Rural Municipality of Lumsden No. 189

OFFICIAL COMMUNITY PLAN

Consolidated to May 13, 2020

Crosby Hanna & Associates
Landscape Architecture and Planning

RURAL MUNICIPALITY OF LUMSDEN NO. 189

OFFICIAL COMMUNITY PLAN

Prepared For:

THE RURAL MUNICIPALITY OF LUMSDEN NO. 189

Prepared By:

CROSBY HANNA & ASSOCIATES
LANDSCAPE ARCHITECTURE AND PLANNING Saskatoon, SK

AND

JOHN WOLFENBERG
PROFESSIONAL COMMUNITY PLANNING SERVICES LTD.

Consolidated to December 2019
Approved by Ministry of Government Relations April 2, 2019

The Rural Municipality of Lumsden No. 189

Bylaw No. 6-2012

A Bylaw of the Rural Municipality of Lumsden No. 189 to adopt the Official Community Plan.

The Council of the Rural Municipality of Lumsden No. 189, in the Province of Saskatchewan, in open meeting assembled enacts as follows:

(1) Pursuant to Section 29 and 32 of *The Planning and Development Act, 2007* the Council of the Rural Municipality of Lumsden No. 189 hereby adopts the Rural Municipality of Lumsden No. 189 Official Community Plan, as identified as Schedule "A" to this Bylaw.

(2) The Reeve and Chief Administrative Officer are hereby authorized to sign and seal Schedule "A" which is attached to and forms part of this Bylaw.

(3) Bylaw No. 1-2000, the Basic Planning Statement, and all amendments thereto, are hereby repealed.

(4) This Bylaw shall come into force on the date of final approval by the Minister of Government Relations.

Read a First Time the 16th day of August, 2012

Read a Second Time the 11 day of October, 2012

Read a Third Time the 11 day of October, 2012

Adoption of this Bylaw this 11 day of October, 2012

(Reeve)

(Chief Administrative Officer)

RURAL MUNICIPALITY OF LUMSDEN No. 189 SEAL Seal

Certified a true copy of the Bylaw adopted by Resolution of Council

On the 11 day of October, of the year 2012

(signature) Darcie Cooper **(date)** Oct. 15, 2012

A Commissioner for Oaths in the Province of Saskatchewan

My appointment expires May 31, 2014

The Rural Municipality of Lumsden No. 189

Official Community Plan

Being Schedule "A" to Bylaw No. 6-2012

of the Rural Municipality of Lumsden No. 189

(Reeve)

RURAL MUNICIPALITY OF LUMSDEN No. 189
SEAL
Seal

(Chief Administrative Officer)

GOVERNMENT OF THE PROVINCE OF SASKATCHEWAN
OFFICE OF
GOVERNMENT RELATIONS
THE MINISTER OF

APPROVED
REGINA, SASK.
APR 0 2 2013
Assistant Deputy Minister
Ministry of Government Relations

Amendments to Official Community Plan Bylaw No. 06-2012

Bylaw No. 12- 2013 Adopted September 12, 2013

- replaced *Future Land Use Map 7 - Development Constraints* with updated version
- deleted 5.1.2(11), M1 district objective

Bylaw No. 08-2014 Adopted September 5, 2014

- amend *Table 6-1 Separation Distances Between Uses*

Bylaw No. 14-2014 Adopted November 21, 2014

- amend *Table 6-1 Separation Distances Between Uses*

Bylaw No. 17-2015 Adopted December 13, 2017

- replaced *Table 6-1 Separation Distances Between Uses* with new version

Bylaw No. 18-2015 Adopted November 5, 2015

- *Town of Lumsden/RM of Lumsden Joint Growth Strategy* appended to Bylaw as Appendix "A"

Bylaw No. 24-2019 Approved April 29, 2020

- Add Section 9.0 respecting the usage of architectural control districts.
- Add Section 8.0 respecting concept plans.
- Revised residential land use and development policies to clarify how *Table 6-1 Separation Distance Between Uses* applies when an applicant wishes to develop new single parcel residential development/building near an existing solid waste or waste disposal facility.

Bylaw No. 09-2021 Approved June 20, 2021

- Add additional policies to Section 9.0 respecting architectural control districts.

Bylaw No. 11-2021 Approved June 20, 2021

- Replace subsection 3.3.3(8)(a)(i) with a policy allowing for a maximum of one (1) residential site per quarter section in the A – Agriculture District.
- Amend 3.3.3(9) *Table 3-1 Residential Zoning Districts* to state no discretionary use for a single parcel subdivision.
- Delete 3.4.3(3) regarding farm based businesses.

Bylaw No. 16-2023 Approved December 29, 2023

- *RM189 West Sector Plan and West Service Road Feasibility Study* appended to Bylaw as Appendix "B"

CONTENTS

1.0 COMMUNITY VISION FOR THE R.M. OF LUMSDEN NO. 189

The following Vision Statement for the R.M. of Lumsden No. 189 was created and recommended by the Planning Advisory Committee (PAC), which assisted Council in preparation of this Official Community Plan. This Vision Statement has been adopted by Council as an integral part of the OCP. Council intends to use this statement as the basis for the Goals, Objectives and Policies of the Plan.

"The Vision for the R.M. of Lumsden No. 189 is to encourage sustainable residential and non-residential development that is compatible with its vibrant agricultural base and critical ecological areas."

2.0 GOALS

2.1 NATURAL AND HERITAGE RESOURCE BASE

(1) To conserve the aquatic and terrestrial ecological resources of the Municipality.

(2) To conserve the heritage resources of the Municipality

(3) To utilize the natural resources of the Municipality in a manner that is economically, socially and environmentally sustainable.

(4) To provide ongoing opportunities for residents and non-residents to enjoy and appreciate the high water, land, wildlife and heritage resource values of the Municipality.

2.2 PHYSICAL AND ECONOMIC DEVELOPMENT

(1) To strive for sustainable physical development that reflects both market conditions and public needs, and is compatible with municipal financial capabilities and the need for resource conservation.

(2) To respond to demand for high-quality, country residential development in the broader region.

(3) To strengthen the economic base of the Municipality by creating a positive environment for business development.

(4) To ensure a high quality of life for residents.

2.3 INTERGOVERNMENTAL INTERESTS AND INVOLVEMENT

(1) To obtain the support and assistance of senior governments in the realization of the goals and objectives of this plan.

(2) To support and complement the Statements of Provincial Interest.

(3) To engage with neighbouring communities to identify issues and common interests in planning, municipal servicing and growth opportunities.

(4) To participate in district and regional planning initiatives, where beneficial to the Municipality.

3.0 OBJECTIVES AND POLICIES

3.1 NATURAL AND HERITAGE RESOURCES

3.1.1 Findings

(1) Heritage resources within the R.M. of Lumsden may include:

- Archaeological objects;
- Paleontological objects;
- Any property that is of interest for its architectural, historical, cultural, environmental, archaeological, paleontological, aesthetic or scientific value;
- Any site where any object or property mentioned above is or may reasonably be expected to be found;
- Designated Municipal Heritage Property; and
- Designated Provincial Heritage Property.

(2) Business stakeholders and resident stakeholders agree that areas of undisturbed prairie and native bush are valuable recreational and environmental resources and are important to the identity of the area.

(3) Policy is required to help ensure that development is consistent with the protection of natural resources in the Municipality for both human enjoyment and for the maintenance of natural features and locations.

(4) The Lumsden Valley Community Association has prepared a report entitled "A Conservation Strategy for the Qu'Appelle Valley System in the Rural Municipality of Lumsden" that proposes the completion of a Conservation Strategy as a mandatory prerequisite for adoption of this OCP. Council has not accepted this suggestion; however, aspects of the Association's submission will be useful in contributing to the elements of Map 2 – Potential Environmentally Sensitive Areas. In particular, Council agrees in principle with the following:

(a) The Association's proposal to use a system of allowing certain densities of development (especially for residential proposals) only near specific landscape and vegetation units in and adjoining the Valley. (i.e. Section B 2(3) Impact on the Development Pattern).

(b) As contained in pages 14-21 of Appendix 5 of "A Conservation Strategy for the Qu'Appelle Valley System in the Rural Municipality of Lumsden", the proposal is based on avoiding (as much as possible) three combinations of: landforms, vegetation and environmentally valuable areas, in order to conserve and, where possible, protect these areas.

(c) The Association identified and described four potential protected areas as follows:

(i) "Large Patches of Vegetation" – All areas within the R.M. of Lumsden with high quality natural vegetation and limited development, especially if they have unique features and some degree of protection from

development are included. These have been translated onto Map 2 – Potentially Environmentally Sensitive Areas.

(ii) "Natural Corridors" – Two types of natural corridors exist within the Valley. Riparian Corridors are strips of vegetation, preferably native, bordering water courses, wetlands and water bodies. Their essential functions are principally erosion control, nutrient and pathogen removal, pesticide retention, and maintaining fish quality habitat. Upland corridors are strips of vegetation outside the riparian areas, with their main ecological function being providing connectivity between patches of habitat. These have been translated onto Map 2 – Potentially Environmentally Sensitive Areas.

(iii) "Stepping Stones" – Generally consisting of small patches of native vegetation scattered throughout either urban or intensively cultivated farmland. There are many "stepping stones" in the Valley due to the varied terrain which includes many unbuildable and non-arable fragments.

(iv) "Special Sites" - Landscape features of historic, scenic or other interest, which are generally not essential for the preservation of ecological integrity but can contribute to society's enjoyment of the valley. Included in this category would be the valley rims of the Qu'Appelle Valley, the Kennell Church and the patch of Ostrich Ferns.

(5) Based on the search of the provincial archaeological database, there are currently 158 archaeological sites recorded in the R.M. of Lumsden. Consideration should be given to the development of land use policies to avoid and mitigate potential conflicts with these areas.

(6) There are currently seven Designated Municipal Heritage Properties located within the R.M. of Lumsden. An additional three Designated Municipal Heritage Properties and one Provincial Heritage Property are located within the Town of Lumsden.

(7) Community survey respondents identified "sustainable environmental quality" as one of the Top 5 most important criteria contributing to the quality of life in the Municipality.

3.1.2 Objectives

(1) To encourage the preservation and protection of natural wildlife habitat areas and other significant areas of natural vegetation in the Municipality such as Critical Wildlife Habitat Areas, Nature Conservancy of Canada and other conservation easements, and environmentally sensitive areas defined as Large Patches of Vegetation, Natural Corridors, Stepping Stones and Special Sites.

(2) To protect historic, archaeological and other features, resources or sites of cultural heritage significance from incompatible development and, where such protection cannot be achieved, to ensure appropriate mitigation of potential impacts.

(3) To conserve and protect environmentally-sensitive land and heritage-sensitive land, as shown on the Future Land Use Map 2 – Potential Environmentally Sensitive Areas and Map 7 – Development Constraints, from potential negative effects of development which

could lead to the destruction of significant natural areas (e.g. soils which are sensitive to wind or water erosion), unique biological lands or waters (e.g. areas with sensitive plants or animal/fish habitat), or significant heritage features (e.g. land with archaeological or historical artifacts or features).

(4) To consider the visual impact of all proposed subdivisions and developments which include more than one site and are located on the slopes or at the rim of the slopes of the Qu'Appelle River Valley and its major tributaries valleys.

(5) To encourage the use of conservation design principles in subdivision and development of land in the Municipality in an environmentally sustainable manner.

(6) To encourage the continued use of Crown agricultural land for a broad range of traditional and contemporary activities and development. Traditional resource uses on Crown land include animal grazing, hunting, fishing, trapping, firewood harvesting and berry picking. More contemporary uses include potash, oil and gas exploration and development, sand and gravel extraction, ecotourism and outfitting.

3.1.3 Policies

(1) Development shall avoid depleting or polluting ground water in the Municipality.

(2) Applications for proposed uses which require large amounts of groundwater or which may impact the current groundwater supply of adjoining uses may be required by Council to provide a study to verify that the groundwater resource is adequate for both existing users and the proposed use.

(3) Developments which ensure that water bodies, waterways, shore lands, groundwater and riparian systems are protected and sustained will be encouraged.

(4) Council may employ site-specific planning programs, either alone or in cooperation with other agencies, organisations or governments, to protect water bodies, waterways and shore lands. Council may limit, restrict, delay or prohibit development in these areas until site-specific planning has been completed and/or until Council is satisfied that specific development projects will sustain these areas. Site-specific plans may result in limiting or prohibiting development in these areas.

(5) Council may consider the preparation of a Qu'Appelle Valley Conservation Strategy in cooperation with adjoining Urban and Rural Municipalities and with the assistance, expertise and guidance of local and regional community groups, First Nations and Provincial and National agencies or departments, as resources permit.

(6) Council will consider approval of proposed development in terms of the size and configuration of an adjoining waterway, water body or shore land, the capacity for public access, the potential impacts (social, economic and environmental) of development, general and site-specific environmental and ecosystem characteristics and economic potential for development in the area. The developer shall be responsible for all expenses associated with the preparation of studies and relevant information to be undertaken by qualified professionals. The studies shall provide recommendations to protect and conserve natural features and heritage resources.

(7) Council will work with agencies of the provincial government to protect any significant environmentally sensitive areas, heritage resources, critical wildlife habitat, fish habitat, and/or rare or endangered species as well as any wetland areas along a lake, slough or creek. These resources will be protected and, where appropriate integrated with recreational use and development (by the addition of appropriate structures such as: walkways, pedestrian bridges, boardwalks, and interpretive media). Where significant potential for the occurrence of such features or resources has been identified to Council, Council may delay development until such time as the requirements of the relevant provincial agencies to protect such resources (such as the undertaking mitigative measures) have been obtained. The developer may be required to contract a qualified professional to assess potential impact(s) to the development area. Any costs associated with meeting such requirements will be the responsibility of the applicant.

(8) Council shall work in partnership with the Saskatchewan Watershed Authority to maintain and conserve the Qu'Appelle River Watershed and its source water resources.

(9) Agricultural practices, particularly with regard to manure management and chemical application, shall be encouraged to minimise risks to groundwater and surface water.

(10) Chemicals and other products shall be stored, handled, manufactured, managed and used with methods which prevent and avoid contamination with aquifers and well heads.

(11) Wetland areas along a lake, slough or creek will be protected and, where appropriate, integrated with recreational uses and development. Future development will not alter such wetland areas other than by the addition of appropriate structures such as: walkways, pedestrian bridges, boardwalks, and interpretive media.

(12) Council may require that a developer undertake a Heritage Resource Impact Assessment (HRIA), as per *The Saskatchewan Heritage Property Act*, should development be proposed in areas considered to have archaeological significance. Areas considered heritage sensitive have been identified on Map 7 – Development Constraints.

(13) Council may require an ecological impact assessment should development be proposed in areas that contain undisturbed land, native vegetation, in proximity to major water sources and coulees and areas identified on Map 2 – Potential Environmentally Sensitive Areas, as well as areas located adjacent to areas identified as Critical Wildlife Habitat on Map7 – Development Constraints.

(14) Subject to the standards contained in Section 3.5.3(18) of this Bylaw, Council will consider discretionary use applications for aggregate resource extraction to facilitate future residential, commercial and industrial development on a case by case basis if a Concept Plan for the proposed future development has been adopted by Council. In these cases, Council may apply a reduced separation distance than what is required in Section 3.5.3 (18) and Table 6-1, in order to facilitate future development.
(Revised Bylaw No.17-2015 - December 13, 2017)

3.2 BIOPHYSICAL CONSTRAINTS ON DEVELOPMENT

3.2.1 Findings

(1) In 1969, 1971, 1974 and 2011 the Qu'Appelle River flooded. The flooding caused tremendous damage, washing out bridges, culverts and roads.

(2) Following the 1974 flood of record in the Qu'Appelle River System, the flood control channel and associated dyking through the Town of Lumsden were upgraded to accommodate the 1 in 500 year flood event (550 m^3/s). The flood control channel extended 1.74 km upstream from the Highway No. 11 bridges to the western portion of the town. Flood control dykes were constructed along both sides of the flood channel and tie into the valley side slopes upstream and downstream of the town site. In 1999, the flood control channel was extended a further 525 m upstream given that erosion of the natural river channel was threatening the stability of the adjacent flood control dykes.

(3) As per the agreement with the Town of Lumsden, the Saskatchewan Watershed Authority is wholly responsible for the maintenance and repair of the flood control channel, and also covers 50% of the cost to maintain and repair the flood control dykes and appurtenant structures.

(4) The Craven Flood Control Project, encompassing the construction of 1.9 km of improved channel and associated dyking along Last Mountain Lake Creek, was undertaken in 1971. Pursuant to an agreement entered into between the Village and Sask Water in 1993 (predecessor organization to the Saskatchewan Watershed Authority), the Authority is fully responsible for the channel improvements. The Authority is also committed to sharing the costs of maintaining the flood control dykes in accordance with the Water Control Program in effect at the time of any future maintenance.

(5) It is well known that areas within and near the Qu'Appelle River Valley are susceptible to erosion and slumping.

(6) Due to the presence of waterbodies and wetlands in the R.M., certain areas may potentially be subject to periodic flooding. Policies are needed to address development on and near flood prone lands.

3.2.2 Objectives

(1) To discourage development on hazardous land and ensure that appropriate development standards are met when development is feasible.

(2) To ensure the R.M. is aware of and uses the most recent information on flood hazard areas within the Municipality as it relates to new subdivision applications and applications for a development permit.

(3) To continue to work with the Saskatchewan Watershed Authority on flood protection.

3.2.3 *Policies*

(1) Development should avoid land that is hazardous due to flooding, erosion, slumping or slope instability, unless suitable mitigation measures are to be implemented. Council will use Future Land Use Map 3 – Hazard Lands as one of the tools to help determine areas that are unacceptable for development, or require mitigation measures, due to hazard lands.

(2) Council may require subdivision and development permit applicants to consult with the Saskatchewan Watershed Authority to assess the potential hazard due to flooding. The flood hazard area shall be defined as the 1:100 year flood elevation plus wave and wind run-up or the 1:500 year flood elevation, whichever is greater.

(3) Where a subdivision is proposed for land that is identified as being potentially hazardous, the applicant shall submit a report prepared by a qualified professional that assesses the risk associated with the proposed development (e.g. geotechnical suitability of the site, susceptibility to flooding or other environmental hazards, including potential site contamination, etc.) and identifies any necessary mitigation measures.

(4) Council may refuse to support the subdivision of land or authorize the development of structures on land determined to be hazard land or may permit development only in accordance with specified mitigation measures. The costs of any required flood hazard or slope hazard report to identify the risk of proceeding with a proposed development on potentially hazardous land or recommending specified measures to mitigate the risk of development of hazardous land will be the responsibility of the proponent of the proposed development.

(5) The Zoning Bylaw will contain development standards for development on or near hazard lands.

3.3 RESIDENTIAL LAND USE AND DEVELOPMENT

3.3.1 Findings

(1) Pressure from developers and other business interests to develop country residential subdivisions in the Municipality has been growing in recent years. The Municipality is interested in exploring alternative approaches to managing country residential development. Policies are required to deal with future applications for country residential subdivision and development, including locational guidelines and other conditions under which development may be permitted.

(2) Several members of the Planning Advisory Committee (PAC) were opposed to the continuation of allowing residential "first parcels out" to be subdivided out of any quarter-section. This opposition was partly based on the potential fragmentation of farm areas, but also on the belief that smaller subdivision sizes should be allowed (either singly or in small clusters), but closer to good gravel or paved roads.

(3) Council favours changing the existing policy of relying solely on the Soil Type as the primary means of site selection for country residential subdivisions.

(4) Some members of the PAC suggested that more specific locational policies should be adopted to restrict the apparent indiscriminate opportunity for such single parcel country residential sites to be rezoned and subdivided virtually anywhere in the poor quality agricultural (mostly valley) areas of the Municipality.

(5) Land use policy is required to manage costs and maximize net benefits to the Municipality associated with new residential development in the Municipality and to ensure that it is undertaken in an orderly, well-planned manner.

(6) Policies are required to clarify the level and types of services the Municipality is capable of delivering to new residential development(s).

(7) The previous Official Community Plan allowed for dispersed residential subdivisions (single parcels generally allowed only in the Rural Development District (RDD) – the tableland outside the valley) and clustered residential subdivisions (currently allowed on "suitable" sites in the Valley Development District, or VDD).

(8) Several discussions with PAC and Council members were centred on how Council could better balance the diversity of interests (rural, urban, agricultural and residential) in the Municipality. The general consensus by Council and PAC members was that there is no benefit in using the RDD and VDD designations from the existing development plan any longer in land use planning and that more specific criteria and policy is needed to accommodate single parcel and multiple parcel residential development.

3.3.2 Objectives

(1) To ensure that country residential land uses, including buildings and lots, minimize conflict with agricultural, environmental, recreational, natural resource activities, and other surrounding land uses.

(2) To identify potential areas suitable for residential development to provide a growth

stimulus to the community and choice of lifestyles for residents.

(3) To manage and maximize the net benefits of residential development to the Municipality.

(4) To encourage and accommodate innovative country residential subdivision and development which addresses current broad societal issues respecting energy conservation and production, climate change, food security / self-sufficiency and health and safety for communities.

(5) To maximize the benefits and minimize the impacts on the landscape and costs to the residents of the Municipality which may result from residential activities.

(6) To minimize the disturbance to fisheries habitat, critical wildlife habitat, hazard lands and other environmentally sensitive areas in the development of new residential areas.

3.3.3 *Policies*

(1) All buildings must be constructed according to *The National Building Code of Canada* and the *National Fire Code of Canada*.

(2) Residential building construction shall be regulated by the Municipality's Building Bylaw.

(3) The Zoning Bylaw will provide for single parcel residential development, as well as clustered low, medium and high density residential zoning districts to accommodate the range of existing legally established residential uses, forms and densities.

(4) The Zoning Bylaw will provide for other forms of development, facilities and recreational uses in residential districts that are consistent with and complementary to the overall residential and recreational uses of the district.

(5) The Zoning Bylaw will regulate the distances of residential buildings or structures from the property line, the minimum space to be allowed between buildings.

(6) The Zoning Bylaw will require the submission of a site grading plan for development of sites in residential development districts to ensure that there is adequate drainage from a site and that neighbouring properties and municipal infrastructure will not be adversely affected by potential runoff from the development.

(7) Subject to all other policies in this document, Council will consider bare-land condominium development as an alternative to conventional subdivision, to achieve the goals and residential objectives set out in this document.

(8) Single Parcel Country Residential Policies:

(a) *Locational Policies*:

(i) A maximum of one (1) residential site is allowed to be subdivided per quarter section in the A – Agriculture District. Additional residential subdivision may be allowed to be subdivided from the quarter section to accommodate:

1. Any site fragmented from the balance of a quarter section by either natural (river, creek, coulee, etc.) or human-made (developed road, railway, etc.) barriers;

2. A previously developed, unoccupied farmyard; or

3. A maximum of one surplus dwelling from an existing farmyard, where the dwelling existed prior to August 1, 2012.

(Revised Bylaw No. 2021-11 – June 20, 2022)

(ii) It is Council's view that public works in the form of waste (solid or liquid) management or disposal facilities have the potential to negatively affect the general welfare of nearby residents and the quality of recreation opportunity, relating to such factors as odours, blowing debris, decreased land values and perceived hazards. Therefore, in order to minimize conflicts between waste management or disposal facilities and residential development, policies for minimum separation distance between land uses are set out in Section 6, Table 6-1. These minimum separation distance policies shall apply both to development, alteration or expansion of waste management or disposal facilities and to new residential development proposed in the vicinity of an existing waste management or disposal facility. **(Revised Bylaw No.24-2019 - April 29, 2019)**

(iii) In consideration of a subdivision Council may direct the location of such subdivision to take advantage of existing infrastructure.

(b) *Services*:

(i) Single parcel residential subdivision and development must accommodate a private, on-site supply of water and a sewage system (both of which must meet Provincial standards), have frontage on a currently developed Municipal Road that is not seasonal in nature.

(ii) Single parcel country residential subdivision and development will be permitted only where direct all-weather public road access has been provided to the satisfaction of Council or the development of a direct all-weather public road is undertaken to the satisfaction of Council.

(c) *Development Standards:*

(i) The Zoning Bylaw will prescribe maximum and minimum site sizes and other appropriate development standards for single parcel country residential development, with the aim of limiting the amount of productive agricultural land taken out of production and ensuring that such development does not result in increased road hazards related to obstruction of sight lines, etc.

(ii) Council may permit a larger or smaller site size than what is outlined in the Zoning Bylaw to:

1. Accommodate development along the valley that will include natural areas and valley slopes;

2. Minimize prime agricultural land to be taken out of production;

3. Accommodate existing developed farm yard sites; or

4. Accommodate sites fragmented from the balance of the quarter section by either natural (river, creek, coulee etc.) or man-made (developed road, railway, etc.) barriers.

(9) Multiple Lot Residential Development Policies:

(a) The Zoning Bylaw will contain a series of residential zoning districts to accommodate multiple-lot country residential subdivisions at various densities (Table 3-1). These will include:

(i) Low Density Country Residential Subdivisions **(CR1)** with site sizes ranging from 4.01 ha (10.01 acres) to 8.01 ha (20 acres). The intent of this district will be to accommodate low density residential multiple lot country residential development together with compatible uses. This density of development is sufficiently low to be approved subject to the provision of on-site source water and sewage disposal systems.

(ii) Medium Density Country Residential Subdivisions **(CR2)** with site sizes ranging from 1.01 ha (2.49 acres) to 4.0 ha (9.89 acres). The intent of this district will be to accommodate medium density residential multiple lot residential development together with compatible uses. Development at this density may be approved subject to the provision of communal water and sewage disposal systems.

(iii) High Density Country Residential Subdivisions **(CR3)** with site sizes ranging from 0.4 ha (0.99 acres) to 1.0 ha (2.47 acres). The intent of this district will be to accommodate high density residential multiple lot residential development together with compatible uses. Development at this density may be approved subject to the provision of communal water and sewage disposal systems. Council will not permit the re-subdivision of sites in High Density Country Residential district where it would result in a net increase in the number of residential sites in a development.

(iv) High Density Mixed Use Residential Subdivisions **(HDMU)** with site sizes for single detached dwellings as low as 255 m^2, or as defined by a zoning agreement. The intent of this district will be to provide for a mix of comprehensively planned high and low density residential uses and compatible commercial and community service uses. The **HDMU** – High Density Mixed Use Residential District shall be applied only to accommodate approval by agreement (under section 69 of The Planning and Development Act, 2007) of a specific development proposal that Council considers suitable under the policy and guidelines established for the High Density Mixed Use Residential District. This density of development will only be approved subject to the provision of on-site source water and sewage disposal systems.

(v) Planned Valley Residential District (R3) - By Agreement and Medium Density Valley Residential District (R2) to accommodate an existing

mixed use residential / recreational subdivision and development known as the Deer Valley Development (DVD). The DVD area was zoned to Planned Valley Residential District – R3 under the former Zoning Bylaw No. 2 -2000, subject to a negotiated Contract Zoning Agreement dated November 14, 2000. The applicable development standards for the DVD were provided pursuant to the regulations of the R3 District (which defer to the regulations of the R2 - Medium Density Valley Residential District) and the Contract Zoning Agreement. The Zoning Bylaw shall continue to apply these provisions to the DVD. The DVD development area shall be zoned R3 District so that the development standards contained in the R2 District together with the development standards of the Contract Zoning Agreement (as amended) shall apply. It is not the intent of the Council to apply the provisions of the R2 and R3 Districts to any development other than the DVD.

(b) Subdivision for non-farm residential development at a density greater than two residential sites per quarter section will be considered for multiple-lot developments, on the basis of project merits relative to the policies in this section. Such subdivisions shall be implemented in association with a rezoning to appropriate residential zoning districts.

(c) *Locational Guidelines for Multiple Lot Country Residential Development*:

In order to provide for effective and efficient municipal and other services, and to protect prime agricultural land and important ecological habitat in the municipality, multiple-lot country residential subdivisions should be located:

(i) Near a school of sufficient capacity to handle the increase in enrolment or an existing school bus route.

(ii) Near power, natural gas and telephone lines of sufficient capacity to handle such development.

(iii) So that adequate police and fire protection can be conveniently provided.

(iv) In order to protect or enhance existing treed areas and/or critical wildlife habitat.

(v) Only where direct all-weather public road access has been provided to the satisfaction of Council.

(vi) On land with a lower CLI Rating of Class 3 to 7, or on land that has other crop production limitations.

Table 3-1
RESIDENTIAL ZONING DISTRICTS

Subdivision Type	Rezoning Required	Min. Parcel Size (ha)	Max. Parcel Size (ha)	Max. Land Area (ha)	Water	Sewer	Roads
Single Parcel	No	2.01*	4.0*	n/a	Private	Private	Gravel
Low Density (CR1)	Yes	4.01	8.01	64/phase	Private	Private	Gravel
Medium Density (CR2)	Yes	1.01	4.0	64/phase	Communal/ Private	Communal/ Private	Gravel/ Paved
High Density (CR3)	Yes	0.4	1.0	64/phase	Communal	Communal	Paved
High Density Mixed Use (HDMU)	Yes – By Contract Only	255 m^2 for single detached dwellings	n/a	64/phase	Communal	Communal	Paved

*Note: A larger or smaller site size may be approved by Council subject to Section 3.3.3(8)(c)(ii) of this Official Community Plan.

(Revised Bylaw No. 2021-11 – June 20, 2022)

(d) *Locational Requirements for Multiple Lot Country Residential Development*:

(i) In order to minimize conflict between multiple lot country residential subdivisions and other development, Council shall observe the separation distances as set out in Section 6; Table 6-1 of this document.

(ii) Council may approve a lesser separation than set out in Section 6, Table 6-1 where the proposed development will not conflict with the future long term development of an adjoining urban municipality as demonstrated by the urban Council or where the applicant submits a copy of an agreement between the applicant and the owner(s) of another affected development agreeing to such lesser separation. Such agreements between an applicant and an owner (owners) of the other development(s) must contain the provision that the parties to the agreement will register an interest to the titles of the affected land. Where such agreements are made, Council shall be a party to the agreement and may use Section 235 of *The Planning and Development Act, 2007* to register an interest to the title(s) of the affected lands.

(iii) Council will utilize the Future Land Use Maps 1-7 to assess the development constraints, benefits and acceptability of a proposed multiple lot country residential subdivision. Multiple lot country residential subdivisions shall not be located:

1. Where direct all-weather public road access has not been developed, except where arrangements have been made, to the satisfaction of Council, for the development of such access.

2. On land subject to flooding, or land where there is a high water table or potential for soil slumping or subsidence unless it can be demonstrated, that the land is safe for development or that recommended mitigation measures will assure the necessary level of safety.

3. In a linear fashion stretched along municipal roads.

(e) *Development and Design*

(i) Phasing

A maximum of three medium to high density multiple lot country residential subdivisions in developmental stages will be allowed at any point in time. Multiple-lot country residential subdivisions with less than 75% of building lots with completed residential construction will be considered to be in a developmental stage. However, if 75% of available lots in one or more of those three subdivisions are vacant but it appears that development is lagging because the developer/land owner is holding land vacant or is encountering difficulty with financing the development then that subdivision will be deemed to not be in a developmental stage. Council may consider additional subdivision proposals on a case by case basis where the developer can demonstrate that housing demand, market conditions, and/or innovative proposals are beneficial to the Municipality.

(ii) New Subdivision Selection Process

Council will keep a list of prospective developers of multiple lot country residential proposals. When deemed appropriate, Council will ask prospective developers to submit a proposal outlining the intent of their development along with key design elements. Prospective developers must also fill out and submit with their proposal a copy of the Rural Municipality of Lumsden No. 189 Country Residential Development Proposal Workbook, contained in Section 7. Council will select proposals for more formal consideration based on the information submitted in the Workbook, as well as compatibility with the Future Land Use Maps contained in Section 4. In some cases, Council may also require a market study to demonstrate the demand for additional residential subdivisions in the Rural Municipality.

(iii) Scale and Density

Each multiple lot country residential subdivision development shall be limited to a maximum area, or phase area of 64.8 hectares (160 acres).

(iv) Concept Plan

Council will require, in the interests of ensuring a comprehensive and planned approach to development, the preparation of a concept plan for the entire area that

will ultimately be developed and submission of supporting documentation, where appropriate, as follows:

1. Reports, prepared by professionals certified to assess relevant factors to assess the geotechnical stability of the site, susceptibility to flooding or other environmental hazards, together with any required mitigation measures. These measures may be attached as a condition for a subdivision or development permit approval.

2. Engineering reports to address concerns such as availability of water supply, surface water drainage, and sewage treatment and disposal.

3. The initial concept plan shall provide an integrated layout for the total country residential subdivision development envisioned, showing road layout and access to external public road, phasing of development, and dedicated lands. Once the initial concept plan has been accepted by Council, and subdivision and development commences, no subsequent subdivision that is inconsistent with the approved concept plan and all policies in this document will be permitted without acceptance of a revised concept plan by Council

(v) Services

The provision of water and sewer services in new country residential subdivisions shall be in accordance with Table 3-1and subject to the recommendations of engineering reports as per Section (iii) above:

Water:

1. Each site in the proposed development area shall have its own independent water system or,

2. Each site in the proposed water development area will be connected to a Regional Water Distribution system; or,

3. Each site in the proposed development area will be serviced with an independent communal water supply system approved pursuant to either *The Public Health Act, 1994* and associated regulations as administered by the Regional Health Authority or *The Environmental Management and Protection Act, 2002* and associated regulations.

Sewer:

1. Each site in the proposed development area shall have its own independent sewage disposal system approved by the Regional Health Authority; or,

2. Each site in the proposed development area will be serviced with an independent communal sewage collection, treatment and disposal system

approved pursuant to either *The Public Health Act, 1994* and associated regulations, as administered by the Regional Health Authority or *The Environmental Management and Protection Act, 2002* and associated regulations.

Solid Waste:

1. Council will approve new development subject to the availability of facilities for the disposal of solid waste by future residents in a licensed solid waste management facility.

(f) *Development Standards*

The Zoning Bylaw will prescribe maximum and minimum lot sizes and other appropriate development standards for multiple lot country residential development, with the aim of preserving productive agricultural land and ensuring that such development does not result in increased road hazards related to obstruction of sight lines, etc.

(g) *Adopted Concept Plans*

Concept Plans adopted by Council in the form of an amendment to this bylaw pursuant to *Section 44* of the Act, are contained in Section 8.1.1 *Adopted Multiple Parcel Residential, Commercial and Industrial Development Concept Plans.*
(Revised Bylaw No.17-2015 - December 13, 2017)

3.4 AGRICULTURAL LAND USE AND DEVELOPMENT

3.4.1 Findings

(1) Members of the PAC and Council indicated that the loss of farmland as a result of non-agricultural development should be a consideration in development decisions.

(2) The PAC and Council have indicated that the Zoning Bylaw should not use the Canada Land Inventory (CLI) as the sole means of determining farm land suitability in assessing applications for non-agricultural development. Council prefers to use other methods to support intensive and extensive types of agriculture, while avoiding or minimizing land use conflict. Council recognizes that it must identify clear and concise development criteria in this OCP to guide its future decision making respecting the approval of agricultural land use and non-agricultural development.

(3) Agricultural activity in the R.M. of Lumsden is dominated by the dryland production of grains and oilseeds, followed by operations for the raising of cattle and hogs.

(4) Council has provided direction to the formulation of the Objectives and Policies for Agricultural Land Use and Development in this OCP to allow for more flexibility concerning different land uses, specifically in agricultural areas with minimal land use conflicts. It is Council's intention to allow for industrial and commercial development in agricultural areas at locations which would avoid undue land use conflict or require expensive services to be supplied by the Municipality.

(5) A total of seven (7) ILOs are located within the R.M. boundaries.

(6) The subdivision of farm land as a result of the realities of farm debt settlement, farm debt consolidation, estate settlement and the existence of natural and human-created barriers and obstructions are key factors that warrant attention by the Municipality when considering future development.

(7) Consideration should be given to the orderly development of both farm-based and home-based businesses (e.g. seed cleaning).

(8) *The Agricultural Operations Act* provides a regulatory framework for the approval of new intensive livestock development and to address complaints of agricultural nuisance. The two regulatory sections of the Act are the nuisance provisions and the intensive livestock provisions which provides a permit process for new Intensive Livestock Operations (ILO's). The permitting process considers whether ground and surface water supplies are adequate to serve new ILOs, and whether these resources can be protected from contamination by the increased manure produced in the proposed facilities. The ILO regulatory provisions of the Act do not deal with problems caused by ILOs with respect to odour or nuisance although the nuisance provisions of the Act protects neighbours from odour, noise, dust, flies and other disturbances caused by inappropriate farming practices. Also, since municipalities are responsible for land use planning they can establish required setbacks between ILOs and surrounding development to address these concerns. Consideration should be made towards the development of land use policy to minimize these conflicts.

(9) Divergent public views were expressed to Council respecting the acceptability of new livestock development in the Municipality. Two meetings pertaining to livestock development were held with livestock producers and the general public. Written comments objecting to the proposed prohibition of new ILOs were received by one poultry producer and five Producer Associations (Egg Producers, Chicken Farmers, the Turkey Marketing Board, the Milk Marketing Board and the Stock Growers Association). Staff from the Ministry of Agriculture also held a meeting with Council to discuss their concerns regarding the proposed prohibition of new ILOs within the Municipality.

(10) To maximize the benefits and minimize the impacts on the landscape and costs to the residents of the Municipality which may result from agricultural activities.

(11) To minimize the disturbance to fisheries habitat, critical wildlife habitat, hazard lands and other environmentally sensitive areas in the development of new agricultural activities.

3.4.2 Objectives

(1) To support normally-accepted agricultural practices and to favour those types of current and proposed agricultural activities provided that they do not, in Council's opinion, harm the quality of life of R.M. residents or degrade the environment while respecting development standards.

(2) To ensure that agricultural remains an important land use in the Municipality.

(3) To promote and encourage agricultural land use practices and development that enhance soil conservation and good stewardship practices.

(4) To encourage agricultural and natural resource development that will improve the economic health of the Municipality.

(5) To encourage, and provide opportunity for, further development and land uses that will result in increased economic diversification, agricultural innovation and agriculture-related value-added activity in the Municipality.

(6) To provide opportunities for farm-based businesses.

(7) To accommodate farm residential needs.

(8) To mitigate or minimize conflict between agricultural land use and the negative impacts of both new and existing non-agricultural land use and development.

(9) To assist in the retention of existing market gardens & greenhouse operations and to support the expansion of such uses while having regard to the water needs of other landowners in the Municipality.

3.4.3 Policies

(1) Council will use the Canada Land Inventory (CLI) Future Land Use Map 4 – Soil Capability for Agriculture, contained in Section 4, Land Use Maps, as one of the tools to help determine where quality agricultural land (for crop purposes) should be protected.

(2) The Zoning Bylaw shall provide for protection of primary agricultural uses from land use

conflict.

(3) Deleted Farm Based Businesses **(Revised Bylaw No. 2021-11 – June 20, 2022)**

(4) Farm Dwellings:

(a) One farm dwelling will be permitted for farm operations. Additional farm dwellings may be permitted, if accessory to a legitimate agricultural operation and if it is intended to accommodate farm workers. The granting of a development permit for such additional farm dwellings shall not be construed, in any way, as consent or approval for future subdivision.

