



NORTH OF 11A MAJOR AREA STRUCTURE PLAN



Adopted by Bylaw 3554/2015 - January 18, 2016

Amended by Bylaw 3554/A-2017 – August 21, 2017

Amended by Bylaw 3554/B-2018 – November 26, 2018

Amended by Bylaw 3554/A-2021 – April 12, 2021

BYLAW 3554/2015

Table of Contents

1.0 Introduction	5
1.1 Area Location	
1.2 Enabling Legislation	
1.3 Background	
1.4 Planning Framework	
2.0 Vision	6
2.1 Vision	
2.2 Plan Goal	
2.3 Plan Objectives	
3.0 Existing Site Characteristics	8
3.1 Natural Areas (Preservation Potential) – Figure 2	
3.2 Historical Resources	
3.3 Natural Resource Extraction – Figure 3	
4.0 Landfills – Figure 4	11
5.0 Development – Figure 5	12
5.1 Neighbourhood Planning Principles	
5.2 Commercial	
5.3 Industrial	
5.4 Park Nodes and Regional Trail System	
5.5 Transportation – Figure 5 and Figure 6	
5.6 Development in Proximity to Rail Lines	
5.7 Emergency Services	
5.8 Schools	
6.0 Municipal Utility Services and Development Sequencing	22
6.1 Storm Water Drainage – Figure 8	
6.2 Sanitary Sewer – Figure 9	

- 6.3 Water Reservoir and Distribution – Figure 10
- 6.4 Development Sequence – Figure 11
- 6.5 Electrical Transmission and Distribution Lines – Figure 12
- 6.6 Sub Area Policies

7.0 Implementation.....28

- 7.1 Key Words
- 7.2 Preparation of More Detailed Plans
- 7.3 Public Participation
- 7.4 Planning for New Multi-Neighbourhood Areas
- 7.5 Plan Review
- 7.6 Amendments to the North of IIA MASP
- 7.7 Superseding of Red Deer County Plans
- 7.8 Land Use Bylaw and Subdivision
- 7.9 Capital and Operating Budgets
- 7.10 Multi-Neighbourhood Plans

Figures for North of IIA Major Area Structure Plan

- Figure 1: Plan Area – North of IIA MASP
- Figure 2: Natural Areas - North of IIA MASP
- Figure 3: Oil and Gas Facilities - North of IIA MASP
- Figure 4: Landfill Setbacks - North of IIA MASP
- Figure 5: Generalized Land Use Concept - North of IIA MASP
- Figure 6: Road Classification System - North of IIA MASP
- Figure 7: Estimated Emergency Response Times North of IIA MASP
- Figure 8: Storm Servicing Concept – North of IIA MASP
- Figure 9: Sanitary Servicing Concept – North of IIA MASP
- Figure 10: Water servicing Concept – North of IIA MASP

Figure 11: Development Sequencing - North of IIA MASP

Figure 12: Electrical Servicing Concept - North of IIA MASP

Figure 13: Current Flood Risk Map and the Area on North and West Side of Red Deer River Currently Not Mapped

Figure 14: Railway Lines and Setbacks

Figure 15: Noise Concern Area of 500 m Around Pipe Plant (EVRAZ)

Park Concept from *The River Valley and Tributaries Park Concept Plan*

Attachment A: Notes for Figure 2 Natural Areas Map

I.0 Introduction.

I.1 Area Location

The plan area is shown on Figure 1 containing about 22 quarter sections of land.

I.2 Enabling Legislation

The *North of 11A Major Area Structure Plan (MASP)* has been adopted by The City of Red Deer as a statutory plan in accordance with Section 633 of the *Municipal Government Act (MGA)*. This section of the MGA outlines the purpose of an area structure plan for providing a framework for subsequent subdivision and development of an area of land. It is The City's policy to require multi-neighbourhood and individual neighbourhood area structure plans for lands, prior to considering land use districting and subdivision; however, consideration may be given to subdivision applications or a limited range of uses provided they would not diminish the ability for urban style development in the long term. ^(Bylaw 3554/A-2021) These plans must be consistent with the *North of 11A MASP*.

I.3 Background

In 2007 and 2009 The City annexed about 55 quarter sections, which increased the overall city size by almost 50 percent in two years. The City adopted major area structure plans for the West QE2 (2007) and East Hill (2013) area. The North of 11A area is the last major area structure plan to be adopted for the areas annexed in 2007 and 2009.

Prior to annexation, Red Deer County adopted the *Blindman Area Structure Plan* and the *Central Park Area Structure Plan* for a portion of the lands in the North of 11A area. Section 135(1)(d) of the *Municipal Government Act* states that bylaws and resolutions of the old municipality (Red Deer County) that apply specifically to the area of land continue to apply to it until repealed or others are made in their place by the new municipality (City of Red Deer). Therefore, the *Blindman ASP* and the *Central Park ASP*, as well as the corresponding *Red Deer County Land Use Bylaw*, applied until the adoption of the *North of 11A MASP* and the concurrent *Land Use Bylaw* amendments.

I.4 Planning Framework

The *North of 11A MASP* is one of a series of inter-related planning documents adopted by The City of Red Deer. It relates to the *Red Deer County and City of Red Deer Intermunicipal Development Plan* and the *Municipal Development Plan*.

Section 19.0 of the *Municipal Development Plan (MDP)* directs that major area structure plans be prepared as well as the necessary amendments to the MDP. Section 5.0, Growth Management and Urban Form, of the MDP also states that The City shall ensure a minimum fifteen year land supply designated in major area structure plans. With the preparation of the *North of 11A MASP*, The City achieves this policy.

The *North of 11A MASP* incorporates the 2009 annexation area to the north in City planning documents and includes the direction, as appropriate, from the various planning tools including:

- *Community Assets Needs Assessment: A Directional Plan for the City of Red Deer* of November, 2008 (adopted as a planning tool November 17, 2008)
- *Northland Drive/20 Avenue Functional Planning Study* March 2009
- *River Valley and Tributaries Park Concept Plan* of July 2010 (adopted as a planning tool July 26, 2010)
- *Environmental Master Plan* (adopted as a planning tool April 2011)
- *Commercial Market Opportunities Study* June 2010 (adopted as a planning tool August 23, 2010)
- *Red Deer City Council Strategic Plan Report 2015-2018*
- *EL&P Transmission System 2011-2025 Master Plan* (adopted as a planning tool April 16, 2012)
- *Integrated Movement Study – Mobility Playbook 2013* (adopted as a planning document May 27, 2013)
- *Economic Development Strategy – Final Report* July 2013 prepared by Urbanics Consultants Ltd (adopted as a planning tool July 22, 2013)

Four other studies also informed the development of the *North of IIA MASP: Long Term Transportation Network Review of Highway IIA: Final Report* prepared by Watt Consulting Group for The City of Red Deer September 23, 2014; *Neighbourhood Planning and Design Standards* October 2013, *North of IIA Servicing Study* (Working title - currently underway), and *Hazlett Lake Management Recommendations* (currently underway). Future planning studies shall also be used to inform the development of this plan area.

2.0 Vision

2.1 Vision

The more recently completed neighbourhoods of the North of IIA community are easily identified by their compact land use pattern, sustainable environment, walkable streets and green spaces linking neighbourhoods to commercial sites, natural areas, parks, school sites and other community gathering places. Transit stops are located in places of activity such as commercial areas, higher density residential, parks and schools. Transit, which supports the idea of utilizing other modes of transportation, becomes part of everyday journeys. Neighbourhoods support mixed mobility offering convenient connected places to live and work. Streets are designed with priority users in mind (vehicle, transit, pedestrian, and cyclist) and work together to provide different mobility options. The combined network supports a balanced modal split. There are continuous and direct routes for pedestrians. Neighbourhood hubs have amenities for everyday life. The importance of this is emphasized due to the limited access points.

Each neighbourhood reflects a special image and character of mixed housing linked by inviting streetscapes, walkways and enhanced open spaces. Neighbourhoods provide liveable and appropriate housing choices with more examples of acceptable higher density areas.

Trails tie the neighbourhood network to the recreational network and places of interest throughout the community. A variety of active and passive parks, from large neighbourhood parks

to linear parks are strategically located throughout the neighbourhoods, creating linkages and a sense of community.

The natural areas along the Red Deer River Valley and its tributary and ravines, including creeks and seasonal streams, have been preserved and enhanced to form the backdrop for a shared trails system, used for cross-country skiing, jogging, walking, commuting, biking and roller-blading. Rest areas, look outs and interpretive sites contain recreational amenities that are actively used. Natural treed areas and wetlands remind residents of their heritage and enhance the open space system. Hazlett Lake is the location for a Multi-Neighbourhood Community Facility.

Servicing is provided in an efficient and environmentally-friendly manner. Green infrastructure, recycling and energy conservation are practiced. The natural systems of the area are utilized and enhanced to provide aesthetic and recreational value. Constructed wetlands are found throughout the community providing amenity to the neighbourhoods while effectively and naturally managing storm water volume and enhancing run-off water quality.

The existing industrial areas, which provide significant employment opportunities, are maintained and expanded. The future *Land Use Bylaw* regulations for these areas shall consider the compatibility of uses.

2.2 Plan Goal

To provide the broad planning direction for development in a manner which facilitates the pillars of sustainability and provides for a desirable place for healthy living, education, work and recreation for individuals and families of all ages and with varying needs and desires.

2.3 Plan Objectives

1. To manage growth to create vital, well-integrated compact communities
2. To establish an infrastructure and services framework that is sustainable
3. To provide for livable and appropriate housing choices
4. To provide for caring neighbourhoods
5. To provide mixed mobility options of walking, cycling, transit, and driving to regional, district and local destinations
6. To maintain and create employment opportunities in the plan
7. To protect ecological sensitive areas and biodiversity while enhancing parks and open spaces
8. To identify future commercial of all types including regional commercial
9. To identify future industrial areas and to protect the existing areas
10. To encourage development that has a low environmental footprint using best environmental practices

11. To provide for land uses that are consistent with the limited transportation capacity of the Plan area

3.0 Existing Site Characteristics

3.1 Natural Areas (Preservation Potential) - Figure 2

The topography of the plan area consists of generally flat land. Most of the undeveloped land in the plan area has been used primarily for agricultural purposes with limited vegetation, trees, wetlands and seasonal streams remaining. The Red Deer River valley and several major ravines are located in the plan area. The Blindman River valley lies to the north of the plan area.

Figure 2 Natural Areas (more detailed notes are contained in Attachment A) is based on *The City of Red Deer Ecospace (Natural Habitat) Evaluation Process and Ecological Profiles* which are updated regularly to preserve and enhance Red Deer's natural environment through community planning. Figure 2 identifies Existing Natural Area Categories including: seasonal stream drainage courses, wetlands, and a variety of natural areas including treed areas, other vegetation growth, and the escarpment.

Figure 2 also identifies Potential Wildlife Corridor and Movement Zones based on Natural Area Proximity including potential zones in adjoined and isolated natural areas and those associated with the river and escarpments. Additional detail, including shelter belts; small tree stands; large tree stands; wetlands; and seasonal streams, make up the Existing Natural Area categories and are described further in the Ecological Profiles. These zones are all described and each divided further into different sub-zones based on specific characteristics e.g. wetlands into classes; tree stands into coniferous vs. deciduous and all of these sub-zones have associated inventory data.

Figure 2 also identifies the preservation potential within the plan area, including the extent of features outside of the plan boundary. Preservation potential areas include all existing natural areas and are a combination of drainage patterns and natural features serving as wildlife corridors and significant reserves of biodiversity. The preferred outcome is to preserve these areas intact as natural features either within environmental reserve or municipal reserves or alternatively to incorporate them with storm water management facilities.

The multi-neighbourhood and neighbourhood area structure plans shall consider how best to preserve the natural areas as shown on Figure 2 in conjunction with the more detail ecological profiles produced by administration for each subarea. The neighbourhood area structure plan and/or the multi-neighbourhood plan shall outline the rationale for the areas that are to be preserved as well as discussing areas that are not to be preserved.

Since natural features and associated wildlife are not confined to man-made boundaries, a number of natural areas are positioned outside of the plan boundary but retain close connection to natural areas within. Preservation potential areas located outside of the plan area boundaries are conceptual and shall be determined at a later time. The City shall endeavor to work with Red Deer County as set out in the Red Deer County and City of Red Deer *Intermunicipal Development Plan*, the landowners, the developers, and other interested parties to develop a regional approach

to preservation of natural areas in the Red Deer region. This would involve consideration of the *River Valley and Tributaries Park Concept Plan* of July 2010.

3.2 Historic Resources

Historic resources, as defined by the *Alberta Historic Resources Act*, include any work of nature or of humans that is primarily of value for its paleontological, archaeological, prehistoric, historic, cultural, natural, scientific or esthetic interest. The *Alberta Historic Resources Act* applies to all development in the *North of 11A MASP* except land under federal authority, which currently are the railways. The railways are an important historic and current transportation feature. Their history may potentially be reflected in new developments in the area.

Under Section 37 of the *Alberta Historic Resources Act*, any development must conduct the appropriate studies to determine the potential impact on any known historic resources. Alberta Culture and Tourism develops a listing of Historic Resources and issues it twice a year. The Historic Resource Listing identifies “lands that contain, or are believed to contain historic resources.”¹ Lands within the North of 11A MASP are listed within the Listing of Historic Resources. All ground-disturbing developments that are proposed for areas of high archaeological and or high paleontological potential must be reviewed by the Historic Resources Management Branch. Developers shall be required to provide documentation that they have received clearance for their area structure plan or development under the *Historic Resources Act*.

3.3 Natural Resource Extraction - Figure 3

The oil and gas industry is primarily regulated by federal and provincial authorities. However, The City retains considerable authority to develop policies, bylaws, and regulations directly and indirectly applicable to the oil and gas industry to achieve safe, orderly, economical, and beneficial land use.

Development setback requirements from oil or gas development (e.g. pipeline, well, or processing facilities, even if suspended or abandoned) shall meet or exceed provincial or federal minimum requirements. The development setback distance shall be applied from the property line of the proposed development to the well center, facility equipment, or other oil or gas interest [e.g. lease or right-of-way (RoW)]. Exceptions may be considered for non-residential development.

When subdivision or development is proposed in proximity to oil or gas development, the Developer may be required to submit a professional risk assessment respecting whether the minimum setback distance needs to be increased and what measures need to be considered to otherwise mitigate risks and land use conflict, considering existing and future land use. The terms of reference for such study shall be developed in consultation with The City of Red Deer.

A professional risk assessment may be required prior to, or in conjunction with, a Neighbourhood Area Structure Plan (NASP) if development is planned within or in proximity to an existing

¹ Government of Alberta Culture and Tourism web site January 14, 2015

Emergency Planning Zone (EPZ).² The terms of reference for such a study shall be developed in consultation with The City of Red Deer.

Statutory plans should include, or be supported by, the following information, at minimum:

- Licensee Information - Name and address of the current licensee of all oil or gas development located within the plan boundary and within 25 m of the boundary.
- Location Information - The location of all pipeline right-of-ways (RoW), the sour level designation, operating pressure, and the EPZ if applicable. The location and status of all oil or gas wells and processing facilities, sour level classification and emergency planning zone if applicable.
- Environmental Site Assessment - A phase I environmental assessment (ESA) addressing each oil or gas well (including abandoned wells) and processing facility within the plan boundary. The ESA must be completed in accordance with Canadian Standards Association guidance document CSA Z768-01 (Phase I Environmental Site Assessment) or as updated or amended and The City of Red Deer's Phase I Environmental Site Assessment Terms of Reference. If environmental concerns are identified in the Phase I ESA a summary of additional work to be undertaken must be included with the Phase I ESA and / or a Phase II.
- Consultation with Licensee - Evidence of consultation with relevant licensees and confirmation that the proposed plan accommodates emergency response plans, the continued operation of active or suspended oil or gas development, clustering of oil or gas development (e.g. has considered relocation opportunities, parallel right-of-way, expansion for surface pads), and that the proposed plan reasonably minimizes impacts on licensees' surface development such as existing oil or gas development.
- Development Setbacks – Illustrate development setbacks which meet or exceed provincial or federal requirements for oil or gas development (including abandoned wells). As well, show development setbacks from ATCO's high pressure natural gas pipeline which meet or exceed ATCO's recommended setbacks,
- Certificates - Reclamation and/or a remediation certificates are required for contaminated sites. If a remediation certificate is not available The City may accept the final remediation report providing it has been signed and stamped by an eligible professional and the land is acceptable for the intended use. The report must be signed and stamped by an eligible professional as defined by Alberta Environment and Sustainable Resource Development.

