend**
- Existing Pipeline
 - Existing Sour Gas Pipeline
 - Well Site

1.7 Process

The Plan preparation process involved a comprehensive evaluation of relevant information pertaining to development opportunities and constraints within the IDP area. A Steering Committee was established to provide overall project guidance and direction, and to assist in refining the land use concept and policies. The insights, advice and direction provided by the Steering Committee, which is based on considerable local knowledge and understanding, is recognized by the IDP.

Considerable emphasis was placed on input provided by affected landowners and the public. A comprehensive public participation program was developed to encourage dialogue and direct input into the development of the plan document. The program included the following elements:

- a) **Online Survey** – Notifications were placed in local media sources to advertise the availability of an online survey. Survey respondents were asked questions regarding the current IDP regulations as well as questions about their previous involvement and relationship to the Town and/or County. The results from the 53 completed surveys were shared with open house attendees.
- b) **Agency Roundtable** – An agency roundtable meeting was held in Edson to obtain relevant input from those municipal and provincial groups and agencies that play a legislated role in subdivision and development approval. Nineteen invitations were extended and 14 persons attended. The purpose of this meeting was to present, discuss, and gain input on key background information and critical planning factors in the context of the expectations and needs of each agency.

Highlights of the input provided are as follows:

- vii) Alberta Transportation (AT)
 - No new information on Highway Bypass – 10-20 years away. No funding for it yet.
 - AT is working on local intersections within municipalities.
- viii) Century 21
 - Large parcels find it very hard/expensive to develop.
 - Servicing would spur development.
 - Offsite levies in the Town are a major issue hindering development.
- ix) Alberta Health Services
 - Main concern is water quality and sewer servicing.
 - A 'Healthy Communities' approach should be encouraged in the IDP.
 - Additional focus on physical and mental health is encouraged.
 - Access to green space should be supported in the IDP.
- x) Chamber of Commerce
 - Concerns relate to the highway bypass. Private investment decisions are hard to make without certainty on this issue.
 - Worked with the 2007 IDP and not much has changed.
 - Highway bypass is a black cloud and really impacts development in the IDP area.

- c) **First Open House** – Some 600 invitations to the May 17 open house were mailed out to area landowners and stakeholders. As well, newspaper ads and portable signs were used to broaden the invitation to include all Edson and area residents. Invitees were split into two groups with presentations at 6:00 and 7:00 pm. The purpose of the Open House was to provide those persons potentially most affected by the IDP the opportunity to review all relevant background information and to provide input on issues related to fringe area and individual properties. Eighty participants attended the Open House.

Highlights of the input provided are as follows:

- i) Residents support maintaining the distinct division between the Town and the County, and keeping urban growth within the current Town limits.
- ii) Uncertainty regarding the future Highway 16 bypass is the most significant difficulty from an investment perspective.
- iii) Another inhibiting factor for development is the uneven requirements for offsite levies. Business owners do not want to pay for levies in Edson when they can locate outside of the Town and avoid them.
- iv) Concerns about industrial development being too dispersed were echoed numerous times. This in turn affects the total cost of servicing. A major concern is that if multiple areas are serviced, taxpayers will be covering costs that will take much longer to recover than if industrial service extensions are restricted to just one area.
- v) Concerns were expressed regarding the inclusion of a small holdings land use designation for protection of a future residential area beyond the projected growth of Edson.

- d) **Second Open House** – A second open house was held at 6:30 pm on August 16th to present the draft Edson IDP and to obtain comments. More than 600 invitations were sent directly to landowners in the IDP area as well as notifications in the local paper, websites, portable signs and letters to institutional stakeholders. The presentation occurred at 7:00 pm. Approximately 20 residents attended.

No significant items were raised during the presentation. Participants appeared to support all the policies of the draft IDP.



2 GOALS AND GUIDING PRINCIPLES

2.1 Intermunicipal Development Plan Goals

Based on the input of the public and affected agencies, and the respective Municipal Councils and the Steering Committee, as well as the background research completed for this project and the *Municipal Government Act*, the overall goals of the 2007 IDP remain valid. Also the IDP provisions of the proposed *Municipal Government Act* expected to be adopted this fall remain unchanged. The IDP goals are to:

- a) Provide a land use planning framework which ensures a co-operative approach to the orderly development of the Plan area that benefits the residents of both municipalities.
- b) Provide for the effective coordination of future land uses and growth management, economic development, and the financing of transportation and municipal infrastructure systems.
- c) Promote the health and well-being of residents through cooperation on recreational programs, services, and infrastructure which are intermunicipal in nature and which may extend significantly beyond the IDP Plan area.
- d) Develop and maintain mutually beneficial policies and relationships between Yellowhead County and the Town of Edson.
- e) Continue to develop and maintain effective open communication to resolve issues and embrace opportunities to enhance the local economy and quality of life of area residents.

2.2 Guiding Principles

The following guiding principles have been applied in preparing the policies contained in this IDP. These principles have been agreed to by both municipalities.

- a) Recognize the need for future urban expansion of the Town of Edson and rural development in Yellowhead County by ensuring proposed land uses and developments do not unduly interfere or conflict with future urban expansion or rural development.
- b) Cooperate in pursuing mutually beneficial economic development initiatives that would attract investment and create employment opportunities.
- c) Determine compatible and complementary land uses within the Plan area with respect to adjacent lands.
- d) Cooperate in the protection of the McLeod River, Bench Creek, Poplar Creek Wase Creek, (see Map 3 - Topographic Features) aquifer recharge areas and drainage channels.
- e) Ensure proper measures are taken to protect the integrity of the natural environment in considering new development that may result in contamination and hazardous conditions.

- f) Strategies to secure a sustainable water supply will be coordinated between the Town and County to meet the future growth needs of both municipalities.
- g) Strategies and standards for the orderly, efficient and economical extension of piped wastewater collection and water distribution systems within the Plan area will be agreed to by both municipalities.
- h) Provide for effective plan administration and implementation provisions as part of the IDP.
- i) Address the requirements of the *Modernized Municipal Government Act*.



Above: McLeod River near River Ridge subdivision

3 LAND USE CONCEPT

3.1 Municipal Development Plans

a) Yellowhead County

The County adopted an updated Municipal Development Plan (MDP) in September 2013 as Bylaw No. 15.13. The MDP recognizes the objectives of the 2007 IDP and includes an appendix that lists the requirements for preparing a Conceptual Scheme and an Area Structure Plan (ASP). An ASP is required when more than five parcels are subdivided out of a quarter section. Site suitability criteria are also listed.

The MDP also includes policies related to:

- i) Cooperation in Environmental Protection;
- ii) Minimization of Fragmentation;
- iii) Conservation Easements;
- iv) Wildlife Protection; and
- v) Tree Preservation.

These policies apply to all subdivision and development within the IDP area governed by the County.

b) Town of Edson

The Town adopted an updated MDP in 2016 as Bylaw 2172. This plan recognizes the land use designations as per the 2007 IDP. Specifically, the MDP requires that those Town lands located in the IDP area be considered for either serviced or unserviced estate residential use. The proposed Glendale ASP and the Northwest Concept Plan will determine timing of extending municipal services.

The Town's MDP also extends the business commercial/light industrial lands located at the west end of the Town along Highway 16 further north than previously shown by the IDP Land Use Concept Map.

All the industrial lands located south of the CN main line will be considered by the proposed South Industrial ASP.

3.2 Land Use Bylaws

Both the Town and County have updated their respective Land Use Bylaws (LUB) – the Town in 2008 and the County is 2013. Provisions for both serviced and unserviced estate residential lots are included in the Town's LUB. Lot sizes for unserviced areas are a minimum of 2.0 hectares to allow for onsite servicing and 0.5 hectares with minimal services.

The County's LUB also includes minimal lot sizes depending on the level of servicing. As well the County LUB has regulations dealing with environmental hazards and servicing requirements and site suitability.

Environmental Hazards regulations deal with:

- a) Development on or near slopes;
- b) Flood prone lands;
- c) Environmentally sensitive lands;
- d) Environmental reviews; and
- e) Environmental site assessments.

Servicing requirements and site suitability deal factors such as:

- f) Soil conditions;
- g) Availability of water;
- h) Onsite sewage disposal systems;
- i) Access; and
- j) Fire protection and FireSmart.

Appropriate regulations specific to a site are applied.

3.3 Area Structure Plans

In addition to the requirements of this IDP and the varying provisions of the respective MDPs the following six ASPs provide a more specific planning direction to the lands contained therein. The following ASPs are shown on Map 7 - Area Structure Plan Areas (2017):

- Edson West ASP; This ASP includes lands located both in the Town and County.
- Bench Creek ASP; This ASP includes lands located both in the Town and County.

The following four ASPs are located entirely within Yellowhead County:

- Edson East ASP;
- Tollerton Hills ASP;
- River Ridge ASP; and
- Edson North Estates ASP.

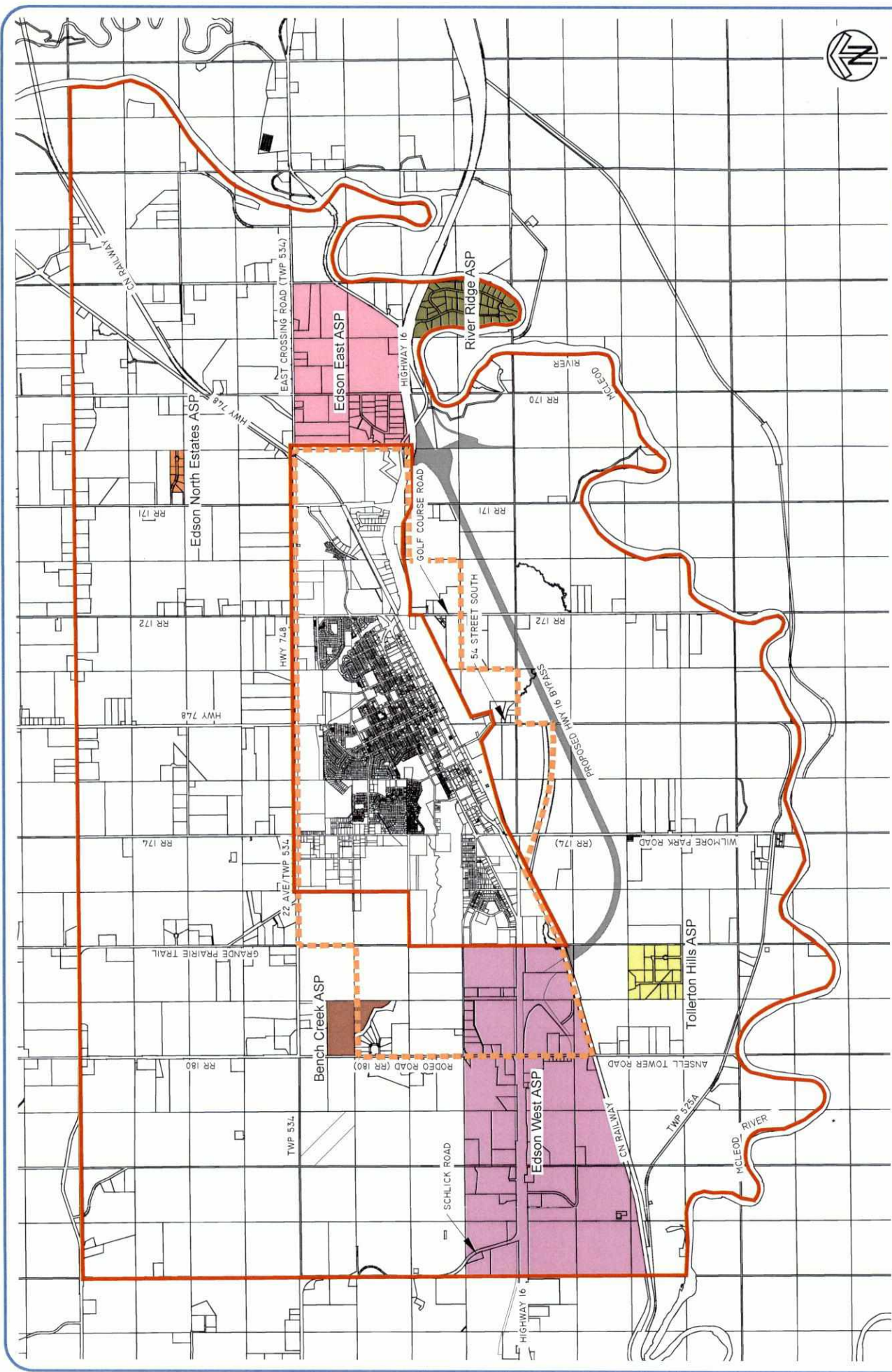
3.4 Land Use Concept

The proposed Land Use Concept for the IDP Area is shown on Map 8: Land Use Concept and is described in below.

3.5 Country Residential

Country residential is the largest land use component of the IDP area and generally corresponds to those lands located north and south of Highway 16 that cannot be economically serviced with piped water and sewer systems but are proximate to the Town. These lands are mostly developable and display a high amenity value. A significant number of rural residences currently exist although only four ASPs (noted above) have been approved to allow for multi-lot country residential subdivisions.

Any new, more intense multi-lot subdivision activity in the area designated as future country residential will need a Conceptual Scheme or ASP prior to any development and a LUB amendment as per the County's MDP and LUB.



Legend

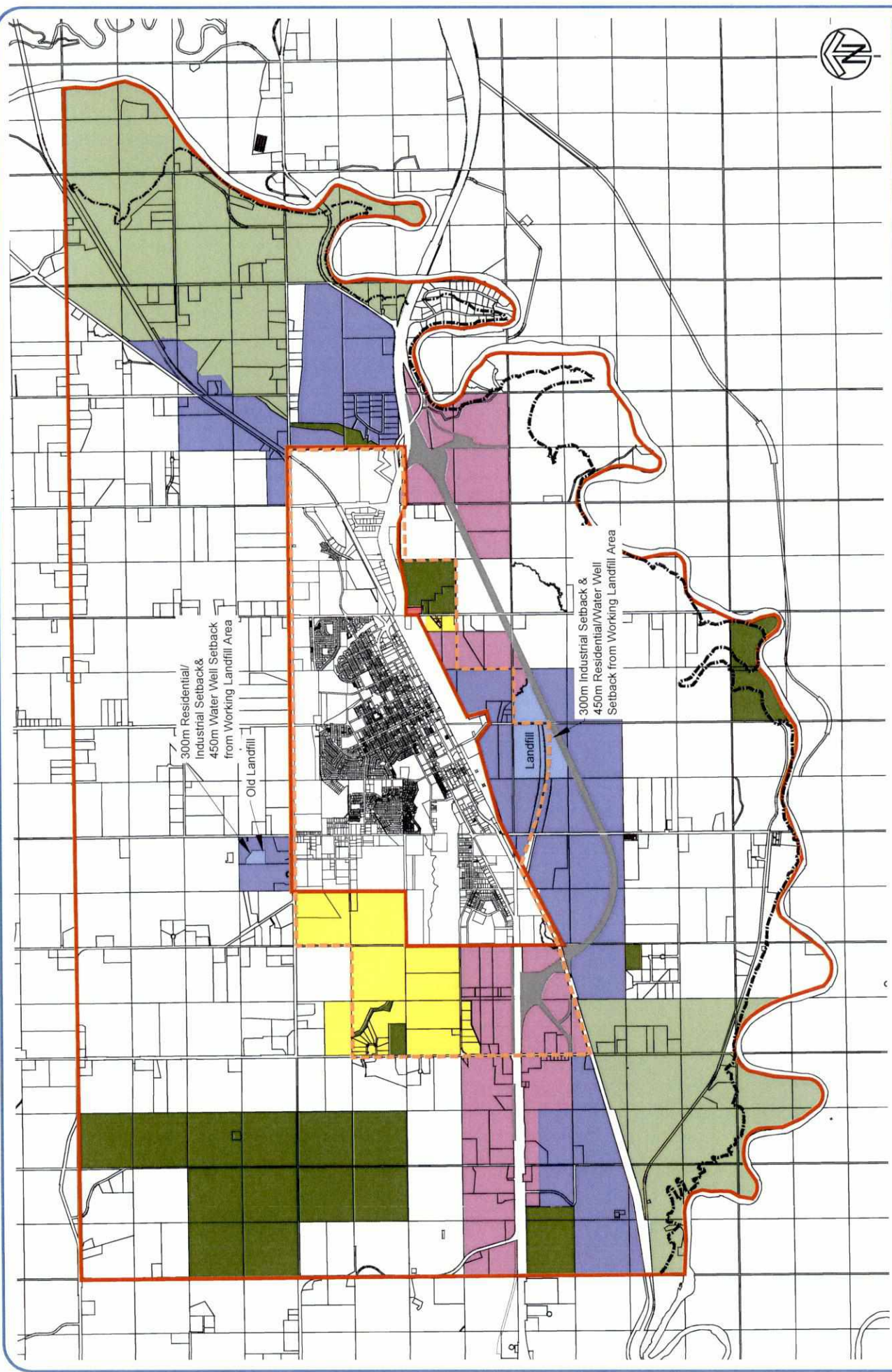
- Edson West ASP
- Edson East ASP
- Bench Creek ASP
- Edson North Estates ASP
- Tollerton Hills ASP
- River Ridge ASP

Edson Intermunicipal Development Plan

Map 7 - Area Structure Plan Areas (2017)

September 2017
Scale 1:100,000





Edson Intermunicipal Development Plan

Map 8 - Land Use Concept

September 2017
Scale 1:100,000

- Legend**
- Country Residential
 - Estate Residential (Unserviced)
 - Business/Light Industrial
 - Industrial
 - Natural Area/Recreation
 - Rural
 - Landfill
 - Top of Bank

300m Residential/
Industrial Setback &
450m Water Well Setback
from Working Landfill Area

Old Landfill

Landfill

300m Industrial Setback &
450m Residential/Water Well
Setback from Working Landfill Area

Also, types of desired ancillary uses may be considered to ensure that the appropriate zoning is applied. The County's LUB allows for six Country Residential Land Use Districts that may be applied including:

1. **Country Residential District** that allows for home occupations.
2. **Country Residential Limited District** that applies to locations for regulated small multi-lot subdivisions on better agricultural land residential subdivisions.
3. **Country Residential Minor Industrial District** that allows for small scale industrial uses.
4. **Country Residential Restricted District** that allows for a restricted amount of secondary uses.
5. **Country Residential Tourism District** that allows for commercial accommodation such as a bed and breakfast or a day care facility.
6. **Country Residential Small Lot** that allows for serviced lots as small as 0.2 ha.