(5) Intensive Agriculture Uses:

(a) Intensive Livestock Operations (ILO's)

(i) It is Council's view that development of ILO's is appropriate provided that unacceptable land use conflicts are not created as a result of such development. In general, Council will support the development of intensive agricultural and livestock operations (ILO's) unless specific locational conflicts would be created. Council will use Future Land Use Map 5 – Separation Distances Required for a Potential Intensive Livestock Operation as one of the tools to help determine the acceptable locations for ILO’s.

(ii) A livestock operation involving 300 or more animal units will be considered to be an intensive livestock operation (ILO) and will be classified in the Zoning Bylaw as a discretionary use. The approval of new ILO’s will be subject to the discretion of Council in accordance with the specific policies contained herein. An expansion of an operation to provide for a greater number of animal units than the maximum number specified in the initial discretionary use approval, or any change in an operation which alters the species of animal reared, confined or fed in the operation, shall require a new discretionary use approval.

(iii) The Zoning Bylaw may provide for the temporary confinement of cattle on a farm operation during winter months as part of a permitted use.

(iv) Using the discretionary use procedure outlined in the Zoning Bylaw, Council shall require public notice advertisement of a proposal that will result in development of an intensive livestock operation, or in the expansion or alteration of an intensive livestock operation requiring a new discretionary use approval, and shall hold a public hearing on the proposal.

(v) Council shall require an applicant for a discretionary use approval to demonstrate that the water supply is sufficient for the development and the supply for neighbouring developments will not be adversely affected by the proposed operation.

(vi) Council may require an applicant to utilize manure management practices or other technology than conventional stockpiling and spreading.

(vii) As a condition of approval, Council may impose standards to reduce the potential for conflict with neighbouring uses which specify:

1. the location of holding areas, buildings or manure storage facilities on the site.

2. manure management practices of the operation.

3. use of synthetic or other covers for liquid manure storage lagoons or earthen manure storage facilities.

4. use of ventilation measures in buildings to control odours.

5. requirements for monitoring wells for water quality and quantity purposes

6. annual confirmation of the availability of sufficient suitable lands for the disposal of manure.

(viii) For applications for wild boar operations, Council shall require that a containment plan be submitted, setting out in detail the techniques and methods to be used to keep the wild boars contained.

(b) Locational Policies

(i) In order to minimize conflicts between intensive livestock operations and other development, policies for minimum separation between land uses are set out in Section 6; Table 6-1. These minimum separation distance policies shall apply both to development, alteration or expansion of intensive livestock operations and to other development proposed in the vicinity of existing intensive livestock operations. Council may impose a lesser separation for a proposed intensive livestock operation, where the applicant establishes that the development will minimize the potential for conflict with adjoining uses in accordance with the provisions of Section 5 (a) (vii).

(ii) Council may approve a lesser separation than set out in (i) above where the applicant submits a copy of an agreement between the operator of the ILO and the owner(s) of the other affected development or urban Council (as appropriate), agreeing to such lesser separation. Such agreements between an operator and an owner (owners) of another development (other developments) must contain the provision that the parties to the agreement will register an interest to the titles of the affected land. Where such agreements are made, Council shall be a party to the agreement and may use Section 235 of *The Planning and Development Act, 2007* to register an interest to the title(s) of the affected lands.

(iii) Council may require a separation that is up to twenty per cent (20%) greater than set out in (i) above where a significant land use conflict would result with existing development (e.g.: in instances where higher

nearby development intensity or topographic situation results in greater potential for conflict and where such greater separation would serve to reduce the conflict to acceptable levels).

(iv) Council may require a greater separation from any liquid manure storage lagoon or earthen manure storage facility involved in the operation, to residential and other developments. A separation distance to the lagoon or storage facility from a residence of 1.5 times the distance required as per (i) above may be considered adequate.

(c) Other Intensive Agricultural Uses

(i) Intensive agricultural uses, such as nurseries, market gardens and other forms of intensive agriculture aimed at diversification of the farm economy, will be encouraged and permitted subject to the discretion of Council. Council may require the proponents of such developments to demonstrate that the water supply is sufficient for the development and the supply for neighbouring developments will not be adversely affected by the proposed operation, as a basis for approval.

(ii) The Zoning Bylaw will contain minimum site size standards for intensive agricultural uses. Smaller sites will be permitted for intensive agricultural uses, excluding intensive livestock operations, to facilitate their development.

(iii) New intensive agriculture development in the form of market gardens shall maintain minimum separation distances from existing industrial and hazardous industrial uses as shown in Section 6; Table 6-1.

(6) The nuisance provisions of *The Agricultural Operations Act* provides right to farm measures through the protection of normal farm practice from unreasonable court action. The Act establishes a process for reviewing and mediating disputes between farmers and neighbours through the Agricultural Operations Review Board. The Zoning Bylaw will clearly identify the types of conventional agricultural activities classified as Permitted Uses.

(7) Agricultural Related Commercial and Industrial Uses:

(a) The *Zoning Bylaw* will list principal agricultural related commercial and industrial uses as discretionary uses.

(b) Approval for such commercial or industrial developments may be granted if their function is related to agriculture and only after a review by Council, to ensure that:

(i) incompatibility with other land uses will be avoided, including consideration of proximity to urban centres, hamlets and multiple-parcel country residential subdivisions.

(ii) policies for environmental quality control will not be jeopardized, including water and waste disposal servicing.

(iii) the design and development of the use will conform to high standards of safety, visual quality and convenience.

(iv) the development will be situated along an all-weather municipal road.

(v) all relevant approvals are obtained from government agencies for uses such as anhydrous ammonia fertilizer facilities.

(8) Agricultural Subdivision Policy:

(a) Agricultural Land

Except as otherwise provided for intensive agricultural operations, the fragmentation of agricultural holdings is not encouraged. However, subdivision of land into parcels smaller than a quarter section for legitimate agricultural purposes will be permitted where:

(i) the severity of a financial crisis for a particular agricultural operation is demonstrated, in Council's opinion, to warrant the subdivision of a smaller site to assist debt restructuring or settlement.

(ii) it is fragmented from the balance of the quarter section by either natural (river, creek, coulee, etc.) or manmade (roadway, railway, etc.) barriers.

(iii) it is intended to be consolidated under one title with adjacent land, in accordance with *The Land Titles Act, 2000*, to create a more viable agricultural unit.

(iv) the agricultural parcel created results from the subdivision of land for purposes consistent with the objectives and policies in this plan.

(v) it is intended to accommodate estate planning or settlement.

(vi) it will accommodate the purchase or lease of Crown land.

3.5 COMMERCIAL/INDUSTRIAL LAND USE AND DEVELOPMENT

3.5.1 Findings

(1) Commercial and light industrial activity in the Municipality is limited. Direction for growth and development of industrial/commercial enterprises relating to agriculture and other enterprises should be given consideration by the Municipality, if and when the demand arises.

(2) The majority of sand and gravel operations are located in the north portion of the Municipality.

(3) It is the intention of the Municipality to avoid conflict between commercial and industrial land uses and other forms of agricultural and non-agricultural development by setting locational guidelines and conditions under which industrial and commercial development may be permitted.

(4) Consideration should be given to the orderly development of both farm-based and home-based businesses (e.g. seed cleaning).

(5) Council has determined that the undertaking of future commercial and industrial development in an orderly, well-planned manner can be achieved through the development of appropriate land use and municipal servicing policies that serve to minimize the costs of future commercial and industrial development within the Municipality.

(6) The majority of survey respondents (59.6%) felt that the rate of commercial development was just right. However, a large proportion of respondents (25.9%) also felt that the rate of commercial development was too slow.

(7) According to the SaskPower net wind capacity and wind energy resource maps, there may be potential for wind farm development in the R.M. of Lumsden.

3.5.2 Objectives

(1) To ensure that buildings and lots are constructed and maintained to acceptable standards.

(2) To facilitate new commercial and industrial development that will minimize land use conflicts.

(3) To protect existing and future agricultural-oriented industrial land uses in the Municipality from incompatible forms of development.

(4) To ensure that future agricultural-oriented industrial land uses do not unduly conflict with other land uses and development within the Municipality.

(5) To encourage farm-based and home-based businesses in the Municipality.

(6) To ensure that future commercial industrial development is consistent with

the capacities of the Municipality's infrastructure to support it.

(7) To manage and maximize the net benefits of future commercial and industrial development to the Municipality.

(8) To continue to encourage new and existing mineral extraction in the Municipality.

(9) To protect mineral resources and accommodate industries which utilize these resources.

(10) To maximize the benefits and minimize the impacts on the landscape and costs to the residents of the Municipality which may result from commercial and industrial activities.

(11) To minimize the disturbance to fisheries habitat, critical wildlife habitat, hazard lands and other environmentally sensitive areas in the development of new commercial and industrial activities.

3.5.3 Policies

(1) The Zoning Bylaw will contain a commercial district that will accommodate existing legally established and future commercial development.

(2) Before considering an industrial or commercial development, subdivision or rezoning application, Council may require that the development application contain information with respect to:

(a) the types of industry or commercial use to be contained on the site.

(b) the size and number of parcels proposed.

(c) the installation and construction of roads, services, and utilities.

(d) the potential impacts on adjacent land uses, and proposed measures to mitigate any negative impacts.

(e) the environmental suitability of the site and other potentially affected lands with particular consideration to the soils, topography, drainage and availability of services, proximity to public recreation and wildlife management areas and hazard land.

(f) the access, egress, and the potential impacts of the proposed development on the highway system and traffic safety.

(g) development standards or design criteria that include such aspects as parking for large trucks, landscaping, screening, storage, and signage.

(h) any other matters that Council considers necessary.

(3) Council will utilize the Future Land Use Maps 1-7 to assess the development constraints, benefits and acceptability of a proposed multiple parcel industrial or commercial subdivision and development. Future commercial or industrial subdivisions or re-zoning for commercial or industrial

development shall avoid conflict with existing land uses and development. Conflict with existing land uses and development will be demonstrated by, but such demonstration will not necessarily be limited to, the following:

(a) anticipated levels of noise, odour, smoke, fumes, dust, night lighting, glare, vibration or other emissions emanating from the operation will be sufficient to affect the residential character of existing residential areas; or

(b) anticipated increased levels or types of vehicle traffic may create unsafe conditions or situations for vehicles, cyclists or pedestrians within or adjacent to existing residential areas.

(4) Multiple Parcel Commercial and Industrial Development Policies:

(a) Concept Plan

Council will require, in the interests of ensuring a comprehensive and planned approach to development, the preparation of a concept plan for the entire area that will ultimately be developed and submission of supporting documentation, where appropriate, as follows:

(i) Reports, prepared by professionals certified to assess relevant factors to assess the geotechnical stability of the site, susceptibility to flooding or other environmental hazards, together with any required mitigation measures. These measures may be attached as a condition for a subdivision or development permit approval.

(ii) Engineering reports to address concerns such as availability of water supply, surface water drainage, landscaping, screening, parking, signage, and sewage treatment and disposal.

(iii) The initial concept plan shall provide an integrated layout for the total development area envisioned, showing road layout, access to external public road, and phasing of development. Once the initial concept plan has been accepted by Council, and subdivision and development commences, no subsequent subdivision that is inconsistent with the approved concept plan and all policies in this document will be permitted without acceptance of a revised concept plan by Council.

(b) Adopted Concept Plans

Concept Plans adopted by Council in the form of an amendment to this bylaw pursuant to *Section 44 of the Act*, are contained in Section 8.1.1 *Adopted Multiple Parcel Residential, Commercial and Industrial Development Concept Plans.*
(Revised Bylaw No.17-2015 - December 13, 2017)

(5) Principal light industrial uses will be accommodated as permitted uses within an industrial zoning district.

(6) Principal heavy industrial uses will be accommodated as discretionary uses within the industrial zoning district.

(7) Commercial and industrial building construction will be regulated by the Municipality's Building Bylaw.

(8) The Zoning Bylaw will contain provisions for landscaping and outdoor storage in commercial and industrial zoning districts.

(9) In association with an application for a development permit, Council shall require submission of a site grading plan demonstrating that there is adequate drainage from a site and that neighbouring properties and municipal infrastructure will not be adversely affected by potential runoff from the development.

(10) Highway commercial uses should maintain the functional integrity of the highway, through the use of service road systems, or controlled highway access points, which are approved by Saskatchewan Highways and Transportation.

(11) Industrial uses shall maintain a minimum separation distance from existing development as shown in Section 6, Table 6-1. Council may require a separation twenty per cent (20%) greater than that shown in Table 6-1, based on the specific nature of the proposed development and the potential for conflict with other uses.

(a) Council may approve a lesser separation than set out in Table 6-1 where the applicant submits a copy of an agreement between the applicant and the owner(s) of the other affected development or urban Council (as appropriate), agreeing to such lesser separation. Such agreements between an applicant and an owner (owners) of another development (other developments) must contain the provision that the parties to the agreement will register an interest to the titles of the affected land. Where such agreements are made, Council shall be a party to the agreement and may use Section 235 of *The Planning and Development Act, 2007* to register an interest to the title(s) of the affected lands.

(12) Where a residential use is specifically provided for as a discretionary accessory use to industrial or commercial operations, a single dwelling unit shall be permitted only if it is intended to accommodate the owner, caretaker or operator of a use for which a permit has been issued, subject to the relevant standards contained within the Zoning Bylaw.

(13) Commercial and industrial development is encouraged to locate along existing primary transportation corridors.

(14) Where Council is of the belief that a proposed commercial or industrial development may require large volumes of water, Council may require the applicant to demonstrate that the water supply is sufficient for the development and the supply for neighbouring developments will not be adversely affected by the proposed operation.

(15) Hazardous Industries

Industrial uses involving hazardous materials or chemicals will be permitted only at the discretion of Council, subject to approval required by any government regulatory agency, and subject to the following locational policies:

(a) It is Council's view that hazardous industries have the potential to negatively affect the general welfare of nearby residents and farm operations, relating to such factors

as decreased land values and perceived hazards. Therefore, in order to minimize conflict between hazardous industrial uses and other development, policies for minimum separation distances between hazardous industrial uses and other principal land uses are listed in Section 6, Table 6-1. These minimum separation distance policies shall apply both to development, alteration or expansion of hazardous industries and to other development proposed in the vicinity of existing hazardous industries.

(b) Council may approve a lesser separation than set out in (a) above where the applicant submits a copy of an agreement between the operator of the hazardous industry and the owner(s) of the other affected development or urban Council (as appropriate), agreeing to such lesser separation. Such agreements between an operator and an owner (owners) of another development (other developments) must contain the provision that the parties to the agreement will register an interest to the titles of the affected land. Where such agreements are made, Council shall be a party to the agreement and may use Section 235 of *The Planning and Development Act, 2007* to register an interest to the title(s) of the affected lands.

(c) Council may require a separation twenty per cent (20%) greater than set out in (a) above where an unacceptable land use conflict would result with existing developments. (e.g. in instances where higher nearby development intensity or topographic situation results in greater potential for conflict and where such greater separation would serve to reduce the conflict to acceptable levels).

(d) Hazardous industrial uses shall maintain a minimum separation distance from permanent water bodies or water courses as shown in Section 6, Table 6-1. **(Revised Bylaw No.17-2015 - December 13, 2017)**

(e) Buildings or yards used for the storage, handling or processing of hazardous materials shall be located at least 75 m (250 feet) from any road or railway right-of-way.

(f) The development, expansion or alteration of a hazardous industrial use shall be classed as a discretionary use in the Zoning Bylaw. Council will consider approval of developments in accordance with the discretionary use procedure of the Bylaw.

(16) Any Contractor or person wishing to use a municipal road for the purpose of transporting quantities of goods and materials that are significant in volume is required to enter into a road maintenance agreement.

(17) The Zoning Bylaw will contain provisions for stand- alone wind energy facilities and wind farms.

(18) Aggregate Resource Extraction

(a) Lands identified as having commercial aggregate resource extraction potential shall be protected from development that would preclude or constrain future utilization of that resource;

(b) Any development involving the establishment of an aggregate resource extraction industry shall be subject to the approval of Council as a discretionary use. Any

approval shall be for a maximum period of two years and may be renewed at the discretion of Council;

(c) In reviewing applications for aggregate resource extraction industries, Council shall consider the following matters:

(i) the effect on adjacent lands and uses thereon and municipal roads;

(ii) the manner in which the pit or quarry is to be operated;

(iii) the environmental implications of the operation including plans for restoration and reclamation of the site.

(d) Aggregate resource extraction industries such as gravel pits shall maintain a minimum separation distance from existing uses as shown in Section 6, Table 6-1. **(Revised Bylaw No.17-2015 - December 13, 2017)**

(e) Aggregate resource extraction industries should be located on sites that:

(i) do not have high agricultural capability;

(ii) do not have unique historical or archaeological significance;

(iii) do not have significant wildlife habitat;

(iv) are not high quality recreational land;

(v) do not lead to land use conflicts with adjacent lands.

(f) Any aggregate resource extraction industry proposed to be located within 100 m (328 ft) of any municipal road or provincial highway or the Qu'Appelle River shall:

(i) be permitted only where it would not:

1. adversely impact upon the environment; or

2. materially interfere with or affect adjacent lands;

(ii) complete extraction and reclamation of the site within two years of the granting of the approval.

(19) Potash and petroleum exploration will be encouraged in the Municipality.

(20) Extraction and processing operations for such minerals as potash and petroleum resource operations shall be protected from incompatible and potentially incompatible development and activities that would restrict their operation, hinder their expansion or continued use, or which would be incompatible for reasons of public health, public safety or environmental impact.

(21) Disturbance, as a result of potash and petroleum resource operations, shall be minimized by using the best available techniques and practices to reduce the overall footprint of activity during all phases of construction, operation, reclamation and abandonment. Consideration shall be given to the ability of natural landscapes to sustainably support

reclamation efforts.

(22) Future Land Use Map 6 – Potential Mining Areas identifies lands within the Municipality that are subject to mining leases. If a major development is proposed within one of these areas, including but not limited to a manufacturing plant, refinery, or communal water and sewer system, Council may require the proponent of such development to consult with local mining companies and the Ministry of Energy and Resources to identify potential subsidence risks. If subsidence risks are identified, the developer will be required to consult with a professional engineer to identify appropriate mitigation measures. The costs associated with identifying the risk of proceeding with a proposed development on land that potentially could be affected by subsidence or recommending specified measures to mitigate the risk of development on such land will be the responsibility of the proponent of the proposed development.

3.6 MUNICIPAL INFRASTRUCTURE AND SERVICES

3.6.1 Findings

(1) The R.M. is responsible for the maintenance of approximately 16.5 km of all season paved roads, 216.5 km of all season gravel roads and 95.5 km of seasonal gravel roads.

(2) The Town of Lumsden operates a raw water filling station which is open to R.M. residents for their use.

(3) The R.M. does not operate any water systems.

(4) Deer Valley Golf and Estates owns and operates a water treatment facility for its residents.

(5) There are three private airstrips located within the NE-1-20-21 W2M, the NE-3-21-22 W2M, and in the SE-30-22-19 W2M.

(6) The railway known as Last Mountain Railway was partially purchased and partially leased by CN in 2009 to the company known as Last Mountain Railway. One hundred and eight km of track was purchased between Davidson and Lumsden from CN. Last Mountain Railway leases the remaining 27 km from Lumsden to Regina with a future option to buy from CN.

(7) R.M. Council has had much discussion over the years concerning road priorities at R.M. connector roads that meet Provincial Highways and Primary Grid Roads. The higher volumes and changing access needs of a greater number of commuters and higher truck traffic passing through the R.M. demonstrate the need for the development of appropriate transportation and road policies.

3.6.2 Objectives

(1) To ensure that any new development can reasonably be accommodated by existing municipal services.

(2) To ensure that the road maintenance obligations created by any future residential development can be fulfilled.

(3) To ensure that the road maintenance obligations created by any future mineral extraction or oil and gas development can be fulfilled.

(4) To ensure that development does not create any traffic safety issues.

(5) To ensure that future development does not exceed capacities of local solid waste management and sewage disposal facilities.

(6) To ensure the future management and disposal of solid waste and sewage generated by new development be accommodated by existing or proposed infrastructure.

(7) To establish a hierarchy of rural roads and important streets that will maintain an efficient flow of vehicular traffic.

3.6.3 Policies

(1) All developments shall provide for:

(a) individual on-site water supply appropriate to the proposed use; or,

(b) water supply from a regional water distribution system; or,

(c) an independent communal water supply system approved pursuant to either *The Public Health Act, 1994* and associated regulations, as administered by the Regional Health Authority or *The Environmental Management and Protection Act, 2002* and associated regulations.

(2) All developments shall provide for:

(a) on-site liquid waste treatment and disposal approved pursuant to *The Public Health Act, 1994* and associated regulations, as administered by the Regional Health Authority; or,

(b) an independent communal sewage collection, treatment and disposal system approved pursuant to either *The Public Health Act, 1994* and associated regulations, as administered by the Regional Health Authority or *The Environmental Management and Protection Act, 2002* and associated regulations.

(3) The R.M. will not be responsible for the capital costs associated with the provision of municipal services to new subdivisions, except for developments owned by the Municipality. Where a private development requires municipal services, the proponent will be responsible for all costs associated with providing the services. Council may require a proponent of a development to undertake an engineering study that clearly articulates the on and off-site infrastructure required to support the development. On-site and off-site infrastructure to support new development proposals may:

(a) already exist and have the capacity to support the development, subject to the payment of applicable levies or fees; or

(b) be proposed to be constructed by the developer as an integral component of the development itself.

(4) Council will consider partnering with local urban and rural municipalities, such as the Town of Lumsden, to construct and manage infrastructure that will support future development in the R.M., including but not limited to sewage treatment and disposal systems, water treatment and distribution systems and solid waste management facilities.

(5) Council will encourage the clustering of development to facilitate and make feasible the use of communal water and sewer distribution and treatment systems.

(6) Council will not approve new development or subdivision applications unless infrastructure and utility systems and services have adequate capacity.

(7) Council will consider proposed developments on the basis that a licenced solid waste management facility is available for use by the new development.

(8) Council will approve all new developments containing communal water and sewer systems on the basis that the users of these systems will be responsible for the costs of their construction, management and operation through the auspices of a public body such as the Board of an Organized Hamlet, a resident association, or a private utility arrangement in the form of a cooperative or non-profit corporation.

(9) When reviewing development proposals, Council may request utility companies to indicate their existing and future services in and around the area of the development proposal. The availability of such services will be a consideration in Council's position with respect to development proposals.

(10) Where a subdivision of land will require the installation or improvement of municipal services such as roads or streets, utilities, water supply systems, sewage disposal facilities, and fire protection facilities the developer will be required to enter into a servicing agreement with the Municipality to cover the installation or improvements including, where necessary, charges to cover the costs of improvement or upgrading of services that directly or indirectly serve the proposed subdivision. These charges may differ from one proposed subdivision to another based on the particular needs of each development. Council will, by resolution, establish the standards and requirements for such agreements and charges, including the posting of performance bonds or letters of credit.

(11) Public works in the form of solid and liquid waste management or disposal facilities will be allowed at the discretion of Council subject to locational and development standards as specified in the Zoning Bylaw and subject to the following locational policies:

(a) It is Council's view that public works in the form of solid and liquid waste management or disposal facilities have the potential to negatively affect the general welfare of nearby residents and the quality of recreation opportunity, relating to such factors as odours, blowing debris, decreased land values and perceived hazards. Therefore, in order to minimize conflict between such public works and other development, policies for separation between public works in the form of solid and liquid waste management or disposal facilities and other principal land uses are listed in Section 6; Table 6-1.

(b) Council may approve a lesser separation than set out in (a) above where the applicant submits a copy of an agreement between the applicant and the owner(s) of the other affected development or urban Council (as appropriate), agreeing to such lesser separation. Such agreements between an applicant and an owner (owners) of another development (other developments) must contain the provision that the parties to the agreement will register an interest to the titles of the affected land. Where such agreements are made, Council shall be a party to the agreement and may use Section 235 of *The Planning and Development Act, 2007* to register an interest to the title(s) of the affected lands.

(c) Council may require a separation 20% greater than set out in (a) above. This would only apply where an unacceptable land use conflict would result with existing developments. (e.g. in instances where higher nearby development intensity or topographic situation results in greater potential for conflict and where such greater separation would serve to reduce the conflict to acceptable

levels).

(d) Using the discretionary use procedure outlined in the Zoning Bylaw, Council shall require public notice of a proposal for the development, expansion or alteration of a solid or liquid waste management or disposal facility and shall hold a public hearing on the proposal.

(12) Council may establish, by separate bylaw, policies respecting garbage pickup and solid waste disposal in country residential subdivisions and other areas of the Rural Municipality.

(13) Council may, subject to a request by the majority of residents of a multi parcel country residential area, agree to the provision of an extended service such as dust control or greater than normal snow clearing service. The financing of such service will be arranged through enactment of a special tax bylaw pursuant to the provisions of Section 312 of *The Municipalities Act, 2005*.

(14) Transportation Policies

(a) The Municipality will cooperate with the Ministry of Municipal Affairs, the Ministry of Highways and Transportation, adjacent municipalities and other adjacent jurisdictions in long-term planning that addresses its transportation needs.

(b) Council will endeavour to upgrade the major access roads in the Municipality, within the Municipality's ability to pay for such upgrades, and with the support of senior government funding wherever possible.

(c) Development shall not create any potentially unsafe traffic conditions. Council will ensure that appropriate road designs, speed limits and traffic control devices are used to help ensure traffic and road safety.

(d) Development along provincial highways shall be consistent with the safety standards and access policies established by the Ministry of Highways and Transportation.

(e) The Municipality will not be responsible for the paving of roads in country residential subdivisions.

(f) Subdivision applications requiring a permanent street or road closure, intended to correct encroachments by development on municipal road right-of-ways, will only be supported after a review by Council, to ensure that:

(i) It is determined that the permanent street or road closure would not restrict or compromise access to other sites / areas in the Municipality; and

(ii) It is determined that the street closure would not have an adverse affect on the Municipality's ability to maintain or repair municipal streets and roads.

(15) Future Land Use Map 1 – Preferred Transportation Corridors identifies key transportation corridors that could potentially support future development with the least amount of new

road infrastructure. Development in these corridors is subject to all other policies in this plan including the ability for on and off-site infrastructure to support the development.

(16) Recycling facilities shall be located in areas that are accessible by community members, when possible.

(17) Council shall enter into a road maintenance agreement where development involving heavy truck traffic has the potential to negatively impact municipal roads.

3.7 INTERMUNICIPAL AND JURISDICTIONAL COOPERATION

3.7.1 Findings

(1) The Town of Lumsden, the Town of Regina Beach, the Village of Craven, the Village of Buena Vista, and the Village of Disley are situated within the R.M. of Lumsden.

(2) Last Mountain Lake Indian Reserve #80A is located within the R.M. of Lumsden.

(3) The R.M. of Lumsden increased in population from 2006 to 2011, increasing from 1,523 to 1,631 residents. Rapid growth was also experienced between 1991 and 2001. If migration rates remain similar to what has been seen in the past five years, it is calculated that the population will increase at a rate of 1.4% annually, bringing the population to 2,141 over the next twenty years.

(4) Population in the Town of Regina Beach, Village of Craven, Village of Buena Vista and Village of Disley is expected to increase, based on the ten year trends. Current data suggests that the population in the Town of Lumsden will increase, if it follows the five year trend of 1.4%.

(5) The Rural Urban Fringe Area and Urban Future Growth Areas for the respective adjoining urban municipalities are identified on Future Land Use Map 7 – Development Constraints.

(6) The R.M. of Lumsden has an interest in collaborating with the R.M. of McKillop No. 220, the R.M. of Longlaketon No. 219 , the R.M. of Dufferin No. 190, the R.M. of Sherwood No. 159, the R.M. of Pense No. 160 and the R.M. of Edenwold No. 158 in infrastructure projects and planning as well as management of shared natural resources.

3.7.2 Objectives

(1) To facilitate inter-municipal / jurisdictional cooperation in providing municipal services that are more cost-effective and efficiently delivered on a regional basis.

(2) To pursue agreements, with neighbouring urban municipalities, that will address future growth directions and joint delivery of services, based on the planning needs of the overall community.

(3) To participate in regional studies that address topics of mutual interest including but not limited to: general resource conservation, the management development on Last Mountain Lake and the management of development in the Qu'Appelle Valley.

3.7.3 Policies

(1) Council will pursue inter-municipal cooperation with neighbouring municipalities in the region for provision of municipal services with the interest of improving municipal services and providing them on a more cost-effective basis.

(2) Council will facilitate cooperation with neighbouring urban municipalities with respect to the impact of existing and future urban development on those parties' services, facilities,

residents and / or natural resources including but not limited to: Last Mountain Lake and the Qu'Appelle Valley.

(3) Lands within 1.6 kilometres (1 mile) of the corporate limits of an Urban Municipality shall be considered a Rural – Urban Fringe Area. Future Land Use Map 7 - Development Constraints may be amended in the future to designate a specific Future Urban Growth area, subject to the Urban Municipality undertaking a planning program which identifies its spatial growth aspirations.

(4) In the interests of strengthening regional planning Council will participate in joint planning studies and initiatives, ideally with support of senior government funding.

(5) In all cases when subdivision or Zoning Bylaw map amendments are proposed within a Rural-Urban Fringe Area, Council shall notify the relevant Urban Municipality.

(6) Council will work with all urban municipalities in designating a future Urban Growth Area and these areas may be shown on the Future Land Use Map.

(7) Council will evaluate annexation proposals by all urban municipalities with consideration of its impact:

(a) on adjacent rural land uses;

(b) on the agricultural productivity of the area;

(c) on the relationship of annexed lands to the particular community's growth strategy as defined within its Official Community Plan; and,

(d) on the financial implications of the annexation to the Municipality.

(8) Council will favourably consider boundary alteration proposals where the boundary alteration proposal is intended to accommodate community growth and development sufficient to accommodate up to twenty (20) year's projected growth providing that this growth / need is demonstrated to the satisfaction of Council.

3.8 RECREATION, PUBLIC OPEN SPACE AND AESTHETICS

3.8.1 Findings

(1) No major lakeshore areas have been identified in the R.M. and the potential slope and flood problems inherent along the banks of the Qu'Appelle River and its tributaries limits the opportunity for seasonal cottage development in the Municipality. These same areas may be ideal for other types of passive and active recreational uses.

(2) The recreation industry in the R.M. of Lumsden is varied. Current recreational facilities include the Deer Valley Golf Course; Lumsden Beach Camp; St. Michael's Retreat; Beaver Creek Ranch and Horse Centre; and the Craven World Campground.

(3) The Craven Valley Country Jamboree is held annually over a period of four days in July. The Jamboree is the longest running multi-day music festival in Canada. It has been on the same site for over a quarter century.

(4) There is an increased interest in, and demand for, walking trails in and near the Qu'Appelle River Valley.

3.8.2 Objectives

(1) To ensure that the recreation resources in the R.M. can be sustained through environmental protection of the Qu'Appelle Valley and its tributaries and associated wetlands.

(2) To maximize the benefits and minimize the impacts on the landscape and costs to the residents of the Municipality which may result from recreation activities.

(3) To minimize the disturbance to fisheries habitat, critical wildlife habitat, hazard lands and other environmentally sensitive areas in the development of new recreational spaces.

(4) To utilize, wherever possible, the potential for the "Large Patches of Vegetation", "Natural Corridors" and "Stepping Stones" as detailed on the Future Land Use Map 2 – Potential Environmentally Sensitive Areas as geographic linkages to preserve and enhance the passive recreation opportunities and scenic vistas for this area of the Qu'Appelle River Valley.

(5) To consider the impact of development on scenic vistas, landscape patterns and valley ridges within the municipality.

(6) To lessen pollution by electronic light sources within the municipality.

3.8.3 Policies

(1) Where appropriate, Council will permit the development of publicly-owned or privately-owned recreation facilities.

(2) Recreation activities may occur in environmentally sensitive areas, heritage sensitive areas and hazard lands only to the extent that these lands are not detrimentally affected by recreational users.

(3) Major recreation facilities, potential pedestrian trails or linear greenway connections in and along the Qu'Appelle Valley will be facilitated by Council where feasible in terms of appropriate public access points with respect to the rights of private landowners without endangering heritage-sensitive or environmentally-sensitive areas.

(4) Applicants for new subdivision and development applications within the Qu'Appelle Valley may be required to demonstrate to Council how scenic vistas and views of valley ridgelines will be impacted.

(5) Council encourages that site and other outdoor light fixtures for new residential development be Dark Sky Friendly or approved by the International Dark Sky Association.

(6) Council may require that site and other outdoor light fixtures for new commercial and industrial development be Dark Sky Friendly or approved by the International Dark Sky Association.

4.0 FUTURE LAND USE MAPS

4.1 USE AND INTERPRETATION

4.1.1 Intent

The Future Land Use Maps contained in this Section are intended to guide land use decisions within the municipality by identifying opportunities and constraints on future land use and development. Council will consider new subdivision and development proposals in the context of the information contained on the Future Land Use Maps, which form part of this Plan.

The Future Land Use Maps are as follows:

Map 1: Preferred Transportation Corridors - identifies key transportation corridors that could potentially support future development with the least amount of new road infrastructure.

Map 2: Potential Environmentally Sensitive Areas - identifies land with potential sensitivity to development due to the natural environment.

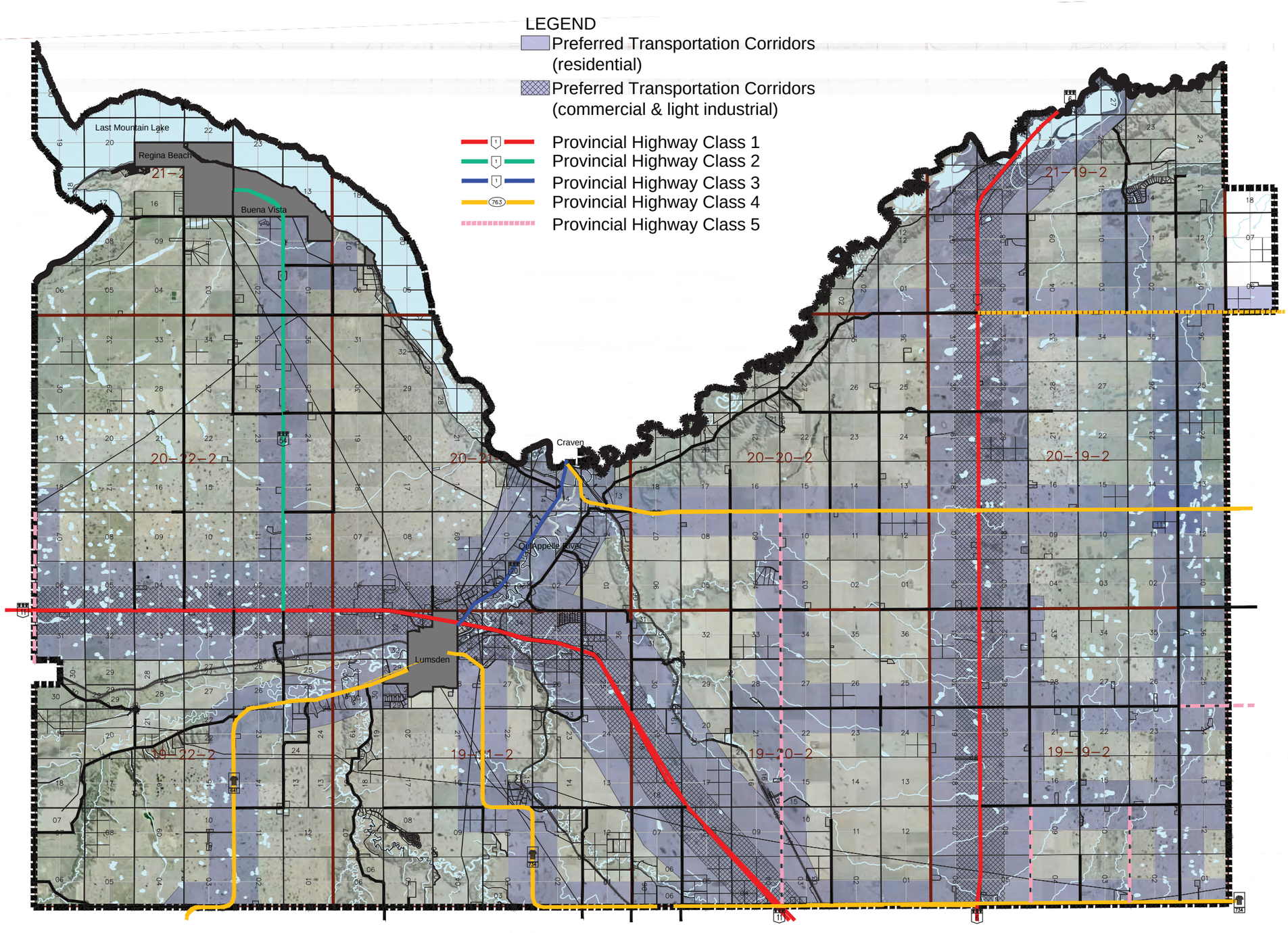
Map 3: Hazard Lands - identifies constraints to development due to flood and slope conditions.

Map 4: Soil Capability for Agriculture - identifies the capability of land for dry land crop production.

Map 5: Separation Distances Required for a Potential ILO - identifies existing development and the buffer distances required for an ILO from this existing development.

Map 6: Potential Mining Areas - identifies land subject to current mining leases.

Map 7: Development Constraints - identifies development constraints such as potential heritage sensitivity, waterbodies and wetlands, existing ILO's, potential critical wildlife habitat areas, the urban-rural fringe, conservation easements, etc.