² Emergency Planning Zone (EPZ) refers to the geographical area surrounding an oil and gas facility containing hazardous product that requires emergency response planning by the operator.

Statutory plans should also include proposals respecting the following where applicable:

- Abandoned Pipelines (and related facilities) - The City will not grant approval for development where abandoned pipelines, relevant land titles or right-of-ways exist. The City requires removal of abandoned pipe, of relevant land titles registrations and of the right-of-way from the AER database prior to any development (including stripping and grading) within a registered right-of way as well as the proposed timing of removal (if abandoned pipe will be removed) and the proposed coordination and cost sharing with the current Licensee.
- Abandoned Wells – including access management for continued monitoring and servicing. Abandoned wells must be located to allow immediate access if servicing is required. Buildings and roads shall not be located over abandoned wells. Abandoned wells shall not be located within residential lots. The City may consider proposals which include abandoned wells within commercial or industrial lots, upon review of a professional risk assessment. Respecting abandoned wells within commercial or industrial lots, The City may consider proposed agreements and site specific land use controls to address City indemnity and long term land use restrictions, well monitoring, and access.
- Land Use – The City may require the Developer to provide strategies during and post construction for minimizing potential land use conflict and safety risks between urban development and oil or gas development (throughout development’s life cycle). The Developer’s plan shall address, at minimum: the Developer’s proposal for confirming exact oil and gas facilities locations with affected licensees prior to any ground disturbance; that oil or gas facilities shall be appropriately marked prior to any soil stripping; anticipated pipeline crossing and access agreements and confirmation that such agreements shall be in place prior to any development activity (including stripping or grading).

The City may require *Land Use Bylaw* amendments or other planning controls (e.g. registrations on land titles) respecting anticipated off-site impacts from oil and gas or land use limitations in proximity to oil and gas development.

4.0 Landfills Setbacks - Figure 4

Three former landfills have been identified within the *North of IIA MASP*. Two of these landfills were operated privately. The third was operated with the approval from the Provincial Board of Health issued October 29, 1959, by Red Deer County North West of Central Park. It is believed that the County ran the landfill until sometime in the 1960s. These landfills create a constraint for development. The *Subdivision and Development Regulation* of the Province outlines the regulations and restrictions for specific development near operating and non-operating landfills under Section

13(2) and 13(3). These Regulations do not allow a municipality to approve a subdivision or development permit for uses, such as schools, hospitals, food establishments, and residential, within the setback without approval from the province or an appeal body. The setbacks are within 300 m of a closed landfill or 450 m of a licensed operating landfill. These setbacks are conceptually identified on Figures 4. More precise boundaries shall be determined at the neighbourhood area structure plan or industrial area structure plan stage. The City is in the process of requesting the records of Alberta Environment and Parks be amended to a closed landfill for the former County landfill north west of Central Park instead of a licensed operating landfill, which it is not. In the interim the Land Use Bylaw shall show 450 m setback with Figures 4 and 5 showing the 300 m setback with the understanding that changes will be made shortly to the current permit.

A determination of the limited land uses that are appropriate within the setback area of the former County landfill north west of Central Park shall be determined during the multi-neighbourhood planning process. No amendment to the North of IIA MASP shall be required for these limited land uses, which shall be compatible with the adjacent areas designated “Residential” on Figure 5: Generalized Land Use Concept.

During the development of a neighbourhood area structure plan, or an industrial area structure plan, the *Subdivision and Development Regulation’s* shall be referenced to ensure compliance to land use restrictions and setbacks.

5.0 Development – Figure 5

The Generalized Land Use Concept map identifies the long term land use pattern for the lands within the North of IIA area. The land uses identified are based on the predominant or main type of land use to be located in an area. More specific boundaries and information on the precise land uses is intended to be provided through area structure plans.

Although the undeveloped land within North of IIA supports agriculture production, it is envisioned that the North of IIA area will transition into sustainable urban style development. The Generalized Land Use Concept map shown as Figure 5 provides for a mix of land uses in the North of IIA area. All development within the plan area must be preceded by an adopted multi-neighbourhood plan and a neighbourhood or industrial area structure plan where shown on Figure 1. More detailed planning shall align with the policies of the *North of IIA MASP*. All new residential neighbourhood area structure plans shall meet the minimum density of 17.0 dwelling units per net developable hectare.

The planning of neighbourhood and industrial area structure plans should consider the relationship between urban development and greenhouse gas emissions. Moving towards more compact neighbourhoods will reduce greenhouse gas emissions through reduced vehicle use, preserving existing ecosystems, and creating rich and diverse urban environments. The *Community Energy and Emissions Plan* will provide a basis for how urban development can be planned so as to reduce greenhouse gas emissions. When completed, the *Community Energy and Emissions Plan* shall inform the development of statutory plans.

5.1 Neighbourhood Design Principles

The multi-neighbourhood, neighbourhood area structure and area redevelopment plans shall indicate how they are meeting or exceeding each of the design principles as set out below. More detailed guidance on the creation of sustainable neighbourhoods is found in the *Neighbourhood Planning & Design Standards*, as amended from time to time.

Principle 1: Unique Neighbourhoods

Each neighbourhood has a distinct identity fostering community's pride and a sense of belonging. Arrival features, focal points, natural elements, public art and other symbols of the community are integrated at important intersections and other locations within the neighbourhood. Architecture and site design express creativity, a distinct 'look and feel' for each neighbourhood, including relationships between buildings and public space, size of homes, street widths, block sizes, choice of materials and architectural character.

Principle 2: Integrated Parks & Community Spaces

Each neighbourhood offers high quality public spaces, with a variety and mix of leisure and recreational opportunities. Open spaces are well connected and integrated. Public space is accessible and suitable to a range of ages and abilities. Active and passive spaces provide areas to congregate, socialize, recreate, be physically active and spend time outdoors.

Principle 3: Mixed Land Uses

Each neighbourhood has a mix of land uses and densities that provide options to live, learn, work, and play. More intensive land uses are connected and focused around transit, alternative transportation modes and parks. All citizens can easily access daily shopping and recreational needs in their neighbourhood regardless of mode choice.

Principle 4: Compact Urban Form and Density

Each neighbourhood is designed to use land wisely and efficiently. Higher density housing is clustered and located with commercial and institutional uses and public transit stops. Higher density areas gradually transition to lower density areas. Density supports a mix of uses and viable transit ridership.

Principle 5: Multi-Modal Choice

Each neighbourhood offers real mobility choices for residents to travel to, from and within the neighbourhood. Streets and trails are well connected to encourage active modes of travel. Traffic and parking are managed and do not dominate the neighbourhood.

Principle 6: Resilient & Low Impact Neighbourhoods

Each neighbourhood is designed to be resilient and adapt to changing conditions such as growth rates, demographics, regional context, energy price changes, climate change and change in residents needs and preferences. Cost effective neighbourhoods are designed with consideration for construction, long term maintenance, operation and resident affordability. Neighbourhoods

are planned to accommodate a variety of future uses that will allow buildings, public spaces and amenities to be adapted efficiently as needed.

Principle 7: Safe and Secure Neighbourhoods

Each neighbourhood is designed to promote citizen's health and well-being and increased overall neighbourhood safety and social interaction. Streets are designed for pedestrian and cyclist safety. Residents know their neighbours, feel confident to play, walk, cycle, and take transit, use neighbourhood spaces and access community amenities.

Principle 8: Housing Opportunity & Choice

Neighbourhoods provide a mixture of buildings, unit sizes, and housing types. Housing options provide choice within the neighbourhood, appealing to a range of incomes, family types and opportunities for 'aging in place'.

Principle 9: Natural Areas & Ecosystem Enhancement

Each neighbourhood contains natural open spaces and is sensitive to the existing land conditions and local ecology. Neighbourhoods are designed to include existing or enhanced natural and conservation areas or are a response to natural features. This may include greenways, wetlands, watercourses, woodlots and native plant vegetation.

5.2 Commercial

Commercial designations, except future neighbourhood commercial, shall be shown on the Generalized Land Use Concept map (Figure 5). Commercial designations within the plan area shall include general commercial combined with light industrial, arterial commercial, district commercial and mixed residential/commercial. The types of potential commercial within the *North of IIA MASP* are defined below.

General Commercial and Light Industrial

The area designated "General Commercial and Light Industrial" can also accommodate some regional commercial uses in larger scale buildings. The *Land Use Bylaw* (LUB) shall allow a wide mix of commercial and light industrial uses. This may include light industrial uses such as warehousing or services that require larger buildings than a usual commercial building. The intent is to allow commercial and light industrial uses where the activities of the operation will not be detected from outside of the building. A new zone shall be required.

Mixed Residential and Commercial

Mixed use is a combination of different uses, such as, residential, office, retail commercial, public or entertainment, which are horizontally integrated (i.e. uses located on the same site beside one another) and/or vertically integrated (i.e. uses located on different floors in the same building) within a single compact form of urban development. Active uses such as commercial and community uses should be located at grade. The uses in the mixed residential and commercial area are to be compatible, mutually beneficial, and integrated into the community.

The North of IIA mixed residential and commercial area will provide options for residents to live, learn, work, and play. An increased density within and/or around the mixed residential and commercial area is encouraged. Increased densities will support the desire to create human scale development; facilitating pedestrian circulation throughout the mixed residential and commercial area shall also be considered. A local-oriented grocery store should be reflective of a pedestrian scale and integrated into the mixed-use community along with a mix of retail, service, and locally-oriented office uses should be included in the area designated as “Mixed Residential and Commercial”

Neighbourhood Commercial

A local-oriented commercial project may contain convenience retail and service uses, meeting the day-to-day needs of nearby residents, such as a convenience store, hair care, or food/beverage facility. Neighbourhood convenience centres could also contain residential dwellings above the commercial. The neighbourhood area structure plans shall define the location or locations of neighbourhood commercial. The land area for the neighbourhood convenience centres shall be defined in the neighbourhood area structure plan based on the proposed surrounding development as well as its location.

5.3 Industrial

The intent of the Plan is to allow the continuation of the existing industrial development and to expand industrial, where appropriate. Additional expansion of industrial requires careful planning to ensure minimal external impacts. Additional lands for industrial development will be required in the long term. Much of the industrial here could have access to rail. Businesses within a light industrial area are restricted from creating or emitting noises, odours, dust, fumes or other factors which are regarded as nuisances.

The interface between residential and industrial has been of great concern as outlined in the *Central Park Area Structure Plan* of September 1996. Methods to address these concerns shall be considered during the development of the industrial area structure plan. Lands directly adjacent must not emit noise or other nuisances, possibly being separated by a berm.

Eco Industrial

Eco-industrial development means industrial development resulting in businesses cooperating with one another and the local community in an attempt to reduce waste, efficiently share resources (such as information, materials, water, energy, infrastructure, or natural resources), and produce sustainable development, with the intention of increasing economic gains and improving environmental quality. The concept of eco-industrial development is supported by various policies including the *Municipal Development Plan*,² and the *Environmental Master Plan*.

A typical industrial park has an unlimited supply of resources entering the system while products and wastes leave the system. In an eco-industrial park, businesses work closely together, forming inter-relationships, to help recycle or reuse products, limit the amount of waste, and reduce environmental impacts through green building standards, district heating, and site development, for example. By allocating an area for eco-industrial development, it provides the opportunity for

industrial businesses that value environmentally friendly standards to co-locate with other like-minded businesses to promote, nurture and cultivate further innovation.

Eco-industrial development shall be implemented through the *Land Use Bylaw*, using an overlay district, to guide development, foster innovation, and promote economic and environmental sustainability. The *Eco Industrial Park Overlay District* shall be applied to light industrial areas as outlined within the *North of IIA MASP*. The *Eco Industrial Park Overlay District* shall be applied at the time of rezoning.

5.4 Park Nodes and Regional Trail System

Hazlett Lake Major Park Node

The *River Valley and Tributaries Park Concept Plan* shows the Hazlett Lake area as a major node (about 40 hectares) to “protect and interpret the natural features.” A Multi-Neighbourhood Community Centre is considered to be the appropriate facility for the area and is shown along with the sports fields on the Generalized Land Use Concept map (Figure 5), adjacent to the open space around Hazlett Lake. The indoor and outdoor amenities could support a range of activities such as outdoor athletics, ecological interpretation, culture, and natural play for a variety of ages. This facility would focus on year round activities around Hazlett Lake and the nearby sports fields. It could contain ecological and historic interpretation similar to the programming offered by the Waskasoo Environmental Education Society at other facilities in Red Deer. Council, as part of the approval of the Capital Budget each year and the Capital Budget long-term plan, may decide the priority of the Multi-Neighbourhood Community Centre and other proposed recreation facilities.

The neighbourhood area structure plans shall identify

- The legal bank of Hazlett Lake. The legal bank is the line that separates the crown owned bed and shore of the water body from the adjacent land
- Areas that may be in conflict with the *Wildlife Act*, the *Species at Risk Act*, and the *Migratory Bird Convention Act*. A Biophysical Impact Assessment or similar assessment tool completed by a qualified professional, approved by the municipality, may be required.
- The Environmental Reserve (ER) dedication adjacent to Hazlett Lake should be conserved in its natural state or as a public park. The ER dedication should comply with Section 664(1) of the *Municipal Government Act* and take into account recommendations in the 2017 *Hazlett Lake Management Recommendation Report* and the 2012 Government of Alberta guide *Stepping Back from the Water*.
- The Environmental Reserve requirements
 - The purpose of a minimum ER dedication around the Hazlett Lake is to conserve the natural habitat of the wetland and prevent pollution that may damage the wetland area or Hazlett Lake.
 - The ER dedication shall be defined as the area adjacent to the bed and shore that includes the field-delineated full extent of Hazlett Lake based on the wetland zones

described by Stewart and Kantrud³ plus a minimal additional 20-metre buffer for areas with a slope of less than 5%.

- In order to mitigate pollution the ER dedication shall be increased beyond the minimum defined area by 1.5-metres for each 1% of slope greater than 5% if the average slope within the 20-metre buffer is greater than 5%.
- A geotechnical report completed by a qualified professional, as approved by the municipality, may be required to identify the depth of the groundwater and the soil substrate. If shallow groundwater or alluvium soils are detected at the edge of the minimum ER dedication, additional ER dedication or other mitigation measures will need to be determined. The additional ER dedication should be informed by the Government of Alberta 2012 guide *Stepping Back from the Water* and should include measures for preventing pollution.
- The Environmental Reserve will have a maximum eastern boundary defined by the current location of the C & E Trail or the quarter section line dividing the western and eastern half of 4-39-27-W4, whichever is most westward will define the maximum extent of the ER dedication.
- The ER dedicated lands shall remain in their natural state or be used as a public park. Proposed uses and development which may be considered in the ER dedication include the following:
 - Wildlife viewing areas
 - Designated nature trails
 - Installation of interpretive signage
 - Passive recreation such as picnic areas or playgrounds

All development and use shall be passive and ensure the natural habitat is preserved and that Hazlett Lake is protected from pollution.

- The City of Red Deer may develop plans and undertake development for the Hazlett Lake Major Park Node outside of the Neighbourhood Area Structure Plan. This includes the areas adjacent to Hazlett Lake including all ER dedicated lands.

