



# VILLENEUVE AIRPORT AREA AREA STRUCTURE PLAN

Draft for Council Consideration

June 2, 2022



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# ACRONYMS, ABBREVIATIONS, DEFINITIONS

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## – A –

AADT - Annual Average Daily Traffic

ACRWC - Alberta Capital Region Wastewater Commission

## – C –

County - Sturgeon County

CN - Canadian National Railway

CV S&GE ASP - Calahoo – Villeneuve Sand & Gravel Extraction Area Structure Plan

## – E –

EMRB - Edmonton Metropolitan Region Board

EMRBITMP - Edmonton Municipal Region Board Integrated Transportation Master Plan

## – F –

FDA - Future Development Areas

Fortis - FortisAlberta Inc.

FTTP - Fibre-to-the-Premises Network

## – H –

Hamlet – Hamlet of Villeneuve

## – I –

IMP – Infrastructure Master Plan

## – M –

MDP – Municipal Development Plan

## – N –

NEF - Noise Exposure Forecast

## – R –

RAMP - Regional Agriculture Master Plan

REF - Regional Evaluation Framework

## – S –

SWMF - Stormwater Management Facility

## – V –

VAA - Villeneuve Airport Area

VAAMP - Villeneuve Airport Area Master Plan

ASP, Plan - Villeneuve Airport Area - Area Structure Plan

VLM - Villeneuve Landing Network

## – Z –

ZVL - Villeneuve Airport



# EXECUTIVE SUMMARY

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The interface between the Villeneuve Airport and the surrounding lands in Sturgeon County (County) has been explored for future land use and economic opportunities in the County and Edmonton Region (Region). The Villeneuve Airport Area Master Plan (VAAMP) lays the foundation for this growth, while the Villeneuve Airport Area - Area Structure Plan (ASP, Plan) is the implementation tool that the County will use to enable the growth in the Plan area. The ASP aligns with and supports the opportunities identified in the VAAMP.

The ASP covers approximately 1200 hectares of land in the southwest corner of Sturgeon County, northwest of the City of Edmonton, as shown in **Figure 1**. The exterior of the Plan area borders land used for agriculture, sand and resource extraction, and associated businesses. The interior plan boundary surrounds the lands that encompass the Villeneuve Airport. The Plan area is uniquely located to maximize the intermodal opportunities due to the proximity to highways, the Canadian National Railway rail line, and the Villeneuve Airport.

In November 2021, the County's Council accepted the VAAMP, and directed County staff to prepare an ASP to enable the implementation of the development concepts identified within the VAAMP. The ASP includes lands previously included in the Calahoo-Villeneuve Sand and Gravel Extraction ASP, 2001 (CV S&GE ASP). An amendment to the CV S&GE ASP to remove the Plan area is required to support the adoption of this Plan.



## GOALS OF THE VILLENEUVE AIRPORT AREA - AREA STRUCTURE PLAN

- 1** To develop a growth concept and strategy that respects the intent of the Villeneuve Airport Area Master Plan;
- 2** To identify and encourage development that is compatible with the Villeneuve Airport;
- 3** To support the continued safe operation of the Villeneuve Airport;
- 4** To set a precedent for innovation and green technology in the region;
- 5** To enable agri-business to locate in the region, building on the strong agricultural foundations found in Sturgeon County;
- 6** To create employment opportunities for residents in the region; and
- 7** To generate economic opportunities by enabling a collaborative environment in the County and region that create long-term benefits to residents and businesses.





*In the future, the Villeneuve Airport Area is a world-leading investment and innovation hub that promotes the economic diversification of the region by enabling conducive collaboration through investor attraction and the clustering of industry. The Villeneuve Airport Area - Area Structure Plan (ASP, Plan) supports the implementation of innovative technologies and development techniques to accommodate a wide variety of key business types. The Plan area creates valuable employment opportunities for residents and stimulates economic viability that meets the diverse needs of the surrounding area.*

*The Plan area and Villeneuve Airport will develop in a coordinated way to leverage the area's strategic positioning, which capitalizes on road, rail and air access. The intermodal and co-location opportunities will attract businesses to locate in the Plan area, supporting Sturgeon County and Villeneuve Airport's strategic economic development goals. The ASP supports the initiatives of the Villeneuve Airport through coordinated growth and servicing, complementary land uses, and business collaboration opportunities.*



# 1.0 INTRODUCTION

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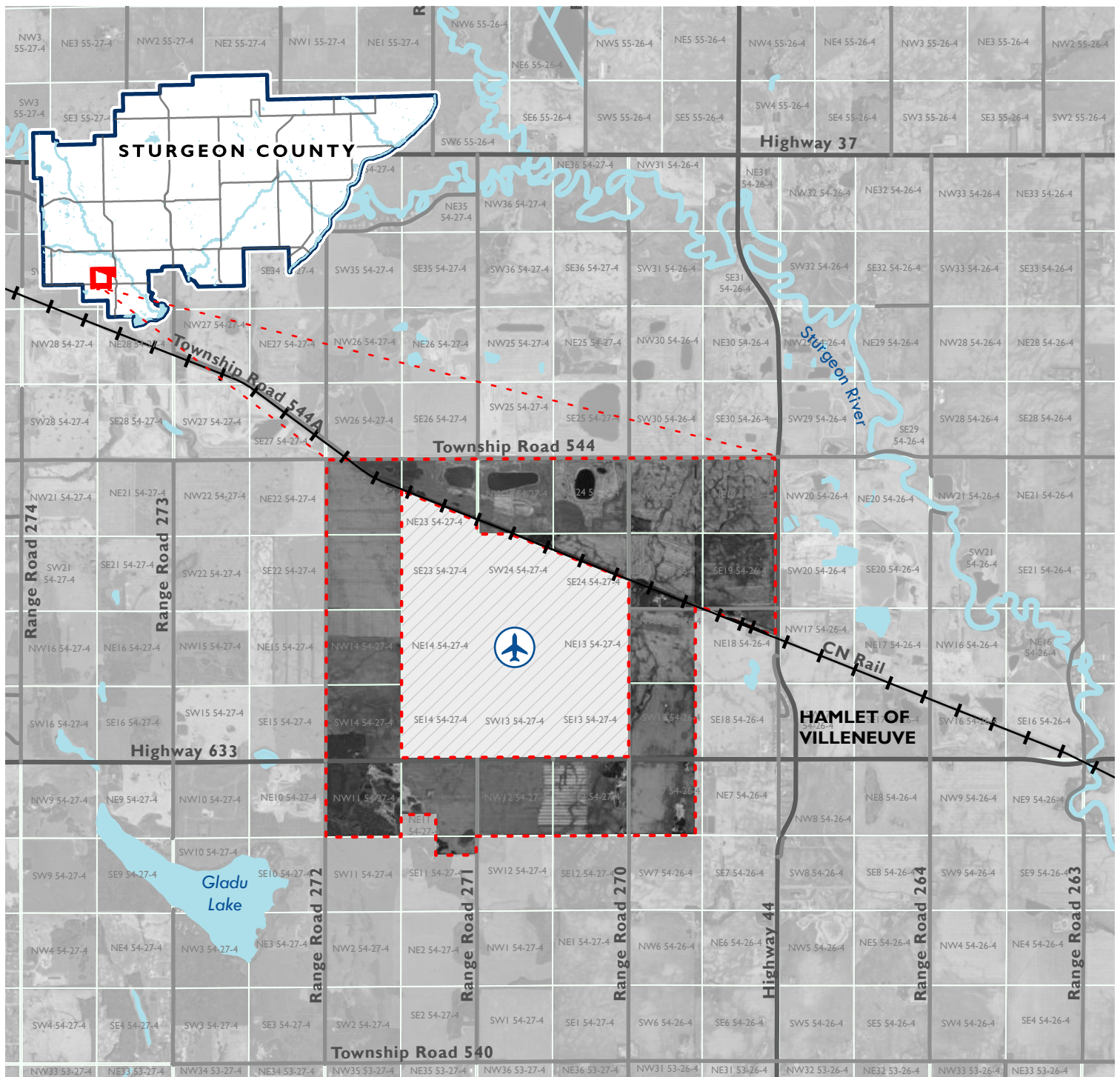
## 1.1 PURPOSE

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The Villeneuve Airport Area - Area Structure Plan (ASP, Plan) is a statutory planning document that outlines a roadmap and policy framework for developing the lands surrounding the Villeneuve Airport. The location of the Plan area in relation to Sturgeon County (County) is illustrated in **Figure 1: ASP Location**. The ASP Development Concept (see **Section 4.0**) seeks to encourage uses for the land adjacent to the Villeneuve Airport, by using an efficient and coordinated development approach that promotes tenants and businesses that will meet the goals of the ASP, while also benefiting the region and alignment with the requirements of the *Municipal Government Act*. The ASP also deals with matters related to the airport interface, land use, transportation, natural environment, municipal and emergency services, utilities, and servicing requirements.

This ASP identifies priority development areas that focus on growth in Planning Areas 1, 2 and 3. The remaining parcels in the Plan area are identified as Future Development Areas. Development in Future Development Areas requires additional steps within the Regional and County planning framework through amendments to this ASP, unless noted in **Section 7.0** of this ASP.

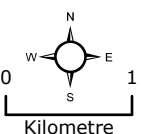
It is important to note that this ASP does not include the Villeneuve Airport, and that the Airport is federally regulated. However, this Plan supports and protects the continued use and growth of the Villeneuve Airport.



Data Source: Province of Alberta Open Data, Sturgeon County, Hatch

## Figure 1 - Area Structure Plan Location

- Plan Area
- Sturgeon County
- Highway
- Municipal Road
- ✈ Villeneuve Airport
- Waterbody
- Major Watercourse
- Airport Boundary
- +++ Railway
- Quarter Section



## 1.2 INTERPRETATION

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The ASP has been adopted by the County's Council by municipal bylaw in accordance with Section 633 *Municipal Government Act*, which authorizes the development of an ASP.

### Figures

The location of infrastructure, fixed elements and boundaries shown in the figures of this Plan are intended to be interpreted as conceptual, unless otherwise stated in the figure. The location of infrastructure and fixed elements should be independently confirmed through studies or field investigation. Future servicing infrastructure, transportation networks and intersection locations will be studied and further delineated through the County's Outline Plan or redistricting process. However, significant deviations from the intent of this Plan may be subject to an amendment to this ASP.

### Policies

All policy statements containing "shall" are mandatory and must be implemented. Where a "shall" policy proves impractical, an applicant may apply to amend the Plan.

All policy statements containing "should" are advisory statements and indicate the preferred objective, policy, or implementation strategy of the County. If the "should" statement is not followed because it is impractical or impossible, the intent of the policy may be met through other agreed-upon means acceptable to the County.

Where "may" is used in a policy, this term denotes a choice in applying the policy, creating discretionary compliance, or the ability to vary the requirements to achieve the intent of the vision and objective of the Plan.

Policies and guidelines within this ASP do not result in automatic approval for a use on a specific site, and shall require individual review and site-specific detailed analysis of site conditions, constraints through an application for Outline Plan, redistricting, subdivision or development approval. All decisions relating to planning and development within the Plan area are at the County's discretion.

### Content

Words, terms, and phrases shall retain the definition in the County's Municipal Development Plan (MDP), the Land Use Bylaw, the *Municipal Government Act*, or any other provincial legislation.

References to specific Acts, agencies and regulatory bodies were accurate when this ASP was written; however, it is recognized that names may change over time. Therefore, the applicable Act, agency and regulatory body at the time of development shall be applied considering the purpose and intent of the Plan.

## 1.3 PLAN AREA

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This ASP guides the future development of approximately 1200 hectares of land in Sturgeon County, surrounding the Villeneuve Airport. The lands that surround the Plan area include agricultural and rural residential uses, resource extraction activities, and business support services. In the heart of this area, but not a part of the Plan area, is the Villeneuve Airport. At the time of Plan adoption, all lands within the ASP area were privately owned. The lands included in the ASP boundary are depicted in **Figure 2: Plan Area Boundary**.

Prior to the adoption of this ASP, the Plan area was regulated through the Calahoo-Villeneuve Sand and Gravel Extraction ASP (CV S&GE ASP). The purpose of the CV S&GE ASP is to minimize and control the impacts of natural resource extraction in the County, while creating an environment for responsible natural resource extraction opportunities. As a part of the ASP approval process, the Plan area will be removed from the CV S&GE ASP.

### 1.3.1 Plan Area Growth

To support and facilitate the development vision planned for the Villeneuve Airport Area (VAA), there are three prioritized areas with shorter planning trajectories (Planning Areas 1, 2 and 3). These Planning Areas are shown in **Figure 2**. This development approach establishes the conceptual framework for development, infrastructure and servicing. The Plan area also includes two Future Development Areas (Future Development Areas 4 and 5), with longer planning trajectories that will be initiated based on infrastructure availability and market demand.

The ASP policies were written to support the continued operation of natural resource extraction industries, while simultaneously planning for future economic development activities in the region. In addition, with future development planned surrounding the airport, strategic access points will be developed and coordinated with the Airport Authority. The access points will consider the safety, security, and ongoing operation of the Villeneuve Airport, as development progresses.

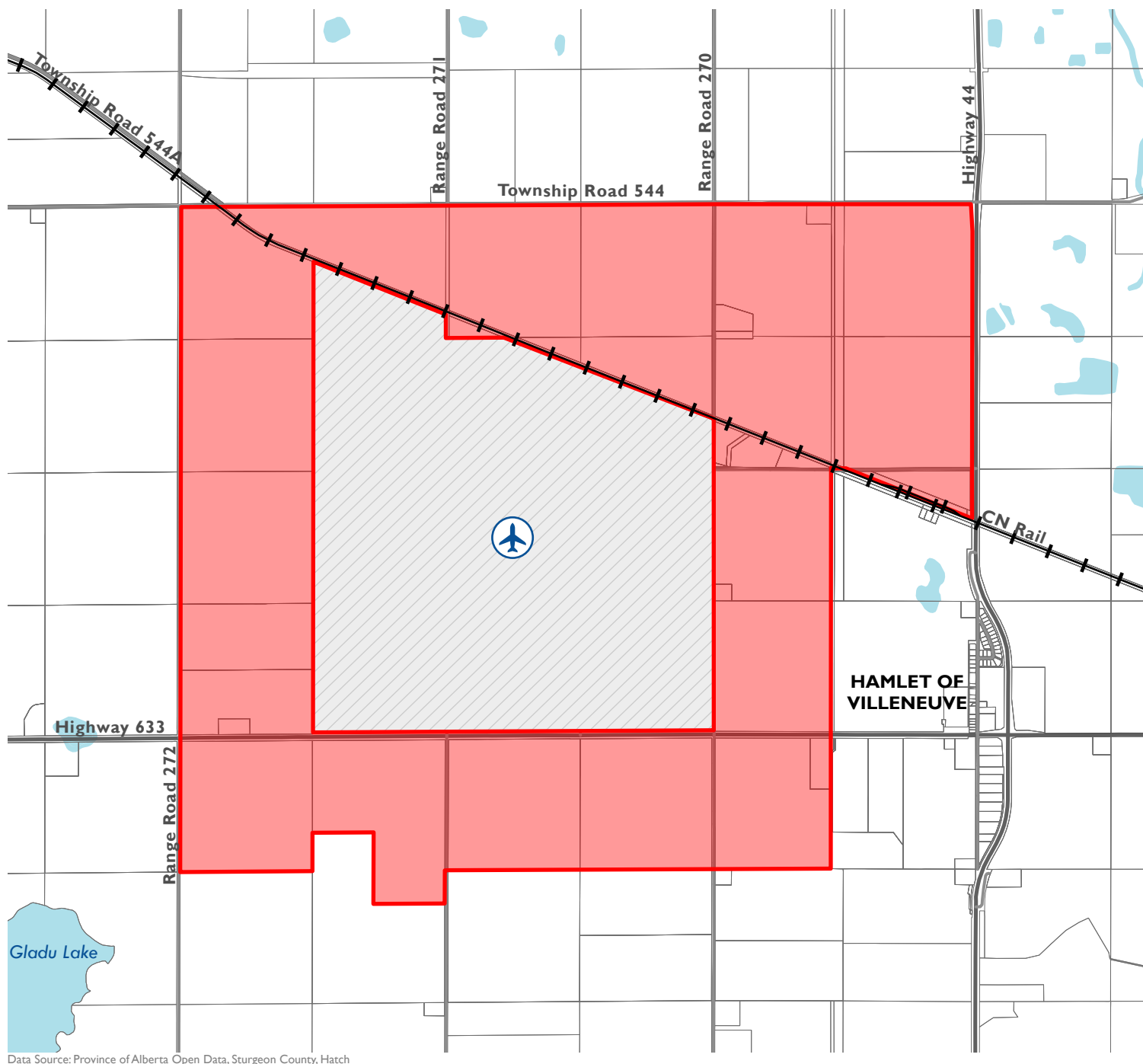
Growth in the Plan area will take years to realize; therefore, the ASP has been designed to allow for the continued current use of land and development permitted in County's plans and policies. The use of land and development approvals will follow existing County policies; approvals are at the discretion of the County. The ASP also outlines the process to consider unserviced, temporary or interim uses that may be allowed without an ASP amendment. This planning approach is further detailed in **Section 7.0** of this Plan.