R.M. of Lumsden No. 189

Future Land Use Map 1 - Preferred Transportation Corridors

CROSBY HANNA & ASSOCIATES - LANDSCAPE ARCHITECTURE AND PLANNING -

0 1 2 4 8km

North

12/07/06

LEGEND

- Uncultivated Land - potential native and rare plant species
- Recognized Conservation Areas
- Environmentally Sensitive Areas
- Fragmented Natural Valley Corridor
- Continuous Natural Valley Corridor
- Biggar Sandy Loam Soil (high water table)

Last Mountain Lake
Regina Beach
Buena Vista
Little Arm
Valeport
Craven
Appelle River
Lumsden
Lower Wascana
Upper Wascana
Lower Cotton-wood
Lower Boggy Creek
Disley
High Hill
Hidden Valley
Fairy Hill
West of Hwy. 6
21–19–2
20–22–2
20–21–2
20–20–2
20–19–2
19–22–2
19–21–2
19–20–2
19–19–2

R.M. of Lumsden No. 189

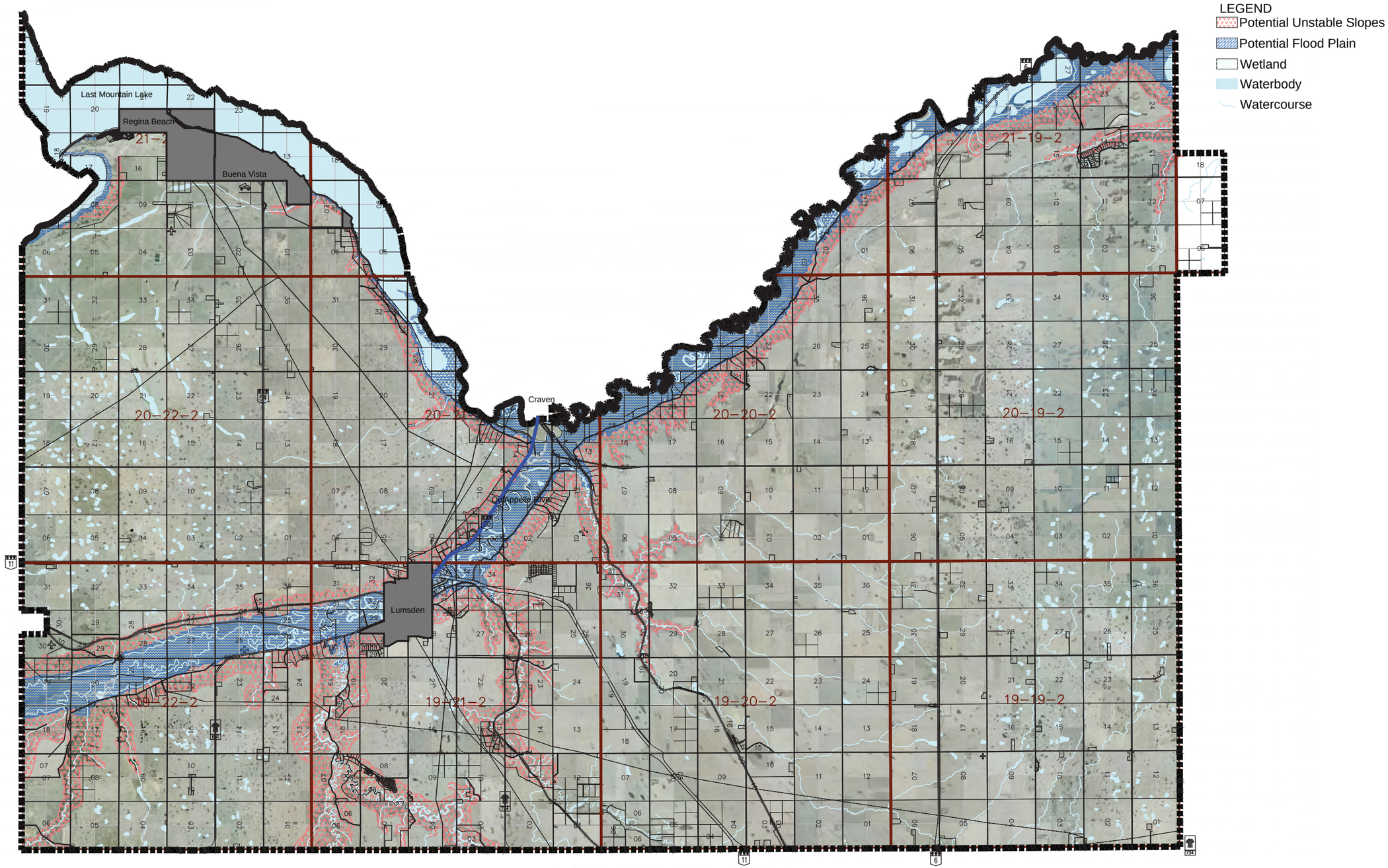
Future Land Use Map 2 - Potential Environmentally Sensitive Areas

CROSBY HANNA & ASSOCIATES - LANDSCAPE ARCHITECTURE AND PLANNING -

0 1 2 4 8km

North

12/07/06



R.M. of Lumsden No. 189

Future Land Use Map 3 - Hazard Lands

CROSBY HANNA & ASSOCIATES - LANDSCAPE ARCHITECTURE AND PLANNING -

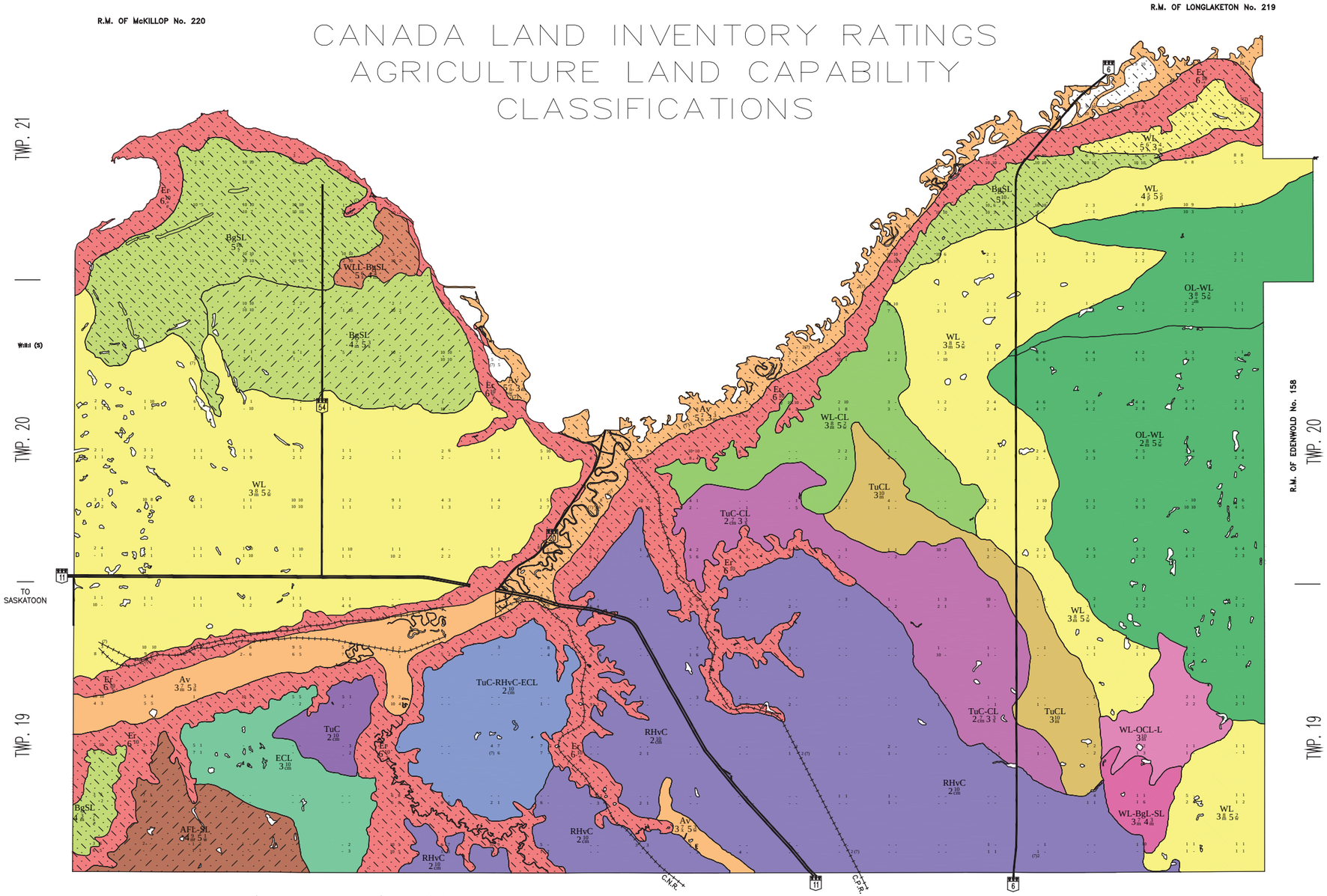
0 1 2 4 8km

North

12/07/06

R.M. OF LUMSDEN No. 189

CANADA LAND INVENTORY RATINGS
AGRICULTURE LAND CAPABILITY
CLASSIFICATIONS



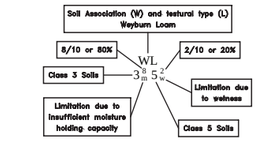
Source: UMA Engineering Ltd. Engineers, Planners & Surveyors, Saskatchewan. A.P.E.S. Certificate of Authorization No. 270

LEGEND

SYMBOL	SOIL ASSOCIATION & TEXTURES TYPE
AFL-SL	ASQUITH FINE SANDY LOAM SANDY LOAM
Av	ALLUVIUM
BgSL	BIGGAR SANDY LOAM
ECL	ELSTOW CLAY LOAM
Er	ERODED
OL-WL	OXBOW LOAM WEYBURN LOAM
RHvC	REGINA HEAVY CLAY
TuC	TUXFORD CLAY
TuCL	TUXFORD CLAY LOAM
TuC-CL	TUXFORD CLAY LOAM CLAY LOAM
TuC-RHvC-ECL	TUXFORD CLAY REGENA HEAVY CLAY ELSTOW CLAY LOAM
WL	WEBURN LOAM
WL-BgL-SL	WEYBURN LOAM BIGGAR LOAM SANDY LOAM
WL-CL	WEYBURN LOAM CLAY LOAM
WLL-BgSL	WEYBURN LIGHT LOAM BIGGAR SANDY LOAM
WL-OCL	WEYBURN LIGHT LOAM BIGGAR SANDY LOAM
	60% OR MORE OF CLASS 4 SOILS.
	60% OR MORE OF CLASS 5 AND 6 SOILS.

MAP SYMBOL

The map symbol is composed of a top line and a bottom line as illustrated in the following diagram.



Class 1 – Soils in this class have no significant limitations that restrict their use for crops. They are moderately high to high in productivity for a wide range of field crops.

Class 2 – Soils in this class have moderate limitations that reduce the choice of crops, or require moderate conservation practices. They are moderately high to high in productivity for a fairly wide range of crops.

Class 3 – Soils in this class have moderately severe limitations that reduce the choice of crops or require special conservation practices. They are medium to moderately high in productivity for a moderate range of field crops.

Class 4 – Soils in this class have severe limitations that restrict the choice of crops or require special conservation practices or both. They are low to medium in productivity for a narrow range of field crops, but may have higher productivity for a special crop.

Class 5 – Soils in this class are unsuited to the production of common field crops and are capable only of producing perennial forage crops. Improvement practices are feasible.

Class 6 – Soils in this class are capable only of producing native perennial forage crops. Improvement practices ARE NOT feasible.

Class 7 – Soils in this class have no capability for arable agriculture or permanent pasture.

SOIL LIMITATIONS

SUBCLASS m – insufficient soil moisture holding capacity.
SUBCLASS d – poor structure and/or permeability.
SUBCLASS f – low soil fertility.
SUBCLASS n – excessive soil salinity.
SUBCLASS s – unfavorable soil characteristics. This subclass is used in a collective sense in place of subclasses m, d, f, and n where more than two of them are present or where two of these limitations are present in addition to some other limitation.

LANDSCAPE LIMITATIONS

SUBCLASS w – excess water – applies to soils where excess water, apart from that brought about by inundation is a limitation in their use for agriculture.
SUBCLASS p – excess stoniness.
SUBCLASS e – erosion damage.
SUBCLASS i – inundation – applies to soils subjected to flooding due to overflow.
SUBCLASS x – moderate limitation due to accumulative minor adverse characteristics which singly are not serious enough to affect the class rating.

LAND USE

The number appearing in adjacent corners of each quarter section unit indicate the proportion of unsultivated land within the quarter section expressed as a total of 10 as recorded in the year of assessment.

NW quarter – less than 10% unsultivated land (0 – 9 acres)
NE quarter – 100% unsultivated land (151 – 160 acres)
SW quarter – 30% unsultivated land (41 – 56 acres)
SW quarter – 30% unsultivated land (41 – 56 acres) – 10% class 7 land

R.M. of Lumsden No. 189

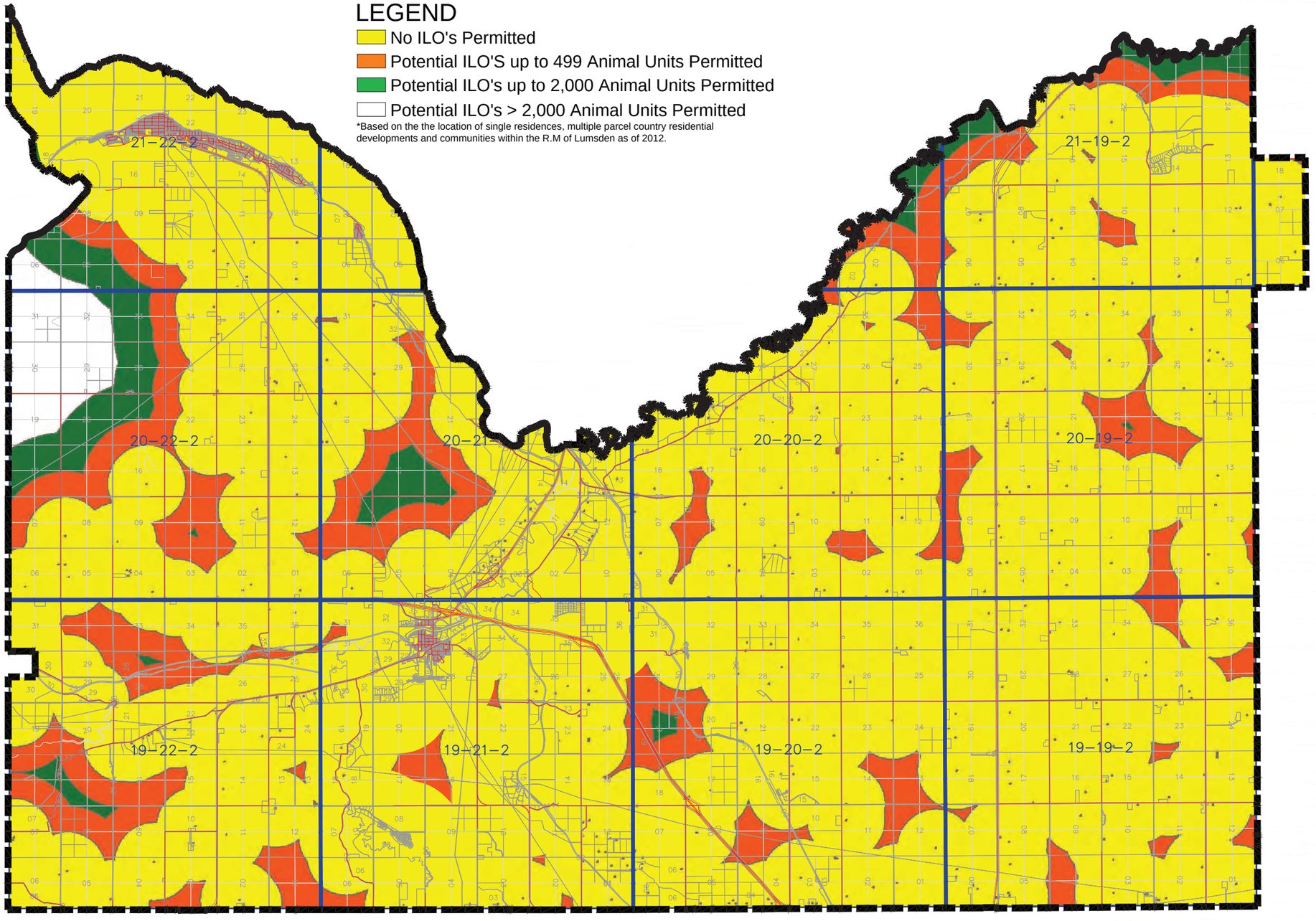
Future Land Use Map 4 - Soil Capability for Agriculture

CROSBY HANNA & ASSOCIATES - LANDSCAPE ARCHITECTURE AND PLANNING -

0 1 2 4 8km

North

12/07/06



R.M. of Lumsden No. 189

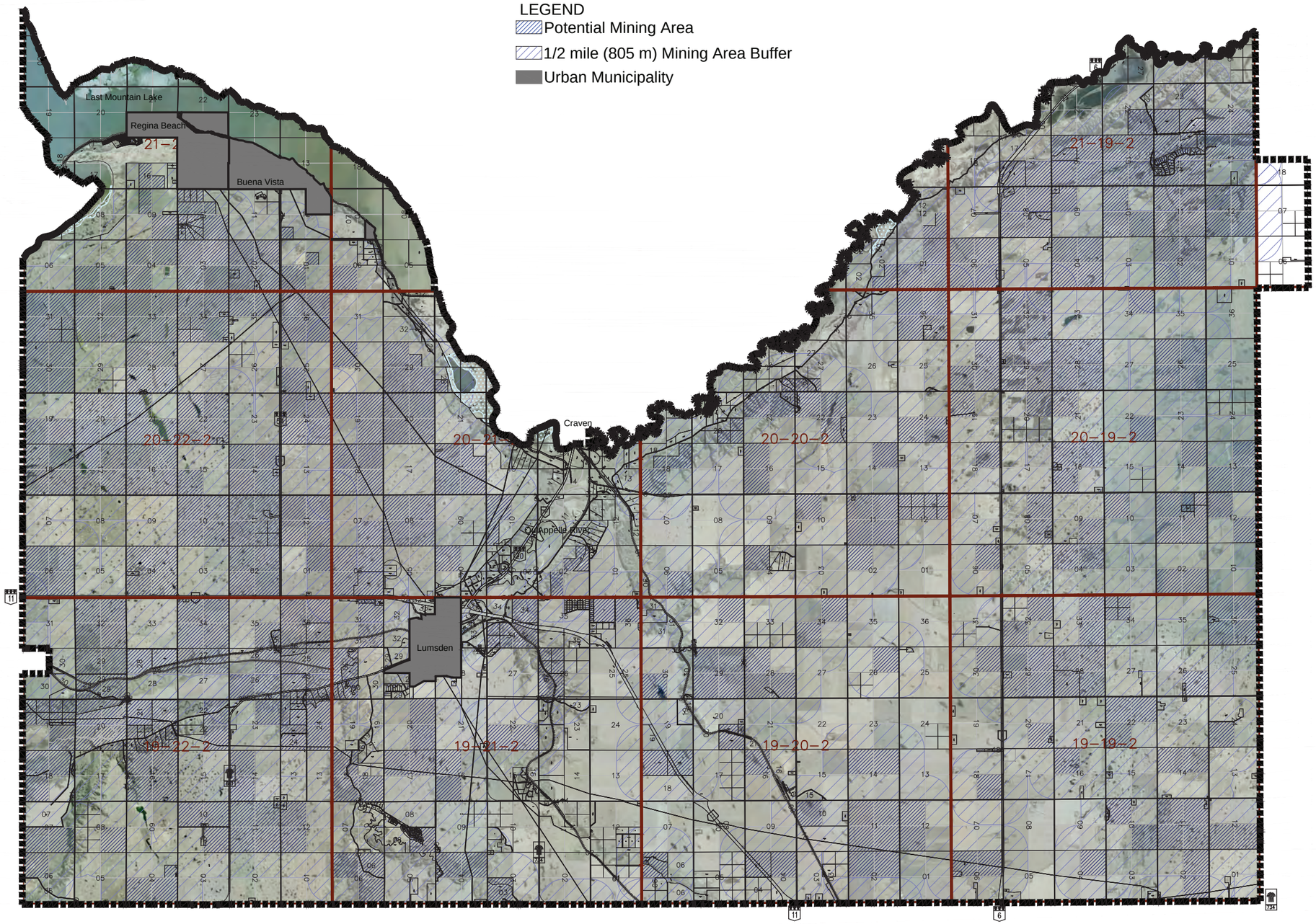
Future Land Use Map 5 - Separation Distances Required for a Potential ILO

CROSBY HANNA & ASSOCIATES - LANDSCAPE ARCHITECTURE AND PLANNING -

0 1 2 4 8km

North

12/07/06



R.M. of Lumsden No. 189

Future Land Use Map 6 - Potential Mining Areas

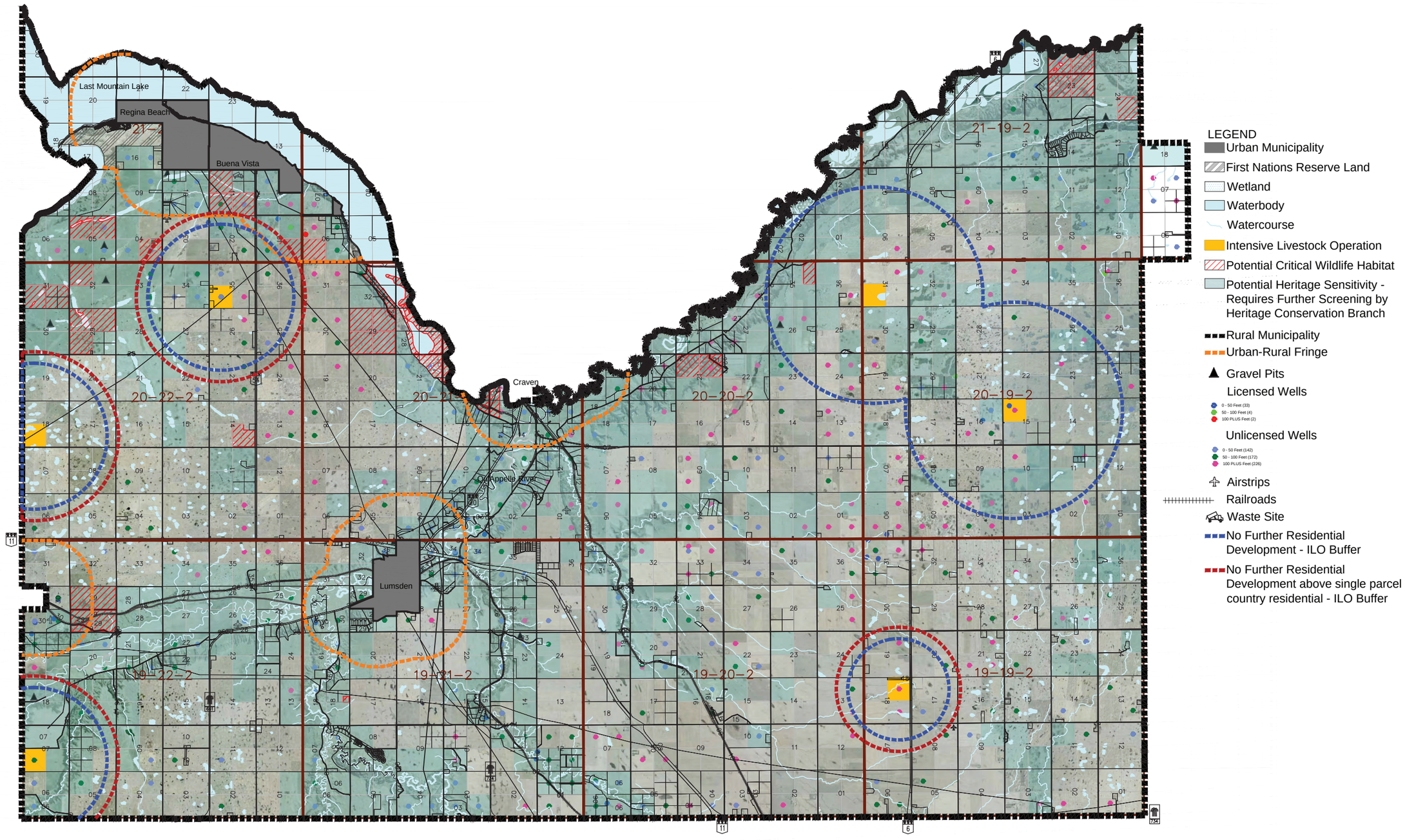
CROSBY HANNA & ASSOCIATES - LANDSCAPE ARCHITECTURE AND PLANNING -

0 1 2 4 8km

North

12/07/06

Revised Bylaw 12-2013 - September 12, 2013



R.M. of Lumsden No. 189

Future Land Use Map 7 - Development Constraints

CROSBY HANNA & ASSOCIATES - LANDSCAPE ARCHITECTURE AND PLANNING -

13/08/05

5.0 IMPLEMENTATION

5.1 ZONING BYLAW

The Zoning Bylaw will be the principal method of implementing the objectives and policies contained in this Official Community Plan and will be adopted in conjunction herewith by the R.M. of Lumsden.

5.1.1 Purpose

The purpose of the Rural Municipality's Zoning Bylaw is to control the use of land providing for the amenity of the area within Council's jurisdiction and for the health, safety and general welfare of the inhabitants of the Rural Municipality.

5.1.2 Content and Objectives

The Zoning Bylaw will implement the land use policies contained in this Official Community Plan by prescribing and establishing zoning districts for residential uses, community service uses, retail commercial uses, highway commercial uses, industrial uses, future urban development lands and restricted development lands. Regulations within each district will govern the range of uses, site sizes, setbacks, building locations, off-street parking, landscaping and so forth.

(1) **A** – AGRICULTURE DISTRICT

The objective of the **A** – Agriculture District is to provide for the primary use of land in the form of agricultural development, associated residences, limited single-parcel country residential development, location-dependent natural resource development and other uses compatible with agricultural development.

(2) **CR1** – LOW DENSITY COUNTRY RESIDENTIAL DISTRICT

The objective of the **CR1** – Low Density Country Residential District is to provide for low density multiple-lot country residential development and other compatible development in specific areas with standards for such development which does not directly support agriculture.

(3) **CR2** – MEDIUM DENSITY COUNTRY RESIDENTIAL DISTRICT

The objective of the **CR2** – Medium Density Country Residential District is to provide for medium density multiple-lot country residential development and other compatible development in specific areas with standards for such development which does not directly support agriculture.

(4) **CR3** – HIGH DENSITY COUNTRY RESIDENTIAL DISTRICT

The objective of the **CR3** – High Density Country Residential District is to provide for high density multiple-lot country residential development and other compatible development in specific areas with standards for such development which does not directly support agriculture.

(5) **HDMU** – HIGH DENSITY MIXED USE RESIDENTIAL DISTRICT

The objective of the **HDMU** – High Density Mixed Use Residential District The objective of the HDMU – High Density Mixed Use Residential District is to provide for a mix of comprehensively planned high and low density residential uses and compatible commercial and community service uses.

The **HDMU** – High Density Mixed Use Residential District shall be applied only to accommodate approval by agreement (under section 69 of The Planning and Development Act, 2007) of a specific development proposal that Council considers suitable under the policy and guidelines established for the High Density Mixed Use Residential District.

(6) **R1** – LOW DENSITY VALLEY RESIDENTIAL DISTRICT

The objective of the R1 – Low Density Valley Residential Development District is to accommodate low density residential development that existed as of August 1, 2012. This district shall not be applied by Council after August 1, 2012.

(7) **R2** – MEDIUM DENSITY VALLEY RESIDENTIAL DISTRICT and **R3** – PLANNED VALLEY RESIDENTIAL DISTRICT

The objective of the R2 - Medium Density Valley Residential District and the R3 - Planned Valley Residential District is to accommodate the continued development and use of the integrated residential/recreational Deer Valley development according to established development standards.

(8) **C** – GENERAL COMMERCIAL DISTRICT

The objective of the **C** – General Commercial District is to provide for general commercial and other compatible development in specific areas, with standards for such development.

(9) **C2** – HIGHWAY COMMERCIAL DISTRICT

The objective of the **C2** – Highway Commercial District is to provide for commercial, light industrial and other compatible development in specific areas, with standards for such development.

(10) **M** – INDUSTRIAL DISTRICT

The objective of the **M** – Industrial District is to provide for light industrial, heavy industrial and other compatible development in specific areas, with standards for such development.

(Revised Bylaw No. 12-2013 – September 12, 2013)

5.1.3 Amending the Zoning Bylaw

When considering applications to amend zoning regulations or standards, or requests for the rezoning of land, Council shall consider such proposals within the context of:

(1) the nature of the proposal and its conformance with all relevant provisions of this Official Community Plan.

(2) the need to foster a rational pattern of relationships among all forms of land use and to protect all forms of land use from harmful encroachments by incompatible uses.

(3) the need for the form of land use proposed and the supply of land currently available in the general area capable of meeting that need.

(4) the capability of the existing road system to service the proposed use and the adequacy of the proposed supply of off-street parking.

(5) the capability of existing community infrastructure to service the proposal, including water and sewer services, parks, schools and other utilities and community services.

5.1.4 Zoning By Agreement

(1) Where an application is made to Council to rezone land to permit the carrying out of a specified proposal, Council may, for the purpose of accommodating the request, enter into an Agreement with the Applicant pursuant to Section 69 of *The Planning and Development Act, 2007.*

(2) Section 5.1.3 of this Official Community Plan shall apply in the review of applications for rezoning by agreement.

(3) Council may enter into an agreement with the applicant setting out a description of the proposal and reasonable terms and conditions with respect to:

(a) the uses of the land and the buildings and the forms of development;

(b) the site layout and external design, including parking areas, landscaping and entry and exit ways; and,

(c) any other development standards considered necessary to implement the proposal, provided that the development standards shall be no less stringent than those set out in the requested underlying zoning district.

(4) Council may limit the use of the land and buildings to one or more of the uses permitted in the requested zoning district.

(5) Council may consider rezoning by agreement to accommodate development or subdivision proposals when:

(a) limiting the uses within a zoning district will avoid land use conflict;

(b) it is necessary to ensure that appropriate services and infrastructure is provided;

(c) a comprehensive master-planned community will require implementation of the **HDMU** – High Density Mixed Use Residential District.

5.1.5 Use of the Holding Symbol "H"

(1) Pursuant to Section 71 of *The Act,* Council may use the Holding Symbol "H" in conjunction with any zoning district designation, to specify the use to which lands or buildings may be put at any time that the holding symbol is removed by amendment to

the zoning bylaw.

(2) Council may use the Holding Symbol "H" to accommodate multiple phase subdivisions and developments.

(3) In making a decision as to whether to remove the Holding Symbol "H" by amendment to the zoning bylaw, Council shall consider whether development has progressed to a point where extension of municipal services is appropriate.

5.2 OTHER IMPLEMENTATION TOOLS

5.2.1 Subdivision Application Review

In reviewing any application for subdivision, Council shall indicate support for such application only when it has:

(1) Ensured that all policies and guidelines established regarding occupancy levels, development standards and design of the subdivision, as set out in this Official Community Plan, have been satisfied.

(2) Ensured that the application is in conformity with the Zoning Bylaw.

(3) Negotiated the terms of a servicing agreement, if required, with the applicant.

(4) Determined its wishes with respect of the dedication of lands.

5.2.2 Dedicated Lands

(1) When reviewing any application for subdivision, Council may indicate to the approving authority, its desire to have unstable or flood-prone areas set aside as environmental reserve and/or municipal reserve, as a condition of subdivision approval, pursuant to Section 185 of *The Planning and Development Act, 2007*.

(2) Pursuant to *The Planning and Development Act, 2007*, Council may elect to request that an approving authority require the owner of land that is the subject of a proposed subdivision to provide money in place of all or a portion of land that would otherwise be required to be dedicated as municipal reserve.

5.2.3 Building Bylaw

Council will use its building bylaw to provide standards for the construction, repair and maintenance of buildings in the community as well as ensuring acceptable physical conditions. Provisions for occupancy permits and inspections can be included in the bylaw.

5.2.4 Development Levies and Servicing Fees

(1) In accordance with Section 169 of *The Act*, Council may establish, by separate bylaw, development levies for the purpose of recovering all or part of the capital cost of providing altering, expanding or upgrading services and facilities associated with a proposed development with existing subdivided areas. Such bylaw must be based on studies to establish the cost of municipal servicing and recreational needs and on a consideration of future land use and development and the phasing of associated public works.

(2) In accordance with Section 172 of *The Act*, Council may establish by resolution, a schedule of development specifications and servicing fees to be used by the Municipality as the basis for the negotiation of servicing agreements with proponents of a new subdivision development. Such servicing specifications will provide a consistent set of development standards for provision of direct services by developers in a new

subdivision development. The schedule of fees will be based on the identification of overall services and public works that the Municipality anticipates will be needed as a result of new subdivision development for a specified term. Offsite service fees for individual developments will be established based on a calculation of the servicing needs being created by that individual development as a part of the Municipality's overall servicing needs.

5.3 OTHER

5.3.1 Updating the Official Community Plan

Plans and projections for future development shall be monitored on an ongoing basis. Policies contained in this Official Community Plan, including the Future Land Use Maps, shall be reviewed and updated within five years of adoption.

5.3.2 Further Studies

As necessary, Council will undertake such studies or programs required to facilitate and encourage the growth and development of the Rural Municipality of Lumsden, No. 189.

5.3.3 Cooperation and Inter-Jurisdictional Consideration

Council shall cooperate with senior governments, other municipalities and public and private agencies to implement this Official Community Plan.

5.3.4 Programs

Council shall participate in senior government economic development, public utility, resource enhancement, housing, social and environmental protection programs and projects, where such will help in achieving its goals and objectives.

5.3.5 Provincial Land Use Policies and Interests

This bylaw shall be administered and implemented in conformity with applicable provincial land use policies and interests, statutes and regulations and in cooperation with provincial agencies. Where a references is made in this Plan to a provincial statute or regulation and that statute or regulation is amended or repealed and substituted with a replacement statute or regulation, the reference herein to the statute or regulation shall be taken to mean the amended or replacement statute or regulation.

5.3.6 Binding

Subject to Section 40 of *The Planning and Development Act, 2007,* the Official Community Plan shall be binding on the Rural Municipality, the Crown, and all other persons, associations and other organizations, and no development shall be carried out that is contrary to this Official Community Plan.

5.3.7 Definitions

The Zoning Bylaw definitions shall apply to this Official Community Plan.

6.0 MINIMUM SEPARATION REQUIREMENTS

Table 6-1: Separation Distances Between Uses (in metres) RM of Lumsden No. 189		**Municipal Wells**	**Residential ***			**Intensive Recreational Development (4)**	**Permanent Waterbodies or Watercourses (5)**	**Intensive Agriculture (6)**	**Industrial (7)**	**Hazardous Industrial (8)**
			Single Parcel (1)	Multi-lot Country Residential, HDMU, Organized Hamlet or Urban Municipality (2)	Tourist Accommodation (3)					
Intensive Livestock Operation (9)	300 – 499 A.U.	1,600	1,200	1,600	1,200	1,200	*	- -	1,200	1,200
	500 – 2,000 A.U.	1,600	2,000	2,400	2,000	2,000	*	- -	2,000	2,000
	> 2,000 A.U.	1,600	3,200	3,200	3,200	3,200	*	- -	3,200	3,200
Airport / Airstrip (10)		- -	- -	800	- -	- -	- -	- -	- -	- -
Aggregate Resource, including Gravel Pits (11)		- -	150	305	150	305	- -	- -	- -	- -
Waste Mgmt. (12)	Solid	1,600	457	457	457	457	457	457	457	457
	Liquid	1,600	457	457	457	457	457	457	457	457
Anhydrous (13)	Non-refrigerated	- -	305	305	305	305	- -	- -	- -	- -
	Refrigerated	- -	600	600	600	600	- -	- -	- -	- -
Industrial (7)		800	305	800	800	800	- -	800	- -	- -
Hazardous Industrial (8)		1,600	1,600	2,400	1,600	1,600	1,600	1,600	- -	- -

Distances are measured as follows: Between closest point of nearest:

(1) Single residential building...
(2) Subdivision, hamlet or municipal boundary...
(3) Tourist accommodation facility...
(4) Recreational site...
(5) Permanent waterbody or watercourse...
(6) Intensive agricultural site...
(7) Industrial site...
(8) Hazardous industrial site...
(9) ILO facility...
(10) Airport / airstrip facility...
(11) Aggregate resource or gravel pit site...
(12) Waste management facility or lagoon...
(13) Anhydrous ammonia storage facility...

... to the nearest residential building, corporate limit, ILO, airport or airstrip, gravel pit, anhydrous ammonia storage facility, waste management facility, or to the site lines for other uses.

* Council may reduce the prescribed separation distances where appropriate fencing, screening, landscaping, berming, building and site orientation, road upgrading or other similar measures are provided to mitigate potential land use conflicts to the satisfaction of Council.

* The separation distance between a liquid waste disposal facility and an adjoining other principal use as specified in Table 6-1 may be reduced by resolution of Council where the subject waste facility is a mechanical waste water treatment plant and a reduced separation distance is recommended by the Saskatchewan Water Security Agency.

* Setbacks between ILO's and permanent waterbodies and watercourses are subject to Provincial Regulations and approvals by the Ministry of Agriculture.

(Revised Bylaw No. 8-2014 - September 5, 2014, Bylaw No. 14-2014 - November 21, 2014, Bylaw No. 17-2015 - December 13, 2017)

Table 6-1
Separation Distance Between Uses (in Metres)

R.M. of Lumsden No. 189

		Municipal Wells	Residential				Urban Municipality	Intensive Agriculture	Intensive Livestock Operations (number of animal units)			Airport / Airstrip	Commercial (Agriculture)	Gravel Pit	Waste Management		Anhydrous		Industrial	Hazard Industrial
			Single	MCR	HDMU	Tourist Accommodation			300 - 499	500 – 2,000	> 2,000				Solid	Liquid	Non-Refrigerated	Refrigerated		
Residential	Single [1]	- -	- -	- -	- -	- -	1,600	- -	1,200	2,000	3,200	- -	200	200	457	600	300	600	300	1,600
	Multi-lot Country Residential **Or Urban Municipality (Bylaw 8-2014)** [2]	- -	- -	- -	- -	- -	1,600	- -	1,600	2,400	2,400	800	200	600	457	600	300	600	800	2,400
	Tourist Accommodation [3]	- -	- -	- -	- -	- -	- -	- -	1,200	2,000	3,200	- -	200	200	457	600	300	600	800	1,600
Intensive Agriculture [4]		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	800	1,600
Intensive Livestock Operation [5]	300 - 499	1,600	1,200	1,600	1,600	1,200	1,600	- -	- -	- -	- -	- -	1,200	- -	- -	- -	- -	- -	1,200	1,200
	500 - 2000	1,600	2,000	2,400	2,400	2,000	2,400	- -	- -	- -	- -	- -	2,000	- -	- -	- -	- -	- -	2,000	2,000
	> 2,000	1,600	3,200	3,200	3,200	3,200	3,200	- -	- -	- -	- -	- -	3,200	- -	- -	- -	- -	- -	3,200	3,200
Airport / Airstrip [6]		- -	- -	800	800	- -	800	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Commercial (Agriculture) [7]		- -	300	800	800	800	1,600	800	1,200	2,400	3,200	- -	- -	- -	457	300	- -	- -	- -	- -
Waste Management [8]	Solid	1,600	457	457	457	457	457	457	- -	- -	- -	- -	457	- -	- -	- -	- -	- -	457	- -
	Liquid	1,600	~~600~~ 457 **Bylaw 14-2014**	~~600~~ 457 **Bylaw 14-2014**	~~600~~ 457 **Bylaw 14-2014**	~~600~~ 457 **Bylaw 14-2014**	~~600~~ 457 **Bylaw 14-2014**	300	- -	- -	- -	- -	300	- -	- -	- -	- -	- -	300	- -
Anhydrous [9]	Non-Refrigerated	- -	300	300	300	300	300	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	Refrigerated	- -	600	600	600	600	600	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Industrial [10]		800	300	800	800	800	1,600	800	1,200	2,000	3,200	- -	- -	- -	457	300	- -	- -	- -	- -
Hazardous Industrial [11]		1,600	1,600	2,400	2,400	1,600	2,400	1,600	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Distances are measured as follows - Between closest point of nearest:

[1] Single Residential Building...
[2] Multilot Residential Building Site...
[3] Tourist Accommodation Facility...
[4] Intensive Agricultural Site...
[5] ILO Facility...
[6] Airport / Airstrip Facility...
[7] Commercial Site...
[8] Waste Management Facility or Lagoon...
[9] Anhydrous Ammonia Storage Facility...
[10] Industrial Site...
[11] Hazardous Industrial Site...

