



Yellowhead County

Bylaw No. 22.09

BEING A BY-LAW TO ADOPT AN AREA STRUCTURE PLAN

WHEREAS, the Municipal Government Act, R.S.A., 2000, and amendments thereto, authorize a Council to adopt an area structure plan for the purpose of providing a framework for subsequent subdivision and development of an area of land;

AND WHEREAS, a public hearing was held in respect to the proposed area structure 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 "Bench Creek Area Structure Plan", dated May 22, 2009, Plan 002-1462, Block 2, Lot 1 in part NW 19-53-17-W5M, attached hereto as Schedule "A" is hereby adopted as an Area Structure Plan.
- 2) 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, R.S.A., 2000.

READ a first time this 28 Day of JULY A.D., 2009. 

PUBLIC HEARING held this 25 Day of AUGUST A.D., 2009.

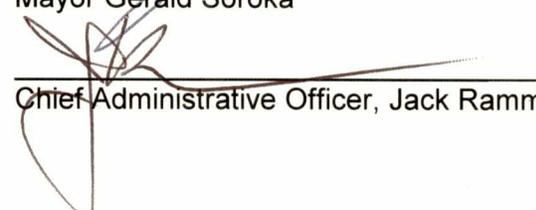
READ a second time this 25 Day of AUGUST A.D., 2009.

READ a third time this 25 Day of AUGUST A.D., 2009.

SIGNED this 25 Day of AUGUST A.D., 2009.



Mayor Gerald Soroka



Chief Administrative Officer, Jack Ramme

**BENCH CREEK
AREA
STRUCTURE PLAN**

BENCH CREEK AREA STRUCTURE PLAN

YELLOWHEAD COUNTY

&

the TOWN OF EDSON

PREPARED FOR

Robert Wilson

PREPARED BY

Robert Wescott, B.Sc. AICP

Wescott Consulting Group Ltd.

August, 2009

**BENCH CREEK AREA STRUCTURE PLAN
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Appendices

Appendix 'A'

*Groundwater Potential Assessment, Proposed Subdivision, NW & SW
Sec. 19, Twp. 53, Rge. 17, W5M Edson, Alberta by Clifton Associates
Ltd.

Appendix 'B'

Hydrometer and Sieve Analysis, Cursory Examination, NW & SW
Sec. 19, Twp. 53, Rge. 17, W5M Edson, Alberta by Clifton
Associates Ltd.

Appendix 'C'

Preliminary Shallow Groundwater Investigation, Portion of NW ½ Sec. 19,
Twp. 53, Rge 7, W5M Yellowhead County by Clifton Associates Ltd.

1.0 INTRODUCTION

The Bench Creek Area Structure Plan is defined as Lot 1, Block 2, Plan 002-1462 within the SW ¼ Section 19, Township 53, Range 17, West of the 5th Meridian and Pt. NW Section 19, Township 53, Range 17, West of the 5th Meridian containing 44.35 hectares (109.59 Acres) more or less as shown in *Figure 1 (Regional Context)*.

1.1 PLAN AREA JURISDICTION

The Plan Area (*as shown in Figure 1 Regional Context*) is located within the municipal jurisdiction of Yellowhead County, as well as, within the municipal jurisdiction of the Town of Edson. While the Bench Creek Area Structure Plan is within two municipal jurisdictions the guiding statutory planning documents share common interests and values. The results are reflected in a plan consisting of policy statements and conceptual representations that provide the framework to promote the following principals:

- Promote sustainable development;
- Conserve and protect significant environmental features;
- Promote the expansion of the tax base within Yellowhead County and the Town of Edson;
- Acknowledge and promote the development potential of the lands while recognizing the geographical importance within both the local and regional context;
- Create a visually appealing residential environment.

1.2 PURPOSE

This Area Structure Plan provides a framework for the orderly and economic approach to the subdivision and development of the lands described as Lot 1, Block 2, Plan 002-1462 within the SW ¼ Section 19, Township 53, Range 17, West of the 5th Meridian and the NW Section 19, Township 53, Range 17, West of the 5th Meridian

The Bench Creek Area Structure Plan is intended to identify key issues such as land use, servicing, aesthetic design, environmental and municipal reserve issues, and to provide viable options in the solution of those issues.

The Area Structure Plan is intended to establish a process of sequencing to ensure that development occurs in a logical, efficient and sequential manner.

1.3 PLAN COMPLIANCE

This Area Structure Plan hereinafter referred to as 'the Plan', has been prepared at the request of Yellowhead County and the Town of Edson pursuant to Section 3.1 and Section 3.2 of the Inter-municipal Development Plan, which requires that such plans be prepared for select study areas.

In addition to Sections of the Inter-municipal Development Plan referenced above, the Yellowhead County Development Plan policy 6.4.3 (g) stipulates that multi-lot Country Residential Development of twelve (12) parcels or more need prepare an Area Structure Plan in accordance with Section 633 of the Municipal Government Act.

1.4 KEY ELEMENTS OF THE PLAN

The two key elements in the Area Structure Plan are:

- A process that is structured to coordinate development intensification in concert with transportation capacities and servicing capabilities.
- Policy Statements supplemented with a Land Use Concept Plan to establish a logical and sequential pattern of development.

1.5 POLICY INTERPRETATION

The explanatory text accompanying a policy within the Plan is provided for information purposes only to enhance the understanding of the policy. If an inconsistency arises between this text and a policy, the policy will take precedence.

Where "shall" is used in a policy, the policy is considered mandatory. However, where actual quantities or numerical standards are contained within the policy, such quantities or standards may be varied, provided that the variance is necessary to address unique circumstances that would otherwise render compliance impractical or impossible, and the general intent of the policy is still achieved.

Where "should" is used in a policy, the intent is that the policy is to be complied with. However, the policy may be varied in a specific situation provided that the variance is necessary to address unique circumstances that will otherwise render compliance impractical or impossible, or to introduce an acceptable alternate means to otherwise achieve the general intent of the policy.