Red Deer River Natural Area East Park Node

The River Valley and Tributaries Park Concept Plan (RVTPC) identified, on Figure 8 – Park Concept (attached for reference), an area called “Red Deer River Natural Area – East.” As a major node it was to feature: natural areas, passive recreation, and offer a high level of visitor amenity: parking, signage, trailhead for Waskasoo Trail and more specialized park and recreation facilities.” (page 33). This major node is identified on the Generalized Land Use Concept map (Figure 5) and will become part of the Waskasoo Trail System.

³ Wetlands have been classified using the classification developed by Stewart and Kantrud. See Stewart, Robert E, and Harold A Kantrud. 1971. *Classification of natural ponds and lakes in the glaciated prairie region*. Washington, D.C: Resource Publication 92, Bureau of Sport Fisheries and Wildlife, U.S. Fish and Wildlife Service.

Regional Trail System

The major trails locations are identified in this Plan based on recommended locations in *The River Valley and Tributaries Park Concept Plan* with some adjustments and are shown conceptually on the Generalized Land Use Concept map (Figure 5). A seamless east-west multipurpose trail to link the two major park nodes has been identified. Other trails are located to provide better connectivity and promote responsible land use by combining them with existing or planned utility rights-of-way. More detail regarding the trail system shall be shown on multi-neighbourhood plans and then in neighbourhood area structure plans.

TransCanada Trail

The *North of 11A MASP* Generalized Land Use Concept map shows the intended link, in the long term, to the pedestrian bridge over the Blindman River. The Blindman River Pedestrian Bridge forms part of the Trans-Canada Trail (TCT) System. The existing portion of the TCT system in Red Deer currently ends at Taylor Drive and Highway 11A.

5.5 Mobility- Figure 5 and Figure 6

Mobility and design are inherently connected, most importantly the densities and design of a neighbourhood will largely determine how movement occurs and by which means. The North of 11A MASP area should be developed in a way that supports the following principals. This will provide the necessary framework for subsequent plans. The principals are:

- Put pedestrians first
- Create a balanced network
- Tie land-use and mobility together
- Make transit part of the journey
- Connect the trails; and
- Nurture a culture of change.

The *Long Term Transportation Network Review of Highway 11A: Final Report* found that the transportation capacity for the overall area was very limited because of existing land use and transportation constraints.

The limited transportation capacity has an impact on the land use design for the North of 11A area. The Generalized Land Use Concept map was modelled, containing the potential for about 2.3 million square feet of commercial floor space, and was found to be supportable by the transportation system at full buildout. Therefore, the amount of development being proposed must be consistent with the available transportation capacity. The consistency between the land use and transportation plans must be maintained in the development and approval of the multi-neighbourhood, neighbourhood or industrial area structure plans. These statutory documents shall contain provisions that ensure this consistency between the land use and transportation plans.

This may be accomplished by setting an overall development limit either by expected total trips or through maximum allowable area; for example, development and outlining areas where development may not be approved until the transportation improvements have been funded.

There are four general categories of roadways in the *North of IIA MASP*: local roadways, collector roadways, arterial roadways and expressways. Most quarter sections in the Plan area abut an arterial roadway on one or two sides and have an internal collector roadway system that links with existing collector roadways in adjoining neighbourhoods. The majority of residential development will be located on local roadways, and to a lesser amount on collector roadways.

Each roadway type should be designed to accommodate multiple modes of travel, including active transportation. The design of the roadway, to accommodate various modes of travel, may vary depending on the context of the street i.e. street function, street location, adjacent land use, user, etc. Non-vehicular modes of travel shouldn't simply be accommodated, but rather designed to provide a pleasurable experience that promotes a shift in the city's modal split. These roadways should be designed to accommodate all ages and abilities. Separation of active transportation and vehicular movement should be provided in areas where there is anticipated high traffic and/or high activity. Local and collector roadway design should incorporate complete street and pedestrian friendly features for all ages and abilities, as well as route options and connections for the various modes of travel.

Local Roads

Local roadways are not identified on Figure 6. The alignment of local roadways shall be determined as part of the neighbourhood and industrial area structure plans. Local roadways shall put pedestrians first.

Collector Roadways

Future collector roadways are not identified on Figure 6. Typically a collector roadway provides direct frontage access to abutting land uses, provides public parking on both sides, accommodates snow storage, serves as a transit route, and provides sidewalks for transportation alternatives to the motorcar. Collector roadways shall put pedestrians first.

The alignment of collector roadways, to be determined during the multi-neighbourhood and area structure planning stages is generally based on minimum intersection spacing onto arterial roadways as well as the requirement for collector street linkages between adjacent neighbourhoods without creating opportunities for shortcutting between arterial roadways or incompatible land uses. No collector road access to Highway 2 or Highway IIA shall be permitted. Collector road access to Highway 2A should be limited and subject to further review at the time of the multi-neighbourhood, neighbourhood or industrial area structure plan.

Arterial Roadways

Arterial roadways provide for the movement of large volumes of traffic, including truck and transit routes, by connecting major areas of traffic generation within the city. The efficient flow of traffic is the primary function of the arterial roadway classification of roadway. Direct residential lot access is not permitted to/from an arterial roadway. The proposed arterial roadway network is shown on

Figures 5 and 6. Right in/ right out site accesses for major non-residential developments such as commercial centres, high schools or other major public facilities are not shown and may be permitted after more detailed traffic analysis.

Intersections and junctions onto arterial roadways are infrequent and appropriately designed, therefore all turn intersections onto divided arterials should be provided at a minimum 400 m to 800 m intervals to effectively channel traffic from the major collector network.

Arterial roadways should have a balance of off street trails and integrated bikeways to create a comprehensive and cohesive network for recreational and commuter cycling. Pedestrians should also be accommodated on these roadways

Expressway

The expressway classification of road reflects the highest level of roadway function in the plan area. These roads are designed to prioritize the movement of people and goods in vehicles. However accommodations should be made to allow non-vehicular modes of transportation to safely cross these types of roadways. Where expressways intersect with major arterials and/or highways, a grade-separated intersection may eventually be required. Highway 11A from the intersection with QE2 eastward is designated an “Expressway” on Figure 6. This designation follows the recommendations in the *Northland Drive/20 Avenue Functional Planning Study* of March 2009, which Council accepted as a planning tool. The expressway (Highway 11A) is proposed to be built over the Canadian Pacific main rail line that crosses Highway 11A.

The *Northland Drive/20 Avenue Functional Planning Study* recommended that for the 188,000 population horizon, a grade separated interchange will be required on Highway 11A and Gaetz Avenue. The *Long Term Transportation Network Review of Highway 11A: Final Report* of September 23, 2014 recommended grade separated interchanges at Highway 11A and Taylor Drive as well as at Highway 2A and Central Park Road for the same time horizon as shown on Figure 5.

The *Long Term Transportation Network Review of Highway 11A: Final Report* evaluated and recommended against an additional permanent access between the Highway 2 interchange and the Taylor Drive intersection. The City shall consider a temporary access that would be removed at The City’s direction, when required. This temporary access is subject to the approval of the Province of Alberta. The Multi-Neighbourhood and Neighbourhood Area Structure Plans shall provide policies related to the temporary access including the trigger for its removal and other necessary steps to ensure all landowners are aware, such as by registration on land titles, of the temporary nature of the vehicle access.

No long term access shall be permitted between Taylor Drive and Gaetz Avenue due to the need to maintain adequate separation distance between the proposed grade separated interchanges at Taylor Drive and Gaetz Avenue and the above grade roadway crossing of the CP Rail’s mainline.

Noise Levels

Current City policy states what noise levels generated by traffic volumes on arterial roads and expressways should not be exceeded. The evaluation of measures to achieve the desired noise levels shall be considered in the preparation of the neighbourhood area structure plan.

Highways 2A and 11A

Under an Agreement of December 8, 2009, Highways 11A and Highway 2A are to remain under the jurisdiction of the Province of Alberta until certain capital improvements are made. The Province is to fund the widening of these roads from two to four lanes. The City should be granted jurisdiction in the future.

5.6 Development in Proximity to Rail Lines

The current railway corridors are shown on Figure 14, which consist of the Canadian Pacific (CP) main line and Canadian National (CN) with two branch lines.

Rail operations are often associated with noise, vibration, and safety hazards which may affect the use of nearby lands. The offsite impacts of rail operations are of particular concern respecting residential land uses and some commercial, institutional, and industrial land uses such as schools, recording studios, places of worship, for example. Any multi-neighbourhood or area structure plan shall provide evidence of consultation with the relevant railway operators and shall incorporate a building setback from the property line or right-of-way of the railway.

No proposed building setback for residential uses shall be less than the following minimums:

- CP main line of 30 metres; and
- CN branch lines of 15 metres

Noise impact studies should be undertaken if development is within 300 metres of the CP main line or 250 metres of the CN branch line. These would be required primarily for residential developments.

Vibration studies should also be undertaken if any development is within 75 metres of a railway line. These would be primarily required for residential developments.

Early consultation should be undertaken with the railways to better understand the key issues and concerns. The proponent should refer to the *Guidelines for New Development in Proximity to Railway Operations* prepared for the Federation of Canadian Municipalities and The Railway Association of Canada of May 2013.

Any neighbourhood or industrial area structure plan should disclose identified rail related hazards and any industry or professional recommendations respecting setbacks, land use restrictions, and mitigative measures, including specific rail operation warnings. Such information should be made available at any sales centre. The City may, where appropriate, require *Land Use Bylaw* amendments or other planning controls (e.g. registrations on land titles) respecting anticipated off-site impacts from railways or land use limitations in proximity to railways.

5.7 Emergency Services (Figure 7)

This area is serviced primarily by the Emergency Services station on Jordan Parkway at Taylor Drive. This station is able to provide fire and ambulance response to much of the North of 11A area within the average time mandated by Council as a service level. The eastern area of North of 11A MASP as shown on Figure 7 is outside of the standard response times and outside of the 10

minute response zone. The City of Red Deer is in the process of updating the Emergency Services Master Plan. Within this Master Plan service levels may be identified or changed that may affect the nature of future development.

As development/build out of the North of IIA area increases, it will be important that The City monitors and assesses the impact of growth on police, fire, and ambulance services and facilities. For example, response times for the easternmost areas of the plan would exceed the standard emergency (fire) response times if the entire area were to continue to be served by the Emergency Service station on Jordan Parkway at Taylor Drive. The City will continue to monitor growth in the plan area with respect to additional needs for protection services.

The *Alberta Building Code and Alberta Fire Code* require additional fire protection measures for structures outside of the 10 minute response time under High Intensity Residential (HIRF) requirements. During the preparation of multi-neighbourhood and neighbourhood area structure plans, consideration must be made as to the allocation of land use in relation to response times. In addition, consideration shall be given to mandating additional fire protection measures, including commercial and residential fire sprinkler systems, in these areas with greater than ten minute response times to offset the risk due to the extended response.

5.8 Schools – Figure 5

The K-9 school designation, which will be allocated to a specific board at a later time, means a school building that could contain from kindergarten (K) through to grade 9 with any grade combinations permitted. Presently, the usual categories include: grades K-5 (elementary school), or grades 6-9 (middle school).

The location of all K-9 sites are planned to occur in conjunction with a neighbourhood park site internal to the neighbourhood, which are dedicated as part of the municipal reserve requirements. The requirement for and location of proposed school sites will be determined at the multi-neighbourhood and neighbourhood area structure plan level guided by the general location shown on Figure 5.

Within the plan area, schools will not be allocated to a specific school authority at this time. The City shall seek meaningful and early dialogue with school authorities to monitor the need for a school site as early as possible in the planning process. This early consultation is to ensure that if municipal reserve is not required for a large school site, then the size of the neighbourhood park site could be reduced and the municipal reserve could be utilized for smaller parkettes and/or linear parks with neighbourhood trails.

6.0 Municipal Utility Services and Development Sequencing

The *2015 North of IIA Functional Servicing Study* (currently underway), serves as a guide to the extension of municipal water, storm, and sewer systems, and as a framework for storm water management in the plan area. Utilities will be installed as development warrants and as provided for in the Capital Budget. Council each year, in approving the Capital Budget, determines where

the infrastructure budgets are spent. It is the long term objective for development in the North of IIA area to be connected to municipal infrastructure.

Ecologically sustainable development principles suggest that potential exists within undeveloped areas of the North of IIA community to combine natural features with servicing requirements. This is often referred to as green infrastructure. Examples include the Michael O'Brian Wetlands near 55 Street and 30 Avenue which has combined storm water management with an existing wetland to create a multi-purpose facility with storm drainage and natural habitat interpretative functions. Neighbourhood ecological profiles must be considered when developing servicing plans for the consideration of potential multi-purpose features.

6.1 Storm Water Drainage - Figure 8

A master drainage plan is currently being underway by The City to provide guidance on how development can take place without impacting area wetlands and downstream watercourses and water bodies. In addition, this plan must be consistent with various provincial legislation and policies such as The Water Act and the *Alberta Wetland Policy*. The master drainage plan should also review any developments outside of the North of IIA Plan boundary that would have the potential to impact wetlands and Hazlett Lake, for example.

The City supports alternative methods of storm water management, including the creation of permanent man-made storm water ponds with the incorporation of natural marshes or wetlands into the overall storm water system (i.e. green infrastructure). Maintaining pre-existing drainage courses and water bodies in conjunction with man-made facilities is very important. The *North of IIA MASP* supports the piloting of low impact storm water management practices.. The City should partner overland storm drainage and constructed wetlands with linear parks/green spaces/open spaces/pedestrian connections through the use of low impact strategies such as bio swales or reconstructed waterways.

6.2 Sanitary Sewer - Figure 9

The proposed sanitary sewer system is generally shown on Figure 9. This collection system will be designed to use a combination of sewage lift stations and gravity trunk mains to direct all sewage to the wastewater treatment plant located at the north end of the city along the river. As new development occurs, the extension of existing and new trunk mains will permit all areas within the boundaries of the *North of IIA MASP* to be serviced.

The City is a regional provider of wastewater services to customers and citizens outside of its boundaries when approved by Council. Council, on January 21, 2013 approved in principle the request by the North Red Deer Regional Wastewater Commission to construct a wastewater line from the north regional communities through the North of IIA MASP area to The City's Wastewater Treatment Plant.

6.3 Water Reservoir and Distribution - Figure 10

The City of Red Deer obtains water from the Red Deer River. Water treatment is accomplished with a plant located at the river. The City's water distribution system for *North of IIA MASP* may consist of a combination of water trunk mains, pressure zones, a pump station, and a reservoir to

adequately distribute water to meet domestic and fire flow demands. Water conservation measures are encouraged as water is a scarce resource.

The City is a regional provider of water services to customers and citizens outside of its boundaries when approved by Council. The area already has a water distribution line for the North Red Deer River Water Services Commission that serves communities such as Blackfalds and Lacombe. Council, on August 17, 2015, approved in principle the request by the Sylvan Lake Water Commission for water treatment and transmission service. The transmission line would likely be along Highway 11A through the North of 11A MASP area from the water treatment plant.

6.4 Development Sequencing - Figure 11

The Development Sequencing map provides an overall logical engineering sequence for development in the North of 11A area. This sequence provides an efficient growth pattern for this area. The Development Sequence map should assist in guiding the capital investments of the city; however, Figure 11 does not predict timeframe. No amendments to the overall development sequence shown in Figure 11 shall be required as long as the overall intent is being maintained.

6.5 Electrical Transmission and Distribution Lines - Figure 12

AltaLink Transmission Line

A 100 m consultation/potential constraint area for any AltaLink high voltage transmission line has been included to ensure that the appropriate conversations are had in regards to *Alberta Electric Utility Code (AEUC)* and the impact it may have on future development adjacent to their right-of-way (ROW). The actual constraint area will be determined in consultation with AltaLink as it depends on several factors. All developments shall meet the AEUC, which may impact the height and locations of buildings adjacent to the right-of-way. The “AltaLink consultation/potential constraints area” shall be added to the constraints section of the *Land Use Bylaw* and identified in multi-neighbourhood and area structure plans.