... to the nearest residential building, corporate limit, ILO, airport or airstrip, gravel pit, anhydrous ammonia storage, or waste management facility and the site lines for other uses.

7.0 COUNTRY RESIDENTIAL DEVELOPMENT PROPOSAL WORKBOOK

Rural Municipality of Lumsden No. 189
Country Residential Development Proposal Workbook

This workbook is intended to allow the R.M. of Lumsden No. 189 and Council to thoroughly evaluate the impact of new country residential subdivision proposals in the area. The workbook is intended to raise awareness of current development issues and identify best practices with respect to community design. Council will base decisions on moving forward with rezoning applications related to new country residential subdivision proposals on the responses provided by applicants to the questions contained within this workbook, subject to other relevant Bylaws and policies of the Municipalities.

Please answer questions in the space provided within this workbook and attach additional sheets if necessary.

1. NATURAL AND BUILT ENVIRONMENTAL CONSIDERATIONS

The quality of both the physical and built environment can have a great influence on human health. These qualities may include physical human health; the natural environment's ability to maintain living conditions such as clean air, water and a suitable climate; production of renewable resources; quality of life for all people; and the beauty / aesthetics of the environment.

Please comment on the following development components:

1.1 What is the total area of the subdivision (hectares)?

Total subdivision area:

****

1.2 How many residential sites are proposed by the subdivision?

Total number of sites: ______________________________________
Range of site size (smallest site - largest site): ______________________________________

****

1.3 How does the subdivision design address storm water management (e.g., wet/dry ponds, natural features, linear parks, green roof treatment, permeable paving, on-site drainage)? Will stormwater be managed on-site?

Minimizing the impact of storm water helps to reduce and /or prevent pollution and flooding as well as promote aquifer recharge. Storm water management systems become increasingly important as areas become developed, both in terms of managing increased volumes and preventing pollution.

Describe

____
____
____
____
____
____
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____
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____
____
____
____
____

****

1.4 Are there potential geotechnical hazards (steep slope, streamsides, shorelines)?

Early recognition of geotechnical hazards is an important step in reducing the incidence of expensive and potentially unsafe situations.

Yes/No

Describe

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

****

1.5 Is this a "brown-field" site or other potentially contaminated area (e.g. old farm yard, railway right-of-way)? If yes, is environmental site remediation to be part of the development process?

Brown-field sites or land that may have been used for potentially noxious industrial or commercial purposes (e.g. dry cleaning, farm sites, gas stations) that may have been contaminated by hazardous waste or pollution and need to be restored / decontaminated before development occurs. Brown-field sites are unsafe to redevelop before an environmental remediation takes place.

Yes/Not Applicable

If yes, briefly outline the nature of the potential contamination and the proposed (actual) remediation approach (including the standards that were adhered to):

_____
_____
_____
_____
_____

Comment on inclusion of the following methods to reduce energy use and improve air quality:

_____
_____
_____
_____
_____
_____
_____

****

1.6 Does the proposed development incorporate energy efficiency of proposed structures and / or subdivision layout (e.g., building location responding to daily sun/shade patterns, north-south orientation of residential sites, high performance envelopes, passive solar gain, solar shading, natural ventilation, ground heating/cooling)?

Reducing energy consumption through design and layout of buildings and communities conserves non-renewable fossil fuels, reduces air, water and land pollution, and reduces energy costs to the public. Site planning and building design are key components in increasing energy efficiency.

Yes/No

Describe

_____
_____
_____
_____
_____
_____
_____
_____

****

1.7 What proportion (%) of the residential sites in the subdivision have a north-south orientation appropriate for taking maximum advantage of passive solar energy?

Passive Solar Energy makes use of a steady supply of energy by means of building design and orientation. It reduces fuel consumption, lowers energy bills and increases natural light. Appropriate solar orientation for residential sites shall be defined as sites oriented within 30 degrees of a north-south axis.

Proportion(%):

****

1.8 Are there any existing wetlands that would be affected by this proposal?

Yes/No

Describe

_____
_____
_____
_____
_____
_____
_____

****

1.9 Will greenspace and trees be provided within the subdivision (includes retention of existing trees)? Are there unique greenspace provisions that will contribute to the sustainability of the development?

Provision of more than one type of green space contributes to the diversity of the community and satisfies the various functional aspects of open space (e.g. programmed, passive, natural drainage, mobility).

Yes/No

Describe

_____
_____
_____
_____
_____
_____

****

1.10 Are there any significant existing environmental or cultural features that will be maintained, enhanced or destroyed on the site (e.g., tree and/or shrub or other natural feature preservation, critical wildlife habitat, cultural / heritage resource preservation)?

Maintaining or enhancing environmental features and significant archaeological sites helps to create a sense of community, protects the natural environment, a community's past and creates unique and distinctive places for people to live and enjoy.

Yes/No

Describe

_____
_____
_____
_____
_____
_____

****

1.11 What is the length (in lane metres) of the streets (by type, including walkways) in the development?

The total amount of transportation infrastructure can be compared to the size of the subdivision and expected population of the subdivision at full build-out size. A lane metre is defined as I metre x 2.5 metres (2.5 m2).

Length of streets: _____

****

1.12 Are actions proposed to mitigate noise (e.g., traffic, industry, agricultural uses)?

Mitigative measures could include noise attenuation walls, buffers, berms, vegetation, etc.

Yes/No

Describe

_____

_____

_____

_____

_____

****

1.13 What is the layout of the street network (e.g. grid, curvilinear)?

Street layout can influence maintenance costs as well as connectivity with surrounding development. Intersections and sight lines related to streets affect traffic and pedestrian safety.

Describe

_____

_____

_____

_____

_____

_____

****

1.14 Is the development proposed to be located within 1.6 km. of a significant grassland area? If so, have you considered subdivision design elements or building standards that are intended to reduce the potential risk to the development from wildfires?

Subdivision design and development standards can minimize risk through the selective placement of perimeter fire buffer areas, access roads, trail development, parks and open space areas. Fire Smart building construction and design techniques that provide for building separation, achieve fuel modified building sites and provide landscaping, can be implemented by developers through restrictive covenants on land titles.

Describe

_____

_____

_____

_____

_____

_____

_____

****

1.15 Are there any known Intensive Livestock Operations (ILOs) in the vicinity of the proposed

development? If so, what is the distance?

Yes/No

Describe

_____

_____

_____

_____

****

1.16 What is the condition of the road network leading to the Development?

Road conditions are important to the health and safety of the residents in the area.

Describe

_____

_____

_____

****

1.17 Have any transportation studies, including projected traffic flows been undertaken for the proposed Development?

Yes/No

Traffic flow studies aim to understand and identify road network issues including efficient movement of traffic and traffic congestion problems.

Describe

_____

_____

_____

_____

_____

****

1.18 Are the light fixtures that are proposed for the development Dark Sky fixtures according to the International Dark Sky Association?

Yes/No

Property lighting is necessary for safety, security and for the enjoyment of nighttime activities. The objective in promoting dark sky friendly lighting is to balance the ability to see safely at night, the desire to preserve the beauty of the night sky, and the need for energy efficient lighting. Poorly designed or poorly installed lighting cause glare that can hamper vision and create a hazard rather than increase safety.

Describe

_____
_____
_____
_____
_____

****

2. SOCIAL AND CULTURAL CONSIDERATIONS

Social and cultural considerations in reviewing development applications include features that enhance or maintain the social well being of the District's residents, while promoting the development of human potential and preserving cultural heritage. The importance of social and cultural aspects of a development include how it creates a high-quality of life for its residents without significantly detracting from the quality of life of surrounding residents / land users.

2.1 Does the subdivision enhance local identity (sense of place), character and culture (e.g., through architectural style, landscaping, colours, project name (e.g. Signage))?

Unique and interesting communities can be fostered by reflecting the values and cultures of their residents. By creating high quality communities through architectural style, landscaping and natural elements, it can be assured that the buildings (and the community) will retain their value and appeal over time.

Yes/No

Describe

_____
_____
_____
_____
_____
_____
_____

****

2.2 Will development of the subdivision contribute to heritage revitalization through the reuse, relocation, or rehabilitation of an existing structure or feature?

Contributing to heritage revitalization draws on the uniqueness and history of the community. Reuse, relocation or rehabilitation of heritage areas / buildings makes communities distinct and contributes positively to their image and sense of place / culture.

Yes/No

Describe

_____
_____
_____
_____
_____
_____
_____
_____

****

2.3 Does the subdivision incorporate any public amenities or space for public gathering and activities (e.g., courtyards, town square, communal gardens, play areas)?

Incorporating public gathering spaces and focal points promotes a sense of community and provides opportunities for social interaction. Community gardens provide focal points for communities and are food sources and sources of potential income. Public amenities, particularly those that are adaptable, also increase the marketability of the community.

Yes/No

Describe

_____
_____
_____
_____
_____

****

2.4 Have you consulted with all existing residents, land owners and adjacent municipalities within 1.6 km of the proposed development?

Yes/No

If concerns were raised by surrounding residents/ land owners or municipalities, please list and explain how you propose to mitigate those concerns.

Describe

_____
_____
_____
_____
_____

****

2.5 Is there something unique or innovative about your project that will enhance cultural and social sustainability, create "sense of place" or foster "community" which has not been addressed in this workbook (e.g., creation of unique type of community, other sustainable features, and contributions to the community)?

Yes/No

Describe

_____
_____
_____
_____
_____

****

2.6 If the Development is located within or adjacent to the Qu' Appelle Valley, does it have an impact on the large patches of natural vegetation, natural corridors, stepping stones, and / or special sites as outlined in the Conservation Strategy for the Qu' Appelle Valley System in the R.M. of Lumsden?

Yes/No

Describe

_____
_____
_____
_____
_____

****

2.7 If the Development is located within or adjacent to the Qu' Appelle Valley, does it preserve the scenic vistas and valley ridgelines that are visible from the valley top?

Yes/No

Describe

_____
_____
_____
_____
_____

3. ECONOMIC CONSIDERATIONS

The importance of economic considerations in the development review process relate to the integrity of our ecological and economic systems and helps to ensure long term prosperity through the responsible use of our resources. Economic sustainability enables the maintenance, service and support of communities without upward pressure on levies, property taxes and other development charges.

3.1 Is any prime farmland (Class 1 or 2) proposed to be developed (and therefore taken out of agricultural production) as part of this proposal?

The preservation of prime agricultural land is important to future agricultural production.

Yes/No

Describe (include approximate amount)

_____

_____

_____

_____

****

3.2 Does the subdivision have any features that will reduce the long-term costs to the municipality of operating and maintaining public services and infrastructure (e.g. reduce roads and pipes for servicing that will have to be maintained by the R.M.)?

Yes/No

Describe

_____

_____

_____

_____

****

3.3 Does the development result in special or additional costs that are specific to this particular subdivision (e.g. special storm water issues, transportation, fences) that would not be fully recovered by municipal taxes?

Yes/No

Describe

_____

_____

_____

****

4. REGULATORY COMPLIANCE

4.1 Does the development comply with the policies and standards that are currently outlined in the R.M. of Lumsden Official Community Plan and applicable Zoning Bylaw (assuming a rezoning must occur)? What zoning district(s) will be required to accommodate your proposal?

Yes/No

Comments

****

4.2 If you will be seeking amendments to the Bylaws (other than a rezoning), indicate why such amendments are needed.

Comments

8.0 CONCEPT PLANS

8.1 Policies

(1) Section 44 of *The Planning and Development Act, 2007* allows the Municipality in their Official Community Plan to adopt a Concept Plan (by an Official Community Plan bylaw amendment) for the purposes of providing a framework for the subsequent zoning, subdivision, development and servicing of an area of land consistent with the vision, goals, objectives, schedules and policies contained within this bylaw. The intent of a Concept Plan is to implement this bylaw by providing the Municipality with specific, objective and prescriptive guidance for making decisions about future land use and servicing requirements. As such, it will help guide the decision-making of the Municipality, provincial ministries and other government agencies that have jurisdiction in the statutory approval process.

(2) Concept Plans adopted by Council shall be appended to this bylaw under Section 8.0.

8.1.1 Adopted Multiple Parcel Residential, Commercial and Industrial Development Concept Plans
(Revised Bylaw No. 24-2019 - April 29, 2019)

(1) *RM 189 West Sector Plan and West Service Road Feasibility Study dated November 2023*

9.0 ARCHITECTURAL CONTROL DISTRICTS

9.1 Policies

(1) In accordance with Section 73 of *The Planning and Development Act, 2007*, where it is considered desirable to preserve the physical character of an area of to promote a selected design theme for an area, Council may designate the area as an Architectural Control District in the Zoning Bylaw, using the symbol "AC" in conjunction with any Zoning District.

(Revised Bylaw No. 24-2019 - April 29, 2019)

(2) Architectural Control Districts will be applied in order to integrate new developments with existing site conditions and to preserve the natural amenities of the surrounding area, and where it is economically feasible to establish and fund a design review process, such as the Organized Hamlet of Deer Valley, consistent with the and conditions of the relevant sections of *The Planning and Development Act, 2007*.

(3) Prior to designated an area as an Architectural Control District, architectural design standards and any appropriate instructions for applying and regulating the standards, in accordance with the guidelines set forth in this Plan shall be prepared and contained within the Zoning Bylaw.

(4) The design review process for Architectural Control Districts will be specifically outlined in the Zoning Bylaw, including the requirements for a complete application, the review of the proposal for conformance with the design standards, and the procedure for approving Development Permits, including the imposition of terms and conditions that may be attached to such approval.

(5) The Board of the Organized Hamlet of Deer Valley shall be delegated as the Design Review Committee and shall appoint an Architect of Record and other members at large, as necessary, to assist with the design review process in an Architectural Control District.

(Revised Bylaw No. 2021-09 – June 20, 2022)

Appendix “A” – Town of Lumsden/RM of Lumsden Joint Growth Strategy

Associated Engineering | GLOBAL PERSPECTIVE. LOCAL FOCUS.

Appendix "A"

REPORT

Town of Lumsden
RM of Lumsden No. 189

Lumsden Joint Growth Strategy

May 2015

CANADA'S BEST MANAGED COMPANIES Platinum member

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1 Introduction

The Town of Lumsden (the Town) and the Rural Municipality of Lumsden No. 189 (the RM) are experiencing a period of growth in both the Town and the surrounding area in the RM. The Town and the RM are committed to working together to develop their communities in a comprehensively planned manner. Since 1997 both municipalities have shared common administrative resources, and the development of a Joint Growth Strategy is one more step in strengthening this partnership.

The study area is located within the Qu'Appelle Valley system and provides a unique setting for development. The Town is located 30 km northwest of the City of Regina along Highway No. 11. Development and land servicing within this valley setting provides unique challenges given the topography of the area. Recognizing a common goal to encourage and support growth in the region, the two municipalities have committed to work collaboratively in examining strategies for extending Town water and sewer infrastructure to new developments within the future urban and rural service areas in order to maximize the economic, social and environmental returns for both communities.

The strategies contained herein are intended to build upon the development policies represented in the respective Official Community Plans, guiding development and municipal infrastructure decisions for the lands located in the rural-urban fringe. The direction represented in this report represents a 25 year time horizon.

1.1 PURPOSE OF THE JOINT GROWTH STRATEGY

Associated Engineering (Sask.) Ltd (AE) has been commissioned by the Town and the RM to lead the development of a Joint Growth Strategy (Strategy) to guide the future development of lands within the rural-urban fringe over the next 25 year period.

This plan is intended to identify the growth related goals and principles for the Town and the RM and based on these, together with the constraints, opportunities and relative serviceability, will identify the spatial distribution and phasing for both urban and rural development in the rural-urban fringe (the fringe). The development of the Strategy involves the following tasks:

- Preparation of rural and urban population growth projections for the next 25 year period
- Inventorying current and targeting projected densities for future urban and rural growth
- Inventorying of existing available land supply within the Town to accommodate short term growth
- Identification of constraints, potential constraints and opportunities for growth in the fringe area
- Assessment of existing infrastructure capacities to support short and long term rural and urban growth in the fringe area
- Identification of the relative serviceability of future growth areas relating specifically to the extension of Town sewer and water systems
- Establishment of complementary growth management principles and policies
- Defining future rural and urban development areas and an urban phasing plan.

1.2 REGULATORY FRAMEWORK

The Strategy is intended to serve both the Town and RM as a supplementary document to both municipalities' Official Community Plans (OCP) and each municipality will adopt the document as an amendment to its OCP. The Strategy may be amended in the future to respond to changing circumstances; but will serve to guide and direct the policies in each municipality's OCP which will also be reviewed and updated in the future. Figure 1-1 identifies the role of the Strategy within the planning framework as enabled by *The Planning and Development Act, 2007.*

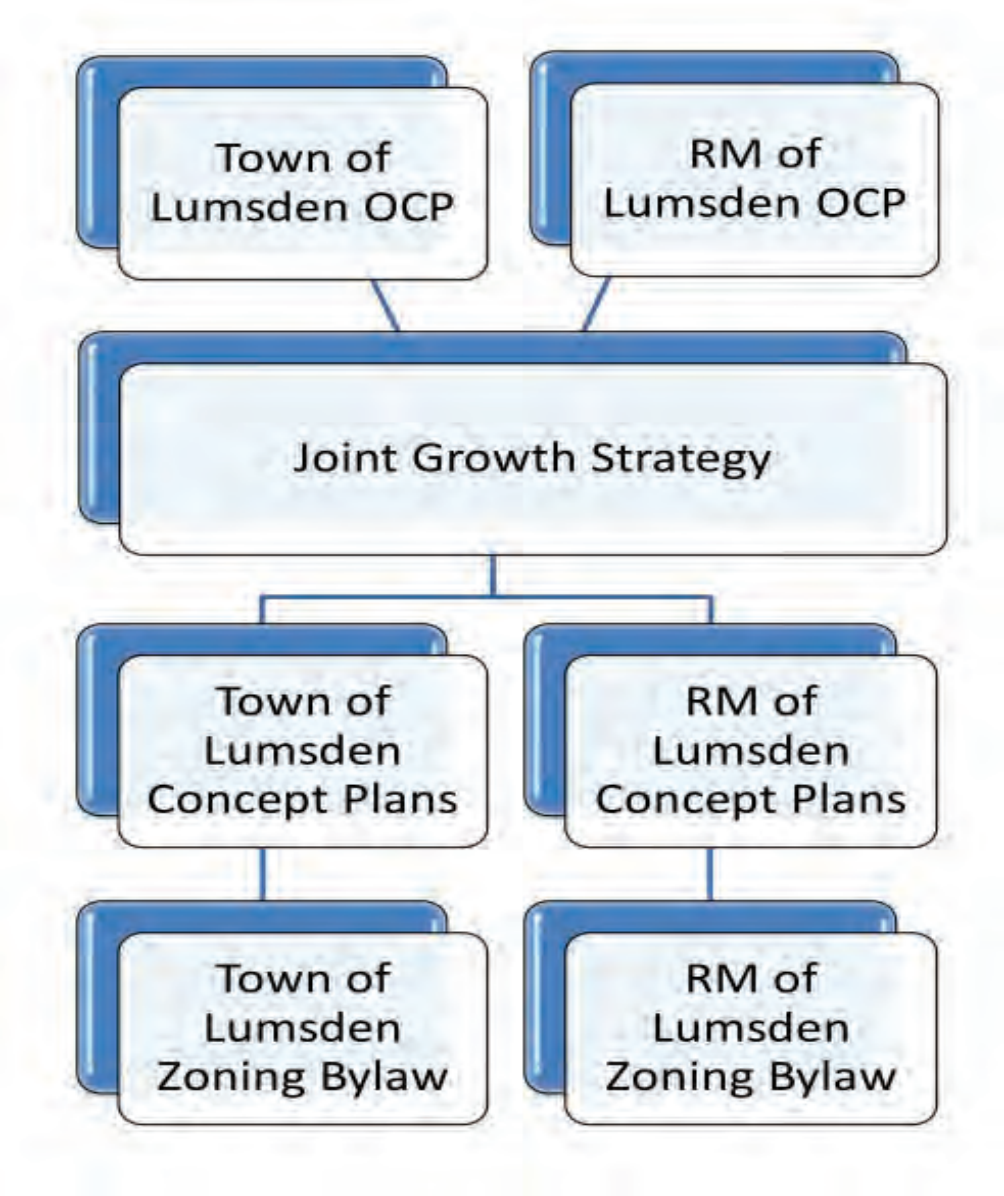
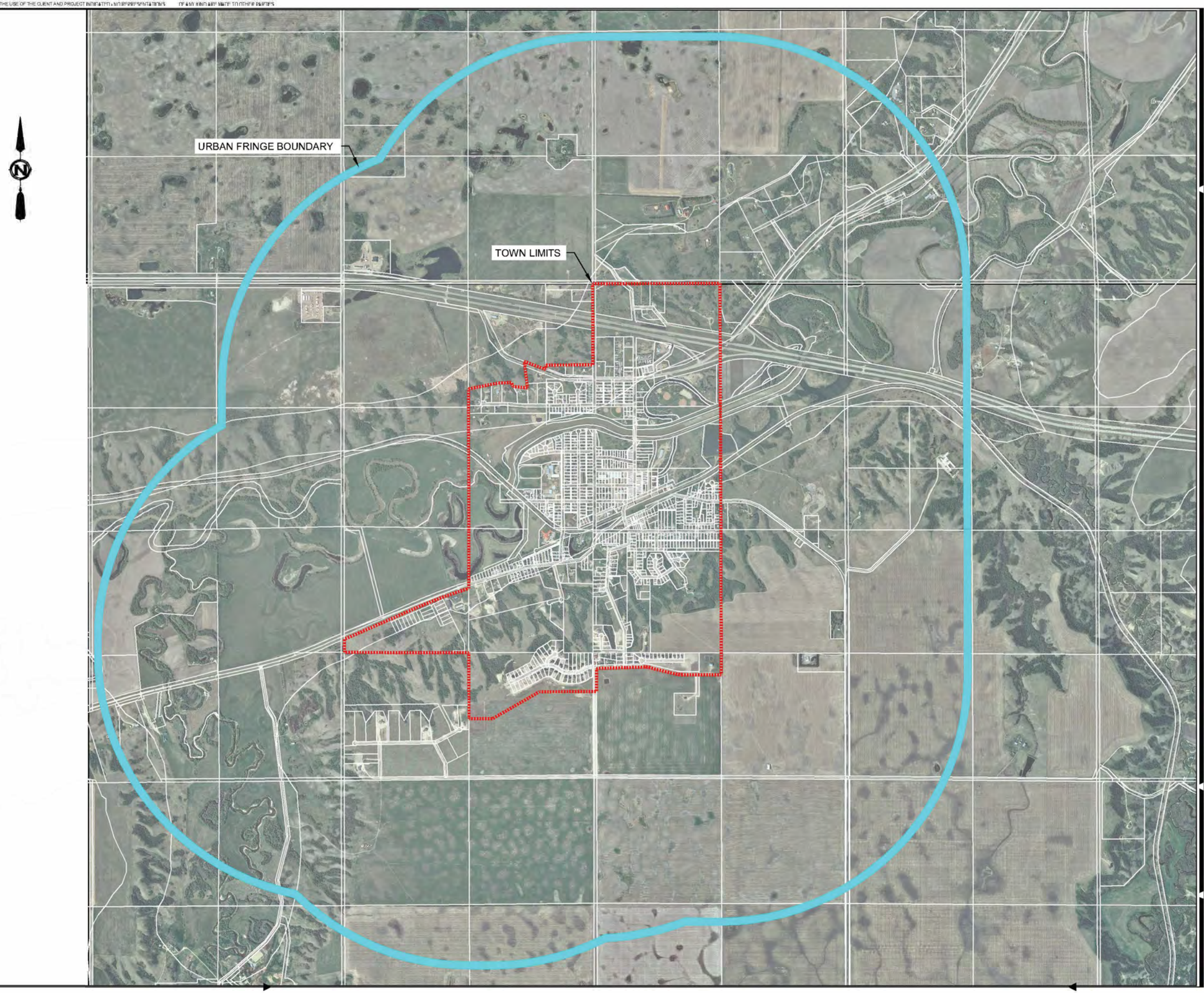


Figure 1-1
Planning Framework

1.3 STRATEGY STUDY AREA

The study area illustrated as Figure 1-2, General Study Area, represents an area surrounding the Town of Lumsden which is of mutual interest to the respective communities and encompasses lands which may be capable of being serviced in the future by Town water and sewer services.



Associated Engineering

LEGEND
URBAN FRINGE BOUNDARY
TOWN LIMITS

FIGURE No. 1-2

TOWN OF LUMSDEN
RM OF LUMSDEN

CIVIL
PLANNING
GENERAL STRATEGY AREA

AE PROJECT No.	20134404
SCALE	N.T.S.
APPROVED	B.DELAINEY
DATE	2014JUN25
REV	A
DESCRIPTION	ISSUED FOR DRAFT REPORT

2 Growth Projections

2.1 POPULATION

Both the Town and the RM have experienced positive growth in recent years. From 2006 to 2011 the Town's population growth rate was 7.1% or 1.4% annually. In 2006 the population of the Town was 1523 and in 2011 based on 2011 Census data the population had expanded to 1631. The Town's growth, with the exception of development within existing approved subdivisions and infill of vacant lots, has been restricted in the last few years due to the limited capacity of its current sewage treatment facilities (i.e. the lagoon). The Town is currently considering options to construct a new mechanical treatment facility which would be capable of serving a population of approximately 3700 persons.

During the same five year period of time, the RM's population growth rate was 7.5% or 1.5% per annum. In 2006 the RM's population was 1612 and based upon the 2011 Census data, the population expanded to 1733. As the study area comprises only a small portion of the overall RM land base, population projections and distribution of growth within the study area is difficult to predict and as a result are provided for context and comparison purposes only.

2.2 POPULATION PROJECTIONS

Due to the fact that development within the Town and the surrounding areas has been hindered by a sewage treatment capacity shortfall, it is assumed that the Town's recent growth rates are somewhat underestimated. For the purposes of forecasting future population growth, two growth scenarios have been represented. The first scenario representing current annual growth of 1.4% assumes that no significant improvements are made to the Town's sewage treatment infrastructure. A second, more optimistic growth scenario of 3% annual growth is also represented acknowledging the expanded growth which may be accommodated by capital improvements to the Town's sewage treatment system. Similar rates were used to project the RM's population growth for a 25 year period. The following table reflects these growth projections.

Table 2-1
Population Projections

TOWN OF LUMSDEN			RM OF LUMSDEN		
Year	**1.4% per Year**	**3.0% per Year**	**Year**	**1.5% per Year**	**3.0% per Year**
2006	1523	1523	2006	1612	1612
2011	1631	1631	2011	1733	1733
2016	1748	1890	2016	1865	2010
2021	1874	2191	2021	2009	2710
2026	2009	2541	2026	2164	2710
2031	2153	2946	2031	2328	3142
2036	2307	3235	-	2506	3642
Increase from 2011	676	1604	**Increase from 2011**	773	1909
Average persons per dwelling unit	2.6	2.6	**Average persons per dwelling unit**	2.4	2.4
Number of new dwelling units	260	617	**Number of new dwelling units**	322	795

Based on the two growth scenarios combined with the Census data which estimates 2.6 persons per dwelling within the Town, the number of new dwelling units over this 25 year period for the Town is projected to increase within a range of 260 to 617 units. Similarly for the RM based on an average of 2.4 persons per dwelling unit, the RM can expect growth within a range of 322 to 795 new dwelling units over the same period.

2.3 POPULATION DENSITIES

In order to calculate the future land required for residential development the projected population density has to be estimated. The respective zoning bylaws will generally establish minimum and maximum dwelling densities for rural and urban subdivisions through the application of minimum and maximum site area regulations. The actual dwelling density employed on a site will be ultimately dictated by the developer and the municipality based upon a number of factors including but not limited to the site topography, property serviceability and target market. Table 2-2 below provides a high level summary of existing dwelling densities in established rural and urban developments along with the maximum dwelling densities permitted by the most applicable zoning districts.

Table 2-2
Residential Densities

		Maximum provided under Residential District (R1) Zoning	Existing Rural Subdivisions	Maximum provided under High Density Country Residential District (CR3) Zoning
Dwelling Units per Ha	4.0 – 12.0	20.0[1]	0.25 – 2.5	2.5[2]
Average Persons per Dwelling Unit	2.6	2.6	2.4	2.4
Projected Persons per Ha	11 - 31	52	1 - 6	6

1. The minimum site area within the Town's R1 Zone is 550 m^2 which would translate into a maximum dwelling density of 20 units/hectare.
2. The minimum site area within the RM's CR3 Zone is 0.4 hectares which translates into a dwelling density of 2.5 units/hectare.

In discussions with the Town and the RM it was determined that the existing density targets for new developments would likely continue in the future respecting each community's OCP and Zoning Bylaw standards. The area is characterized by relatively large lots in the valley setting and this is the type of development that is foreseen to continue in the future. The Town indicated that any new developments within the core area of the Town would reflect a higher density as this is the area where multi-unit development would be accommodated.

Although the Town's Zoning Bylaw provides four zoning districts relating to residential development, the Residential District (R1) is the most common zoning employed and as such has been used to predict future dwelling densities. It should be noted that the Town also employs a Residential Estate District (RE) in two areas of the community, one to the northwest of the Town and the other in the north part of the Town of which part is north of Hwy. No. 11. The minimum site area in the RE District is 0.4 ha which is the same minimum site area of the RM's High Density Country Residential District as noted below.

The RM has three zones that accommodate Country Residential Development designated low Density, Medium Density and High Density. The existing residential development in close proximity to the Town is zoned either Low or Medium Density Country Residential and ranges with minimum site sizes of 4.01 ha for Low Density to 1.01 ha for Medium Density. In the newer development southeast of the Town that is zoned R2 – Medium Density Valley residential, the sites are larger than the minimum requirement and the density is approximately 0.6 units per ha. The High Density Country Residential District accommodates development with a minimum site size of 0.4 ha and although this District is not in close proximity to the Town it is within the study area both north of Lumsden along Hwy. No. 20, 2.4 km west of the Town, and in the Deer Valley residential development approximately 5.0 km south of Lumsden. Converting these minimum site sizes to reflect density of the number of dwelling units per ha, the range is between 0.25 dwelling units per ha for the Low Density Country Residential District and 2.5 dwelling units per hectare for the High Density Country Residential District.

3 Land Inventory

3.1 TOWN OF LUMSDEN LAND USE INVENTORY

3.1.1 Residential

The Town presently has vacant land available for residential development within existing subdivisions. This is in addition to land designated for future residential use as illustrated on the Town's Future Land Use Map attached as Figure 3-1. According to the Town there are approximately 70 vacant lots within in existing subdivisions which are capable of being developed. However, many of the available lots in the newer developments are currently being sold and will be developed in the near future.

The Town has also put forward for consideration, an annexation proposal as illustrated in Figure 3-2. The lands proposed for annexation are located to the south and east of the Town and are designated primarily for residential development with non-residential uses intended to be considered to the east where the landfill and the lagoon buffers both restrict residential use.

These lands will be further evaluated later in the report for constraints, opportunities and serviceability.

3.1.2 Commercial

The Town has communicated an interest in strengthening its commercial core area and as such, no new commercial land use has been designated in the future residential areas. As Figure 3-1 demonstrates, the lands adjacent to the main street, James Street, are designated for continued commercial use along with designated areas adjacent to Highway No. 11 which have also been developed for commercial purposes.

3.1.3 Industrial

Industrial development within the Town is situated along the Qu'Appelle River and the area north of the river in the eastern part of the Town where the lagoon is located. The Town does foresee a large demand for additional industrial development and has indicated that this is likely a more appropriate land use for the RM to accommodate based upon the types of industrial uses attracted to this area and level of servicing required to support these uses.

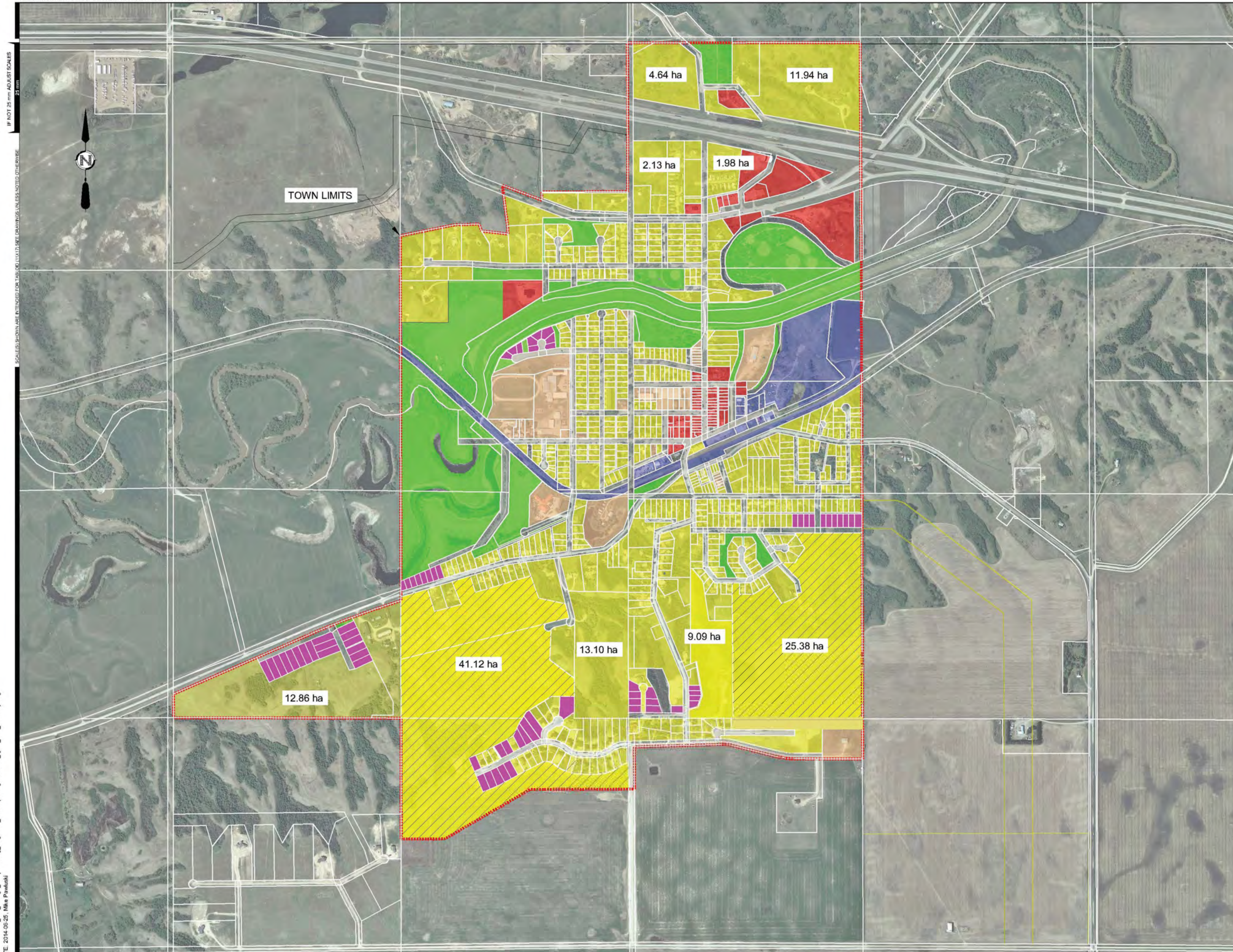
3.2 RM OF LUMSDEN FUTURE LAND USE

3.2.1 Residential

The RM has directed future growth within its OCP, along preferred transportation corridors. The preferred transportation corridors for residential growth are adjacent to Highways No. 641, 734 (Old Highway No. 11), 20, 54, 763 and adjacent to several all-season gravel roads. In addition residential growth has been designated along Highways No. 11 and 6 adjacent to the commercial/light industrial areas. These land uses are illustrated in Figure 3-3 which is reproduced from the RM's Future Land Use Map appended to its OCP.

3.2.2 Commercial/Industrial

As noted on the Future Land Use Map in Figure 3-3, the lands designated for future commercial/industrial use are along Highways No. 11 and 6 and will require service roads to the nearest highway access points. These uses rely on access to transportation and the RM wants to restrict these uses to the Provincial Highway Class 1 category.