1.6 PLAN AMENDMENTS

In order to amend this Plan, including any changes to the text or maps within, an amendment to the Plan will be required to be approved by Bylaw. An amendment will require the holding of a statutory public hearing together with public notification carried out in accordance with procedures established by both the Council of Yellowhead County and the Town of Edson.

Where an amendment to the Plan is requested, the applicant will be required to submit supporting information necessary to evaluate and justify the amendment. Such changes will be made from time to time as determined necessary to ensure that the text and maps remain accurate.

1.7 MAP INTERPRETATION

Unless otherwise specified within the Plan, the boundaries or locations of any symbols or areas shown on a map are approximate only, not absolute, and shall be interpreted as such. They are not intended to define exact locations except where they coincide with clearly recognizable physical features or fixed boundaries, such as property lines or road and utility rights-of-way.

1.8 CONSISTENCY AND MONITORING OF THE PLAN

It is intended that consistency between the Plan and any other policy directives which have been approved by Council be maintained, including but not limited to, the Municipal Development Plans of the Town of Edson and Yellowhead County, as well as the Edson Urban Fringe Inter-municipal Development Plan.

In order to ensure the Plan remains current and relevant, it will be monitored over time. If any changes are deemed necessary as a result of future monitoring, the Plan will be modified through the amendment process.

2.0 PLAN AREA

2.1 REGIONAL CONTEXT

Edson is located mid-way between the City of Edmonton and the Town of Jasper on the Yellowhead Highway. The Town's 2005 population was 8,365, an increase of about 1,000 persons in the last decade. The value of development permits surged in 2004 to about 46 million dollars as compared to an average of about 10 million dollars per year in the previous five year period. This surge illustrates the tremendous increase in economic activity in the Edson 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 1930's followed by oil and gas exploration and extraction in the 1960's. As well, the forestry industry has contributed to the Town's growth. Although most resource activity occurs in Yellowhead County, Edson is the region's major service and population centre.

The fringe lands surrounding Edson are a mix of cleared agriculture 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. Talisman's sour gas facility is the largest industrial operation in the Edson Fringe and is located south west of the Town. (*Edson Urban Fringe Inter-municipal Development Plan, Lovatt Planning Consultants Inc.*)

3.0 EXISTING SITE FEATURES & CHARACTERISTICS

The Plan Area (as shown in Figure 6) consists of approximately 44.35 ha (109.59 acres) of land intended to accommodate a country residential development consisting of approximately 14 parcels, as well as, a 4 unit (Estate Residential) bare land condominium unit. The country residential parcels range in size from 1.0 ha (± 2.47 acres) to 7.415 ha (± 18 acres). The Estate Residential bare land condominium units range in size from 2 ha (± 5 acres) to 5.4 ha (± 13.6 acres) as shown in Figure 6 (*Land Use Concept Plan*).

3.1 SITE CHARACTERISTICS

The Plan Area as shown in Figure 8, (*Topographical Features*) has a gently rolling topography. The plan area varies approximately 15.5 metres in elevation difference with the high point located in the south west quadrant of the plan area to the lowest point which is within the Bench Creek drainage basis.

3.2. BENCH CREEK & DRAINAGE BASIS

The plan area is unique in that the Bench Creek meanders through the parcel affording a scenic and picturesque perspective to the rural environment. Bench Creek also serves as is a major drainage collection basin for an area which is commonly referred to in this Plan as the northwest quadrant of the urban fringe area.

Drainage within the plan area is either naturally flowing to the creek or is channeled through the road ditching system of the existing resource lease road.

3.3 PIPELINES & RIGHTS OF WAY

The Plan area is severed by several pipelines as shown in Figure 7 (*Pipelines & Rights of Way*). In addition, the pipelines and their respective rights of way are accessed via existing dedicated resource lease road. This lease road provides physical access to a battery site located east of the plan area.

3.4 ADJACENT LAND USES

Lands to the north and east of the Plan area are predominantly agricultural grazing lands with some minor country residential pursuits. Lands to the south of the Plan area are primarily country residential with some minor industrial

pursuits. It is also interesting to note that the Rodeo Grounds located approximately ¼ mile south of the Plan area. Figure 3 (*Existing Uses of Lands*), depicts the existing uses of land within close proximity of the plan area.

Within the 'Plan Area' the proposed development lands within the municipal jurisdiction of Yellowhead County are presently designated as "RD – Rural District" as shown in Figure 5 (*Existing Land Use Designation*), while proposed development lands within the municipal jurisdiction of the Town of Edson are presently designated "UR- Urban Reserve". Redesignation to the appropriate Land Use District to facilitate development will be required.

3.5 BUILDINGS

The are no buildings within the Plan area.

3.6 VEGETATION & SOILS

The Plan area is heavily vegetated with a mature stand of coniferous trees. Areas within the Plan area which have been disturbed have for the most part been restricted to the pipeline rights of way or the resource access road.

3.7 SURFICIAL GEOLOGY

The surficial geology consists of Pleistocene lacustrine deposits, composed of lake-deposited sediments containing clay, silt and sand. Outliers of glacial Edson Till are also present. The till is primarily continental in source with few stones (quartzite, granite, and metamorphic rock) with a silty-clay matrix with low carbonate content (Roed, 1970).

The west part of the Site contains glacial deposits, while the east part of the Site contains lacustrine deposits. Bedrock beneath the evaluation area consists of the Tertiary Paskapoo Formation. The Paskapoo Formation is described as containing non-marine, thick-bedded calcareous cherty sandstones; siltstone and mudstone; minor conglomerates, limestone, coal and tuft beds (Vogwill & Beerwald, 1981).

3.8 EXISTING TRANSPORTATION NETWORK

Figure 2 (*Constraints & Opportunities*) illustrates the major features of the area's existing transportation network. The system impacting the plan area is comprised of Highway 16, and one county roadway (Range Road 18-0).

These features are described as follows:

Highway 16 is located approximately 2.4 km south of the plan area. This major provincial highway is a four lane, divided highway.