Proposed City of Red Deer Substation and Transmission Line

The need for transmission facilities to provide electrical service to the north area of Red Deer has been identified by The City’s *Transmission Master Plan*. The proposed substation site in the Queen’s Industrial Park, just south of Highway 11A, and the transmission line in the Highway 11A right-of-way on the south side is the best technical solution. This need for additional capacity will have to also be confirmed by the *Alberta Electric System Operator (AESO)* as part of the provincial system.

The new transmission line will not require the large tower structures as seen along 22 Street in Red Deer, but rather, a 25 to 30 m tall monopole structure more similar to the AltaLink structures near Riverside Drive. As part of the design process, The City’s Electric Light & Power (EL&P) department will explore options that may help minimize impact. The proposed construction will require approval by the *Alberta Utilities Commission (AUC)*. EL&P will be undertaking a separate consultation with stakeholders in the future as a required part of the AUC process for the substation in the Queen’s Industrial Park.

Service Area and Distribution Line

Most of the *North of IIA MASP* area is within the Fortis Alberta Service Territory. EL&P will apply to the AUC to have this service territory transferred to EL&P prior to new development starting. This will allow EL&P to service the area with power distribution lines running north from Highway IIA.

Aerial lines are required to distribute electrical power to existing and new neighborhoods. These distribution lines are usually located within the arterial road right-of-ways. Detailed locations will be determined at the area structure planning stage.

6.6 Sub-Area Policies Figure

Central Park Residential Area

An existing county residential land use designation is provided on the Generalized Land Use Concept map. The intent of the designation is to indicate that the likely long-term future is for a large lot size development. A residential estate district type of land use zone shall be applied to the Central Park residential area.

Lands at North West Intersection of Highway IIA and Gaetz Avenue Across From Chiles Industrial Park

These lands that are bounded by the CP Rail line and Highways IIA and 2A require more comprehensive planning due to access restrictions, and possible building setbacks from the rail line. Therefore, a multi-neighbourhood industrial/commercial plan shall be required to be adopted prior to adoption of any new land use districts and subdivision. No industrial area structure plan shall be required as the planning and transportation matters can be resolved through the higher-level multi-neighbourhood planning process.

Site Specific Provisions for EVRAZ Red Deer Works (formerly IPSCO) on Central Park Road

It is proposed that the lands developed as a pipe plant be zoned I-2 Industrial (Heavy Industrial) District. In addition, a site specific provision is to be placed in the *Land Use Bylaw* to ensure specific noise provisions would be adhered to for any expansion of the present industrial use. This process would involve notification of the immediate area residents.

Noise Concern Area

The “noise concern area” shown on Figure 5: Generalized Land Use Concept shall be reflected in all multi-neighbourhood plan and neighbourhood or industrial area structure plans. The neighbourhood or industrial area structure plans shall require, for any proposed development within the “noise concern area,” that an acoustical study be undertaken to provide professional guidance on:

- the optimal overall area structure plan design to best attenuate noise from existing industrial uses; and

- the development and building components necessary to reduce noise within the a residential dwelling or other uses such as triple pane windows

The area structure plan shall also provide guidance on the mechanism by which future lot owners within approximately 500 m of the “noise concern area” are made aware that the EVRAZ operation may have potential noise associated with it.

Lands to the North and West of Red Deer River

A summary of the findings from earlier studies of these lands include:

2004 Growth Study, February 2005, Parkland Community Planning Services

This study designated these lands as “Park/Environmental/Recreational”.

Canada-Alberta Flood Damage Reduction Program, 1991 *The Red Deer River at Red Deer Hydraulics Study*, W-E-R Engineering Ltd., June 1991. Calgary, Alberta

The flood plain or flood risk mapping in this study only covers a portion of the plan area along the Red Deer River on the north bank. The extent of the risk is unknown for a large portion of the Red Deer River until a flood risk mapping is completed.

City Growth Study, June 1983, Underwood McLellan Ltd.

These lands were identified as being in the 100 year flood plain. It should be noted that the flood plain area defined in the Report also included areas having high groundwater including low lying areas of open water, sloughs, marshy areas and swales which were identified by air photo interpretation and from other maps.

The North of IIA MASP accepts the direction from *The River Valley and Tributaries Park Concept Plan (RVTPC)* that a major park node greater than 40 hectares that could include a mix of active and passive uses be considered to “encourage appropriate use of flood prone lands.”

The RVTPC identifies these lands “need further study to determine how much of this area should be recommended as part of the expanded Waskasoo Park.” The area around the Red Deer River is shown as open space with a trail connecting to the River Bend Golf Course across a bridge making this area an integral part of the Waskasoo Park system.

Recommendation 17 of the RVTPC states:

“The Park Concept includes a Special Study Area for the extreme meandering reach of the Red Deer River. Bends in the river have formed over time as moving river water has eroded the outer banks and deposited sediment on the inner banks. This natural process affects the extent of the floodplain and makes floodplain delineation more challenging. Alberta Environment performs Flood Hazard studies for urban areas— those already developed. Yet, the best time to undertake a floodplain study is before development occurs. Keeping development out of floodplains is the most cost effective way to reduce or avoid property damage. Property values of flood prone areas are significantly lower than other lands. Having the best information about the extent of the floodplain will allow the City to justify Environmental Reserve dedications and minimize land costs. The study would also provide information about the extent of the floodplain in the “Special Study Area.”

This is also an area of provincial interest. The Land Use Framework identifies “managing flood risk” as a policy gap and commits to developing policy to “minimize exposure of developments and settlements to flood risk.” (Page 44)

These lands are designated as “Land use to be determined upon additional study” on the Figure 5: Generalized Land Use Concept. The area that is not open space or environmental reserve may be suitable for residential development. However, prior to the adoption of a multi-neighbourhood plan, a number of studies are required to be undertaken. These studies will ensure a prudent approach to any development, once the flood risk mapping has been completed, by including additional setbacks from the Red Deer River which take into consideration: the meander belt, shallow groundwater, filter belt, climate change and other environmental considerations as suggested in the *Stepping Back from the Water: A Beneficial Management Practices Guide for New Development Near Water Bodies in Alberta’s Settled Region* by the Province of Alberta, 2012. The recommendations of these studies shall be incorporated as amendments to the North of IIA MASP including the Generalized Land Use Concept to show the long term land uses.

The sequence of the studies and the Terms of Reference of the studies shall be developed in concert with various stakeholders including the applicable provincial agencies and departments. The required studies shall include but not be limited to:

- A flood plain mapping and river meander study, using the guidelines of the province of 1:100 year return. The Study would recommend development restrictions based on: (a) the new flood plain and flood fringe data, (b) shallow water table data, (c) soil type, (d) slope stability, and (e) river meander belt setbacks
- A study, using the recommendations from the flood plain mapping and river meander study, to determine what land should be recommended as part of the expanded Waskoo Park including: the major park node, environmental reserve, municipal reserve dedication, and lands for possible purchase. This study should also determine the extent of the escarpment area and what would likely be dedicated as Environmental Reserve.
- High level municipal servicing including emergency services response, and multi-modal access with special attention to the escarpment areas. Alberta Building Code requirements shall be considered in allocating land uses and their type. In addition, consideration shall be given to mandating commercial and residential fire sprinkler systems in these areas to offset the risk associated with extended emergency services response times and access to the area. A review of the phasing as it relates to access and water services should be made to ensure the Emergency Services Department can effectively get to and suppress fires.

7.0 Implementation

The success of any plan depends on the degree to which efforts are made to implement and integrate the plan's direction into decision making. The *North of IIA MASP* provides the means whereby Council, the Development Authority, Administration, the development community and citizens can evaluate situations or proposals. Where a matter is not addressed in this *North of IIA MASP*, guidance shall be sought from the *Municipal Development Plan (MDP)*.

7.1 Key Words

Where the words “shall”, “should” and “may” are used in the *North of IIA MASP* they are to be interpreted as follows:

- “Shall” policies are mandatory and must be complied with,
- “Should” policies mean compliance to the principle is required but the method and level of compliance is subject to the discretion of the applicable authority on a case by case basis,
- “May” policies are discretionary with the level of compliance determined on a case by case basis by the applicable authority.

7.2 Preparation of More Detailed Plans

The *North of IIA MASP* shall be implemented through the preparation of multi-neighbourhood and neighbourhood or industrial area structure plans for most undeveloped quarter sections and/or other undeveloped parcels of land within the plan area as identified in Figure 1. All neighbourhood and industrial area structure plans within the plan area shall be consistent with the *North of IIA MASP*. The policies of the *North of IIA MASP* shall be further refined and implemented through neighbourhood and industrial area structure plans, the *Land Use Bylaw as well as* development permit and subdivision approvals. The City shall continue to ensure that appropriate stakeholders (e.g. landowners, School Authorities, neighbouring municipalities) and the general public are consulted and have input into all area structure plans as they are being prepared.

7.3 Public Participation

As part of the process of managing physical growth and changes in the community, The City shall facilitate public input on matters of general or specific planning interest, wherever possible.

Public input may be obtained using a variety of techniques such as, but not limited to, open houses, public meetings, focus groups, citizen advisory groups, workshops and surveys. The techniques and processes used may vary, based on the nature of the plan or matter being considered. Public input may be sought at any or all levels of decision making including concept development, detailed design and implementation. Input should be facilitated as early in the decision making process as possible.

In making a decision on a planning matter, City Council shall consider, but not be bound by, the input received from the public and shall balance the input received with other considerations including the long term land use planning interests of the broader community.

7.4 Planning for New Multi-Neighbourhood Areas

The *North of IIA MASP* requires planning on a multi-neighbourhood level. If a multi-neighbourhood higher level plan is required to be completed (see Figure 1), it shall be adopted concurrently with the first neighbourhood area structure plan for an area, if required. This multi-neighbourhood plan shall contain the arterial and collector road pattern and broad land uses, including environmental and open space areas. This multi-neighbourhood plan, prepared in consultation with all affected land owners, shall be adopted as a minor amendment to the *North of IIA MASP*. This would allow other land owners certainty as to the road network and broad land uses even if the land owner is not prepared to undertake a neighbourhood or industrial area structure plan at the same time.

7.5 Plan Review

The *North of IIA MASP* should undergo a comprehensive review and updated every five years. The *North of IIA MASP* may require a review earlier because of factors such as annexation, or a major change in strategic direction, for example.

7.6 Amendments to the North of IIA MASP

Provided the intent of the *North of IIA MASP* is maintained, a minor adjustment to proposed land use boundaries or roadway alignments may be made where necessary without an amendment.

No amendments to the servicing concepts shall be required to reflect change determined as a result of more detailed work.

No amendments to the overall development sequence shall be required as long as the overall intent is being maintained.

The access points where arterial roadways intersect another arterial road and or expressway are fixed and cannot be changed without a plan amendment.

In regards to the conceptual Landfill Setback shown on Figures 4 and 5, no amendment shall be required for minor inconsistencies between Figure 4 and the neighbourhood or industrial area structure plans. Minor amendments to this Plan would be required to substantially reduce, remove or otherwise alter the Landfill Setback area.

No amendments shall be required to *North of IIA MASP* for identification and designation of neighbourhood convenience centres in multi-neighbourhood plans and neighbourhood area structure plans.

The City or a landowner may initiate an amendment to this *North of IIA MASP*. The City shall assemble or require the submission of such background information as is considered necessary to support the amendment prior to the start of the amendment process. Amendments shall be made to other statutory plans, concurrently, if it is required to maintain consistency between documents.

7.7 Superseding of Red Deer County Plans

All adopted Red Deer County statutory plans that fall entirely or partly within the boundary are superseded and fully replaced by the *North of IIA MASP*. These include the following area structure plans: Central Park and Blindman.

7.8 Land Use Bylaw and Subdivision

All applications for *Land Use Bylaw* amendments and subdivision shall conform to the general intent of the *North of IIA MASP* and the applicable area structure plan. The intent of the *North of IIA MASP* and the Municipal Development Plan is to limit fragmentation of land by discouraging subdivision until urban style development can occur at urban densities. Consideration may be given to subdivision applications or ^(Bylaw 3554/A-2021) a limited range of uses, potentially for a specific timeframe prior to the adoption of an area structure plan, provided they would not diminish the ability for urban style development in the long term. On-site water and sanitary servicing could be considered for these developments. These types of developments may be considered without an adopted statutory neighbourhood plan being in place. Criteria to evaluate such subdivision applications includes ^(Bylaw 3554/A-2021) :

- The possibility to further subdivide the parcel to create urban style development suitable to the area;
- The subdivided parcel does not limit the ability for the surrounding area to become suitable urban style development;
- The subdivision considers potential impacts of intensification of use on future urban development plans;
- The subdivision aligns with the land use district currently in place, and
- The surrounding area servicing and transportation network remains unchanged.

7.9 Capital and Operating Budgets

Various policies in this *North of IIA MASP* may suggest spending by The City in order to achieve successful implementation. Pursuant to Section 637 of the *Municipal Government Act*, this *North of IIA MASP* does not commit City Council to any funding decisions. The funding for any proposals of this *North of IIA MASP* shall be considered during The City's budget process along with other funding priorities.

7.10 Multi-Neighbourhood Plans

7.10.1 Hazlett Lake

7.10.1 Hazlett Lake

MULTI-NEIGHBOURHOOD PLAN



The purpose of a Multi-Neighbourhood Plan is to establish a high level conceptual plan that achieves the 9 *Neighbourhood Planning Principles*, identifies synergies, features, and connections, and creates distinct neighbourhood character. A Multi-Neighbourhood Plan outlines broad land uses, including environmental reserve and open space, and arterial and collector road patterns. Neighbourhood area structure plans may vary in design and layout from the Hazlett Lake Multi-Neighbourhood Plan if the intent of the overall multi-neighbourhood plan is retained. The completion of a multi-neighbourhood plan does not mean that the land is development ready. Development readiness will be determined by the sequencing of services of the lands within the overall city servicing context and approval of capital expenditures by Council.

Attachment A: Notes for Figure 2 Natural Areas Map

Existing Natural Area Categories

B - Shelter Belt (Usually poplar trees and associated herbaceous understory; vary in width)

ET - Escarpment Trees (Red Deer River Escarpment with both coniferous and deciduous trees; new and old-growth)

ETS - Escarpment Trees & Seasonal Stream (Stream running through treed escarpment; likely has associated drainage impacts)

IT - Isolated Trees (Area usually smaller in size with poplar trees and associated herbaceous understory; isolated by surrounding cropland or other development)

ITW - Isolated Trees & Wetland (Usually intact wetland surrounded by trees; isolated by surrounding cropland or other development)

IW - Isolated Wetland (Vary in size and extent of surrounding riparian zone; isolated by surrounding cropland or other development)

S - Seasonal Stream (Often links natural areas and can be associated with natural features and/or cropland)

SC - Seasonal Stream Over cropland (Normally not associated with significant native habitat)

T - Trees (Usually larger in size; may have both deciduous and coniferous trees and herbaceous understory)

TS - Trees and Seasonal Stream (Trees/shrubs and streams associated with each other as a result of drainage; often found at the upper-reach source or downstream destination of the seasonal stream flow)

WS - Wetland & Seasonal Stream (Wetlands and streams associated with each other as a result of drainage)

WT - Wetland & Trees (Wetlands buffered with surrounding shrubs and trees, often extensive and fragmented in area)

WTS - Wetland, Trees & Seasonal Stream (Large natural areas with multiple habitat types and associated features)

Potential Wildlife Corridor/Movement Zones Based on Natural Area

A - Adjoined Natural Areas (A contiguous series of natural areas and habitat types)

B, D, E - Isolated Natural Areas (A stand-alone wetland, treed area or other natural area usually surrounded by cropland or development)

C, K - Adjoined Natural Areas into Built-up Areas (A series of natural areas directly adjacent to a built-up developed area)

F - Blindman River Escarpment & Valley (River escarpment of varying height associated with a valley consisting primarily of agricultural lands and natural areas on floodplains)

G - Red Deer River Escarpment into Public Natural Area (River escarpment of varying height associated with a valley consisting primarily of built-up developed areas and natural areas on floodplains)

H - Across the River into Public Natural Area (Represents multiple potential river crossing areas leading into publicly owned natural areas and associated parkland)

I, J - Red Deer River Escarpment & Valley (River escarpment of varying height associated with a valley consisting primarily of agricultural lands and natural areas on floodplains.