Associated Engineering

LEGEND

EXISTING LAND USE
- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- OPEN SPACE
- PUBLIC SERVICE

FUTURE LAND USE
- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- OPEN SPACE

VACANT LOTS

FIGURE No. 3-1

TOWN OF LUMSDEN
RM OF LUMSDEN

CIVIL
PLANNING
TOWN OF LUMSDEN LAND INVENTORY

AE PROJECT No.	20134404
SCALE	N.T.S.
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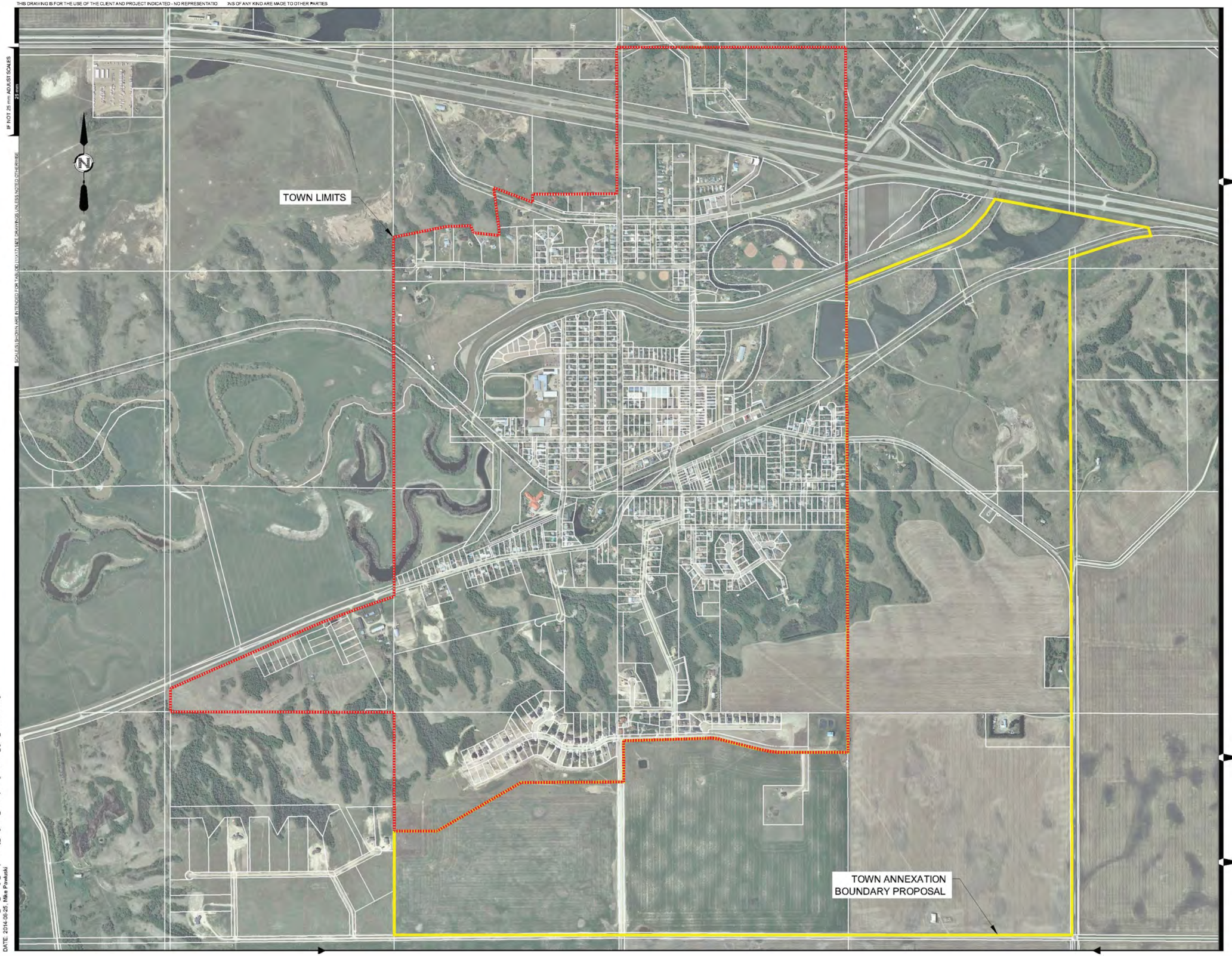
IF NOT 25 mm ADJUST SCALES
25 mm

DRAWINGS SHOULD NOT BE ENLARGED OR REDUCED UNLESS NOTED OTHERWISE



Associated Engineering

LEGEND

ANNEXATION BOUNDARY PROPOSAL

TOWN LIMITS

FIGURE No. 3-2

TOWN OF LUMSDEN
RM OF LUMSDEN

CIVIL
PLANNING
TOWN OF LUMSDEN ANNEXATION PROPOSAL

AE PROJECT No.	20134404
SCALE	N.T.S.
APPROVED	B. DELAINEY
DATE	2014JUN25
REV	A
DESCRIPTION	ISSUED FOR DRAFT REPORT

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DATE: 2014-06-25, Mike Pawluski

LEGEND

- Preferred Transportation Corridors (residential)
- Preferred Transportation Corridors (commercial & light industrial)
- Provincial Highway Class 1
- Provincial Highway Class 2
- Provincial Highway Class 3
- Provincial Highway Class 4
- Provincial Highway Class 5

Last Mountain Lake
Regina Beach
Buena Vista
Craven
Lumsden
Qu'Appelle River

HWY No. 54
HWY No. 99
HWY No. 6
HWY No. 763
HWY No. 20
HWY No. 11
HWY No. 641
HWY No. 734

21–21–2
21–19–2
20–22–2
20–21–2
20–20–2
20–19–2
19–22–2
19–21–2
19–20–2
19–19–2

Associated Engineering

FIGURE No. 3-3

TOWN OF LUMSDEN
RM OF LUMSDEN

CIVIL
PLANNING
TRANSPORTATION CORRIDORS

AE PROJECT No.	20134404
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4 Land Evaluation

The land evaluation process examines the development potential of lands within the Strategy area. The intent is to provide direction on which areas are more likely to develop in the future. The land evaluation is based on examining the physical constraints and opportunities for development, combined with an evaluation of the relative serviceability of the lands.

4.1 PHYSICAL CONSTRAINTS

4.1.1 Floodplain

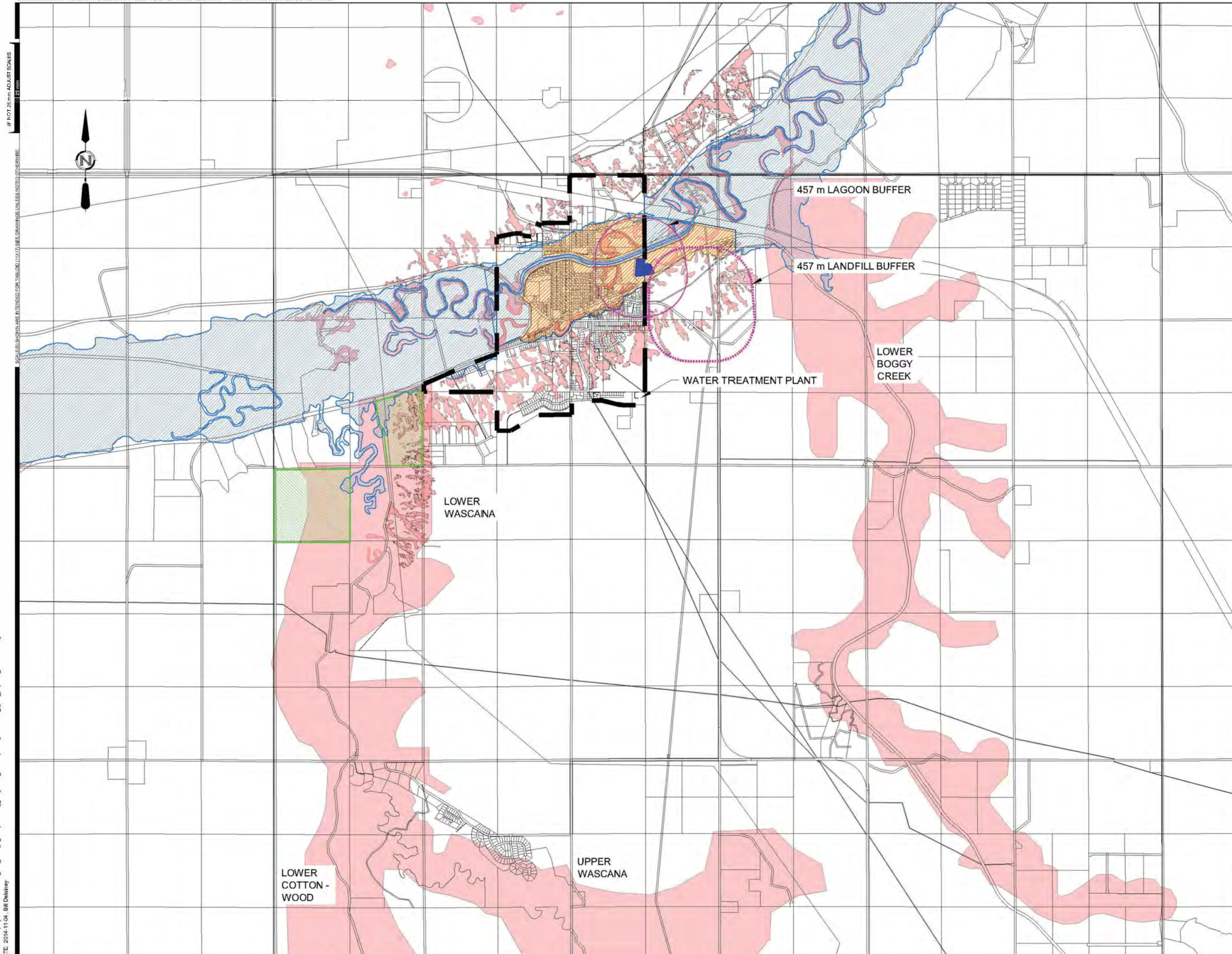
Both the Town and much of the RM are situated in the Qu'Appelle River Valley floodplain. After the major flood in 1974 a dyking and channelization system was constructed that was built to the 1:500 year flood event standard. The Statements of Provincial Interest require flood proofing of new buildings and additions to buildings to an elevation of 0.5 metres above the 1:500 flood elevation of any watercourse or water body in the flood fringe. As Figure 4-1 illustrates most of the Town is located within the dyking system so this provincial requirement for flood-proofing will be required. The rationale is that the existing dyke system provides protection for development but there is still a possibility that the dykes may fail or be breached resulting in possible property damage. There are several small portions of the Town that are below the 1:500 year flood level but these areas are primarily public open space. Figure 4-1 illustrates areas outside of the existing dyking system where development cannot be supported due to the high flood hazard potential.

4.1.2 Environment Canada Protected Areas

The Qu'Appelle Valley has significant areas of natural vegetation, natural corridors, wildlife, and other historic and archaeological features. Two specific areas in the RM along the Lower Wascana have been designated by Environment Canada as protected areas due to environmental sensitivity and development is restricted from these areas. See Figure 4-1 for the location of these areas.

4.1.3 Environmentally Sensitive Lands

The Town and the RM have significant areas that are environmentally sensitive due to natural features including natural drainage areas and riparian areas, areas with sensitive plants or animal /fish habitat or archaeological/historical features or artifacts. These areas are illustrated on Figure 4-1 and are adjacent to the Qu'Appelle River, the Lower Wascana, Lower Boggy Creek, Upper Wascana and Lower Cottonwood. In order to develop in any of these areas an environmental study is required that can demonstrate that the proposed development will not adversely affect these environmentally sensitive lands.



Associated Engineering

LEGEND

- FLOOD PROTECTED AREA
- FLOODPLAIN
- ENVIRONMENTALLY SENSITIVE
- ENVIRONMENT CANADA PROTECTED AREAS
- 600 m LAGOON BUFFER
- 457 m LANDFILL BUFFER

FIGURE No. 4-1

TOWN OF LUMSDEN
RM OF LUMSDEN

CIVIL
PLANNING
PHYSICAL CONSTRAINTS

AE PROJECT No.	20134404
SCALE	N.T.S.
APPROVED	B. DELAINEY
DATE	2014JUN25
REV	A
DESCRIPTION	ISSUED FOR DRAFT REPORT

DATE: 2014-11-04, Bill Delainey

4.1.4 Lagoon Buffer and Capacity

The Town's current aerated lagoon is located north of the railway and south of the Qu'Appelle River near the Town's eastern boundary. The current lagoon is presently operating at full capacity which has resulted in development restrictions within the Town. The Town is examining options for a new sewage treatment system which will increase the threshold capacity of the system to serve a population of 3700. The exact location and type of sewage treatment system is not known at this time, but based upon the current Subdivision Regulations, a 457 metre buffer shall apply to any new residential subdivisions within the vicinity of the new system. This buffered area should not affect future residential development as the area affected is currently developed or within the floodplain area.

4.1.5 Landfill Buffer

The landfill that serves the Town and RM is located in the RM approximately 0.5 km southeast of the lagoon. The Province requires a separation distance of 457 metres between a landfill and residential development. Figure 4-1 indicates this buffer area which overlaps with the lagoon buffer area. Similar to the lagoon buffer, this separation requirement may be amended in the future to a slightly larger requirement in which case the buffer area would have to be amended. However, the landfill buffer area should not have any major impact on future development in the area.

4.2 POTENTIAL CONSTRAINTS

4.2.1 Slope Stability

The Qu'Appelle Valley's walls throughout the region are subject to surface erosion, soil creep, and slope failure (slumping). Soil erosion has been controlled in general with vegetation cover; and soil creep in the Lumsden area has not been significant in affecting the smaller, shallow structures on steep slopes. However, slumping has been a major concern and is addressed in both respective OCPs. The areas that are subject to potential unstable slopes are illustrated in Figure 4-2.

Slumping problems on the valley slopes have resulted in foundation issues in the past and both municipalities currently require the preparation of thorough geotechnical investigations by qualified geotechnical engineers specializing in slope stability to assess this risk and define mitigation strategies prior to the approval of development. Although this can result in additional costs at the start of a development, it reduces the risk of unmitigated soil erosion and slope failure on the site in the future. The respective OCP policies are intended to ensure that the hazards and potential long-term costs associated with the risk of erosion and slope failure are made known to the proponents, future owners, Councils and that acknowledgement of the inherent risks and informed land use decisions are made.

4.2.2 Heritage and Environmental Resources and Native Species

The Qu'Appelle Valley and surrounding area have an abundance of natural and heritage resources. These resources may include the following:

- Archaeological and paleontological objects
- Historical, cultural properties including Municipal or Provincial Heritage Property
- Natural vegetation areas, riparian corridors, "stepping stones" of native vegetation and special sites significant sites
- Natural and Critical Wildlife Habitat Areas.

While the Town has some of these resources present, the RM with its larger undeveloped areas has a greater potential for these resources. Both municipalities have policies in place to protect these resources and may require environmental or heritage resource impact studies prior to permitting development. Figure 4-2 illustrates the extent of the known potential sensitive areas within the RM.

4.3 POTENTIAL OPPORTUNITIES

4.3.1 Dyked Area and Vacant Lots

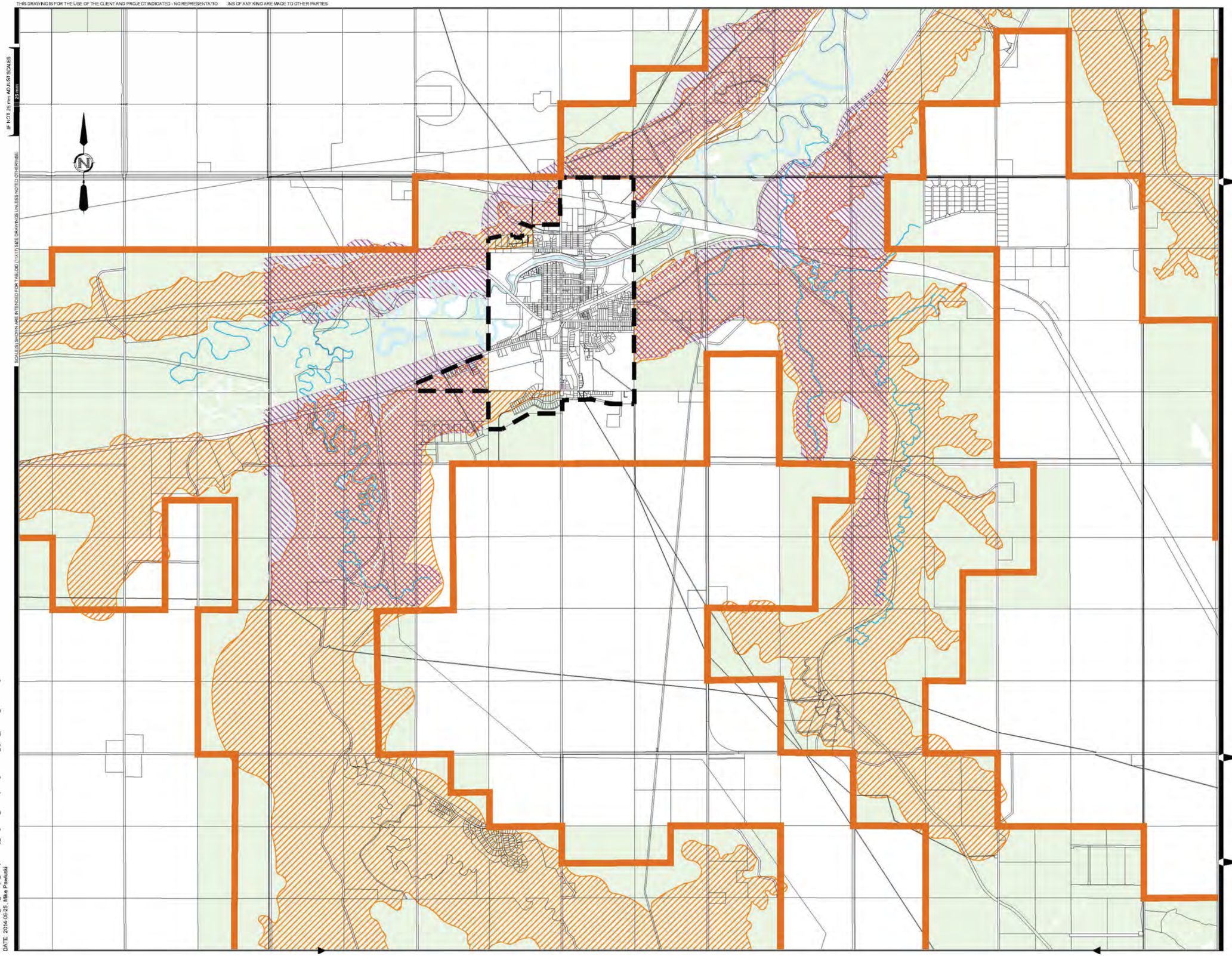
The dyking and channelization system was constructed and built to the 1:500 year flood event. The Statements of Provincial Interest require the provision of an additional 0.5 metre contingency above the 1:500 flood elevation as a means of ensuring adequate flood protection is provided for development. This dyked area is shown in Figure 4-3 and development is permitted within this area if it meets the provincial requirements providing an opportunity for both residential and commercial infill. The eastern area of the Town and fringe situated within the dyked area enables the future expansion of the sewage treatment system and the landfill and provides an opportunity for future industrial development.

4.3.2 Future Commercial/Industrial Development

Highway No. 11 is the major transportation corridor that runs through the Strategy area. As stated within the RM's OCP, this highway offers an opportunity for future commercial/industrial development adjacent to the highway corridor centered on the access points. Service roads along the corridor would provide access to the developments and also to the highway access points. Figure 4-3 illustrates where this commercial/industrial growth for the RM could be accommodated.

4.3.3 Future Residential

The lands that will be examined for future potential residential growth are to the north, south and slightly west of the Town. The type of residential development will depend upon the serviceability of the land. As Figure 4-3 shows there are some rural developments that are provided with water service from the Town's water line that runs from the Lumsden aquifer north to the water treatment plant in the southeast corner of the Town. The developments that are marked in green have access to raw untreated water from the water line and the developments that are marked in pink are able to have access to treated water as they are closer to the Town.



Associated Engineering

LEGEND

- POTENTIAL UNSTABLE SLOPES
- POTENTIAL NATIVE SPECIES
- POTENTIAL HERITAGE RESOURCES
- VALLEY BOUNDARY

FIGURE No. 4-2

TOWN OF LUMSDEN
RM OF LUMSDEN

CIVIL
PLANNING
POTENTIAL CONSTRAINTS

AE PROJECT No.	20134404
SCALE	N.T.S.
APPROVED	B. DELAINEY
DATE	2014JUN25
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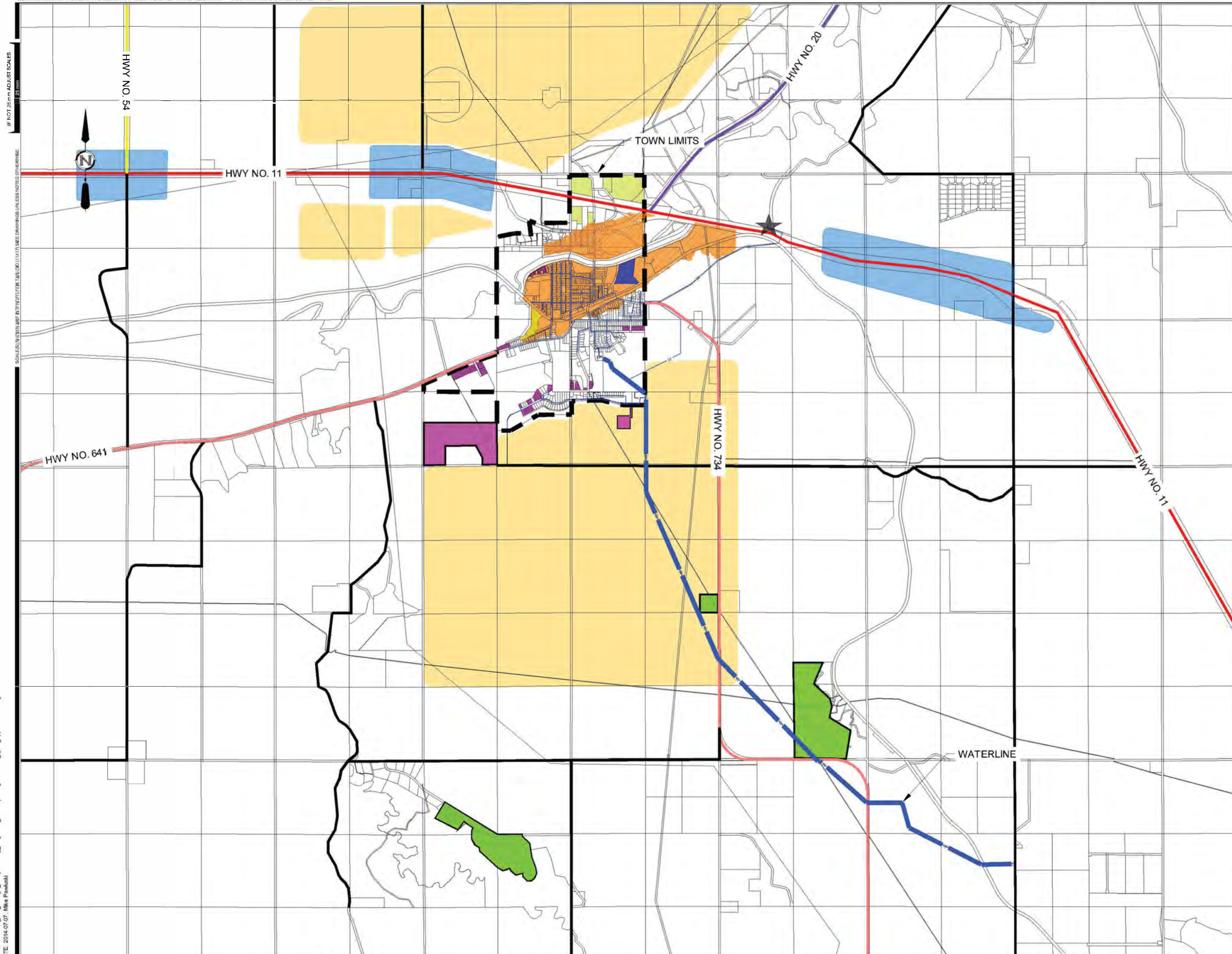

Associated Engineering

LEGEND

- DYKED AREA
- SUBDIVISIONS WITH TREATED WATER
- SUBDIVISIONS WITH RAW WATER
- POTENTIAL TOWN DEVELOPMENT
- POTENTIAL TOWN INDUSTRIAL
- VACANT LOTS IN TOWN
- POTENTIAL RESIDENTIAL
- POTENTIAL RURAL INDUSTRIAL/COMMERCIAL
- EXISTING TOWN WATERLINE
- EMERGENCY WATER WELL

FIGURE No. 4-3

TOWN OF LUMSDEN
RM OF LUMSDEN

CIVIL
PLANNING
OPPORTUNITIES

AE PROJECT No.	20134404
SCALE	N.T.S.
APPROVED	B. DELAINEY
DATE	2014JUN26
REV	A
DESCRIPTION	ISSUED FOR DRAFT REPORT

5 Infrastructure

5.1 EXISTING SERVICES

5.1.1 Potable Water

For the purpose of this report, water capacity is represented and assessed in three components. These components are broken out in Table 5-1 below. For the purposes of assessing future capacity, the system component with the least capacity is considered the ceiling capacity and defines the direction for future infrastructure upgrades. It should be noted that this assessment is based upon a desktop review of available data and should be substantiated in the future by a physical inspection of the component systems.

The Town's potable water is supplied from two raw water wells connected to the Lumsden Aquifer located approximately 10 km southeast of the Town via a pipeline where it is distributed to the Town's water treatment plant. The Town has a water rights license which permits the extraction of a maximum of 500,000 m^3 of water per year from the aquifer. In addition there is a permit to extract 129,100 m^3 of water per year from a well that is in an aquifer located in the bottom of the valley beside Highway No. 11. However, this well is only used for emergency services. When there is an emergency, the secondary well back feeds the distribution system to provide an emergency water source. Although there is a chemical feed pump at the emergency well where chlorine is added, the water does not meet drinkable health standards. Figure 5-1 shows the water lines for the Town and the location of this emergency well.

In addition to the Town's residents, the current water rights license applies to the developments at Deer Valley, Dodd's subdivision and Minerva Ridge located in the RM which is shown on Figure 4-3. These rural developments account for a combined rural service population of 400 people. The two raw water wells are estimated to have sufficient capacity to support a total population of approximately 3800 people based upon an average daily water consumption of 360 lcd calculated from water treatment plant (WTP) records.

The WTP is located in the southeast corner of the Town. The WTP is equipped with two filters which currently operate at an estimated capacity of 11.5 L/s per filter. Based upon this current rate, it is estimated that the current treatment system operated at the minimum design capacity could support a total service population of approximately 2600 people. This estimate is based upon a filtration rate of 11.5 L/s, and a Max Day Factor of 2.1 times the average daily water consumption of 360 lcd. Presently treated water serves the Town's residents and two developments in the RM; one directly southwest of the Town and the second directly south of the water treatment plant.

The third and final component of the Town's water system is the two treated water storage reservoirs. These reservoirs have a combined estimated storage capacity sufficient to support a service population of 2500 people. The following table summarizes the three components of the potable water system as it relates to supporting community growth.

Associated Engineering

LEGEND

WATER LINES	
SANITARY SEWER	
STORM SEWER	

FIGURE No. 5-1

TOWN OF LUMSDEN
RM OF LUMSDEN

CIVIL
PLANNING
WATER - SANITARY - STORM

AE PROJECT No.	20134404
SCALE	N.T.S.
APPROVED	B. DELAINEY
DATE	2014JUN27
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Table 5-1
Water System Capacity Summary

Water System Component	Total Estimated Capacity	Rural Service Population	Projected Future Urban Population	Net Excess (Short-fall) System Capacity Available
License, raw water well and supply distribution capacity	3800[1]	300[2]	3235[3]	265[4]
Treatment and filtration system capacity	2600	100[5]	3235	(735)[6]
Reservoir and distribution pump capacity	2500	100	3235	(835)[7]

The table above suggests that from a current system capacity standpoint, the treatment and reservoir components of the system represent the limiting factor in supporting projected growth. From the perspective of the filtration system, the maximum design capacity of each of the filters is double the current operational standard. A physical assessment of the system would be required to confirm the ability to increase the filtration rate from its current 11.5 L/s; however it would be unrealistic to assume they could sustain the maximum loading of 23 L/s. The Town will need to plan for an investment into the expansion of the storage reservoir and consider further investment into expansion of the treatment capacity to take full advantage of the current water allocation amounts in order to meet long term growth in the Strategy area.

The Water Security Agency Act and the *Ground Water Regulations* define a two-step approval process for expanding the Town's water allocation. The first stage involves the completion of a Ground Water Investigation Report intended to confirm the capacity of the aquifer to respond to the forecasted water demand acknowledging all of the wells relying on the aquifer. If the ground water investigation was successful, the Town would be capable of filing an Application for a Water Rights Licence and Approval to

[1] The current allotment of 500,000 m^3 per year apportioned at 360 litres/capita/day equates to a total estimated service population of 3800.
[2] Based upon 120 lots within the Deer Valley subdivision and the current rural household densities, it is estimated that the current raw water line provides service to 300 rural customers.
[3] This equates to the upper limit of the forecasted population growth for the Town of Lumsden (Table 2-1)
[4] This represents the excess capacity that would be available in this component of the water system for distribution to future rural developments while protecting the Town's long term needs.
[5] The developments at Dodd's subdivision and Minerva Ridge currently receive treated water from the Town and as such are discounting the treated component of the system.
[6] This represents the capacity shortfall which would exist if the current filtration system is only able to be operated at its design capacity. Physical testing of the facility would be required to confirm its ability to operate at a higher rate.
[7] This represents the capacity shortfall which currently exists in this component of the water system in relation to project urban growth.

Construct and Operate Works under *The Water Security Agency Act;* enabling the Town to increase its draw from the aquifer. Within this stage of the application process, the Water Security Agency (WSA) would complete a technical review of the Ground Water Investigation Permit to confirm its accuracy.

5.1.2 Waste Water System

The Town's lagoon is located in the northeast part of the Town on the south side of the Qu'Appelle River. The capacity of the sanitary sewer system has reached its full capacity and cannot keep pace with its wastewater generation rates. Several times this has resulted in requiring special permits from the WSA to discharge effluent into the Qu'Appelle River. These effluents have high nitrogen and phosphorus concentrations and have a negative effect on the river quality. The WSA has indicated that the Town must address the insufficient capacity of its sanitary sewer system prior to any new developments being approved, severely inhibiting its future growth.

The Town is exploring options for a new waste water treatment plant that would replace the existing lagoon and would be able to meet the effluent limits set by the WSA. Initial designs for the proposed new system indicate that the system is scalable, allowing it to be constructed in stages in response to population demands. The initial stage of development will provide an estimated service capacity of 2,500 people with an additional capacity of 1,200 people created during stage 2 of the project. Based on the assumption that a new waste water treatment system will occur with a capacity to serve a population of approximately 3700 persons, developments will be able to proceed in the near future and growth in the area will be able to continue as planned once the waste water solution is in place.

5.2 SERVICABILITY OF OUTLYING AREAS

Following a review of the constraints and opportunities for growth in the Strategy area, a high level analysis on the feasibility of servicing the study area identified in Figure 4-3 for potential residential growth was undertaken. The areas were examined from both a water and waste water servicing perspective. Figure 5-2 illustrates and describes the potential growth areas indicating the relative servicing costs of each of these areas and Table 5-2 provides information on the areas and the rationale for these servicing costs.

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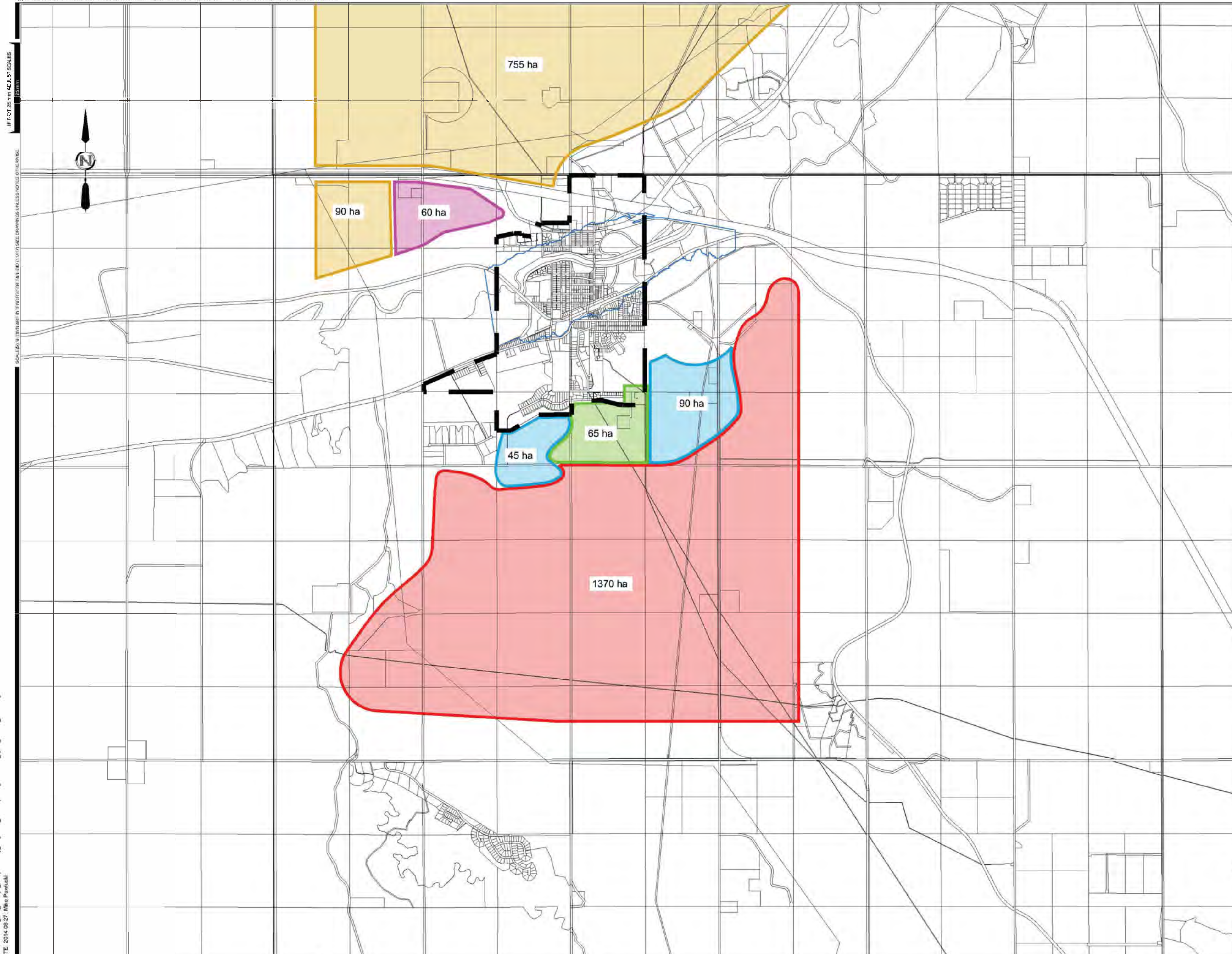


Associated Engineering

LEGEND

RELATIVE COST OF SERVICES

- $ (green)
- $$ (blue)
- $$$ (red)
- $$$$ (purple)
- $$$$$ (yellow)

FIGURE No. 5-2

TOWN OF LUMSDEN
RM OF LUMSDEN

CIVIL
PLANNING
RELATIVE COST OF SERVICES

AE PROJECT No.	20134404
SCALE	N.T.S.
APPROVED	B. DELAINEY
DATE	2014JUN27
REV	A
DESCRIPTION	ISSUED FOR DRAFT REPORT

P:\20134404\00_dev_charge_study\Working_Dwgs\100_Civil\Report Figures\4404_fig5-2_service_costs.dwg
DATE: 2014-06-27, Mike Pawluski

Table 5-2
Relative Servicing Costs by Area

$	• Least expensive servicing option for future development. • Can tie into existing sanitary sewer infrastructure. • There is limited capacity in the existing sewer mains; however capacity exists for a population up to 2,500. • Water can be easily serviced by tying into the existing water mains. • Water could be serviced with the pressurized system from the water treatment plant (WTP). • Minor upgrades to the WTP may be required.
$$	• Two options are available for a similar cost, West and East. • Both options require a new sewer trunk main down the valley. • Water can be easily serviced by tying into the existing water mains. • Minor upgrades to the WTP may be required *West Option:* • New sewer trunk main would tie into the Sewage Pumping Station (SPS) along Qu'Appelle Road which pumps to the existing gravity sewer system. • The existing sewer mains and SPS have limited capacity. *East Option:* • A new sewer trunk main is required to tie into the Waste Water Treatment Facility (WWTF). • The sewer trunk main would be sized to accommodate a population of 3,000, and can be increased for additional development.
$$$	• Development of this area is dependent on the construction of the East sewer trunk main down the valley as mentioned in the $$ option. • Due to the terrain, gravity sewer to a future trunk main would be difficult and would likely require a SPS. • Development further south is serviceable with water at a reasonable cost. Water mains would tie into the existing pressurized system. • If the other less expensive options are implemented prior to this option, the population serviced in those options would satisfy growth up to a 4,000 population.
$$$$	• Gravity sewer would be feasible in this option, flowing to the existing sewer system. • Capacity would be limited in the existing system. • The area on the north side of the ravine would not be serviceable with the existing gravity fed water distribution system. • This area would require a dedicated water main across the valley or a water booster station. The capital cost of this would be very high.
$$$$$	• Gravity to the existing sewer infrastructure would be difficult and would likely require a

$	• Least expensive servicing option for future development. • Can tie into existing sanitary sewer infrastructure. • There is limited capacity in the existing sewer mains; however capacity exists for a population up to 2,500. • Water can be easily serviced by tying into the existing water mains. • Water could be serviced with the pressurized system from the water treatment plant (WTP). • Minor upgrades to the WTP may be required.
	SPS. • The sewer force main could be directed to the WWTF where the capacity would only be limited to the capacity of the WWTF. • The area on the north side of the valley would not be serviceable with the existing gravity fed water distribution system. • This area would require a dedicated water main across the valley or a water booster station. The capital cost of this would be very high.

The following two tables represent the forecasted development yield for each of the five service areas based upon the population projections and estimated dwelling densities. Table 5-3 utilizes an average dwelling density of 10 units per hectare and a household size of 2.6 persons as a means of establishing the population yield for each of the service areas.

Table 5-3
Spatial Population Growth Projection - Town

Location	Relative $	Area (ha)	Target Density (units per ha)	Number of Units	Population
Area 1	$	65	10	650	1690
Area 2 (a)	$$	90	10	900	2340
Area 2 (b)	$$	45	10	450	1170
Totals		200		2000	5200

Relating this information back to Table 2-1, even at 3% annual population growth, the Town's projected 25 year population can be easily accommodated within the three areas identified above recognizing the need to accommodate this growth in areas which are most easily serviced by Town infrastructure. It should be noted that where increased density is promoted by the Town, the amount of land required to support this projected growth is decreased even further.

Assuming that rural development would occur outside of the areas listed above based upon a maximum dwelling density of 2.5 units per hectare and a household size of 2.4 persons per dwelling, the following population yields could be reasonably projected:

Table 5-4
Spatial Population Growth Projection - RM

Location	Relative $	Area (ha)	Target Density (units per ha)	Number of Units	Population
Area 3	$$$	2001	2.5	500	1200
Area 4	$$$$	60	2.5	150	360
Area 5 (a)	$$$$$	90	2.5	225	540
Area 5 (b)	$$$$$	1151	2.5	230	552
Totals		465		1105	2652

[1.] Although the total land areas represented within Areas 3 and 5 (b) are 1370 and 755 hectares respectively, realistically the entire area would not be developed for country residential use at the maximum density as this would represent the equivalent of a new urban community. It is more realistic that country residential development will occur in pockets with some undeveloped agricultural land retained. For the purpose of this table, we have allocated 15% of the total land area towards the projection.

6 Growth Management Principles and Policies

6.1 PRINCIPLES

The following growth principles were established through discussions with the Town and the RM. These principles will be used as a foundation for establishing the development policies.

Inter-municipal Partnership
The Joint Growth Strategy is mutually developed to manage the growth in the areas of common interest both in the Town and the RM.

Link to Official Community Plans
The Joint Growth Strategy is supplemental to the Town and RM OCPs but is intended to complement and serve as a guide to inform and direct the respective polices of each municipality.

Environmental, Heritage and Cultural Resources
Growth in the area shall recognize and protect the areas resources.

Complementary Growth
The Town and the RM shall not compete for the same type of residential growth but rather seek to support differential residential opportunities and lifestyles within the region.

Fiscally Responsible
Growth in both the Town and the RM shall be cost effective and maximize the net benefits to the residents and the individual municipalities.

Connected and Contiguous
Town growth shall be connected to ensure ease of movement and contiguous to ensure expansion is adjacent to developed areas. RM growth shall have access directly or through service roads to preferred transportation corridors.

Livable
Growth shall maintain the quality of life for the residents and densities of development will be based on the Town's new neighbourhoods and the RM's country residential developments.

Sustainable
Growth shall be socially, environmentally and economically sustainable.

6.2 POLICIES

The Strategy identifies areas for future urban residential growth, future rural country residential growth and areas for potential commercial industrial growth for the next 25 years as shown in Figure 8-1. The policies in this section, along with the policies outlined in the Town's and RM's OCPs, will guide the future growth in the Strategy area.

