



JOINT PLANNING STUDY

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1.0

MEMORANDUM OF UNDERSTANDING

1.1 PURPOSE OF THE MEMORANDUM OF UNDERSTANDING

The City of Edmonton (the City) and Strathcona County (the County) share a 40 km boundary along their respective eastern/western edges. The purpose of this memorandum of understanding is to improve collaboration and communication regarding infrastructure and planning in this area.

In order to achieve these goals, an improved communication protocol is needed to strengthen the intermunicipal relationship and ensure an ongoing commitment to collaborative planning in the Joint Planning Study (JPS) area.

The Joint Planning Study provides guidance to the administrations of the City and the County regarding development within the Study area. The study recommendations will provide guidance for resolution of outstanding issues within an atmosphere of mutual respect.

1.2 INTERMUNICIPAL RELATIONSHIP

The JPS is about more than geography and sharing a common boundary. It is an acknowledgement that the actions of one municipality affect its neighbour. This document forms a foundation for future discussions, supports regional prosperity for citizens and demonstrates leadership in cooperation between regional partners. Each municipality will have a clear understanding of their responsibilities pursuant to this Memorandum of Understanding.

1.3 MEMORANDUM OF UNDERSTANDING

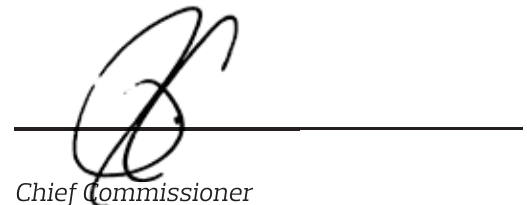
Both municipalities acknowledge that they are legislatively separate and have distinct interests and cultures. Through the Joint Planning memorandum of understanding, the City and the County agree to support the objectives and follow the guiding principles of the Joint Planning Study and follow and implement the recommendations of the Joint Planning Study. The JPS recognizes that each Council retains their decision making autonomy as per the Municipal Government Act.

City of Edmonton



City Manager

Strathcona County



Chief Commissioner



2.0

INTRODUCTION

2.1 BACKGROUND

The shared border area of the City and the County has experienced increased development pressures over the years, resulting in the recognition by both municipalities of the need for shared land use management strategies. Land uses within one municipality have an effect on the other. Growth along the border has resulted in concerns regarding risk management around heavy industrial development, transportation planning, environmental quality, and drainage and infrastructure transitions. In addition, both municipalities are now partners in the Capital Region Board, a regional planning body established in 2008 by the provincial government.



The Joint Planning Study (JPS) sets out a series of recommendations that represents a commitment from both municipalities to collaboratively plan and manage land use within the study area within an atmosphere of mutual respect. The recommendations in this document will also enhance the policy direction set out in each Municipal Development Plan.

The Study Area for the JPS encompasses the entire shared boundary between the City and the County and extends approximately 1.6 km into each municipality (see **Map 12.1, Study Area**). The shared boundary area features many regionally important transportation networks, drainage basins, environmental networks, and diverse land use patterns. The land uses within the study area include a broad mix of agricultural, industrial, commercial, residential, institutional, open space and recreation. In addition, there are a number of major pipelines located throughout the various industrial areas and within the Transportation Utility Corridor (TUC) that runs north-south through the Study Area.

The Joint Planning Study, although not a statutory document, is meant to provide guidance to the County and City regarding moving forward on planning and development within the JPS area. The policies developed within the scope of this document will support and uphold the larger regional initiatives of the North Saskatchewan Regional Plan under the Land Use Framework, and the Growth Plan under the Capital Region Board. The City and County agree to jointly implement the study and follow the recommendations wherever possible.



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INTRODUCTION

2.2 DOCUMENT ORGANIZATION

The JPS has the following sections:

1. Memorandum of Understanding
2. Introduction
3. Land Use Coordination
4. Transportation
5. Utility Servicing
6. Risk Based Land Use Planning and Management
7. Natural Environment, Parks and Trails
8. Energy Corridors
9. Agriculture
10. Communications Protocol
11. Implementation Plan – Next Steps
12. Maps

Each section is structured as follows:

- Background information as it relates to each topic area
- challenges
- policy recommendations
- in some instances under policy recommendation are identified actions (identified with the use of letters)

2.3 PLAN OBJECTIVES AND PRINCIPLES

*This document applies to the area as defined by **Map 12.1: Study Area**. There are other processes directed through municipal development plans and the Capital Region Board regarding communication and consultation. The objectives for the study area are as follows:*

- a. Promote information sharing
- b. Ensure mutual consultation on plans and studies that impact the JPS area
- c. Ensure an understanding of each municipality's planning and development requirements
- d. Create clearly defined communication protocols
- e. Build a foundation for long-term political and administrative commitments to implement a shared vision

The following Guiding Principles support the purpose and objectives of the JPS and provide the basis for decision-making within the Study Area:

- a. The actions of one municipality will not hinder the activities or opportunities of the other, now or in the future
- b. Each municipality recognizes the right of the other to ultimately make decisions with respect to matters within its jurisdiction
- c. Both municipalities will strive to protect assets of regional significance within the Study Area
- d. Both municipalities will plan with consideration for the regional context; each brings value to the Capital Region and derives benefits from it
- e. The working relationship between the municipalities will be strengthened and sustained when the approach is based on common interests
- f. Both municipalities will commit to working together to resolve issues if they arise in the future

2.4 PROCESS UNDERTAKEN

A Terms of Reference for the JPS was created in 2006 to guide the project. Two committees were formed to undertake the job of creating the JPS – the Steering Committee and the Working Committee. The Steering Committee and the Working Committee were comprised of administrative staff from both municipalities. It was the Steering Committee's responsibility to guide the JPS process, including determining priorities, securing funding and providing direction on emerging issues and concerns. The Working Committee developed and carried out the work program, which included preparing the JPS document, undertaking the public consultation process, hiring and supervising consultants and periodically reporting back to the Steering Committee. Consultants were hired as necessary to do primary and supplemental work on the Study.

An important part of this work involved public consultation at different stages in order to gain feedback from stakeholders and the public. Stakeholders, specifically heavy industrial operators and associations, were involved in the creation of the Cumulative Risk Assessments for both municipalities. They provided input on the existing development, which helped the risk specialists perform the risk evaluation, quantification and consequence analysis. A workshop on December 6, 2011, at the Strathcona County Community Centre provided stakeholders an opportunity to see the results of the work that had been completed and to ensure that this would align with their visions.



The draft of the JPS was presented to the public at open houses in each municipality to ensure that residents of both municipalities were given an opportunity to learn about the JPS. The first open house was held on December 7, 2011, at Kings University College in the City of Edmonton, and the second on December 8, 2011, at the Strathcona County Community Centre. The public was invited to read information on the various displays that were created, ask questions and provide feedback on the results to date. This feedback was then compiled and used to inform the JPS.

A new Terms of Reference was signed in July 2015. After several starts and stops in the project, all parties agreed to complete this framework by the end of 2015. The understanding between Strathcona County and the City of Edmonton within this new agreement was that the document was nearly complete, needed to be updated and re-circulated to technical staff.

3.0

LAND USE COORDINATION

Extending along the full length of the shared municipal boundary, the Study Area contains urban and rural areas, undeveloped and intensely developed parcels and an array of land uses and infrastructure. See **Map 12.2: Generalized Land Use**, and **Map 12.3: Plans in Effect**.

The combination of different land uses that have developed between the two municipalities requires enhanced regulatory attention to mitigate risk and ensure compatibility. In areas identified for future growth, coordinated planning across the municipal boundary is needed to minimize future land use conflicts and maximize the potential of the lands.

The Study Area features many different land uses which can be grouped based on development patterns.

The northern part of the Study Area is bisected by the North Saskatchewan River. Today, the northern area is predominantly comprised of agricultural uses, with some aggregate mining, golf courses and, on the western side of the river, residential areas. The Canadian National railway right-of-way transects the area in the northwest, and a pipeline corridor transects the southeast.

The central portion of the Study Area includes a greater variety of land uses with industrial, commercial, residential and recreational lands in both municipalities. Development near the Yellowhead Highway includes light and heavy industrial uses, as well as service commercial facilities, most notably on Broadmoor Boulevard. Strathcona Science Provincial Park borders the North Saskatchewan River south of the Yellowhead Highway. This area also includes parts of the Canon Ridge neighbourhood and Hermitage Park on the river's west bank. The industrial

area near Refinery Row hosts the Study Area's most established and diverse land uses as well as key sensitive land uses. The area includes heavy industrial facilities near 101 Avenue, light industrial, business park and retail areas. Established residential neighbourhoods and large park areas exist on the City side of the boundary north and south of the North Saskatchewan River. The Maple Ridge industrial area in the City stretches from the Sherwood Park Freeway to Whitemud Drive.

The Study Area south of Whitemud Drive and north of Highway 14 is transitioning from agricultural to urban residential with development occurring in the Meadows and Tamarack in the City and rural residential uses in the County.

3.1 PROVINCIAL POLICY FRAMEWORK

Since the initiation of this project, several important policies have been put in place at the Provincial level that impact regional land use and infrastructure planning.

3.1.1 LAND USE FRAMEWORK AND NORTH SASKATCHEWAN REGIONAL PLAN

In late 2008, the Government of Alberta created a Land Use Framework to improve land-use decision-making in the province. The Framework outlines a set of guiding principles that promote a sustainable and integrated approach to land use planning.

The Framework identifies seven different regions in Alberta based on watershed boundaries and calls for corresponding regional land use plans for each region. The study area is within what will become the North Saskatchewan Regional Plan (NSRP). The NSRP is currently underway, however until it is finalized its impact on the JPS is unknown.

The Alberta Land Stewardship Act (ALSA) was adopted in 2009 to support the implementation of the Land Use Framework. The Act provides direction on regional planning matters and requires all plans, by-laws and decisions within Alberta to align with the new regional planning framework.

3.2 CAPITAL REGION GROWTH PLAN

In 2008, the Capital Region Board (CRB) was established by the Province. The CRB is comprised of 24 municipalities around the City of Edmonton. The Board created the Capital Region Growth Plan as a long term growth management strategy, with an emphasis on integration of land uses with transportation and housing.

The Growth Plan is under review at the time of the completion of this document. However, it is expected that the new plan will continue along a similar trajectory, where integration of land use, transportation networks and other infrastructure is paramount. In addition, clearer policies are expected around efficient land use for future development. The new CRB growth plan policies will apply to this document.



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LAND USE COORDINATION

3.2.1 CAPITAL REGION BOARD ROLE

The CRB has had a positive impact on regional and intermunicipal communication regarding land development, transportation linkages and economic drivers in the region. Broader communication between the City, County and neighbouring municipalities can lead to valuable partnerships within the Capital Region.

Most of the Study Area is currently identified as a Priority Growth Area (PGA) in the Capital Region Growth Plan (CRGP). Part of the County, roughly south of Township Road 524 and north of Township Road 522, is designated as a Cluster Country Residential Area (CCRA). The very southern edge of the Study Area within the County is outside of both the PGA and CCRA areas.

Statutory plans are required to be reviewed by the CRB as part of the Regional Evaluation Framework (REF) process.

3.3 MUNICIPAL

As identified elsewhere in this report, intermunicipal planning and management initiatives are either underway (e.g. the Trans-Boundary Watershed Management Development Plan) or recommended as an implementation measure. These actions are intended to coordinate each municipality's policy and regulatory approaches and practices to minimize potential conflict.

Similarly, land use planning should be coordinated. The JPS in part is intended to compliment the regional goals of the Capital Region Plan by facilitating coordinated planning between the City of Edmonton and Strathcona County. It is important that any work done to develop alignment between the two municipalities involve appropriate stakeholders to ensure its effectiveness.