### 1.3.2 Villeneuve Airport

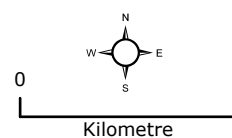
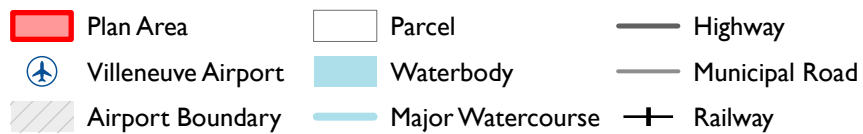
The Villeneuve Airport lands, shown in **Figure 2**, fall outside of the jurisdiction of the County and are not a part of this ASP. The airport is a registered aerodrome and provides general aviation services and support, including flight training, aircraft maintenance, general private, corporate aviation, and

air ambulance operations. The airport lands are owned and operated by the Airport Authority, and are guided by an independent set of strategic priorities. The airport is governed by legislation and regulations of the Federal Government, which allows only the owner or operator of the airport to make land use decisions for the airport plans.

The Strategic Plan for the Villeneuve Airport envisions the airport to be the premier general aviation airport and flight training facility in the Edmonton Metropolitan Region. Despite its independence from the Plan area, Villeneuve Airport will continue to play a defining role in the future of the Plan area, providing a unique service in the region that supports the aviation industry, and will become a major employer in the region. The ASP respects the presence of the airport, and seeks to complement and support airport operations through the application of airport planning principles, as well as compatible uses that foster economic growth in the region. Airports can be economic engines of a community, creating a transportation and investment focus.



**Figure 2 - Plan Area Boundary**



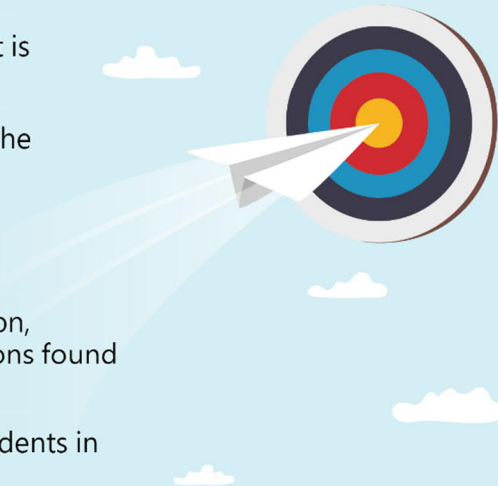


## 1.4 GOALS OF THE VILLENEUVE AIRPORT AREA - AREA STRUCTURE PLAN

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### GOALS OF THE VILLENEUVE AIRPORT AREA - AREA STRUCTURE PLAN

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## 1.5 OBJECTIVES OF THE VILLENEUVE AIRPORT AREA - AREA STRUCTURE PLAN

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The objectives of this ASP acknowledge and build upon the objectives in the VAAMP re-envisioned through a planning lens:

1



### Innovation and Technology

Create a policy environment that supports innovation and technology development in the Plan area.

2



### Investment Attraction and Readiness

Support the development of industry ecosystems that target collaboration focused on business concept focus areas in municipal, provincial and national growth sectors.

3



### Legislative & Infrastructure

Coordinate the efficient provision of services and infrastructure; and

Update County plans, policies and processes to enable development through streamlined legislative measures, bylaws, and processes catering to the efficient and structured development of the Villeneuve Airport Area.

4



### Workforce and the Human Factor

Create an attractive working environment for workers, students, visitors, and residents through a built form that augments the quality of life through the provision of convenient services and engaging urban design.



## 2.0 STATUTORY PLAN AND OTHER PLANNING DOCUMENTS

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The ASP considers the regulatory and policy environment of the VAA. A review of federal, provincial and municipal documents was conducted in preparation for this ASP.

## 2.1 FEDERAL REGULATION

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Transport Canada regulates the Villeneuve Airport lands and operations, as they do all airports, aerodromes and airstrips in Canada. Legislation and regulations for airports are essential considerations for the ASP with regard to identifying and regulating compatible land use, and development in proximity to airport approach paths and outer surfaces for height restrictions. There are several key federal documents regulating the Villeneuve Airport:

### **Aeronautics Act 1985 (Canada)**

- This Act is the overarching governing legislation regarding the control of civil aviation in Canada.

### **The Canadian Aviation Regulations**

- Regulations established beneath the authority of the *Aeronautics Act*, which sets out mandatory and advisory regulations and standards for civil aviation in Canada.

### **Aeronautics Act Agreements Regulations**

- Establishes the ability of municipalities to enter into agreements under the *Aeronautics Act* to develop and adopt bylaws that pose limitations on uses and development on lands within the vicinity of the airport.

### **Transport Canada - TP 312**

- Complementary to the Canadian Aviation Regulations, establishes aerodrome requirements for implementation by aerodrome operators for all aspects of airport operation, and distinctions between registered and certified aerodromes, and Transport Canada Civil Aviation employees.

### **Transport Canada - TP 1247E**

- Describes operational characteristics of aerodromes, land use types outside aerodrome property boundaries and guidelines for those uses.

### **Nav Canada**

- Nav Canada was founded in 1996 as a not-for-profit organization that manages one of the largest regions of airspace in the world. Nav Canada provides air traffic control and flight services for pilots and aircraft.

### **Villeneuve Airport Zoning Regulations**

- The Transport Canada - SOR/81-568 applies the Villeneuve Airport Zoning Regulations to control the height of structures within the Villeneuve Airport Approach Path, as well as



prohibits land uses with the propensity to attract birds. The Villeneuve Airport Zoning Regulations are located in **Appendix G**.

## 2.2 PROVINCIAL

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### **Municipal Government Act**

The *Municipal Government Act* governs the area structure plan planning process, and provides municipalities with the ability to develop and approve plans for lands within their jurisdiction. The ASP has been adopted by the County's Council through a municipal bylaw in accordance with Section 633 *Municipal Government Act*, which authorizes the development of an ASP.

### **Alberta Municipal Affairs Land Use Policies for Non-renewable Resources**

The Land Use Policies for Non-renewable Resources are intended to streamline municipal and provincial policy, and are legislated through 622(3) of the *Municipal Government Act*. Natural resource extraction activities that occur within the Plan area are subject to this policy and all other relevant provincial and federal Acts.

## 2.3 REGIONAL

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### **The Edmonton Metropolitan Regional Board Growth Plan**

The Plan area is located adjacent to the Villeneuve Airport, which is identified as a Regional Airport and Major Employment Area on Schedule 3B of the Edmonton Metropolitan Regional Board Growth Plan (EMRBGP). There are several small Local Employment Areas in the airport vicinity that are zoned Rural Industry Support in the County's Land Use Bylaw. For identified Major Employment Areas, it is the Region's intention to support employment-intensive land uses with a range of employment types, including commercial, industrial and institutional uses. The VAA is a Local Employment Area, strategically located surrounding the Villeneuve Airport, which provides a transition of land uses that minimize risks to public safety and health, while supporting economic diversification. The EMRBGP also supports regional infrastructure investment for Major Employment Areas, including the provision of municipal services, telecommunications and utilities.

The Regional Agriculture Master Plan (RAMP) was written as a result of policy direction from the EMRB to manage fragmentation and conversion of prime agricultural lands for non-agricultural uses in the region. The Plan area and the Villeneuve Airport are located in Policy Area 2 - Agriculture that Coexists Within Existing Land Use. This Policy area recognizes the mix of land uses and development that may result in the fragmentation of agricultural land. At the time this ASP was written, the RAMP was not yet ratified by the Province. As such, it currently does not have any official status.

## 2.4 MUNICIPAL POLICY

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### **Sturgeon County Municipal Development Plan 2014**

The County's Municipal Development Plan (MDP) provides a high-level County-wide planning framework for the growth and development of the County. The County's Growth Strategy Concept Map identifies future commercial and industrial opportunities in the VAA. Policies are also found within MDP Neighborhood E, which speaks to the VAA as a strategic logistic hub and employment centre for Sturgeon County. To enable regional, County, and airport economic health, the County has identified the airport and its surrounding lands as a key economic area that can generate employment, facilitate investment, and improve economic capacity. The MDP policies are designed to ensure surrounding development does not negatively impact airport operations and existing residents, while allowing for the development of compatible employment opportunities. The MDP amendments in conjunction with the ASP serve to update the VAA vision with the existing economic policies already in place within the County's MDP.

### **Sturgeon County Infrastructure Master Plan 2019**

The County's Infrastructure Master Plan (IMP) covers the entire County based on growth expectations. ISL Engineering and Land Services (ISL) completed additional analysis in May 2022, to support the development of this ASP, confirming the servicing and infrastructure required to build out the Plan area. The ISL analysis builds on the IMP, providing a level of detail to support the required Edmonton Metropolitan Region Board's (EMRB) Regional Evaluation Framework (REF) review.

### **Sturgeon County Strategic Plan 2022 - 2025**

The County's Council has developed a Strategic Plan, supported by a set of guiding principles linked with desired community outcomes. Five community outcomes serve as goal statements for the organization, with corresponding strategic priorities. These outcomes are intended to guide strategic decision making by the municipality to ensure that the County is continuously evolving in an intentional way. The five Community Outcomes are as follows:

- Planned Growth;
- Thriving Communities;
- Collaborative Governance;
- Environmental Stewardship; and
- Operational Excellence.

The ASP achieves an element of all the Community Outcomes identified in the Strategic Plan by presenting economic development opportunities that are unique to the County, and endeavours to promote local community assets and environmental stewardship through sustainable development and building design.



## **Calahoo-Villeneuve Sand and Gravel Extraction Area Structure Plan (CV S&GE ASP)**

The CV S&GE ASP designates the lands surrounding the Villeneuve Airport to the east, south and west within the Plan area as Agricultural. The portion of the Plan area north of the airport and the Canadian National Railway (CN) is designated as a Resource Extraction Area. To provide clarity of future intentions in the VAA related to future natural resource extraction and non-residential land uses, an amendment to the CV S&GE ASP is being completed as part of the adoption of the ASP.

## **Sturgeon County Land Use Bylaw**

The Land Use Bylaw will be a key implementation tool of this ASP. As such, amendments to the Land Use Bylaw are expected to emerge from the ASP process to facilitate and align with the vision of the Plan area. The purpose of the Land Use Bylaw amendment will be to regulate development within areas adjacent to the airport by avoiding conflicts from incompatible land use and development, such as through an Airport Approach Path Protection Overlay.

### **2.4.1 Villeneuve Airport Area Master Plan**

The objective of the Villeneuve Airport Area Master Plan (VAAMP) is to create an environment that supports a specialized technological, commercial and industrial area of international reputation. The VAA is at the intersection of road, rail, and air infrastructure, which lends the area to becoming a destination for industry-led innovation and investment. The development vision in the VAAMP offers diversification options that provide the County and its partners with a stable and sustainable future.

The VAA is the ideal location for investment, innovation, workforce-related education and training, advanced manufacturing, transportation, and logistics in the fields of:

- Aerospace, Aviation, Defense, Space and Remotely Piloted Aircraft System;
- Sustainability and the Green Economy;
- Digital Agriculture and Advanced Food Processing; and
- Logistics and Supply Chain to North American destinations.

The ASP considers the objectives and vision of the VAAMP, providing a strategic implementation tool for the identified economic opportunities noted above.



## 3.0 VILLENEUVE AIRPORT AREA - CONTEXT

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## 3.1 EXISTING LAND USE AND DEVELOPMENT

---

Existing land use classifications of the Land Use Bylaw (Bylaw 1385-17) within the Plan area include agricultural, industrial support service and gravel extraction. There are significant gravel extraction sites throughout the Plan area. Sparsely populated residential parcels associated with agricultural uses are also present.

## 3.2 ADJACENT LAND USE AND ZONING

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The Plan area encircles the Villeneuve Airport, currently zoned as Airport Support in the County's Land Use Bylaw. The Plan area is bound to the north by Township Road 544. Adjacent land uses to the north include a mix of Resource Extraction, Rural Industry Support and Agriculture, all of which are contained within a Resource Extraction Overlay in Part 17 of the Land Use Bylaw. Land directly east of the Plan area boundary is predominantly Agriculture. The Hamlet of Villeneuve (Hamlet) is located less than 1 km southeast of the Plan area and is home to around 260 residents. The Hamlet includes a combination of Institutional, Residential and Commercial uses.

The lands adjacent to the south and west of the Plan area boundaries are designated for Agriculture and Resource Extraction, with the southwest corner included in the Resource Extraction Overlay.

## 3.3 EXISTING SITE CONDITIONS

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This section outlines the natural and manmade features found within the Plan area identified through high-level desktop studies available at the time this Plan was written. When development is proposed in the Plan area, the County will determine what studies will be required, based on the magnitude of the proposed development.

### Environmental and Biophysical Features

The Plan area is located within Alberta's Central Parkland region, which is a prosperous agricultural area. The area experiences a moist climate, an abundance of wetlands and rich dark soils. The Central Parkland region of Alberta has a varied morphology due to past glaciation resulting in ripples across the landscape and till inclusions throughout the soil. The region experiences hot summers and cold winters, with a temperature range of about 60°C each year.

The Plan area does not coincide with any provincially protected or environmentally significant areas under the protection of the *Wildlife Protection Act*. There is one area identified by the County, located in the SW ¼ Sec. 19-64-26-W4M, immediately south of the rail line, with a municipal designation of Environmental Preservation (shown in **Figure 3**).

A preliminary desktop survey was performed to determine the presence of ecologically significant areas and species at risk in the Plan area. All future development will be required to complete appropriate studies determined at the time of application.

### Historical Resources

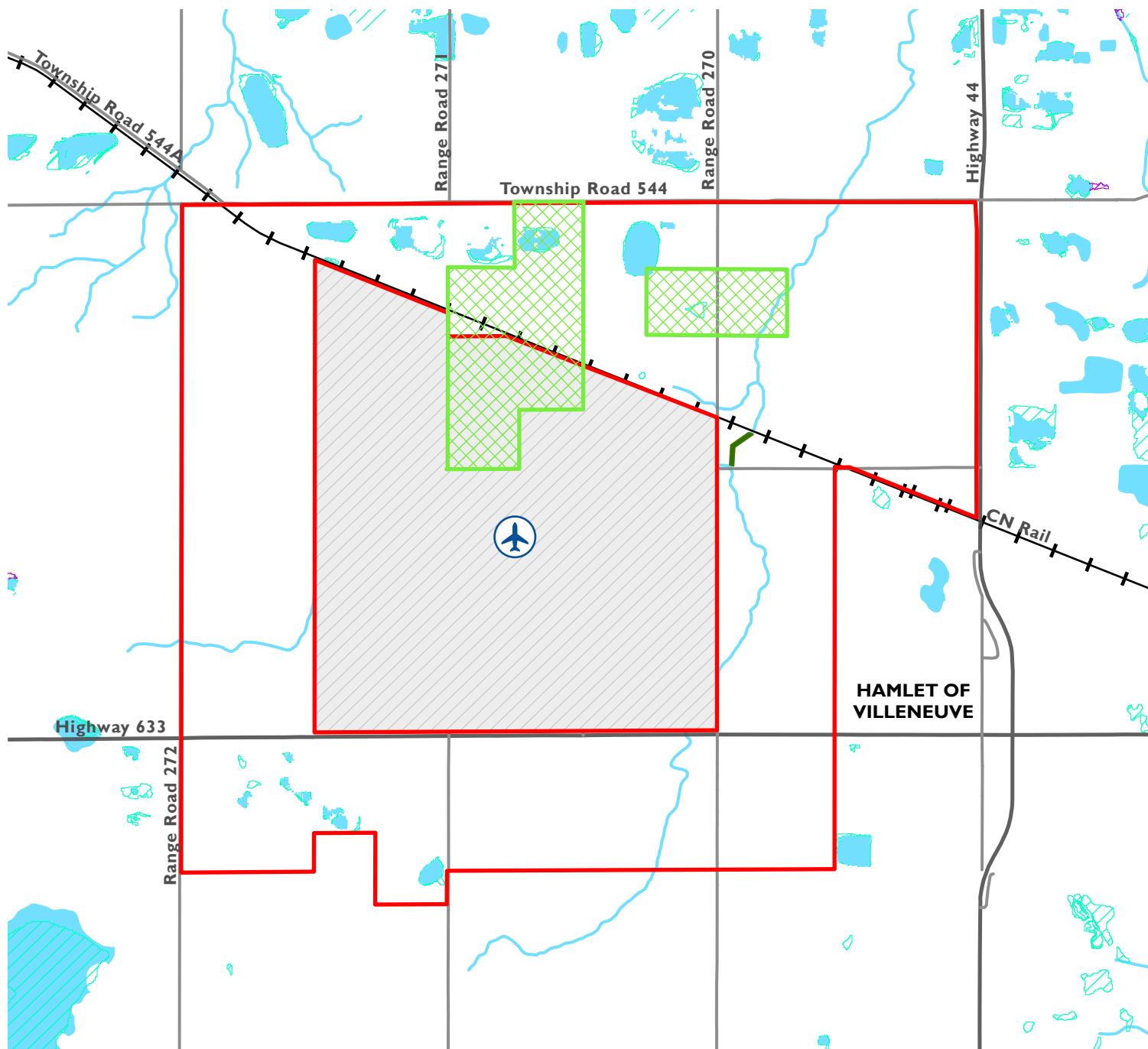
Several potential areas of interest have been identified in the Plan area, as per the *Historical Resources Act* (shown in **Figure 3**). Special consideration and future study will be required at the Outline Plan and Development Permit stages, when developing on or adjacent to these sites.