Until such time as land is rezoned, home occupations and industries can continue to exist assuming compliance with the current bylaw provisions.

Parcels within 300 metres of the old landfill located north of Edson and 450 metres of the active *dry* operating storage landfill located south of Edson will need to comply with the setback requirements of the Subdivision and Development Regulation of the *Municipal Government Act*. This means that no residential development shall be located within these setbacks without an exemption by Alberta Environment.

3.6 Estate Residential

Estate residential is proposed for the northwest segment of the Town where piped water and sewer systems cannot be economically extended and in compliance with the Town's MDP. Two estate type residential subdivisions currently exist in this area, one of which is zoned Direct Control while the second is zoned Estate Residential (Unserviced) District (R-ER).

Similar to the lands designated as country residential in the County, an ASP will be required to allow for the required rezoning from the current Urban Reserve Land Use District. Water supply and methods of sewage disposal will need to meet provincial and municipal standards and regulations. The feasibility of economically extending services to this area and the implications on density will need to be determined by an ASP.

3.7 Business Commercial/Light Industrial

Two concentrations of business commercial/light industrial use are identified on the east and west sides of the Plan Area and surrounding the two interchange locations.

The Edson East ASP applies to the **east** concentration, although not readily serviceable, will offer a high standard of access to, and visibility from, the bypass. Muskeg exists on the lands south of the proposed interchange but is less than three metres in depth so that development may be feasible. The lack of piped services will limit the density and type of commercial business and light industrial uses in this area. The lands located west of the Edson Golf Course are part of this east concentration and are designated business commercial/light industrial to encourage a higher standard of development in the vicinity of the golf course.

The Edson West ASP applies to the **west** concentration. These lands are better suited for business commercial/light industrial uses because they are physically developable and can be serviced with piped water and gravity sewer systems. The lands located closest to the interchange and along the south and north sides of Highway 16 will provide high quality access and visibility opportunities, and are best suited for development to a higher standard. Business commercial/light industrial uses also provide a buffer from the highway for existing and future country and estate residential development, and are more compatible with residential development than other types of industrial uses. The business commercial needs of both municipalities can be better met along this stretch of Highway 16 than anywhere else in the Fringe Area.

3.8 Industrial

Future industrial land use is proposed to extend from existing such development and recognizes the East and West Edson ASPs. Piped water from the Town system may be extended to the lands located near Highway 16 east of Edson. Extension of water service means a wider range of uses may locate in this area since sufficient pressure would be available for fire suppression.

The lands designated future industrial west of Edson may potentially be fully serviced with piped water and sewer. Full services provide opportunity for a higher density and greater diversity of industrial uses. However, full servicing may not be required for the Repsol facility and the buffer area surrounding that facility. Regardless, the opportunity for municipal services may be available if required.

An industrial node is proposed northeast of Edson along Highway 748 in recognition of existing industrial operations that are zoned Rural Industrial. This node will remain unserviced Rural Industrial. Another such node surrounds the old landfill to recognize the 300 metre setback requirement for residential development and existing industrial development. As well, water wells must be setback 450 metres.

Most of the lands located between the CN and the future bypass as well as some of the lands south of the bypass are designated as future industrial. The landfill is located in the area so that industrial uses will be compatible with this facility. The lands can be economically serviced, but are characterized by challenging soil conditions. The lands located within Edson are designated for future industrial development by the Town's MDP and will be considered by the proposed South Industrial ASP.

Although thick muskeg overlays much of the future industrial lands on either side of the Highway 16 Bypass, the lands will be visible from the bypass so some opportunity for some types of low intensity industry exists.

3.9 Natural Area/Recreation

Map 8 - Land Use Concept reflects existing natural/recreation areas. Specifically, the Wilmore Recreation Area, the Edson Golf Course and the Rodeo Grounds are shown. As well, the Crown owned land located on the south side of Highway 16 at the west end of the Fringe Area that contains a large slough is proposed to be retained as a natural area, and will add to the aesthetics along the highway. The large concentration of hilly Crown land located in the northwest quadrant is proposed to continue to be retained as a natural area although the lands may be leased for grazing.

Finally, the Environmental Reserve located along Bench Creek in the Edson East ASP area is recognized as a natural area by the Land Use Concept.



3.10 Rural

Lands designated as rural pursuant to the Rural Land Use District of the County LUB are concentrated in the northeast and southwest segments of the Plan Area.

The northeast rural land use area comprises those lands east of Highway 748 to the McLeod River. This area is constrained by access which is restricted to East Crossing Road. Higher density residential development, therefore, is not suitable for safety reasons. This area also contains extensive agriculture uses as well as low density country residential development to a maximum density of five parcels per $\frac{1}{4}$ section as permitted under the Rural Land Use District. Policy provisions will be required to ensure proper buffering between the future industrial uses designated along the south side of East Crossing Road and existing residences located on both sides of that road.

The southwest rural land use area, although potentially serviceable with piped water, is also an area that is impacted by the Repsol sour gas facility so that residential density should be minimized. Much of the area located to the west of Ansell Tower Road also exhibits poor drainage conditions.

4 LAND USE POLICIES

4.1 General

- 4.1.1 All new developments shall comply with Map 8 - Land Use Concept of this IDP.
- 4.1.2 Any request for a development permit, subdivision application, conceptual scheme, or statutory plan (Area Structure Plan or rezoning application) within the IDP area shall be referred to the neighbouring municipality.
- 4.1.3 Any development located along the McLeod River, Bench Creek, Poplar Creek and Wase Creek shall be required to have the top of the bank and appropriate development setbacks established by a qualified surveyor or geotechnical consultant. Development setbacks shall be consistent with the requirements of Town and County MDPs and LUBs.
- 4.1.4 To prevent pollution, protect the integrity of slopes, and to provide public access all lands below the surveyed top of the bank shall be dedicated as Environmental Reserve or Environmental Reserve Easement. A strip of land along the top of the bank may also be required to be dedicated and protected as Reserve land pursuant to the setback considerations outlined in the Yellowhead County and Town of Edson MDPs.
- 4.1.5 Applications for permits for a discretionary use pursuant to the Land Use Bylaw shall be considered only if the proposed use complies with the intent of Map 8: Land Use Concept, and the policies of this IDP.
- 4.1.6 Areas prone to flooding, erosion, landslides, or any other significant natural or human-induced hazards shall be subject to policies in section 12.5 of Yellowhead County's MDP.
- 4.1.7 A 300 metre setback from the boundary of the decommissioned landfill site shall be applied to all residential, food, school or hospital developments. Industrial subdivision and uses that are compatible with country residential uses may be considered within the 300 meter setback. Water wells must be setback 450 metre from the boundary of the decommissioned landfill site.
- 4.1.8 A 450 metre setback from the boundary of the working area of the operating landfill shall be applied to all residential, food, school or hospital developments. Industrial subdivisions may be considered within the 450 meter setback. A 300 metre setback from the working area of the operating storage site shall be applied to all residential, food, school or hospital developments. Industrial uses may be considered within the 300 metre setback. A water well setback of 450 meters shall be required from the existing landfill and comply with Provincial regulations.
- 4.1.9 Alberta Energy Regulator (AER) setback guidelines from sour gas lines, wells, and other facilities shall be applied (see Map 6 - Pipelines).
- 4.1.10 Where feasible, trails will be considered and will link with an integrated regional trail system.
- 4.1.11 All development proposals shall be required to provide details to the satisfaction of the Town and/or County of an adequate water supply for firefighting purposes.

- 4.1.12 Significant natural areas shall be identified and protected as part of the required Conceptual Scheme or ASP.
- 4.1.13 Landowners may be encouraged to use conservation easements to protect areas important to wildlife habitat or ecosystem conservation.
- 4.1.14 The Town and County may undertake a Collaborative Infrastructure Framework founded on this IDP.

4.2 Country Residential

- 4.2.1 Multi-lot country residential subdivision shall be considered in that area as shown by Map 8 - Land Use Concept. Multi-lot subdivisions are defined as those subdivisions that will result in more than five parcels per ¼ section.
- 4.2.2 To the extent possible Rural by Design principles shall be encouraged as a means of protecting significant natural areas and maintaining the aesthetic value of the IDP area.

4.3 Estate Residential

- 4.3.1 Residential subdivisions shall be considered in that area as shown by Map 8 - Land Use Concept. This area corresponds to the lands within the Town of Edson referred to as Priority Serviced Residential and Long Term Servicing shown on Map 6 of the Town's MDP.

4.4 Industrial

- 4.4.1 The Rural Industrial Land Use District of Yellowhead County's LUB shall apply to all lands designated industrial by the Map 8 - Land Use Concept at the time of subdivision and development.
- 4.4.2 New industrial subdivisions and developments must provide for buffering/screening from existing Town and County residences to the satisfaction of Yellowhead County.
- 4.4.3 Yellowhead County will amend the area shown as business commercial/light industrial in the Edson West ASP to be consistent with the area as shown in the Town of Edson's MDP.

4.5 Natural Area/Recreation

- 4.5.1 The County will support grazing leases on Crown lands.
- 4.5.2 To promote active transportation and physical activity, trails will be considered and will link to and/or enhance the trail system proposed in the 2017 Edson's Trails Master Plan.
- 4.5.3 Resident well-being and physical activity needs shall be considered and supported through the provision of accessible public open space and pedestrian connectivity wherever possible.

4.6 Rural

- 4.6.1 The Rural Policy Area provisions of Yellowhead County's MDP and the Rural Land Use District of Yellowhead County's LUB shall continue to apply to the lands designated rural by Map 8 - Land Use Concept. This means that a subdivision of up to five parcels per quarter section may be considered.

4.7 Infrastructure Policies

- 4.7.1 Transportation and infrastructure proposals within the IDP area shall be referred to the neighbouring municipality for comment.
- 4.7.2 Unless otherwise agreed to, each municipality shall be responsible for the maintenance of transportation infrastructure within their boundaries. Agreements to share maintenance responsibility between the two municipalities, if agreed to by both parties, shall supersede this policy.
- 4.7.3 The Town and County may cooperate on any infrastructure or servicing study which affects any part of the IDP area.
- 4.7.4 Infrastructure which benefits both municipalities may require cost sharing to the satisfaction of both municipalities.
- 4.7.5 All planning initiatives that involve access or abut Highway 16 and the proposed highway bypass and the proposed interchanges in the IDP area shall directly involve local representatives of Alberta Transportation, Town of Edson, and Yellowhead County in the plan preparation process.

4.8 Social Program Policies

- 4.8.1 The Town and County may cooperate on any social, recreational, or economic development activities which affect any part of the IDP area.
- 4.8.2 Yellowhead County acknowledges that social services and recreational infrastructure, provided by the Town, serves an audience significantly beyond the IDP limits and that this extended user base may be considered when expansion of services and cost sharing of services is contemplated as per the current Revenue Sharing Memorandum of Agreement.
- 4.8.3 The Town of Edson acknowledges that social services and recreational infrastructure, provided by the County, serves an audience located within the Town beyond the IDP limits. This extended user base may be considered when expansion of services or infrastructure is contemplated.

5 PLAN ADMINISTRATION AND IMPLEMENTATION

5.1 Intermunicipal Development Plan Adoption

- 5.1.1 This IDP shall be adopted by bylaw by the Town of Edson and by Yellowhead County.
- 5.1.2 All statutory plans and plan amendments; conceptual schemes and amendments; and, land use bylaw amendments must comply with this IDP.
- 5.1.3 In adopting the IDP bylaw, it is recognized that each municipality's jurisdiction is limited to lands within their respective boundaries.

5.2 Inter-Municipal Committee

- 5.2.1 The Yellowhead County and Town of Edson Inter-Municipal Committee shall oversee the IDP and will meet as required.
- 5.2.2 The Committee shall facilitate on-going sharing of information between elected officials and staff and provide a forum for review and comment on IDP related matters.
- 5.2.3 Specific responsibilities of the Committee regarding the IDP may include, but not necessarily be limited to:
 - (a) Making recommendations on IDP matters to their respective Councils;
 - (b) monitoring the implementation of the Action Plan policies;
 - (c) identifying and making recommendations on new joint planning and economic development initiatives to their respective Councils;
 - (d) reviewing any proposed amendments to the IDP and making recommendations to their respective Councils;
 - (e) determining a referral and circulation process;
 - (f) reviewing any referred amendment, proposed area structure plan or significant development and subdivision applications that may have a significant impact on the IDP area;
 - (g) reviewing any proposed applications for annexation and making recommendations to their respective Councils; and
 - (h) presenting a united regional position on issues of mutual concern to both municipalities.

5.3 Inter-Municipal Committee Administration

- 5.3.1 Yellowhead County shall be responsible for administration of the Committee.
- 5.3.2 Administrative functions shall include, but not be limited to:
 - (a) The establishment of dates and locations for meetings, production of agendas and other matters as deemed necessary;
 - (b) making a decision to meet at the request of each municipality;
 - (c) keeping of minutes of the Committee meetings;
 - (d) the chairmanship of the Committee will alternate annually between the Mayor of Yellowhead County and the Mayor of Edson; and,
 - (e) committee meetings on particular applications, as identified by the Committee, will convene after comments have been received as a result of an intermunicipal referral.

5.4 Plan Administration, Amendment, Review, and Repeal

- 5.4.1 Yellowhead County and the Town of Edson shall act as the Approving Authority and administer provisions of the IDP for lands within each respective jurisdiction.
- 5.4.2 The IDP may be amended from time to time subject to the agreement of both Municipal Councils.
- 5.4.3 Yellowhead County and the Town of Edson shall jointly undertake a review and update of the IDP if both Councils agree that a review and update is required.
- 5.4.4 In the event that one or both municipalities deem the IDP no longer to be relevant, the bylaws adopting the IDP will need to be repealed by both municipalities. The procedure for repealing the bylaw is provided for in the *Municipal Government Act*. However, prior to repealing the bylaws, the following process shall be applied:
 - (a) One municipality will give the other municipality written notice stating the intent and reasons for repealing the IDP bylaw;
 - (b) within 60 days of the date of the written notice, the Inter-Municipal Committee shall meet to review the concerns listed in the written notice;
 - (c) following the Committee meeting, the municipality filing the notice of repeal may either withdraw its notice by providing a letter to the other Municipality or proceed to repeal the IDP;
 - (d) upon repeal of the IDP, each municipality must amend its own Municipal Development Plan to meet the requirements of the *Municipal Government Act*.

5.5 Annexation

The annexation of land normally involves the acquisition of land by an urban municipality from a rural municipality to accommodate future growth. Although not typical, annexation by a rural municipality may also occur. The following policies are provided in addition to the *Municipal Government Act* annexation provisions to allow for mutually agreeable annexation.

- 5.5.1 An annexation proposal shall be referred to Yellowhead County for comment prior to commencing the annexation proceedings pursuant to the *Municipal Government Act*.
- 5.5.2 All annexation applications shall be preceded by a meeting of the Inter-Municipal Committee. The discussions and approach agreed to by the Committee in regard to the annexation application shall be shared with the respective municipal Councils.
- 5.5.3 A joint meeting of both Councils shall be held to review the need and rationale for the annexation.

5.6 Dispute Resolution

The implementation of an intermunicipal dispute resolution mechanism is a requirement of all IDPs pursuant to the *Municipal Government Act*. In order to satisfy this requirement and to ensure that the principles of fairness and due process are respected, a dispute resolution process consisting of the five stages is provided. A similar procedure is included in other IDPs. It is important to note that this process only applies to those areas where the Municipal Government Board has jurisdiction.

For the purposes of this Plan *initiating municipality* means the municipality in which the land that is the subject of a proposal is located. *Proposal* means a rezoning, an area structure plan, a conceptual scheme, an area structure plan amendment or an IDP amendment. *Responding municipality* means the other municipality.

Stage 1 Administrative Review

- 5.6.1 The initiating municipality will ensure that complete information addressing the relevant criteria as outlined in the IDP is provided in support of all site-specific applications or that all statutory plan processes are sufficiently documented.
- 5.6.2 Upon circulation of a proposal, the administration of the responding municipality will undertake a technical evaluation of the proposal and will provide any necessary comments to the initiating municipality.
- 5.6.3 Both municipalities will determine whether a proposal can be processed without being referred to the Inter-Municipal Committee.
- 5.6.4 In the event that a proposal cannot be processed at the administrative level, either municipality may refer that proposal to the Inter-Municipal Committee for review.