6.2.1 General Policies

6.2.1.1 The Joint Growth Strategy is a plan to manage the short and long term growth for a minimum period of 25 years for the Town and the RM within the Strategy area.

6.2.1.2 The Joint Growth Strategy and all future development shall comply with Statements of Provincial Interest.

6.2.1.3 A 5 year supply of land should be designated in appropriate land use categories to accommodate short term growth.

6.2.1.4 Any boundary alteration proposal by the Town shall be mutually agreed to by the RM where the proposal would accommodate up to 25 year's growth and is in conformity with the Joint Growth Strategy.

6.2.1.5 The Urban/Rural Joint Planning Area (Joint Planning Area) as shown in Figure 8- 1 is an area of mutual interest to both municipalities and shall be managed by both the RM and the Town in a consultative and cooperative manner respecting the growth management principles and policies contained herein.

6.2.1.6 New residential subdivisions in designated urban growth areas shall be designed and serviced based upon a targeted minimum development density of 10.0 dwelling units per hectare (1 dwelling unit per 0.25 acres).

6.2.1.7 The maximum density for new rural residential subdivisions in the Joint Planning Area shall not exceed a density of 4.0 dwelling units per hectare (1 dwelling unit per 0.6 acres).

6.2.1.8 Notwithstanding 6.2.1.7, upon mutual agreement of the respective Councils, the maximum density for a rural residential subdivision in the Joint Planning Area may be exceeded for the purposes of accommodating a regionally significant development.

6.2.1.9 The density of new rural residential subdivisions shall be established based upon an evaluation of the carrying capacity of the lands to accommodate private waste water disposal systems or the operational capacity of a privately owned centralized waste water treatment facility; and the supply capacity for potable water.

6.2.1.10 Development should be financed in keeping with the principle that new development should pay its own way. All infrastructure, both on and off-site improvements, required to support development should be funded by the developer by either a payment in lieu or by construction of the required infrastructure for any future expansion.

6.2.1.11 Any land identified as having environmental, heritage or cultural resources shall be recognized and protected during the development stage.

6.2.1.12 Any land identified as having existing or potential environmental constraints shall only be developed in compliance with the conditions outlined in the Town's or the RM's OCPs and Zoning Bylaws.

6.2.2 Town Infrastructure Policies

6.2.2.1 Development shall make efficient use of the land, as well as existing and future infrastructure and facilities.

6.2.2.2 Development shall be cost-effective over its life-cycle from an operational perspective.

6.2.2.3 A comparable level of utility and public amenity services shall be provided in all existing and new residential areas.

6.2.2.4 Priority for access to the Town's sanitary sewer and water services shall be given to the Town's future growth.

6.2.2.5 Any rural development requesting access to and service by the Town's sanitary sewer collection and water distribution systems shall be at the discretion of the Town; and if the Town approves the extension of such services, the rural developer shall be solely responsible for financing and the construction of all necessary infrastructure to facilitate the new connection.

6.2.2.6 Rural subdivisions proposing to connect to the Town's sanitary sewer collection and/or water distribution system shall be required to execute a servicing agreement with the Town to confirm the conditions for service including but not limited to the standards for construction and payment of any direct or indirect capital costs associated with the construction of new or expansion of existing municipal infrastructure.

6.2.3 Rural Infrastructure Policies

6.2.3.1 Any new development shall minimize the costs and maximize the net benefits to the RM.

6.2.3.2 Rural subdivisions in designated rural growth areas shall be encouraged to connect to the Town's sanitary sewer collection and water distribution system. The developer shall bare full responsibility for financing and the construction of this new infrastructure.

6.2.3.3 The RM shall require that new rural subdivision proposing to connect to the Town's sanitary sewer collection and/or water distribution system enter into a servicing agreement with the Town as described in 6.2.2.6.

6.2.3.4 Rural subdivisions in designated rural growth areas proposing to construct a private centralized waste water treatment system shall be encouraged to establish a bare land condominium to provide the necessary private funding and management structure for the proposed facility.

6.2.3.5 Any new country residential development or commercial/industrial development shall be directed to one of the designated transportation corridors or provide a local service road that has access to an all – weather public access road.

7 Infrastructure Scenarios for Future Development

Current and planned infrastructure capacity plays an important role in determining the amount, spatial distribution and phasing of urban and rural growth in the Joint Planning Area. The capacity of the water system - the supply, storage and treatment components; along with the capacity of a new sanitary sewer system needs to be considered. With this information and the relative serviceability costs of the potential growth areas, a phasing plan for new residential Town growth can be determined based on the Town's projected population growth. The additional built or planned capacity of these systems will also dictate the extension of these services to surrounding rural areas.

7.1 WASTE WATER SYSTEM

The Town's present lagoon has reached its effluent disposal capacity and cannot keep pace with its waste water generation rates. As noted in Section 5 the Water Security Agency (WSA) has indicated that the Town must address the insufficient capacity of its waste water disposal system prior to any new developments being approved. This has meant that the Town is unable to approve any new developments and the Town's future growth will be halted until such time as this situation is remedied.

The Town is exploring options for a new waste water treatment plant that would replace the existing lagoons and would be able to meet the effluent requirements prescribed by the WSA. The planned waste water treatment system is scalable, enabling its staged expansion in response to changing urban and rural demands for service. The proposed new system would accommodate the Town's present population of 1750 within stage 1 with a forecasted service population of 2500 persons. Upon completion of the planned stage 2 expansion, the total estimated population service capacity for the system is expected to increase to 3700 people which effectively generates excess capacity to extend this service to rural developments in the Joint Planning Area. It is important to note that the proposed new system is capable of additional expansion in the future if needed and that the land area hosting the system is sufficiently sized to accommodate additional expansion.

7.2 WATER SYSTEM

Service capacity for any system is ultimately dictated by the weakest component of the system. In this regard, the Town's current treatment and water storage capacity will ultimately dictate growth in the region as it pertains to the extension of new water services. As indicated in Section 5, the current raw water supply is adequate to respond to 100% of the projected urban growth and also to enable support for additional rural growth, but the filtration and storage reservoirs do not have sufficient capacity to respond to the full cumulative urban and rural growth in the Joint Planning Area. In order to add additional capacity to the water system to meet projected urban population forecasts and to enable the extension of additional water service to future rural developments, the Town will need to consider a capital expansion of the treated water storage reservoirs and the expansion of the treatment system itself.

Although the Town has indicated that ensuring that sufficient water capacity exists to service forecasted urban growth is the highest priority, there is a willingness to consider capacity expansions to enable the extension of water service to future rural developments but only where the expansion can be accommodated within the existing building footprint. The current WTP building was designed to accommodate a third pump and filtration system which would be capable of potentially expanding water treatment capacity to up to a service population of 5700 people.[8] Adding a third filter to the existing system and continuing to operate these filters at the minimum design rate of 11.5 L/s would enable support for a forecasted population of 3800 people which is comparable to the current planned waste water treatment capacity referenced above, responding to a forecasted growth rate slightly below 3% annually. These system improvements combined with an expansion of the storage reservoirs should provide sufficient excess capacity to meet forecasted urban growth and enable the extension of water service to future rural developments within the Joint Planning Area.

7.3 INFRASTRUCTURE FUNDING

The infrastructure improvements contemplated in the previous sections represent large scale projects with multiple benefiting parties both within the Town's projected growth area and extending into the rural development areas. It is anticipated that the Town will utilize servicing agreements as the primary mechanism for ensuring that development contributes proportionately to the cost of these significant municipal infrastructure improvements.

Execution of a servicing agreement with the Town will be required as a condition of municipal endorsement of any future urban or rural subdivision. In addition to defining the developer's direct responsibility for funding and constructing all internal infrastructure, this agreement will establish the developer's responsibility for constructing any additional infrastructure necessary to connect to the Town's existing water and sanitary systems which may include but not be limited to linear infrastructure and pumping/lifting facilities. The agreement will also establish a per hectare developer contribution to the municipal investment into the expansion and/or improvement to the Town's water and wastewater treatment facilities as described above as represented in the Town's development charge bylaw. It should be noted that rural developers would be responsible for execution of a servicing agreement with both the RM and the Town where connection to the Town's water or sanitary sewer system is contemplated.

Within rural developments, in addition to being directly responsible for funding and constructing all necessary infrastructure to connect to the Town water or sanitary systems, rural developers will also be assessed the same per hectare development charge applied to urban developments. Urban and rural property owners connecting to these systems would then be subject to the applicable utility hook-up fees and ongoing service utility rates.

[8] This assumes that the filtration rate of the existing two filters and a third added filter could be increased to 17.5 L/s. A filtration rate of 3 Igpm/ft^2 (or 17.5 L/s) is assumed to be a sustainable filtration rate based upon the system design specifications. This increase has not been confirmed and will be dependent on completing a physical test of the system. Operating the existing filters at a higher rate may cause some issues including increased backwashing.

8 Phasing of Growth

Based on the land evaluation and infrastructure analyses with the long term growth projections and in line with the growth management principles and policies, a Joint Growth Strategy for the Town and RM that identifies the future development areas with a phasing plan can be developed. Figure 8-1 in the Appendix illustrates the future growth areas for the Town and the RM.

8.1 IMMEDIATE URBAN GROWTH

As noted earlier in the report, major urban developments have been restricted from going forward until the waste water systems have been remedied. This work is underway and once completed will allow for urban growth to continue.

However, the Town can encourage infill development in the older sections of the Town where there are vacant lots or redevelopment of existing lots. There are approximately 70 vacant lots in the Town that are available for development which includes the lots in subdivisions that have been approved but are not completely built out.

8.2 PHASE 1 OF URBAN GROWTH

Phase 1 of the Town's future growth, located south of the Town's current corporate limit and outlined in green on Figure 8-1 comprises approximately 65 ha. This land has been previously identified within a proposed boundary alteration due to its relative serviceability.

Based on the present densities of newer developments in the Town that range from 4.0 to 5.2 units per ha, this area could accommodate a population of up to 880 people at the high end of this density range. Given that development densities in older areas exceeds that of newer subdivisions within the Town and that current trends are to encourage more compact forms of development, it is safe to assume that the higher density value is achievable within the designated growth areas. Based upon this assumption this area could accommodate almost 50% of the Town's projected 25 year growth.

8.3 PHASE 2 OF URBAN GROWTH

The lands flanking Phase 1 to the east and west identified in red on Figure 8-1 represent the next logical extension of the Town's growth. This land area has also been included in the Town's annexation boundary proposal. These areas have the same relative servicing costs and require a new sewer trunk main and can tie into the existing water mains. Details of the servicing requirements are outlined in Table 5-1.

The east area of Phase 2 comprises 90 ha, while the west area has a gross developable area of 45 ha. The west area would be a southerly extension of the existing development located along Rosewood Drive while the east area would represent the easterly extension of Phase 1. It is not assumed that either one of the areas would develop fully before the other area starts development; however, the principle that Town growth must be connected and contiguous would be a controlling factor.

Based on the same assumptions applied to Phase 1, the east area could accommodate a population of 1215 people while the west area could accommodate approximately 608 residents. Combined with the Phase 1 the three projected growth areas would accommodate an additional 2700 people, resulting in a total Town population of 4335 at full development. This population exceeds the forecasted 25 year growth of a population of 3235.

It should be noted that by increasing the target net development density for new residential subdivisions to parallel the current densities within the community core, the Town's projected 25 year growth projections could be accommodated within Phase 1 and the western sector of Phase 2, making the best use of public investments into new infrastructure.

8.4 POTENTIAL FOR LONG TERM URBAN GROWTH

Potential future phases of urban growth past the 25 year forecast have been identified in light yellow on Figure 8-1. These areas are not in the Town's annexation boundary proposal and should remain within the RM as they are not required for the Town's 25 year growth plan. However, these areas should be retained for the Town's long term growth. No development should take place in this area that would impede long term future urban growth and is recommended that no rural country residential developments be approved in these two areas with the one exception noted below.

The area directly to the west of the Phase 2 growth area - the Minerva Ridge subdivision - has been identified as a potential urban area as the residents may want to access the Town's sewer system if it is cost effective for them. This area is presently serviced with the Town's treated water. Notwithstanding the restriction of no new rural country residential developments in this designated area, future rural country residential would not be restricted in this area as it has not been completely subdivided.

8.5 URBAN/RURAL JOINT PLANNING AREA

The Urban/Rural Joint Planning Area as shown in the red outline on Figure No. 8-1 is the area of common interest for the Town and RM and development in this area should be managed through an inter-municipal partnership. Prior to this study, the urban/rural fringe was an arbitrary radial distance from the Town's boundaries into the RM. The recommended Urban/Rural Joint Planning Area replaces this former urban/rural fringe and identifies those lands in the RM that are in close proximity to either existing Town development or to the future short term growth areas of the Town.

The Growth Management Principles and Policies outlined in Section 6 will guide all growth within this Urban/Rural Joint Planning Area. Residential development within this Area shall be in conformity with the residential densities of the RM's Low, Medium and High Density Country Residential Districts. The High Density Mixed Use District will be restricted from this planning area as it is not complementary to the Town's development.

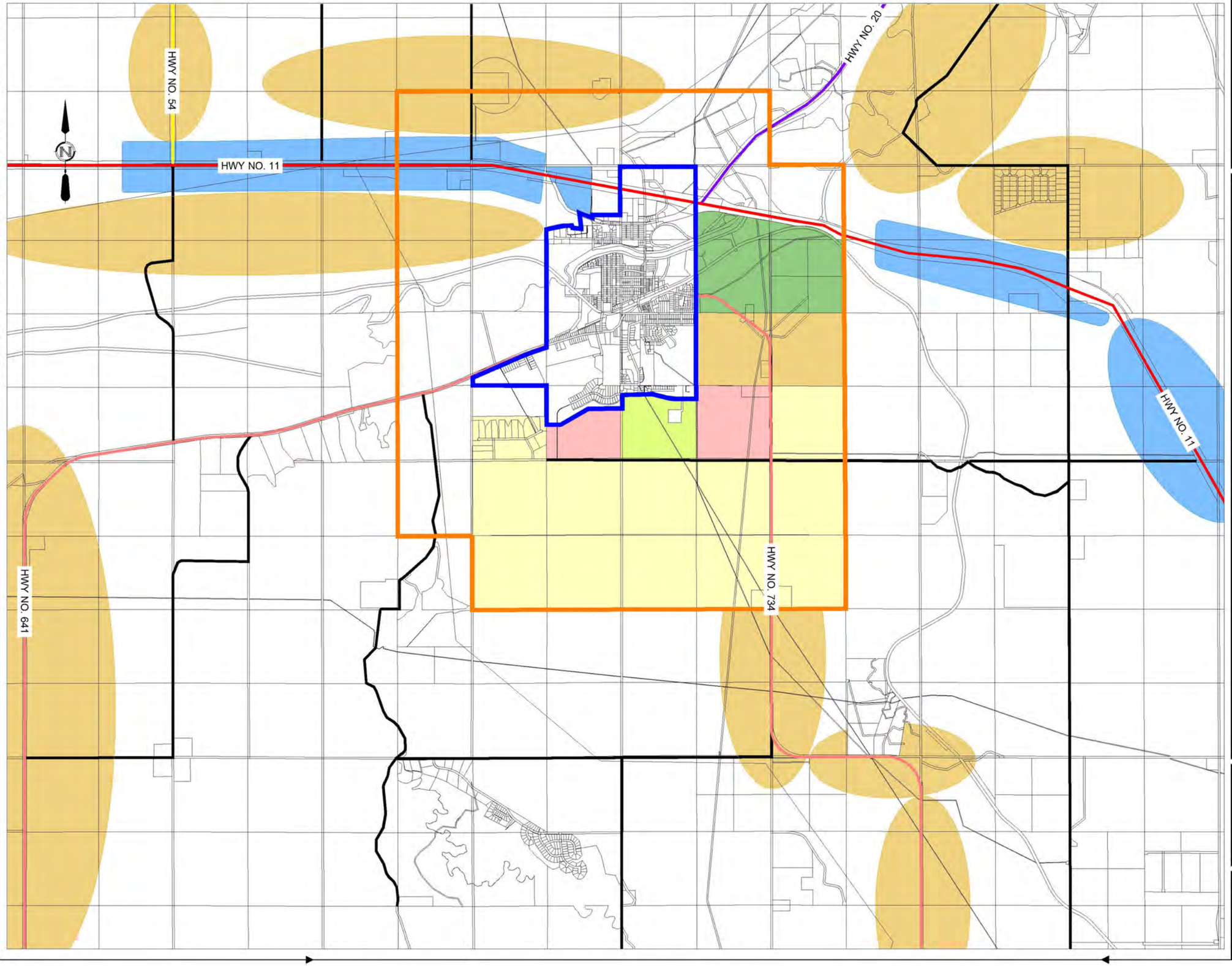
8.6 RURAL COUNTRY RESIDENTIAL GROWTH

Figure 8-1 indicates the areas along the designated transportation corridors that could be considered for future country residential growth. These areas, with the exception of those in the Urban/Rural Joint Planning Area, would be developed in accordance with the RM's OCP and Zoning Bylaw and would not be part of the inter-municipal partnership.

8.7 FUTURE COMMERCIAL/INDUSTRIAL GROWTH

The lands identified in blue in Figure 8-1 are designated to be considered for industrial/commercial growth. The Town's annexation boundary proposal, as shown in Figure 33-2, indicates that the Town is proposing to annex the lands east of the Town that encompass the present lagoon site and the landfill site. However, it is not the Town's intention as outlined in its OCP to encourage industrial growth within the Town. They have indicated that large commercial and industrial development should be encouraged in the RM.

The proposed areas for this growth are along the major transportation corridor – Highway No. 11. As this highway has restricted access points, service roads to these access points would be required to accommodate either industrial or commercial development.



Associated Engineering

LEGEND

- TOWN'S GROWTH PHASE 1 (25 years)
- TOWN'S GROWTH PHASE 2 (25 years)
- TOWN'S LONG TERM GROWTH
- FUTURE RURAL COUNTRY RESIDENTIAL
- FUTURE RURAL COMMERCIAL / INDUSTRIAL
- FUTURE RECREATION
- EXISTING TOWN BOUNDARY
- URBAN / RURAL JOINT PLANNING AREA

FIGURE No. 8-1

TOWN OF LUMSDEN
RM OF LUMSDEN

CIVIL
PLANNING
FUTURE GROWTH AREAS AND JOINT PLANNING AREA

AE PROJECT No.	20134404
SCALE	N.T.S.
APPROVED	B. DELAINEY
DATE	2015APR30
REV	A
DESCRIPTION	ISSUED FOR DRAFT REPORT

Closure

This report was prepared for the Town of Lumsden and RM of Lumsden No. 189 to establish a joint growth strategy for the two communities.

The services provided by Associated Engineering (Sask.) Ltd. in the preparation of this report were conducted in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other warranty expressed or implied is made.

Respectfully submitted,
Associated Engineering (Sask.) Ltd.

Prepared by:	Reviewed by:
Peggy Clark Planning Lead	Bill Delainey, MCIP, RRP Manager, Urban Planning

Appendix “B” – RM 189 West Sector Plan and West Service Road Feasibility Study

Appendix "B"

RM 189 West Sector Plan

and

West Service Road Feasibility Study

Rural Municipality of Lumsden No. 189

November 2023

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LIST OF FIGURES

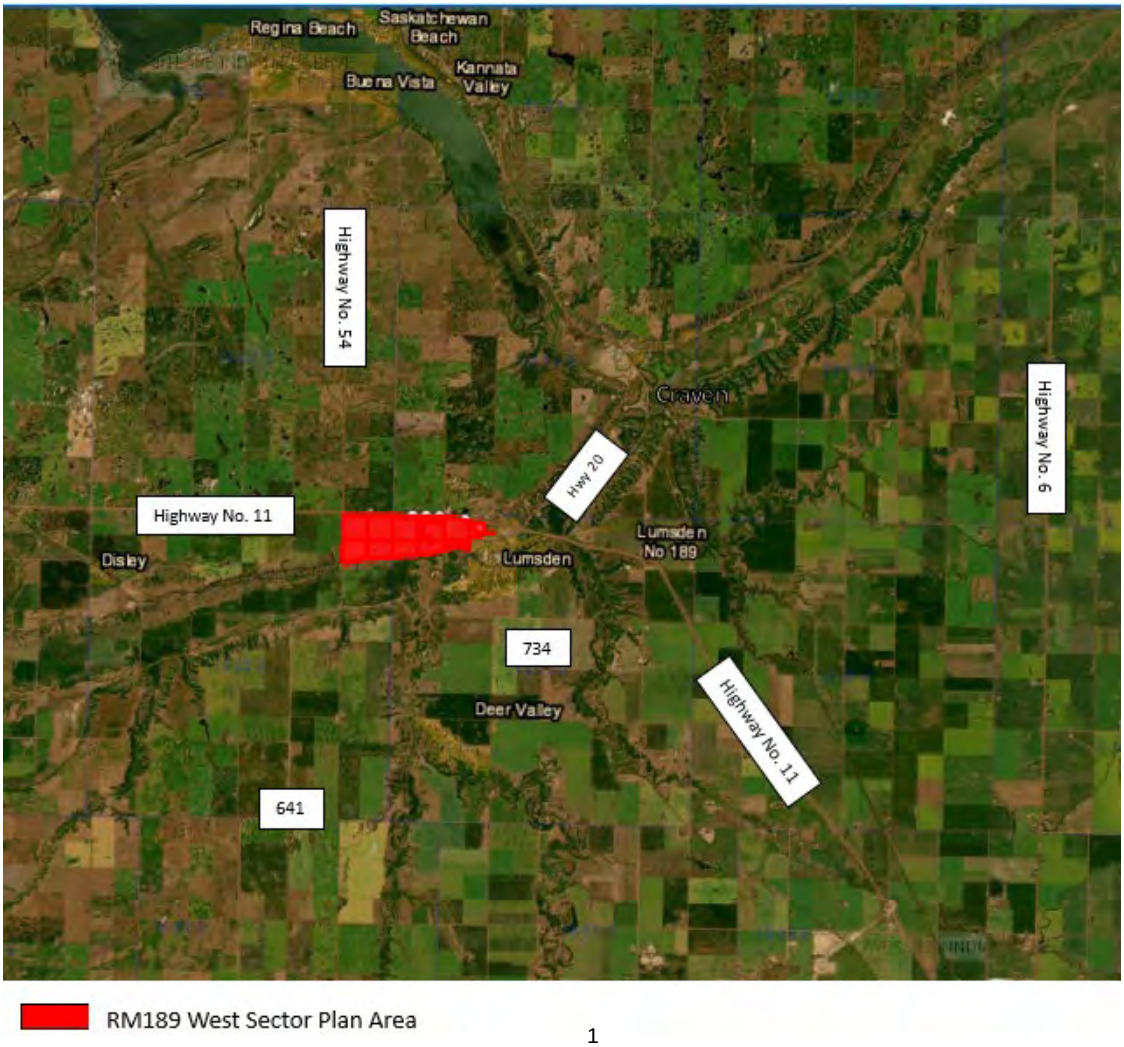
1. INTRODUCTION

Background

The intent of this sector plan is to provide a policy framework for directing land use, the primary transportation corridor and utility servicing for lands located south of provincial Highway No. 11, west of the Town of Lumsden. Previously, there have been multiple attempts to develop land in the plan area for commercial and residential purposes. However, those attempts were challenged by highway access and other issues such as servicing. The "RM 189 West Sector Plan" (the Plan) supports and guides development that includes commercial, residential, and potential mixed land uses. The commercial element will consist mainly of highway commercial and ag-related commercial businesses given its proximity to the Highway No. 11 corridor between Regina and Saskatoon, as well as the local and regional agricultural customer base. Residential development will occur mainly in the southern portion of the plan area as servicing capacity will allow for.

It is expected that all subsequent concept plans, rezoning, and subdivision will be in conformity with this plan. Concept plans, which provide a detailed solution for land-use and servicing, will be required for every new multi-lot development in the plan area. The individual concept plans in conjunction with the policies of this plan will ensure that the RM189 West area is developed in a logical and cost-effective manner.

Figure 1.1 Sector Plan Regional Context



Site Context

The Plan area is approximately 348.5 hectares in size and is located immediately south of provincial Highway No. 11, on the Town of Lumsden's western boundary. The plan area is bounded by Highway No. 11 to the north, Range Road 2221 (Trestle Road) & provincial Highway No. 54 Interchange to the west, the Town of Lumsden to the east, and the Qu'Appelle River Valley to the south. The north portion of the Plan area is comprised of existing highway-oriented commercial development, the south portion is comprised mainly of agricultural land, gravel pits, a couple of country residential acreages, as well as an existing farmstead. The Plan area was identified as an RM growth area within the Lumsden Joint Growth Strategy (JGS) in 2016.

The Plan area is located along a preferred highway commercial development corridor, with potential to serve a large regional customer base. Existing land uses, located adjacent to the Plan area include primarily agricultural lands and residential within the Town of Lumsden. The lands directly north of the Plan area also have existing commercial development and are intended for future commercial development. The Plan area, therefore, forms part of a regional gateway into the Town of Lumsden by providing additional development opportunities that will complement the growing marketing demand for commercial and residential lands within the RM and region.

Purpose and Plan Objectives

The Plan area will provide a collective integration of land uses (commercial and residential) that will promote economic, social, and environmental sustainability consistent the Official Community Plan (OCP). Major commercial development will serve as the area's economic foundation, with mixed-use and residential development at a scale determined by servicing capacity. Proposed development in the plan area will achieve the regional function of providing a greater diversity of commercial and residential opportunities all while balancing the preservation of the natural environment of the Qu'Appelle River Valley.

This Plan envisions the development area as a regional gateway that will grow the larger community by expanding commercial and residential opportunities within the RM in close proximity to the Town. A strong commercial presence will provide the development area with a solid economic foundation that will assist with balancing future residential population growth.

Objectives

Key goals and objectives of this Plan are to:

- Preserve ecological and natural features of the Qu'Appelle Valley.
- Provide direction for the location of the service road corridor, and the phased access connections to provincial Highway No. 11, at safe locations to efficiently distribute traffic within the plan area.
- Guide development of the plan area wholistically, by establishing the service road corridor and phased access to the provincial highway system to and from major commercial areas.
- Encourage the logical and cost-effective extension of land uses, utility services and transportation networks.
- To support economic development and diversification that maintains and enhances the services provided to the regional community.

2. REGULATORY AND POLICY CONTEXT

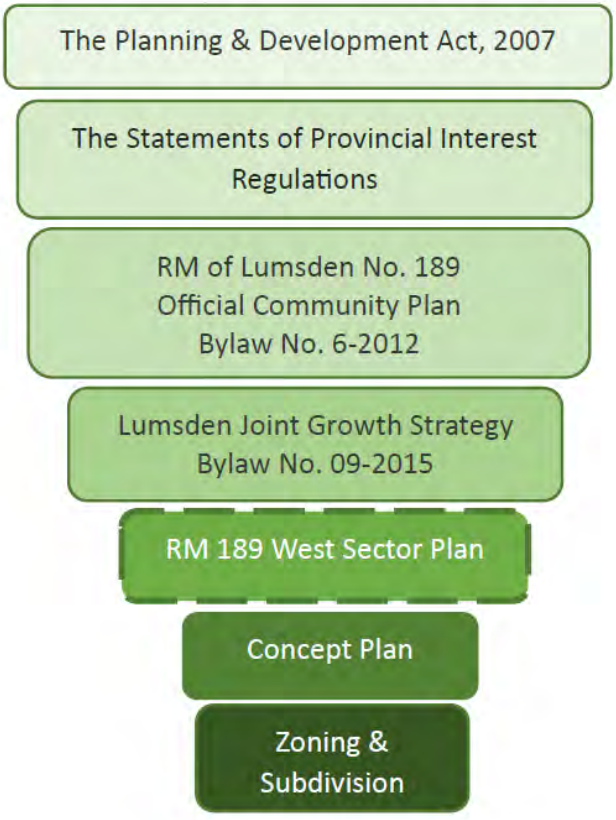
2.1 Regulatory Framework

The Planning and Development Act, 2007

Official Community Plans are established pursuant to *The Planning and Development Act, 2007* (PDA) and provide a comprehensive policy framework to guide the municipality's physical, environmental, economic, social and cultural development. A municipality may, as an amendment to its official community plan, adopt a concept plan by bylaw for the purpose of providing a framework for subsequent subdivision and development of an area of land.

Concept plans are generally defined by section 44 of the PDA and may be referred to as Secondary or Sector Plans depending on the scope. They provide direction for land use (zoning); the provision of community services (parks and recreation); the provision of utility services (water, wastewater and stormwater) as well as transportation (roads). Within the context of this plan, the RM of Lumsden No. 189 is providing direction through the preparation of a Sector Plan to establish the land use policies associated with the large tracts of land and the future provision of a Service Road in the plan area. Generally, this sector plan will provide high level policy direction for the total plan area and require separate Concept Plans for each proposed development within the overarching plan area. Separate Concept Plans will provide more detailed direction on the development vision, servicing framework and design layout for a defined area. Concept Plans must align with this sector plan and the OCP.

Figure 1.2 Planning Framework



The Statements of Provincial Interest Regulations

The Statements of Provincial Interest Regulations (SPI) establish provincial land use policy which provides guidance to municipalities on a variety of land use and development issues in Saskatchewan. The SPI correlate provincial and municipal goals & objectives for land use planning which directly impact community development, economic development, and environmental stewardship. Every official community plan adopted or amended, including this plan, shall be consistent with the provincial land use policies contained in the SPI.

This plan specifically addresses the following Provincial Interests:

Public Works

The plan supports safe, healthy, reliable, and cost-effective public works to facilitate economic growth and community development by ensuring that the necessary corridors, easements and land for public works is dedicated during the subdivision and development process.

Transportation

The plan supports safe, cost-effective transportation systems that meet existing and future needs for economic growth, community development and diversification by ensuring development within the plan area is compatible with existing and planned infrastructure, specifically the provincial highway network.

Inter-municipal Cooperation

The plan promotes inter-municipal cooperation that facilitates strong partnerships, joint infrastructure and coordinated local development by establishing land use policy and establishing inter-municipal processes for managing land in areas of common interest.

Official Community Plan

The Official Community Plan (OCP) Bylaw outlines the RM's vision for future growth and guides decisions related to planning and development in the municipality. The OCP provides a framework for physical, environmental, economic, and social development through a vision statement that provides the Goals, Objectives, and Policies of the Plan.

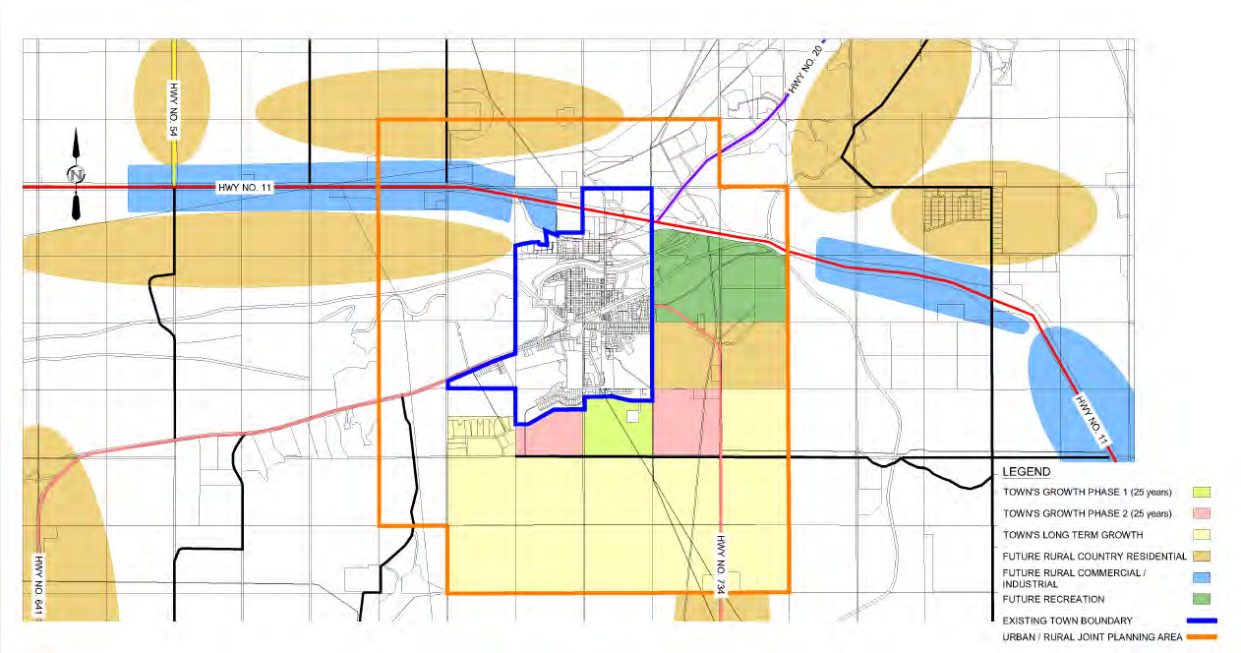
The OCP may be amended by the RM from time to time to reflect changes that may result from external factors or development proposals, provided that the amendments meet the intent of the OCP's vision and overarching goals. The RM will make these amendments in accordance with the process and public participation requirements outlined in the PDA.

Joint Growth Strategy

In 2015, the RM and Town of Lumsden each adopted the *Town of Lumsden/RM of Lumsden No. 189 Joint Growth Strategy* (the JGS) into their respective OCPs as a regional initiative to establish future growth areas for each municipality. The Future Growth Areas and Joint Planning Area Map from the JGS identifies the RM189 West plan area as part of the RM's future growth. Figure 1.3 below, identifies future rural commercial/industrial development, shown in blue, adjacent to Provincial Highway No. 11, as well as future rural country residential development, shown in yellow, within the southern portion of

the area. The JGS is a plan to manage the short- and long-term regional growth for a minimum twenty-five-year planning horizon.

Figure 1.3 Lumsden Joint Growth Strategy – Future Growth Areas & Joint Planning Area



Zoning Bylaw

The Zoning Bylaw is the planning tool used to achieve the objectives and implement the policies of the OCP through the regulation of land use and development. Once land use policies are established through the OCP with the adoption of this plan and further refined in subsequent Concept Plans, the lands within the plan area will be suitable for rezoning to enable the proposed development.

2.2 Local Planning Context

Location

The RM 189 West Sector Plan area consists of approximately 350 hectares of land centrally located within the RM, directly north-west of the Town of Lumsden. The plan area is bounded by Provincial Highway No. 11 to the North, Range Road No. 2221 to the West and the Qu'Appelle River Valley to the south. The plan area is shown below in Figure 1.4.

Figure 1.4 RM189 West Sector Plan Area

This plan supports a land-use and phasing strategy that conforms to the OCP. The plan supports the location and phased development of the service road corridor and associated commercial development, as a priority, adjacent to Provincial Highway No. 11. The plan also identifies land for future residential development and includes the integration of a pathway system to support active transportation within the Plan area. Commercial and residential development will be consistent with the available servicing capacity required to support it, as well as ensuring that future development does not occur on any hazard lands or create any potentially unsafe traffic conditions.

Official Community Plan Bylaw No. 6-2012

The OCP was adopted in 2012 and provides the comprehensive policy framework to guide the growth and development of the RM of Lumsden No. 189. The following sections of the OCP provide specific direction with respect to this Plan:

Goals as set out in section 2.0 of the OCP include:

Section 2.2 Physical and Economic Development Goals

2.2(3) To strengthen the economic base of the Municipality by creating a positive environment for business development

2.2(4) To ensure a high quality of life for residents.

Section 2.3 Intergovernmental Interests and Involvement Goals

2.3(1) To obtain the support and assistance of senior governments in the realization of the goals and objectives of this plan

2.3(2) To support and complement the Statements of Provincial Interest.

2.3(3) To engage with neighbouring communities to identify issues and common interests in planning, municipal servicing, and growth opportunities.

Section 3.1 Natural and Heritage Resource Policies

The OCP promotes environmental protection to ensure that development is consistent with the management of natural resources for both human enjoyment and for the preservation of such natural features and locations. This includes the protection of aquifers, groundwater, and wetlands. It also restricts development on potentially hazardous lands with respect to flood potential and slope instability.

3.1.3(2) Applications for proposed uses which require large amounts of groundwater or which may impact the current groundwater supply of adjoining uses may be required by Council to provide a study to verify that the groundwater resource is adequate for both existing users and the proposed use.

3.1.3(6) Council will consider approval of proposed development in terms of the size and configuration of an adjoining waterway, water body or shore land, the capacity for public access, the potential impacts (social, economic and environmental) of development, general and site-specific environmental and ecosystem characteristics and economic potential for development in the area. The developer shall be responsible for all expenses associated with the preparation of studies and relevant information to be undertaken by qualified professionals. The studies shall provide recommendations to protect and conserve natural features and heritage resources.

3.1.3(11) Wetland areas along a lake, slough or creek will be protected and, where appropriate, integrated with recreational uses and development. Future development will not alter such wetland areas other than by the addition of appropriate structures such as: walkways, pedestrian bridges, boardwalks, and interpretive media.

3.1.3(14) Subject to the Aggregate Resource Extraction Policies. Council will consider discretionary use applications for aggregate resource extraction to facilitate future residential, commercial, and industrial development on a case-by-case basis if a Concept Plan for the proposed future development has been adopted by Council. In these cases, Council may apply a reduced separation distance beyond the minimum separation requirements to facilitate future development.

Section 3.2 Biophysical Constraints on Development Policies

3.2.3(1) Development should avoid land that is hazardous due to flooding, erosion, slumping or slope instability, unless suitable mitigation measures are to be implemented. Council will use Future Land Use Map 3 – Hazard Lands as one of the tools to help determine areas that are unacceptable for development, or require mitigation measures, due to hazard lands.

3.2.3(4) Council may refuse to support the subdivision of land or authorize the development of structures on land determined to be hazard land or may permit development only in accordance with specified mitigation measures. The costs of any required flood hazard or slope hazard report to identify the risk of proceeding with a proposed development on

potentially hazardous land or recommending specified measures to mitigate the risk of development of hazardous land will be the responsibility of the proponent of the proposed development.

Section 3.3.3 Residential Land Use and Development Policies

The OCP provides for a variety of housing types and residential lot sizes to correspond with the demand for country residential acreages "with a view" while maintaining critical ecological areas and other sensitive areas.

3.3.3(3) The Zoning Bylaw will provide for single parcel residential development, as well as clustered low, medium and high-density residential zoning districts to accommodate the range of existing legally established residential uses, forms and densities.

3.3.3(4) The Zoning Bylaw will provide for other forms of development, facilities and recreational uses in residential districts that are consistent with and complementary to the overall residential and recreational uses of the district.

3.3.3(9)(a) Multiple Lot Residential Development Policies: The Zoning Bylaw will contain a series of residential zoning districts to accommodate multiple-lot country residential subdivisions at various densities.

3.3.3(9)(b) Subdivision for non-farm residential development at a density greater than two residential sites per quarter section will be considered for multiple lot developments, based on project merits relative to the policies in this section. Such subdivisions shall be implemented in association with a rezoning to appropriate residential zoning districts.