### Water and Wetlands

Waterbodies and wetlands have been identified in the Plan area as shown in **Figure 3**. Potential direct and indirect effects of future development to the wetlands in the Plan area include increased sediment and dust, fragmentation of habitat, and disruption of the hydrological process that can reduce habitat effectiveness for plants and wildlife. All future development will be required to complete appropriate studies to determine setbacks, surface drainage impacts and volumes, and protection of habitat, while not directly or indirectly impacting airport operations. This may include dedication of the Environmental Reserve at time of subdivision.

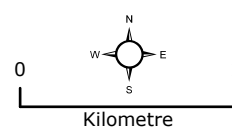
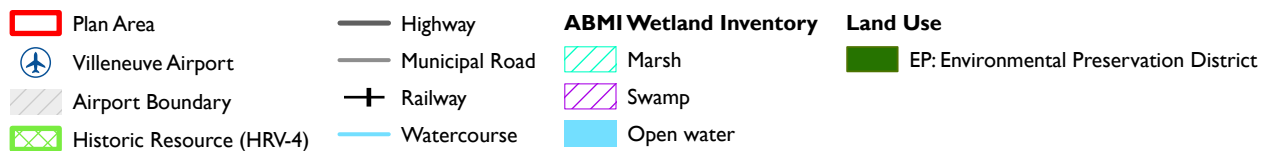
### Topography

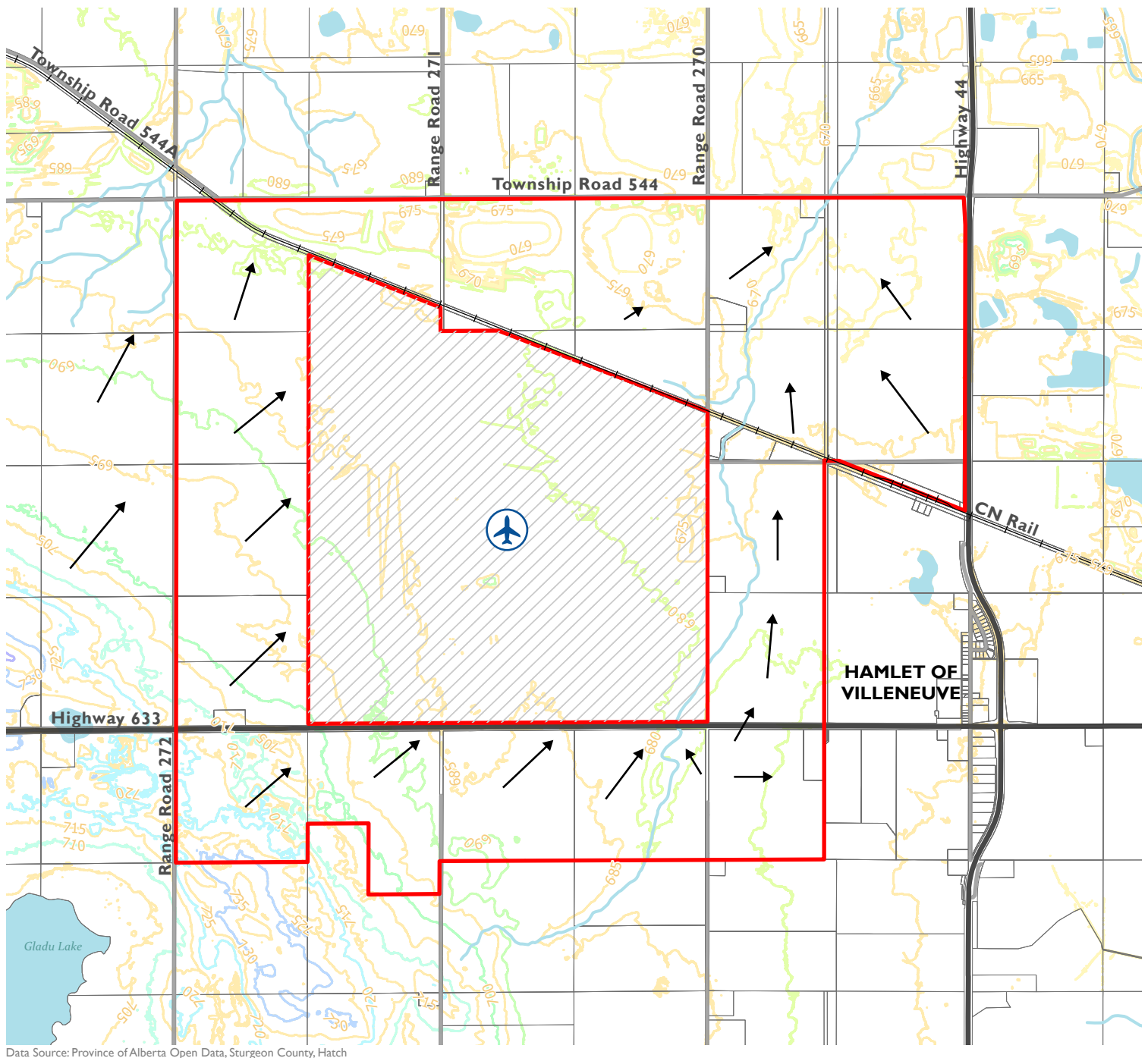
**Figure 4** shows the Plan area and the topography. The Plan area is relatively flat with a slight elevation change that drains from the southwest corner of the Plan area to the northeast toward the tributary water course that flows from south to north in the Sturgeon River. The land directly north of the Villeneuve Airport is flatter and most of the runoff is captured by the ponds located within the quarter sections. The land west of the Villeneuve Airport receives off-site runoff from a highpoint that is approximately 2 km to the west of the Plan area boundary and cumulative runoff is intercepted by the railway ditch, which drains northwest to a culvert crossing under the railway to a water course at Range Road 272.



Data Source: Province of Alberta Open Data, Sturgeon County, Hatch

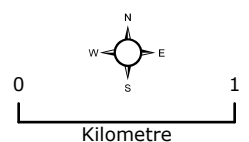
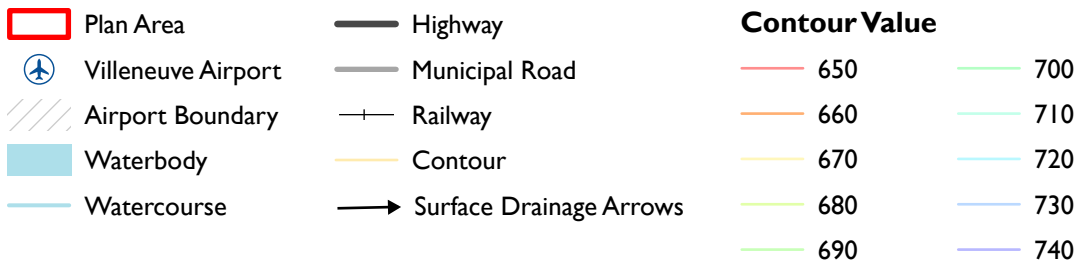
### Figure 3 - Environmental & Historical Resources





Data Source: Province of Alberta Open Data, Sturgeon County, Hatch

## Figure 4 - Topography





## 3.4 EXISTING INFRASTRUCTURE

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### 3.4.1 Sanitary Servicing

The Hamlet is currently serviced through a low-pressure system that discharges to a lagoon located southwest of the Highway 633 and Highway 44 intersection. The lagoon also services the Villeneuve Airport through a lift station and an existing 100 mm PVC forcemain that transitions to a 150 mm forcemain. The current upgraded lagoon capacity can service the Hamlet and the Airport up to a population of 349, which is expected to be reached by year 2040.

Future plans for wastewater collection is to decommission the lagoons and divert the flow to the Alberta Capital Region Wastewater Commission (ACRWC) Parkland Sanitary Trunk, approximately 8 km to the south through a proposed central lift station located south of the Hamlet and a 300 mm High Density Polyethylene forcemain.

The existing Hamlet wastewater flow was calculated from the annual lift station usage in 2017. The Airport average wastewater flow was documented in the County's IMP (2017). There is no available information on peak wet weather flows at the lift station; thus, inflow/infiltration was not determined for the existing system.

Section 3.0 of Appendix C includes additional information regarding sanitary servicing in the Plan area.

### 3.4.2 Water Servicing

There are currently no potable water service connections directly to the Plan area. The County will work with applicants to identify opportunities for servicing connections, as the demand arises.

Prior to 2021, the Villeneuve Airport depended on trucked-in water and an on-site reservoir. In 2021, a new water line was constructed in 2021 to service the Villeneuve Airport. The existing water distribution system in the Villeneuve Airport consists of a 200 mm diameter water supply line from the Northern Lights Reservoir, an underground concrete reservoir with a storage capacity of 1,036 m<sup>3</sup> of treated water. The reservoir has room to expand to the south. A pumphouse and associated distribution network located south of the Hamlet serves all of the Hamlet's existing developments.

Section 2.0 of Appendix C includes additional information regarding water servicing in the Plan area.

### 3.4.3 Stormwater Management

The existing stormwater system consists mostly of ditches, culverts, watercourses and naturalized creeks. Surface water from runoff and snowmelt is conveyed overland north to the Sturgeon River via two watercourses that intersect the Plan area. One flows through the southeast side of the Plan area, and the other is located in the northwest of the Plan area and crosses the railway at Range Road 272.

Section 4.0 of Appendix C includes additional information regarding stormwater management and servicing in the Plan area.

### 3.4.4 Utilities

#### Electrical System

The existing power distribution network in the Plan area is owned, operated and maintained by FortisAlberta Inc. (Fortis), with two nearby substations. Communications with Fortis during development of the VAAMP identified that existing substations have additional capacity to support the Plan area. Services are provided from the east through a primary overhead system running along the north side of Highway 633. A primary overhead system also exists along the north side of Township Road 544. Both overhead systems are anticipated to service future development in the Plan area.

#### Communication System / Broadband Internet

The County is currently undertaking an initiative to improve broadband internet accessibility, speed and reliability for the residents and businesses in the County. A fibre-to-the-premises (FTTP) network is anticipated to service the Villeneuve area. New collector and local roads in the Plan area have the potential to provide the opportunity for underground conduit networks to support the expanded communication system with the development of overhead utility poles as a secondary option, to be extended at the time of development.

## 3.5 TRANSPORTATION NETWORK

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The Plan area is strategically located to provide unique opportunities to access rail, road and air transportation networks. The road network is composed of local and regional transportation routes that include provincial highways, municipal roads, and private roads, with connectivity to the surrounding region including the City of Edmonton and the City of St. Albert. The transportation network is further discussed in **Section 6.12** and **6.13** of this ASP, and is illustrated in **Figure 11**.

This ASP utilized the information gathered through preliminary studies as part of the VAAMP, which focused on:

- Existing road conditions and technical analysis;
- Traffic movement surveys and studies;

- Initial travel demand and transportation network capacity analysis;
- Alberta Transportation plans, functional studies and policies;
- Airport operations and businesses interface; and
- CN rail right-of-way alignment, existing crossings and rail traffic.

To accommodate traffic volume increases, future road widening and infrastructure may be warranted. In addition, existing approaches, access points, and intersections may be closed or relocated as road infrastructure is improved to accommodate future traffic needs. Changes to the road network, and road or intersection improvements will be determined at the time of Outline Plan or Development Permit application.

### 3.5.1 Provincial Highways

#### Highway 44

Highway 44 provides a north-south regional connection. Highway 44 is a two-lane highway located adjacent to portions of the eastern boundary of the Plan area borders the east side of the Hamlet. Highway 44 is designated as a High Load Corridor and a future expressway or freeway in the Edmonton Municipal Region Board Integrated Transportation Master Plan (EMRBITMP).

#### Highway 633

Highway 633 is an east-west highway that transects through the Plan area in the south. Highway 633 passes through the Hamlet and connects to Highway 44 and further east to Highway 2, and to Highway 779 to the west. Highway 633 is designated as an existing/future expressway or freeway in the EMRBITMP.

Alberta Transportation has advised that the intersection of Highway 633 and Range Road 270A (Airport Access Road) will not provide adequate intersection spacing if vehicle movements increase, and must be closed in the future. A new intersection with Highway 633 will be required at Range Road 270, with the development of a new east west collector, which together will become the future primary access to the Villeneuve Airport. Secondary access may be considered at Range Road 271 on the west side of the airport. At the appropriate time, the County and the Villeneuve Airport will coordinate with Alberta Transportation to identify the required intersection upgrades.

### 3.5.2 Municipal Roads

The Plan area is serviced by several County Range Roads and Township Roads, as shown in **Figure 11**.

### 3.5.3 Airport Transportation Network

The Plan area benefits from close proximity and future connection opportunities to the Villeneuve Airport. These connections will allow developments in the Plan area to leverage the airport as a complementary use and further support economic development activities in the region. A series of

private roads that provide access to the airport and businesses on airport land are owned and maintained by the Airport Authority to service the leased lands and airport airside.

### 3.5.4 Transit and Active Transportation Modes

Due to the rural location of the Plan area, the principal mode of transport to and from the Villeneuve Airport and the Plan area is through private car and taxi. There is currently no infrastructure dedicated to public transit or active transportation facilities within the Plan area. Future opportunities to accommodate transit alternatives to the VAA may be explored in coordination with the County's regional partners.

## 3.6 VILLENEUVE AIRPORT

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The Villeneuve Airport lands are located in the centre of the Plan area, as shown on **Figure 2**; however, the airport is not a part of the Plan area. The Villeneuve Airport Approach Path and Obstruction Area extend off airport property, and impact privately owned lands in the County. The Approach Path and Obstruction Area are identified in Transport Canada SOR/81-568, Villeneuve Airport Zoning Regulations. To enable the safe and continued operation of the airport, protect private property, and inform the public, the County will develop planning policies that will guide development in these affected areas, including consideration for land use compatibility.

The presence of the Villeneuve Airport is an important consideration for the ASP. The airport hosts general aviation activities, pilot and flight training, aircraft repair and maintenance, and aircraft (or parts) manufacturing. Growth and development of the airport is expected to occur throughout the lifespan of this Plan, according to the plans and goals of the Airport Authority.

Potential new infrastructure is proposed on the airfield, including an expanded apron area to accommodate aircraft near the existing terminal building, also identified for expansion. The final location and configurations of the new taxiway and apron will be determined based on detailed runway capacity and aircraft parking assessments, respectively.

The ASP considers the potential for a new taxiway connecting the Villeneuve Airport to private development off-airport in the ASP area. This taxiway would provide additional lands with airside access that could attract new tenants and businesses to the County, and increase business to the airport.