The City and the County will work to ensure that the land uses and phasing of development on one side of the boundary are compatible with those on the other side of the boundary.

Coordination and implementation will require resources in terms of money, staff time and possibly consultants. The Regional Planning Section of the Sustainable Development Department of the City of Edmonton and the Land Development Planning Branch of the Planning and Development Services Department of Strathcona County will monitor the implementation on an annual basis.

Excellent communication will aid progress of this study. Staff in both municipalities must become familiar with the policy directions that are in place with the JPS.

Education for external agencies and stakeholders is also very important as they need to be aware of how they may be affected by the JPS. Stakeholders in the boundary area will need to be informed about the potential for future land use, transportation and drainage studies and actions that will affect development.

3.3.1 CHALLENGE

The success of the Joint Planning Study will depend on administrative support to lead further communication, integration of action items into policy documents and detailed planning work.

POLICY RECOMMENDATIONS

- 3.3.1.1 **Continue cooperative efforts and open communication relating to intermunicipal issues along the shared border.**
- 3.3.1.2 **Create a Joint Planning Committee (JPC), or working groups, comprised of staff at the working level, to discuss ongoing issues, advance new initiatives and meet with stakeholders where appropriate.**
- 3.3.1.3 **Ensure accountability between administrations by requiring a formal annual meeting to review the implementation of the JPS.**
- 3.3.1.4 **Lead additional detailed planning work for the Joint Planning Study area, as needed.**

3.3.2 CHALLENGE

Communication to staff about new procedures and protocols is critical to success of the JPS.

POLICY RECOMMENDATIONS

- 3.3.2.1 **Build awareness and knowledge of the JPS with staff, the public and stakeholders about new process and protocols as required.**
- 3.3.2.2 **Educate staff and external agencies on the implications of the JPS.**



3.3.3 CHALLENGE

Municipal Development Plans, Area Concept Plans, Area Structure Plans, Neighbourhood Structure Plans and Outline or other Plans affecting the Study Area should be coordinated so that they consider land use, utility and transportation infrastructure within the other municipality.

POLICY RECOMMENDATIONS

- 3.3.3.1 **When development proposals or applications are brought forward within the Study Area, or new plans are initiated, each municipality should engage the other from the beginning of the process.**
 - a. *Provide early notification of planning applications or planning initiatives within the study area to the other municipality whenever possible.*
 - b. *Invite counterpart staff to participate in project meetings or workshops to better understand project details and identify potential areas of conflict or compatibility.*

4.0

TRANSPORTATION

The road network in the Study Area features a hierarchy of streets controlled by both provincial and municipal jurisdictions and influenced by regional planning. See **Map 12.4, Transportation Network**.

Both municipalities have completed major transportation planning exercises with the City of Edmonton's The Way We Move and Strathcona County's Integrated Transportation Master Plan, Trails Strategy and Transit Master Plan. Intermunicipal transit exists in the form of intermunicipal bus routes. The Capital Region Board Integrated Regional Transportation Master Plan (IRTMP) contemplates a future Light-Rail Transit line, highway and road priorities. Walking and cycling are also critical parts of the intermunicipal transportation system. These intermodal regional connections are supported by the CRB and include a number of trails and bike lanes.

It is important for the City and County to work collaboratively when addressing connections so that efficient movement of traffic and people can be maintained and appropriate land use decisions can be made. In order for this to occur, further discussion is needed on a series of items including impacts associated with land development near the municipal boundary, boundary road upgrades, functionality and design standards, transit, and trail connections. Discussions must take place to foster a cooperative, collaborative planning environment.

4.1 PROVINCIAL ROAD NETWORK

There are several transportation corridors within the JPS area that include access to the provincial road network. Coordination between municipal transportation departments and Alberta Transportation is crucial to ensuring logical and timely connections between provincial and municipal road networks.

A joint Functional Planning Study project encompassing a proposed North Saskatchewan River bridge and associated highway linkages; connecting to the Highway 16/21 interchange in Strathcona County, the Highway 15 entrance into the City of Fort Saskatchewan, and the Highway 15/28A interchange in the City of Edmonton is ongoing. The City of Edmonton, Strathcona County, the City of Fort Saskatchewan, Sturgeon County and Alberta Transportation are joint partners in the study.



4.0

TRANSPORTATION

4.1.1 TRANSPORTATION UTILITY CORRIDOR

A portion of the Transportation Utility Corridor (TUC) runs north to south through the study area. The objective of the TUC is to facilitate development of the Capital Region by accommodating Anthony Henday Drive, major power lines, pipelines, regional water and sewer lines and telecommunication lines. Anthony Henday Drive is also a component of the CANAMEX Trade Corridor – a 6,000 km stretch of highway that links Canada, the United States, and Mexico as part of the North America Free Trade Agreement.

Most of the Anthony Henday ring road is already constructed. The southeast portion empties into the Yellowhead Highway to the north and flows into Highway 14 to the south. The northeast arm of Anthony Henday Drive will encompass Meridian Street (First Street) in the City, and will be completed to Manning Freeway. Existing interchanges along Anthony Henday Drive that connect Edmonton with Sherwood Park include Baseline Road/101 Avenue, the Sherwood Park Freeway/Wye Road and Whitemud Drive/Highway 628.

4.1.2 YELLOWHEAD HIGHWAY

The Yellowhead Highway bisects the Study Area and runs east/west through both the City and County. Interchanges connect at Highway 216 and Broadmoor Boulevard/17 Street NE and at Sherwood Drive/Range Road 232. East of the study area along the Yellowhead Highway is an interchange at Clover Bar Road/Range Road 231 and another at Highway 21. Highway 21 is an important link from Fort Saskatchewan and the Industrial Heartland to both Sherwood Park and Edmonton.

4.1.3 CHALLENGE

An efficient interface between provincial and municipal road networks is dependent on continued coordination with Alberta Transportation regarding upgrades and existing connections.



4.1.4 POLICY RECOMMENDATIONS

4.1.4.1 Create coordinated communication with Alberta Transportation to ensure provincial transportation considers all stakeholders.

- a. *The City and County will work closely with Alberta Transportation to ensure proper connections between the municipal and provincial roadway networks.*
- b. *Actively participate in planning for upgrades to the provincial roadway network.*
- c. *Invite Alberta Transportation to attend, as necessary, quarterly meetings between the municipal transportation departments to facilitate an active discussion on upgrades to and connections between the provincial and municipal road networks.*

4.2 CAPITAL REGION BOARD

The Capital Region Board has created an Integrated Regional Transportation Master Plan (IRTMP). This plan defines a transportation system that serves the region's land use through effective movements of people and goods, and is consistent with the objectives of the Capital Region Growth Plan. The IRTMP identifies future priorities for roads and transit; the priorities are then implemented and provincially funded through the municipal jurisdictions that are responsible for operating and maintaining those roads and transit facilities.

The Capital Region Growth Plan proposes the potential extension of the regional LRT system through Sherwood Park, and, therefore, through the Study Area. The proposed LRT route crosses the Study Area at the approximate location of Baseline Road/101



Avenue. The Plan prioritizes growth along such a corridor and multi-use, multi-storey development around future station nodes. Strathcona County Transit is undertaking a high speed transit study, examining all options (Light Rail Transit and Bus Rapid Transit) for future implementation.

The Capital Region Growth Plan has identified a compatibility buffer to address land use compatibility including existing and future transportation and utility (TUC) Corridors, such as the Anthony Henday

4.2.1 CHALLENGE

Regional transportation initiatives are underway and their success depends on the coordination of member municipalities.

4.0

TRANSPORTATION

4.2.2 POLICY RECOMMENDATIONS**4.2.2.1 Create coordinated communication with the CRB to ensure regional transportation planning considers all stakeholders.**

- a. Coordinate a transportation planning approach that supports and informs the priorities of the Capital Region Board Integrated Regional Transportation Master Plan.*
- b. Coordinate a transit planning approach that places priority on providing the best possible service, regardless of municipal boundaries.*
- c. Following the direction provided by the Capital Region Board, study the feasibility of and plan for long term requirements for transit between the City and the County within the study area.*

4.2.2.2 Identify a mutually preferable transit alignment and station locations for high-volume transit in the Study Area.

- a. Ensure risk assessment and buffers are taken into account in determination of station locations.*

4.3 MUNICIPAL ROAD NETWORK

There is an extensive network of municipal roadways within the Study Area that requires coordination to ensure safety and ease of use for residents and businesses. See **Map 12.4, Transportation Network**.

4.3.1 ARTERIAL ROADWAYS

Meridian/1st Street connects the Yellowhead Highway to 137 Avenue/ Aurum Road and currently provides two lane access to local industry, the landfill site and Clover Bar Lagoon.

Once developed as an extension of Anthony Henday Drive, access to this business area will come from a future 137 Avenue/ Aurum Road interchange.

The 137 Avenue/ Aurum Road is ultimately planned as a six lane arterial roadway linking Range Road 232 with Anthony Henday Drive. East of Range Road 232, Township Road 534 is identified as a continuation of the six-lane divided urban arterial cross section through to Highway 21. 137 Avenue/ Aurum Road/ Township Road 534 will primarily serve the Aurum Industrial area together with adjacent industrial developments in the County and residential and commercial developments in the north of Yellowhead and Cambrian Crossing developments in the County.

An overpass at Broadmoor Boulevard/17 Street N.E. connects the Yellowhead Highway to both Edmonton's and Sherwood Park's business and industrial areas. Broadmoor Boulevard in Sherwood Park extends south to Baseline Road while 17 Street N.E. in the City extends north to 137 Avenue (Aurum Road). This roadway is planned to be constructed to an urban four lane divided arterial.



Range Road 232 (the municipal boundary north of Highway 16) is a two lane roadway under the sole jurisdiction of Strathcona County. It has direct access to Highway 16 via an interchange. Range Road 232 has been designed as an ultimate four-lane divided arterial roadway, which will be upgraded in stages, inclusive of a grade separation at the CNR mainline, and is serviced by the existing interchange at Highway 16/Sherwood Drive/Range Road 232. South of Highway 16, Sherwood Drive exists as a four-lane divided urban arterial, with a six-lane ultimate cross-section.

4.3.2 COLLECTOR AND LOCAL ROADWAYS

The road network in the industrial areas is intended to minimize pipeline and rail crossings and enable easy addressing. Each municipality has standards in effect with respect to road design and access. However, within the Study Area the intent is for cross jurisdictional coordination of collector and local road designs and access as they may impact the adjacent jurisdiction.

4.3.3 RAILWAY, TRUCK AND DANGEROUS GOODS ROUTES

Both Canadian National (CN) and Canadian Pacific (CP) Railway mainlines run through the industrial areas of the Study Area. Both rail companies have a number of general development restrictions relating to their main lines. The most important is that industrial feeder lines within the development cannot cross the main lines. Both rail companies also request that no collector or local roads cross the main lines.



Both jurisdictions have bylaws in place identifying a range of truck route types based on time of day and transporting dangerous and high load goods. A multi-jurisdictional Dangerous Goods Truck Route Map has been prepared by multiple sponsors and is available on the City of Edmonton and Strathcona County websites and at Strathcona County Hall.

Initial meetings have taken place between the City and County regarding items of mutual interest relating to transportation. Relationships have developed to discuss projects of mutual benefit, and to better understand each other's needs. In order to address the ongoing challenges identified in this section, further communication is required and existing relationships need to be expanded and strengthened.