The following information is intended to help clarify some of the terminology pertaining to seasonal streams as it has been referenced for a number of years in various city ecological profiles, plans and so forth.

Seasonal stream is the general name that has been used to differentiate them from permanently flowing water. Seasonal streams are often dry, non-flowing and not necessarily positively confirmed until conveying water due to spring snowmelt and/or seasonal rainfall. However, telltale signs of traditional drainage patterns, even in dry years, are usually evident on aerial photographs.

Seasonal streams are sometimes referred to as ephemeral streams, swales, trenches, temporary streams or just the lowest point on the land through which gravity tends to convey water when enough precipitation is present.

Natural features, both in the upstream and downstream reaches, are associated with the flow channels of seasonal streams. These natural features are usually in-place because of the periodic flow of water. There may be middle stretches of the flow channels that are dry and not necessarily evident e.g. across agricultural land that may be cropped in during dryer years, but re-appear as a flow channel once precipitation returns.

The classification of seasonal streams is open to other interpretations, descriptions and names if more detailed clarification is required, and classification is not necessarily limited to the above definitions.

Potential Wildlife Corridor/Movement Zones are intended to highlight potential movement of wildlife between both adjoining habitat and isolated habitat areas inside and outside of the city into surrounding natural areas (a number of these have been verified with wildlife sightings and with historical and more recent observations and data). Wildlife is often only thought of as large mammals requiring physically linked habitats, or corridors, to move about. In fact a very high percentage of wildlife consists of waterfowl, songbirds and invertebrates (e.g. insects like dragonflies, pollinators and other beneficial insects) that also require habitat to survive as urban areas become built up and filled in. This is where smaller isolated habitat areas that eventually become preserved and assimilated in neighborhoods and commercial and industrial areas play a crucial role in sustaining lesser profile wildlife species.

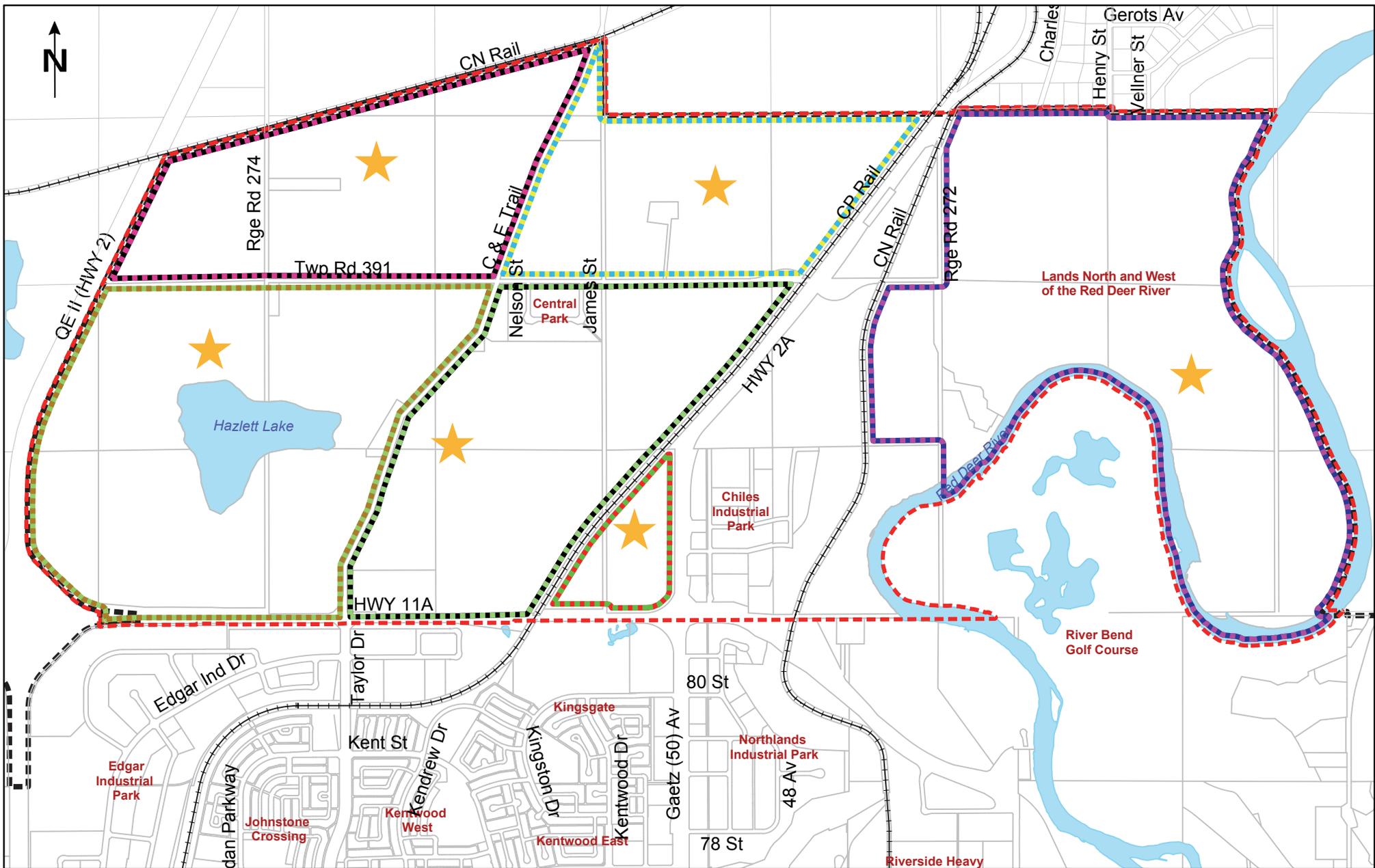


Figure 1: North of 11A Plan Area

North of 11A MASP



Source: City of Red Deer
 Cartography: Engineering Graphics
 Date: January 18, 2016
 Version: 4



Multi-Neighbourhood and Neighbourhood or Industrial Area Structure Plan required

North of 11A MASP Boundary

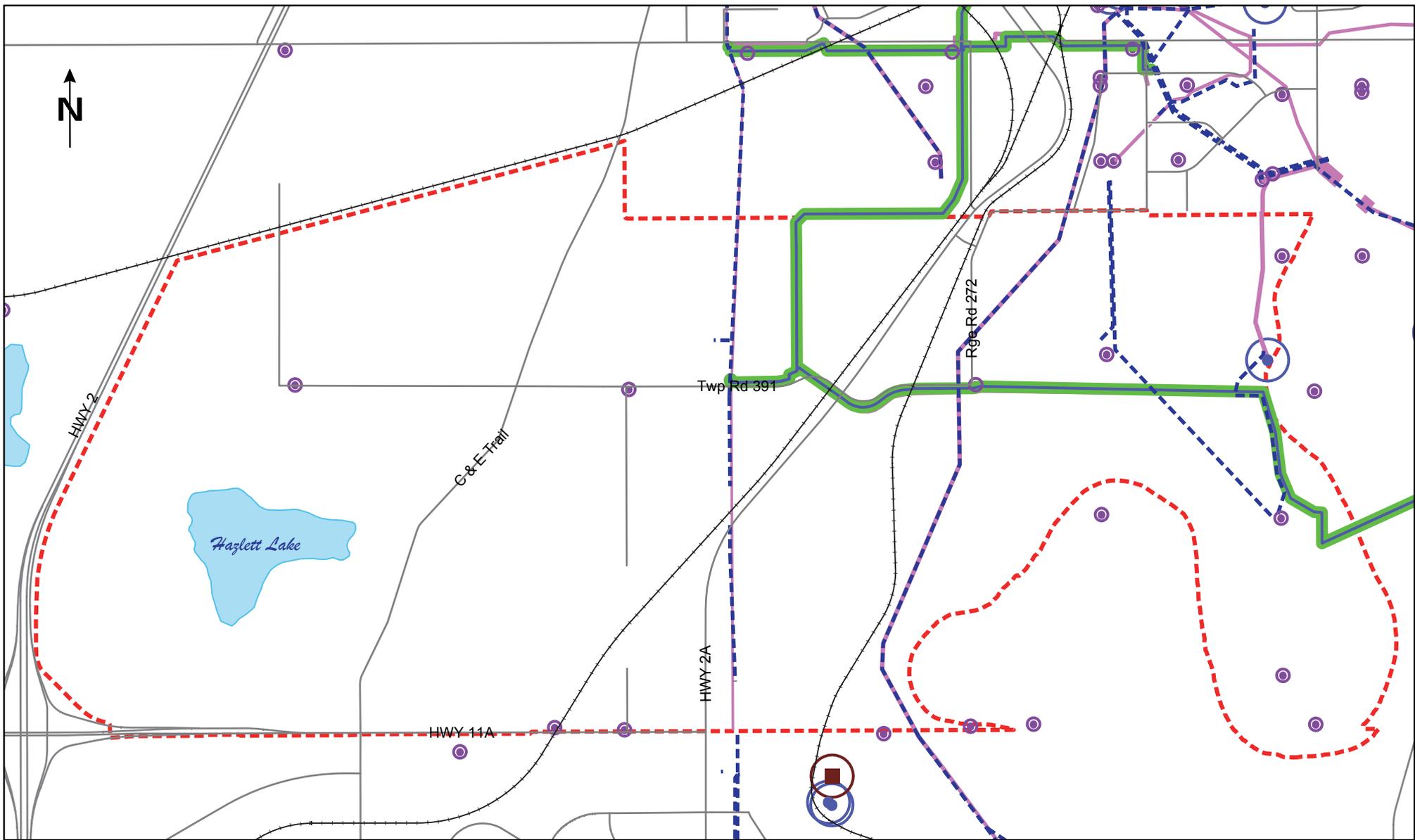


Figure 3: Oil & Gas Facilities*
North of 11A MASP



Source: City of Red Deer
 Cartography: Engineering Graphics
 Date: January 18, 2016

- 

Oil/Gas Well (inservice)
- 

Oil/Gas Facility (suspended)
- 

Oil/Gas Well (abandoned)
- 

Atco High Pressure Gas Pipeline -
with 15 metre setback
- 

Oil/Gas Pipeline (sour) -
with 15 metre setback
- 

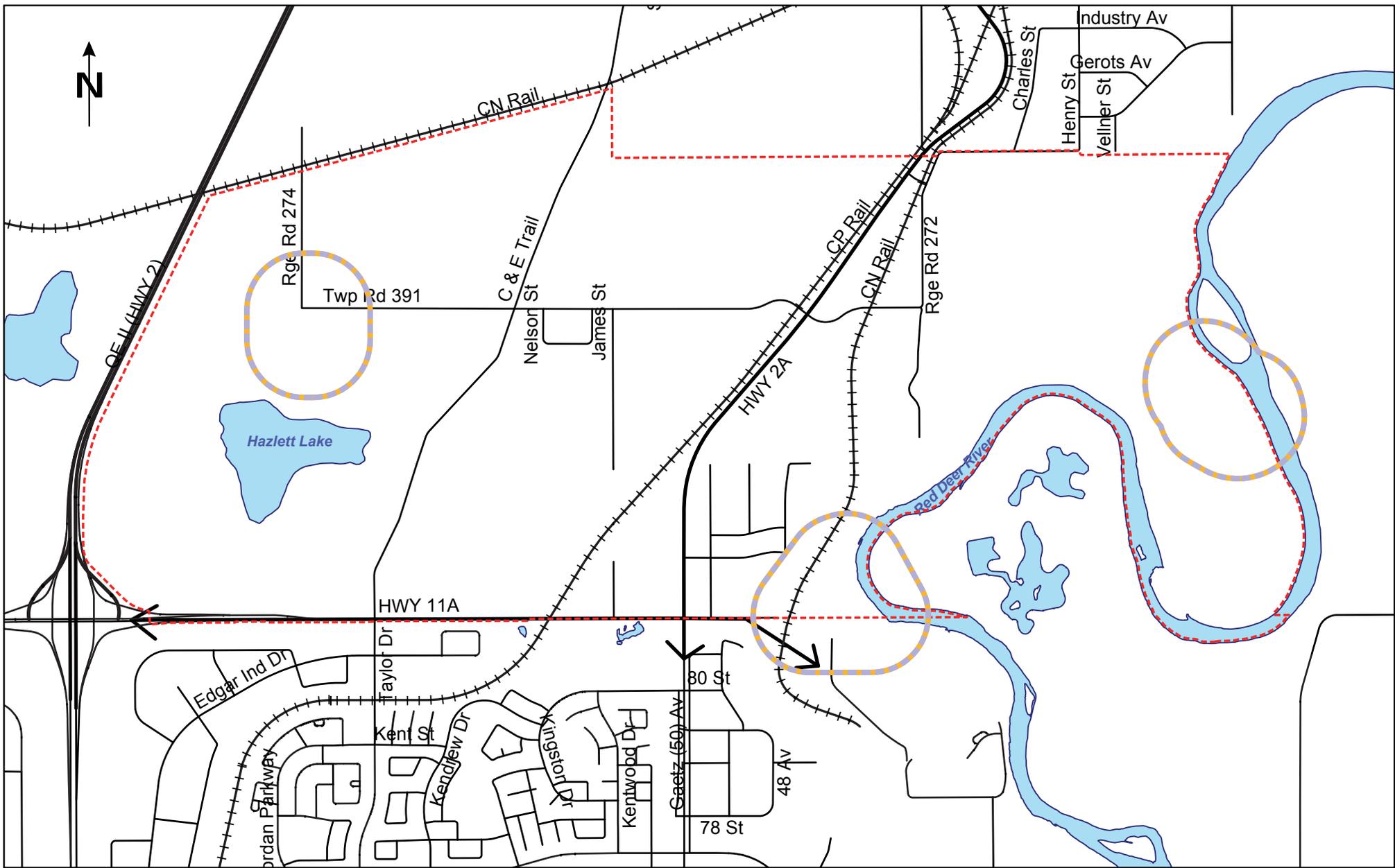
Oil/Gas Right of Way
- 

Oil/Gas Pipeline (in service)
- 

Oil/Gas Pipeline (abandoned)
- 

North of 11A MASP Boundary

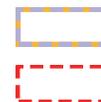
* Oil & Gas feature data is obtained from the Alberta Energy Regulator (AER) and is to be considered approximate only



**Figure 4: Land Fill Setbacks
North of 11A MASP**



Source: City of Red Deer
Cartography: Engineering Graphics
Date: January 18, 2016