Access to Range Road 180, commonly referred to as Rodeo Road, from Highway 16 is from an 'at grade' intersection.

3.9 ACCESS AND LEASE ROAD

Physical access to the plan area is via a resource lease road which was constructed several years ago and serves as the primary access to pipelines and a battery site which is located east of the plan area.

The resource lease road intersects an existing grid road allowance, Range Road 180, approximately 500 meters south of the intersection of Range Road 180 with Twp Rd 534.

3.10 WATER AND SANITARY SEWER SERVICES

The Plan area is presently undeveloped and un-serviced. The Town of Edson and Yellowhead County, in adopting the 'Edson Urban Fringe Inter-municipal Development Plan', have indicated that servicing of the Plan Area with municipally owned water and sanitary sewer utility does not appear to be a viable option at this time.

In recognizing these constraints, as shown in Figure 4 (*Municipal Servicing Constraints*) the solutions are based on the principals referred to below.

3.11 MAJOR FRANCHISED UTILITIES

Fortis Alberta owns an overhead power transmission line, which is located to the west of the Plan area. The subdivision will require connection to this line for electrical servicing.

Yellowhead Gas Co-op is presently located within the road right of way of Range Road 180 and the subdivision will require connection to this line for natural gas service.

4.0 STRATEGY

4.1 PLAN PRINCIPALS

4.1.1 SUSTAINABLE DEVELOPMENT

The first principal is focused on sustainable development.

- All development shall be in an environmentally sustainable manner, which includes the protection of groundwater supply to ensure that this resource lasts well into the future.
- Development shall be restricted to non-polluting uses and practices.

4.1.2 SIGNIFICANT ENVIRONMENTAL FEATURES

The second principal is one of identifying and protecting environmental features of significance.

- Low lying areas, which at the present time serve as a seasonal surface runoff retention area, need be protected where possible.
- Existing mature stands of trees need be fostered and protected where possible.

4.1.3 INTEGRITY OF HIGHWAY INFRASTRUCTURE

The third principal is maintaining the integrity of the highway infrastructure:

- Ensuring that development is accommodated in a fashion that public safety is first and foremost.

4.1.4 EXPANSION OF THE TAX BASE

The fourth principal is taking the necessary steps to broaden the tax base of Yellowhead County and the Town of Edson in a manner that limits the demands of new development on the Town and the County's existing infrastructure.

- Proposing the uses of land that demand limited services from the Town of Edson and Yellowhead County.
- Encourage the location of land uses in which assessment are sustained at a high level (minimal depreciation).

4.1.5 GEOGRAPHICAL IMPORTANCE AND VISUAL APPEAL

The last principal relates to the highest and best use of lands:

- Ensuring that the nature of development is one that reflects positively on both the Town of Edson and Yellowhead County.
- Development espouses the values of a proud, prosperous, healthy, and vibrant community.
- Consistent site development guidelines be implemented to ensure that development within the Plan Area is visually appealing and environmentally sustainable.

4.2

PLAN PROCESS

The Plan preparation process began by gathering, reviewing and analyzing all relevant information pertaining to future development options within and around the Plan Area.

Secondly, studies relating to hydrology, soil permeability and near surface groundwater evaluations were completed in support of this Plan.

4.2.1 HYDROLOGICAL REPORT

A Hydrological Report was prepared by Clifton & Associates Ltd to determine if there was sufficient groundwater in the area to sustain the proposed development. The report entitled "Groundwater Potential Assessment, Proposed Subdivision, NW & SW Sec. 19, Twp. 53, Rge. 17, W5M, EDSON, Alberta" is attached hereto and referred to as Appendix 'A'

4.2.2 HYDROMETER & GRAIN SIEVE ANALYSIS

Hydrometer and grain sieve analysis was conducted on near surface materials randomly selected within the plan area. The testing was a cursory examination of the near surface soil structure within the plan area. The results entitled "Hydrometer & Grain Sieve Analysis" is hereto referred to in Appendix 'B'

4.2.3 NEAR SURFACE GROUNDWATER EVALUATION

Near Surface Groundwater Evaluations were conducted on the site to determine the proximity of the water table to surface ground elevations. The 'Near Surface Groundwater Evaluations were completed by Clifton and Associates Ltd, referenced as Appendix 'C' and attached hereto.

5.0 PLAN OBJECTIVES

5.1 PLAN OBJECTIVES

The Future Land Use Concept reflect the following key objectives of the Bench Creek Area Structure Plan Joint Municipal Plan Objectives

- Develop a land use pattern for lands in the County and Town that both parties support and agree is in the long term best interests of both parties.
- Include a strategy to address concern over the long term health of the aquifer for potable water source.
- Identify a specific implementation program that will move the plan forward from vision to reality.

Town of Edson Objectives for Lands within the Town

- Facilitate the development of lands within the Town of Edson which may be impractical to service with communal or municipal services.

Yellowhead County Objectives for Lands within the County

- Address specific areas for designated land uses (e.g. specify south east sector of the fringe for only country residential uses rather than a full range of uses);
- Recognize existence of numerous sour gas pipelines and facilities in region.

6.0 CONCEPT PLAN

The land use prescribed for the site is reflected in Figure 6 (*Future Land Use Concept Plan*). This concept plan outlines the land uses, transportation network, and utility infrastructure for the Plan Area.

6.1 PLAN POLICIES

The policies listed below are unique to the Bench Creek Area Structure Plan and are to be applied at the time of the new subdivision and development. All existing statutory plans and policies, particularly those policies referenced in the Yellowhead County and Town of Edson Municipal Development Plans as well as the Edson Urban Fringe Inter-municipal Development Plan shall be applied.

6.2 PHASED DEVELOPMENT

The Bench Creek Area Structure Plan envisions that the Plan Area will be a phased development the timing of which is influenced by several factors notwithstanding:

- The immediate needs of the landowner.
- Market conditions.
- A coordinated approach in the provision and construction of both the 'on-site' and 'external' infrastructure requirements such as road design, storm water management, drainage and shallow utility installation.
- Monitoring the success of a storm water management plan as it relates to the reduction in the water table as identified in Appendix 'C'.
- The establishment of an economic model that reflects the nature of the development and the limitations of front-loading financial obligations.