4.3.4 CHALLENGE

Coordinate construction of new roadways and upgrades to existing roadways along the boundary and roadways which accommodate intermunicipal traffic. Intermunicipal transportation planning requires the coordinated management of issues such as right-of-way widths, access points, upgrade funding and developer contributions, traffic modelling, and functional design and design standards.

4.0

TRANSPORTATION

4.3.5 POLICY RECOMMENDATIONS

4.3.5.1 Resolve transportation conflicts that impact land development within the JPS area.

- a. Transportation departments will work together to create a formalized structure for coordination and communication to resolve any conflicts that impact land development.
- b. Establish a working group of transportation representatives from both municipalities to meet at a frequency that facilitates effective coordination of efforts in transportation modeling (including evaluation, coordination and assessment of the boundary road network), traffic activity patterns, data sharing and travel demand forecasting on inter-municipal commuter traffic.
- c. Engage in additional discussion as needed between transportation departments at the working level outside of formal meetings.
- d. Work together to research best practices from other regions that have addressed intermunicipal transportation issues and how they can be applied to the Study area.
- e. Develop a set of agreed upon transportation principles that will aid in situations where conflict resolution is required.

f. Create a consistent and shared model for analysis of new and upgraded road requirements in the Study Area.

g. Determine access locations early in the neighbourhood planning stage and follow through once development proposals are received.

4.3.5.2 Development within the study area will be conducted to avoid undue financial burdens resulting from trans-boundary roads.

- a. Explore options and principles for cost-sharing that addresses road upgrades, accesses and development agreements where land development that occurs in one municipality may trigger upgrades to a roadway under the jurisdiction of the other municipality.
- b. Identify the cost sharing structure required to support the upgrades and/or construction triggered by development in both municipalities for new neighbourhood planning projects.
- c. Require early discussion between file managers from transportation departments with respect to issues of access and developer contributions.

4.3.5.3 Initiate intermunicipal communication as early as possible to address issues in advance of typical circulations on development proposals within the Study Area.

4.4 ACTIVE TRANSPORTATION

Roads are just one level of cross-boundary transportation that exists between the City and the County. Active Transportation facilities such as trails, sidewalks, cycling facilities and pedestrian bridges provide vital connections for residents.

Active transportation links exist between the City and the County that serve pedestrians and bicyclists. These connecting linkages and supportive amenities are components of the Trans Canada Trail System and/or the River Valley Alliance Park system. Each of these programs provides an overarching plan and funding opportunities to allow participating municipalities to complete key sections of trail. See **Map 12.6: Parks, Trails, and Natural Areas**.

4.4.1 CHALLENGE

Coordination is needed between the Province, City, and County to continue developing a complete, integrated, multi-modal transportation network including pedestrian and bicycle connections.



4.4.2 POLICY RECOMMENDATIONS

4.4.2.1 Ensure all modes of transportation, including pedestrians and bicycles, are accounted for in transportation discussions.

- a. Plan for pedestrian and bicycle trails along the North Saskatchewan River including sections done through partnership with the River Valley Alliance and as part of the Trans Canada Trail network.
- b. Investigate possibilities for integration of bicycle lanes between the two municipalities through coordinated routing, signage and promotion.

5.0

UTILITY SERVICING

As part of the review it was determined that since the provision of water and wastewater service is provided by commissions established by the Province and by private entities no cross jurisdictional policies or actions are needed at this time. However, should the situation change there may be a need to reconsider the inclusion of water and wastewater servicing in cross jurisdiction planning.

5.1 DRAINAGE

Surface water drainage in the Study Area generally flows toward the North Saskatchewan River.

There are five creeks which begin in the County and continue through the City before reaching the North Saskatchewan River:

- Aurum Creek
- Clover Bar Creek
- Gold Bar Creek
- Fulton Creek
- Mill Creek

Each of these creeks flow in a northwesterly direction and have a combined drainage basin area of approximately 17,200 hectares of industrial, urban, and agricultural/undeveloped land (see **Map 12.5: Drainage Basins**).

The erosion levels of each creek have been documented in the Trans-Boundary Watershed Management Development Plan (TBWMDP) – Phase 1 which should be referenced for detailed information on erosion levels within each creek. (see 5.1.2)

Changes to drainage patterns in sub-basins due to development will impact downstream systems. Maintaining pre-development flow rates in all drainage areas is required for any development; however, this has not always been achieved, resulting in erosion damage and costly drainage infrastructure repairs in some areas. In an effort to manage drainage the City of Edmonton adopted the Drainage Master Plan and Strathcona County adopted the Surface Drainage Bylaw as well as completed an Urban Area Drainage System Assessment.

Drainage works within the City of Edmonton, located within the North Saskatchewan River Valley Area Redevelopment Plan, are subject to an environmental review process. Similarly, Strathcona County has environmental reporting requirements as part of their planning review processes.

5.1.1 INTERMUNICIPAL WATERSHED MANAGEMENT

Over the past 30 years, the City and the County have engaged a number of consultants to develop watershed management plans that include those watersheds that cross over both City and County lands. The Trans-boundary Watershed Management Development Plan is a road map for watershed health and neighbourhood development that includes a series of recommendations, strategies and standards that are suitable

with minimal operation and maintenance costs. Phase 1 of this plan was finalized in March 2014. Communication between the two municipalities will continue regarding watershed management plans for trans-boundary watersheds, particularly to address erosion caused by development and associated costs to mitigate the erosion.

In June 2009, the City and the County created an Intermunicipal Watershed Management Group (IWMG) to establish and implement agreements and processes regarding watershed management. The IWMG meets regularly to discuss issues of trans-boundary watershed management and has accomplished the following:

- Identifying stakeholders
- Defining a vision and goals
- Exchanging information

The primary stakeholders are the City and the County with other stakeholders including Alberta ministries related to the environment, and transportation. Alberta Transportation is an important stakeholder since part of the watershed is within the Transportation Utility Corridor. The IWMG has also met with Alberta Transportation regarding stormwater management plans proposed in the northeast leg of Anthony Henday Drive. Work is progressing within the IWMG in accordance with the vision and goals.



5.0

UTILITY SERVICING

5.1.2 TRANS-BOUNDARY WATERSHED MANAGEMENT DEVELOPMENT PLAN

The IWMG recognized a need for a mutually acceptable professional consultant to jointly review the five trans-boundary watersheds. The investigation focused on the creation of a joint Trans-Boundary Watershed Management Development Plan (TBWMDP) that will:

- Identify watershed management objectives and develop an evaluation system to better understand the contributing factors of watercourse erosion, water quality and conveyance capacity (release rate and storage) issues;
- Identify existing and potential issues, solutions to remediate and prevent watercourse erosion and improve water quality and conveyance, as well as trigger points for conducting the remediation works;
- Determine the optimal criteria for aligning any fundamental differences in the two municipalities' servicing standards and watershed management objectives;
- Review different philosophies including sufficient technical information regarding the weighted responsibilities of a municipality for addressing watershed management issues, regardless of which municipality that issue occurs within;
- Develop a watershed management plan for each of the five major trans-boundary creeks addressing the requirements from all stakeholders and for approval by both the City and the County.

Both the City and the County are funding this study to obtain an independent evaluation on watershed management. This study is in progress.

Phase 1 is complete with some "data gaps" that need to be worked into the further steps. In this phase of the plan, the existing hydrology and stream hydraulics were reviewed and analyzed. Watershed policy, stormwater management guideline, and land use planning of both City of Edmonton and Strathcona County were also included and listed. The information obtained from this analysis will be used to establish evaluation criteria for future development scenarios.

Phase 2 will review governance, finance and management options.

Phase 3 will provide an implementation strategy for the trans-boundary watersheds.

5.1.3 CHALLENGE

Coordinated management of the waterways and drainage basins in the Study Area is needed.

5.1.4 POLICY RECOMMENDATIONS

5.1.4.1 Formalize the communication structure that exists between the drainage departments of each municipality.

- a. *Promote regular discussion outside of formal meetings between drainage staff at both municipalities to further explore joint initiatives.*
- b. *Establish a system for the sharing of drainage data.*

5.1.4.2 Establish a comprehensive approach to watershed management and drainage for the study area.

- a. *Update stormwater master plans as a joint venture between the City and the County so that both municipalities are in agreement on the engineering (technical) aspect for the creeks.*
- b. *Integrate the results of any future drainage studies into necessary municipal policy documents.*
- c. *Establish and / or maintain shared procedures which require environmental review of proposed drainage works within or adjacent to the North Saskatchewan River valley and ravine system.*
- d. *Finish the comprehensive Trans-Boundary Water Management Development Plan, including watershed responsibility principles to address technical, governance, financial, and asset management issues.*
- e. *Implement the recommendations from the completed Trans-Boundary Water Management Development Plan.*



5.2 WATER AND WASTEWATER INFRASTRUCTURE

As new development, infill and redevelopment occur in the Study Area and surrounding neighbourhoods, additional utility servicing is required. As development pressures intensify, demand on water and waste water lines will increase. Coordination is needed so that both municipalities are prepared for the additional growth pressure that may impact these lines.

5.2.1 CHALLENGE

To ensure efficient water and waste water services a long-term plan is needed between the City and the County to address the construction and location of these lines.

5.2.2 POLICY RECOMMENDATIONS

5.2.2.1 Ensure coordinated planning of water and wastewater infrastructure

- a. *Promote regular discussions at the working level between utility servicing departments to facilitate the exchange of information and positive relationships.*

6.0

RISK BASED LAND USE PLANNING AND MANAGEMENT

Significant heavy industrial development is present in the Study Area under both municipal jurisdictions, much of it related to the transportation and refinement of energy products. This is both an important economic driver and a land use that requires careful planning to address risk. Risk, in the context of the JPS, refers to risk of fatality due to a heavy industrial accident and does not include other consequences, such as injury or property damage.

Risk is expressed as the likelihood of fatality arising from an industrial accident within the span of a year. For the purpose of the JPS, risk is established and evaluated cumulatively, meaning that while one or a few land use decisions or activities may not increase risk significantly, as the number of land use decisions or activities increase unacceptable levels of risk may result. There are four hazardous risk sources that affect the Joint Planning Study Area:

- dangerous goods roads
- dangerous goods rail
- pipelines (in corridors)
- industrial facilities (refineries)¹

Risk Management is the identification and assessment of risks followed by the application of resources to minimize, monitor, and control the probability of an industrial accident. Land use planning attempts to resolve potential conflict between incompatible land uses such as the manufacture, storage, transportation (road, rail and pipeline) and refinement of potentially dangerous materials. The goal is to balance the maintenance of economically viable heavy industrial operations while minimizing risk. Heavy industrial development also has its share of nuisance issues, such as excessive noise, odour and light. These do not

cause fatalities but can be disruptive to daily life. Risk, nuisance and emergency planning related to heavy industrial development all have implications that need to be addressed within the Study Area.

6.1 RISK APPROACH

The Capital Region Growth Plan requires the Capital Region Member Municipalities to ensure that a risk management assessment is completed and implemented for all existing and future sites of petrochemical clusters in established locations for heavy industrial uses, refineries and ancillary facilities. Existing safety and risk management buffers are illustrated on the Growth Plan's Regional Buffer Areas graphic representation². The Growth Plan further identifies that the standard for the risk management assessment shall be the standard as established by the Major Industrial Accidents Council of Canada (MIACC).

The MIACC initiative attempted to develop a baseline for risk management processes. MIACC was composed of a widely represented group of experts in the field of industrial risk, including industry, government agencies, emergency response organizations and other groups.