Stage 2 Inter-Municipal Committee Review

- 5.6.5 In the event that a proposal is referred to the Inter-Municipal Committee, a Committee meeting will be scheduled by the Committee and the administrations of both municipalities will present their positions on the proposal to the Committee.
- 5.6.6 After consideration of a proposal, the Committee may:
- (a) provide suggestions back to both administrations with respect to revisions to the proposal that should be considered to make it more acceptable to both municipalities;
 - (b) if possible, agree on a consensus position of the Committee in support of or in opposition to the proposal, to be presented to both Councils; or
 - (c) conclude that no initial agreement can be reached and that a consensus position of the Committee will not be presented to both Councils.
- 5.6.7 If agreed to by both municipalities, a facilitator may be employed to help the Committee work toward a consensus position.
- 5.6.8 If a proposal cannot be satisfactorily processed following a Committee review, then that proposal will be referred to both Councils.

Stage 3 Municipal Councils

- 5.6.9 After receiving the recommendations of the Inter-Municipal Committee with respect to a particular proposal, each Council will establish a position on the proposal.
- 5.6.10 If both Councils support a proposal, then the approval and IDP amendment processes can be completed. If neither Council supports the proposal, then no further action will be required.
- 5.6.11 If both Councils cannot agree on a proposal, then the matter may be referred to a mediation process.

Stage 4 Appropriate Dispute Resolution

- 5.6.12 The following will be required before a mediation process can proceed:
- (a) agreement by both Councils that mediation is necessary;
 - (b) appointment by both Councils of an equal number of elected officials to participate in a mediation process;
 - (c) engagement, at equal cost to both municipalities, of an impartial and independent mediator agreed to by both municipalities; and
 - (d) approval by both municipalities of a mediation schedule, including the time and location of meetings and a deadline for the completion of the mediation process.
- 5.6.13 All participants in the mediation process will be required to keep details of the mediation confidential until the conclusion of the mediation.
- 5.6.14 At the conclusion of the mediation, the mediator will submit a mediator's report to both Councils.

5.6.15 If a mediated agreement is reached, then that agreement will be referred to both Councils for action. Both Councils will also consider the mediator's report. Any mediated agreement will not be binding on either Municipality and will be subject to the formal approval of both Councils.

5.6.16 If no mediated agreement can be reached or if both Councils do not approve a mediated agreement, then the appeal process may be initiated.

Stage 5 Appeal Process

5.6.17 In the event that the mediation process fails, the initiating municipality may pass a bylaw to implement the proposal.

5.6.18 If the initiating municipality passes a bylaw to implement the proposal, then the responding municipality may appeal that action to the Municipal Government Board under the provisions of Section 690 of the *Municipal Government Act*.

6 POLICY ACTION PLAN

The following action policies must be considered for implementing this IDP.

- 6.1.1 The Town and County may form a committee that will involve Alberta Environment and Repsol Oil and Gas Canada Inc. to consider the feasibility and cost of expanding the Repsol water intake facility on the McLeod River and of constructing a water treatment plant near the intake.
- 6.1.2 The Town and County shall share any water or well monitoring information in order to responsibly manage the aquifer and water use.
- 6.1.3 The Town shall implement the Aquifer Management Plan as developed and recommended by the Komex International Ltd. Aquifer Management Planning Study in 2000.
- 6.1.4 This IDP shall be adopted by bylaw by the Town and County, repealing the 2007 IDPs and amendments thereto.



APPENDIX A
Intermunicipal Development Plan
Review and Update

Background Report &
Population and Land Demand Estimates

prepared by



in association with



August 2017

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1 INTRODUCTION

1.1 Purpose

The Intermunicipal Development Plan (IDP) provides a framework for the long-term growth and development of the lands located within the Edson Fringe Plan Area that includes lands in Yellowhead County and the Town of Edson. The Plan area shown on Map 1 extends north and west of the McLeod River to two miles north and west of the Town Boundary.

1.2 Plan Background

The Town of Edson is located along the Yellowhead Highway (Highway 16) roughly centred between Edmonton and Jasper. The *Yellowhead* is one of Canada's two national highways. The highway extends through the centre of the Town as a couplet system with urban speed limits as low as 50 kilometres per hour. Numerous developments and intersections exist within as well as external to Edson. The recent down turn in the natural resource sector has not significantly affected subdivision and development activity in the Edson fringe area. Local traffic volumes and access issues will continue to increase along this segment of Highway 16.

The current alignment of Highway 16 through Edson is not able to function as a future freeway. Highway 16 will ultimately be converted to a free-flow facility with a minimum speed limit of 90 kilometres per hour and access at interchanges only. Alberta Transportation completed a Functional Planning Study (2006) that proposes a new alignment for Highway 16. The new alignment extends along the south side of Edson and this alignment will be protected as an *official* route.

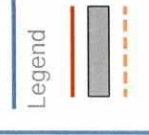
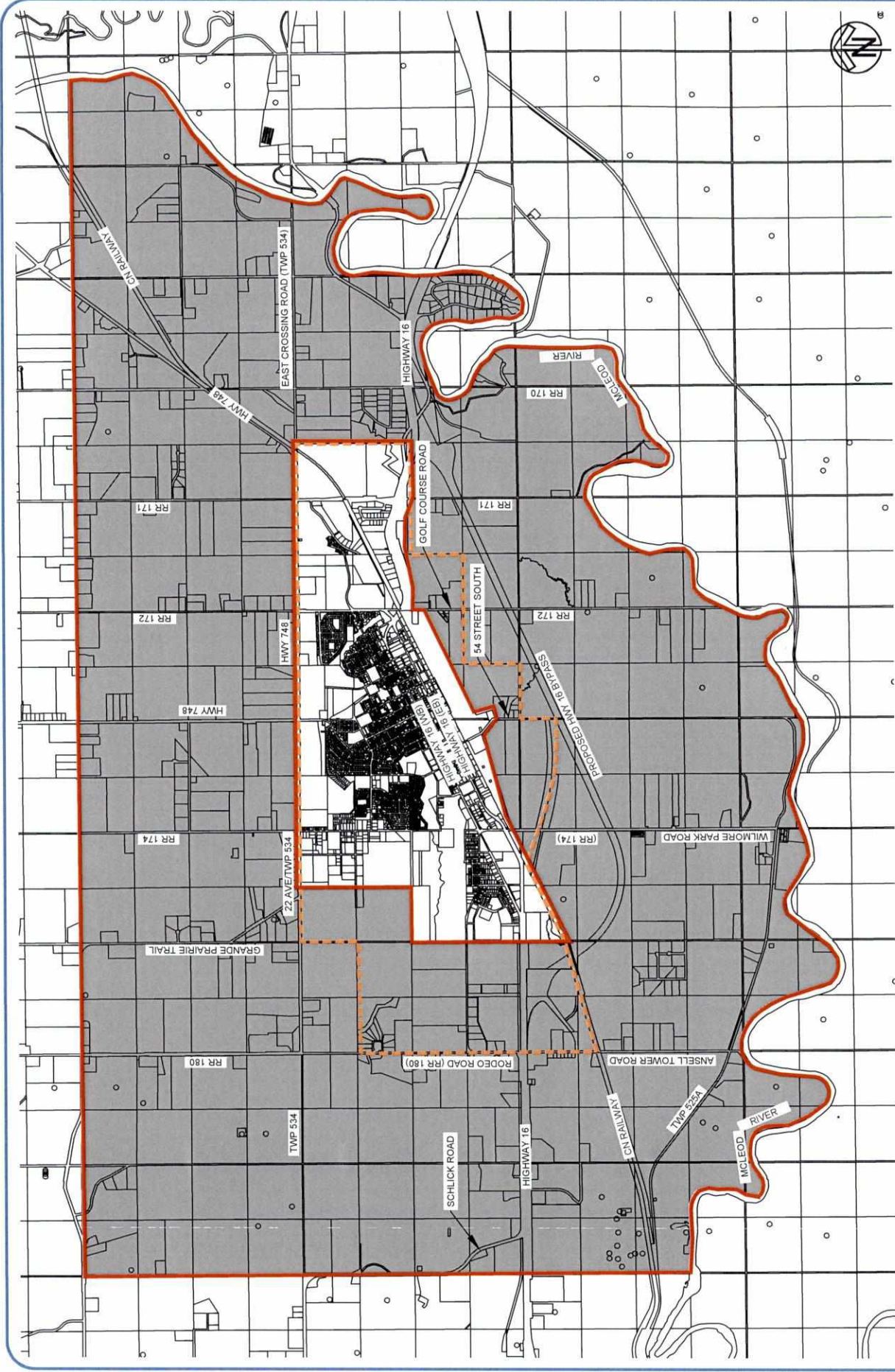
The Intermunicipal Development Plan has been prepared as a joint initiative by the Town of Edson and Yellowhead County in recognition of the need to plan for future growth in the Edson Fringe to recognize the future Highway 16 alignment and the increased subdivision and development activity. The current Plan approved in 2007 is now under review and will be updated by Fall of 2017.

1.3 Regional Context

As is noted above, Edson is located mid-way between the City Edmonton and the Town of Jasper on the Yellowhead Highway. The Town's 2016 Federal Census population was 8,414, an increase of about 316 persons - approximately 4% - in the last decade (census population was 8,098 in 2006).

Alberta Municipal Affairs official municipal census for Edson's 8,646 which is 232 person higher than the Federal census. For the purposes of this IDP update, the higher population will be assumed to plan for the worst case scenario in terms of accommodating growth.

The value of development permits from 2007-2016 ranges from \$8.96 million to \$70.95 million annually with an average of \$34.59 million. The previous 10 year period from 1997-2006 had a range of \$6.73 million to \$46.31 million with an average of \$22.35 million. This surge in value of development permits represents an average increase of approximately 55% annually and illustrates the increase in activity in Edson and the surrounding County lands over time in spite of fluctuations in the value of natural resources.



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Title
Map 1 - Intermunicipal Development Plan Area

Historically, the Town's growth has also been based on the resource sector. Coal mining in Alberta's Coal Branch was the first such resource in the 1930s followed by oil and gas exploration and extraction in the 1960s. As well, the forestry industry has contributed to the Town's growth. Although all such activity occurs in Yellowhead County, Edson is a major service and population centre. The recent move by the province to phase out coal production by 2030 is expected to have limited impact on the Town given the ongoing activity expected in other resource sectors of the local economy

The fringe lands surrounding Edson are a mix of cleared agriculture lands and forested areas with a significant country residential population. Industrial subdivisions exist along Highway 16 both to the east and west and more activity is anticipated. Repsol's (formerly Talisman) sour gas facility is the largest operation the Edson Fringe and is located south west of the Town.

1.4 Intermunicipal Development Plan Objectives

The Town of Edson and Yellowhead County have generated a comprehensive list of specific objectives that need to be addressed by the IDP. These Joint Intermunicipal Development Plan Objectives are as follows:

- Review and update the Intermunicipal Development Plan to ensure that the land use pattern for the lands in the town of Edson and Yellowhead County is supported and agreed upon to be in the long term best interest of both parties.
- Review and incorporate any updates to Highway 16 alternate route location and plans.
- Update strategy to address mutual concerns over long term health of the regional aquifer as a potable water source.
- Review and update lands in the County that make bet sense to consider as logical Town of Edson annexation areas.
- Review and update joint approach to demand for industrial and commercial land base in the Intermunicipal Development Plan area.
- Review and make recommendation for updating specific designated land uses within the area.
- Review and make recommendation for updates to approach to commercial/industrial corridor for lands adjacent to Highway 16 east and west of Edson and surrounding the Repsol sour gas facility.
- Recognize the existence of numerous sour gas pipelines and facilities in the region.
- Review those parcels of land that straddle the municipal boundaries and make recommendation for logical placement of those properties within either the Town of Edson or Yellowhead County.
- Consider areas where extension of municipal services may make long term sense to both Town and County.
- Consider the opportunity of extending the Town's Trails Master Plan into the County within the Plan area.
- Identify opportunities for beautification of entrance points between Town and County.
- Review and update Country Residential and Small Holdings Policies.

1.5 Key Outcomes

The IDP must be the formulation of a realistic implementation plan which can be realized by the Town and County separately or jointly to move forward/realize the objects in the plan. Some examples include:

- i. Recommendations to optimize opportunities that may be related to the proposed Highway 16 re-alignment.
- ii. Identification and recommendation for areas that will benefit from future regional services delivery, especially in areas slated for future annexation.
- iii. Review and identify logical regional infrastructure projects for the future.

The Town of Edson and Yellowhead County Intermunicipal Development Plan update will be adopted by bylaw as a new Intermunicipal Development Plan. The plan will provide policy direction for implementing all the objectives, and include an action plan in support of the implementation strategy. The Intermunicipal Development Plan must also meet the provisions of the *Municipal Government Act* to include a procedure to resolve conflicts between the two municipalities, a procedure to amend or repeal the plan, and administrative provisions.

2 EXISTING CONDITIONS

The Edson IDP area is characterized by a diversity of natural and man-made features and land uses. This Section summarizes those existing conditions that are significant for identifying opportunities and constraints to future development and an optimal future land use concept. Existing conditions information will also assist in formulating appropriate IDP policies.

2.1 Natural Features

2.1.1 Description

The natural features of the Plan Area are shown on the Aerial Photo and Topographic Features Maps 2 and 3, respectively. Potential muskeg areas as determined for the Highway 16 Alternative Route Functional Planning Study are shown on Map 4.

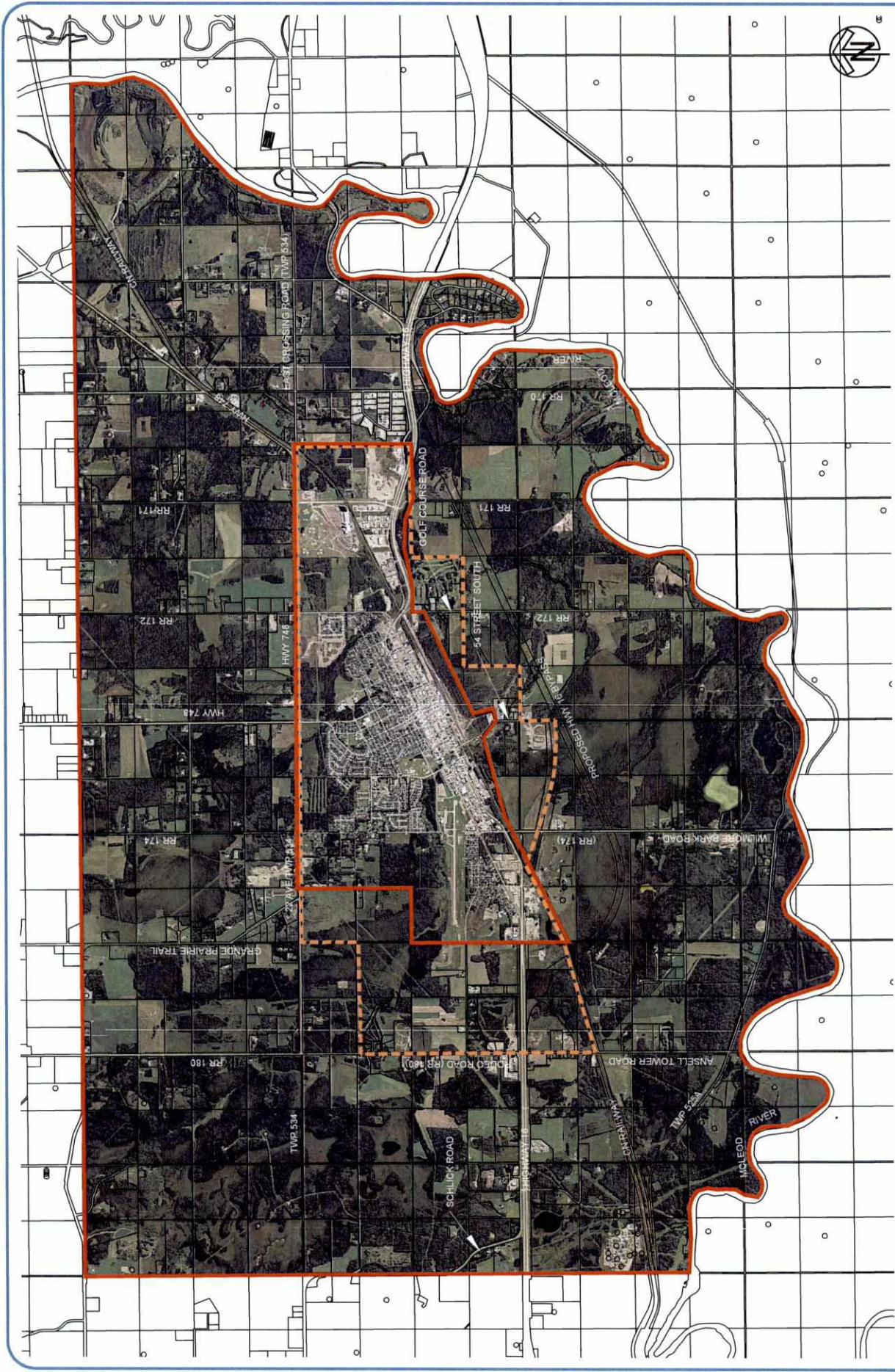
Muskeg areas reflect a high water table that, in turn, affects developability, particularly when combined with soils conditions. Soils in the Edson area are frost-susceptible soils as well as subject to high water table conditions, both interrelated factors. Frost-susceptible soils are silty soils, having grain size coarser than clay, and finer than sand. These soils increase the cost of municipal servicing both with underground utilities, and roads, even when the water table is low. When combined with a high water table, the construction and maintenance costs increase dramatically. Trenches are unstable, and road structures have to be over a meter thickness.

The IDP area exhibits a significant variation in topography. The most significant topographic feature is the McLeod River and its escarpment. Bench Creek is also a significant drainage course that meanders through the Plan Area. The creek's headwaters are located northwest of this area. Bench Creek then extends southeast through the Town of Edson into the County where it changes direction to flow through the Town again and back into the County tending northeasterly to generally follow the alignment of Highway 748 and the CN mainline. The topography and natural features of the balance of the Plan area is described as follows:

1. South of Highway 16

Commencing on the east side of this area, the meandering course of the McLeod River has created a relatively isolated parcel that is surrounded by the river on three sides and Highway 16 on the north side. This area has been developed as per the River Ridge Area Structure Plan as a country residential subdivision.