6.2.1 PHASE I

Phase I shall consist of Ten (10) Country Residential parcels and Four (4) Bare Land Condominium lots as shown in Figure 6 (*Future Land Use Concept Plan*).

6.2.2 FUTURE PHASING

Future Phasing is the re-subdivision of Lots 2 & 6, Block 2 created within Phase I as shown in Figure 6 (*Future Land Use Concept Plan*).

Future phasing is contingent on the effectiveness of the Storm Water Management Plan and drainage scheme (implemented in Phase I) to expand the separation between the ground water and the ground surface as identified in Appendix 'C'.

6.3 LAND USE

While it is acknowledged that much of the Plan Area is considered as lands having marginal agricultural capabilities, development pressures and general public input suggest that support exists for country residential use of the land.

The public recognizes that the proximity of the area to the Town of Edson and highway corridor, and the resultant increases in land values and marginal agricultural soil capacities have reduced the viability of conventional agricultural operations. As such the plan area has been identified as having characteristics favorable for future development as per Figure 2 (*Constraints & Opportunities*). Development of the Plan Area could provide the opportunity for adjacent properties east of the plan area to take advantage of upgraded infrastructure.

The Land Use Concept Plan proposed for the Bench Creek Area Structure Plan is shown on Figure 6 (*Land Use Concept Plan*).

Specifically, the Land Use Concept Plan responds to the following critical factors:

- Yellowhead County and the Town of Edson existing statutory plans, and in particular the Municipal Development Plans and the Inter-municipal Development Plan.
- Acknowledgment of the existing conditions, such as natural features, current uses of land, parcel boundaries, and subdivision and development opportunities, which result in both opportunities and constraints for future land use.
- The existing transportation network infrastructure including proposed improvements.
- Acknowledgement, that, for the foreseeable future, services will be provided on-site.

6.3.1 LAND USE POLICIES

Land Use Policy 6.3.1 is separated into two separate and distinct policy statements reflecting the multi-jurisdictional application of land use within the Plan Area.

Lands in the Yellowhead County and located within NW 19-53-17-4.

6.3.1.1 All future subdivision and development within the Plan Area shall comply with the Land Use Concept shown in Figure 6 (*Land Use Concept Plan*).

6.3.1.2 All future subdivision and development within the Plan Area shall be in accordance with the requirements stipulated in the CR – Country Residential District of the Yellowhead County Land Use Bylaw.

Notwithstanding the above, all future subdivision and development within the Plan Area shall have regard to the spirit and intent of the Bench Creek Area Structure Plan and in particular shall have regard to both the vision and following land uses which serve to promote that vision.

Permitted Uses:

- Accessory Buildings
- Accessory Structures
- Bed and Breakfast
- Family Care Facility
- Home Occupation (Minor)
- Public Utility
- Single Detached Dwelling
- Manufactured Home

Discretionary Uses:

- Day Care Facility
- Group Care Facility
- Guest Cottage
- Country Inn
- Home Occupation (Major)
- Institutional Use
- Kennel
- Proximate Care Unit
- Recreation (Extensive)
- Secondary Suite
- Signs
- Storage Building, Residential
- Those uses which in the opinion of the Development Authority are similar to the permitted or discretionary uses, and which conform to the general purposes and intent of this district.

Lands in the Town of Edson and located within SW 19-53-17-4.

6.3.1.3 All future subdivision and development within the Plan Area shall comply with the Land Use Concept shown in Figure 6 (*Land Use Concept Plan*).

6.3.1.4 All future subdivision and development within the Plan Area shall be in accordance with the requirements stipulated in the R-ER Estate

Residential (Un-serviced) of the Town of Edson Land Use Bylaw.

Notwithstanding the above, all future subdivision and development within the Plan Area shall have regard to the spirit and intent of the Bench Creek Area Structure Plan and in particular shall have regard to both the vision and following land uses which serve to promote that vision.

Permitted Uses:

- On a parcel no smaller than 2.0 hectares, in accordance with the general purpose and intent of the land use district outlined in Section 123.1(1) :
- One single family dwelling per parcel with the following minimum floor areas (not including basement level nor attached garage):
 - One storey 150.0 m²
 - Bi-level 150.0 m²
 - Split-level: - lower floor(s) 150.0 m²- total 225.0 m² 1
 - 1/2 Storey: - main floor 130.0 m² - total 200.0 m² Two
 - storey: - main floor 130.0 m² - total 225.0 m²
- Accessory Building
- Park and/or Playground

Discretionary Uses:

- Utility or utility building which is required to serve the immediate area.
- On a parcel (or in the case of a bare land condominium plan, an equivalent area of common property) no smaller than 10.0 hectares, and in accordance with the general purpose and intent of this land use district, as outlined in Section 123.1(1), the following may be allowed:
 - Horse-holding and related improvements
 - Home day care.
 - Home occupation.
 - Similar Uses as determined by the Development Authority.

6.4 TRANSPORTATION NETWORK

The proposed development is to be served by a single internal road system which will be constructed primarily within the existing lease road right of way. The existing lease road will be dedicated as municipal road right of way.

Where access to the proposed development is outside the existing lease road that land will be dedicated as municipal road right of way. It is important to note that the existing lease road through proposed Lot # 10, Block 2, will be maintained as a lease and access to the battery site located east of the plan area will be accessed via this lease.

6.4.1 TRANSPORTATION POLICIES

- 6.4.1.1 No direct access from the proposed lots to Range Road 180 will be permitted. All internal development within the Plan Area will access a newly constructed internal road system as shown in Figure 4.
- 6.4.1.2 All development shall front onto the internal road.
- 6.4.1.3 Roads within the jurisdiction of Yellowhead County shall be constructed to municipal standards as dictated by Yellowhead County.
- 6.4.1.4 Required future road widening to any existing roads including Range Road 180 shall be dedicated at the time of subdivision.
- 6.4.1.5 The Developer shall be responsible for the cost of all road improvements and upgrading at the point of intersection with Range Road 180.