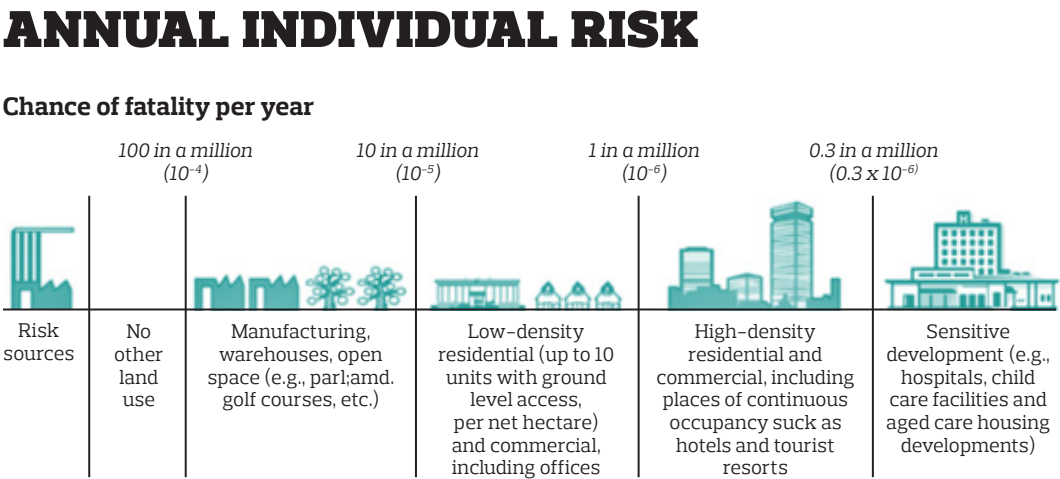
In 1995, MIACC established a set of "Risk-based Land Use Planning Guidelines" in order to determine the maximum acceptable level of risk for an individual exposed to industrial development, including pipelines and major accidents. MIACC was dissolved in 1999 and the Risk-based Land Use Planning Guidelines were taken over and are currently maintained by the Chemical Institute of Canada/ Canadian Society for Chemical Engineering (CSChE).

¹ Bercha Group. Cloverbar and SE Edmonton Cumulative Risk Assessment and Land Use Planning Project, Final Report. December 2010

² Capital Region Growth Plan Regional Addendum, Figure 3, Section 2: Land Use, October 2009



FIGURE 6-1: MIACC RECOMMENDED ALLOWABLE LAND USES



MIACC defined “acceptable risk” as an annual individual risk of one chance in one million of a fatality for involuntary risks involving industrial activity³. One of the key elements of the MIACC methodology is the identification of quantities of hazardous substances at a source location and the appropriate distances to be maintained from these risk sources. The MIACC methodology is based upon hazard identification and consequence analysis that combine to establish risk contours. An illustration of recommended allowable land uses and risk contours is provided in Figure 1. Although the MIACC guidelines do not have any regulatory status, they are nationally accepted as the standard for heavy industrial risk-based land use planning.

Both the City and the County have adopted the MIACC methodology in the preparation of cumulative risk assessments that include the JPS area.

The City undertook a study led by Bercha Group Ltd.⁴ and the County undertook a study led by Doug McCutcheon & Associates that were both completed in 2010.⁵

The goal of these exercises was to quantify the amount of risk originating from multiple sources, including heavy industrial facilities, pipeline corridors, dangerous goods roads and dangerous goods railway lines. Each of these CRAs generated risk contours in a mapping series that visually summarizes the results of the report and delineates where certain land uses are and are not appropriate.

³ Major Industrial Accidents Council of Canada (MIACC): Risk based Land Use Planning Guidelines – Summary and Annual Individual Risk Drawing, Ottawa, 2008

⁴ Bercha Group. Cloverbar and SE Edmonton Cumulative Risk Assessment and Land Use Planning Project, Final Report. December 2010. Summary Final Report Cumulative Risk Assessment and Land Use Planning Project. February 16, 2011.

⁵ Doug McCutcheon and Associates Consulting. Cumulative Risk Assessment Study Strathcona County Final Report. July 28, 2010. Summary Report May 2012.

The risk contours define emergency planning and response strategies through identification of the highest risk areas so that appropriate emergency response plans are implemented.



Each CRA utilized a different approach with regard to two aspects for calculating acceptable risk contours within the studies. Static versus active societal assumptions and actual versus estimated quantification of hazardous material. The risk contours mapped were determined based on different assumptions resulting in Individual Risk Intensity (IRI) contours for Strathcona County and Individual Specific Risk (ISR) contours for the City of Edmonton. Secondly, the actual quantification versus maximum quantification of hazardous material at the source is a difference in the City CRA versus the County CRA respectively (see Table 6-1).

TABLE 6-1: STRATHCONA COUNTY AND CITY OF EDMONTON APPROACHES TO RISK MANAGEMENT

Strathcona County: <i>Doug McCutcheon and Associates Approach</i>		City of Edmonton: <i>Bercha Group Approach</i>	
<i>IRI – Individual Risk Intensity⁶ approach</i>		<i>ISR – Individual Specific Risk approach⁷</i>	
IRI risk contours assume that an individual will be located in one place for 24 hours/ day, 365 days/year. This represents a more conservative approach, and risk contours tend to be larger as a result. There is no consideration for any mitigation or sheltering included in the IRI approach.		ISR risk contours assume that an individual will not spend all their time in one place. This concept approximates how often an individual will be exposed to risk, sheltered from risk, and/or out of the area. This provides a less conservative scenario and results in smaller risk contours.	
Determination of quantity of harmful substances on sites			
<i>IRI Maximum amounts</i>		<i>ISR Existing amounts</i>	
Risk is based on the maximum threshold quantity of potentially harmful substances on site as reported by facilities used to determine potential risk from that site.		Risk is based on the actual amounts of potentially harmful substances on site as reported by facilities used to determine potential risk from that site.	

⁶ Bercha Group. Cloverbar and SE Edmonton Cumulative Risk Assessment and Land Use Planning Project, Final Report. December 2010, p. 7.4.

⁷ Bercha Group. Cloverbar and SE Edmonton Cumulative Risk Assessment and Land Use Planning Project, Final Report. December 2010, p. 7.4.

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RISK BASED LAND USE PLANNING AND MANAGEMENT



Both approaches adhere to the criteria outlined within the MIACC guidelines and equally convey the probability of a fatality occurring over the course of one year to an individual (see Table 6-1).

The results of the cumulative risk assessments (CRAs) provide a calculation of the risk emanating from industrial development and are intended to be the basis for future land use planning decisions.

6.1.1 STRATHCONA COUNTY APPROACH

The County has implemented a separation of uses approach to risk management through a Heavy Industrial Transition Overlay (IHO) within the County's Land Use Bylaw 6-2015. The IHO implements additional development restrictions and regulation on certain uses and prohibits others within the underlying zoning to buffer heavy industrial development from residential or assembly uses. The application of use restrictions, transition zones, and regulations reduces the risk to public safety, minimizes nuisance associated with heavy industry, and facilitates emergency management in the event of an industrial accident.

The Strathcona County approach of separation to address Cumulative Risk is based on an Individual Risk Intensity (IRI) approach to establish the risk contours, emergency planning zones and minimization of nuisances. The County's CRA starts with a maximum acceptable risk of one in ten thousand that a fatality would result from a heavy industrial accident at the boundary of a property designated for heavy industrial land use. Based on this risk parameter at the boundary and the maximum allowable amount of hazardous material on the property, two risk contours were defined: ten in a million chance and one in a million chance that a fatality would result from a heavy industrial accident.

These risk contours generally correspond with the outer boundary of two transition zones within the IHO (0–1.5 km and 1.5–3.0 km from a property designated for heavy industrial development). Each transition zone assigns discretionary status as well as provides limitations, prohibitions and additional regulations for certain uses listed within the underlying zoning in accordance with achieving the MIACC guidelines for allowable land uses (Figure 6–1).

Exceeding the recommendations of MIACC, the IHO prohibits any residential development within 3.0 km of industrial properties. It further institutes a level of nuisance consideration as part of the determination of ultimate location of, and regulations within, the 1.5–3.0 km transition area. These additional parameters are to contribute to an increased quality of life for the County's residents.

In order to maintain an acceptable level of risk to the community, the County requires new heavy industrial developments to provide risk assessments. These risk assessments are used to confirm if a proposed development will impact the existing risk contours and, if so, to determine what mitigation measures on the development side are needed to avoid increasing risk to existing and future planned land uses.

6.1.2 CITY OF EDMONTON APPROACH

The City has traditionally approached risk on a case by case basis. When an application for a heavy industrial use is proposed, a Risk Assessment is required, either at the rezoning stage, or when such uses are proposed as part of a Development Permit application and an up to date Risk Assessment has not been done, in accordance with the requirements of the Zoning Bylaw 12800.

Proposals for residential development, non-residential uses that include large assemblies of people (i.e. large retail uses and religious assemblies), and sensitive uses (i.e. hospitals or other developments that may be difficult to evacuate in case of an emergency), also require a risk assessment when these uses are proposed within 500 meters of existing or planned heavy industrial uses as per Zoning Bylaw 12800. A risk assessment determines suitability of the proposed uses and includes appropriate separation distances between uses.

Work done by the Bercha Group was expanded to give a general guideline for approaching risk within the City. It is based on determining the acceptable risk contours of a development and ensuring appropriate placement of surrounding development, as well as appropriate emergency response measures, to ensure the level of risk remains within acceptable parameters.

6.0

RISK BASED LAND USE PLANNING AND MANAGEMENT

Nuisance impacts (also see section 6.2, **Nuisance**), such as noise or odours, are generally not used as part of the determination of development setbacks within the City. However, in cases where development requires either approval or registration under the Environmental Protection and Enhancement Act, an Environmental Nuisance and Health Impact Assessment may be required in accordance with the Zoning Bylaw. Noise Impact Assessments are also required, particularly where proposed developments are adjacent to, or include, rail development.

Based on the work by the Bercha group, acceptable uses based on the Individual Specific Risk (ISR) model and associated appropriate separation distances to heavy industrial uses (facilities) and corridors (dangerous goods roads, railways and pipelines), were determined in the risk contour modelling series.

Adequate separations are adjusted under the ISR model for each specific use, with greater setback requirements for uses that are associated with greater rates of human assembly, on an annual basis. The greatest separations are for sensitive uses (i.e. higher density housing and those with higher occupancies, such as hospitals), with lesser separation distances for less intense uses, such as residential uses, commercial indoor uses, commercial outdoor uses, and transient uses (e.g. bicycle pathways).



In the case of corridors, including pipelines, dangerous goods roads and railways, acceptable separations by use were based on available data at the time. As the available information on railway transport was restricted, the separation distances recommended for land uses to railways are subject to review and adjustment. Therefore, the separation distances determined in the Cumulative Risk Assessment (CRA) to both facilities and corridors are subject to change as updated data is available, including through additional site risk assessments that may be required at the rezoning and/or development permit stages.

It is important that staff from each municipality, businesses, and the general public understand the rationale for the establishment of acceptable risk contours within each municipality, including what the contours address.

6.1.3 CAPITAL REGION BOARD

Within the JPS area, the Capital Region Growth Plan has identified a Safety and Risk Management Buffer Source to address safety and risk management as well as land use compatibility that includes the petrochemical clusters, within the central part of the JPS

The CRB recognizes the heavy industrial petrochemical cluster in the central sector of the study area for the purposes of a Safety and Risk Management Buffer. The CRB sets out how the buffers would be established and some of the potential uses that the buffer areas may contain.

6.1.4 CHALLENGE

The City and the County use two different approaches to risk management, resulting in differences with regard to the application of appropriate land use separations in order to minimize risk associated with industrial development.