The lands west across the river from River Ridge up to Bench Creek are relatively flat and are a mix of cleared and treed lands dominated by black spruce suggesting some poorly drained muskeg areas, particularly south and east of the golf course. The McLeod River slope is a relatively gentle slope in this location with an oxbow on the valley bottom. Agricultural activities are evident.



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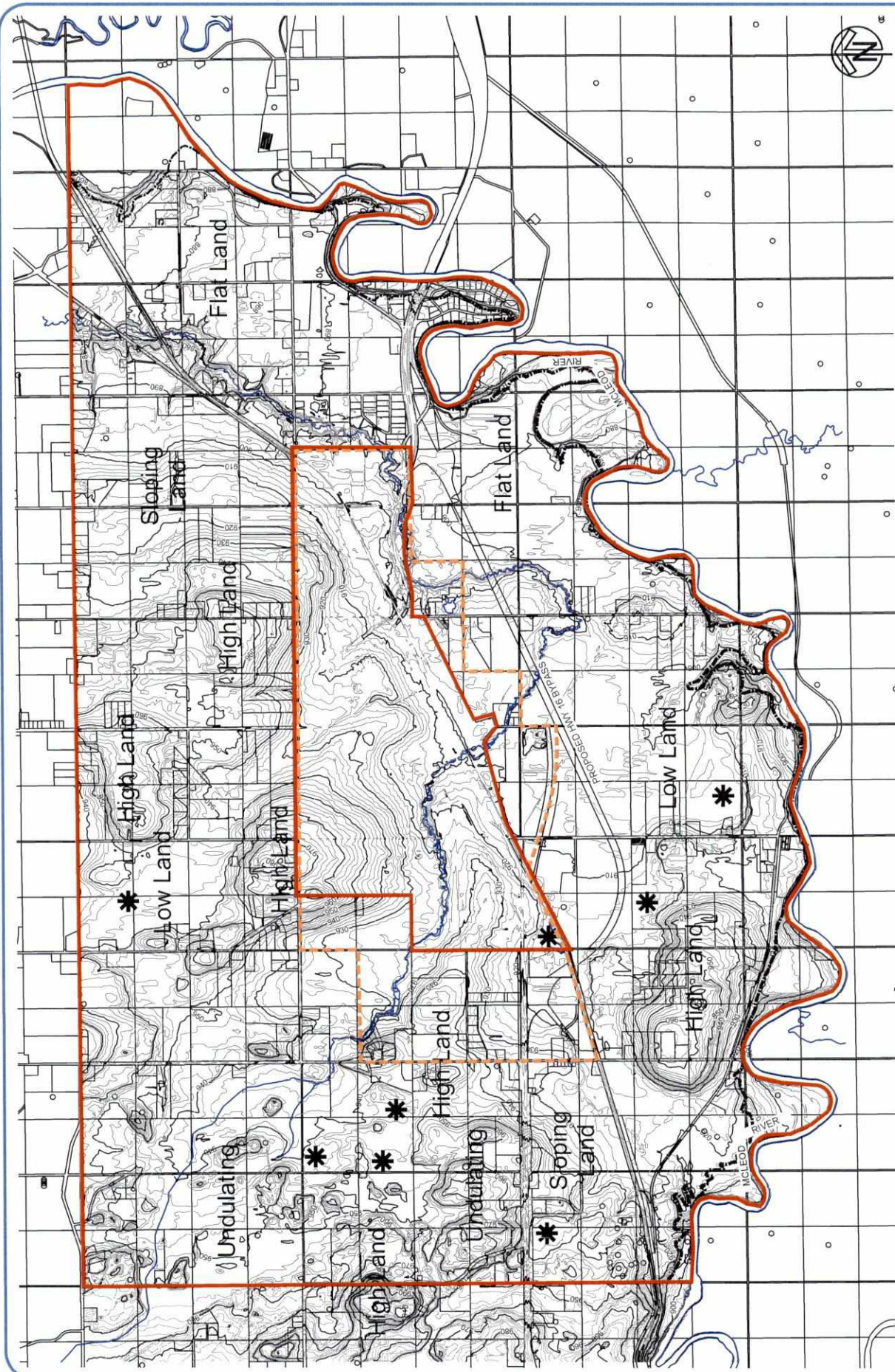
Title
Map 2 - Aerial Photo

Scale 1:100,000
 August 2017



Loyalt
 Planning Consultants Inc. AL-Terra

Legend
 — IDP Boundary
 - - - Edson Town Boundary



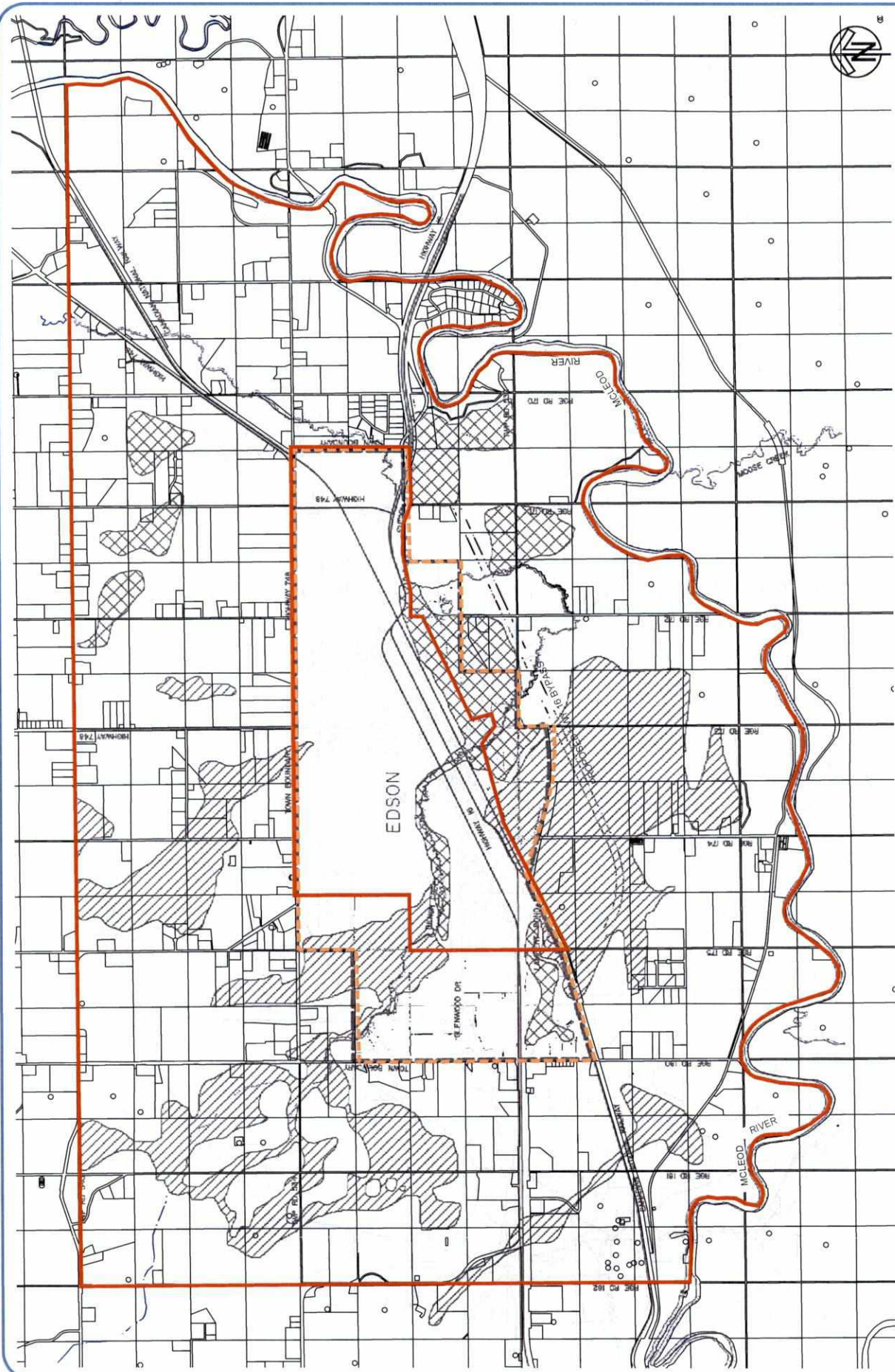
Project
Town of Edson/Yellowhead County IDP
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Title
Map 3 - Topographic Features

Scale 1:100,000
August 2017



- Legend
- IDP Boundary
 - - - Edson Town Boundary
 - * Slough Area
 - ~ 2m Contour
 - ~ 10m Contour
 - ~ Top of Bank



Town of Edson/Yellowhead County IDP
Background Research Report
Map 4 - Muskeg Areas

- Legend
- IDP Boundary
 - Edson Town Boundary
 - Muskeg 1-3m Depth
 - Muskeg >3m Depth

Further west, a 10+ metre high knoll separates the flat lands from a low lying area that contains extensive tree cover and significant concentrations of muskeg that is more than a metre thick. However, towards the McLeod River, the land rises and this rise is contained in the Willmore Recreation Area. A well-defined ravine is also located in the Recreation Area which is characterized by a mixed poplar and spruce forest with a well-developed understorey.

The Plan area located within the south portion of the Town are flat with some clearing and poorly drained muskeg areas on either side of Bench Creek. A small part of Lambert Pond is located partially within the IDP area, within Edson.

A substantial hill in excess of 40 metres is located north of the McLeod River near the west boundary of the Plan Area. Although some clearing has occurred, most of this high land is covered by a mixed forest.

Further west, the lands slope southeasterly from Highway 16 towards the river and comprise a mix of treed, cleared and developed land. A drainage course runs between the sloping lands and the 40+ meter high hill. This feature also drains a slough located directly south of Highway 16 into the McLeod. The Repsol sour gas plant is located on a ¼ section abutting the west Plan Area boundary.

2. North of Highway 16

Commencing at the east side of the Plan Area boundary, north of Highway 16, the land is relatively flat as far west as Bench Creek. These lands appear well drained based on the existing mixed deciduous spruce tree cover and the agricultural and other activities that include industrial operations and country residential development. Some small pockets of muskeg exist. The contour mapping shows a relatively gentle escarpment along the McLeod River. An oxbow is located on the river valley bottom. Bench Creek that runs parallel the east side of Highway 748 and the CN line is contained in a relatively deep valley as compared to the upper reaches of this creek.

Three significant high points are evident north of Edson between Highway 748 and Range Road 180. These high points are separated by low areas some of which contain muskeg that is more than one metre in depth. However, much of the land north of Town appears well drained and is covered by forests interspersed with cleared agriculture parcels and country residences.

West of Rodeo Road (Range Road 180) up to the west Plan Area boundary, the topography is undulating. Much of this area is owned by the Crown. Hilly lands are difficult to develop because of the uneven terrain. Significant muskeg and several sloughs exist between treed knolls. Bench Creek meanders through this undulating area and, as is previously noted, enters the Town from the northwest.

The landscape changes closer to Highway 16 with a high point straddling Rodeo Road allowing for clearing for agricultural and development purposes in both the Town and the County.

2.1.2 Implications for Future Development

1. South of Highway 16

- Much of the flat area in the southeast segment of the Fringe is capable of supporting intense forms of development although the lands east of the golf course adjacent the highway and Bench Creek are poorly drained and contain muskeg that is less than one metre in depth. The bypass and the easterly interchange will occupy much of this poorly drained area.
- A large concentration of muskeg exists in the south central portion of the Fringe and much of this muskeg is located on Crown land. Development opportunities on these lands are limited.
- Similarly, some low intensity development is feasible on lands in the Town south of CN where the muskeg is not too deep. Much of this land is already cleared.
- Further west, the high and sloping treed land that straddles Ansel Tower Road provides development opportunities for country residential uses in particular because of the amenity value of this area that is distant from the proposed bypass.
- The lands extending about one mile west of Edson also appear physically developable. However, low lying areas and a slough constrain development further west up to the Plan Area boundary.

2. North of Highway 16

- All of the lands located between the McLeod River and Bench Creek are potentially physically developable as well as much of the land west to Highway 748. The high points and sloping areas provide amenity opportunities for residential development.
- West of Highway 748 a significant high point also has development potential although slivers of muskeg on either side of this point limit the size of the developable area.
- The undulating area comprising the north-western area of the Fringe is not suitable for development although the lands further south towards the highway and south of Bench Creek display development potential.

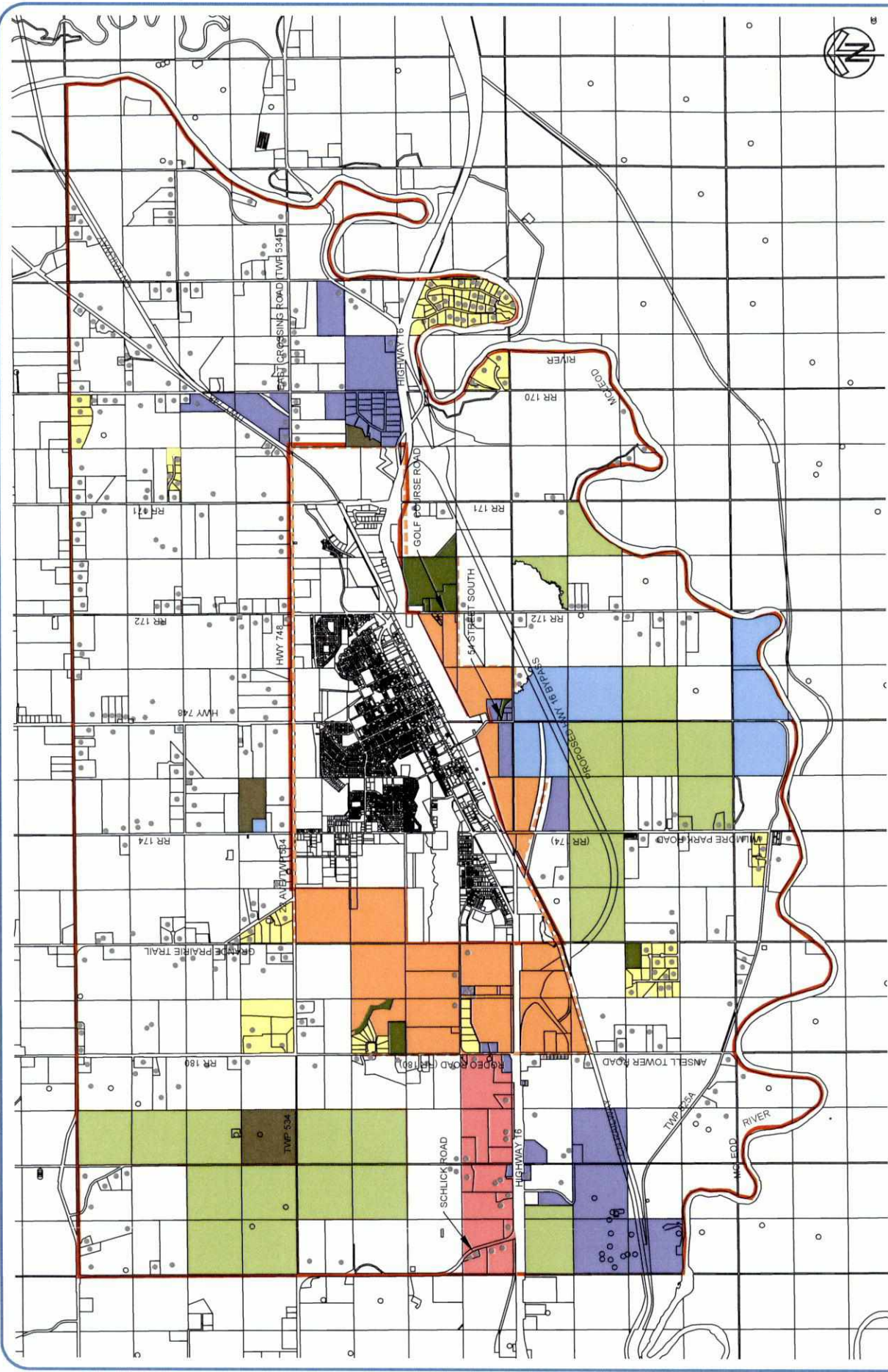
2.2 Existing Land Use

2.2.1 Description

As is shown on the Existing Land Use Map 5, the predominant land use in the Fringe Area is agriculture mixed with natural treed areas some of which are used for cattle grazing. Numerous parcels have been subdivided within the agricultural area to allow for country residential development. Many of these residences include a home occupation or home industry typically related to construction activities or oil and gas fields services. Yellowhead County's Land Use Bylaw allows for up to four parcels to be subdivided out of a rural agriculture ¼ section. In addition to the remnant parcel, therefore, a ¼ section can contain five parcels and most such parcels contain a residence.

Although not a land use per se, the some 3,400 acres owned by the Crown in the Fringe Area are mostly natural area. This Crown owned land is concentrated in two blocks on either side of Highway 16. The larger block is located in the northwest segment of the Plan Area and includes the undulating lands noted in the previous section that have little potential for most forms of development.

The second smaller block is located south of the Town and contains large concentrations of muskeg. Again, much of this Crown land may be problematic for development purposes. However, depending on the depth of the muskeg and the type of underlying material, the muskeg may be stripped and the land



Legend

	IDP Boundary		Country Residential
	Edson Town Boundary		Vacant Urban Reserve
	Mixed Use AG/CR		County Land
	Crown Land		Town Land
	Industrial		Recreation
	Mixed Use AG/Industrial		Residence
			Well Site



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used for some form of development. A detailed site specific investigation would be required to determine developability. The proposed future Highway 16 bypass is routed to extend through a large portion of this Crown land.