As noted in **Section 6.4**, opportunities to extend the future Villeneuve Airport road network into the Plan area will be discussed with Airport representatives at the appropriate time.

## 3.7 RAIL INFRASTRUCTURE

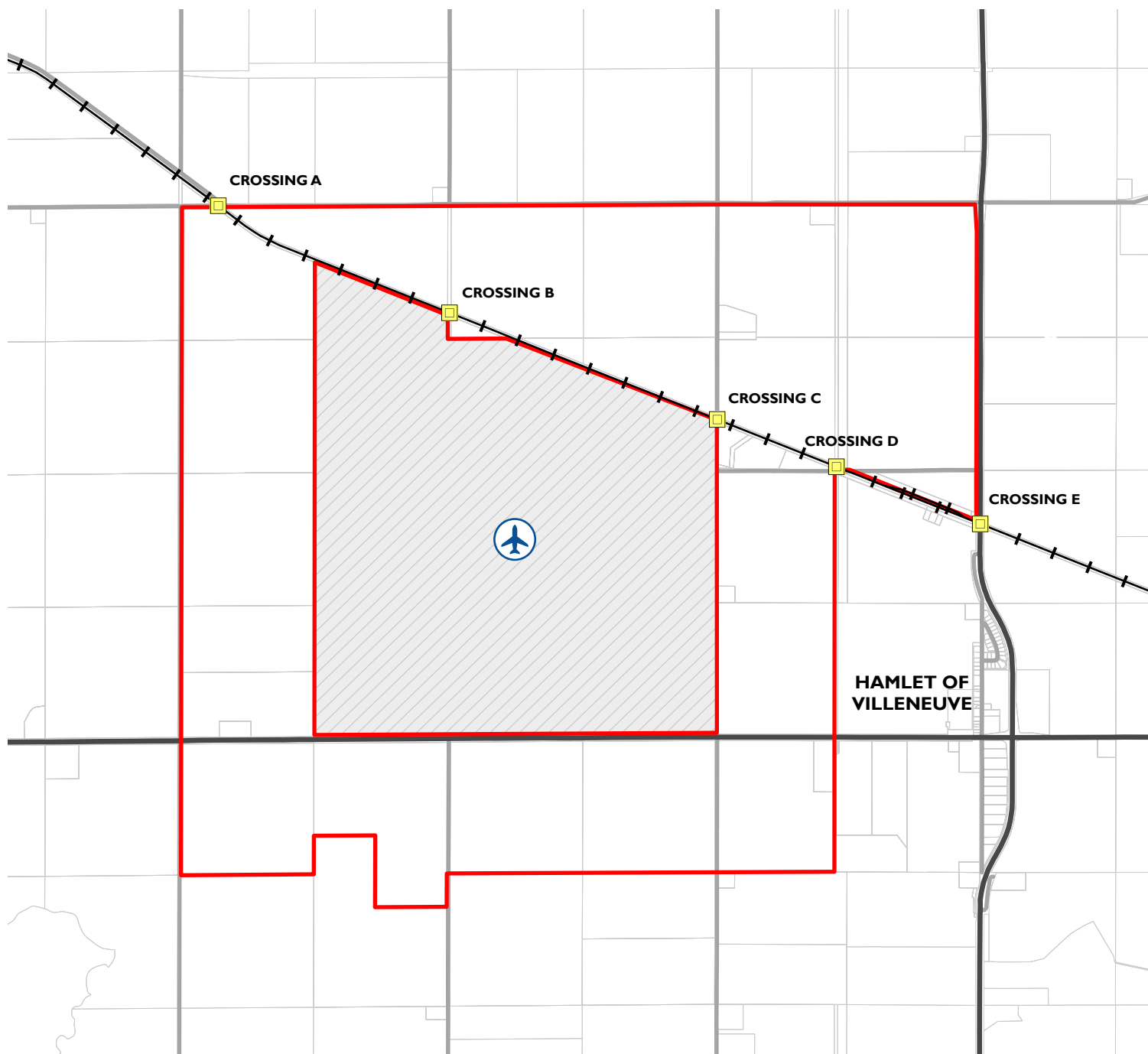
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A CN Class 1 single-track rail line intersects the Plan area on the north side, running in a southeast to northwest direction as shown on **Figure 5**. Rail infrastructure in the Plan area is operated by the CN, designated as the Sangudo Subdivision. The CN Sangudo Subdivision provides opportunities for synergies with future development. One siding track (spur) exists at Ward Chemicals on the north side of the Sandugo Subdivision track, west of Highway 44. The Sangudo Subdivision has a weight limit of 268,000 pounds, which dictates the permitted type of rail car and tonnage hauled per car. The Sandugo Subdivision track also limits capacity to run, at a minimum, 100 car unit trains to haul single commodity goods. The possibility for an applicant to leverage a second spur in the Plan area may be possible; however, key rail operational restrictions apply for freight weight in order to use this subdivision and the volume of goods required for transport to support a secondary rail spur may be prohibitive.

### 3.7.1 Rail Crossings


Development and transportation networks in the Plan area will need to consider the presence of rail, particularly at-grade crossings. Five at-grade crossings within the Plan area along the Sangudo Subdivision are outlined below and illustrated on **Figure 5**:

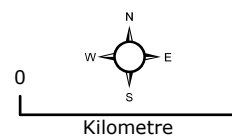
- **Crossing A:** Township Road 544 intersects the rail line at a crossing located between the intersections of Range Road 272 (west of the crossing) and Township Road 544A (east of the crossing). The crossing is at-grade and has rail crossing signage with flashing lights.
- **Crossing B:** An at-grade private rail crossing is located at Range Road 271 approximately half a mile south of Township Road 544, and provide access for agricultural operations on adjacent parcels.
- **Crossing C:** Range Road 270, north of Township Road 543, intersects the rail line with an at-grade rail crossing. It is anticipated that this crossing may be closed in the future.
- **Crossing D:** Township Road 543 intersects the rail line at an at-grade crossing with the rail line at an acute angle with the tracks, and railway crossing signs with stop signs below on both east and west approaches.
- **Crossing E:** Highway 44 intersects the rail line at a crossing located between the private road to Ward Chemical and Township Road 542A, with automatic protection including flashing signals and crossing signs. The Highway 44 crossing is paved between the tracks.



Data Source: Province of Alberta Open Data, Sturgeon County, Hatch

## Figure 5 - Rail Infrastructure

- |  |                    |   |                |
|--|--------------------|---|----------------|
|  | Plan Area          |  | Highway        |
|  | Villeneuve Airport |  | Municipal Road |
|  | Airport Boundary   |  | Railway        |
|  | Rail Crossing      |   |                |





## 3.8 OIL AND GAS

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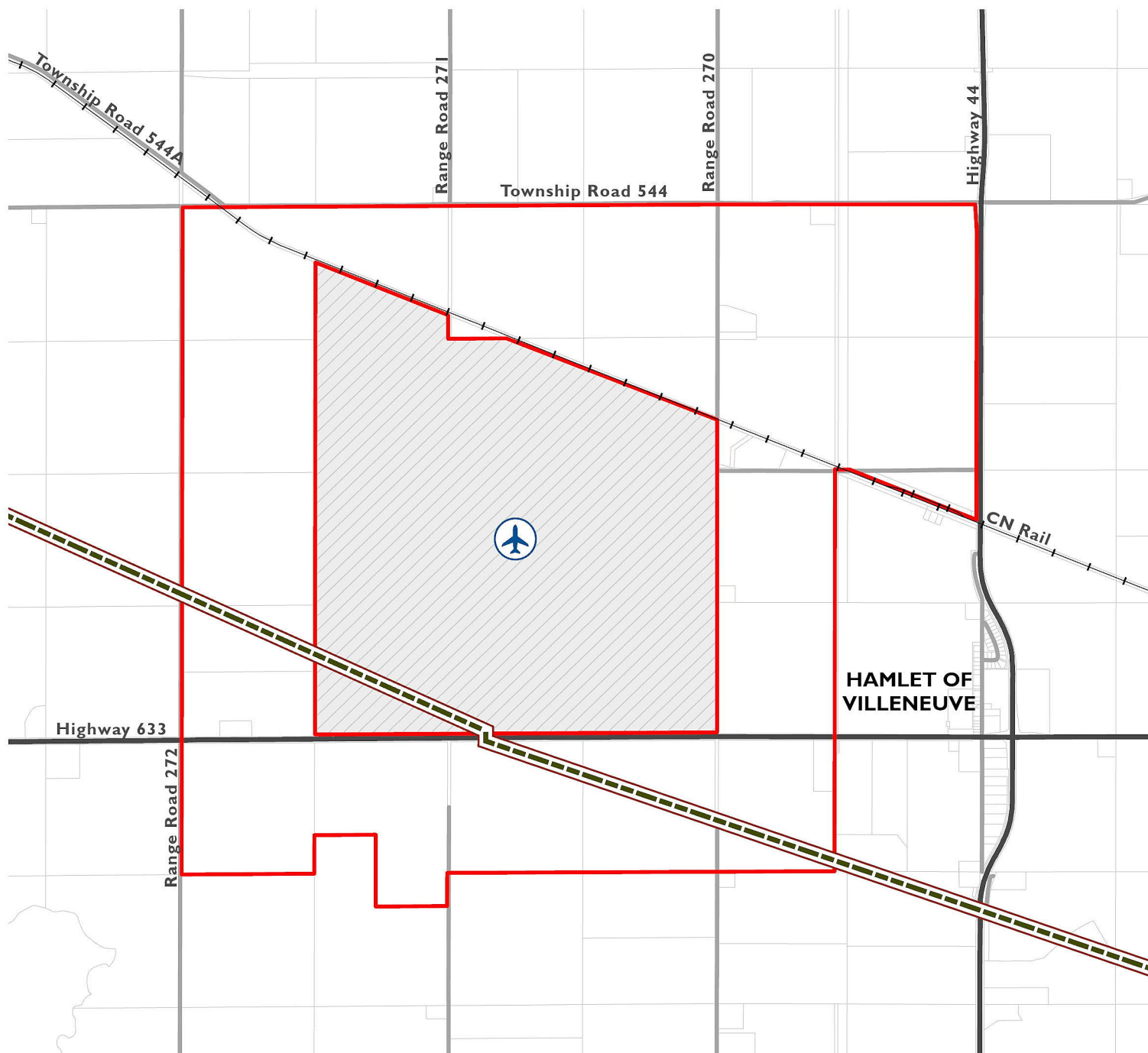
The Edmonton Metropolitan Region is a central location for oil and gas infrastructure. Operating and abandoned oil and gas wells and natural gas pipelines that are present within and adjacent to the Plan area pose a constraint to future development due to mandatory setbacks, and will require future study to identify and mitigate impacts through development setbacks and design.

An existing ATCO transmission (high pressure) pipe runs along Range Road 270, shown in **Figure 6**. Future conversations with ATCO are required; however, it is anticipated that this transmission pipe may eventually be replaced. The relocation of the pipeline may be considered by the County through future discussions with ATCO.

## 3.9 PROTECTIVE AND EMERGENCY SERVICES

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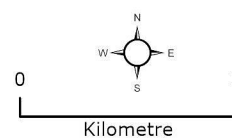
Current protective and emergency services provided by the County meet the Transport Canada and Airport Authority regulations through a Memorandum of Understanding. Emergency response to the Villeneuve Airport and surrounding area is served primarily by firefighters from Sturgeon County. The County will consider individual and cumulative requirements for emergency services as development proposals and Outline Plans are received. The County will work with applicants to identify the demand for new service locations, as the Plan area develops.



Data Source: Province of Alberta Open Data, Sturgeon County, Hatch

## Figure 6 - Oil and Gas Infrastructure

- |  |  |
|--|--|
|  Plan Area                       |  Highway        |
|  Villeneuve Airport              |  Municipal Road |
|  Airport Boundary                |  Railway        |
|  Transmission High Pressure Pipe |  |





## 4.0 VILLENEUVE AIRPORT AREA DEVELOPMENT CONCEPT

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## 4.1 DEVELOPMENT CONCEPT

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The Development Concept envisions the types of uses that could be included in the Plan area through the clustering of development, with the intent to support employment and economic diversification opportunities in the region. The concepts presented in the VAAMP support the clustering of similar uses to create unique opportunities for developments focused on industries that leverage infrastructure and programs within the County, province, and the Villeneuve Airport. The industries and projects summarized below provide conceptual examples of what could be proposed in the Plan area, based on findings from the VAAMP.

As development is considered in the Plan area, the ASP objective to create an attractive working environment for workers, students and visitors through a built form should be at the forefront of design. Convenient services and engaging urban design should also be a factor as Development Permits are evaluated within the Plan area.

## VAAMP Development Concept – Aviation & Aerospace



### Aviation & Aerospace

The Villeneuve Aviation and Aerospace concept envisions a unique innovation and education hub, industrial park, and research and development testing centre dedicated to aviation, aerospace and space applications, and defense projects. These uses are envisioned to be located in proximity to the airport to leverage the ground and airside opportunities that Villeneuve Airport provides.

The success of the Aviation and Aerospace concept envisions the establishment of key anchor projects that will spur the co-location of specialized spin-off-industries. These projects are described in further detail in Part 3.5 of the VAAMP:

An **Aerospace Research Complex** to create unique custom office spaces for research, laboratory and testing opportunities.

An **Aviation Training Centre of Excellence** that leverages the existing flight schools at the Villeneuve Airport to expand the international market for flight training.

**Defense-Related Initiatives** explored with the Department of Defense, which could include the development of a task force that creates training programs and identifies other opportunities for research and innovation.

**Space Ground Stations** to include the Plan area in a global network of space-data collection that can attract the development of other space industry clusters.

Uses that could be located in the Aviation & Aerospace Centre may include an innovation/education hub, industrial parks, development and testing centre (e.g. labs), and businesses supporting aviation, aerospace, space, defense, flight schools. Other uses that could support the Villeneuve Airport area include: general business, hotel/boarding rooms for the airport, convenience stores, or groundside manufacturing adjacent to the airport.



## VAAMP Development Concept – ecoPark



### ecoPark

The Villeneuve ecoPark concept is a state-of-the-art commercial and industrial park featuring innovation labs, research and testing facilities, manufacturing areas and commercial office space. Supporting industries such as clean-tech applications, net-zero goals, renewable energy research, and extreme weather research.

The success of the ecoPark concept envisions the establishment of key anchor projects that will support sector growth of green technology. These projects are introduced in further detail in Section 3.5 of the VAAMP:

A **Hydrogen Innovation Village** that targets the siting of uses and developments that specialize in hydrogen technologies and support scientific research, innovative production techniques and create market demand in the surrounding region.

Development of **Hydrogen Innovation Proving Grounds** to support the Hydrogen Innovation Village that facilitates testing and demonstration environments for the commercialization and implementation of hydrogen and green technology.

**Environmental Research and Development Centre** to collaborate with regional entities to support environmental research and development through environmental laboratories focused on circular economy and recycling, plastics and resin management (life cycle, recycling and remanufacturing), as well as extreme weather and pollution labs.

An **Alberta Carbon Centre of Excellence**, which revolves around the development of a building that incorporates research, business incubation and office space dedicated to light manufacturing and the research and testing of carbon capture technologies, light manufacturing.

Uses that could be located in the ecoPark may include commercial and industrial parks, innovation labs, research and development facilities, advanced manufacturing, commercial office space, clean technologies, plastic recycling, LEED mixed use manufacturing (light, research and testing), and a hydrogen village.



## VAAMP Development Concept – Agri-Innovation



### Agri-Innovation

The Villeneuve Agri-Innovation concept is a comprehensive solution to increase sustainable agriculture combining applied research and commercialization facilities that increase value-added agribusiness and food development investment.

The success of the Agri-innovation concept envisions the establishment of key anchor projects that result in a full service solution to increase sustainability in agriculture. These projects are introduced in further detail in Part 3.5 of the VAAMP:

A **Future Farming Innovation Centre** to create a hub that identifies innovative solutions to problems associated with the future of food and agriculture to improve efficiency, conserve resources, protect farmers and increase food security.

An **Indoor Agriculture Testing and Production Facility** to support the Future Farming Innovation Centre, which creates an environment for experimental farming to support product development and testing in partnership with private, academic, and public initiatives.

An **Aggregation and Food Processing Centre** to amass local produce for distribution to larger markets and create a wholesale market for farmers and support sustainability of local producers in the region.