6.1.5 POLICY RECOMMENDATIONS

6.1.5.1 Develop a common understanding of how each municipality approaches risk management.

- a. Continue to work together to operationalize how the results of the Cumulative Risk Assessments prepared by the County and City will affect and inform land use planning.
- b. Implement appropriate risk management separation distances through policy and regulation, specifically Land Use Bylaws, Zoning Bylaws, Municipal Development Plans and neighbourhood planning documents.

- c. Amend Land Use Bylaws, Zoning Bylaws and applicable statutory plans, based on updated Risk Assessments, in order to ensure compatible land use and in order to maintain acceptable risk.

6.2 NUISANCE

Nuisances arising from industrial development can have an impact at much greater distances than risk and can be the most tangible effect of industrial activity on the surrounding communities. Nuisances can take the form of odour, noise, light or visual impact. Risk buffers may not be sufficient to address the effects of a nuisance.

6.2.1 CHALLENGE

Nuisances can affect a larger area than risk and the effects to surrounding communities require mitigation.

6.2.2 POLICY RECOMMENDATIONS

6.2.2.1 Explore options with industry that can minimize the effects of nuisances.

- a. Establish guidelines to measure nuisance, outline an acceptable level of nuisance as well as provide mitigation strategies for industry to follow;
- b. Upon implementation of 6.2.2.1 a., require that heavy industrial development applications include a nuisance mitigation strategy where impacts may extend beyond the property boundary.

6.0

RISK BASED LAND USE PLANNING AND MANAGEMENT

6.3 EMERGENCY PREPAREDNESS

Each municipality has a Municipal Emergency Plan (MEP), guided by federal, provincial and municipal regulations. MEPs are a guide for preparation and response when major emergencies and disasters affect a municipality. Each municipality also has a Hazard Analysis that examines specific issues that trigger the activation of the MEP.

A Regional Municipal Services Mutual Aid Agreement is in place amongst the following municipalities: City of Edmonton, City of Fort Saskatchewan, City of Leduc, City of St. Albert, City of Spruce Grove, Lamont County, Leduc County, Parkland County, Strathcona County, and Sturgeon County. The Agreement addresses situations where a specific event occurs that requires more resources than one municipality has available.

Given that some industrial sites are located adjacent to the municipal boundary, joint planning on emergency preparedness is necessary to ensure that appropriate and efficient response can be expected from both emergency response departments. In the event that an industrial incident does occur and cannot be contained by on-site staff, both municipalities' emergency response departments are notified. Both emergency response groups have plans in place that deal with specific incidents and evacuation or shelter-in-place precautions, regardless of which side of the municipal border an incident occurs.

The City and County are members of the Capital Region Emergency Preparedness Partnership (C-REPP), which serves to address threats and opportunities related to emergency management in the Capital Region. The organization provides a forum for communication among different players involved in regional emergencies, including members from government, the private sector, non-governmental organizations, major public institutions and industrial associations. C-REPP does not provide direct emergency response or leadership at the time of regional emergencies, but does play an important planning and coordinating role in advance of major events.

The Strathcona District Mutual Assistance Program (SDMAP) shares best practices for industrial incident planning and response and has been in place since 1979. The program works with 30 industrial and community agency partners to assist with the provision of emergency response planning in Edmonton and Strathcona County.

The Strathcona Industrial Association (SIA), formed in 1974, is comprised of twelve industrial facility operators within east Edmonton and west Strathcona County. The SIA participates actively in risk based land use planning, environmental monitoring and environmental management, and also promotes safety, including emergency preparedness. A number of its members are active in the Strathcona District Mutual Assistance Program, noted above.

6.3.1 CHALLENGE

Where risk levels are elevated, there is a need to mitigate risk with emergency preparedness planning involving the City and County's emergency response personnel.

6.3.2 POLICY RECOMMENDATIONS

6.3.2.1 Work cooperatively and promote communication between emergency response departments to ensure maximum public safety.

- a. *Maintain maps and inventories of high-risk land uses, including copies of risk assessments and any relevant information*
- b. *Recognize and coordinate joint emergency preparedness plans specifically relating to potential industrial incidents.*
- c. *Build knowledge and understanding by sharing information relating to proposed and existing development to allow for informed discussions.*
- d. *Share risk assessment information when a new development is proposed for a site in the Study Area.*
- e. *Share existing risk assessment information for existing developments, as needed, particularly with fire rescue/emergency response and the County's Planning and Development Services and the City's Sustainable Development departments of both municipalities.*



7.0

NATURAL ENVIRONMENT PARKS AND TRAILS

7.1 PROVINCIAL ROLE

Through the Land Use Framework, the Province is developing a North Saskatchewan Regional Plan (NSRP) that will include management frameworks for air quality, surface water quality, and biodiversity. The Province has the responsibility for the implementation of the frameworks. However, the NSRP will include regulatory requirements or expectations with respect to each of the management frameworks and municipalities are expected to review their bylaws to ensure compliance with the NSRP.

7.2 CAPITAL REGION BOARD

The Capital Region Growth Plan has identified a Conservation Buffer that includes the North Saskatchewan River Valley and other regionally significant environmentally sensitive lands.

The CRB also sets out how the buffers would be established and some of the potential uses that the buffer areas may contain.

7.3 MUNICIPAL

The North Saskatchewan River Valley and other valued environmental features are shared between the City and the County. The management, preservation and enjoyment of these assets can be enhanced through intermunicipal initiatives, such as preservation, cross-boundary park corridors and linked trail networks.

Both the City and the County are members of the [North Saskatchewan] River Valley Alliance (RVA). The RVA has developed a plan of action for the river valley in the capital region to create its vision for a continuous, connected North Saskatchewan River Valley park spanning from Devon to Fort Saskatchewan. This includes both existing and proposed trails on both sides of the North Saskatchewan River (see **Map 12.6: Parks, Trails and Natural Areas**).

New communities are anticipated in the Study Area's northern sector, which is bisected by the North Saskatchewan River Valley with the City and County on opposite banks. Planned appropriately, the River Valley could be a core asset for these new communities.

In the future, development in the southern portion of the study area could be served well through additional environmental planning.

7.3.1 CHALLENGE

Preserving biodiversity and environmental features, providing and connecting recreational, heritage and cultural opportunities, and establishing parks that are shared across jurisdictional boundaries would benefit from a shared approach.

7.3.2 POLICY RECOMMENDATIONS

7.3.2.1 Enhance the shared management and enjoyment of environmental assets through intermunicipal initiatives, such as preservation, cross-boundary park corridors and linked trail networks.

- a. *Coordinate information and develop baseline data through each municipality's environmental mapping.*
- b. *Complete detailed land use planning that identifies key ecological corridors, significant natural areas, and important wildlife habitat.*
- c. *Develop and implement shared strategies to manage, preserve and enjoy environmental features and assets.*

7.3.2.2 Preserve wildlife corridors and environmentally significant features within the study area.

- a. Maximize wildlife and recreational corridors and complimentary park systems in areas of new development.
- b. Coordinate monitoring activities for environmental features that cross municipal jurisdictions and cross municipal departments.
- c. Establish strategies to address any negative conditions that environmental monitoring highlights.

7.3.3 CHALLENGE

Develop shared regulatory strategies to protect identified environmental features.

7.3.4 POLICY RECOMMENDATIONS

7.3.4.1 Adopt necessary regulatory measures to protect key ecological corridors, significant natural areas and important wildlife habitat and limit land use incompatibility.

- a. Review and update Land Use Bylaws to restrict expansion of existing incompatible land uses abutting mapped ecological corridors, significant natural areas, and important wildlife habitat.
- b. Implement appropriate conservation buffers through policy and regulation, specifically Land Use Bylaws, Zoning Bylaws, Municipal Development Plans and neighbourhood planning documents.

7.3.4.2 Address detailed Parks and Open Space planning using shared data, and update respective municipal plans accordingly.



8.0

ENERGY CORRIDORS

8.1 FEDERAL AND PROVINCIAL ROLES

Municipalities are not the regulating body for the routing and development of utility and pipeline corridors. The approval process involves the National Energy Board at the Federal level as well as the Alberta Energy Regulator at the Provincial level.

8.2 CAPITAL REGION BOARD

The Capital Region Board has developed an Energy Corridors Master Plan. The intent of the plan is to integrate energy corridors into the Growth Plan, minimize land use conflicts and fragmentation, support the development of energy industrial clusters, and to ensure effective coordination of such corridors across municipal jurisdictions. The Master Plan recommends an individual municipality be consulted on final locations of corridors.

**8.3 MUNICIPAL**

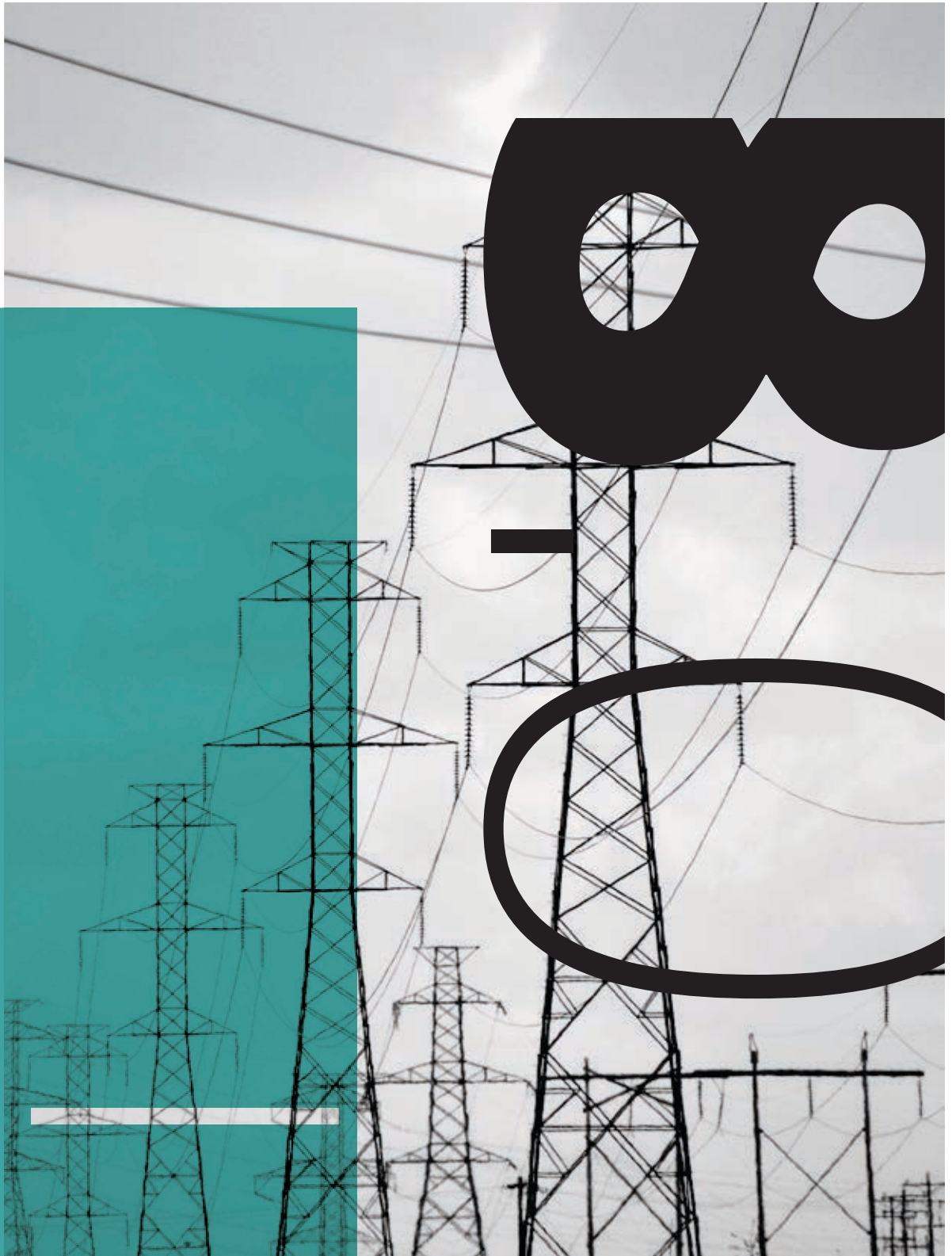
The Edmonton Area Pipeline and Utility Operators' Committee (EAPUOC) is a not-for-profit, non-statutory, voluntary membership association engaged in activities to encourage and promote safety around buried pipelines and cables. More than 40 companies, municipalities, and agencies from the greater Edmonton area comprise the EAPUOC.