3.3.3(9)(c) Locational Guidelines for Multiple Lot Country Residential Development:
To provide for effective and efficient municipal and other services, and to protect prime agricultural land and important ecological habitat in the municipality, multiple-lot country residential subdivisions should be located:

- Near a school of sufficient capacity to handle the increase in enrolment or an existing school bus route.
- Near power, natural gas and telephone lines of sufficient capacity to handle such development.
- So that adequate police and fire protection can be conveniently provided.
- In order to protect or enhance existing treed areas and/or critical wildlife habitat.
- Only where direct all-weather public road access has been provided to the satisfaction of Council.
- On land with a lower CLI Rating of Class 3 to 7, or on land that has other crop production limitations.

3.3.3.(9)(d)(iv) Locational Requirements for Multiple Lot Country Residential Development:
Concept Plan
Council will require, in the interests of ensuring a comprehensive and planned approach to development, the preparation of a concept plan for the entire area that

will ultimately be developed and submission of supporting documentation, where appropriate, as follows:

1. Reports, prepared by professionals certified to assess relevant factors to assess the geotechnical stability of the site, susceptibility to flooding or other environmental hazards, together with any required mitigation measures. These measures may be attached as a condition for a subdivision or development permit approval.

2. Engineering reports to address concerns such as availability of water supply, surface water drainage, and sewage treatment and disposal.

3. The initial concept plan shall provide an integrated layout for the total country residential subdivision development envisioned, showing road layout and access to external public road, phasing of development, and dedicated lands. Once the initial concept plan has been accepted by Council, and subdivision and development commences, no subsequent subdivision that is inconsistent with the approved concept plan and all policies in this document will be permitted without acceptance of a revised concept plan by Council.

Development Standards
The Zoning Bylaw will prescribe maximum and minimum lot sizes and other appropriate development standards for multiple lot country residential development, with the aim of preserving productive agricultural land and ensuring that such development does not result in increased road hazards related to obstruction of sight lines, etc.

Section 3.5.3 Commercial/Industrial Land Use and Development Policies

The OCP supports a variety of commercial businesses and promotes a high-quality aesthetic that includes landscaping and building design. Businesses that serve the local and regional population base as well as the traveling public are encouraged to locate within the Plan area subject to compatibility with adjacent land uses and the ability to mitigate any negative impacts. The polices contained in this section provide guidance for evaluating such development applications, including the following:

3.5.3(2)(d) the potential impacts on adjacent land uses, and proposed measures to mitigate any negative impacts.

3.5.3(2)(e) the environmental suitability of the site and other potentially affected lands with consideration to the soils, topography, drainage and availability of services, proximity to public recreation and wildlife management areas and hazard land.

3.5.3(2)(f) the access, egress, and the potential impacts of the proposed development on the highway system and traffic safety.

3.5.3(10) Highway commercial uses should maintain the functional integrity of the highway, through the use of service road systems, or controlled highway access points, which are approved by Saskatchewan Highways and Transportation.

Section 3.6.3 Municipal Infrastructure and Services Policy

The OCP requires that all developments shall have some provision of water and wastewater services, stormwater management and solid waste disposal. The RM does not currently operate any water or wastewater systems but encourages developments to utilize a variety of options to meet the necessary servicing requirements. Every proposed development will have to demonstrate through the submission of a concept plan the provision of required infrastructure and services.

3.6.3(3) The R.M. will not be responsible for the capital costs associated with the provision of municipal services to new subdivisions, except for developments owned by the Municipality. Where a private development requires municipal services, the proponent will be responsible for all costs associated with providing the services. Council may require a proponent of a development to undertake an engineering study that clearly articulates the on and off-site infrastructure required to support the development.

3.6.3(4) Council will consider partnering with local urban and rural municipalities, such as the Town of Lumsden, to construct and manage infrastructure that will support future development in the R.M., including but not limited to sewage treatment and disposal systems, water treatment and distribution systems and solid waste management facilities.

3.6.3(6) Council will not approve new development or subdivision applications unless infrastructure and utility systems and services have adequate capacity.

3.6.3.(14) Transportation Policies

The Plan establishes the location and phasing of a service road corridor that provides east-west access through the plan area and connects safely and effectively to Highway No. 11 at various stages of development build-out. The Plan gives consideration for accommodating convenient access to the existing commercial businesses and future development, while facilitating a safe route for heavy trucks that will minimize traffic through residential areas.

3.6.3(14)(a) The Municipality will cooperate with the Ministry of Government Relations, the Ministry of Highways and Transportation, adjacent municipalities and other jurisdictions in long-term planning that addresses its transportation needs.

3.6.3(14)(c) Development shall not create any potentially unsafe traffic conditions. Council will ensure that appropriate road designs, speed limits and traffic control devices are used to help ensure traffic and road safety.

3.6.3(14)(d) Development along provincial highways shall be consistent with the safety standards and access policies established by the Ministry of Highways and Transportation.

Lumsden Joint Growth Strategy

Adopted in 2015, The Lumsden Joint Growth Strategy (JGS) identifies the Plan Area as an RM growth area within the Urban Fringe Boundary with the Town of Lumsden. The following growth management principles from Section 6 of the JGS provide specific direction with respect to this area of common interest.

Complementary Growth – The Town and RM shall not compete for the same type of residential growth but rather seek to support differential residential opportunities and lifestyles within the region.

Fiscally Responsible – Growth in both the Town and the RM shall be cost effective and maximize the net benefits to the residents and the individual municipalities.

Connected and Contiguous – RM growth shall have access directly or through service roads to preferred transportation corridors.

Liveable – Growth shall maintain the quality of life for the residents and densities of development will be based on the Town's new neighbourhoods and the RM's country residential developments.

The following policies from JGS, in conjunction with the policies outlined in the RM's OCP, will guide the future growth in the Plan area:

General Policies

6.2.1.5 The Urban/Rural Joint Planning Area as shown in Figure 1.3 above, is an area of mutual interest to both municipalities and shall be managed by both the RM and the Town in a consultive and cooperative manner respecting the growth management principles and policies contained within the JGS.

6.2.1.7 The maximum density for new rural residential subdivisions in the Joint Planning Area shall not exceed a density of 4.0 dwelling units per hectare (1 dwelling unit per 0.6 acres)

6.2.1.8 Notwithstanding 6.2.1.7, upon mutual agreement of the respective Councils, the maximum density for a rural residential subdivision in the Joint Planning Area may be exceeded for the purposes of accommodating a regionally significant development.

6.2.1.9 The density of new rural residential subdivisions shall be established based upon an evaluation of the carrying capacity of the lands to accommodate private waste water disposal systems or the operational capacity of a privately owned centralized waste water treatment facility; and the supply capacity for potable water.

Town and Rural Infrastructure Policies

6.2.2.5 Any rural development requesting access to and service by the Town's sanitary sewer collection and water distribution systems shall be at the discretion of the Town; and if the Town approves the extension of such services, the rural developer shall be solely responsible for financing and the construction of all necessary infrastructure to facilitate the new connection

6.2.2.6 Rural subdivisions proposing to connect to the Town's sanitary sewer collection and/or water distribution system shall be required to execute a servicing agreement with the Town to confirm the conditions for service including but not limited to the standards for construction and payment of any direct or indirect capital costs associated with the construction of new or expansion of existing municipal infrastructure.

6.2.3.2 Rural subdivisions in designated rural growth areas shall be encouraged to connect to the Town's sanitary sewer collection and water distribution system. The developer shall bare the full responsibility for financing and the construction of this new infrastructure.

6.2.3.3 The RM shall require that new rural subdivision proposing to connect to the Town's sanitary sewer collection and/or water distribution system enter into a servicing agreement as described in 6.2.2.6.

6.2.3.4 Rural subdivisions in designated rural growth areas proposing to construct a private centralized waste water treatment system shall be encouraged to establish a bare land condominium to provide the necessary private funding and management structure for the proposed facility.

6.2.3.5 Any new country residential development or commercial/industrial development shall be directed to one of the designated transportation corridors or provide a local service road that has access to an all – weather public access road.

Zoning Bylaw No. 7-2012

The Zoning Bylaw designates a variety of zoning districts within the plan area. Current zoning includes:

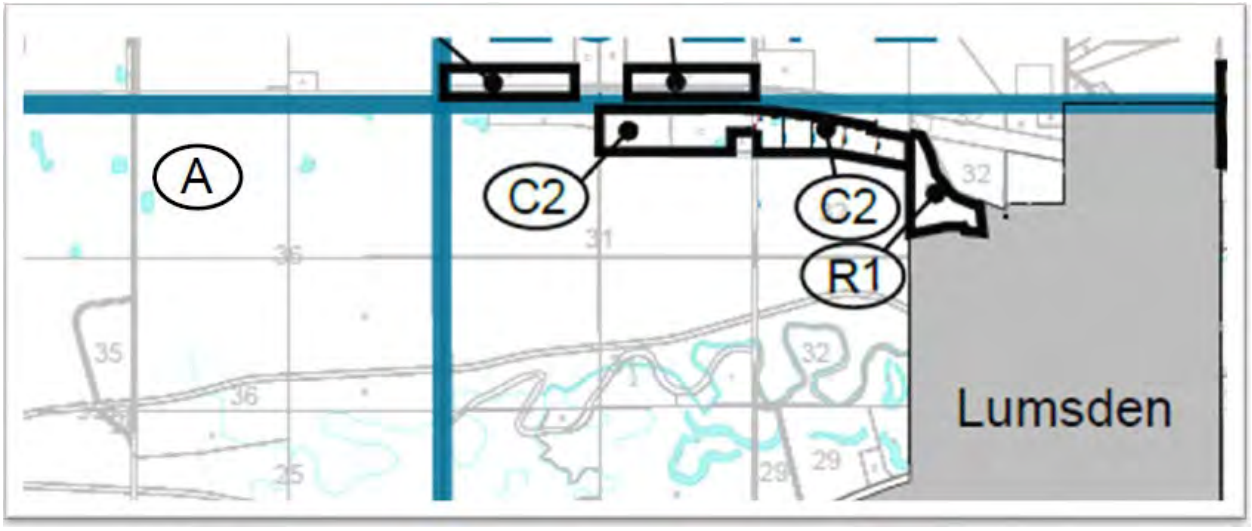
A – Agriculture

R1 – Low Density Valley Residential

C2 – Highway Commercial

The predominate zoning district is A – Agriculture for farmed and undeveloped lands within the Plan area. The entire frontages along Highway No. 11 of the NE ¼ 31 and NW ¼ 32 have been zoned C2 – Highway Commercial. Any future commercial or multi-lot residential subdivision or development application must be rezoned to an appropriate zoning district as part of any future development.

Figure 1.5 RM of Lumsden Zoning Bylaw No. 7-2012



3. EXISTING CONDITIONS AND DEVELOPMENT INFLUENCES

The natural and built site conditions were evaluated to assess and identify existing features that will influence the location, form, and intensity of future development in the plan area.

Natural Conditions

The plan area encompasses predominately uncultivated agricultural land overlooking the Qu'Appelle River Valley. A desktop assessment was undertaken to understand where the topography and other natural features may limit development. The lands in the plan area above the valley wall are relatively flat with a gradual slope from the northern boundary southerly towards the river valley. A significant elevation change occurs from the top of the valley wall to the bottom of the river valley at the southern limits of the plan area. As per the OCP these lands have been identified as being potentially hazardous with respect to slope stability and will require further geotechnical analysis through additional studies at the time development is contemplated.

Groundwater resources in the plan area are limited. Published groundwater resource maps indicate that there are no shallow aquifers underlying the site. The Judith River Formation is approximately 240 metres below existing ground surface. However, the plan area is characterized by having a shallow water table, groundwater well records indicate well depths ranging from 4.35 meters to 12.15 meters. Groundwater depths below the ground surface ranged from 0.38 metres to 10.61 metres. During periods of heavy rainfall or spring runoff, the water table could be even higher.

The Canada Land Inventory Agriculture Land Capability mapping classifies the soils in the plan area as predominately WL – Weyburn Loam, dark brown soils formed in loam textured, moderately to strongly calcareous glacial till. Weyburn soils are fair agricultural soils of capability class 3. Class 3 soils have moderately severe limitations that reduce the choice of crops or require special conservation practices. They are medium to moderately high in productivity for a moderate range of field crops.

A desktop biophysical screening was completed using the Government of Saskatchewan's HABISask Databases to identify potential critical or sensitive wildlife habitats and rare and endangered species. The assessment identified several known rare and endangered species of vascular plants and vertebrate animals within the plan area.

Heritage Resources

The plan area was scanned using the Government of Saskatchewan's Developers' Online Screening Tool to determine potential heritage sensitivity. The Ministry of Parks, Culture, Heritage, and Sport – Heritage Conservation Branch provides the online tool as a resource for the development industry to flag potential heritage sensitivity of lands and determine if they require further screening by staff of the Heritage Conservation Branch. The following results were yielded from the screening report within the plan area:

Parcel Description	Sensitivity (Y/N)
NW-36-19-22-2	N
NE-36-19-22-2	N
SW-36-19-22-2	Y
SE-36-19-22-2	Y
NW-31-19-21-2	N
NE-31-19-21-2	N
SW-31-19-21-2	Y
SE-31-19-21-2	Y
NW-32-19-21-2	Y
NE-32-19-21-2	Y
SW-32-19-21-2	Y

Y = Heritage Sensitive; N = Not Heritage Sensitive

Plan Influences

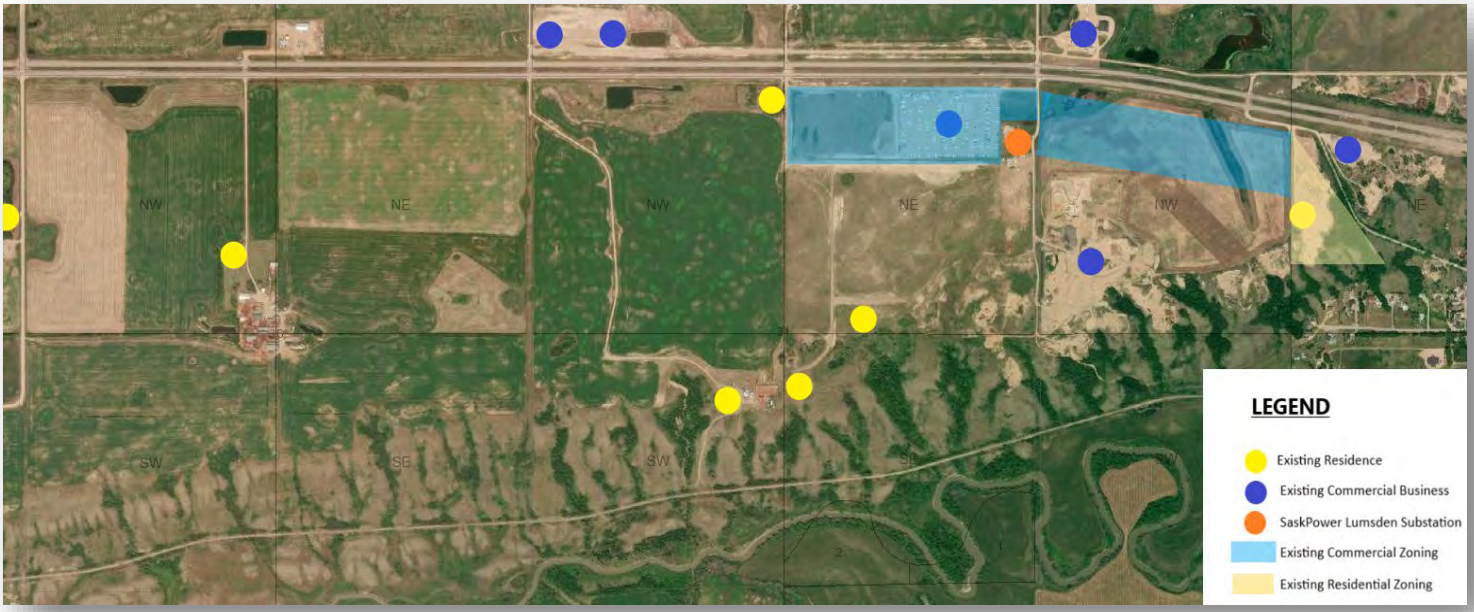
- A site-specific geotechnical study should be prepared before subdivision or development to assess the geotechnical stability of the site and identify any necessary mitigation measures, and comment on the suitability of the site for any required onsite sewage disposal systems as per Provincial regulations.
- A site-specific hydrogeological study should be prepared before subdivision or development to assess the groundwater regime, determine the physical, hydraulic and geochemical properties of the aquifer and confirm its suitability for groundwater use, and ensure the proposed development does not negatively impact neighbouring well users.
- In conjunction with a subdivision or development application on lands exhibiting the potential for rare or endangered species, the developer shall conduct a natural area screening consistent with the Species Detection Survey Protocols and the Activity Restriction Guidelines for Sensitive Species.
- In conjunction with a subdivision or development application on lands exhibiting potential heritage sensitivity, the developer must engage with the Heritage Conservation Branch to determine if a Heritage Resource Impact Assessment (HRIA) is required for sites having moderate to high heritage sensitivity.
- If a HRIA is required, it must be completed by a qualified archeological consultant. The Heritage Conservation Branch will advise if a project is given heritage clearance to proceed or will require additional measures to protect any known archeological sites within the development area.

Current Land Uses and Built Conditions

Current land use in the plan area consists of agricultural, country residential, commercial, and resource extraction. The plan area is largely undeveloped with a large portion of the land being used for resource-based purposes such as agriculture and aggregate extraction along with established farmsteads, and country residential developments. Commercial development is limited along the Highway 11 corridor and includes a Recreational Vehicle Storage site. SaskPower has a land holding that contains the Lumsden Substation, this site is an important part of the regional electrical generation, transmission, and distribution system.

Land uses outside the plan area include urban residential development in the Town of Lumsden to the east, additional highway commercial to the north, continued agricultural land to the west, and the Qu'Appelle River valley bounding the plan area to the south. Existing development and plan areas that establish specific future land uses are shown as follows:

Figure 1.6 Existing Land Uses



Existing urban residential development in the Town of Lumsden is predominantly low density single-detached family dwellings.

The mix of commercial businesses in the area straddle Highway No.11 with Nutrien, an agriculture industry business located to the north, along with a CN Rail line known as the Last Mountain Railway which is owned and operated by Last Mountain Rail, running from Regina to Davidson. The rail line is isolated at the bottom of the Qu'Appelle Valley adjacent to the river.

Community service uses available to the regional area located within the Town of Lumsden include the Heritage Home, a residential care home; École Lumsden Elementary School and Lumsden High School; an RCMP detachment, the shared Lumsden Municipal Office, and numerous other commercial retail business, restaurants and service providers.

The regional area has several recreational assets including numerous parks and playgrounds, sports facilities, and trails. Additional recreational amenities within the Town of Lumsden include an indoor and outdoor skating rink, curling rink, splash pad and the Qu'Appelle Valley Nordic Ski Club. Notably, approximately 15 km of the Trans-Canada Trail runs through the Town and RM, providing opportunities for passive recreation.

Transportation

Provincial Highway No. 11 provides primary vehicle access to the current land uses within the plan area. In discussion with the Ministry of Highways, Provincial Highway No. 11 will need to be transitioned to a controlled-access highway with designated control circles to improve traffic safety. There are five temporary access points within the plan area, identified in the below Figure. The temporary access points will need to be removed and consolidated over time as development occurs, with the ultimate connections being an interchange at Provincial Highway No. 54 to the west, and Provincial Highway No. 20 to the east.

Figure 1.7 Overview of Access

Municipal roads within the plan area are limited. The classification of roads currently within the plan area include gravel roads, private subdivision roads and undeveloped road allowances. There are three principle municipal road rights-of-way within the plan area:

- Range Road 2221 (Interchange with Highway 54) – An all-weather registered road providing north/south access across the valley to Primary Grid 641.
- Range Road 2220 (Goodsman Acreage Access/West Access) – Largely undeveloped road allowance, with only the first 120 metres of gravel road within the right of way, the road then turns into a private subdivision road to access the existing acreage.
- Range Road 2215 (Access to RV Storage, SaskPower Substation, and Gravel Pit/Central Access)

Plan Influences

- The layout of the plan area will need to consider compatibility between potentially conflicting commercial and residential land uses. Municipal buffers, Open space, berms, landscaping and transitional land uses (reduced intensities/densities) should be considered to mitigate against potential nuisance.
- The direction portrayed in subsequent concept plans for specific development areas will establish land use areas for the subject development within the plan area.

- The RM, along with the Ministry of Highways, will require a developer to inform a Traffic Impact Assessment (TIA) in conjunction with a subdivision or development permit application. The need for a TIA will depend on the location, scale and intensity of development. The assessment will detail impacts on the existing road network and identify roadway improvements, both on and off site, to minimize traffic impacts and ensure public safety.
- Active transportation is an important consideration within the plan area.
- Development that generates changes to the transportation network will be required to upgrade the road network accordingly.

Utilities

The RM of Lumsden No. 189 does not own or operate any utilities such as water or wastewater systems. The Town of Lumsden has a water treatment plant, and a new wastewater treatment facility. The Town of Lumsden, with support from the RM, is currently looking at expanding the capacity of its water supply, treatment and storage infrastructure to accommodate regional growth. The Town of Lumsden also recently commissioned a brand new wastewater treatment facility, that can treat wastewater for 2,500 people and can expand to serve more than double the Town of Lumsden's current population of 1800. The Town's waste water treatment plant does not accept hauled septage.

All drainage within the plan area is currently overland, there is no engineering storm water management system. There is a privately registered drainage easement on the NE ¼ 31-20-21-W2 south of the RV Storage. Additionally, there is a natural drainage course on the NW ¼ 32-20-21-W2 that should be maintained as a natural drainage feature within the plan area.

Power

SaskPower owns and operates the Lumsden Substation within the plan area. SaskPower requires a specific standard of road structure to provide access to their site to bring in heavy equipment vital in the maintenance and operations of the substation which feeds the communities of Lumsden, Regina Beach, Craven and the surrounding rural customer base. Additionally, there is an overhead 138kV transmission line extending across the N ½ of 31-20-21-W2 from southwest to northeast. This corridor is protected by a 38-metre wide easement that restricts development. The easement states that no ground disturbance can occur within 15 metres of any SaskPower structures, including poles, anchors, and guy wires, and that SaskPower must have clear access to each structure. The final design elevations of any proposed road crossing will require verification by SaskPower to confirm that clearance requirements have been met.

Plan Influences

- Servicing of development within the plan area shall be on-site systems, unless it is economically feasible, and agreed to by the Town to extend and connect to their water and wastewater systems.
- In conjunction with a subdivision or development application, drainage plans will be required to ensure that drainage courses, and stormwater management facilities are managed accordingly and do not contribute to erosion and slope instability.

4. CONSULTATION

Consultation with stakeholders ensures that the plan considers the broadest perspective possible. Affected landowners were engaged directly during the initial planning process to gather local knowledge and information, as well as share local perspectives of the subject area to supplement previous plans and studies. This initial engagement contributed to establishing the plan context and helped to inform the plan objectives. Following the preparation of the plan, a second round of engagement occurred with the larger public and the Town of Lumsden to obtain feedback on the plan's direction and to determine any revisions required before formal adoption.

Initial Stakeholder Engagement

An invite-only stakeholder engagement session was held January 13, 2022, at Centennial Hall in Lumsden. The RM invited landowners directly affected by the future service road within the plan area to attend. The landowners consist of agricultural operators, business owners and developers as well as SaskPower, a Crown Corporation. An information package was provided to each stakeholder containing a copy of the RM's presentation, the draft *Service Road Feasibility Study* completed by the RM's engineering consultants, MPE, and a Comment Form. The primary objective of the stakeholder session was to address the removal of a high-profile access, known as the Central Access, located between the north-east quarter of section 31 and the north-west quarter of section 32, which was deemed unsafe by the Ministry of Highways due to inadequate sight distances, to determine what alternative access would be preferred by the stakeholders to serve the plan area for the short-to-medium term. As well as, to inform stakeholders about the RM's long-term plan (20+ year planning horizon) to establish land use and transportation policy and the options for phasing in the required service road and access to Provincial Highway No. 11 in the plan area to the ultimate long-term connection to the future interchange with Provincial Highway No. 54.

The RM Council and Administration began the session with a presentation to the landowners about the findings of the draft *Service Road Feasibility Study*, which is attached to this plan as Appendix A. The session then provided the opportunity for stakeholders to present their concerns and business needs, development priorities and general thoughts and questions regarding the service road feasibility study within the plan area. There was good discussion overall, and lots of questions and comments for the RM to take-away. Following the session, a two-week period was defined to return Comment Forms. Administration also participated in follow-up one-on-one telephone conversations with stakeholders to further understand potential impacts to their business and farming operations and hear concerns about the proposed service road corridor.

The following summary of engagement provides some common themes and concerns that were expressed by stakeholders.

Summary of Engagement

Process

- Stakeholders expressed concerns about the engagement process itself. Many indicated that they would like to have more information up-front and be kept up to date on the development of the plan. This extended to decisions being made by the Ministry of Highways with respect to controlling access along Highway No. 11.

- Many stakeholders were encouraged by the session and the opportunity to participate in the process and agreed that there is a significant need to develop a long-term plan for the area to provide certainty for their business operations, as well as investment in future developments.

Location of the Service Road

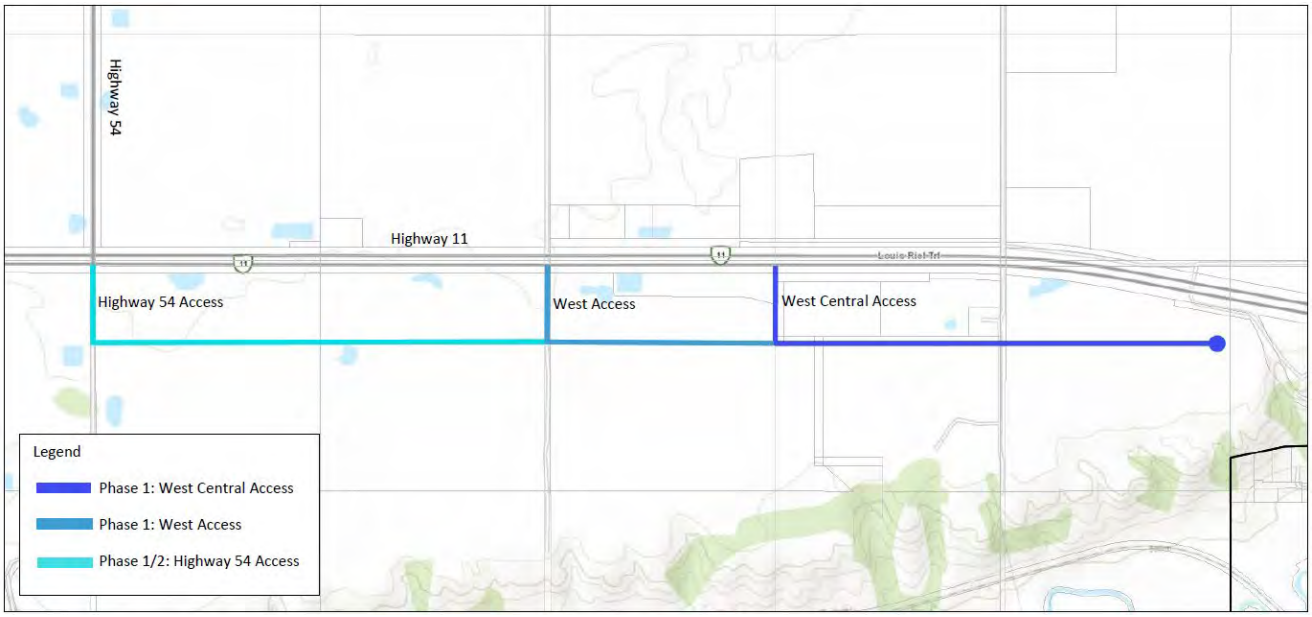
- Stakeholders indicated general acceptance for setting the service road back approximately 250 metres from Highway No. 11, however some raised concerns with the location not being directly adjacent to the Highway as per previous plans.
- The RM's rationale for setting the service road back from the highway was based on several factors, including: constraints associated with existing developments such as dugouts and a farm site, the ability to economically service development on both sides of the proposed road, as well as dust control.
- One stakeholder indicated that the proposed location of the service road would impact their water supply. This has been noted and will be addressed at the time an interest is registered on the property for the future acquisition of the land for the service road.

Short to Medium Term Access

- The Comment Form provided to stakeholders sought out specific information about the preferred Short-to-medium term access to Highway No. 11. This was requested due to the indication from the Ministry of Highways that they will be removing the Central Access in the near future, and that the long-term access must ultimately be from Range Road No. 2221 and a future inter-change with Provincial Highway No. 54.

The following figure was provided to stakeholders with the potential options for phasing of access to the plan area.

Figure 1.8 – Service Road Potential Phasing Options



Considering this information there was generally support for not overbuilding the service road, with the West Central Access identified by four (4) stakeholders in the Comment Forms as the preferred access point for the short to medium term. This was also supported by other stakeholders, verbally, at the engagement session including SaskPower, who identified a need to ensure that large equipment, vital in the maintenance and reliability of the substation, can conveniently access the site. Direct, unencumbered access to the substation will ensure that the larger communities of Lumsden, Craven, Regina Beach and the surrounding rural customers are not at risk of long-duration power outages and that it will not inhibit SaskPower personnel from completing regular maintenance to the transformer.

The West Central access is seen as an economical option as there is already an existing service road built directly adjacent to Highway No. 11 to provide continued access to the Commercial Storage Business. However, some improvements will need to take place to support the West Central Access intersection with Highway No. 11, including coordination with the Ministry of Highways and the landowner of the existing yard site directly west of the intersection, to ensure that the area is sufficiently cleared to ensure adequate sight lines for heavy commercial traffic.

East Access/8th Avenue

It was recognized by many stakeholders that the old highway, currently known as 8th Avenue, which is under the shared jurisdiction of both the RM and Town of Lumsden provides a logical connection to the plan area with the Town to facilitate complimentary commercial developments, as well as critical emergency vehicle access. However, it was also recognized that the existing land use along 8th Avenue within the Town is largely a recreational walking path and low-density residential development and therefore is not suitable for commercial traffic, but rather limited to local traffic and emergency vehicles. In any case, the East Access/8th Avenue connection may be explored in the future as a joint initiative between both the Town and RM.

Public Open House

A public open house was held at Centennial Hall in Lumsden on June 14, 2023, to present the draft sector plan to the public for review and comment. Several display boards with maps and policy highlights were available for come and go viewing and members of the RM Administration were present to listen to comments and answer questions. A formal presentation on the sector plan was given by the RM, followed by a question-and-answer session. Approximately 24 people attended the open house, including a few members of the Town of Lumsden Council, a representative from the Ministry of Highways as well as numerous landowners.

The materials presented at the open house, including the presentation, display boards, draft sector plan report and comment cards were posted on the RM's website. Comments on the draft plan were accepted until June 30, 2023. However, an extension was provided to the Town of Lumsden to allow all of the Town Council to review and discuss the draft sector plan documents at their July 18, 2023, meeting. Comments from the Town were received by the RM on August 9, 2023. In addition to the comments received from the Town, the comment response rate was very low. Additional comments received from the public included concerns over the acquisition of land and the funding model that will be used to pay for the construction of the proposed service road. As well as the phasing-in of the proposed service road and the impacts on existing businesses that have established frontage and access.

Summary of Second Round of Engagement

Generally, the draft sector plan was well received by landowners and the Ministry of Highways.

The Town of Lumsden reflected on *The Lumsden Joint Growth Strategy* and suggested that the sector plan should adhere to the growth management principle of Complementary Growth, to ensure that the Town and RM do not compete for the same types of residential growth, but rather seek to support differential residential opportunities and lifestyles in the region. Further, the Town indicated that it is apprehensive of on-site sewage disposal systems, such as holding tanks, and would be supportive of future connections to the Town's sanitary sewer system, where feasible. Finally, the Town maintained that future access via 8th Avenue remains a serious concern, in that opening 8th Avenue to future traffic would be incompatible with the existing land use of low density residential and take away an important recreational opportunity for the community. The Town requested that any future discussions related to the re-opening of 8th Avenue be left to the Town's discretion.

As a result of the comments and feedback received on the draft sector plan, the following revisions were made:

- Additional references to the growth management principles and policies from the Lumsden Joint Growth Strategy were added to the Policy and Regulatory Context section of the sector plan. Reinforcing the RM's commitment to managing growth with the Town.
- Additional transportation policies were added under the Land Use Policy section to provide clarification on the transition of access within the sector plan area and the administration and implementation of the road.
- Policy statements within the plan containing "shall" or "will" as they relate to future discussions between the Town and RM regarding the re-opening of 8th Avenue were replaced with "may" at the Town's request, to provide the Town with discretionary compliance regarding this aspect of meeting the intent of the plan.

5. LAND USE STRATEGY

This sector plan envisions an overall community design focused on the development of a complete community that is interconnected with the region, is safe and accessible to multiple modes of transportation, is sensitive of natural features, and creates a high-quality built environment. The following strategies are intended to guide development of the plan area.

Safe and Efficient Transportation System

A safe and efficient transportation network is critical for the future development of the plan area. It is of further importance that the RM take a lead in this regard to determine the extent of the future municipal road network by establishing land use policy to inform the location and standard of the service road. The policy considers the best and highest use of the land and the allocation of resources, including the total capital costs for construction and maintenance of this infrastructure.

Strategy:

- The RM will work with the Ministry of Highways to ensure safe and efficient access to the provincial highway network through informed plans and studies.
- Provide transparency and confidence to developers by establishing and applying consistent standards for various types and forms of development within the plan area.
- Require the submission of concept plans that align and support the objectives of this sector plan and the OCP to guide planning applications such as rezoning and subdivision.
- Collaborate with neighbouring communities to maximize public investment and promote complementary development.

High Quality Built Environment

Prioritizing high-quality, visually appealing development that preserves and enhances the natural environment of the Qu'Appelle Valley and does not detract from it.

Strategy:

- Protect and preserve natural and environmentally sensitive areas from incompatible development.
- Avoid development on potentially hazardous land.
- Complement the character and appearance of the Qu'Appelle Valley through high-quality design and landscaping that enhances the natural environment.
- Support innovative development practices that provide efficient use of land.
- Ensure that new development is compatible with existing development or mitigates potential conflicts with appropriate buffers or screening.
- Require the inclusion of a parkway corridor to provide both active transportation and public recreation opportunities.

Economic Growth and Diversification

The RM desires to grow its commercial sector by providing opportunities for commercial and light industrial development to do business in the RM and contribute to long term economic stability.

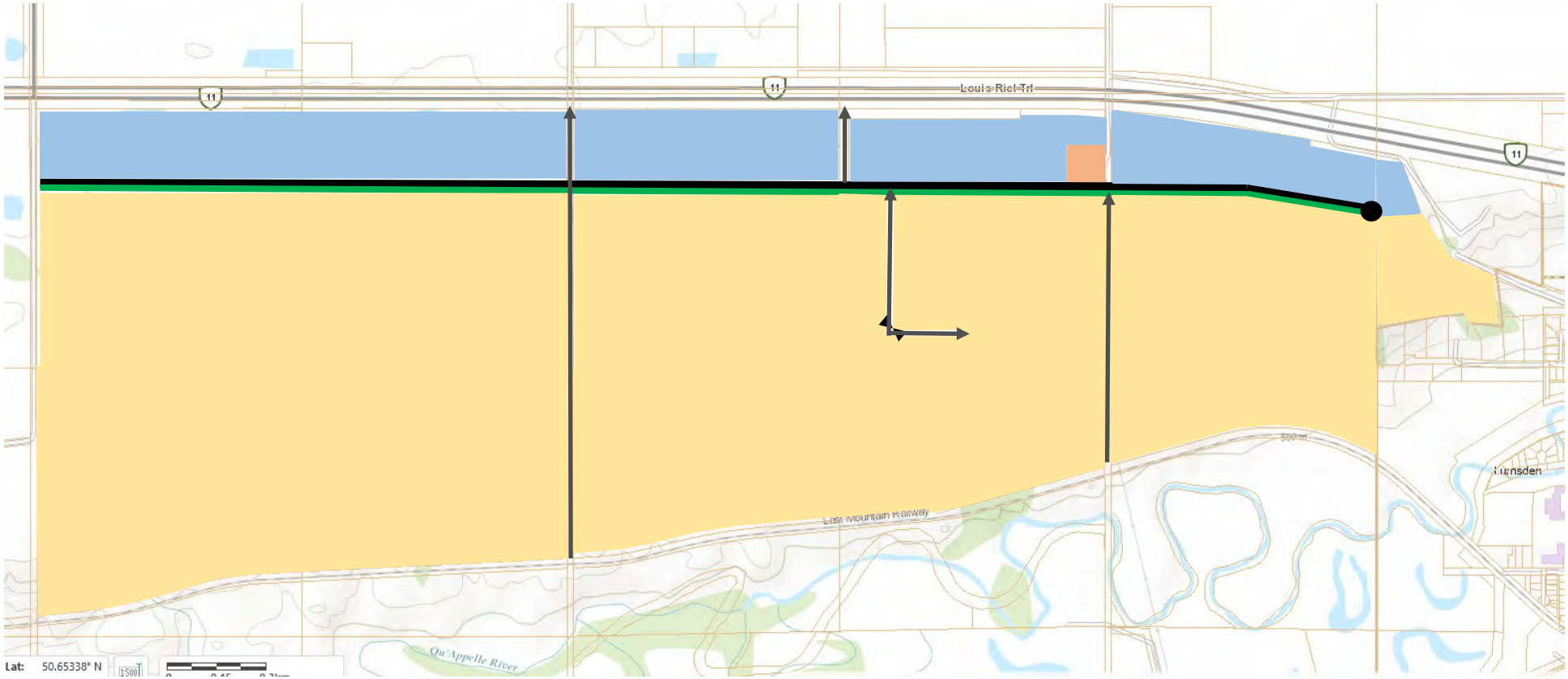
Strategy:

- Attract commercial and light industrial businesses by identifying appropriate locations for development and ensuring safe and adequate access to the provincial highway network.
- Support the expansion of existing businesses in the region and provide opportunities for further economic diversification.
- Market the economic development incentives and programs to encourage growth.

Land Use Concept

This plan envisions the RM 189 West area as a rural extension of the Town of Lumsden with complementary commercial developments and additional housing choice. Residential developments will be high-quality and accessible to the regional area through pathways or trail systems. The commercial sector of the plan aims to attract highway commercial style developments complementary to the variety of services and businesses already available within the Town of Lumsden, that support the regional area. The transportation network is safe and efficient and manages heavy commercial traffic as well maintains volumes and restrictions adjacent to and through residential areas. The community balances the natural environment by complementing the valley views with high-quality landscaping and construction of commercial and residential properties.

Figure 1.9 - Land Use Concept



Legend

- Service Road Corridor
- Collector Roads
- Municipal Buffer
- Commercial
- Residential (Subject to Geotechnical Assessment)
- Public Utility

6. LAND USE POLICY

The design of the plan area should be focused on the development of a "whole" community that is sensitive of natural features, is safe and accessible for multiple modes of transportation, and is interconnected with the surrounding development and creates a high-quality development that enhances the scenery of the Qu'Appelle valley.