6.5 ENVIRONMENTALLY SIGNIFICANT FEATURES

Policies are proposed to ensure that the existing environmentally significant features within the Plan Area are protected, while also providing opportunities for the development of new environmental features.

- Environmentally significant features within the Plan Area such as low-lying lands shall be dedicated as Environmental Reserve.

6.5.1 ENVIRONMENTALLY SIGNIFICANT FEATURES POLICIES

- 6.5.1.1 Prior to any activity undertaken within the Bench Creek basin approval for such works shall be obtained from both Alberta Environment and the Department of Fisheries and Oceans.
- 6.5.1.2 An environmental reserve protecting the natural and environmental sensitive elements of the Bench Creek basin will be dedicated at the time of subdivision.
- 6.5.1.3 Existing natural features, such as tree cover and drainage courses, shall be preserved, wherever possible, by integrating such features into the design of the new subdivision.
- 6.5.1.4 Native tree stands shall be retained, where possible, depending on grading and construction requirements.

6.6 MUNICIPAL RESERVE

- 6.6.1 Municipal Reserve will be dedicated in a manner which will enhance and compliment the dedication of environmental reserve by providing interpretative, educational and recreational opportunities made available through the Environmental Reserve dedication.
- 6.6.2 Cash in Lieu of Municipal Reserve and the disposition of the existing deferred reserve caveat will be provided as determined by the relevant planning authority in accordance with requirements stipulated within the Municipal Government Act. Each municipality will determine the cash in lieu requirements and disposition of Municipal Reserve lands within their jurisdiction at the time of subdivision.

6.7 SERVICING INFRASTRUCTURE

The "Groundwater Potential Assessment" (see Appendix 'A') prepared by Clifton Associates Ltd. indicates an apparent safe yield to sustain the development as proposed.

6.7.1 POTABLE WATER POLICIES

6.7.1.1 All subdivision and development shall be capable of being serviced on site with individual well systems. Each lot will be served by an individual water well system located on each individual lot.

6.7.1.2 An underground static water supply system on County land that meets with National Fire Protection (NFPA) guidelines. The location of the re supply system (as a Public Utility Lot) shall be determined during the subdivision design stage.

6.7.1.3 Each residential unit with the Town of Edson, (regardless of the method of water distribution) will have a water meter (provided by the Town) and installed in accordance with the requirements and specification of the Town. No residential unit will be permitted to consume more than 10,000 imperial gallons per year.

6.7.2 SANITARY SEWER SYSTEM

Individual 'on-site' systems of sewage treatment and disposal are proposed for all development within the Plan Area. Near Surface Groundwater Evaluations were undertaken by Clifton Associates Ltd. on June 5th, 2008 to determine the location of the water table within the plan area. Thirteen boreholes were drilled to a depth of 3.05 meters and pizometers were then placed in the boreholes and monitored as per the practice and procedures provided in guidelines in the "Environmental Guidelines for Subdivision Review" prepared by Alberta Environment. The placement of the borehole locations are provided in *Figure 9 - Borehole locations*. The results of which are provided in the 'Preliminary Shallow Groundwater Investigation' referenced in Appendix 'C'.

Section 2.6.1 of the 'Edson Urban Fringe Inter-municipal Development Plan' stipulates "On-site private sewage disposal systems are used in the County. These systems must comply with the Private Sewage Disposal Standard of Practice Regulations. The County will consider allowing sewage to be hauled to the 'Peers Site' but only if it can be demonstrated that an on-site systems is also feasible."

In addition to the traditional on-site 'septic tank and field disposal systems' several other methods of on-site sewage treatment and disposal are approved for use within the Province of Alberta. These systems are installed in compliance with and in accordance to the Alberta Plumbing Code, as well as, practices and procedures stipulated by Alberta Environment. System alternatives range from septic tank and above ground field systems, evaporation mounds to mechanical treatments systems such as the FAST and BIONEST systems. Again, each alternative method of 'on-site' sewage treatment and sewage disposal is constructed or installed and maintained in accordance with the requirements of both the Alberta Plumbing Code and practices and procedures provided by Alberta Environment.

It is also recognized that identifying the appropriate method of sewage treatment and subsequent disposal may be site specific and based on proven technologies as well as the physical attributes and soil characteristics of the site.

The 'Environmental Guidelines for Subdivision Review' referenced above indicate that the detection of groundwater within 1.8 meters (6 feet) of surface dictate that traditional septic tank and fields systems would be both impractical and unacceptable. From the results as referred to in Appendix 'C' we can determine that the water table was encountered at shallow depth in test holes #BH101, #BH102, #BH105 and #BH108. The remainder of the test holes had sufficient separation between ground surface and the water table.

Hydrometer and grain sieve analysis was conducted on near surface materials randomly selected within the plan area. The testing was a cursory examination of the near surface soil structure within the plan area. The results entitled "Hydrometer & Grain Sieve Analysis" is hereto referred to in Appendix 'B'.

6.7.3 SANITARY SEWER SYSTEM POLICIES

6.7.3.1 Prior to the issuance of a development permit for any construction on each specific lot, the Developer shall provide the following for both Municipal and Provincial regulatory approval:

Plans of the proposed construction including a site plan indicating the topographical features.

A detailed report indicating the anticipated volumes of sewage treatment and an 'Approved' method of sewage treatment and disposal completed by a professional engineer or algologist.

6.7.3.2 It is acknowledged that Lot 2, Block 2, as shown in Figure 9 (Borehole Locations) fails to meet the minimum separation requirements with respect to the near surface ground water adopted by Yellowhead County. The Developer, at his sole cost and expense shall construct a "Building Foot Print" of a minimum (1) one acre in size, as shown in Figure 9. The footprint shall be of suitable engineered material compacted in accordance with standard engineering practices and completed to a finished grade elevation of 2 metres above the known near surface ground water as defined in Borehole location # BH 101, as shown in Figure 9 (Borehole Locations). The scope of the "Building Foot Print" shall be determined within the Development entered into between Yellowhead County and the Developer.