8.3.1 CHALLENGE

Municipalities must be informed and involved in the decision making process for utility and pipeline corridors.

8.3.2 POLICY RECOMMENDATIONS**8.3.2.1 Ensure efficient and effective communication relating to oil and gas activity as well as other utilities.**

- a. *Maintain an active role in the EAPUOC.*
- b. *Explore future avenues for cooperation that would allow for joint meetings relating to electrical transmission lines as well as other utilities.*
- c. *Work together, and in partnership with the Capital Region Board, the National Energy Board, and provincial agencies, to coordinate appropriate locations for utility and pipeline corridors.*



9.0

AGRICULTURE

Agriculture has significant economic and local food values in Alberta. Within the study area, each jurisdiction has designated land uses identified in their MDPs.

9.1 PROVINCIAL ROLE

The province has undertaken a review of the Municipal Government Act (MGA) and the development of the North Saskatchewan Regional Plan (NSRP). An opportunity exists for the province to address agricultural lands within the MGA and the NSRP.

9.2 CAPITAL REGION BOARD

The northern and southernmost portions of the Study Area are identified as Agricultural Lands in the current Capital Region Growth Plan (CRGP). As an upcoming task within the CRGP update process, a more robust agricultural land policy will be considered for the Capital Region. Protection of agricultural lands where appropriate in the Capital Region will likely be one part of the agriculture policy direction.

9.3 MUNICIPAL

Strathcona County: The County has adopted an Agriculture Master Plan and protects agricultural areas through designation in its Municipal Development Plan and related policies on subdivision and development that limit fragmentation. Within the north portion of the study area approximately 2 sections of land lie within the Agriculture Large Holdings Policy Area. In the south most portion of the study area approximately 5 sections of land lie within the Agriculture Small Holdings Policy Area.

City of Edmonton: The lands within the study area under City jurisdiction are not designated for agricultural use. However, the City has approved a food and agriculture strategy called "Fresh". The intent is to increase access to local food through regional, city-wide and neighbourhood approaches to sustainable urban food systems and build resilience into the food and urban agricultural system to withstand gradual and sudden changes in food supply.

9.3.1 CHALLENGE

Balancing development with preserving agricultural land is a growing concern for the Capital Region as the population expands. Forthcoming provincial and Capital Region Board policies may impact existing and future municipal agricultural policies.

9.3.2 POLICY RECOMMENDATIONS

9.3.2.1 Development within the study area will give consideration to agricultural uses and the preservation of agricultural land.

- a. Through provincial and CRB initiatives, identify agricultural lands requiring preservation and regulate those lands accordingly.
- b. Implement any new regional policies related to agricultural preservation into municipal planning documents.



10.0

COMMUNICATION PROTOCOL

The City and the County have entered into this joint planning exercise in order to come to a consensus on how to manage land development in the boundary area. While commitment to support the policies of this document exists, there may be situations where agreement on all aspects of a proposal is not possible. A well-defined protocol is necessary to ensure constructive communication and prevent formal disputes or, where a dispute cannot be avoided, create a conciliatory resolution process. The emphasis of the communication protocol is on transparency and information sharing at the municipal level.

Each municipality has minimum standards for referrals that are established in Municipal Development Plans. However, on occasion the complexity and potential challenges of an application will require enhanced consultation.

10.1.1 CHALLENGE

There are two challenges. The first challenge is addressing anticipated issues in advance of specific applications. The second is addressing applications consistently based on:

1. a shared vision, strategies, and protocols for the lands in the project study area; and
2. the objectives and preferred outcomes for land development in the project study area.

10.1.2 OBJECTIVES OF COMMUNICATION PROTOCOL

- 10.1.2.1 Provide adequate opportunities for discussion and review of applications in order to avoid disagreement and minimize delay
- 10.1.2.2 Promote common understanding and information sharing to the greatest extent possible
- 10.1.2.3 Facilitate the development of creative solutions that meet individual and joint interests
- 10.1.2.4 Respect each jurisdiction's decision-making processes and autonomy
- 10.1.2.5 Identify roles and responsibilities for responses to intermunicipal proposals
- 10.1.2.6 Enhance existing planning and legislative processes
- 10.1.2.7 Resolve disputes prior to an appeal to the Capital Region Board (CRB) or Municipal Government Board (MGB)
- 10.1.2.8 Maintain open communication in the event of an appeal to the CRB or MGB



10.0

COMMUNICATION PROTOCOL

10.1.3 USE OF THE COMMUNICATION PROTOCOL

The communication protocol is not intended to be used for all planning and development applications in the JPS area. It is meant to direct additional communication for applications that could have a significant effect on neighbouring lands.

The criteria outlined below determine which applications trigger the supplementary communication protocol. Most applications within the JPS area will proceed normally through the established formal referral process without the need for the additional processes.



10.1.4 ROLES AND RESPONSIBILITIES

10.1.4.1 Approving Municipality is the municipality that is initiating a project, in receipt of an application or involved in pre-application discussions. The Approving Municipality must determine if a project meets the criteria that would require use of the communication protocol and initiate discussions with the Referral Municipality.

10.1.4.2 Referral Municipality is the municipality that may be affected by an application received by the Approving Municipality. The Referral Municipality must respond to requests for review in a timely manner.

10.1.4.3 Working Group refers to the administrative staff from both municipalities required to provide information and input regarding a given project or application.

10.1.4.4 Joint Planning Committee is the administrative staff from both municipalities who oversee the implementation of this strategy.

10.1.4.5 Management Group is the senior level administrative staff whose direction is required to provide a response to an Approving Municipality in some instances, or may be required if direction from either Council is needed.

10.1.5 **PROTOCOL PRINCIPLES FOR PLANNING APPLICATIONS**

The following principles shall be adhered to, notwithstanding the timelines established by either Municipal Development Plan (MDP):

- 10.1.5.1 **Timelines:** the Intermunicipal Referrals and Notifications timelines established in MDP are minimums.
- 10.1.5.2 **Referral time extensions:** each Approving Municipality shall provide, when possible and reasonable, additional time for application review and/or discussion by the Referral Municipality, recognizing the potential impact of such applications on both municipalities.
- 10.1.5.3 **Applicant cooperation:** It must be recognized that individual applicants may not support additional referral time in cases where the Referral Municipality requests a time extension in excess of the time for applications as stipulated in the Municipal Government Act.
- 10.1.5.4 **Applicant communication:** In cases where a referral time extension requested by a Referral Municipality requires the permission of an applicant, the Approving Municipality shall make clear the advantages to the applicant of such an extension request (e.g. more time to make a better application, more time to address concerns, and increased likelihood that the Application will ultimately be approved).

- 10.1.5.5 **Pre-Meetings:** Where possible, the Approving Municipality shall engage in early communication with the Referral Municipality. The Approving Municipality shall endeavor to provide the opportunity for meetings between the working groups of the two municipalities and the applicant. The preferred outcome is that any potential complex issues are addressed and resolved in advance of a formal application.

10.1.6 **COMMUNICATION PROTOCOL PROCEDURE**

- 10.1.6.1 Where referrals are required, the Approving Municipality shall clearly outline expectations for the receipt of comments and input.
- 10.1.6.2 Where pre-application communication has commenced, the Approving Municipality shall outline options for dialogue and/or proposed meeting times.
- 10.1.6.3 The Referral Municipality shall request time extensions for application referrals as early as possible, when required.

11.0

IMPLEMENTATION PLAN

Throughout the JPS, there are a number of policies and actions that require implementation in order to achieve the objectives. To provide further direction and ensure timely implementation, the following table identifies a prioritized set of actions identified by the steering group for immediate or ongoing action. In addition, each organization will be expected to provide staff support from the internal departments as noted in the table.



TABLE 11-1: PRIORITIZED ACTIONS

Section	Action	Delivered by
Land Use Coordination	<p>Build awareness and knowledge of the implementation of the JPS as well as communication protocols with staff.</p> <p>Ensure accountability by requiring a formal annual meeting with the Steering Committee to review the implementation of the JPS.</p>	Regional and long range planning, Sustainable Development, and Planning and Development Services
Transportation – Municipal	<p>Create a formalized structure/working group for coordination of transportation routing (taking a complete streets approach), modelling, and communication.</p> <p>Working group to explore options regarding cost sharing principles and agreements.</p>	Transportation Planning
Transportation – Regional	<p>Work together to identify projects with joint interests, which we can advocate to the CRB and Province, including future LRT right of way.</p>	Transportation Planning

Section	Action	Delivered by
Utility Servicing – Drainage	<p>Create or maintain as appropriate a formalized structure/working group for coordination of watershed management and drainages issues within the study area.</p> <p>Complete and implement the Trans-Boundary Watershed Management Development Plan</p> <p>Jointly update master drainage plans, integrate the results in policy and coordinate with environmental management frameworks.</p>	Drainage and utility services planning
Utility Servicing Water and Waste Water	Promote regular discussions at the working level between utility servicing departments to facilitate the exchange of information and positive relationships.	Drainage and utility services planning, in cooperation with private service providers and Commissions
Risk Based Land Use Planning and Management	<p>Update policy and regulation: set out requirements for industrial risk management and nuisance assessments (for example, separation space distances).</p> <p>Share and request comment on risk assessment information from emergency response, and Planning and Development Services and Sustainable Development departments</p>	Emergency/Fire Services, Sustainable Development, and Planning and Development Services
Natural Environment Parks & Trails	Create a formalized structure/working group to develop and implement shared water and biodiversity environmental management frameworks for the study area.	Parks and recreation, biodiversity, and environmental management planning
Energy Corridors	Work together, and in partnership with the CRB, the National Energy Board and provincial agencies, coordinate appropriate locations and parameters for utility and pipeline corridors	Oil and gas liaison, industrial planning, and environmental management planning
Agriculture	Work in partnership with the CRB and the Province regarding new regulations or policies related to agriculture and incorporate into municipal planning documents.	Agriculture services, and planning and development
Communications Protocol	<p>Create understanding of the joint planning principles across administrations.</p> <p>Support the sharing of existing information and identify information gaps across administrations.</p> <p>Manage opportunities for discussion and review based on the objective of avoiding disagreements and minimizing delays.</p>	Regional and long range planning, and current planning