Landfill Setback

North of 11A MASP Boundary

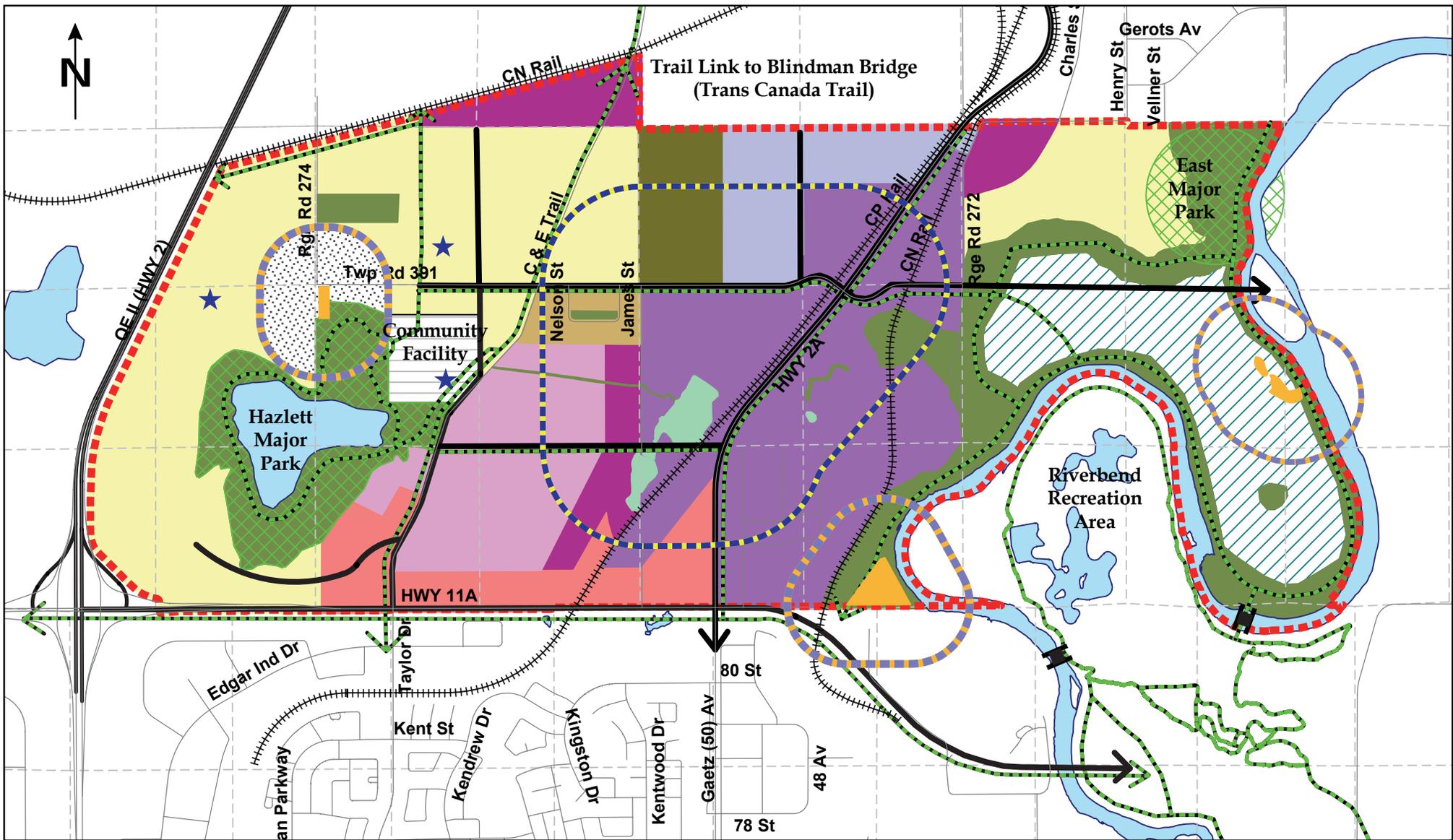
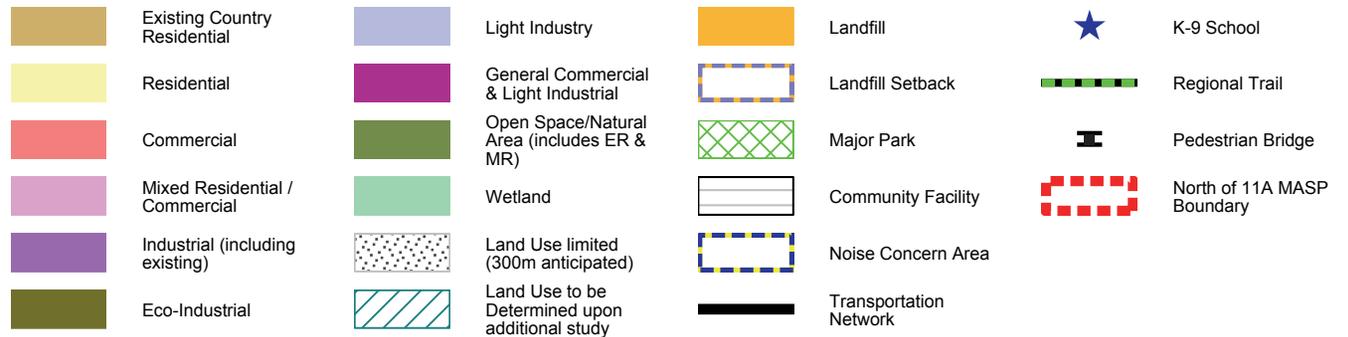
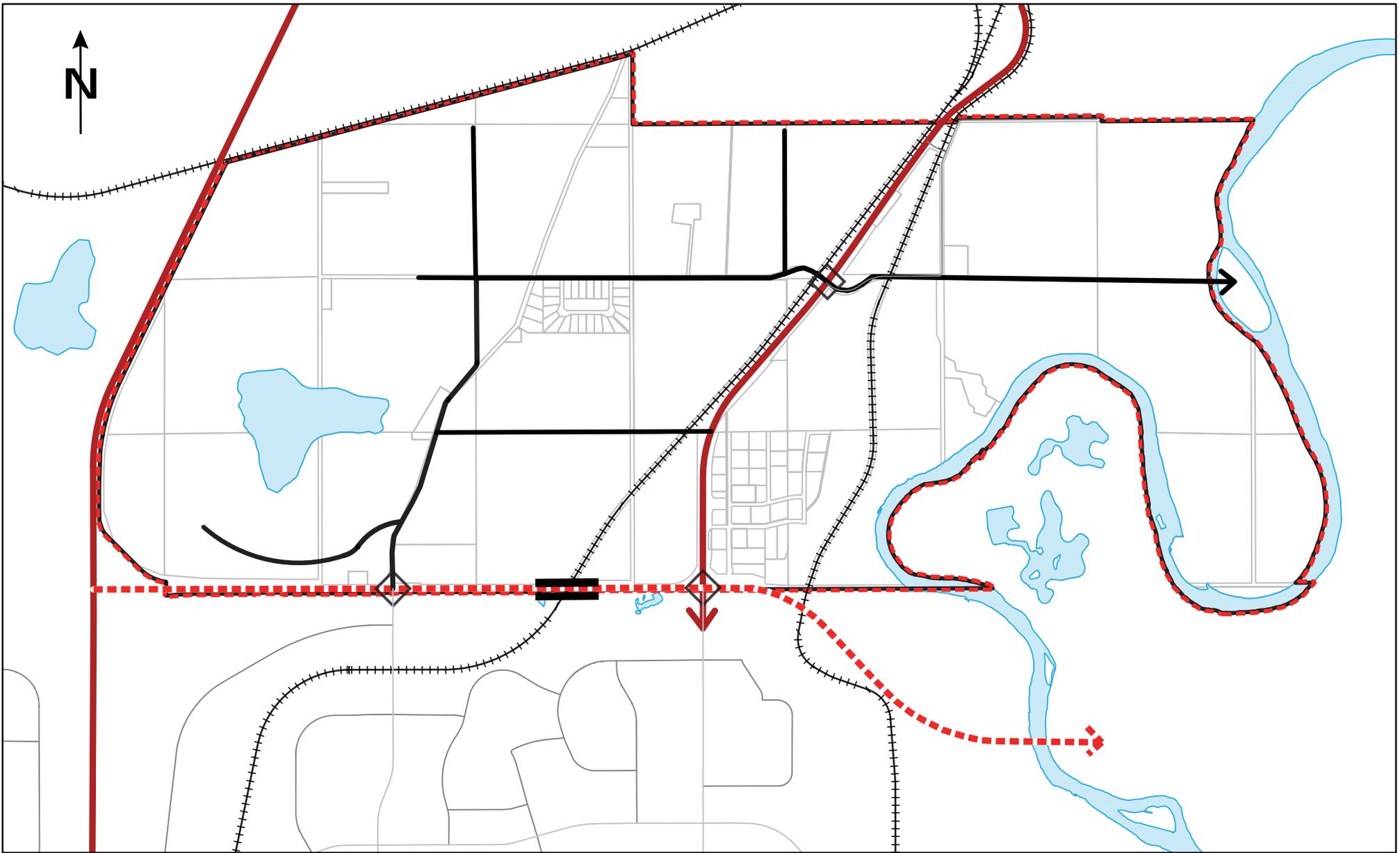


Figure 5: Generalized Land Use Concept North of 11A MASP



Source: City of Red Deer
 Cartography: Engineering Graphics
 Date: January 18, 2016
 Version: 7

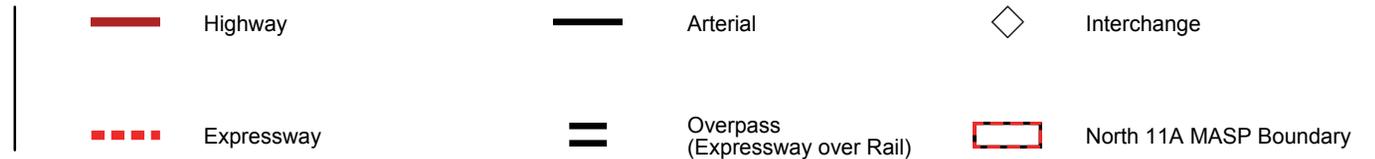




**Figure 6: Road Classification System
North of 11 MASP**



Source: City of Red Deer
Cartography: Engineering Graphics
Date: January 18, 2016



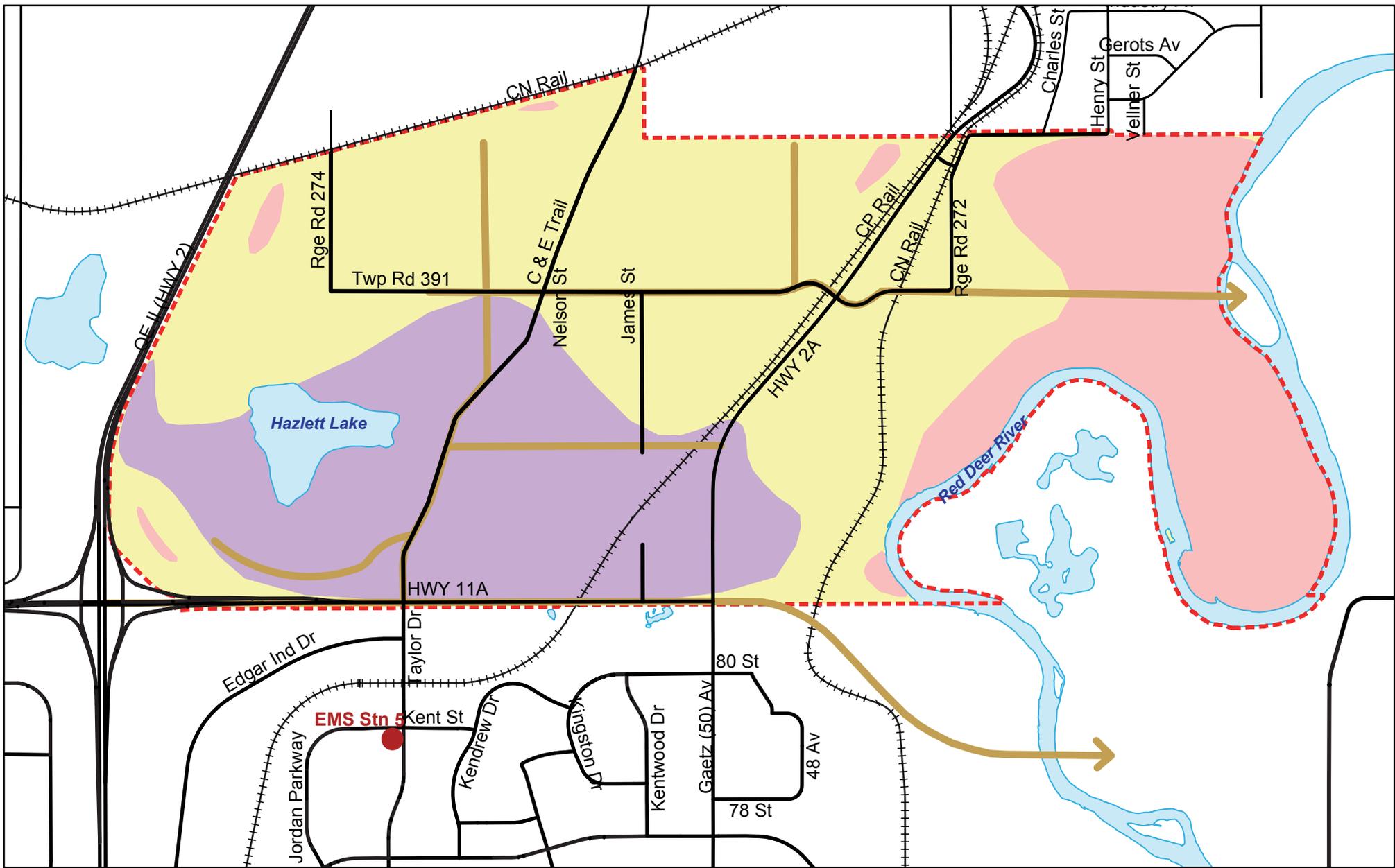
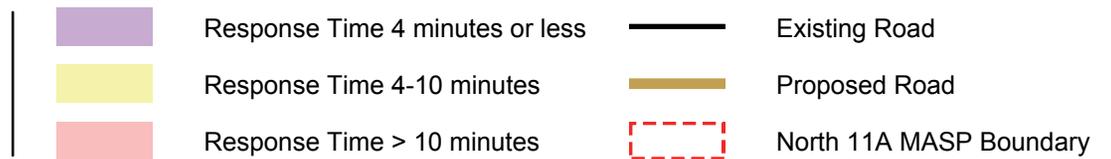
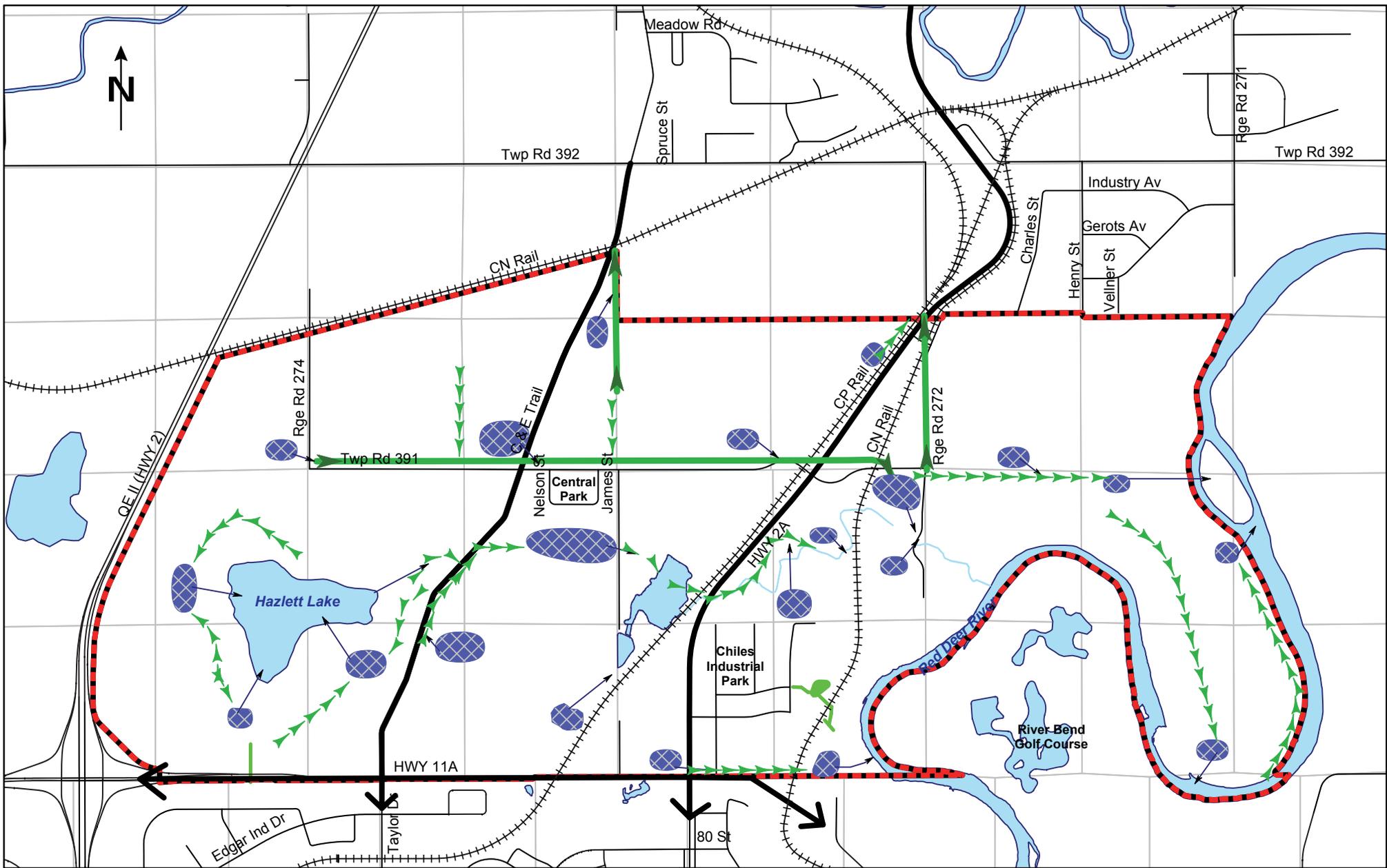