6.7.3.3 On lands within the jurisdiction of the Town of Edson each lot shall be serviced by means of a sewage effluent holding tank and pump out system installed in compliance with the Alberta Private Sewage Systems Standard of Practice and the Town of Edson.

6.7.4 STORM WATER MANAGEMENT

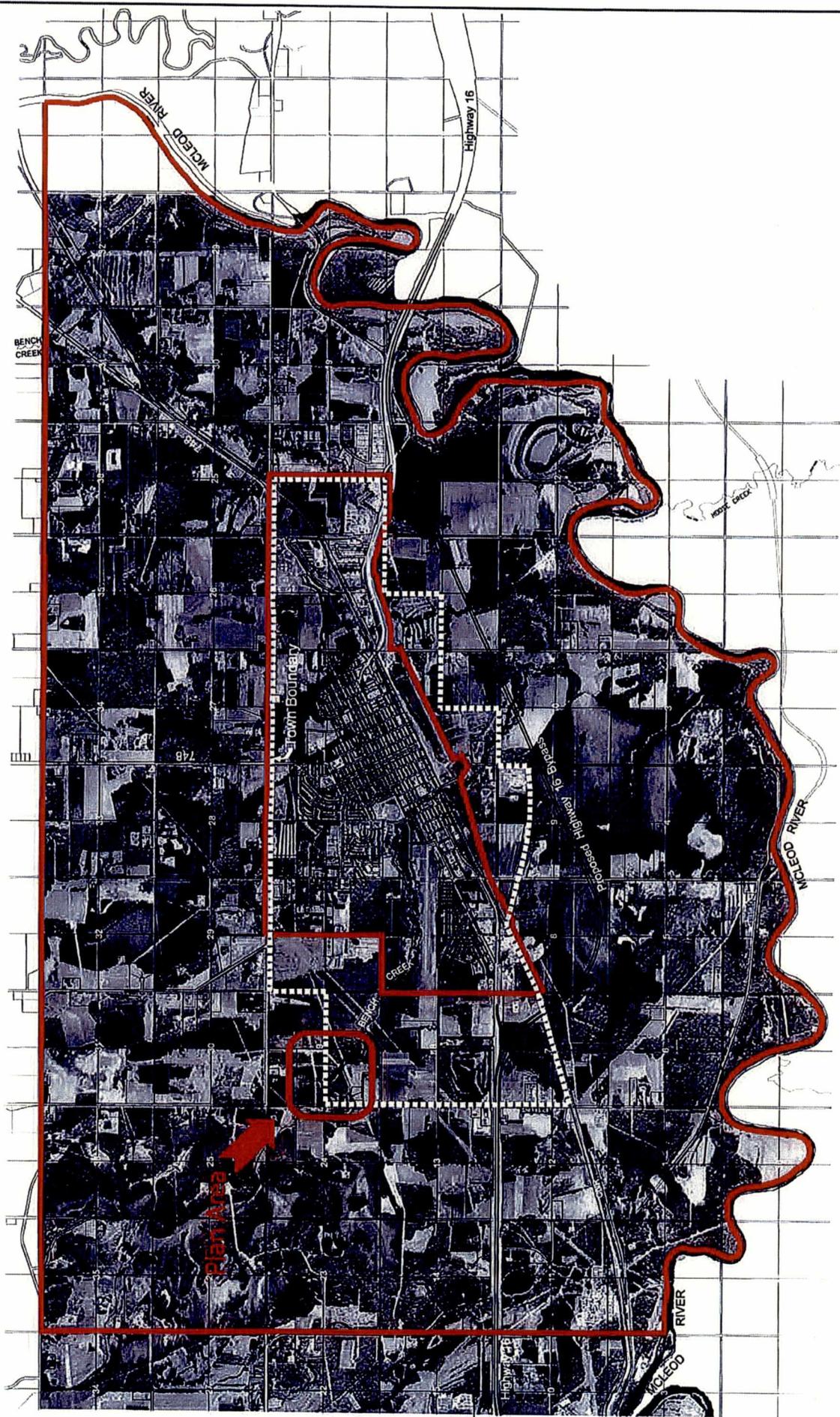
Storm water management will incorporate overland drainage only. This will be accomplished by using roadway ditches, culverts, and drainage swales along lot lines. Individual lots will be graded to direct runoff water to the drainage swales or ditches.

The layout of the overland flow system will be chosen to work closely with existing topography, as well as the lot layout. The slopes of the ditches and the drainage swales should be maintained between 0.5% and 2.0%. The ditches and swales should be protected with grass vegetation as soon as possible to reduce erosion, and help with storm water quality.

6.7.4.1 STORM WATER MANAGEMENT POLICIES

6.7.4.1 The Developer shall provide storm water management facilities to the satisfaction of Yellowhead County and the Town of Edson. Design for constructed storm water management facilities shall follow the 'Standards and Guidelines for Municipal Waterworks, Wastewater and Storm Drainage Systems,' Alberta Environment, latest edition as a minimum.