Most of the Plan area located within the Town are vacant or are being used for agriculture as an interim use in anticipation future urban development. The regional landfill facility is also located in the south Plan area portion of the Town and is considered to be an industrial use.

The Repsol sour gas facility and associated pipelines is the largest industrial use in the County. The Mizera industrial subdivision is part of an industrial node located north of the Highway and east of Edson. Some industrial users intermingled with agriculture extending along the north side of the highway west of Edson.

Recreational and institutional uses are scattered throughout the balance of the Plan area, the most significant of which include the Edson Golf Course and the Willmore Recreation Area located along the McLeod River. This recreation area is well used by local residents and is located on Town owned lands. The Edson and District Rodeo Grounds are located in Edson along Rodeo Road are also well utilized.

Although the Edson Airport does not extend into the Plan Area, height restrictions on the low density residential development and ancillary uses being contemplated by the Town's Municipal Development Plan may need to be considered. To reduce noise impact, new home construction may be required to consider acoustical noise proofing techniques as per CMHC guidelines.

2.2.2 Implications for Future Development

- Based on the existing land use pattern, all developable lands located north of Highway 16 are best suited for continued country residential infill and intensification development along with home occupations and home industries that comply with the provisions of the Land Use Bylaw.
- The lands located along Highway 16 are best suited for continued BCLI infill with some highway oriented commercial included along the west side of the Plan area, particularly within the Town. The north boundary of the industrial area will be dependent on future demand but a buffer strip should be retained between traditional country residential subdivisions and future industrial.
- Similarly, the developable lands south of the highway near the McLeod River provide opportunities for country residential and related development. Such development should not extend west of Ansell Tower Road because of potential conflicts with the Repsol sour gas facility.
- The lands located along the south side of the highway are best suited to industrial development based on the proximity to Repsol.

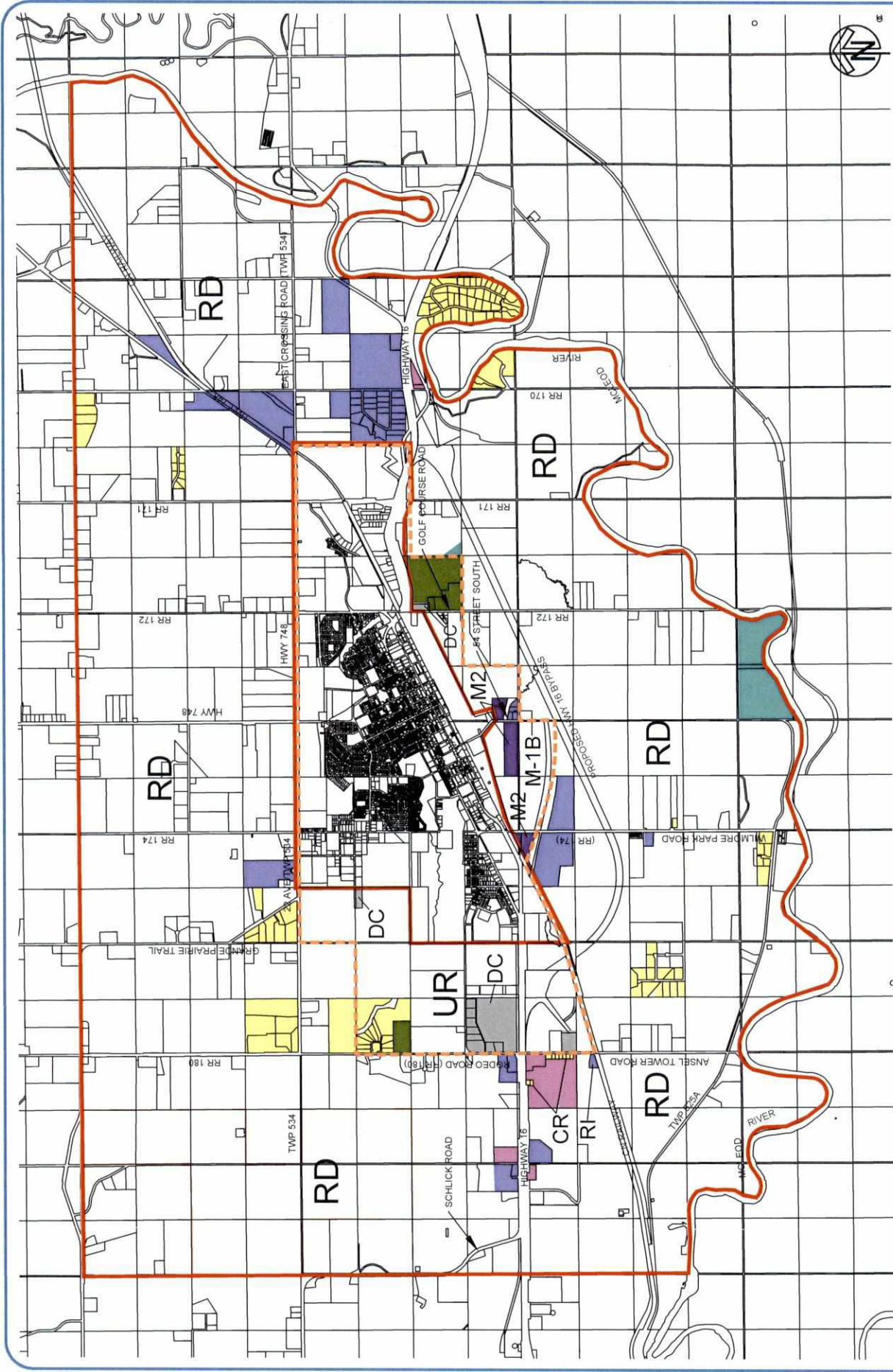
2.3 Existing Zoning

2.3.1 Description

Existing zoning is shown on Map 6 and generally reflects existing land use. Most of the Fringe lands located in the County that are used for agriculture or are natural areas are zoned Rural District. The purpose of this district is *to provide for uses which are appropriate in a rural environment and support or can co-exist in areas of agricultural use.*

Most of the Fringe lands located in the Town are zoned Urban Reserve District. The purpose of this district is to reserve those areas within the Town *that are rural in character or land use for development that is urban in character and density.* Site specific zoning is evident in both the Town and County.

2.3.2 Implications for Future Development



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 Title
Map 6 - Existing Zoning

Scale 1:100,000
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- Legend**
- IDP Boundary
 - - - Edson Town Boundary
- | | |
|--|--|
| COUNTY | TOWN |
| <ul style="list-style-type: none"> □ RD Rural District □ RI Rural Industrial □ BC/LI Business Commercial □ Light Industrial □ CR Country Residential □ PI Public Institutional | <ul style="list-style-type: none"> □ UR Urban Reserve □ DC Direct Control □ R-ER Estate Residential (Unserviced) □ M2 Heavy Industrial □ M1B Light Industrial (Unserviced) □ PR Parks and Recreation |

- Existing zoning will allow for the continuation of the status quo. As new and infill development occurs, the zoning will need to be amended.

2.4 Future Land Use

2.4.1 Description

Municipal Development Plans

Both the Town and the County have also adopted Municipal Development Plans that designate future land use for of the Plan area (see Map 7).

1. Town of Edson Municipal Development Plan

The Town's Municipal Development Plan was approved in 2016 (Bylaw 2172) with subsequent amendments while Yellowhead County approved its current Municipal Development Plan in 2013 (Bylaw 15.13).

Excepting a strip of land along Highway 16 that is designated for future Business Commercial/Light Industrial, most of the Town land located north of Highway 16 within the Plan area is designated Residential Low Density (Unserviced). Two Area Structure Plans exist within this area and both are privately serviced on-site. The Edson and District Rodeo Grounds is also identified by the Municipal Development Plan in this westerly area.

Most of the Town lands located in the Plan area south of Highway 16 are designated Urban Reserve. However, the lands adjacent the south side of Highway 16 on the west side of Edson mirror the Business Commercial/Light Industrial Mix designation on the north side of the highway. The Edson Golf Course is recognized as Parks and Recreation.

Town representatives have indicated that the optimal area for accommodating new residential is the northeast and west segments of Edson. Sufficient land is available in this area to accommodate growth needs for the foreseeable future. Highway commercial land is available along Highway 16 in the west segment of Edson to accommodate new development. A strip of 'small holdings' is identified by the Edson MDP adjacent to the north edge of the town, north of Highway 748 within and is identified as potential residential annexation area.

A future South Industrial ASP is considered in the MDP along the south boundary of the Town within the Plan area. This serviced industrial area would be the primary location of heavy industrial uses within the Town.

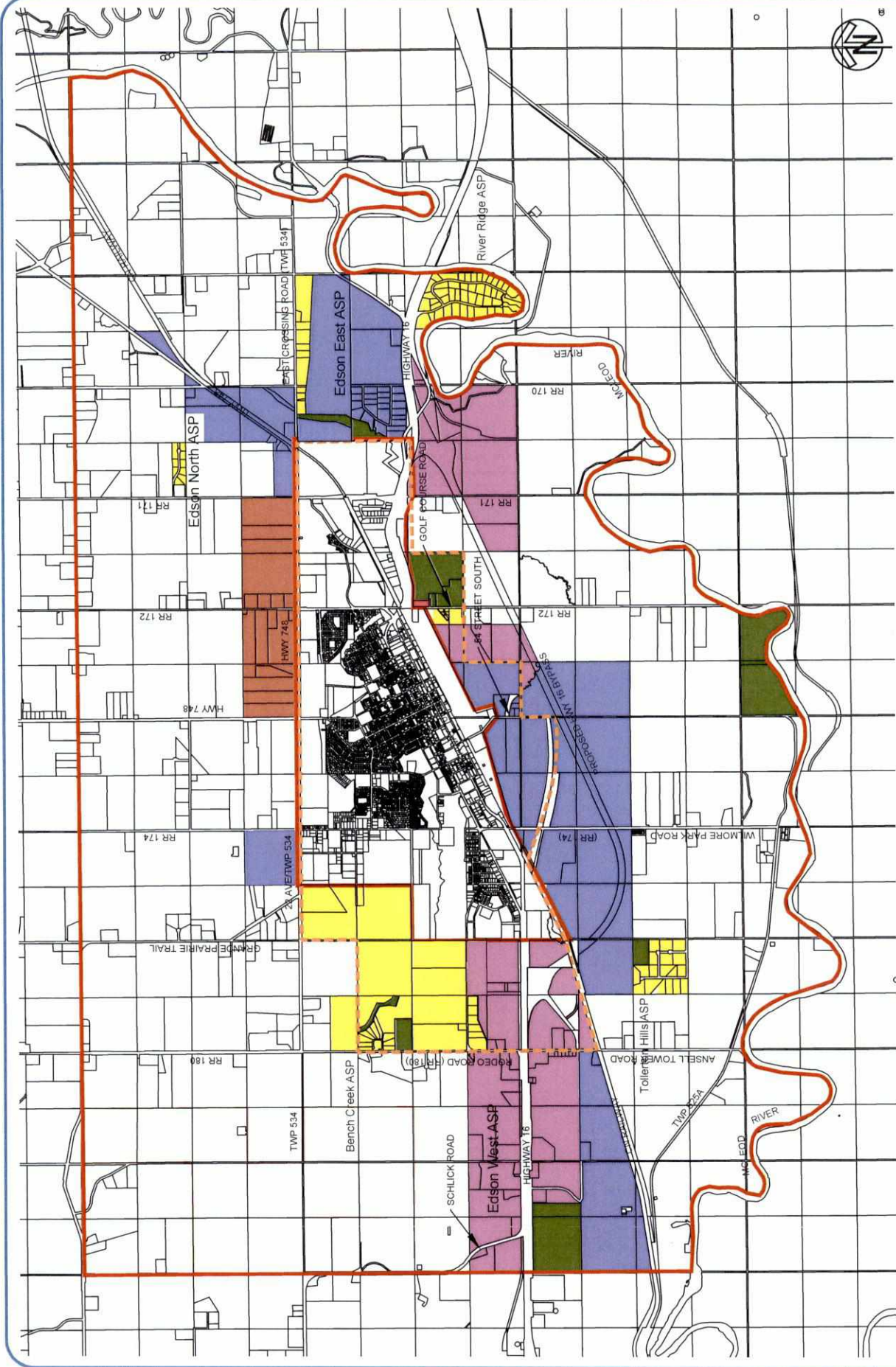
2. Yellowhead County Municipal Development Plan

The County's MDP policy 6.10 defines the Edson Urban Fringe and requires that a plan for the Fringe be prepared to guide future development. The 2007 IDP is the guiding document for the development of these lands.

Area Structure Plans

Two existing Area Structure Plans (ASP) apply to both the Town and County:

First, the **Bench Creek ASP** is located on the north-west extents of the Town and is a residential area structure plan. It contains approximately 44 hectares of land and portions of the plan area are located in both Yellowhead County and the Town of Edson as the Plan area straddles the Town and County limits. This plan is intended to accommodate 14 residential parcels, as well as a four unit Estate Residential bare land condominium unit. Parcel sizes range from 1.0 hectares to 7.415 hectares. Access to the Bench Creek ASP is from Rodeo Road (Range Road 180).



Project
Town of Edson and Yellowhead County
 Intermunicipal Development Plan
 Title
Map 7 - Future Land Use

Scale 1:100,000
 August 2017



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- Legend**
- IDP Boundary
 - - - Edson Town Boundary
 - R1 Residential Low Density (Unserviced)
 - P Schools, Parks and Open Space
 - HC1 Highway/Tourism Commercial (Unserviced)
 - Commercial/Light Industrial Mix
 - Industrial (Unserviced)
 - Small Holdings

Second, the **Edson West ASP** also straddles the Town and County boundary and is located in both municipalities. The current land uses within the ASP area are generally Rural District (including the Repsol sour gas facility), Rural Industrial, Urban Reserve, one Estate Residential subdivision, and nine County Residential parcels. Future land uses anticipate the re-routed Highway 16 west interchange, and the development of Business Commercial/Light Industrial uses adjacent to the north and south sides of Highway 16.

Five Area Structure Plans exist entirely within the County IDP area. On the eastern extents of the Plan area is the River Ridge residential ASP and Edson East ASP. In the north portion of the IDP area is the Edson North Estates ASP, and in the south are the Guenette and Tollerton Hills residential ASPs.

The **Edson East ASP** encompasses 352 hectares between the Town and the McLeod River which includes Rural Industrial, as well as residential uses along the north boundary of the Plan area. This ASP includes the existing Mizera Industrial Subdivision and multiple existing residences. Access to the Plan areas is via Range Road 170 from Highway 16.

The **River Ridge ASP** is a 50 lot subdivision covering 91 hectares located and contained within an oxbow of the McLeod River. The ASP is accessed by a service road of Highway 16 about ½ mile west of the Plan area. Residential uses only are planned for the area. The future bypass will cut off existing access.

The **Edson North Estates ASP** encompasses 13.22 hectares and includes 10 Country Residential parcels with a minimum size of 1.0 hectare and is accessed via Range Road 171.

In the south portion of the Plan area two other small residential ASPs exist. First, the 65 hectare **Tollerton Hills ASP** is located ½ mile east of Ansel Tower Road and includes 18 Country residential parcels. Secondly, the **Guenette ASP** (has since been rescinded) is located on the west side of Wilmore Park Road and includes 6 Country Residential Parcels.