Figure 7: Estimated Emergency Services Response Time North of 11A MASP



Source: City of Red Deer
 Cartography: Engineering Graphics
 Date: January 18, 2016



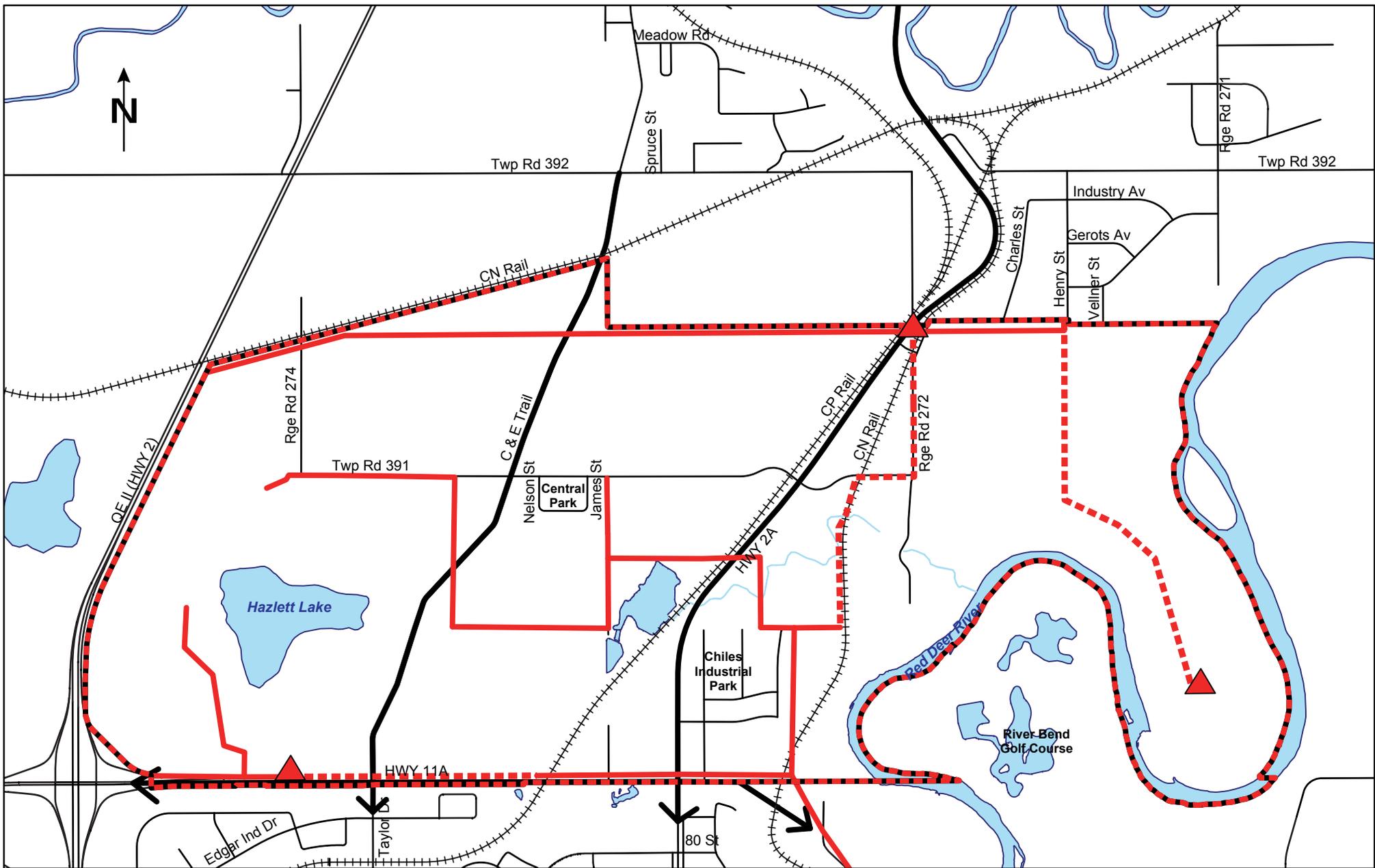


**Figure 8: Storm Servicing Concept
North of 11A MASP**



Source: City of Red Deer
Cartography: Engineering Graphics
Date: January 18, 2016

- | | | | | | |
|---|----------------------------|---|---------------------------|---|---------------------------|
|  | Proposed Storm Trunk |  | Proposed Surface Drainage |  | Existing Storm Water Pond |
|  | Proposed Storm Pond |  | Existing Stormwater Line |  | North 11A MASP Boundary |
|  | Proposed Storm Pond Outlet |  | Natural Drainage Route | | |

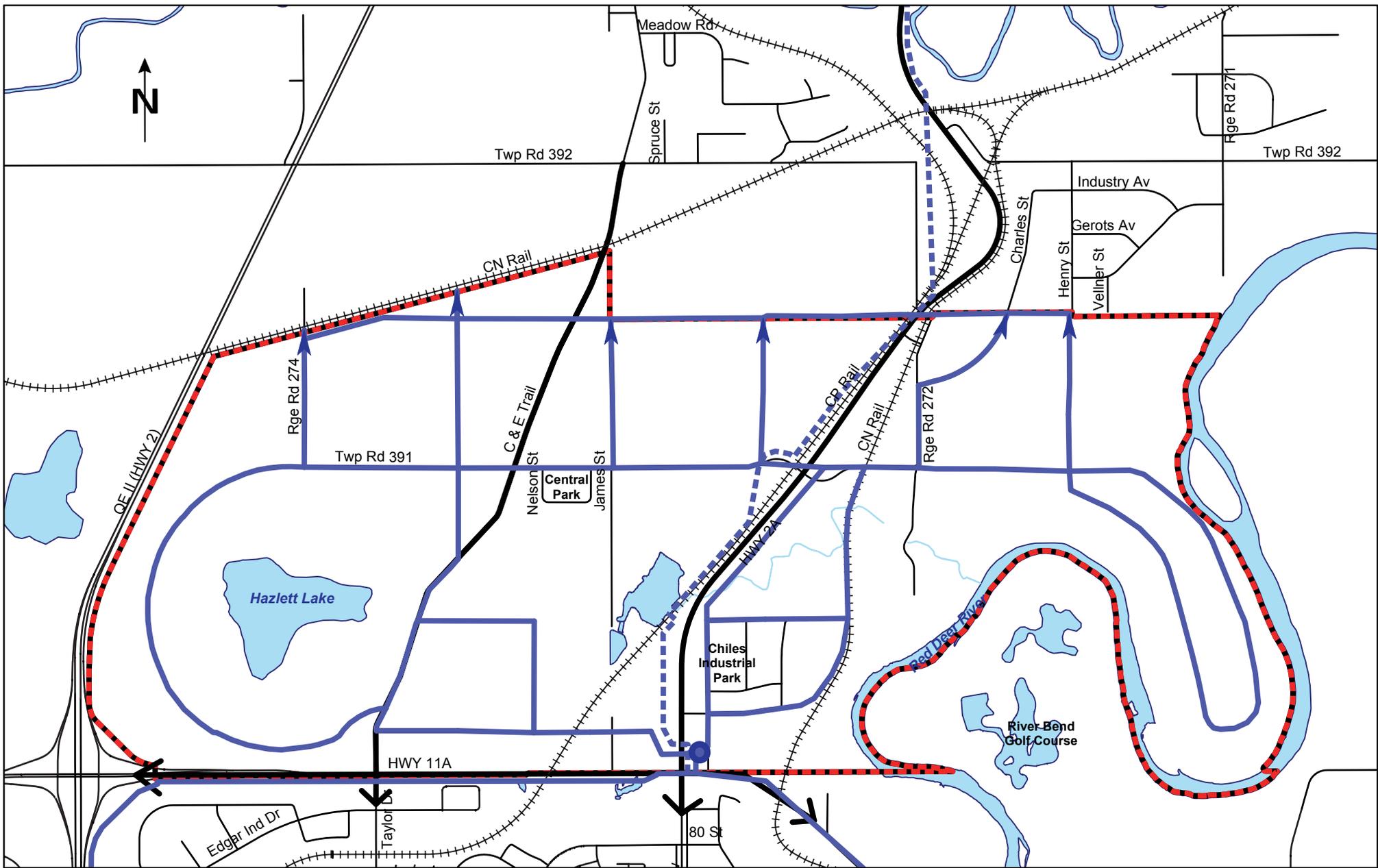


**Figure 9: Sanitary Servicing Concept
North of 11A MASP**



Source: City of Red Deer
Cartography: Engineering Graphics
Date: January 18, 2016

- | | | | |
|---|--------------------------------|---|-------------------------|
|  | Proposed Sanitary Force Main |  | Existing Sanitary Line |
|  | Proposed Sanitary Trunk |  | North 11A MASP Boundary |
|  | Proposed Sanitary Lift Station | | |



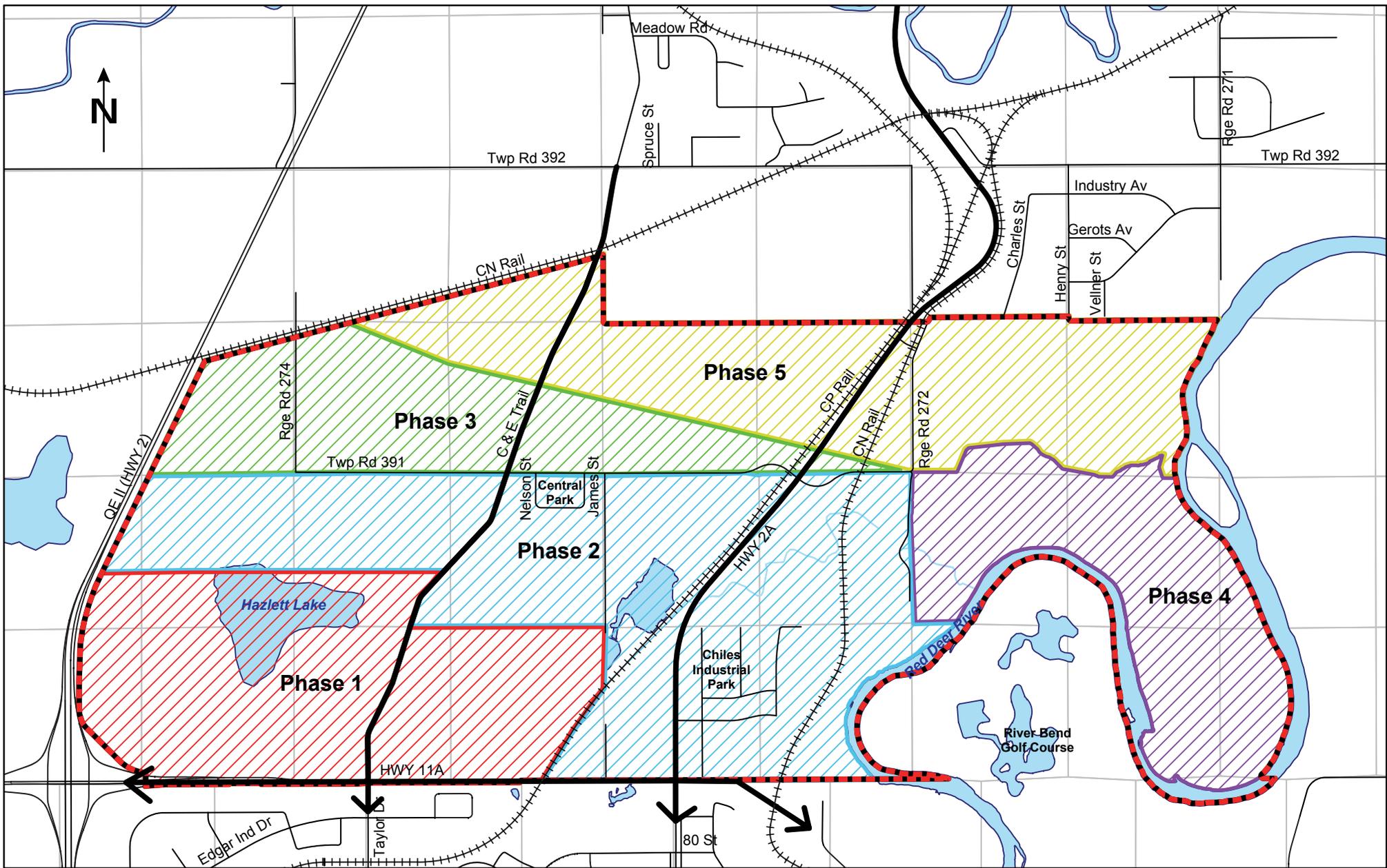
**Figure 10: Water Servicing Concept
North of 11A MASP**



Source: City of Red Deer
Cartography: Engineering Graphics
Date: January 18, 2016

- Proposed Water Trunk
- - - NRDRWSC Water Trunk

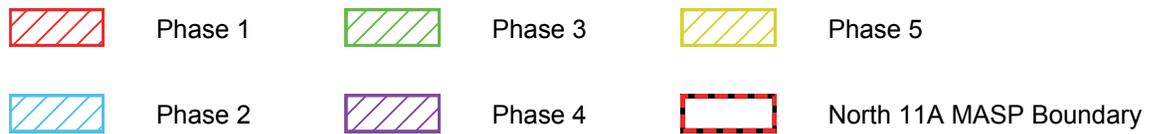
- Tentative Reservoir/Pump Station
- North 11A MASP Boundary