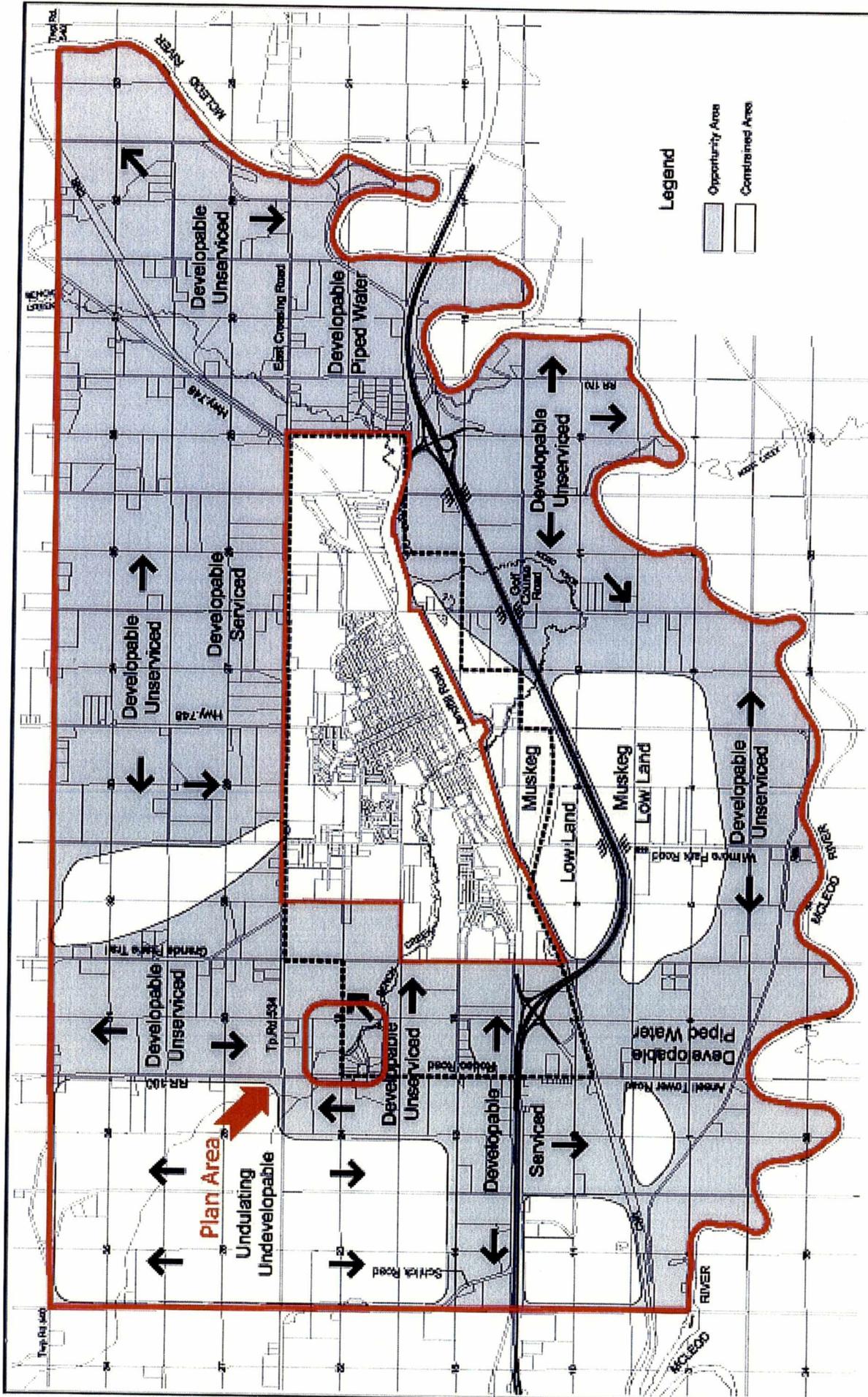
6.7.4.2 Native soils shall be salvaged and stockpiled and reused as topsoil and planting bed material



Regional Context
Figure 1

Source: Edson Urban Fringe
Intermunicipal Development Plan
Prepared by Lovatt Planning Consultants Inc.

Scale: NTS
Bench Creek Area Structure Plan
Yellowhead County & Town of Edson
December 9th, 2007