An **Industrial Kitchen** to provide entrepreneurs and farmers with food-grade production facilities and support small volume processing and packaging of agri-food products that contribute to value-added production.

Uses to support the Agri-innovation may include research facilities, value-add agribusiness/processing, vertical farming, specialized food, produce and bioproduction, raw materials/food processing plants, food packaging, storage and distribution centres, business support services, indoor agriculture facilities and industrial kitchens.

## VAAMP Development Concept – Logistic Park



### Logistics Park

The Logistics Park supports business opportunities that leverage air, road, and rail-enabled warehousing, and provides storage, staging and transportation services for regional distribution. Given the proximity to road, rail and air infrastructure, uses that support the Logistics Park are envisioned to be located in the Plan area.

Uses that could be located in the Logistics Park include warehousing & storage facilities, cross-docking, rail/road support services, and logistics and transload facilities, bulk terminals, bulk silos, high-load hub, freezers, laydown or storage, a rail spur, indoor and outdoor staging and storage of high-load equipment, assembly warehouses of high-load equipment, truck stop facilities and services such as maintenance, and transportation crew quarters.

The success of the Logistics Park concept envisions the establishment of key anchor projects that support demand for faster, more efficient and cost-effective solutions for freight in the region. These projects are introduced in further detail in Part 3.5 of the VAAMP:

**Food Grade Freezer and Temperature Control Warehousing** to act as a focal point for storage and distribution of products.

A **High-Load Corridor Hub** that supports the province's current network, with areas for equipment staging, warehouses, transload facilities and trucking facilities.

A **Bulk Rail Terminal** that supports the market for dry bulk storage and transload services, with the development of rail spurs and supporting infrastructure.

**Cross-Docking and Transload Facilities** that support the efficient distribution of goods and contribute to the High-Load Corridor Hub.

Uses that could be located in the ecoPark may include commercial and industrial parks, innovation labs, research and development facilities, advanced manufacturing, commercial office space, clean technologies, plastic recycling, LEED mixed use manufacturing (light, research and testing), and a hydrogen village.



## 5.0 STRATEGIC PLANNING APPROACH

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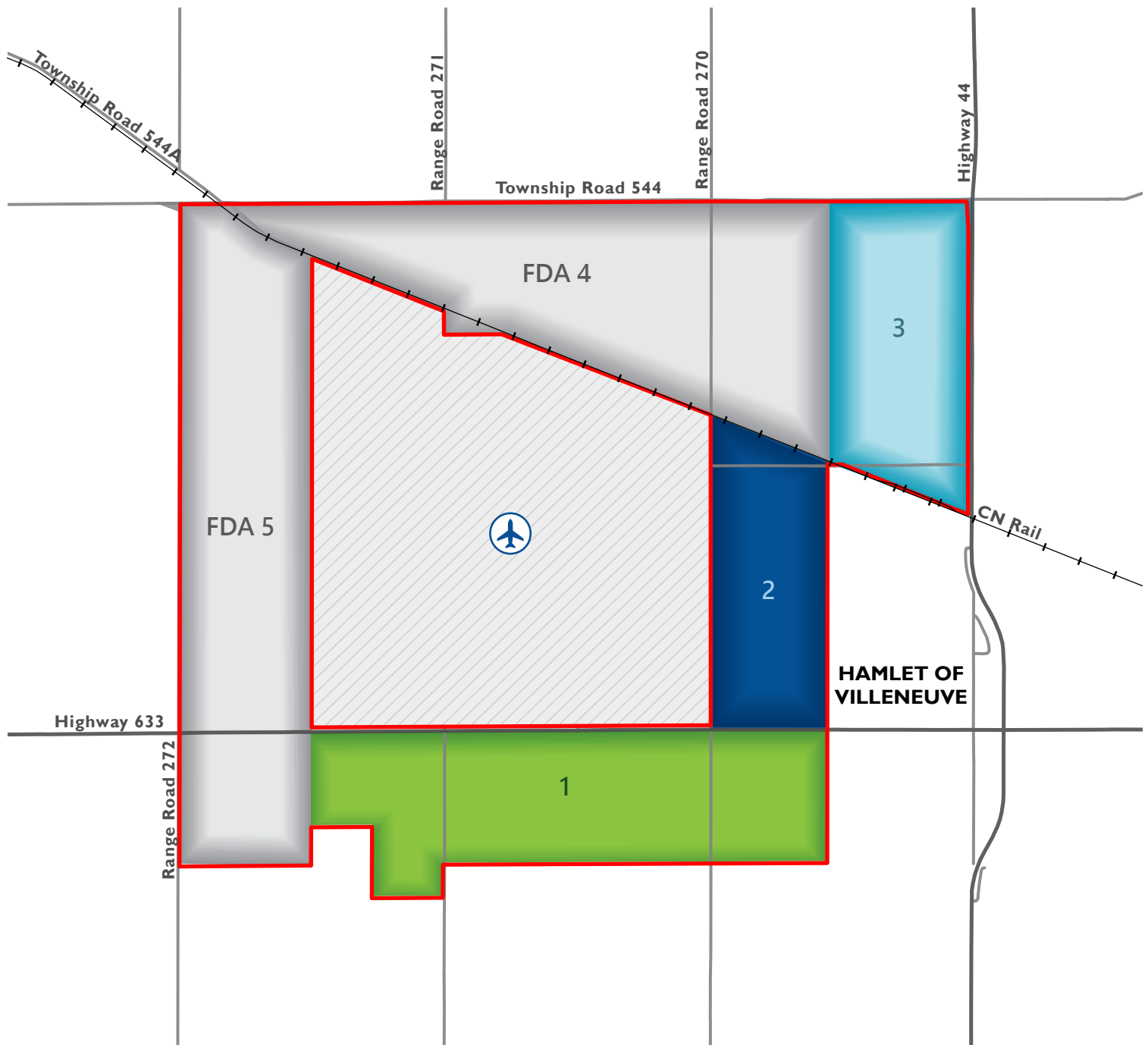
This Plan is a long-range planning document for the County. The Development Concept in this Plan outlines the vision for the VAA. The Plan area will be developed logically, based on servicing, access, and the County's priorities. To Plan enables a logical development pattern, while providing certainty to residents, business owners, applicants and the County's regional partners. This Plan designates areas in the Plan area as one of two types:

- **Planning Areas:** The development zones within the Plan area with shorter planning trajectories directed by the policy framework outlined in this ASP.
- **Future Development Areas:** Development zones within the Plan area with longer planning trajectories that require an amendment to this ASP, prior to development being permitted.

The Planning Areas and Future Development Areas are identified on **Figure 7**.

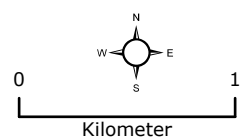
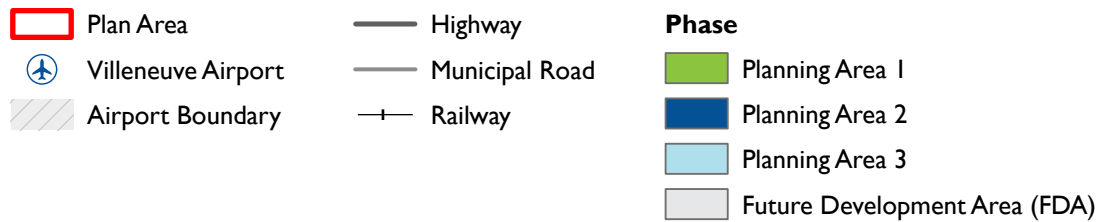
In most cases, an Outline Plan will be required to support development in the Planning Areas; whereas, low impact or interim uses may be allowed without an Outline Plan in the Planning Areas and the Future Development Areas. **Section 7.0** of this Plan provides the policy framework that guides development requirements in the Plan area.





Data Source: Province of Alberta Open Data, Strurgeon County, Hatch

## Figure 7 - Planning Areas



## 5.1 STRATEGIC PLANNING APPROACH GOALS

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- To outline a strategic planning approach that achieves the overall Development Concept in the ASP; and
- To provide a policy framework for developments with both shorter planning and longer planning trajectories within the Plan area.

## 5.2 OBJECTIVES

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- To logically phase development to maximize opportunities for efficient servicing connections;
- To identify thresholds and requirements for the development of Outline Plans;
- To identify thresholds for low impact development that may not require an Outline Plan; and
- To set clear expectations for applicants seeking to develop in Planning Areas and Future Development Areas.

## 5.3 PLANNING AREAS

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Planning Areas 1, 2 and 3 are prioritized for development within the Plan area, leveraging regional transportation connections and the County's servicing. The purpose of Planning Areas is to enable and coordinate the development of a range of industrial and commercial development. The development of Planning Areas 1, 2 and 3 will support the logical growth in the VAA, while realizing the Development Concepts outlined in the VAAMP. Planning Areas are shown on **Figure 7**. Subject to market demand and the availability of future servicing, the ASP provides flexibility for development to occur in the Planning Areas.

## 5.4 FUTURE DEVELOPMENT AREAS

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Future Development Areas 4 and 5 have been identified by the County in this ASP for a longer planning trajectory due to the availability of servicing, and are shown on **Figure 7**. Areas to the north of the Plan area designated for natural resource extraction are expected to continue to be in that state for an unforeseeable timeframe. The logical sequence of development would result in development within Future Development Areas after the prioritized Planning Areas 1, 2 and 3, or once servicing is extended to those areas. An amendment to this ASP will be required to allow for development in Future Development Areas 4 and 5 to begin.

Interim uses for Future Development Areas 4 and 5 will remain agricultural and natural resource extraction, until such time market demand and the availability of servicing supports development within these areas.





## 6.0 AREA STRUCTURE PLAN POLICIES

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The policies of this section are intended to guide development in the Plan area and provide additional guidance to developments that require an Outline Plan. Developments not requiring an Outline Plan as described in **Section 7.4** are subject to the provisions of the County's Land Use Bylaw and Municipal Development Plan, and should align generally with the intent of this ASP.

## 6.1 GENERAL POLICIES

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The following policies apply to all development within the Plan area.

6.1.1. All studies will be prepared by a qualified professional to the satisfaction of the applicable municipal, provincial or federal regulatory bodies.

6.1.2 If a development deviates from an approved Outline Plan, an amendment to the Outline Plan, approved by the County's Council, will be required.

## 6.2 LAND USE CONCEPT

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**Section 4.0** outlines the Development Concept and business typologies envisioned for the Plan area. The intent of the ASP Land Use Concept is to cluster commercial business and industrial business to leverage the unique positioning of the Plan area adjacent to the airport and provide applicants with flexibility on the staging and location of uses.

### **Principles of the Land Use Concept:**

- Accommodate flexible and innovative commercial and industrial businesses in the Plan area.
- Support development proposals that achieve the Development Concept.

### **Policies:**

6.2.1 The County should work with applicants seeking to develop innovative commercial and industrial uses.

6.2.2 The County should identify Land Use Bylaw amendments required to support the location of innovative commercial and industrial uses in the Plan area, subject to Council approval.

### **Outline Plan Policies:**

6.2.3 Outline Plans shall identify the location of land uses in the Plan area.

## 6.3 NATURAL RESOURCE EXTRACTION

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The County understands there are areas within the Plan area with permits for natural resource extraction currently in effect. There is also potential that lands are present in the Plan area with natural resources not yet explored, and for which permits for the County's approval have not yet been submitted or approved.

### *Planning Area Considerations*

The policies of the ASP support the continued use of land for existing natural resource extraction operations, and where appropriate and approved by the municipality, the exploration of new natural resource extraction activities in Future Development Areas. Applications for natural resource extraction within designated Planning Areas 1 or 2 will not be supported to prioritize development and infrastructure investment in the Plan area. Natural resource extraction applications in Planning Area 3 and Future Development Areas may be considered by the County dependent on the status of already approved natural resource extraction permits, the time and end dates of future natural resource extraction, and the timing of extension of infrastructure servicing to the various Planning Areas.

#### **Principles for Natural Resource Extraction:**

- Support existing natural resource extraction operations in the Plan area.
- Support new applications for natural resource extraction operations in the Plan area, where appropriate.
- Guide the transition of areas depleted of natural resources to align with the Development Concept for the Plan area.

#### **Policies:**

6.3.1 The County shall not support applications to allow for natural resource extraction within Planning Areas 1 or 2.

6.3.2 The County may consider new applications for natural resource extraction within Planning Area 3 and Future Development Areas, subject to municipal approval.

6.3.3 The County should support the ongoing operation of existing natural resource extraction activities with approved land use or Development Permits located within the Plan area, subject to municipal approval.

## **6.4 VILLENEUVE AIRPORT**

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The proximity of the Plan area to the Villeneuve Airport enables opportunities to leverage the unique benefits of being located near an airport. The airport acts as a logistics hub and employment centre that provides general aviation relief for the Edmonton International Airport (Villeneuve Airport Strategic Plan, 2019-2023). The airport is identified as a Major Employment Area by the EMRB Growth Plan, and is anticipated to increase businesses and air traffic based on several future initiatives.

Airport noise is measured by calculating the Noise Exposure Forecast (NEF) contours. Calculations are based on the number of flights, the type of aircraft, the time of day of the flights, general wind patterns and other factors.

NEF contours are created as an advisory tool to inform municipalities when they might expect complaints regarding airport noise; however, they are typically not calculated for general aviation registered aerodromes, as there are no regularly scheduled commercial flights and the aircraft size is very small. Therefore, NEF contour calculations are more commonly measured at larger airports.

### *Planning Area Considerations*

The Plan area is impacted by the Villeneuve Airport Zoning Regulations (SOR/81-568) and subsequent development (primarily height) restrictions that result from the Villeneuve Airport Approach Path. The portions of the Plan area that fall within the Villeneuve Airport Approach Path require additional consideration for land use compatibility and height limitations. It is strongly recommended that applicants with lands that fall within the Villeneuve Airport Zoning Regulations (SOR/81-568) conduct a topographical survey of the land in the early stages of their project planning to determine restrictions on building heights, as a result of these Regulations. Developments within the Plan area directly adjacent to the airport should consider landside uses to avoid possible conflicts with the airport.

Developments are encouraged to locate uses and business clusters introduced in **Section 4.0** of this Plan, which support the airport and coordinate transportation networks and infrastructure connections. Partnerships between the Villeneuve Airport and businesses in the Plan area should be explored to maximize the locational benefits.

### **Principles for Development in Proximity to the Villeneuve Airport:**

- Support continued operations and future development of the Villeneuve Airport through the development of compatible land use and built form.
- Contribute to an innovative range of services and businesses that benefit the County and, where possible, the Villeneuve Airport.
- Leverage the benefits of locational proximity to the Villeneuve Airport, with regard to business development and operations in the County.
- Coordinate servicing and transportation networks with the Villeneuve Airport as the airport and Plan area develop.
- Develop an Airport Approach Path Protection Overlay, to be included in the County Land Use Bylaw, for the purpose of informing applicants and landowners and avoiding conflicts with the airport due to incompatible land uses and development.

### **Policies:**

6.4.1 The County shall develop provisions in the Land Use Bylaw that guide development in the Villeneuve Airport Approach Path.

6.4.2 The County shall review Federal Regulations and formal referral responses from Transport Canada to confirm development compliance.

6.4.3 The County should work with the Villeneuve Airport to establish an informal committee to support residents living near the airport and provide guidance to prospective developments in the Airport Approach Path.

#### **Outline Plan Policies:**

6.4.4 Outline Plans in the Plan area shall identify future servicing connections, including potable water, sanitary and stormwater services at the Villeneuve Airport.

6.4.5 Outline Plans in the Plan area shall identify future transportation network connections to the Villeneuve Airport transportation network.

6.4.6 Outline Plans that include the Villeneuve Airport Approach Path identified in the Villeneuve Airport Zoning Regulations (SOR/81-568), shall include appropriate studies, including but not limited to, a topographical survey, to demonstrate that proposed development will not penetrate the Take Off and Approach Areas.

6.4.7 Outline Plans in the Plan area should consider the development potential of uses and businesses that contribute to the vision of this area as an aviation and aerospace centre.

## **6.5 GREEN DEVELOPMENT**

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The ASP promotes and encourages the use of innovative green development techniques to minimize potential impacts on the environment, and promotes uses that support the transition to sustainable energy. Green development techniques and practices are envisioned to be incorporated in developments throughout the Plan area.

#### *Planning Area Considerations*

The Plan envisions the co-location of uses and business clusters associated with the various Development Concepts. The nature of developments encouraged in the Plan area are well positioned to demonstrate the application of green development techniques in support of the Development Concept.