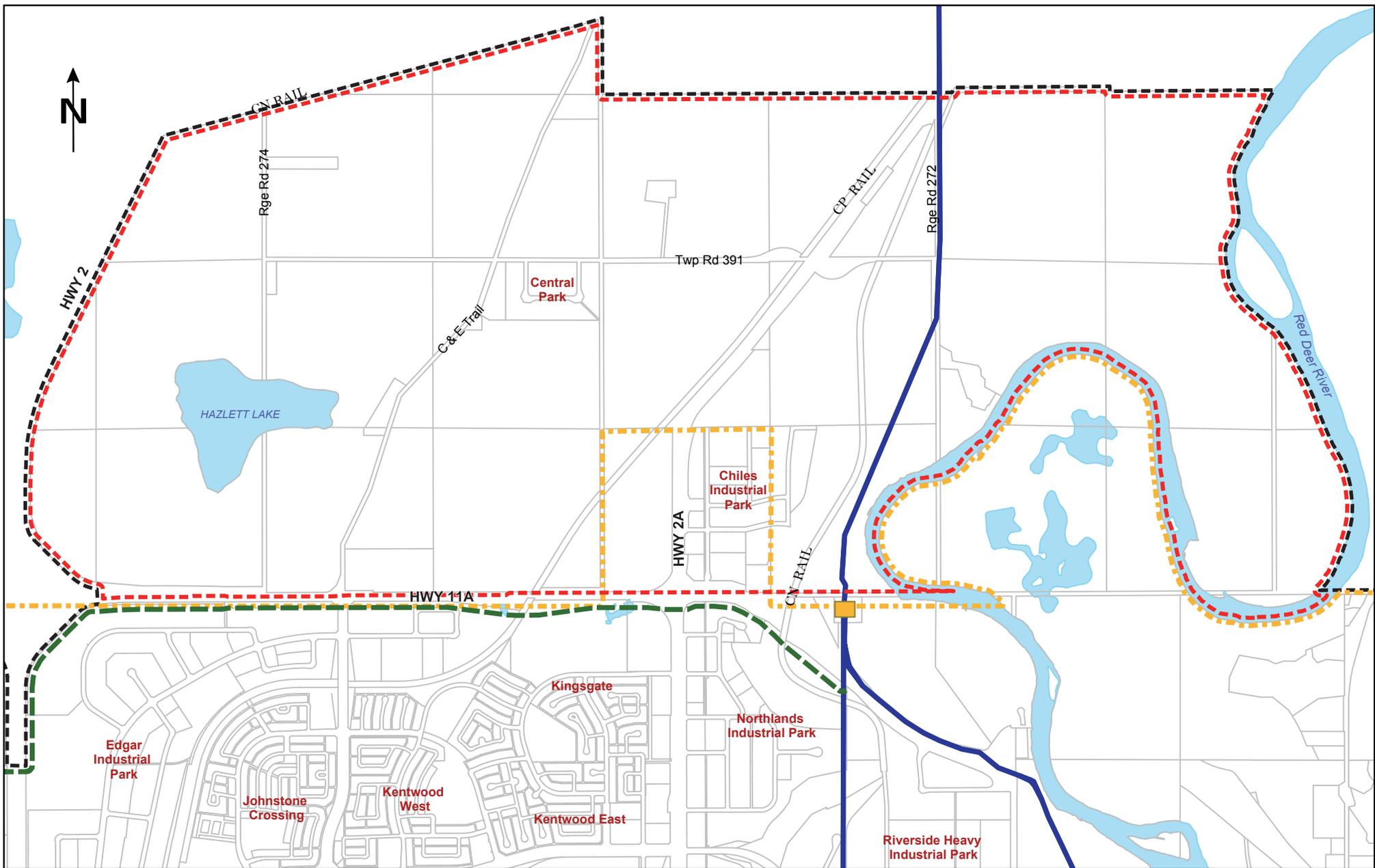


**Figure 11: Development Sequencing
North of 11A MASP**



Source: City of Red Deer
Cartography: Engineering Graphics
Date: January 18, 2016





**Figure 12: Electrical Servicing Concept
North of 11A MASP**



Source: City of Red Deer
Cartography: Engineering Graphics
Date: January 18, 2016

- | | | | |
|---|---|---|----------------------------|
|  | Existing AltaLink Transmission Line |  | ELP Service Area |
|  | Proposed City of Red Deer Transmission Line |  | North of 11A MASP Boundary |
|  | ELP Substation | | |

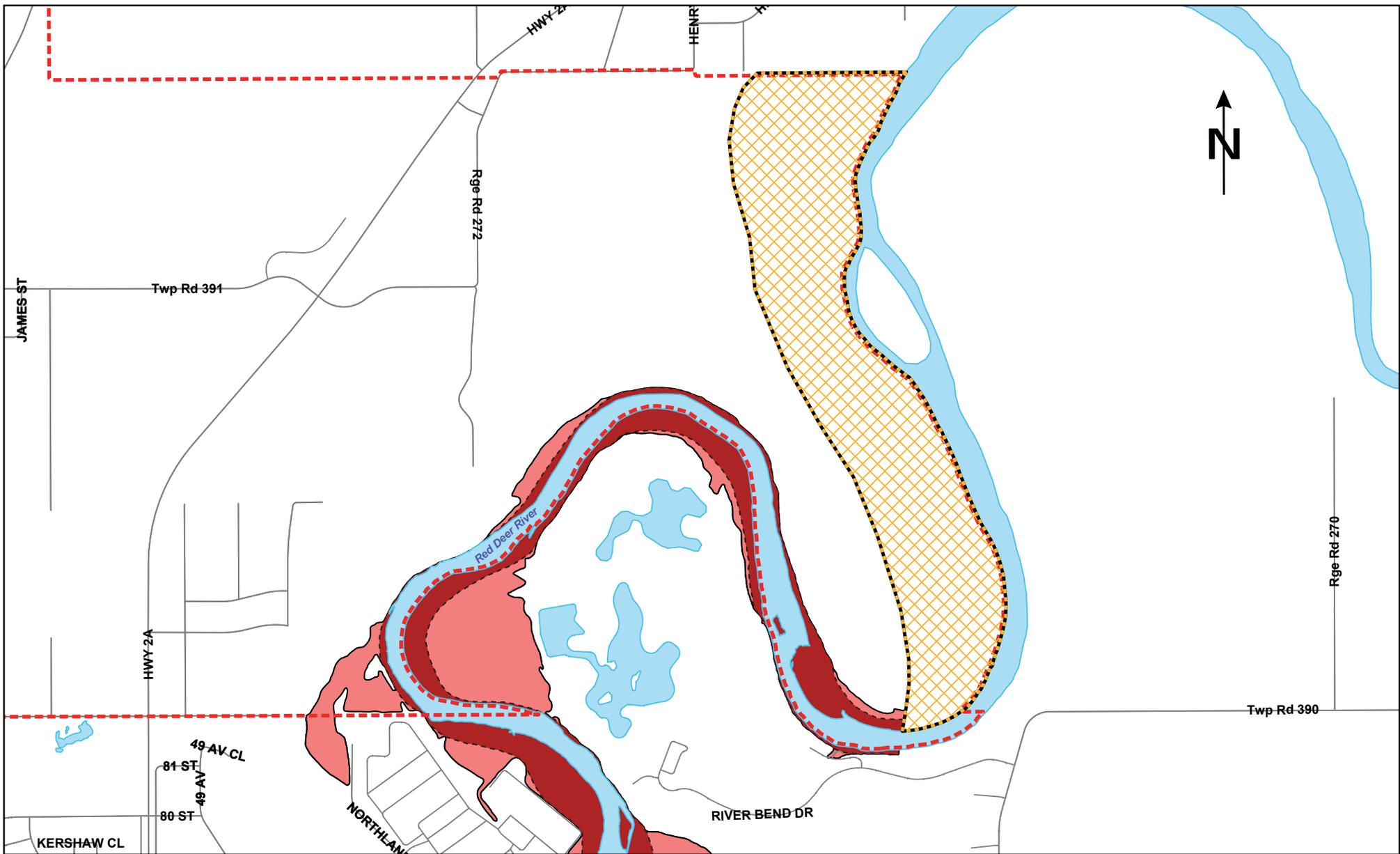
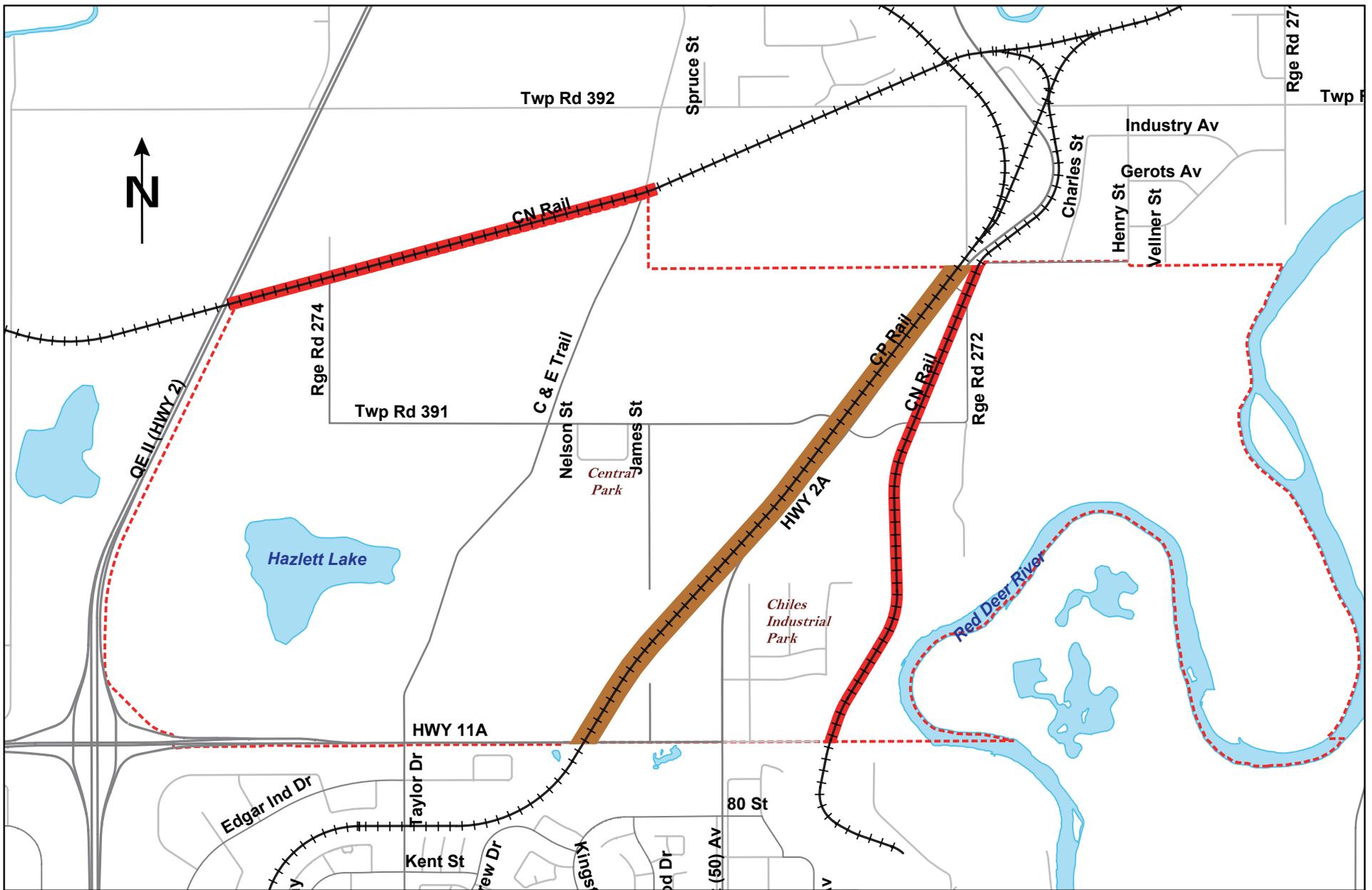


Figure 13: Flood Risk Map for the 100 year Design Flood North of 11A MASP



Source: Red Deer River Hydraulics Study, 1991 under the Canada-Alberta Flood Reduction Program
 Cartography: Engineering Graphics
 Date: January 18, 2016

- | | | | |
|---|---|---|---|
|  | Floodway Limit of the 100 Year Design |  | Area not mapped for floodway/flood risk |
|  | Flood Risk Limit of the 100 Year Design |  | North of 11A MASP Boundary |

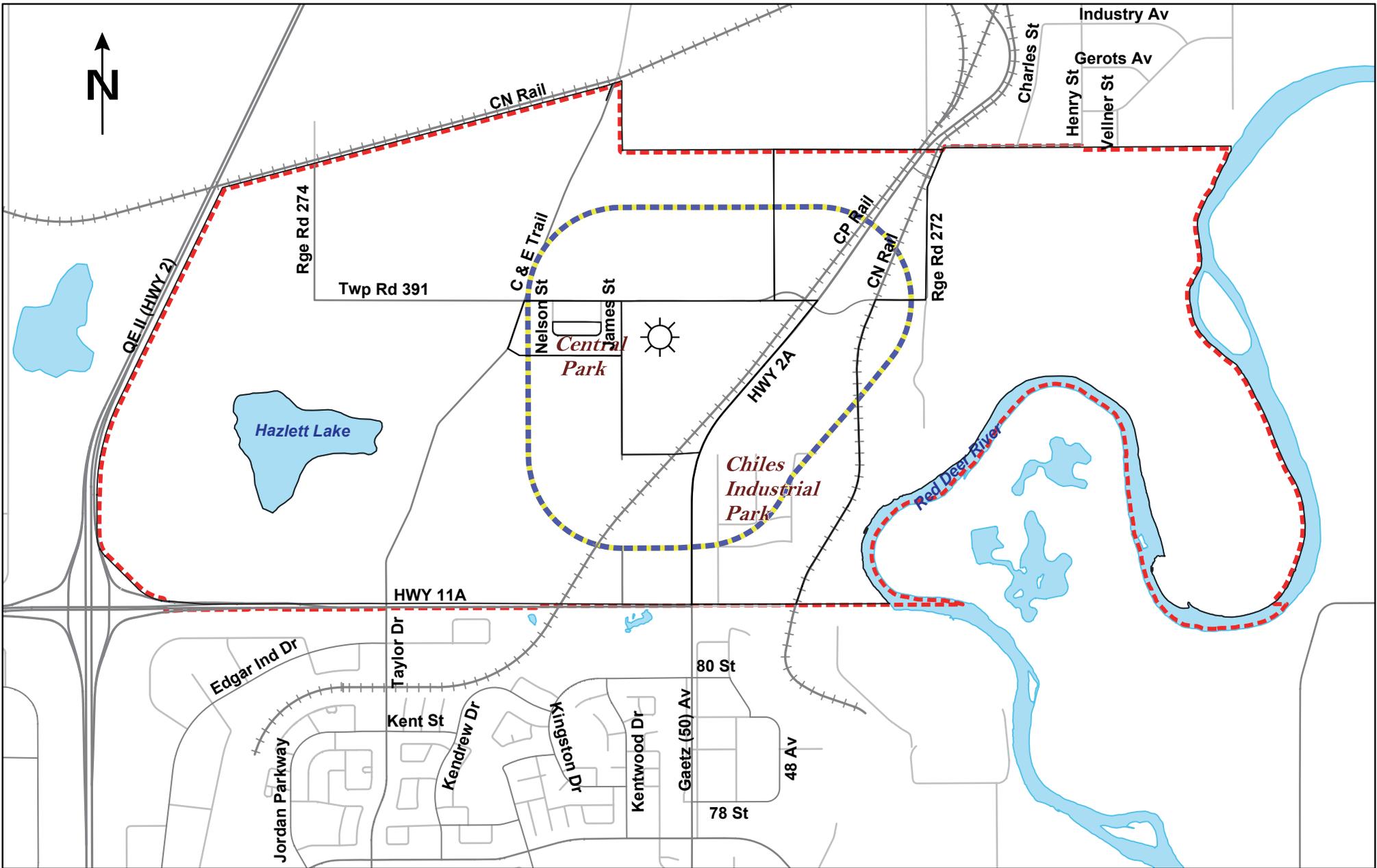


**Figure 14: Railway Setbacks
North of 11A MASP**



Source: City of Red Deer
Cartography: Engineering Graphics
Date: January 18, 2016

-
- Railway Setback - 30 metres
-
- North of 11A MASP Boundary
-
- Railway Setback - 15 metres



**Figure 15: Noise Concern Area
North of 11A MASP**



Noise Concern Area (500 m from property line)



North of 11A MASP Boundary



Overlay District or Site Specific Provisions for Expansion



River Valley & Tributaries Park Concept Plan

Park Concept

- Legend**
- City Boundary (as September 1, 2009)
 - City Growth Area
 - Existing Waskasoo Park
 - Proposed Future Open Space
 - Special Study Area
 - Existing Trail
 - Proposed Trail
 - Potential Trail Connection *
 - Former Rail Line Right-of-way
 - Major Node (> 100 Acres)
 - Minor Node (< 100 Acres)
 - Boat Launch / Parking Lot
 - Boat Stop

Notes:

1. The Red Deer County Open Space Master Plan (OSMP) will guide the County in their open space planning for the areas outside of the City of Red Deer limits.
2. All environmental features within this figure area are not intended to be shown on this concept plan due to the mapping scale.

* Existing trail connections may include Waskasoo, Trans Canada and other regional trails or connections.

July 2010 Figure 8