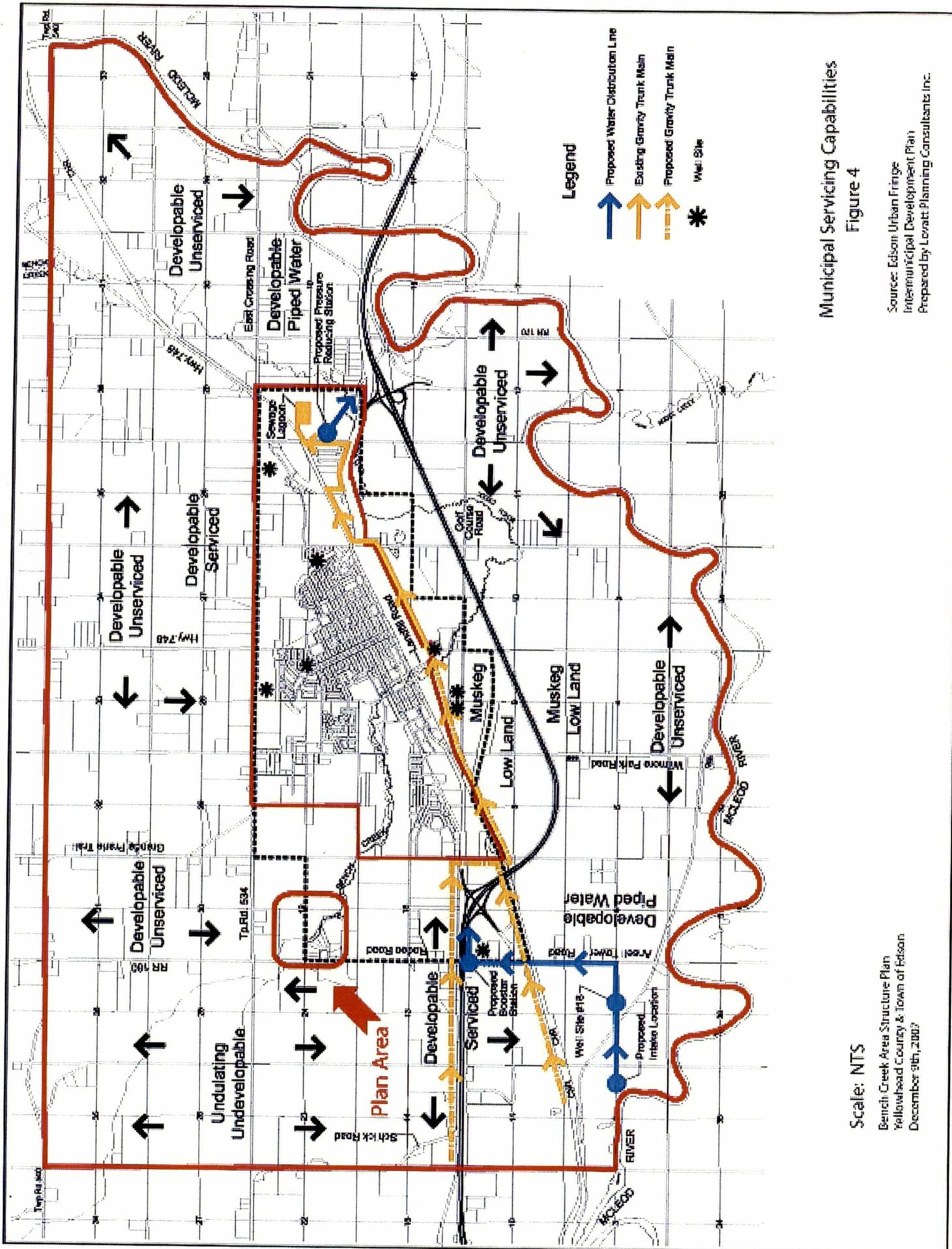


Constraints & Opportunities
Figure 2

Source: Edson Urban Fringe
Intermunicipal Development Plan
Prepared by Loratt Planning Consultants Inc.

Scale: NTS

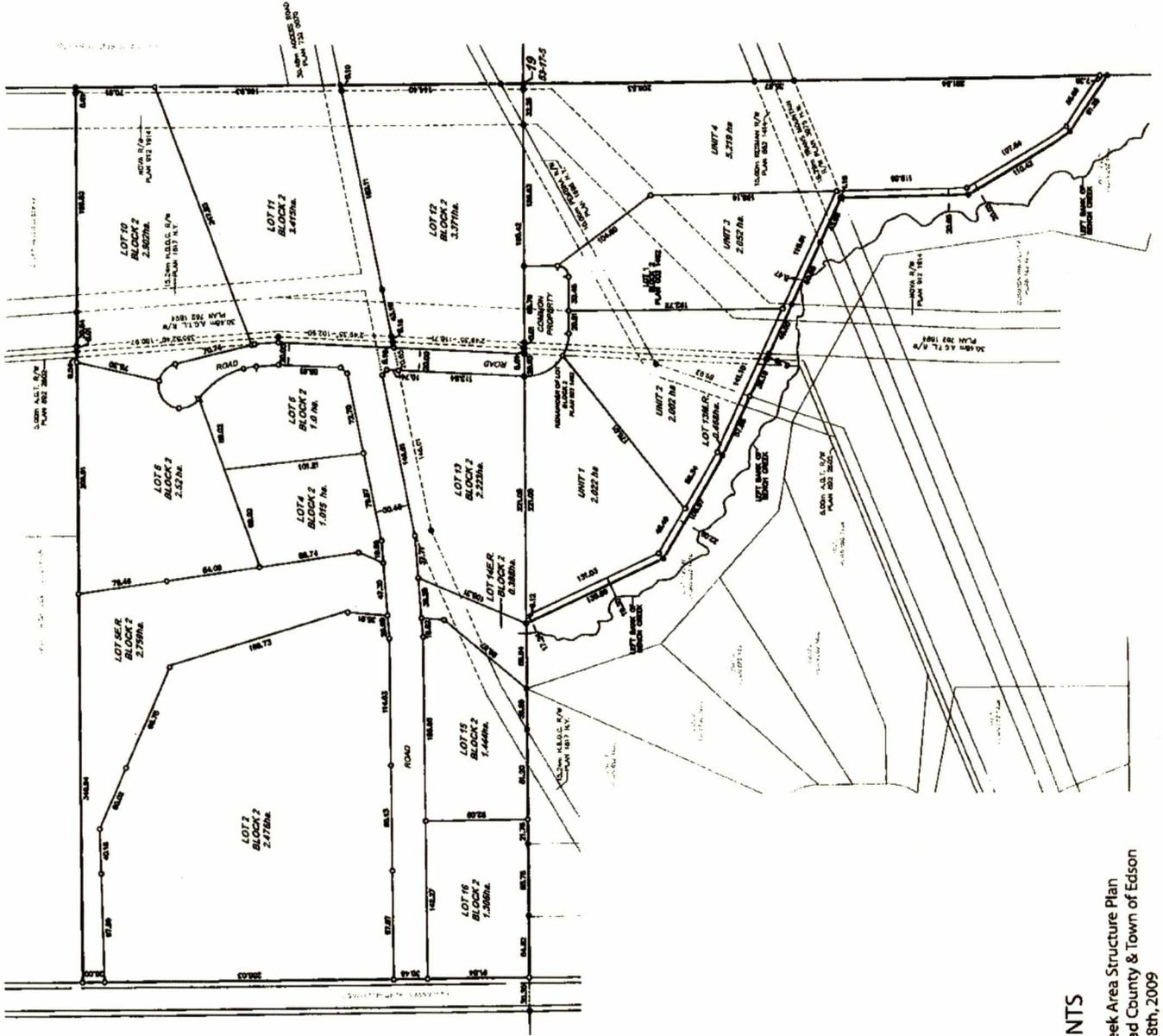
Bench Creek Area Structure Plan
Yellowhead County & Town of Edson
December 9th, 2007



Municipal Servicing Capabilities
Figure 4

Source: Edison Urban Fringe
Intermunicipal Development Plan
Prepared by Levat Planning Consultants Inc.

Scale: NTS
Bench Creek Area Structure Plan
Yellowhead County & Town of Edison
December 9th, 2007



Legend

- Lot Boundary
- Plan Area
- Bench Creek

Future Land Use Concept
Figure 6

Scale: NTS
Bench Creek Area Structure Plan
Yellowhead County & Town of Edson
January 18th, 2009