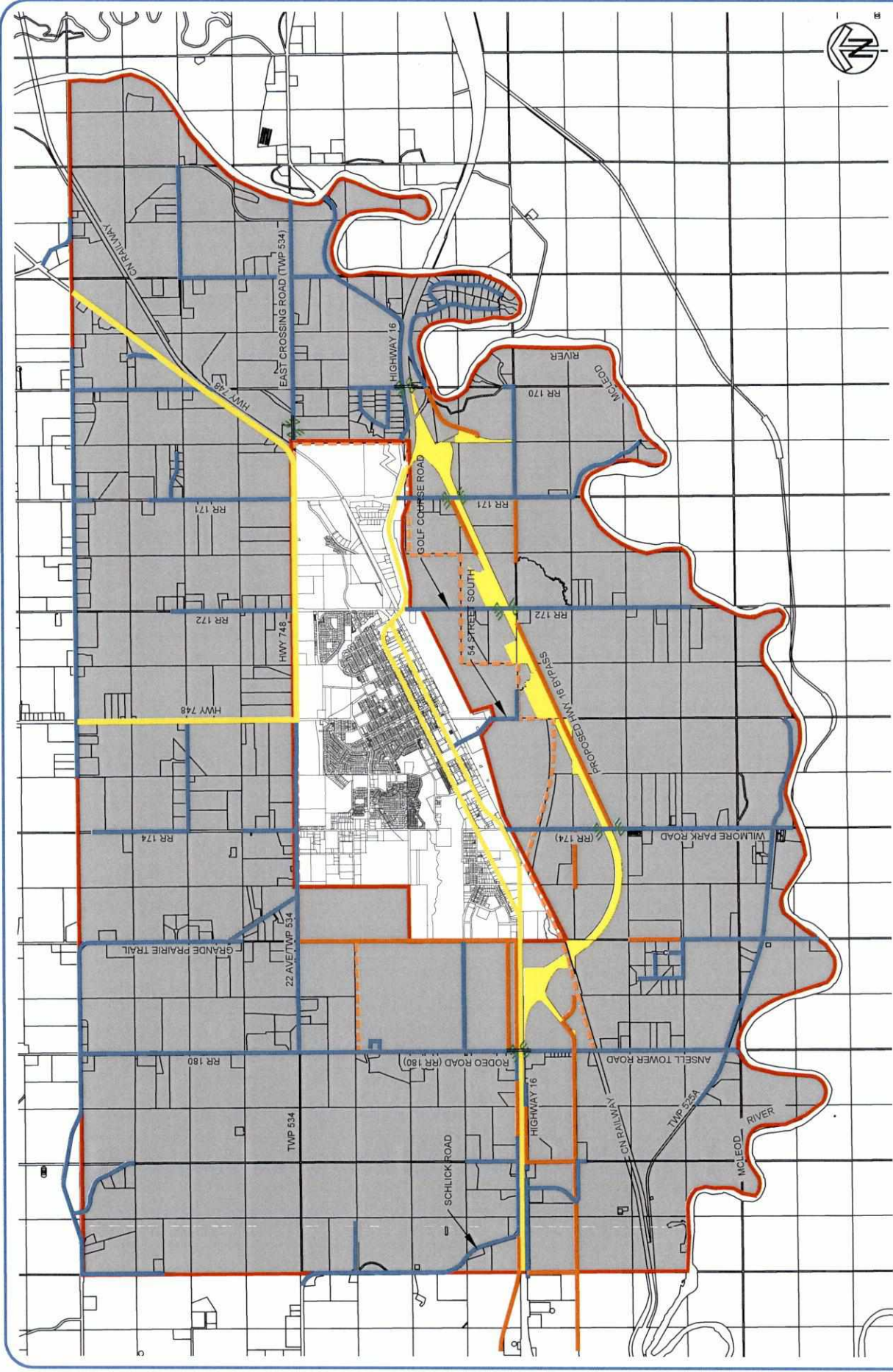
2.4.2 Implications for Future Development

- The future land use pattern proposed within the Town by the Municipal Development Plan is an extension of the current land use pattern.
- The Town contains sufficient land to accommodate residential growth for the long term.
- Other than the seven Area Structure Plan that have been approved for industrial and country residential development, future land use in the Plan area will be determined by this Intermunicipal Development Plan. However, the existing Area Structure Plans and the direction provided by the Municipal Development Plan for each policy area should be considered in proposing future land uses for the Fringe Area.
- Policies regarding rail spurs from the CN line may be included in the IDP to guide requests for new rail spurs.

2.5 Existing and Future Road System

2.5.1 Description

Map 8 shows the existing and future road systems for the Plan area. The proposed Highway 16 bypass right-of-way and future interchange connections to the existing highway are also shown as per the Functional Planning Study prepared by Stantec for Alberta Infrastructure and Transportation. The most significant characteristic of the proposed bypass in terms of impact on adjoining lands is that only two interchanges are being contemplated, one on either side of Edson. All access to the bypass and to Highway 16 east and west of the Edson will be restricted to these two interchange locations.



Project
Town of Edson/Yellowhead County IDP
 Background Research Report
 Title
Map 8 - Existing and Future Road System

Scale 1:100,000
 August 2017



- Legend**
- IDP Boundary
 - IDP Area
 - Edson Town Boundary
 - Highway Right of Way
 - Existing Road
 - Future Road
 - Road Closed

The Stantec Study proposes an access management plan that contemplates improvements to the existing local road system including fronting and backing service roads that will connect to the two interchanges. This means that access to the bypass from much of the surrounding area south of the CN line and the bypass to the two interchanges will be circuitous. This also means that existing local roads will be severed so that the convenience of access from the lands south of the bypass into Town will be significantly reduced. The CN mainline accommodates over 30 trains daily so that access for the lands between the CN line and the bypass will be even more restricted once access to the south is severed by the bypass.

Although the Functional Planning Study contemplated an additional connection to the bypass between the two interchanges to provide better access for the lands to south and to the north between the CN line and the bypass alignment, this third connection has been discarded. Interestingly, additional right-of-way lands to allow for construction of a third interchange exist as part of a previous bypass alignment.

A truck route is proposed to be constructed one mile east of Rodeo Road in Edson to link Highway 16 to Highway 748. Access from Rodeo Road to the west interchange will be via a service road connected to the truck route. Access from the industrial lands east of Edson will also be directed via a service road to the east interchange.

Map 8 also illustrates that some sections of the local road system required for a comprehensive grid system are missing, in part because of topography and extensive muskeg concentrations. Road connections may be completed as additional subdivision occurs, particularly in the north quadrant where extensive muskeg is not evident.

Although physically developable, only one east/west road connection exists across the CN line to Highway 748 into the northeast segment of the Plan Area. This access is intended to be closed as per the Edson East ASP. The queuing distance on this road between the highway and the rail line is minimal creating safety issues. Additional east/west connections to Highway 748 are restricted by the need to cross the CN mainline. However, improved road access to the south is feasible with the construction of a complete grid system. In the interim, density in this area will be restricted.

2.5.2 Implications for Future Development

The opportunities and constraints to future boundaries are illustrated on Map 11.

- Because access to the Highway 16 bypass will be restricted to the two interchange locations, lands in the vicinity of these locations provide development opportunities for commercial and industrial uses that require high quality access to the highway system.
- Access for much of the land north of Edson will not be impacted by the bypass. However, traffic using Rodeo Road will access the west interchange via a service road. Similarly, development along Highway 16 east of Edson will be required to use service roads to access the east interchange.
- Development opportunities in the northeast will be restricted because of lack of sufficient road crossings on the CN line until such time as connections to the south are constructed.
- For the landowners located in the south central portion of the Plan Area that are removed from the interchange locations, and are required to use these interchanges to gain entry into the Town, the quality of access into Edson will be reduced considerably.
- Lands located within the Town between the bypass and CN will continue to have access to Highway 16 using the existing Highway 16 couplet system but access will be restricted to the south. However, businesses located in this area may benefit from the highway visibility that provides a free form of advertising.

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- The same benefit will accrue to future businesses that may locate south of the bypass although, as is noted above, access will be restricted to the two interchanges. The deep muskeg that extends along much of the south side of the bypass alignment will continue to impact the development potential of this area.
- The interchanges constructed as part of the Highway 16 realignment will provide for uninterrupted access across the very busy CN mainline.

2.6 Municipal Services

2.6.1 Description

1. Water

The Town is supplied with water from several groundwater wells, individually disinfected, and connected to the distribution system at various locations. Water is pumped directly to some users, or through the distribution system into an elevated reservoir which provides gravity pressure. The largest supply is from Well 18 located west of Town near the McLeod River (see Map 9 – Municipal Services).

Present water extraction sustainability is a concern for groundwater aquifers. Ongoing aquifer study and management may extend the groundwater supply for several more years. The licensed extraction rate may be increased by Alberta Environment, but this is a short term solution for supply.

Water can be extended within the Town to the west, north, northeast and east into the County to provide fire flow to Mizera Industrial Subdivision and potential annexation areas located directly east of Edson in Yellowhead County.

The northeast segment of Town, east of Edson Drive, is the designated urban residential expansion area in part because of opportunities to extend water into this area.

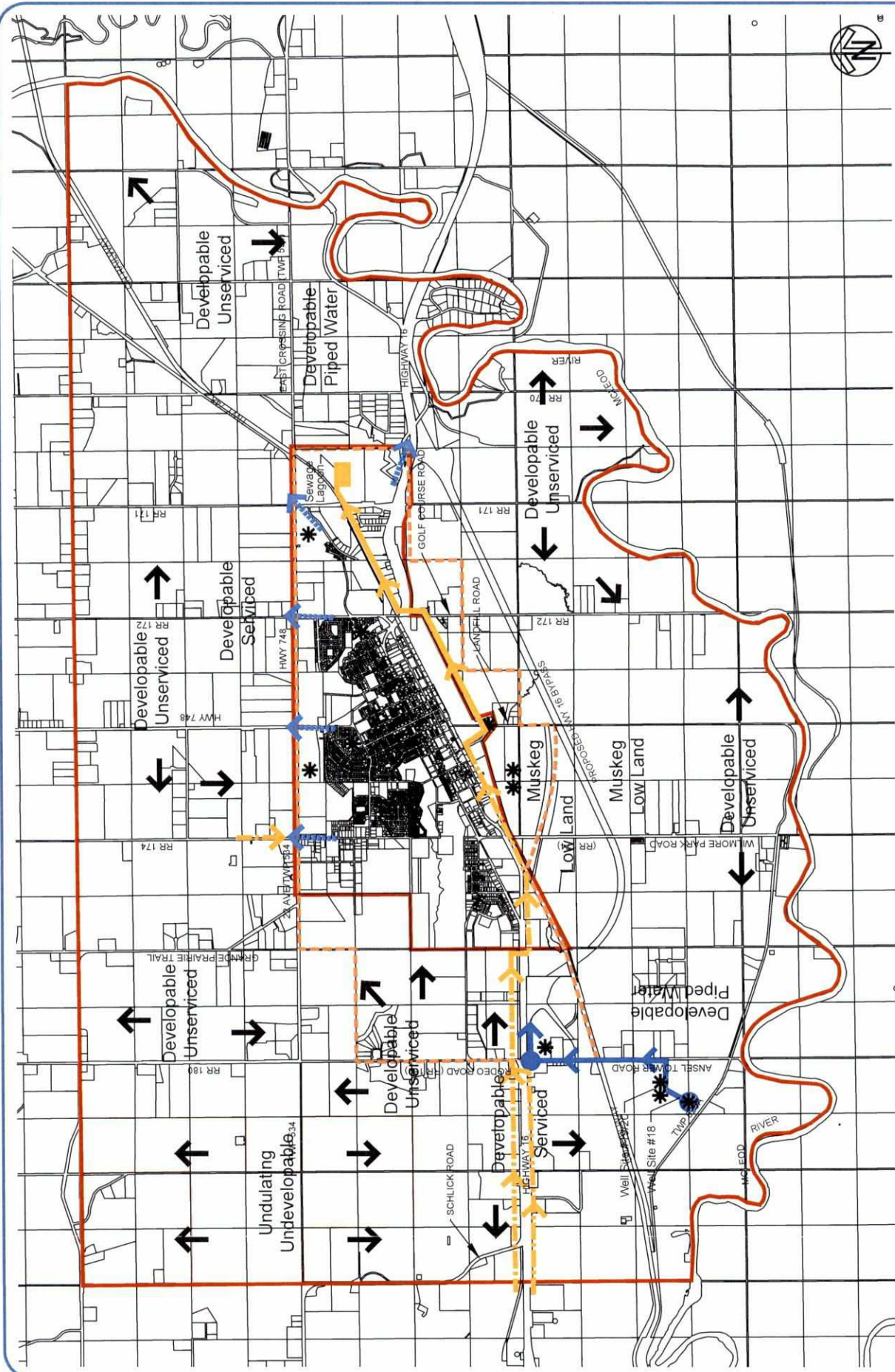
The northwest segment of Edson cannot be easily serviced with water in the foreseeable future. This area is proposed to be developed for large residential lots with cisterns. The lands located south of CN are considered suitable for piped water systems but are difficult to develop due to muskeg conditions and low lying land so may not be economical to service.

The most recent Municipal Servicing Plan (2011) relies solely on well water to accommodate the Town's current and future water needs. Limits to the amount of water that can be sustainably taken from the underground aquifers will need to be continually monitored but are anticipated to provide all of the Town's water needs through the 2025 plan timeframe with many upgrades. It is not clear from the Servicing Plan which upgrades have been completed to date, if any.

A new water supply proposed in the 2007 IDP to meet the Town's long term growth needs was the McLeod River, with the intake to be located near Well 18, southwest of Town in the County. A water treatment plant would be located near the intake and treated water will be pumped into the distribution system from the west, then into a reservoir through the distribution system. This alternative water supply does not appear to be contemplated in the near term (to 2025). Part of the future supply line was constructed when Well 18 was added to the system in 1990 in anticipation of surface water supply.

A regional water committee has been established to address aquifer management and to consider potential opportunities for a regional water system. The committee comprises representatives from Edson, Yellowhead County, Alberta Environment and Repsol. An aquifer management process has developed by the committee based on input from a study prepared by Komex International Ltd in 2000.

The regional water system is most feasible in a corridor in the southwest segment of the Plan area based on the location of the potential water intake on the McLeod River (see Map 9) and the alignment of the



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Town of Edson/Yellowhead County IDP
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Title
Map 9 - Municipal Services

Scale 1:100,000
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Legend

- IDP Boundary
- - - Edson Town Boundary
- Existing Water Distribution Line
- - - Possible Future Water Extension
- Existing Gravity Trunk Main
- - - Possible Future Gravity Trunk Connection
- * Well Site

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— AT-Terra

regional line along Ansel Road that will service the Town. The existing water network within the Town will potentially allow for extension of piped water to the west, north and east, with system upgrades required as noted in the 2011 Servicing Plan.

In the County, individual water wells are used for water supply augmented by cisterns where water quality is an issue. Piped water may be extended into the County and future Town annexation areas. However, careful consideration must be given to the sustainability of the aquifers and the anticipated growth that is to be accommodated.

2. Sanitary Sewage

On-site private sewage disposal systems are used in the County. These systems must comply with the Private Sewage Disposal Standard of Practice Regulation. The County will consider allowing sewage to be hauled to the Town's lagoon but only if it can be demonstrated that an on-site system is not feasible.

The Town's sewage lagoon is located in the northeast corner of Edson. This population capacity of the lagoon is 9,500. The lagoon may potentially be expanded to accommodate whatever flows are generated by future growth. Sanitary sewage flows by gravity from the existing built-up portions of the Town to the lagoon. The northeast expansion area will also be serviced with gravity. However, areas 15/16/17 east of the lagoon need a lift station.

Edson has recently constructed wastewater treatment upgrades to satisfy Alberta Environment requirements. A new gravity trunk has been constructed south of, and parallel to, the highway in the eastern part of Edson. Some existing sewer mains are at or near capacity.

Based on topography, lands west and north of Edson can be serviced by gravity. Lands to the south and southeast of the Town are not serviceable by gravity and will require lift stations.

The south trunk can be extended west along the Highway 16 to allow for new highway commercial development and potentially into the County to service new industrial and commercial uses. Sanitary trunks may also be extended southwest into the area between the highway and CN in the vicinity of the potential regional water line.

2.6.2 Implications for Future Development

- Limitations of available well water restrict the development potential of the Town and the Town's piped water system.
- Well water is currently sufficient to accommodate the Town's needs but will need to be monitored and may not be sustainable to support growth and expansion of the town beyond the near term (after 2025).
- Future construction of a new water intake and treatment plant may be required in the southwest corner of the Plan area will provide Edson with a secure water source for the long term. The construction of the new system also will result in a corridor extending through County lands that may be serviced with piped water. This system is not currently contemplated in the current Municipal Servicing Plan.
- Sanitary sewer may be extended into the west area that can drain by gravity to the Town's lagoon so that the southwest lands and lands along Highway 16 west of the built up area of Edson may potentially be fully serviced.

2.7 Pipelines

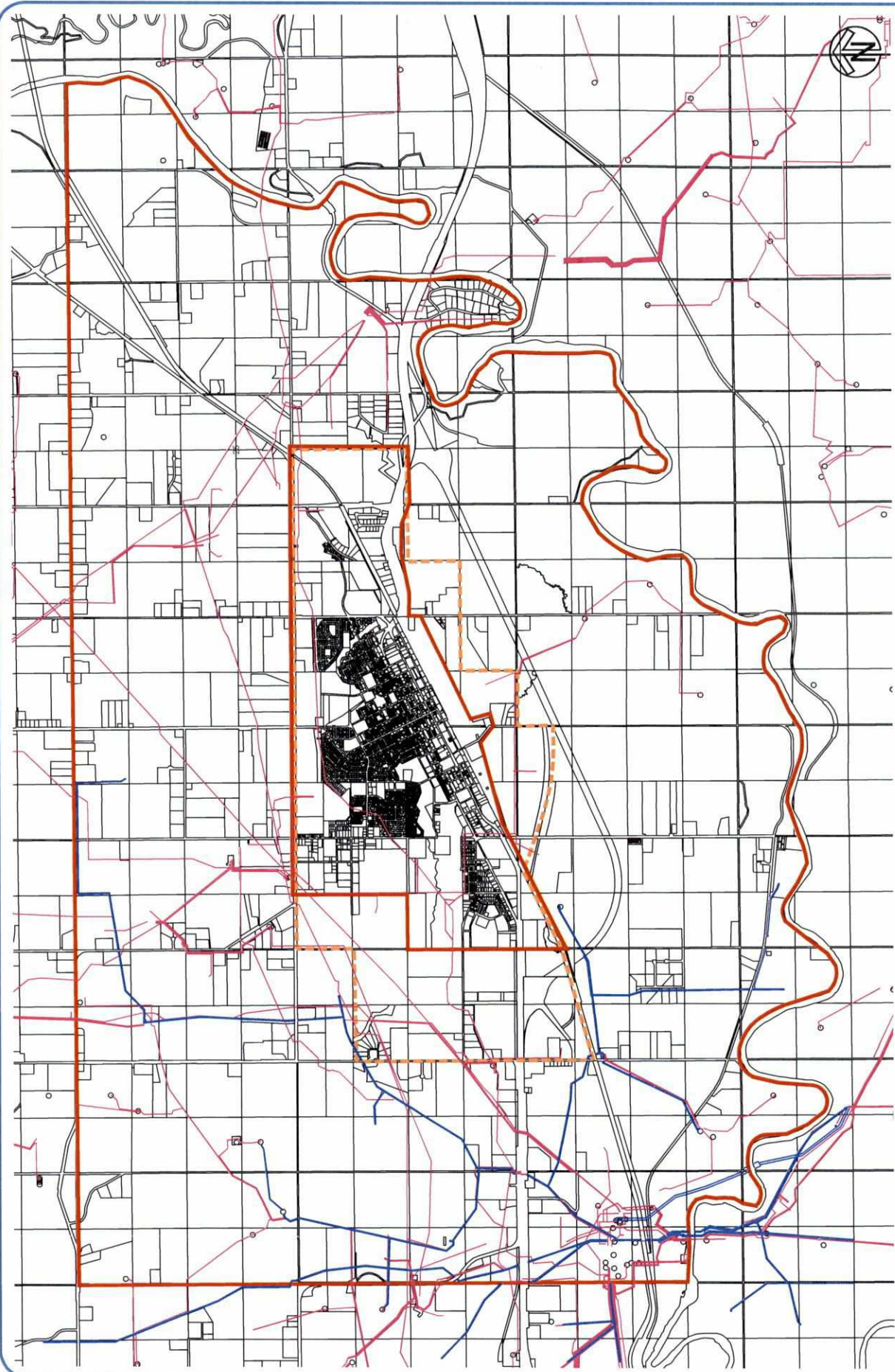
Pipeline rights-of-way are shown on Map 10. Those lines that carry sour gas and require a development setback will have development setbacks determined by this Plan.