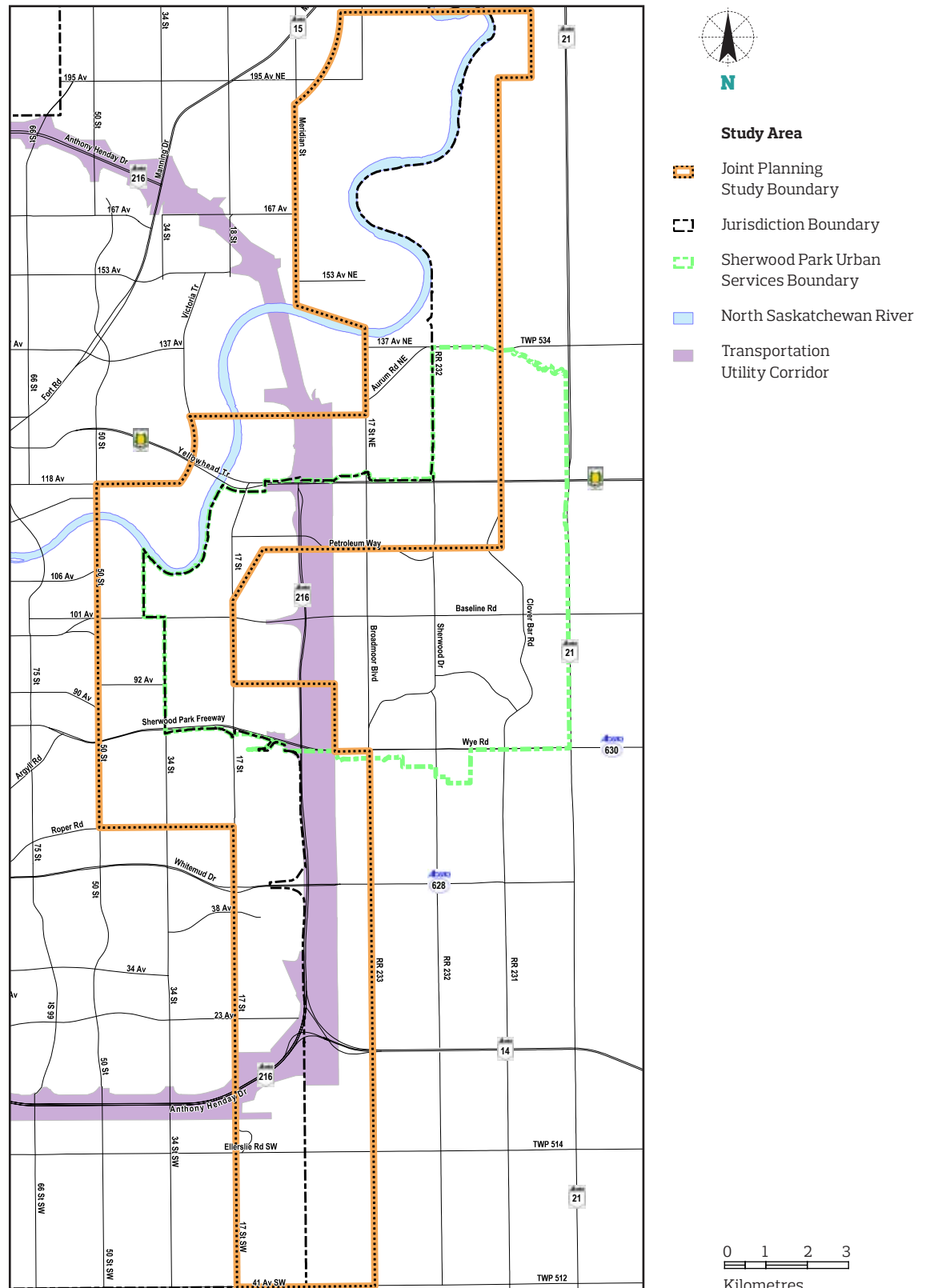
12.0

MAPS

The included maps provide a snapshot in time of the study area. For up to date maps or to confirm information please contact the appropriate jurisdiction.

Note to user:
Map is based on 2015 data. Confirm information with the appropriate jurisdiction prior to use.

12.1 STUDY AREA

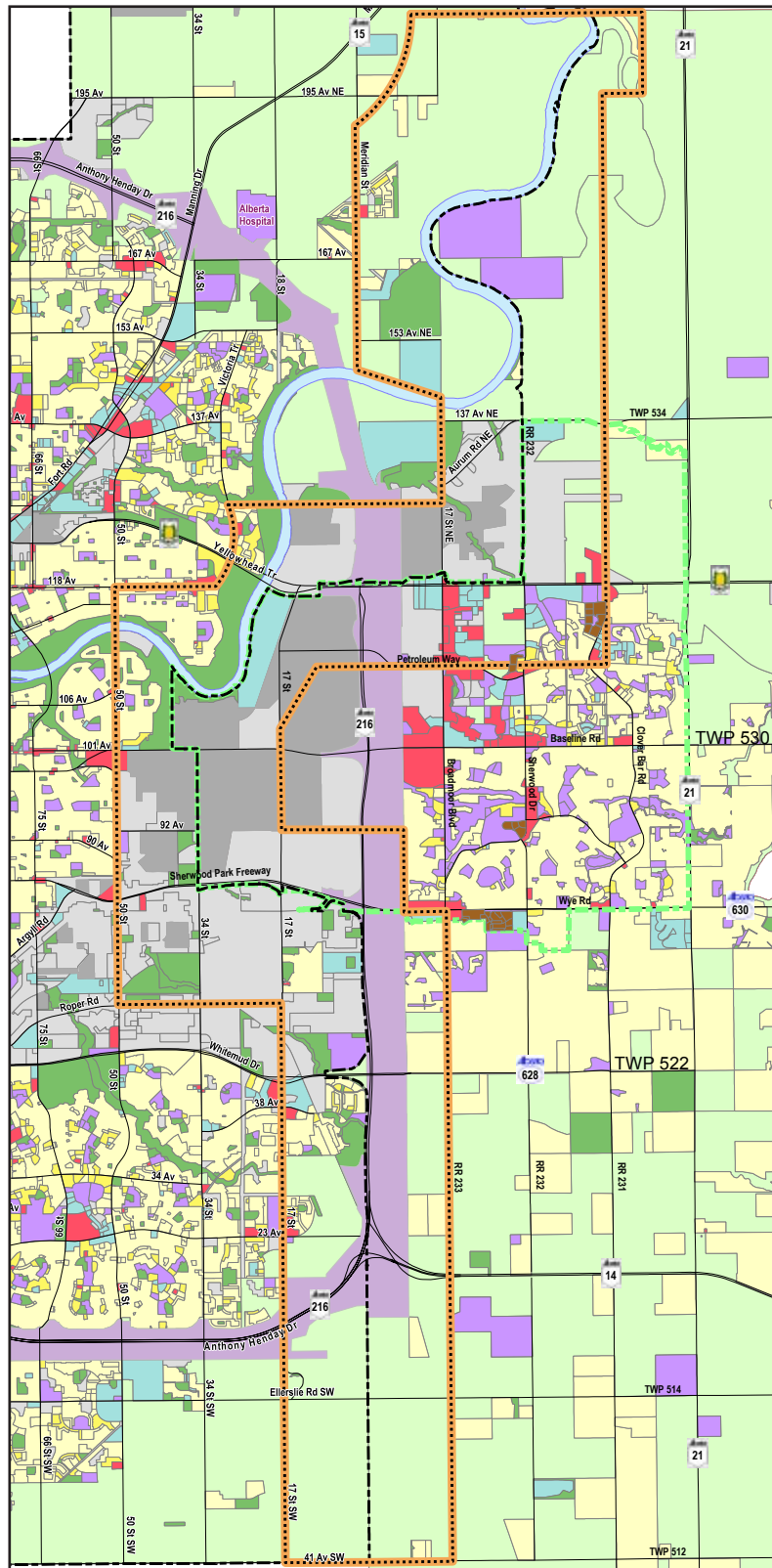




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MAPS

12.2 GENERALIZED LAND USE



Study Area

- Joint Planning Study Boundary
- Jurisdiction Boundary
- Sherwood Park Urban Services Boundary
- North Saskatchewan River
- Transportation Utility Corridor

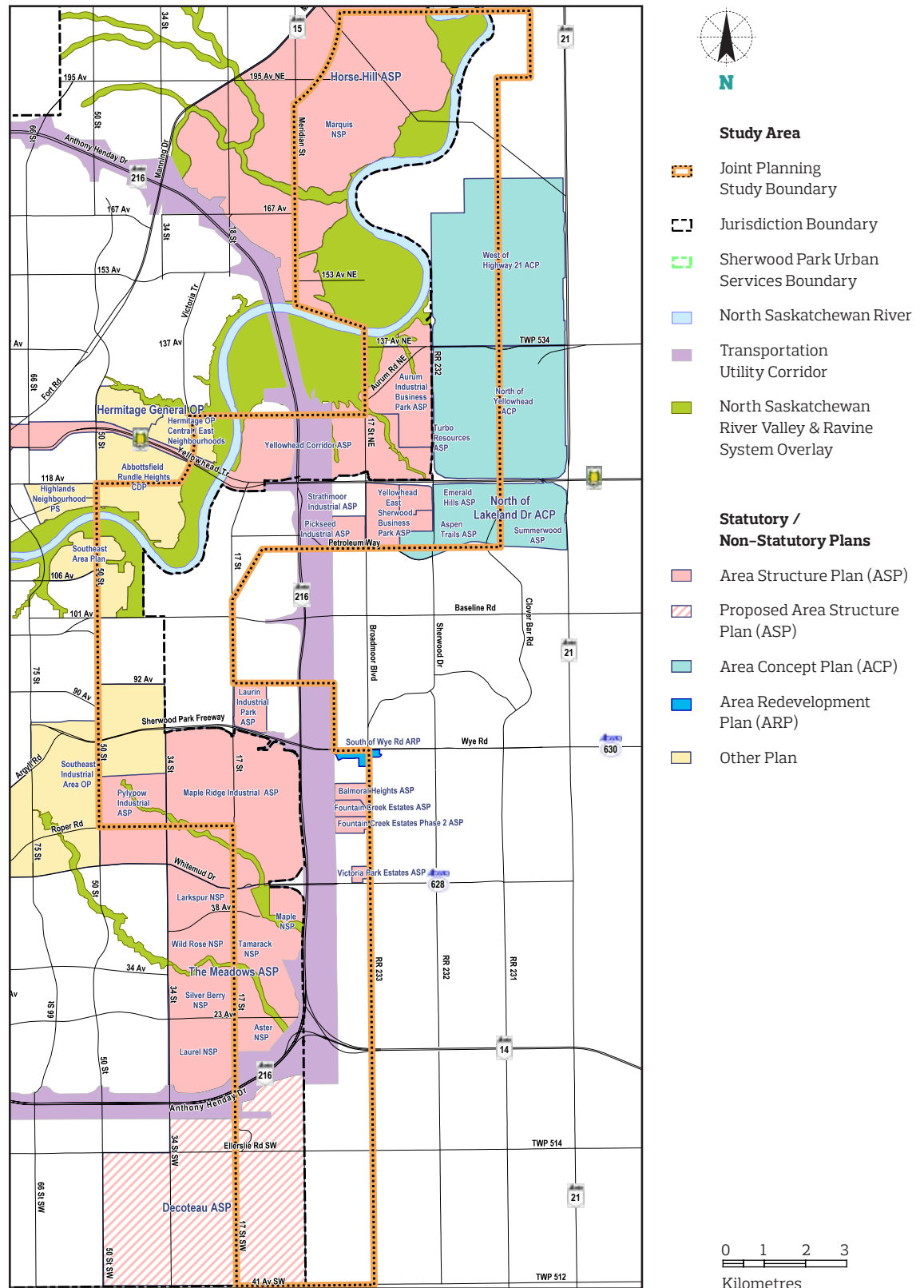
Generalized Land Use

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Residential Commercial (Urban Village)
- Direct Control
- Commercial
- Institutional Services
- Industrial Business & Utilities
- Heavy Industrial
- Recreation & Conservation
- Agriculture