Applicants are encouraged to include design techniques and design principles that reduce the stress on the natural environment through water recycling and repurposing of materials. Applicants are encouraged to implement green development techniques and initiatives into the Plan area.

#### **Principles for Green Development:**

- Promote the incorporation of green development techniques and technologies in the ASP.
- Set a precedent for innovative green development practices in the County.
- Reduce the overall impact of future development on the natural environment.
- Support the development and location of innovative green energy industries to the Plan area.

### **Policies:**

- 6.5.1 The County shall support the ability to utilize recycled greywater within the Plan area, subject to compliance with provincial and federal health regulations.
- 6.5.2 The County should encourage the incorporation of solar, EV charging stations, alternative energy charging facilities and other emerging technologies within the Plan area.
- 6.5.3 The County should work with applicants to enable the inclusion of innovative green building technologies and low impact designs in developments within the Plan area.

## **6.6 AGRICULTURE**

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The Plan area will be gradually developed over time. Until there is sufficient market demand, agricultural uses are expected to remain a predominant land use in the Plan area. The RAMP, developed with direction from the EMRB, identifies the Plan area in Policy Area 2 of the EMRB Plan. Policy Area 2 anticipates that fragmentation of agricultural areas is expected to occur on agricultural land in the Plan area, but encourages the continuation of agricultural activities until such time an application for development is approved.

### *Planning Area Considerations*

Developments within the Plan area are encouraged to demonstrate opportunities that leverage County agriculture in the surrounding area through the location of uses and business clusters that focus on the production, processing, and distribution of local agricultural goods, as well as research and innovation in agricultural sciences. These uses will benefit due to the close proximity to the nearby future Logistics Park, which will be able to receive raw materials, and could distribute goods and materials produced in the Plan area.

### **Agricultural Principles:**

- Support the continued use of agricultural operations until the lands are approved for development, as identified in this Plan.
- Reduce impacts on agricultural operations adjacent to and within the Plan area as the ASP vision is realized, wherever possible.
- Support the continued agricultural prosperity in the region through the development of agri-business uses in the Plan area.

### **Policies:**

- 6.6.1 Applications for new agricultural activity shall be permitted in the Plan area, subject to provisions of the Land Use Bylaw, and municipal approval.
- 6.6.2 With the exception of allowing for natural resource gravel extraction in the Future Development Areas, existing agricultural lands within the Plan area should be retained for agricultural purposes, until development is approved by the County.



6.6.3 Developments in the Planning Areas are encouraged to incorporate uses that contribute to or support agri-business in the region.

#### **Outline Plan Policies:**

6.6.4 Measures to reduce impacts of development on agricultural land or activities on land adjacent to the Outline Plan area should be identified.

6.6.5 Developments within the Plan area should consider the incorporation of the uses described in the Development Concept outlined in **Section 4.0** of this Plan.

## **6.7 UTILITIES**

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Utility services provide a fundamental service to County businesses. The provision of utility services will occur in coordination with phased development as it proceeds. Planning for utilities must consider the Villeneuve Airport, particularly with respect to coordinating with the Airport Authority on the type and siting of infrastructure to support airport growth and airport initiatives, and avoid possible impacts on airport operations. The County is encouraged to explore partnerships with neighbouring municipalities to identify the effective provision of services in the Plan area.

### **6.7.1 Sanitary**

**Figure 8** shows the wastewater servicing concept for the planning area. Individual servicing strategies for parcels within the Plan area are identified in Section 3.0 of Appendix C. The proposed regional lift station will be located at Range Road 265, approximately 1 km east of the existing lagoon. The proposed regional lift station will be serviced through a regional forcemain to the ACRWC Parkland trunk sewer.

Interim servicing for parcels without triggering the need for the regional lift station and forcemain relies heavily on the availability of the existing Villeneuve Lagoon on receiving additional flow; therefore, discussions between the County and Alberta Environment and Parks will be required to determine if the Villeneuve Lagoon can receive domestic wastewater from industrial sites. Any process/industrial wastewater will not be accepted in the existing lagoon.

The sequencing of development occurring on particular parcels in the Plan area will trigger the requirement for lift stations, the gravity trunk and the forcemain to the lagoon. Additional information regarding the development triggers and sequencing of sanitary servicing is included in Section 3.0 of **Appendix C**.

#### **Principles for Utilities:**

- Provide the efficient provision of sanitary services to the Plan area that prioritizes the adequate servicing of Planning Areas.
- Identify sanitary servicing requirements for Outline Plans.

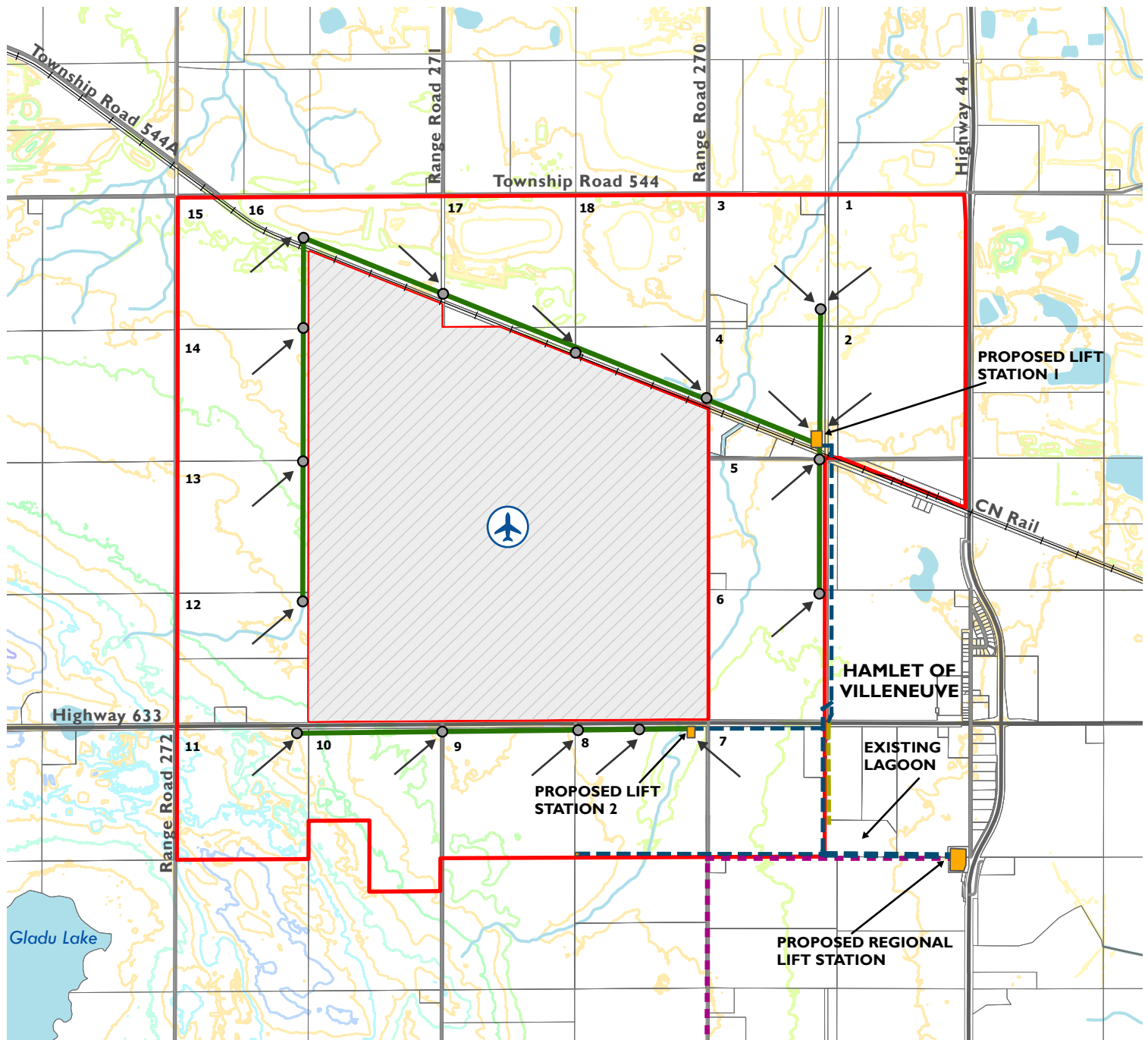
- Identify sanitary servicing connections for Future Development Areas.

### **Policies:**

- 6.7.1.1 The sanitary distribution system shall be designed in accordance with the County's General Municipal Servicing Standards.
- 6.7.1.2 Sanitary distribution systems shall align with the County's IMP in effect at the time of development and subsequent approved County studies.
- 6.7.1.3 Where initiatives involve cross boundary solutions, the County shall work with the Airport Authority to identify existing sanitary services that could be extended to service the Plan area.
- 6.7.1.4 The sanitary servicing system should generally align with **Figure 8**.
- 6.7.1.5 The County should work with neighbouring municipalities and utility operators to identify existing sanitary services that could be extended to service the Plan area.
- 6.7.1.6 The County may consider alternative sanitary servicing options that demonstrate cost efficiency to the County without undermining the service delivery for the overall planned development of the Plan area.

### **Outline Plan Policies:**

- 6.7.1.7 The overall sanitary distribution system for each Outline Plan shall be guided by the County's IMP and any subsequent approved County studies in effect at the time of development.
- 6.7.1.8 Outline Plans in Planning Areas 1, 2 and 3 shall identify sanitary connections to adjacent lands and Future Development Areas.
- 6.7.1.9 The applicant shall be responsible for the cost of sanitary servicing and infrastructure that provides adequate service delivery to the Outline Plan area.
- 6.7.1.10 Sanitary servicing alignment is identified in **Figure 8**. At the Outline Plan stage the sanitary distribution system should generally align with this figure.
- 6.7.1.11 Notwithstanding Policy 6.7.1.10, alternate and more cost effective sanitary servicing alignments and locations may be considered by the County at the Outline Plan stage.
- 6.7.1.12 At the Outline Plan stage, additional studies or analysis may be required by the County to demonstrate the sanitary distribution system can service the development, while not precluding the development of other parts of the Plan area. The cost of these studies or analysis shall be borne by the applicant.



Data Source: Province of Alberta Open Data, Sturgeon County, Hatch

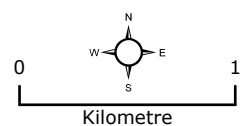
Note: Manholes are added schematically to show conceptually where parcels will connect to the gravity trunk. It is assumed that manhole spacing will follow GMSS standards for spacing

## Figure 8 - Sanitary System

- Plan Area
- Villeneuve Airport
- Airport Boundary
- Waterbody
- Proposed Lift Station
- Highway
- Municipal Road
- Railway
- Watercourse
- Conceptual Manhole Location

- 150mm Existing Forcemain
- Proposed Gravity Sewer
- 300mm Proposed Regional Forcemain
- Proposed Forcemain

- Contour Value**
- |  |   |
|--|---|
| <span style="display: inline-block; width: 20px; border-bottom: 2px solid red; margin-right: 5px;"></span> 650       | <span style="display: inline-block; width: 20px; border-bottom: 2px solid green; margin-right: 5px;"></span> 700      |
| <span style="display: inline-block; width: 20px; border-bottom: 2px solid orange; margin-right: 5px;"></span> 660    | <span style="display: inline-block; width: 20px; border-bottom: 2px solid lightgreen; margin-right: 5px;"></span> 710 |
| <span style="display: inline-block; width: 20px; border-bottom: 2px solid yellow; margin-right: 5px;"></span> 670    | <span style="display: inline-block; width: 20px; border-bottom: 2px solid cyan; margin-right: 5px;"></span> 720       |
| <span style="display: inline-block; width: 20px; border-bottom: 2px solid limegreen; margin-right: 5px;"></span> 680 | <span style="display: inline-block; width: 20px; border-bottom: 2px solid blue; margin-right: 5px;"></span> 730       |
| <span style="display: inline-block; width: 20px; border-bottom: 2px solid lightblue; margin-right: 5px;"></span> 690 | <span style="display: inline-block; width: 20px; border-bottom: 2px solid purple; margin-right: 5px;"></span> 740     |



## 6.7.2 Potable Water System

Section 2.0 of Appendix C includes additional information regarding potable water services in the Plan area. **Figure 9** shows the potable water servicing concept for the Plan area.

### Potable Water Principles:

- To provide the efficient provision of potable water services to the Plan area that prioritizes the adequate servicing of Planning Areas.
- To identify potable water servicing connections for Future Development Areas.
- To identify potable water servicing requirements for Outline Plans.

### Policies:

- 6.7.2.1 The potable water distribution system shall be designed in accordance with the County's General Municipal Servicing Standards.
- 6.7.2.2 Potable water distribution systems shall align with the County's IMP in effect at the time of development and subsequent approved County studies.
- 6.7.2.3 Where initiatives involve cross boundary solutions, the County shall work with the Airport Authority to identify existing potable water services that could be extended to service the Plan area.
- 6.7.2.4 The potable water distribution system should generally align with Figure 9.
- 6.7.2.5 The County should work with neighbouring municipalities and utility operators to identify existing water services that could be extended to service the Plan area.
- 6.7.2.6 The County may consider alternative water servicing options that demonstrate cost efficiency to the County, without undermining the service delivery for the overall planned development of the Plan area.

### Outline Plan Policies:

- 6.7.2.7 The overall water distribution system for each Outline Plan shall be guided by the County's IMP in effect at the time of development and subsequent approved County studies.
- 6.7.2.8 Outline Plans in Planning Areas shall identify water connections to adjacent lands.
- 6.7.2.9 Outline Plans in Planning Areas adjacent to a Future Development Area shall identify water connections to adjacent Future Development Areas.
- 6.7.2.10 Outline Plans shall identify the size and location of dedicated water reservoirs and supporting infrastructure.

- 6.7.2.11 The potable water distribution system shall provide a level of service that meets the Fire Protection standards required to service the Outline Plan area.
- 6.7.2.12 The applicant shall be responsible for the development of water servicing infrastructure that provides adequate service delivery to the Outline Plan area.
- 6.7.2.13 Water distribution alignment is identified on **Figure 9**. At the Outline Plan stage the water distribution system should generally align with this figure.
- 6.7.2.14 Notwithstanding Policy 6.7.2.13, the County may consider alternative options for potable water distribution systems that demonstrate cost efficiency to the County, without undermining the service delivery for the overall planned development of the Plan area.
- 6.7.2.15 At the Outline Plan stage, additional studies or analysis may be required by the County to demonstrate the water distribution system can service the development while not precluding the development of other parts of the Plan area. The cost of these studies or analysis shall be borne by the applicant.
- 6.7.2.16 Outline Plans are encouraged to identify water maintenance programs including the employment of water conservation techniques.





## 6.8 STORMWATER MANAGEMENT

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**Figure 10** shows the stormwater servicing concept for the planning area. Most quarter sections will have a dedicated Stormwater Management Facility (SWMF) located at the lowest point of each quarter section.

Outfalls are proposed to be located as indicated on **Figure 10**. Due to the relative shallow depth of existing watercourses, several SWMFs will need to be pumped. Detailed design of stormwater ponds should refine the location of each pond, determine appropriate pond depths, off-site catchment areas and confirm whether pumping is required.

Interim servicing options may be evaluated for parcels that are not close to a watercourse and are proposed to drain through another pond before reaching an outfall. Alternative servicing options may include pumping to or using a graded drainage ditch that drains to the nearest receiving water course.

Section 4.0 of **Appendix C** includes additional information regarding stormwater management and servicing in the Plan area.

### Principles for Stormwater Management:

- Provide a framework that enables a phased approach to stormwater management and the development of facilities in the Plan area.
- Provide guidance for the development of stormwater infrastructure within the vicinity of the Villeneuve Airport.
- Identify stormwater management requirements for Outline Plans.

### Policies:

6.8.1 Stormwater Management Plans shall demonstrate conformance with the County's General Municipal Servicing Standards.

6.8.2 Stormwater Management Plans shall identify the location and use of open water for stormwater management such as dry ponds, ditches, and channels.

6.8.3 Stormwater Management Plans shall identify and mitigate the impacts of open water and other stormwater infrastructure near the Villeneuve Airport.

6.8.4 Stormwater Management Plans shall be designed to meet allowable discharge rates and conform to the Alberta Stormwater Management Guidelines.

6.8.5 Where initiatives involve cross boundary solutions, the County shall work with the Airport Authority to identify existing stormwater infrastructure and services that could be extended to service the Plan area.