6.1 General

The following policies apply to all development within the RM 189 West Sector Plan area:

1. All future development will be required to inform a concept plan that aligns with the direction presented in this plan to guide rezoning and subdivision applications.
2. The location of land uses shall be generally consistent with the Land Use Concept Plan
3. The proposed Service Road as detailed in Appendix A – *RM of Lumsden No. 189 West Service Road Feasibility Study* shall serve as the primary arterial for the development of the plan area and future concept plans will show how local roads will interface with the service road.

6.2 Environmental and Heritage Resources

The RM of Lumsden No. 189 promotes sustainable development compatible with critical ecological areas to safeguard our natural and heritage resources. Future development in the plan area is encouraged to reduce negative impacts on the environment, avoid development on potentially hazardous lands, and mitigate impacts to potential heritage sites that may be identified through additional screening by the Heritage Conservation Branch.

In addition to the polices within the OCP, the following environmental and heritage policies will guide future development within the plan area.

Policy

- In conjunction with the preparation of a Concept Plan, developers shall submit a Phase 1 Environmental Site Assessment for the subject area.
- In conjunction with a subdivision or development permit application on lands exhibiting potential for rare or endangered species, the developer shall conduct a natural area screening consistent with the Species Detection Survey Protocols and the Activity Restriction Guidelines for Sensitive Species to mitigate any potential impacts.

6.3 Transportation

The absence of an east-west Township Road through the plan area inhibits access for future development as it has been determined by the Ministry of Highways that direct access to the Provincial Highway No. 11 will be removed and consolidated along this corridor to the ultimate connections with Provincial Highway No. 54 to the west, and Provincial Highway No. 20 to the east. The policies provided in this plan will focus specifically on the consolidation of access west toward Highway No. 54 and the provision of an east-west service road through the plan area to a future interchange with Highway No. 54.

It is worth noting that the connection east via 8th Avenue may be explored in the future in conjunction with the Town of Lumsden following the adoption of the RM 189 West Sector Plan. Currently 8th Avenue

is legally closed and has not been used by vehicular traffic in many years. At present, 8th Avenue is used as a walking path by local residents offering scenic views of the valley. The road structure has not been maintained and will require significant upgrading. Therefore, any discussions regarding opening and re-constructing 8th Avenue for use by the travelling public will need to be undertaken as a joint venture with the Town of Lumsden, as the jurisdiction of 8th Avenue roadway falls under both municipalities, respectively.

The plan area will transition from the current development form focusing primarily on access from Provincial Highway No. 11 to the proposed service road setback from the highway, with fully integrated commercial and country residential style development. Existing access points to Highway No. 11 will be phased out over time. The main access through the plan area will be the proposed service road, with the main access off Highway No. 11 occurring at the West Central Access. The proposed Service Road Corridor will be designed to the RM's Internal Commercial/Industrial Road standard with a 46 metre Right-of-Way and buffer zone to create separation between the proposed commercial development to the north from the proposed residential development to the south and provide a future utility corridor and active transportation pathway.

Local roads and pedestrian infrastructure will be phased-in as needed to support development proposals and utility services, recognizing that full build-out of the plan area will depend on the timing of individual landowners and their development plans. As a component of any future concept plan for future residential areas, consideration should be given to preparing a traffic impact assessment as well as a circulation plan for both vehicular and pedestrian activity.

Transportation Policy

General Policies

- The location and design specifications of the future service road shall be in accordance with Appendix A – Service Road Feasibility Study. The configuration and linkage of local roads and active transportation infrastructure shall be determined at the concept plan stage and finalized at the subdivision stage.
- Land for the proposed service road shall be dedicated at the time of subdivision as per section 184 of *The Planning and Development Act.*
- The developer will be responsible for expanding existing or constructing new infrastructure where required to directly service a proposed subdivision or development application.
- If it determined that the construction of the service road should proceed prior to development, the RM will determine a funding model to construct the road and may recoup the capital costs through a servicing agreement or a development levy.
- Prior to subdivision approval, a Transportation Impact Assessment for future development shall be submitted, which provides solutions, satisfactory to the RM and the Ministry of Highways, for traffic management, including the safe and efficient movement of:
    - Vehicles, including lane configuration, intersection design, signalization and traffic control.

    - Pedestrian and cycling pathways, including traffic calming (where applicable), pedestrian crossings location and design, etc.
- Landscaping of boulevards/medians as well as the buffer zone are encouraged within the Service Road Corridor to enhance the separation between the commercial and residential areas.
- Physically separated multi-use pathways are encouraged within the buffer zone.

Operational Policies

- Access to the plan area from Provincial Highway No. 11 shall be the West Central Access, until such time as development within the plan area warrants, and the access is required to be removed and consolidated further west, to the West Access, or to the ultimate connection with Range Road 2221 and the intersection of Provincial Highway No. 54.
- Primary access to the plan area will be the West Central Access, which will be a controlled, full-access intersection with stop control on side streets.
- The existing service road along the northern portion of the NE 31 may remain to provide access to the existing commercial properties, with the primary access/egress to Provincial Highway No. 11 being from the West Central Access location.
- The existing Central Access will be removed by the Ministry of Highways as soon as is practical.
- The lands located within the Eastern portion of the plan area, known as Parcel C, Plan 101443823 and the NE 32-19-21-W2 Ext. 123, may continue to use the East Access, as development warrants, or until such time the East Access is removed, at which time, the lands may tie into the eastern limits of the Service road, or an alternative access is available.
- Future development within the NE 36-19-22-W2M, beyond the uses for which the land is currently zoned, will be limited within the Right-of-Way/Interchange area, until a functional study with the location of the interchange and potential land requirements are known.

6.4 Infrastructure Servicing

The plan area does not currently have any municipal infrastructure such as municipal water or sewer systems. Therefore, future development will rely upon on-site systems, as density will allow, or will be required to negotiate the provision of municipal services with the Town of Lumsden, at the discretion of the Town. If the Town agrees to the extension of such services, the developer shall be solely responsible for the financing and construction of all necessary infrastructure to facilitate the connections to the Town's water and wastewater systems. The logical phasing of services would come from the east and be extended westward as development warrants and the Town's municipal system can support.

Policy

- The specific location, capacity, and standard of services required to support subdivision and/or development shall be confirmed though the preparation of a concept plan.
- New developments may be serviced with onsite systems. Where feasible, connections to the Town of Lumsden's sanitary sewer and water systems are encouraged.
- The provision of Town service extensions is at the Town's discretion. If the Town approves the extension of such services, the rural developer shall be responsible for the financing and construction of all necessary infrastructure required to facilitate the new connection.

- Developments proposing to connect to Town services shall be required to execute a servicing agreement with the Town.
- New public infrastructure shall be designed by a qualified professional engineer licensed to practice in Saskatchewan and shall comply with current adopted municipal standards.

6.5 Commercial and Light Industrial Lands

The RM189 West plan area strives to be a business corridor for the region and provide a range of complimentary commercial and light industrial uses for the area. Demand for larger-scale commercial and light industrial development lands in proximity to the Town of Lumsden has increased over time and continues to increase as local businesses expand and new ones seek to establish themselves in the Lumsden area.

With high visibility and significant traffic volumes along Highway No. 11, the commercial policy area is optimal for meeting the retail and service needs of the travelling public, and the commercial and employment needs of the local and regional residents. Development in these areas will support vehicle-oriented uses and will likely include businesses with variable hours of operation.

It is anticipated that the commercial policy area within the plan will support a mix of commercial and light industrial businesses such as light manufacturing or processing facilities, automotive and recreational vehicle sales and service, warehousing or wholesale and retail.

Policy

- Businesses adjacent to Highway No. 11 and the Service Road shall include high-quality landscaping treatments and screening to enhance the visual appeal of the plan area. Loading areas, outdoor storage of recreational vehicles or unfinished goods and materials shall be screened from adjacent roadways using a combination of landscaping and fencing.
- Businesses and activities that produce smoke, dust or ash, odour, gas, glare or heat or other similar nuisances shall be discouraged, unless it can be demonstrated that such nuisance can be adequately mitigated.

6.6 Residential

The southern half of the plan area will accommodate future residential development. Lands designated for future residential will encourage a variety of housing stock for the region to provide new neighbourhoods that can accommodate a range of incomes and lifestyles. It is anticipated that residential development patterns will be primarily single-family homes. The maximum density for new rural residential subdivisions in the Joint Planning Area with the Town of Lumsden shall not exceed a density of 4.0 dwelling units per hectare. The provision of housing density and location shall be determined at the concept plan stage.

Policy

- Residential development will occur at a density that can be supported by the provision of onsite services or the logical extension of municipal servicing and infrastructure.
- A range of housing types complementary to existing and future residential development in the Town of Lumsden shall be encouraged to support differential residential opportunities and lifestyles within the region.

- Residential development shall be oriented towards local streets, not the service road.
- Roadways in residential areas shall follow the RM's road development standards.

6.7 Community Service, Parks and Recreation

As the plan area develops there will be an increased demand for active transportation and new public recreation facilities to meet the needs of the diverse population. Spaces for public recreation such as trails will be well-designed and accessible throughout the plan area, which includes a designated parkway corridor located directly south of the service road. The designated parkway corridor will serve as a buffer between commercial and residential land uses, but also provide a multi-use path with high quality landscaping to connect residential neighbourhoods to commercial employment areas and other community amenities in the region. Additionally, it may also be used to accommodate utilities as required in the plan area. Additional pathway connections and the provision of local neighbourhood parks will be determined at the concept plan stage.

Policy

- The location of the designated parkway corridor south of the service road shall be in general accordance with this plan. Concept plans shall integrate the designated parkway corridor with other multi-use trail networks, local neighbourhood parks and regional amenities.
- Multi-use pathways may be located along major roadways, utility corridors, or as physical separation between potentially incompatible uses.
- Where it is not practical to dedicate land for parks, cash-in-lieu may be accepted to fund regional recreation projects.
- Local parks should be centralized within new residential areas and include smaller-scale facilities and amenities to serve the recreational needs of the local residents.
- The construction of local parks will be the sole responsibility of the developer.

7. PLAN IMPLEMENTATION

Any future development within the plan area will require the developer to submit a subsequent concept plan in advance of rezoning and/or subdivision. The concept plan must align with the OCP and policies established in this plan. Council may adopt a concept plan as an amendment to the OCP in accordance with section 44 of *The Planning and Development Act, 2007.*

Phasing of Development

The phasing of future development will be based on the availability of services, existing development conditions, and the interest of the landowner. The phasing of development and future service road corridor will be guided by the following:

Policy

- The phasing of development should consider the provision of services required to support the proposed development and align with availability or the logical extension of services.
- Phasing of development shall be logical with respect to available servicing capacity or existing service extensions. Should a landowner wish to proceed with a development in advance of service availability, they shall be responsible for demonstrating the feasibility of providing services and infrastructure to the site through the preparation of a concept plan.
- All developments within the plan area shall dedicate the service road at a location, width and design standard consistent with the West Service Road Feasibility Study.
- If it has been demonstrated through the preparation of concept plan that a proposed development has access to the required servicing, the development process may proceed. Subdivision and development applications will be reviewed on their ability to provide the necessary infrastructure, and on their own individual merits with respect to this plan.

Plan Amendment

From time to time, as required, the municipality may amend this plan. Any proposed amendments must be accordance with the provisions outlined in *The Planning and Development Act, 2007.* Any amendments must be consistent with the overall intent of the RM's OCP and align with OCP policies.

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Final Report for:

RM OF LUMSDEN NO. 189

WEST SERVICE ROAD

FEASIBILITY STUDY

MPE Engineering Ltd.
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Jamie Kunz, Engineering Licensee
Project Manager

Date: April 27, 2023
Project #: 6710-013-00

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CORPORATE AUTHORIZATION

This report has been prepared by MPE Engineering Ltd. (MPE), for the sole use of the Rural Municipality of Lumsden. Any use that a third party makes of this report, or reliance on or decisions made based upon it is the responsibility of the third party. MPE accepts no responsibility for damages, if any, suffered by a third party as a result of decisions made or actions taken based upon this report. This report represents MPE's best judgement, based on the information available at the time of report preparation.

Respectfully submitted,
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Association of Professional Engineers & Geoscientists of Saskatchewan
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Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
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TABLE OF CONTENTS

1 INTRODUCTION

This report presents the results of a feasibility study conducted by MPE Engineering Ltd. (MPE), for the proposed West Service Road located immediately west of the Town of Lumsden within the Rural Municipality of Lumsden No. 189 (RM). The intent of this feasibility study is to supplement the concepts outlined in the *RM of Lumsden – RM 189 West Sector Plan.*

2 PROJECT DETAILS

The RM would like to build a service road adjacent and South of Highway 11 between Highway 54 and the Town of Lumsden and is therefore looking into the feasibility and geometrics. This area is seen as a potential future multi lot industrial/commercial and residential development that will allow connectivity to Highway 11 for businesses and scenic views of the Qu'Appelle River Valley for residences. For the purposes of this feasibility study, the focus is specific to the proposed roadway. Infrastructure such as water and sewer are not reviewed as part of this assessment. A site plan can be found in ***Appendix A***.

As part of the feasibility study, MPE completed the following tasks:

- Traffic Analysis.
- Pavement Structure Analysis.
- Geometric Analysis.
- Cost Analysis.

2.1 BACKGROUND INFORMATION

The following items have been reviewed and taken into consideration for this report:

- Grand Valley Acres Concept Plan (July 2020) by GeoVerra.
- Emshay Enterprises Ltd. – Norm & Laura Colhoun Grand Valley Development Concept Plan (May 2018) by Altus Group.
- RM of Lumsden Road Development Policy (April 2020).
- RM of Lumsden – RM 189 West Sector Plan.
- Grand Valley Developments Inc., Dowalo Holdings Ltd., Norm Colhoun and Wayne Goodsman – Traffic Impact Assessment (May 2017) by KGS Group.

3 TRAFFIC ANALYSIS

3.1 BACKGROUND DOCUMENT REVIEW

The RM provided various policies, studies and transportation planning documents that have been completed for the study area. The planning studies and documents are both historical and current dating back to 2017. The following are relevant to the traffic analysis:

Grand Valley Developments Inc., Dowalo Holdings Ltd., Norm Colhoun and Wayne Goodsman Traffic Impact Assessment, KGS Group Consulting Engineers, May 2017 (2017 TIA): This study addresses the potential traffic impacts of the proposed mixed land-use development of the lands located at N.W. ¼ Section 32 – 19 – 21 W2M, E ½ Section 31 – 19 – 21 W2M, and Parcel C Plan 101443823. The study assumed an east-west service corridor connected to 8th Avenue and two accesses at Highway 11. The

study looks at the proposed development Phase 1, full development by the 10-year horizon, and 20-year horizon.

RM of Lumsden – RM 189 West Sector Plan: The most recent concept plan, also known as RM189 West, for approximately 348.702 ha of land located south of the Provincial Highway 11 between the Highway 11 and Highway 54 junction, and the corporate boundary at the Town of Lumsden; which includes NW ¼ 36-19-22-W2, NE ¼ 36-19-22-W2, NW ¼ 31-19-21-W2, Parcel A Plan 96R08987 Ext. 0, NE ¼ 31-19-21-W2 Ext. 137, SE ¼ 31-19-21-W2 Ext. 293, Parcel A Plan 101443586 Ext. 134, Parcel D Plan 102253902 Ext. 0, Parcel C Plan 102253902 Ext. 0, NW ¼ 32-19-21-W2 Ext. 1, Parcel C Plan 101443823 Ext. 127, as presented in the report. The concept plan presents the proposed land uses, connectivity, and transportation assumptions. It does not provide many subdivision details for the site lands or total future traffic estimates.

Grand Valley Acres Concept Plan, GeoVerra Inc., July 2020: The most recent concept plan for 23.9 ha of lands located at E ½ Section 31 – 19 – 21 W2M. The report presents the proposed subdivision, design rationale, proposed land uses, connectivity and transportation, phasing, and serviceability of the project. The assumed transportation system is based on the 2017 TIA report.

Rural Municipality of Lumsden NO.189, Bylaw No. 2 – 2018: A proposed bylaw to amend Bylaw No.6 – 2012 known as the Official Community Plan of the RM. ***It should be noted that this bylaw was never granted Ministry approval and was eventually repealed by the RM***. However, the draft bylaw provides insight to concept plans for various lands located at N.W. ¼ Section 32 – 19 – 21 W2M, E ½ Section 31 – 19 – 21 W2M, and Parcel C Plan 101443823. The bylaw presented proposed subdivision, design rationale, proposed land uses, connectivity and transportation, phasing, and serviceability of the project. The assumed transportation system is based on the 2017 TIA report.

3.2 ASSUMPTIONS AND ANALYSIS

MPE reviewed the background traffic and planning information. The purpose of this analysis is to estimate the Annual Average Daily Traffic volume anticipated along the service road corridor based on the proposed land uses. The 2017 TIA serves as basis for our traffic generation assumptions while the RM189 West Draft Report provides the development anticipated land use types. The Grand Valley Acres Concept Plan provided the concept plan for these lands and provided input to the assumptions for commercial and residential development rates. Estimating traffic volumes from the new development site was done based on trip generation rates from the Institute of Transportation Engineers (ITE) publishes the *Trip Generation Manual*[1] (TGM).

The following are the project assumptions:

- New highway commercial areas are assumed to be zone classification C2 and have a development density of 1.41 commercial subdivision units per ha. Each commercial subdivision unit is assumed to have one standing alone building. The nature of the commercial businesses can range from low traffic businesses, agriculture centres and dealerships to high traffic businesses such as service stations, fast food restaurants and hotels. The type of commercial development is unknown at

[1] Institute of Transportation Engineers. *Trip Generation Manual 10th Edition*. Washington, D.C.

this time and therefore conservative design volumes have been calculated in Table 3.1.

- New residential areas are assumed to have a development density of 1.02 dwelling units per ha. This development density is being assumed based on the number of lots shown in the historical planning reports reviewed as part of this assessment. The average development density considers higher density units and lots (2.5 units per ha.) at the east end of the service area, closer to the Town of Lumsden, where the proposed lot sizes are smaller and lower density units and lots (<1.0 units per ha.) extending further west as the development trends towards larger acreage lots.
- The ITE TGM land use 710 (ITE LU 710), General Office, is assumed for estimating highway commercial trips. It is also assumed that each commercial subdivision unit will have, on average, 3 employees. Therefore, the independent variable for trip generation is the number of employees.
- The ITE TGM land use 210 (ITE LU 210), Single-Family Detached Housing, is assumed for estimating residential trips.
- It is assumed that existing trips are minimal. Therefore, future trips are those resulting from the trip generation assessment.
- Full development is assumed by the 10-year horizon. No further developments are anticipated in the study area within the 20-year horizon; however, it was assumed that full development traffic volumes will increase by the 20-year horizon applying a Growth Factor of 1.1, to be conservative. The design volumes are the anticipated traffic volumes by the 20-year horizon.

Site trip generation estimates by the 20-year horizon are presented in **Table 3.1 – Design Volumes**.

Table 3.1: Design Volumes

Area	Land Use	Total Units [1]	10-Y AADT [2]	20-Y AADT [2]
C, Plan 101443823	Highway Commercial	1	10	10
	Residential	15	142	160
NW 1/4 32-19-21W2	Highway Commercial	19	187	210
	Residential	48	453	500
E 1/2 31-19-21 W2 Plans A, C, and D	Highway Commercial	11	108	120
	Residential	75	708	780
NW 1/4 31-19-21W2 A Plan 96R08987	Highway Commercial	25	246	270
	Residential	27	255	280
NE 1/4 36-19-21W2	Highway Commercial	25	246	270
	Residential	27	255	280
NW1/4 36-19-21W2	Highway Commercial	25	246	270
	Residential	27	255	280
Total Area	**Highway Commercial**	**106**	**1043**	**1150**
	Residential	**219**	**2067**	**2270**
TOTAL			**3100**	**3,400**

Notes:

1. **Commercial subdivisions for highway commercial land use; and dwelling units for residential land use.**
2. **Annual Average Daily Traffic (AADT) in vehicles per day.**

3.3 FINDINGS

A Traffic Impact Assessment has not been completed for the proposed concept plan of the approximately 348.702 ha of land located south of the Provincial Highway 11 between the Highway 11 and Highway 54

junction, and the corporate boundary at the Town of Lumsden, also known as RM189 West; including current transportation system assumptions.

Based on the high-level traffic analysis, the proposed development is anticipated to include approximately 106 commercial subdivisions and 219 dwelling units at full development. The proposed development is anticipated to generate 3,400 vehicles per day by the 20-year horizon (full development).

4 PAVEMENT STRUCTURE ANALYSIS

4.1 GEOTECHNICAL DATA

No geotechnical investigation was completed in the development of this report. An existing geotechnical report by Ground Engineering was utilized from the *Grand Valley Acres Concept Plan* (July 2020) by GeoVerra. The site investigated was limited to the east end of the proposed area.

4.2 PAVEMENT DESIGN

Pavement structure recommendations are provided in the following subsections. Recommendations provided in this report are based on the assumption that soil conditions are similar to the conditions represented by the nearby borehole data. Additional geotechnical investigation is recommended to confirm that these assumptions are reasonable.

MPE takes no liability for work performed where MPE is not retained to provide adequate construction supervision services. Construction supervision should include full-time monitoring and compaction testing for earthworks and asphalt testing during paving.

MPE conducted a pavement structure design based on available data, as summarized in this report. The pavement design was based on the American Association of State Highway Transportation Officials (AASHTO), 1993.

4.2.1 Traffic Loading

Based on the data provided and the proposed development, the average annual growth rate and truck traffic percentage of AADT was assumed as 3.0%. Assuming a 20-year design life, the design ESALs will be $6.73x10^5$.

4.2.2 Design Inputs

The following design inputs were selected for the pavement design analysis:

- Reliability: 85%
- Standard Deviation (S_o): 0.45
- Initial Serviceability Index of 4.2
- Terminal Serviceability Index of 2.5
- Drainage Coefficient: 1.0
- Structural Layer Coefficients:
  - Asphalt Concrete (ACP): 0.40
  - Granular Base Course (GBC): 0.14
  - Granular Subbase Course (GSBC): 0.10

4.2.3 Subgrade Support Characterization

For design purposes, a subgrade resilient modulus (M_R) of 35 MPa has been assumed. This assumed value is conservative based on the data provided and reviewed. The use of a woven geotextile may be used as needed to provide both separation and reinforcement of the subgrade/granular base course interface.

4.3 RECOMMENDED PAVEMENT STRUCTURES

Based on the design inputs and assumptions described, MPE's proposed pavement structure is as detailed in Table A below:

Table A – Proposed Pavement Structure

Parameter	Design Thickness (mm)
Required Structural Number for 6.73 x 10^5 ESALs	93
Actual Structural Number	93
Asphalt Surface Course (16 mm)	90
Granular Base Course (25 mm minus)	150
Granular Subbase Course (80 mm minus)	360
Subgrade Preparation	300
Road Classification	Internal Commercial/Industrial Subdivision Road

The asphalt concrete paving materials and their placement should also conform to Saskatchewan Ministry of Highways Surfacing Manuals and Specifications, unless otherwise approved by the Engineer. Asphalt mix and binder types should be assessed and approved during detailed design.

5 GEOMETRIC ANALYSIS

5.1 LAND FUNCTION

Currently, most of the land for the proposed roadway functions as uncultivated pasture with minimal vegetation cover or cultivated agricultural land. Generally, the area is relatively flat and uses overland drainage from Highway 11, South towards the Qu'Appelle Valley.

For the land parcels that have developed residential and commercial properties, coordination with the existing facilities and private roads will be needed to determine altered accessibility.

5.2 STANDARDS

MPE reviewed Transportation Association of Canada (TAC), Saskatchewan Ministry of Transportation and RM of Lumsden Development Standards during the feasibility study design process. A summary of the assumed design parameters used can be found in the next section.

5.3 GEOMETRIC DATA

For design purposes, MPE assumed the horizontal alignment outlined in the draft *RM of Lumsden – Highway No. 11 South Corridor Concept Plan and Mixed Land-Use Feasibility Study* and discussed in preliminary concept drawings for the Grand Valley Development. For the vertical alignment, MPE used Softree Optimizer to provide insight for the development of an efficient and balanced roadway design using the following assumptions:

- 4.8km Roadway.
- Design speed 80km/h, posted speed 70km/h

- Road cross section selected as Internal Commercial/Industrial Subdivision Road from R.M. of Lumsden Development Policy.
- 4:1 side slopes and 5:1 back slopes.
- -5% to +5% minimum and maximum design gradient grades.
- Minimum K values for vertical curves assumed 35 for crest curves and 35 for sag curves to provide proper stopping sight distances and ride comfort control.
- Minimum vertical curve length of 120m and minimum tangent length of 90m.
- Common excavation soil shrinkage assumed to be 25%.
- Topsoil stripping up to 200mm depth.

Based on these inputs, MPE predicts a roadway with a tie in point to the intersection of Highway 11 and 54, a 90 degree turn heading East, a cul-de-sac design large enough for commercial/industrial vehicles, and a vertical alignment that follows the terrain as best as possible with approximately 14 vertical curves and 60,500m^3 of common excavation over 4.8kms.

It should be noted that, at this time, a connection to 8th Avenue has not been assessed as part of this feasibility study at the request of the RM of Lumsden.

Additional concept plans will need to be developed for the phasing of the road construction to better align with development approvals and development construction schedules. Based on initial discussions with the Ministry of Highways, it is anticipated that all highway points of access servicing the area are to be removed between Highway 54 and the Town of Lumsden. Consideration for phasing the removal of the accesses should be discussed with the Ministry which would help maintain a reasonable flow of traffic during the project development stages.

5.4 PHASING

As part of this report, MPE has prepared one (1) phasing option that would provide the RM some flexibility in phasing the construction of the service road given that the current proposed development plans for the area are at the east end of the service road nearest the Town of Lumsden. The first phase would see the construction of the service road between the “West Central Access” and the east cul-de-sac. This option would require that the “West Central Access” be maintained during the first phase of the project. It would allow for the closure of the “Central Access” and any other farm access points along the corridor. The east access would be maintained as a right in right out until 8th avenue feasibility study has been completed with the town. This would also allow for staging of future development of the service road to the West, as required to provide access to future development.

The second phase would see the construction of the service road between the “West Access” and “West Central Access”. This option would require that the “West Access” be maintained during the first phase of the project. It would allow for the closure of the “West Central Access” and any other farm access points along the corridor. The east access would be maintained as a right in right out until 8th avenue feasibility study has been completed with the town. This would also allow for staging of future development of the service road to the West, as required to provide access to future development.

The third phase would see the construction of the service road between the "Highway 54 Access" and the "West Access". It would allow for the closure of the "West Access" and any other farm access points along the corridor. The east access would be maintained as a right in right out until 8th avenue feasibility study has been completed with the town. This would also allow for staging of future development of the service road to the West, as required to provide access to future development.

See ***Appendix A*** for a site plan of the proposed phasing option.

5.5 LAND NEEDS

The land needs for this project will be a cost that will need to be considered in the overall feasibility of this project. For this study and the cost analysis below, an allowance for the purchase of pastureland has been made through the road right of way. Assumptions of land cost for this report have been made using prices from the FCC Farmland Values report from 2020. Costs may increase based on potential land use valuations for commercial, industrial, country residential or farmland.

To meet the standards of a full Internal Commercial/Industrial Subdivision Road, a total right of way of 46m should be acquired. This would require roughly 55 acres (22 hectares) of land to be purchased for the new road right of way. If feasible, it is recommended that land acquisitions for the entire service road be purchased regardless of potential phasing plans. Purchasing the entire ROW helps mitigate the risk of inflation of land prices due to demand and appreciation as well as provide flexibility should the RM decide to move forward with the full development of the access road.

6 COST ANALYSIS

6.1 GENERAL COST ASSUMPTIONS

Assumptions for the feasibility study cost analysis include:

- General requirements 6% of construction costs.
- Extra work allowance 15% of construction costs.
- Unit rates assumed from similar scope of work and constructed in 2023.
- No allowance for environmental services.
- No allowance for relocation or modifications of existing shallow utilities or conflicts.
- No allowance for electrical and lighting upgrades.
- No allowance for water or sewer servicing.
- G.S.T. and P.S.T. not included.
- Unit prices are an opinion of probably costs and is a function of factors that can change with time and hence must not be relied upon for actual cost.

6.2 INTERNAL COMMERCIAL/INDUSTRIAL ROADWAY

Based on the assumptions above and an Internal Commercial/Industrial Roadway cross section, MPE's anticipated order of magnitude cost is, Construction $6,504,350, Extra Work Allowance $975,700, Engineering and Geotechnical Services $845,600 for a total project total of **$8,325,650**. A detailed break down of the cost analysis can be found in ***Appendix B***.

7 DISCUSSION

7.1 CONSTRUCTION PHASING OPTIONS

It is understood that the current accesses from Highway 11, between Highway 54 and the main Town access, need to be closed. This understanding is based on discussions between the RM and the Ministry of Highways.

There are several factors that need to be reviewed when developing the next steps and considering phasing. The following are a highlighted few for consideration:

- Ministry of Highways access closure requirements.
- Location of development approvals.
- Traffic impacts for each proposed development.
- Cul-de-sac length and emergency access.
- Capital costs for the construction of the service road.
- Servicing and development fees.

This report looked at one (1) phasing options. The first phase including the construction of the new service road between the "West Central Access" and the east cul-de-sac. The second phase including the construction of the new service road between the "West Central Access" and "West Access". The third phase includes the construction of the new service road between "Highway 54 Access" and the "west Access". The following is a high-level cost breakdown for each phase:

- Phase 1 West Central Access - $3,187,058
- Phase 2 West Access - $1,879,321
- Phase 3 Highway 54 Access to West Access - $3,259,271

Section 16(5) of the Subdivision Regulations states that a cul-de-sac shall not exceed 150m without an access or 260m if an emergency access is provided. The ultimate plan and development will eventually include a loop road and additional residential accesses and exits. In the meantime, it is recommended the RM work with the Ministry of Highways through detailed design and discuss the possibility of maintaining East access as an emergency exit to satisfy safety expectations for the cul-de-sac.

8 CONCLUSIONS & RECOMMENDATIONS

8.1 CONCLUSIONS

The following conclusions can be made based on the feasibility study of the proposed West Service Road:

- The proposed service road will be approximately 4.8kms long with a cul-de-sac at the east end that will be connected to the residential sub-division in future development construction.
- The proposed development will have both industrial/commercial lots and residential lots. Through traffic analysis, MPE has determined the ultimate AADT to be approximately 3400 vehicles.
- The proposed pavement structure should have a structural number of 93 or higher at ultimate design. Phasing the asphalt with the needs and progress of the development should be considered.

- The horizontal alignment for the roadway was based off concept maps provided by RM. The vertical alignment has been optimized for construction efficiency and feasibility based on constraints from applicable standards.
- Land acquisitions for the new service road is approximately 55 acres.
- The service road is considered constructable and feasible to provide adequate access to the proposed area.

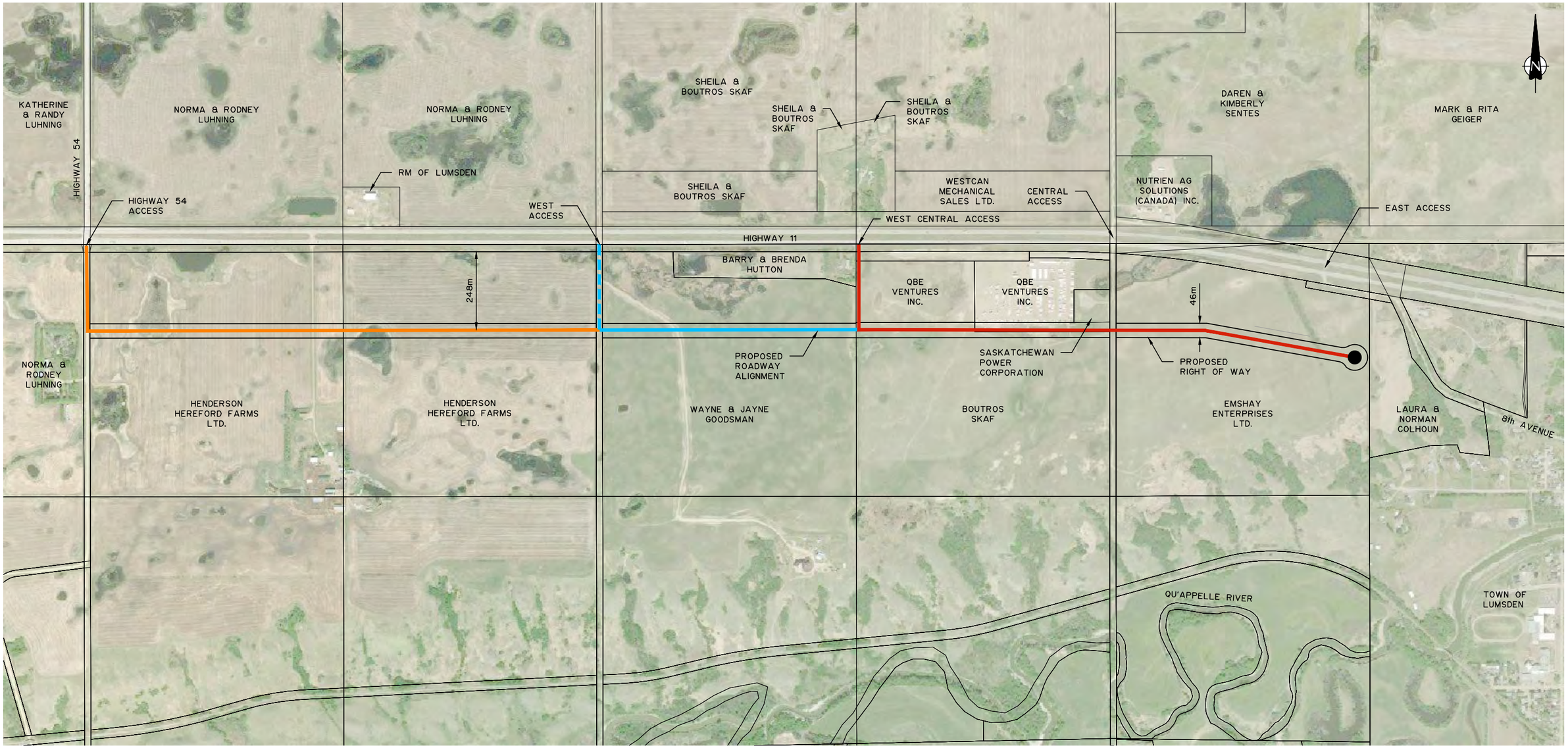
8.2 RECOMMENDATIONS

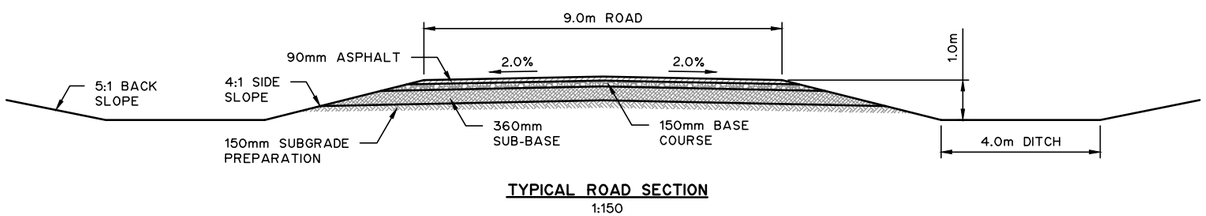
The following recommendations can be made:

- An ultimate pavement structure of 90mm of asphalt, 150mm of granular base and 360mm of granular subbase should be considered for the roadway. For feasibility, an asphalt phasing plan should be considered and developed with MPE to meet the needs of the development as it gets larger.
- Review phasing options for the proposed service road based on development interest and on-going discussions with the Ministry of Highways regarding access closure requirements.
- Include the findings of this report as supplemental feasibility level support to the *RM of Lumsden – RM 189 West Sector Plan.*

APPENDIX A:

DRAWINGS





TYPICAL ROAD SECTION
1:150

LEGEND:

PHASE 1	WEST CENTRAL ACCESS
PHASE 2	WEST ACCESS
PHASE 3	HIGHWAY 54 ACCESS

Engineering Ltd.

RM OF LUMSDEN No. 189

SERVICE ROAD FEASIBILITY STUDY
PROPOSED PHASING PLAN

SCALE: 1:12500	DATE: NOVEMBER 2021	JOB: 6710-013-00	APPENDIX: A-2

APPENDIX B:

COST ANALYSIS

an Englobe company

R.M. of Lumsden
Service Road Feasibility Study
Internal Commercial/Industrial Cross Section

ORDER OF MAGNITUDE COST ESTIMATE

	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	COST
General Items					
1	General Requirements	1	L.S.	$ 354,200.00	$ 354,200.00
2	Hydro Excavation	22	hours	$ 300.00	$ 6,600.00
3	Topsoil Stripping	187,000	m2	$ 0.75	$ 140,250.00
4	Common Excavation	60,500	m3	$ 12.00	$ 726,000.00
5	Waste Excavation	1,000	m3	$ 14.00	$ 14,000.00
6	Subgrade Preparation	66,000	m2	$ 1.00	$ 66,000.00
7	360mm Granular Subbase Crush	53,000	m2	$ 27.00	$ 1,431,000.00
8	150mm Granular Base Crush	47,000	m2	$ 15.00	$ 705,000.00
9	Prime Coat	44,000	m2	$ 1.20	$ 52,800.00
10	90mm Hot Mix Asphalt	44,000	m2	$ 58.00	$ 2,552,000.00
11	Topsoil Placement, Hydro Mulch and Dryland Seed	143,000	m2	$ 1.00	$ 143,000.00
12	Culvert Allowance	220	m	$ 300.00	$ 66,000.00
13	Land Acquisition Allowance	55	ac	$ 4,500.00	$ 247,500.00
				CONSTRUCTION SUB-TOTAL	**$ 6,504,350.00**
				EXTRA WORK ALLOWANCE (15%)	$ 975,700.00
				ENGINEERING AND GEOTECHNICAL SERVICES (13%)	$ 845,600.00
				GRAND SUBTOTAL	**$ 8,325,650.00**

General Assumptions

General requirements 6% of construction costs.

Extra work allowance at 15%.

Engineering services at 13%.

No allowance for Environmental services.

No allowance for relocation/modification of existing shallow utilities or conflicts.

No allowance for electrical and lighting upgrades.

Assumed $4,500 per acre of pasture land.

Roadway assumed to be 4.8kms.

Roadway structure includes 90mm ACP, 150mm GBC, 360mm GSBC, 300mm Subgrade Preparation, 600mm Subcut

Design speed 80km/h, posted speed 70km/h

Road cross section selected as Internal Commercial/Industrial Subdivision Road from R.M. of Lumsden Development Policy.

4:1 side slopes and 5:1 back slopes.

Minimum K values 35 for crest curves and 35 for sag curves.

Minimum vertical curve length of 120m and minimum tangent length of 90m.

Soil shrinkage assumed to be 25%

Topsoil stripping depth up to 200mm

G.S.T. not included.

Unit prices are an opinion of probable costs and is a function of factors that can change with time and hence must not be relied upon for actual cost.