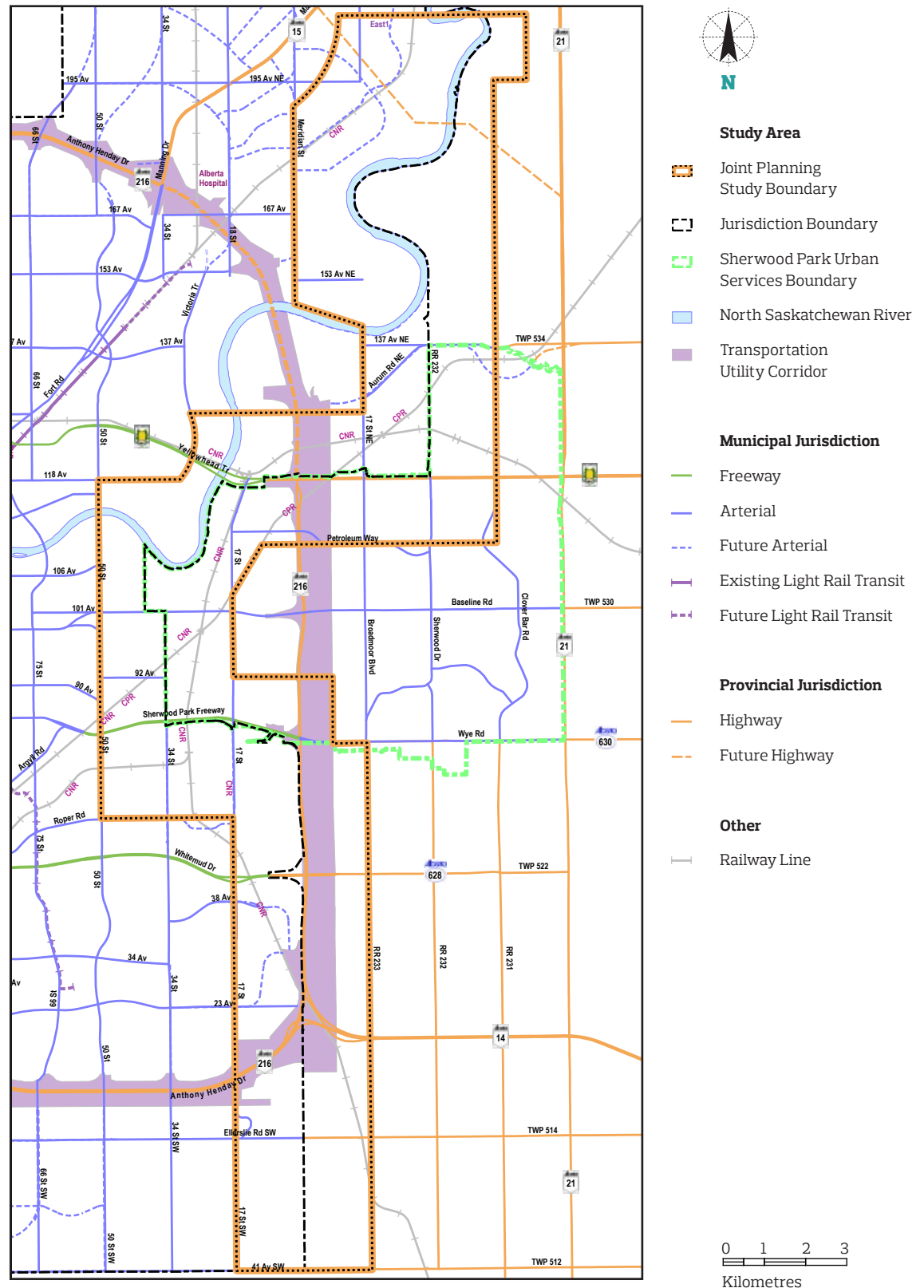
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Map is based on 2015 data. Confirm information with the appropriate jurisdiction prior to use.

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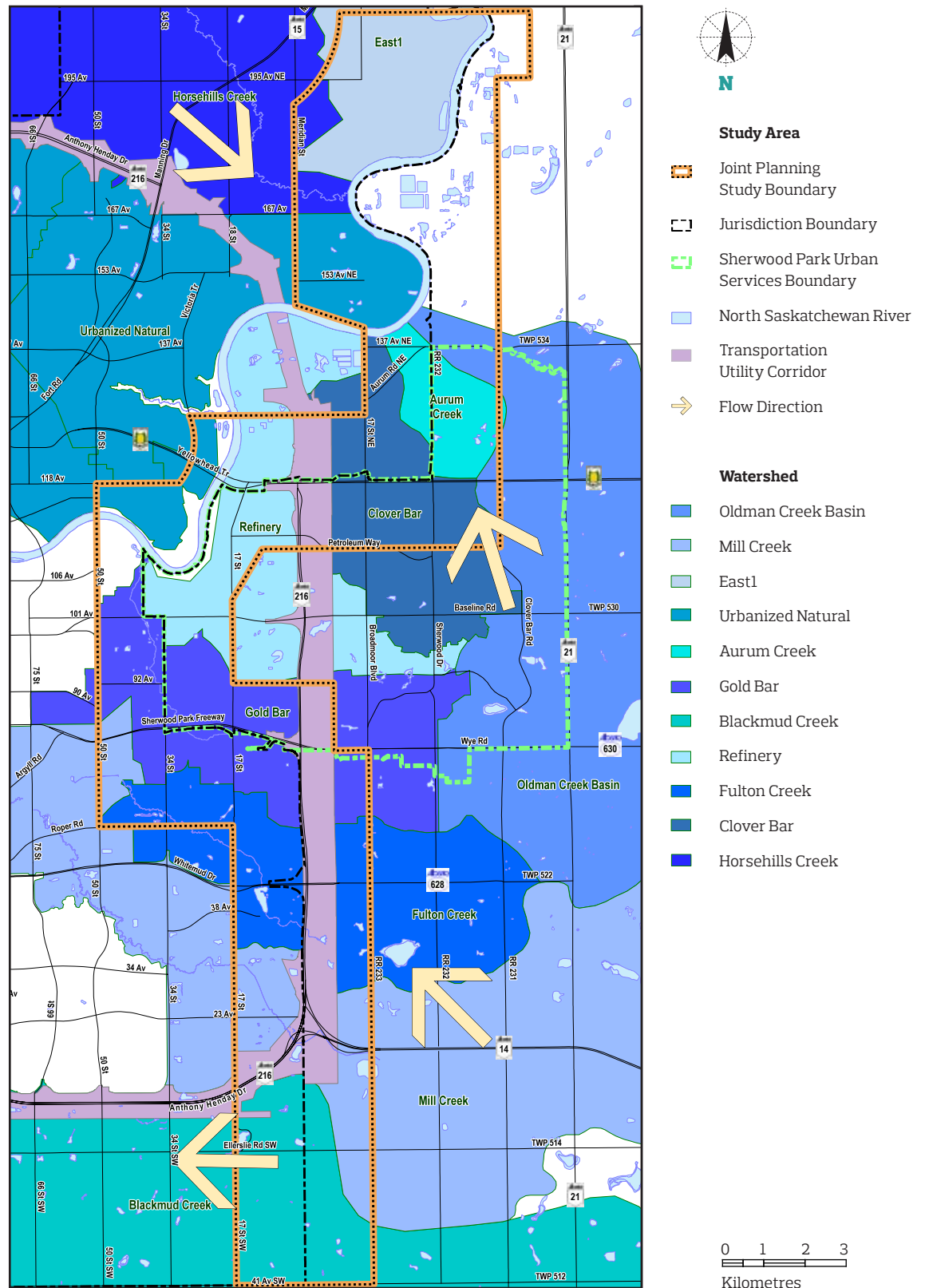
12.3 PLANS IN EFFECT



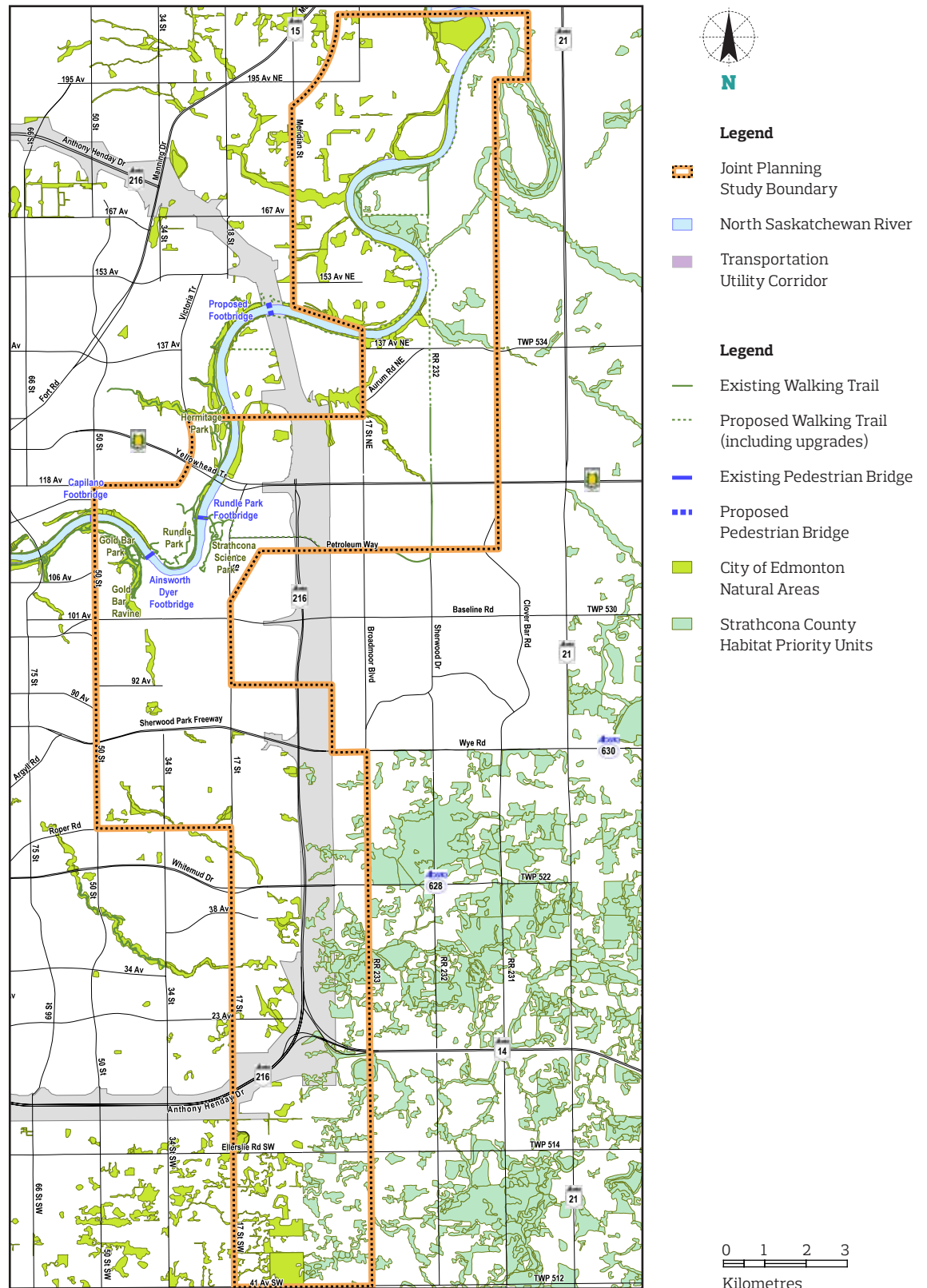
12.4 TRANSPORTATION NETWORK



12.5 DRAINAGE BASINS



12.6 PARKS, TRAILS AND NATURAL AREAS





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