6.8.6 Stormwater Management Plans should generally align with **Figure 10**.

6.8.7 Dry ponds should be sized to accommodate employment growth projections and future development in the Plan area.

6.8.8 The County may consider alternative options that demonstrate cost efficiency to the County, without undermining the stormwater management objectives for the overall development of the Plan area.

#### **Outline Plan Policies:**

6.8.9 Development of the stormwater management system for each Outline Plan shall be guided by the County's IMP and the requirements of the County's General Municipal Servicing Standards in effect at the time of development, and any subsequent approved County studies that relate to stormwater management.

6.8.10 The applicant shall be responsible for the cost and management of preparing the necessary stormwater studies and the development of infrastructure that provides adequate service delivery and meets the requirements of the County's General Municipal Servicing Standards for the Outline Plan area.

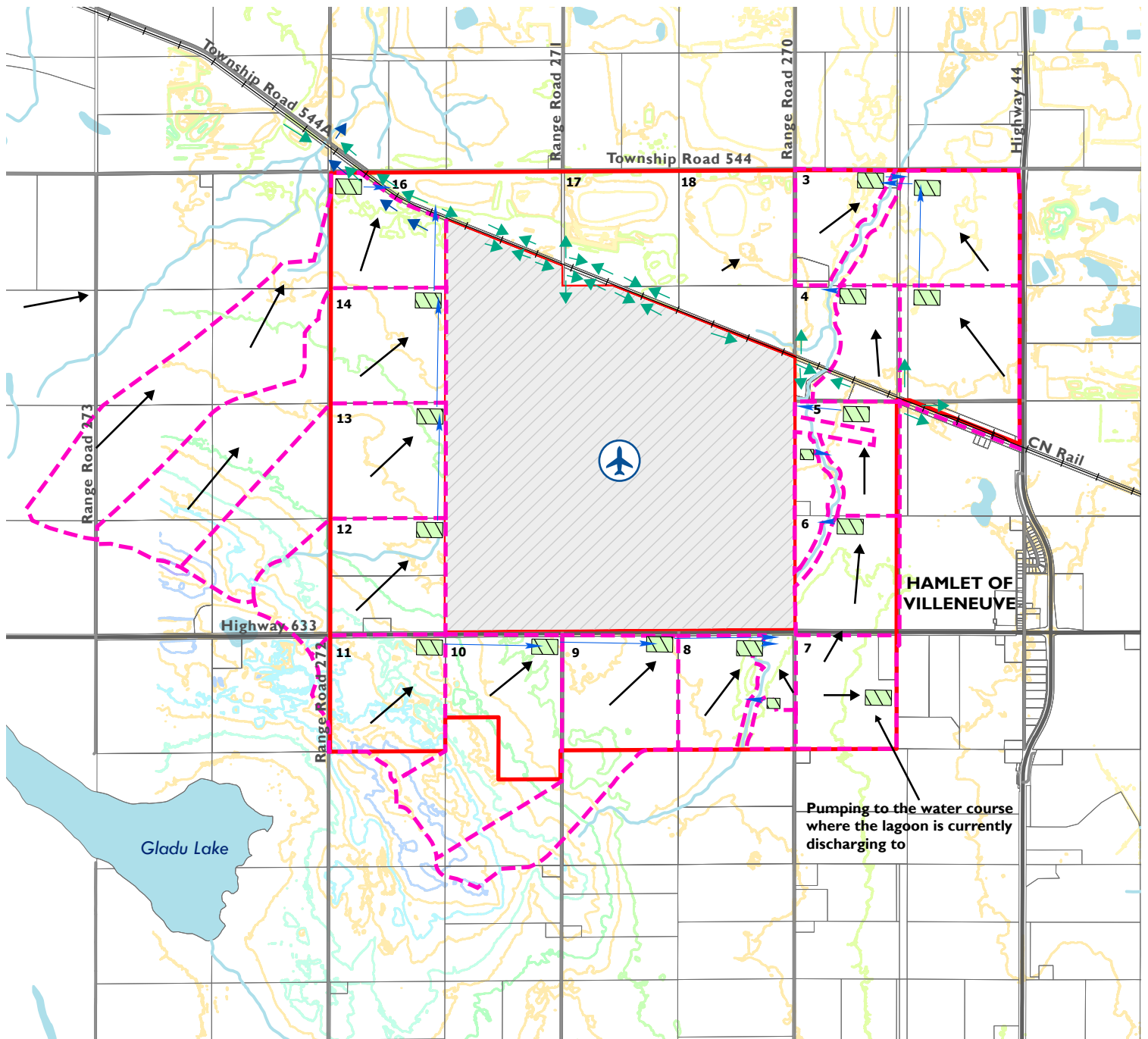
6.8.11 In addition to the requirements Policies 6.8.1 through 6.8.8, the Stormwater Management Plan submitted with an Outline Plan should demonstrate how stormwater management will accommodate future development of adjacent parcels in the Plan area.

6.8.12 Stormwater management for the Plan area is identified in **Figure 10**. At the Outline Plan stage, the stormwater management system should generally align with this figure.

6.8.13 Notwithstanding Policy 6.8.12, the County may consider alternative options for stormwater management that demonstrate cost efficiency to the County, without undermining the objectives for the overall development of the Plan area.

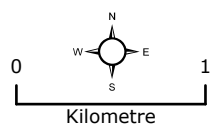
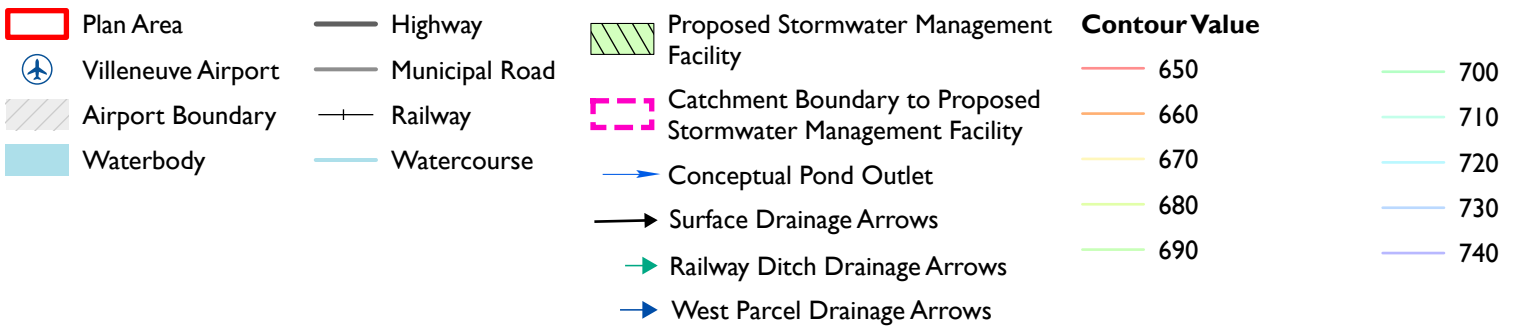
6.8.14 Stormwater management plans should identify opportunities for innovative stormwater management techniques including low impact design and stormwater reuse.

6.8.15 At the Outline Plan stage, additional studies or analysis may be required by the County to demonstrate the stormwater management system can service the Outline Plan area, while allowing for the development of the Plan area. The cost of these studies or analysis shall be borne by the applicant.



Data Source: Province of Alberta Open Data, Sturgeon County, Hatch

## Figure 10 - Stormwater Management System



## 6.9 OIL AND GAS INFRASTRUCTURE

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Underground pipelines, and abandoned and active wells are located within the Plan area. Future development adjacent to any oil and gas infrastructure will be required to meet provincial setback requirements. If the infrastructure is decommissioned, this work must be done in accordance with provincial regulations.

### *Planning Area Considerations*

The presence of a high pressure gas transmission line (**Figure 6**) that transects Planning Area 1 and Future Development Area 5. This gas transmission line requires development considerations with regard to the design and layout of development. Ideally this pipeline would be decommissioned prior to development; however, if this is not possible, the collector road network may be realigned to parallel the pipeline, reducing the potential for undevelopable areas or fragmented parcels. Required setbacks to this line must be in accordance with provincial regulations, and may impact building and infrastructure siting.

Additional oil and gas infrastructure that exists in the Plan area shall be identified during future planning and development stages. Development adjacent to oil and gas infrastructure must meet provincial regulations. When developing in proximity to oil and gas infrastructure, it is recommended that the applicant notify the infrastructure owner early in the planning stages to determine what setbacks or requirements will apply to the development.

### **Principles for Oil and Gas Infrastructure:**

- Safely plan development in areas with active oil and gas infrastructure.
- Integrate oil and gas infrastructure into the development of the Plan area by identifying development setbacks that meet provincial regulations in the early planning stages, and designing building and infrastructure siting, accordingly.
- Where possible, support the decommissioning of oil and gas infrastructure to prepare for development.

### **Policies:**

6.9.1 Abandoned wells shall be identified in the Plan area prior to any development.

6.9.2 At the time of development abandoned wells shall be remediated to meet provincial standards and requirements.

6.9.3 Identification of required oil and gas infrastructure and setback requirements, as part of the Outline Plan, subdivision, or the Development Permit review process, should occur in consultation with the oil or gas facility owner.

### **Outline Plan Policies:**

6.9.4 An Outline Plan that includes oil or gas infrastructure within the Plan's boundary shall demonstrate adequate setbacks between development and existing oil or gas infrastructure, in accordance with provincial regulations.

## **6.10 SHALLOW UTILITIES**

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Shallow utilities will be required to service development in the Plan area. The location of existing and proposed utilities will be identified through the Outline Plan process.

### **Principles for Shallow Utilities:**

- Utilities for the Plan area are to be provided in sequence with development of Planning Areas, including electrical and telecommunications/broadband internet services. This approach ensures these utilities are provided efficiently, and will optimize expenditures and reduce potential for conflict or redundancy.

### **Policies:**

6.10.1 The location and standards for shallow utilities, easements, and rights-of-way shall be to the mutual satisfaction of the County, the applicant, and utility providers.

6.10.2 If required, the applicant shall provide or enter into an agreement to provide utility rights-of-way or easements necessary to accommodate the extension of municipal utilities through or adjacent to a site to allow for the servicing of a site.

6.10.3 The applicant shall be responsible for the development of utility infrastructure that provides adequate service delivery to the Outline Plan area.

6.10.4 Where possible, the alignment of utilities should be designed to avoid environmentally significant areas.

6.10.5 Development should be carried out in consultation with utility providers.

### **6.10.1 Electrical System**

New electrical infrastructure is required to support the development of the Plan area. Services will be provided by a combination of expansion to the overhead systems and underground power distribution along the existing and future collector and local roads.

### **Policies:**

6.10.1.1 At the Outline Plan, subdivision and development stage, the applicant should consult with the electricity provider to conduct or update a detailed analysis regarding required services.

### 6.10.2 Telecommunication System / Broadband Internet

The County recognizes the importance of telecommunications to business development, and endeavours to coordinate development of the Plan area with applicants and utility providers to incorporate the latest technology. The Plan area is captured under Phase 1 of the deployment, the “Villeneuve Pilot Project” for the FTTP network initiative in Sturgeon County.

It is anticipated that the FTTP network will be extended to the Plan area; however, infrastructure that interferes with aircraft to support the 5GC Network is not permitted in the VAA due to potential aircraft approach interference. As the County expands broadband capacities to the Plan area, consultations with Nav Canada are required to appropriately locate 5G infrastructure in the County.

#### **Policies:**

6.10.2.1 At the Outline Plan stage, the County shall work with Nav Canada and the Airport Authority to determine if broadband infrastructure limitations apply to restrict radio interference in proximity to the Villeneuve Airport.

6.10.2.2 Consultation with the broadband provider to coordinate the provision of broadband internet services should occur, prior to development.

## 6.11 EMERGENCY SERVICES

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The growth of the VAA will result in the need for coordinated response of fire and emergency services. The County will work with regional emergency service providers and applicants to identify possible locations for an emergency services building, if the need warrants.

#### **General Policies:**

6.11.1 The County shall review each development proposal for the requirement of emergency services. If the need for emergency services is identified, the applicant will be required to dedicate land and coordinate the construction of facilities through off-site levy discussions with the County.

## 6.12 TRANSPORTATION NETWORK

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The transportation network shown in **Figure 11** has been designed to maximize the strategic location of the Plan area as a regional economic development hub with direct access to road, rail, and air services. The network will be developed to support the various needs of existing and future uses within the Plan area. The County commits to working with applicants to identify the appropriate studies and infrastructure upgrades as Outline Plans are submitted. The County will continue to coordinate with Alberta Transportation to assess infrastructure requirements, as new development proposals in the Planning Areas are received.



### *Planning Area Considerations*

The transportation networks in the Plan area have been designed at a high level to connect Planning Areas and Future Development Areas using a logical and efficient pattern. Transportation networks associated with each Outline Plan will be required to generally align with the roadways identified in this Plan. Local internal roadways should be designed to plan for future connectivity to adjacent Outline Plan areas.

Development adjacent to highways is subject to approval by Alberta Transportation. At the time of development Alberta Transportation will identify requirements for development adjacent to highways.

A high pressure pipeline shown in **Figure 11** intersects Planning Area 1, which may impact the transportation network design in this area. The pipeline is anticipated to be decommissioned, however failing that, the transportation network in Planning Area 1 would be designed to align parallel to the pipeline to minimize undevelopable areas and fragmented parcels.

### **Principles for the Transportation Network:**

- Safely accommodate existing and future transportation needs within the Plan area.
- Identify general transportation network requirements and upgrades to be incorporated and refined in Outline Plan and development applications.
- Provide a high degree of connectivity to adjacent parcels.
- Encourage development of a transportation network that adheres to the provincial and County policies and requirements through coordinated development of the Plan area in collaboration with Alberta Transportation.
- To create a transportation network to accommodate all users through a Complete Streets design philosophy with dedicated and connected on and off-road facilities for active travel provided, wherever feasible.

### **Policies:**

6.12.1 The transportation network design in the Plan area shall demonstrate conformance with the County's General Municipal Servicing Standards.

6.12.2 The transportation network should be planned and designed to align generally with the network shown in **Figure 11**.

### **Outline Plan Policies:**

When preparing an Outline Plan the following policies shall be considered in the design and approval process:

6.12.3 Outline Plans shall be developed in consultation with Alberta Transportation.

6.12.4 Outline Plans shall demonstrate how road networks will be designed to accommodate the width of road rights-of-way and intersection configurations based on a projected full build out of the Outline Plan area and adjacent lands.

6.12.5 Outline Plan applications shall require the submission of a Traffic Impact Assessment that:

- Anticipates increases in cumulative demand from traffic within the Outline Plan boundary and adjacent parcels;
- Identifies transportation infrastructure upgrades required to support the development; and
- Incorporates other requirements identified by the County or Alberta Transportation.

6.12.6 An Outline Plan transportation network should demonstrate general conformance with future connections to the transportation network shown in **Figure 11**.

6.12.7 Where possible, Outline Plans should demonstrate road cross-sections and intersection designs that accommodate oversized vehicle movements and farm equipment movement in the Plan area.

6.12.8 If an Outline Plan is proposed adjacent to undeveloped parcels in the Plan area, the Traffic Impact Assessment should consider the anticipated development of adjacent parcels.

## 6.13 PLAN AREA ACCESS

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Accessibility is integral to the function of the transportation network to support the incremental increase of traffic associated with development of the Plan area and the Villeneuve Airport. Maintaining mobility on adjacent major transportation routes while providing access to the Plan area is integral to sustaining the economic development potential and vitality of the surrounding area and region. The transportation network shown in **Figure 11** supports intersection and road spacing that provides a high degree of access to the Airport and surrounding lands, and strengthens the function of the major highway and municipal road corridors to move people and goods safely and efficiently. Maintaining the network spacing and connection points is an important consideration for the County and Villeneuve Airport to consider in coordination with Alberta Transportation as the Plan area develops.

### *Planning Area Considerations*

Development in Planning Area 1 must consider intersection spacing requirements by Alberta Transportation that will result in the relocation of the Airport Road (Road 270A) access to Highway 633 to a new access via Range Road 270 in the east and an upgraded access via Range Road 271 in the west. Additional intersection upgrades will be required in the Plan area.

Access to Planning Areas 2 and 3 will also require new or upgraded accesses from Highway 633, Highway 44, and Township Road 544.