2.8 Opportunities and Constraints

The opportunities and constraints to future development in Edson Urban Fringe Plan Area are illustrated by Map 11, and are summarized as follows.

2.8.1 South of Highway 16

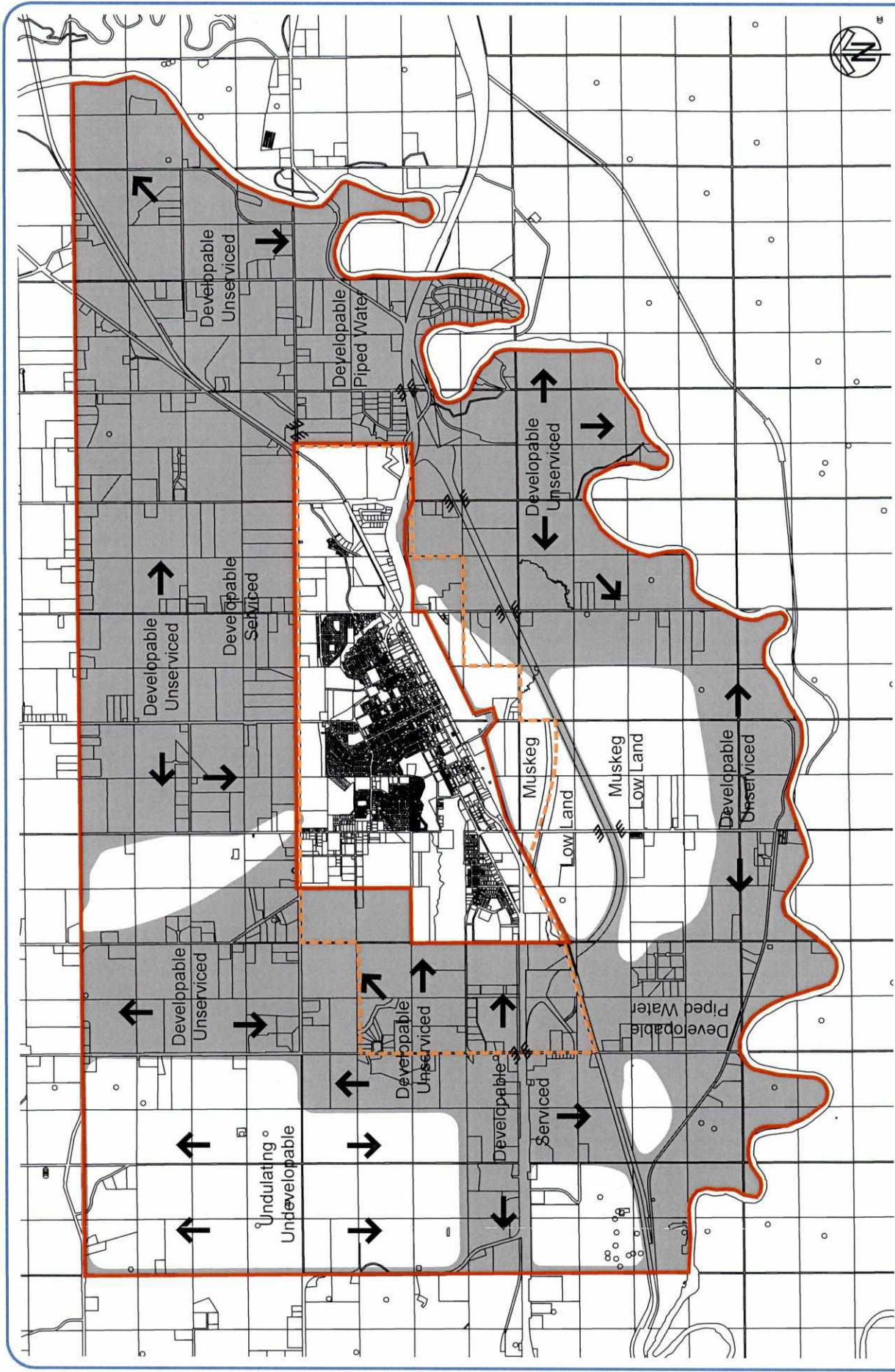
- Because access to the Highway 16 bypass will be restricted to the two interchange locations, lands in the vicinity of these locations provide development opportunities for commercial and industrial uses that require high quality access to the highway system.
- Much of the flat area in the southeast segment of the Fringe is capable of supporting intense forms of development although the lands east of the golf course adjacent the highway and Bench Creek are poorly drained and contain muskeg that is less than one metre in depth. The bypass and the easterly interchange will occupy much of this poorly drained area but the developable lands further south will be provided with high quality access. However, the area cannot be drained by a gravity sanitary sewer truck and, therefore, the area has not been contemplated in the Town's future servicing plan. Water may eventually be extended in future depending on regional agreements but again, extension of the Town's water distribution system to the southeast has not been considered.
- A large concentration of muskeg exists in the south central portion of the Plan and much of this muskeg is located on Crown land. Development opportunities on these lands are limited. Access also will be limited to the two interchanges to gain entry into the Town since existing roads will be severed by the bypass. However, if the muskeg can be removed to allow for some low intensity business uses, these businesses will benefit from the highway visibility.
- Similarly, some low intensity development is feasible on lands in the Town south of CN where the muskeg is not too deep. Much of this land is already cleared. This area will continue to have access to Highway 16 using the existing Highway 16 couplet system but access will be restricted to the south. However, businesses may benefit from the high visibility afforded by the bypass. This somewhat isolated area cannot be serviced with piped municipal systems.
- Further west, the high and sloping treed land that straddles Ansell Tower Road provides development opportunities for country residential uses in particular because of the amenity value of this area that is distant from the proposed bypass. Similarly, the developable lands south of the highway near the McLeod River provide opportunities for country residential and related development. Residential development should be limited to the east side of Ansell Tower Road because of potential conflicts with the Repsol sour gas facility, and south of the interchange location because of potential noise issues.
- Developable land exists along the side south of Highway 16 west of exiting development in Edson. The lands located along the highway are best suited to Business Commercial/Light Industrial development based on the proximity to Repsol.
- The possible future construction of a new water intake and treatment plant in the southwest corner of the Fringe Area will result in a corridor extending through County lands that may be serviced with piped water and allow for long term growth to be adequately serviced.



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Town of Edson/Yellowhead County IDP
 Background Research Report
 Title
Map 10 - Pipelines
 Scale 1:100,000
 August 2017



- Legend**
- IDP Boundary
 - Edson Town Boundary
 - Existing Pipeline
 - Existing Sour Gas Pipeline
 - Well Site



Map 11 - Opportunities and Constraints

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- Sanitary sewer may also be extended into the west area and can drain by gravity to the Town's lagoon so that the southwest lands and lands along Highway 16 west of the built up area of Edson may potentially be fully serviced.

2.8.2 North of Highway 16

- All of the lands located between the McLeod River and Bench Creek are potentially physically developable as well as much of the land west of Highway 748 although slivers of muskeg are evident. Based on the existing land use pattern, most developable lands located north of Highway 16 are best suited for continued country residential infill and intensification development along with home occupations and home industries.
- Opportunities for future industrial development extending east and north of Mizera Industrial Subdivision along Highway 16 may be feasible.
- East/west access to the northeast quadrant between the McLeod River and Highway 748 is currently limited to one road as a result of the CN line.
- The existing County industrial lands east of Edson may be serviced with Town water.
- The hilly area comprising the northwest segment of the Fringe is not suitable for development although the lands further south towards the highway and south of Bench Creek display development potential. In particular, much the lands located along Highway 16 and on either side of Rodeo Road appear developable. The north boundary of the industrial area will be dependent on future demand but a buffer strip should be retained between traditional country residential subdivisions and future industrial.
- The impact on the height of future low density residential development as a result of the runway of the Edson Airport should also be considered but is not a significant constraint to such low density residential development.
- Other than along the north side of Highway 16, the northwest segment cannot be economically serviced with piped municipal services.
- Access for lands directly north of Edson will not be significantly impacted by the bypass.

3 GROWTH NEEDS

3.1 Introduction

The growth needs of the Town and the IDP area are based on projected land demand by four broad land use categories. The land use categories considered are:

1. Residential – focused on family accommodation while recognizing that a choice of housing options will be required over time to maintain social sustainability;
2. Commercial – assumes most new commercial growth will focus on power centers and arterial commercial uses requiring large blocks of land in a variety of locations within the Town;
3. Industrial – assumes land is required for a wide variety of industrial uses as per the area’s current diversity of industrial uses as well as sufficient land to offer a range of opportunities to remain competitive and to achieve more balanced growth and fiscal sustainability; and
4. Community Services – focuses on providing sufficient lands to continue to provide for parks and open space, sporting facilities, post-secondary educational institutions, places of worship, health services and other community services such as libraries and cultural or recreation centers.

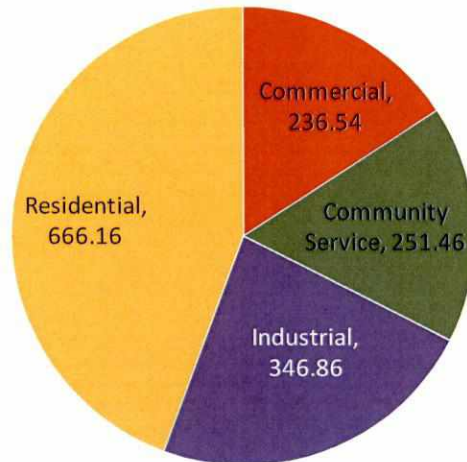
3.2 Town of Edson

Table 3-1 below, shows the aggregation of Edson land use zones comprising each of the four basic land use categories and the aggregate number of hectares for each. The table also shows the ratio of commercial, industrial and community service lands relative to residential land. By applying this ratio, each hectare of residential land should be accompanied by 0.36 hectares of commercial land, 0.52 hectares of industrial land and 0.38 ha for community services.

Table 3-1 - Zoning Summary

Land Use Category	Zone	Hectares	Relative to Residential
Residential	R-RU, R-RL, R-GR, R-4, R-2, R-3, R-MHP, R-MHS, R-1A, R-1B, R-1C and DC	666.16	
Commercial	C-1, C-2, C-3, C-4 and GSI-C	236.54	0.36
Industrial	M-1A, M-1B, M-2 and AD	346.86	0.52
Community Services	CS, and PR	251.46	0.38
Other	UR and R-ER	1,239.56	
Total		2,740.58	

Figure 1 - Existing Land Use Categories (ha)



3.2.1 Population Forecast

Population has been projected by extending the 30 year growth trend. High population projections use an enhanced trend line. The high projection was selected to generate residential land demand. Commercial, industrial and community service land demand is based on the existing ratio of commercial, industrial and community service land to the projected residential land demand; projecting the current land use ratio for the 30 year time period.

The actual thirty year trend line provides a base case for population estimates. The trend is projected at 0.6% annually for thirty years to 2046. The high scenario assumes an enhanced trend line of 1.2% annual growth over thirty years.

Although the Treasury Board and Finance Department of the Alberta government projects annual growth for Census Division 14 (Hinton, Edson and Yellowhead County) at between 0.01% and 0.49% annually, a higher projection has been assumed to reflect the possibility of greater than expected population growth within a range that can reasonably occur. Effective long term planning requires consideration of the worst case scenario, in this case the high scenario, be considered for determining land demand. As such, only the high scenario will be considered.

It is important to note that the base 2016 population of 8,646 is the official Town population provided by Municipal Affairs. Municipal Affairs official populations are used to determine provincial government grants. The 2016 Federal census population was 8,414, a difference of 232 persons. The higher Municipal Affairs population is assumed for the IDP update again to determine a higher land demand as required by good planning principles. This approach of estimating demand on the high side is not only good planning but has also been successfully applied before the Municipal Government Board.

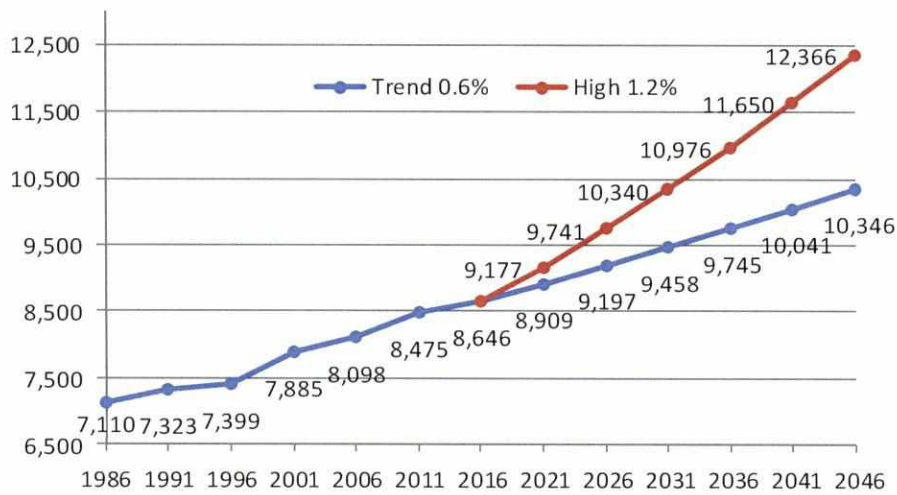
The resultant high population projection is summarized below in Table 3-2. A population increase of 3,720 is forecast by 2046.

Table 3-2 – Town of Edson Population Forecast (High Scenario)*

Year	Population
2016	8646
2021	9278
2026	9741
2031	10,340
2036	10,976
2041	11,650
2046	12,366

Figure 2 illustrates the divergence from the trend the high scenario represents.

Figure 2 – Town of Edson Population Forecast 1986-2046



3.2.2 Previous Annexation

Population projections submitted in support of a 1983 annexation bid proposed that Edson’s 2006 population could be as high as 22,000. As such, on January 1, 1984, Local Authorities Board Order 16195 took effect granting the Town of Edson sufficient land to accommodate the projected number of residents, plus allowances for commercial and industrial growth. The total area annexed in 1984 was 2,999.93 hectares.

3.2.3 Land Available in Edson

The amount of land currently available within the Town of Edson to accommodate new residential, commercial and industrial growth is shown on the Table 3-3. No land has been specifically designated for accommodating community service facilities. The information in the table is adapted from the Edson Future Land Supply Capacity, 2015 table in the Edson 2016 MDP. Edson MDP Map 5 was used in conjunction with the land supply table to produce Table 3-3 below. All of the lands designated residential are included in Table 3-3. The 207.3 hectares of land designated commercial/light industrial are assumed to be split 25% (49.45 ha) commercial and 75% (148.35) industrial.

Table 3-3 Land Available for Development in Edson by Use

Residential	299.13
Commercial	58.95
Industrial	203.45
Community Services	No Land Designated
Total	561.53

3.2.4 Land Demand

Residential land demand for the high scenario population projection is shown on Table 3-4. For each year the table divides the annual increase in population by the average persons per household to derive number of dwelling units required. Based on past and anticipated trends, household size is assumed to decrease to 2.2 persons by 2046. This same methodology was applied to growth studies for the Cities of Grande Prairie and Red Deer.

The average density as per the MDP is 16.0 units per gross hectare (40 persons per gross hectare/2.5 person per dwelling). This density is assumed for projecting residential land demand. Although the application of smart growth principles may result in density efficiencies, by applying a density of 16 units per gross hectare throughout the forecast period, the maximum amount of land required is determined and greater emphasis on providing residential amenity space can be achieved.

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Table 3-4 - Projected Population Growth and Residential Land Demand

Year	Population	Population<	Persons /Unit	Units	Unit Density	Land (ha)
2016	8,646		2.50	0	16.00	0.0
2017	8,750	104	2.49	42	16.00	2.6
2018	8,855	105	2.48	42	16.00	2.6
2019	8,961	106	2.47	43	16.00	2.7
2020	9,069	108	2.46	44	16.00	2.7
2021	9,177	109	2.45	44	16.00	2.8
2022	9,287	110	2.44	45	16.00	2.8
2023	9,399	111	2.43	46	16.00	2.9
2024	9,512	113	2.42	47	16.00	2.9
2025	9,626	114	2.41	47	16.00	3.0
2026	9,741	116	2.40	48	16.00	3.0
2027	9,858	117	2.39	49	16.00	3.1
2028	9,977	118	2.38	50	16.00	3.1
2029	10,096	120	2.37	51	16.00	3.2
2030	10,217	121	2.36	51	16.00	3.2
2031	10,340	123	2.35	52	16.00	3.3
2032	10,464	124	2.34	53	16.00	3.3
2033	10,590	126	2.33	54	16.00	3.4
2034	10,717	127	2.32	55	16.00	3.4
2035	10,845	129	2.31	56	16.00	3.5
2036	10,976	130	2.30	57	16.00	3.5
2037	11,107	132	2.29	58	16.00	3.6
2038	11,241	133	2.28	58	16.00	3.7
2039	11,375	135	2.27	59	16.00	3.7
2040	11,512	137	2.26	60	16.00	3.8
2041	11,650	138	2.25	61	16.00	3.8
2042	11,790	140	2.24	62	16.00	3.9
2043	11,931	141	2.23	63	16.00	4.0
2044	12,075	143	2.22	64	16.00	4.0
2045	12,219	145	2.21	66	16.00	4.1
2046	12,366	147	2.20	67	16.00	4.2
		3,720	< Population Increase		Required Residential Land (ha) >	99.7

The resultant land demand projects a requirement for an additional 99.7 hectares of residential land to accommodate the projected population increase of 3,720.

Demand for commercial, industrial and community service lands was projected in proportion to residential land as shown in Table 3-1. Table 3-5 below shows the projected land demand for each of the four land use categories and total land demand by year to 2046.

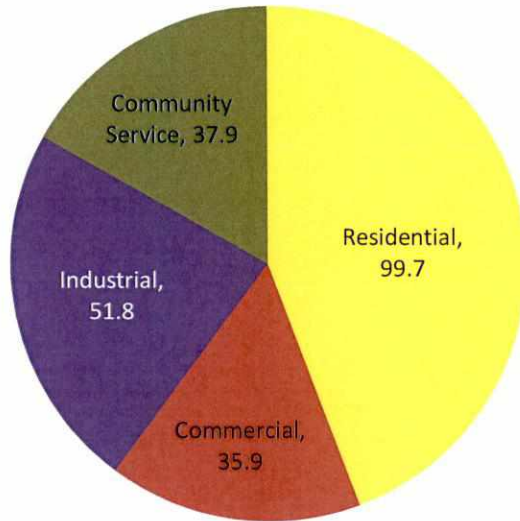
YELLOWHEAD COUNTY BYLAW NO. 03.17

Table 3-5 - Edson Land Demand

	Residential (A)	Commercial (A x 0.36)	Industrial (A x 0.52)	Community Service (A x 0.38)	Total Land Demand
2016	0.0	0.0	0.0	0.0	
2017	2.6	0.9	1.4	1.0	5.9
2018	2.6	1.0	1.4	1.0	6.0
2019	2.7	1.0	1.4	1.0	6.1
2020	2.7	1.0	1.4	1.0	6.2
2021	2.8	1.0	1.4	1.1	6.3
2022	2.8	1.0	1.5	1.1	6.4
2023	2.9	1.0	1.5	1.1	6.5
2024	2.9	1.0	1.5	1.1	6.6
2025	3.0	1.1	1.5	1.1	6.7
2026	3.0	1.1	1.6	1.1	6.8
2027	3.1	1.1	1.6	1.2	6.9
2028	3.1	1.1	1.6	1.2	7.0
2029	3.2	1.1	1.6	1.2	7.1
2030	3.2	1.2	1.7	1.2	7.3
2031	3.3	1.2	1.7	1.2	7.4
2032	3.3	1.2	1.7	1.3	7.5
2033	3.4	1.2	1.8	1.3	7.6
2034	3.4	1.2	1.8	1.3	7.7
2035	3.5	1.3	1.8	1.3	7.9
2036	3.5	1.3	1.8	1.3	8.0
2037	3.6	1.3	1.9	1.4	8.1
2038	3.7	1.3	1.9	1.4	8.3
2039	3.7	1.3	1.9	1.4	8.4
2040	3.8	1.4	2.0	1.4	8.5
2041	3.8	1.4	2.0	1.5	8.7
2042	3.9	1.4	2.0	1.5	8.8
2043	4.0	1.4	2.1	1.5	9.0
2044	4.0	1.5	2.1	1.5	9.1
2045	4.1	1.5	2.1	1.6	9.3
2046	4.2	1.5	2.2	1.6	9.4
Total	99.7	35.9	51.8	37.9	225.2

Figure 3 below illustrates the amount of land required to accommodate projected growth of Edson to 2046.

Figure 3 - Edson Growth Needs



The amount of land within the Town, shown on Table 3-6 exceeds the demand for residential commercial, industrial and community service land.

Table 3-6 - Available Land and Land Demand by Land Use

	Available	Required
Residential	299.13	99.7
Commercial	58.95	35.9
Industrial	203.45	51.8
Community Services	No Land Designated	37.9
Total	561.53	225.2

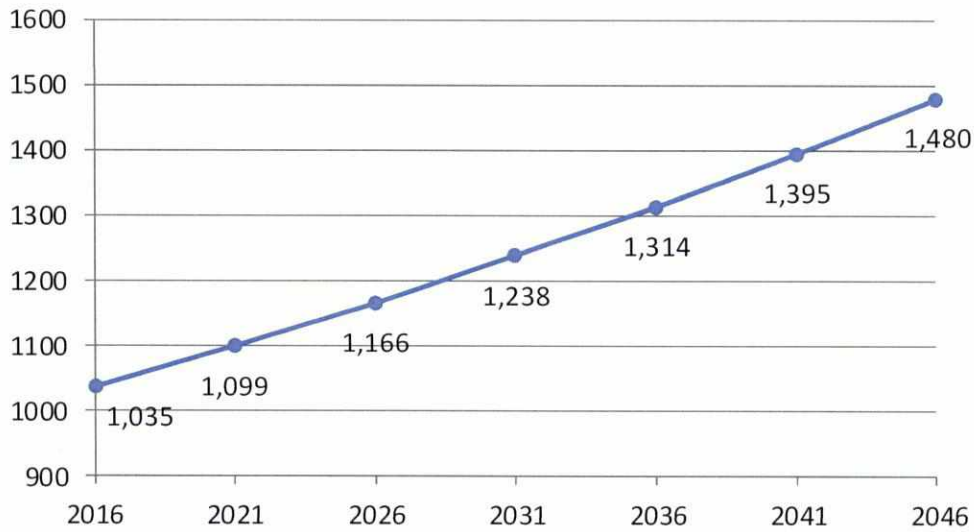
3.3 Yellowhead County Fringe Area

Residential land demand projections for the fringe area within Yellowhead County use many of the same parameters used to calculate residential land demand for the Town. The unit density has been changed to accommodate the rural fringe environment.

3.3.1 Population Projection

A count of dwelling units in the fringe area yielded 414 units. Applying the same 2.5 persons per dwelling unit used for the Town results in an estimated fringe area population of 1,035. Duplicating 30 years of population history for Yellowhead County’s share of the fringe area is not feasible. However using the same 1.2% annual growth rates is an appropriate surrogate. Figure 4 below illustrates the estimated 2046 population.

Figure 4 - County Fringe Area Population to 2046



3.3.2 Country Residential Land Demand

Some 45% or 186 of the 414 dwelling units in the Fringe area are located on country residential parcels. The average country residential parcel size of 2.8 hectares was derived from the list of fringe area landowners, the zoning and the parcel size. Assuming 45% of the projected population increase will continue to be housed on country residential parcels approximately 250 hectares of suitable land will be required. If all the population growth in the fringe area is to be housed on country residential parcels, about 550 hectares of land is required.

Table 3-7, below show the hectares of country residential of land required annually to 2046 to accommodate all the population growth in the fringe area.

Table 3-7 - Fringe Area CR Land Demand

Year	Population	Population<	Persons /Unit	Units	Ha/Unit	Land (ha)
2016	1,035		2.50	0	2.80	0.0
2017	1,047	12	2.49	5	2.80	14.0
2018	1,060	13	2.48	5	2.80	14.2
2019	1,073	13	2.47	5	2.80	14.4
2020	1,086	13	2.46	5	2.80	14.7
2021	1,099	13	2.45	5	2.80	14.9
2022	1,112	13	2.44	5	2.80	15.1
2023	1,125	13	2.43	5	2.80	15.4
2024	1,139	14	2.42	6	2.80	15.6
2025	1,152	14	2.41	6	2.80	15.9
2026	1,166	14	2.40	6	2.80	16.1
2027	1,180	14	2.26	6	2.80	17.3
2028	1,194	14	2.26	6	2.80	17.5
2029	1,209	14	2.25	6	2.80	17.8
2030	1,223	15	2.25	6	2.80	18.1
2031	1,238	15	2.24	7	2.80	18.3
2032	1,253	15	2.24	7	2.80	18.6
2033	1,268	15	2.23	7	2.80	18.9
2034	1,283	15	2.23	7	2.80	19.1
2035	1,298	15	2.22	7	2.80	19.4
2036	1,314	16	2.22	7	2.80	19.7
2037	1,330	16	2.21	7	2.80	20.0
2038	1,346	16	2.21	7	2.80	20.3
2039	1,362	16	2.20	7	2.80	20.6
2040	1,378	16	2.20	7	2.80	20.8
2041	1,395	17	2.19	8	2.80	21.1
2042	1,411	17	2.19	8	2.80	21.4
2043	1,428	17	2.18	8	2.80	21.8
2044	1,445	17	2.18	8	2.80	22.1
2045	1,463	17	2.17	8	2.80	22.4
2046	1,480	18	2.17	8	2.80	22.7
	Population Increase ->	445			Required CR Land (ha) ->	548.3

The amount of potential industrial land within the fringe area is enormous. Estimating the demand for an unconstrained resource is a futile exercise.

3.4 Implications for Future Development

- Edson and the Plan area will experience modest stable growth to 2046.
- The Town contains sufficient land to accommodate the long term growth of residential, business commercial/light industrial, and community service land needs.
- Projected population growth to 2046 for the Town and fringe area is 4,165. In the County's portion of the fringe area a projected 445 residents are assumed to occupy 548.3 ha. In the Town 3,720 residents are to be accommodated on 99.7 ha. The most land efficient method of accommodating future residents is in the Town at urban densities.



APPENDIX B
Discussions and Recommendations from
PRELIMINARY GEOTECHNICAL REPORT DESKTOP STUDY
EDSON/YELLOWHEAD COUNTY IDP

prepared by

Hoggan Engineering & Testing (1980) Ltd.

July 2017

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1 INTRODUCTION

1.1 General Site Suitability for Development

The discussion and comments in this report address the geotechnical suitability for development only.

In general, most of the site appeared suitable for development given the expected clay and clay till soil conditions. The high watertable noted in the testholes will need to be addressed in the future planning, design and construction.

The low areas may have high watertables, deep organics and soft wet soils which will pose significant construction difficulties. Many of these areas may prove undevelopable due to the soil and groundwater conditions. Almost any soil conditions are developable, however, the economics of the design and construction requirements can be limiting.

In particular, the areas where muskeg depths exceed 3 metres, such as the low lands south of Edson and the drainage paths and undulating lands north and west of Edson will require special attention and investigation to determine its development feasibility.

1.2 Site Preparation and Grading

The clay and clay till should be suitable material for road and lot grading. Some of the clay was high plastic and susceptible to swelling/shrinkage which should be addressed.

The undulating and hummocky topography may be challenging for subdivision design but is still geotechnically feasible.

Low areas would benefit from a raise to the design grade to increase separation between foundations and the high watertable. Cuts should be avoided in high watertable areas.

Muskeg is not suitable for site grading or structural support and will need to be removed prior to development. As stated above, the known volumes of muskeg may result in significant cost, making development unfeasible.

1.3 Residential Housing Units

The clay and clay till soils should have adequate bearing capacity and settlement characteristics for supporting standard footing foundations of single family houses. The low areas may be lower bearing capacity requiring larger footing sizes. Houses should not be founded on organic or non-engineered fill soils. The high plastic soils will require diligent construction and long-term maintenance to reduce the risk of swelling/shrinkage, however, the risk cannot be economically eliminated.

Standard house basement excavations should be feasible.

Basements in the high watertable areas may have significant groundwater seepage that may require upgraded house drainage measures such as interior weeping tile and waterproofing. The storm sewer system should be designed with foundation drain services to collect house weeping tile flows. Temporary dewatering may be required for basement excavations advanced below the watertable.

At a minimum, peripheral weeping tile lines will be required for all houses. All lines should be placed at or slightly below footing elevation and connected to ensure positive drainage to an approved system.

1.4 Underground Utilities

The clay and clay till soils should provide suitable conditions for open-trenched underground utility installation. These soils are typically not prone to trench troubles such as sloughing, base heave or piping. Very silty clays and silts were noted in some testholes, where there is some risk of sloughing, base heave or piping. Glacial soils are typically underlain by bedrock soils and therefore deep trunk sewers should have suitable soil conditions as well for open trenches. There is the possibility of pre glacial sands or gravel deposits which would be difficult for open trench methods.

Peat (muskeg) should be removed from all utility areas prior to construction. Peat is not considered suitable for use as trench backfill. These peat soils are not suitable for support of underground utilities, therefore complete removal is required.

The watertable was high in all standpipes therefore moderate amounts of ingressing water in the trenches can be expected. The clay soils should not require extensive dewatering in the form of well points due their low permeability. Sand and coal lenses in the clay till may produce significant water until drained. Any sand or silt layers below the watertable may require significant dewatering including potential well pointing.

Standard sand pipe bedding should work in most of the clay soils. However, at significant depths below the watertable, a washed rock and geotextile separator may be required.

It should be noted that the ultimate performance of the trench backfill is directly related to the consistency and uniformity of the backfill compaction, as well as the underground contractor's construction procedures. In order to achieve this uniformity, the lift thickness and compaction criteria should be strictly enforced.

1.5 Surface Utilities

The subsurface soil conditions encountered throughout this site are considered generally poor to fair for the construction of roads, curbs, and sidewalks in undisturbed areas. Standard pavement structures and subgrade preparation should be feasible in some areas. The clays have a low to moderate frost susceptibility and cuts should be avoided in high watertable areas. The need for insulation is not expected to prevent frost heave road issues.

The near surface inorganic clays encountered in the testholes were generally high plastic in nature, and are susceptible to swelling. Cement stabilization is a potential method for swelling control where high plastic clays are encountered.

The low areas and higher watertable areas where very moist materials are encountered at subgrade elevation, other alternative measures may have to be considered. These alternatives may include replacing the very moist materials with a drier clay material to obtain a more stable and stronger subgrade. Another option would be the use of a pit-run gravel subbase.

Peat (muskeg) should be completely removed from all surface utility areas prior to construction. The grade in these low areas should be raised wherever possible, to increase the separation between the utility subgrade and the watertable. Engineered fill will be required in surface utility areas where an increase in grade is planned.

Where storm sewers are present, an attempt can be made to lower the watertable. This may be accomplished by using sub-drains, usually consisting of perforated pipe and manhole inlets, to collect groundwater below the road area. Other options which may be utilized are hydraulically connecting the bedding materials to the manholes, or leaving the rings off of the storm sewers during construction,

allowing groundwater to seep into the sewer. When employing this method, it is important to wrap the joints in filter cloth to prevent silting. The exact configuration and need for the sub-drains should be determined by further investigation and will require observations and decisions during construction.

1.6 Private Sewage Treatment

The clay and clay till soils will likely not provide a high enough permeability for septic fields. Treatment mounds may be possible but may require imported silty soils to construct. The high watertable is also an issue for both septic fields and treatment mounds as the sewage regulations require a minimum separation from the watertable to the effluent pipes.

Given that septic fields and treatment mounds may not be feasible, the other options are small self-contained sewage treatment systems for each lot, or holding tanks and transportation to the local public sewage treatment system. The self-contained systems are a newer private sewage treatment option and should be further researched for their effectiveness and relative cost. Holding tanks have the drawback of increasing truck traffic on the public roads and increasing the volume of sewage at the public treatment facilities.

The area may benefit from planning development with sanitary sewers due to the clay soil conditions and high watertable areas.

1.7 Groundwater Issues

The Plan area has areas of high watertable which should be accounted for in the site planning design and construction.

1.8 Stormwater Management Facilities

The clay and clay till soils should yield sufficiently low permeability characteristics for water retention purposes, and no liners should be required. Standard stormwater management facility design should be applicable to this area.

Dry pond construction below the watertable may produce constant water seepage into the outlets, and a soft, saturated pond bottom. Therefore, a dry pond would require specialized design and construction measures near or below the above noted watertable levels and locations. It is better to avoid the situation all together.

Sand layers are typically found in glacial clay till soils and large sand layers or pockets encountered during pond construction may need to be excavated and/or plugged with clay.

1.9 Building Foundations

The clay and clay till soils should provide adequate conditions for either footing or pile foundations. Bored cast-in-place (CIP) pile foundations are typically the lower cost foundation alternative for buildings (not houses) and the soil conditions should be applicable for this foundation type. The high plastic clay soils are susceptible to shrinkage and swelling which should be addressed in footing foundation and slab-on-grade design and construction.

The low areas may have unsuitable soils for building footing foundations and deep foundations may be required. Any sand or silt soils encountered may slough into open boreholes for bored CIP pile construction. Casing may be required, or other deep foundation types such as continuous flight auger piles or driven piles may be more suitable.

1.10 Slope Stability

Planning and design of developments adjacent to slopes must account for the stability of the slope. Development along the top-of-bank near the McLeod River, Bench Creek and other potentially developable creek slopes will require further geotechnical investigation to confirm slope stability and the safe development setback prior to any development. Development setbacks should be determined on a site by site basis, based upon the soil strata encountered during future investigation. Based upon the site geology review, there is potential to encounter non-cohesive alluvial sand and gravels near the river. There is also potential to encounter weak coal layers within the bedrock of the Paskapoo Formation.