Intersection locations in Future Development Areas are displayed at a high level in this ASP; however, detailed locations will be identified through the ASP amendment and subsequent Outline Plan process.

### **Principles for Plan Area Access:**

- Identify the location of new intersections through consultation with Alberta Transportation and the County.
- Identify future intersection opportunities in Future Development Areas.

### **Policies:**

6.13.1 Applicants in Planning Area 1 shall consult with Alberta Transportation to address the closure of the intersection of Highway 633 and Range Road 270A (Airport Road).

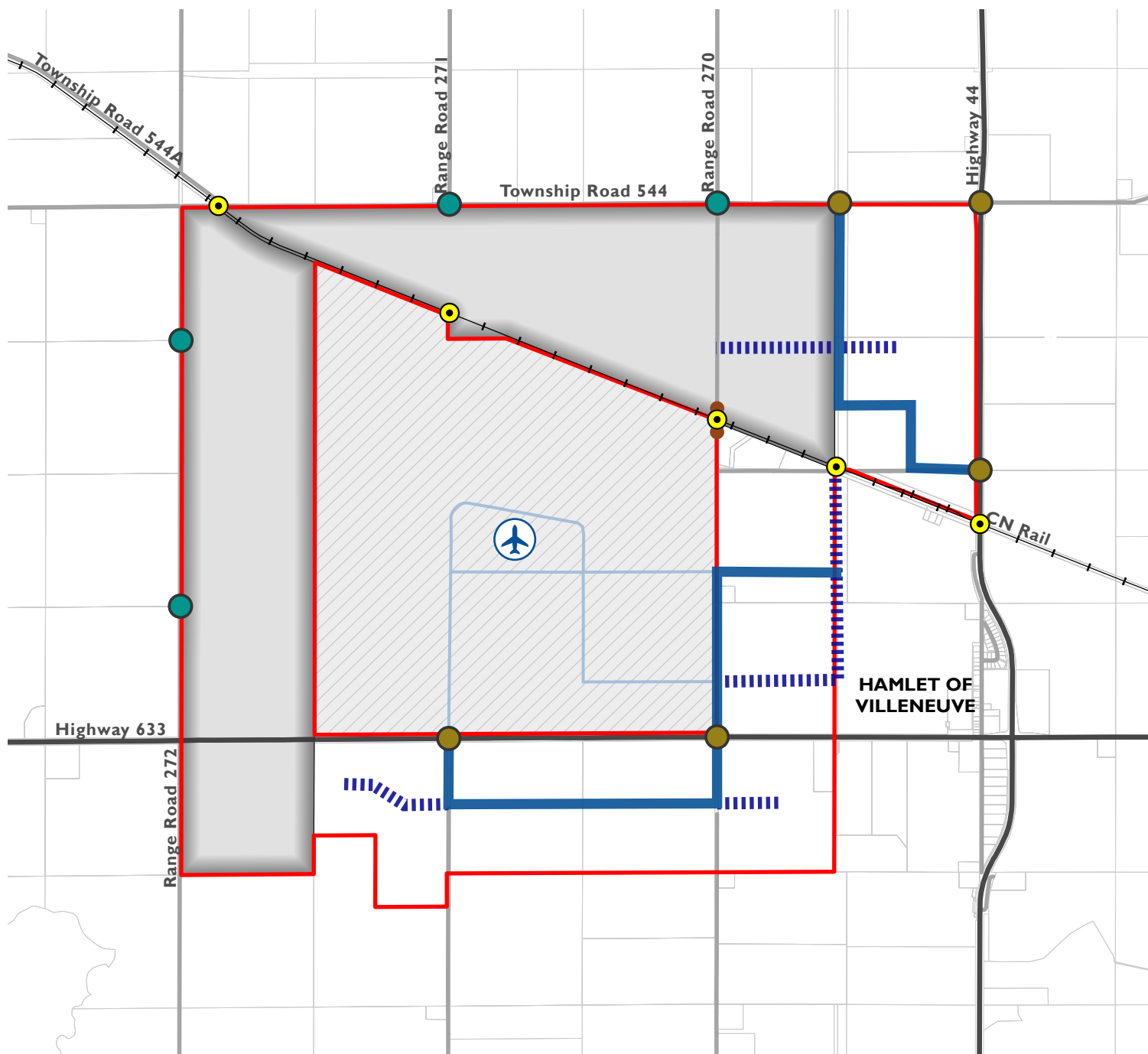
6.13.2 Applicants for development in Planning Area 2 shall consult with the Villeneuve Airport and Alberta Transportation to identify a new intersection location to service the Villeneuve Airport.

6.13.3 Prior to development occurring in the Plan area, consultation with Alberta Transportation is required to identify required upgrades to highway accesses to accommodate traffic volumes for the full development of the Plan area, subject to detailed Traffic Impact Analysis.

### **Outline Plan Policies**

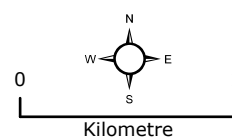
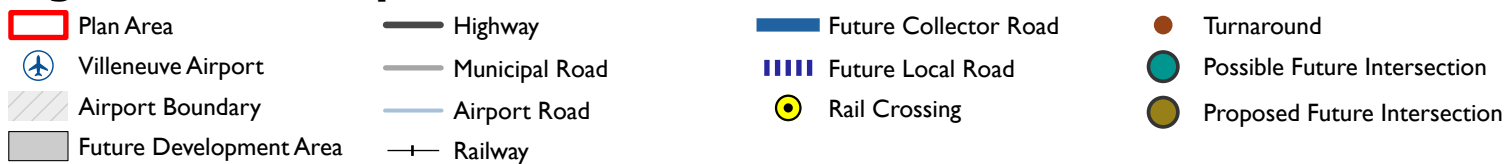
6.13.4 Prior to Outline Plan approval, a Traffic Impact Assessment shall identify any intersection upgrades required to support the development. If the Outline Plan is adjacent to undeveloped parcels in the Plan area, the Traffic Impact Assessment should discern any upgrades anticipated with the development of adjacent parcels.

6.13.5 Alberta Transportation shall be consulted prior to development of Planning Area 1 to determine intersection spacing of future road intersections on Highway 633.



Data Source: Province of Alberta Open Data, Sturgeon County, Hatch

## Figure 11 - Transportation Network



## 6.14 TRANSIT

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Regional transit service currently does not extend to the Plan area. A frequent transit bus service from a regional transit hub, such as St. Albert, would facilitate accessibility to the Plan area.

### **Transit Principles:**

- To consider future regional transit opportunities in the Plan area.

### **Policies:**

6.14.1 In collaboration with the regional partners, the County may explore opportunities to provide special transit service to the Plan area.

## 6.15 ACTIVE TRANSPORTATION AND ACCESSIBILITY

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The Plan supports the provision of local pathways, bicycle lanes and sidewalks intended to facilitate active transportation connections within the Plan area.

### *Planning Area Considerations*

Outline Plans submitted to the County in Planning Areas should demonstrate seamless interconnections between developments that would encourage active transportation within the Plan area. Landscape design considerations should be considered to create an environment that supports walking, cycling, and other active modes of transportation through adequate separation to roadways and landscaping.

### **Active Transportation and Accessibility Principles:**

- Provide direct and inter-connected linkages for pedestrian, bicycle, and other active transportation modes within and between developed areas.
- Create a built form that is accessible and inclusive.

### **Policies:**

6.15.1 Development proposals shall identify the location of active transportation infrastructure.

6.15.2 Developments in the Plan area shall be designed to create a built environment that is accessible and inclusive.

6.15.3 Development proposals should incorporate design interventions that support active transportation.

### Outline Plan Policies:

- 6.15.4 Outline Plans shall be designed to create a built environment for development in the Plan area that is accessible and inclusive.
- 6.15.5 An Outline Plan should identify, where possible, the accommodation for active modes of transportation, such as pedestrian and bicycle infrastructure and facilities, to the satisfaction of the County, and subject to any provisions of the Land Use Bylaw.
- 6.15.6 Outline Plans should demonstrate design interventions that promotes active transportation in the Plan area and:
- Accommodate direct and efficient active transportation linkages to adjacent parcels or Outline Plan areas in a continuous manner to reduce interactions with vehicle circulation and parking areas.
  - Maximize pedestrian access through the transportation network design and block spacing.

## 6.16 RAIL INTERFACE

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The Plan area will create additional vehicular traffic that will interact with rail crossings. Increased vehicle trips in proximity to the freight railway will result in the need to consider roadway planning and design measures to maximize safety. Consultation with the rail line owner to identify mitigation measures and crossing upgrades will be required, as development in proximity to railway and rail crossings is proposed.

### *Planning Area Considerations*

Developments located in Planning Area 3 can benefit from strategic positioning in the vicinity of the freight rail line. As noted in **Section 3.7**, developments that can leverage the use of freight rail may explore the addition of a rail spur; however, there is a minimum volume of goods required that may constrain this opportunity. Ongoing monitoring of the volume of goods will be required as the Plan develops over time to identify future opportunities to leverage rail line infrastructure.

### Principles for the Rail Interface:

- Promote safety for developments adjacent to freight rail infrastructure.
- Ensure the continued uninterrupted operation of the freight rail line.
- Coordinate the Plan area transportation network with rail infrastructure and identify rail crossing upgrades, as the Plan area builds out.

### Policies:

- 6.16.1 Development setbacks from the freight rail line, if any, shall be identified at the Development Permit stage.



- 6.16.2 The County should explore the full closure of Township Road 543 crossing or restriction of the Township Road 543 rail crossing to local traffic only.
- 6.16.3 The County should coordinate with the rail line owner to monitor rail and road traffic volumes with each Outline Plan, to identify thresholds and processes for rail crossing upgrades.
- 6.16.4 The County, in consultation with the rail line owner, may explore the removal of access to the Range Road 270 rail crossing through north and south road terminations and turnarounds to reduce the number of rail crossings in the Plan area.

#### **Outline Plan Policies:**

- 6.16.5 Depending on the proposed use adjacent to the freight rail line, a setback from the rail line may be required, which shall be identified at the Outline Plan stage.
- 6.16.6 A proposed rail spur shall be subject to approval by the rail line owner at the Outline Plan stage.
- 6.16.7 Outline Plans located adjacent to the rail line shall consult with the rail line owner during the planning process, with information included in the Outline Plan submission as to the guidelines for development in proximity to the freight rail line.

## **6.17 ENVIRONMENTAL AND HISTORICAL RESOURCES**

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The Plan area identifies several areas where the presence of natural features and environmentally sensitive areas are present, including open water wetlands, marshes, and watercourses. The Plan area also includes areas that will require further study due to the potential for cultural heritage resources being located on-site.

#### *Planning Area Considerations*

Environmentally sensitive areas and cultural heritage resources are most prevalent within Future Development Area 4. Known environmentally sensitive areas and cultural heritage resources are identified in **Figure 3**; however, prior to development occurring in the Plan area additional study and review shall be required. The results of these studies could result in the need for additional municipal and provincial approval processes to be undertaken prior to development. Development in these areas must demonstrate how natural and heritage resources will be avoided or integrated into the design of development, wherever possible.

#### **Principles for the Natural Environment:**

- Identify and protect environmentally sensitive areas and cultural heritage resources in the Plan area through integration into the design of the development and adequate setback requirements.

- Direct development, wherever possible, away from environmentally sensitive areas and cultural heritage resources.
- Identify, wherever possible, unknown areas of environmental and heritage significance, prior to development.

### **Policies:**

6.17.1 A professional geotechnical survey of the Plan area shall be required prior to subdivision.

6.17.2 The avoidance of wetlands and watercourses should be prioritized. However, where avoidance is not possible the alteration or removal of wetlands or watercourses shall be supported by, and in compliance with provincial and federal legislation.

### **Outline Plan Policies:**

6.17.3 An Outline Plan shall require the submission of biophysical and wetland assessments to identify all naturalized features and demonstrate protection measures, such as buffers around wetlands and natural water systems to the satisfaction of the County and provincial regulatory bodies.

6.17.4 An Outline Plan shall identify Environmental Reserve contributions to the satisfaction of the County. The location of Environmental Reserve shall be determined through studies completed prior to approval of the Outline Plan.

6.17.5 An Outline Plan shall require the submission of a Phase I Environmental Impact Assessment.

6.17.6 An Outline Plan shall require wildlife and amphibian surveys and field studies to identify species at risk within the Plan area, as part of the permitting and approval process.

6.17.7 An Outline Plan shall require the submission of a Historical Resources Overview to identify any historical features and demonstrate adequate protection measures to the satisfaction of the County and the Province. Any required provincial or federal approvals, or protections are the responsibility of the applicant.



## 7.0 IMPLEMENTATION

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## 7.1 PLAN ADOPTION

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The adoption of this Plan requires three readings of the bylaw by County Council in accordance with the *Municipal Government Act*. Following first reading and a public hearing, but prior to third reading, the EMRB must grant approval of this Plan.

## 7.2 REGIONAL COLLABORATION

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This Plan has been developed to reflect the Edmonton Metropolitan Region Growth Plan. The development of the policy was created in consultation with the Villeneuve Landing Network. The collaborative effort includes representatives from:

- Regional municipalities: the County, Parkland County, Lac St. Anne County, City of St. Albert (and Chamber), City of Edmonton, Town of Morinville, Town of Stony Plain;
- Alexander First Nation, Michel First Nation;
- Edmonton Regional Airports Authority;
- Edmonton Global;
- Alberta International Airshow;
- Northern Alberta Institute of Technology; and
- Government of Alberta.

This policy will be brought forward to the EMRB for approval following second reading of this ASP. As the Plan area develops, the County will continue to work with its regional partners as this Plan is implemented.

## 7.3 OUTLINE PLANS

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The ASP is written with intentional flexibility to enable developer-led planning scenarios that support a variety of commercial and industrial development that contribute to the success of the Villeneuve Airport, the County, and the Region. While future tie-in to County infrastructure is possible, current services do not extend to the immediate Plan area. As such, Outline Plans are required for detailed planning in focused areas to identify servicing requirements and plan for coordinated land use.

The Plan identifies the geographical boundaries for the entire Plan area, and a framework to guide the development of Outline Plans that will provide greater detail and context when development occurs. Within the Plan area, Planning Areas 1, 2 and 3 have been prioritized. Within these Planning Areas, Outline Plans must first be approved by Council before development can occur.

### Objectives:

- To coordinate contiguous development in Planning Areas 1, 2 and 3, to effectively coordinate the provision of services.
- To establish minimum requirements and clear expectations for applicants applying for an Outline Plan in the Plan area.

In addition to the policies within this Plan, the following provisions apply to the development of Outline Plans.

### Policies:

7.3.1 An Outline Plan shall include the required elements identified in the County's Outline Plan Application Package; and

7.3.2 Notwithstanding policy 7.3.1, Outline Plans submitted to support development in the Plan area may also be required to include any other items, as determined necessary by the County, upon submission of the Outline Plan, such as:

- A report demonstrating how the Outline Plan is consistent with the objectives and policies of this ASP;
- How parcels adjacent to the Outline Plan area could be conceptually developed through extensions of transportation networks and utilities within the Outline Plan area;
- The location of any land to provide community services such as emergency services;
- The identification of setbacks required from transportation networks, utility rights-of-way, or railway lines in accordance with municipal, provincial, and/or federal standards, where applicable;
- Proposed phasing within the Outline Plan area; and
- Architecture and landscaping design guidelines to the satisfaction of the County.

## 7.4 DEVELOPMENT NOT REQUIRING AN OUTLINE PLAN

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Outline Plans provide the County and applicant the opportunity to collaborate on detailed planning to support the greater ASP vision. Outline Plans are expected to be required for the majority of development requests received by the County in Planning Areas 1, 2 and 3; however, the County recognizes certain scenarios exist that would not meet the threshold to require an Outline Plan.

**Figure 12** illustrates the scenarios an applicant in a Planning Area may encounter, but **Figure 12** is subject to changes in County process; therefore, does not form a part of the policy in this ASP. This section of the ASP has been included to identify development scenarios when an Outline Plan would not be required for lands within the Plan area.

## Policies:

7.4.1 Development scenarios where an Outline Plan would not be required include:

- The subdivision of agricultural parcels in the Agricultural (AG) District, as allowed in the Land Use Bylaw;
- The redistricting and subdivision of one parcel for the purpose of developing a use that is identified to be low impact, where the remainder of the parcel will remain zoned the current use; and
- A Development Permit that is allowed under the Land Use Bylaw for the current zoning.

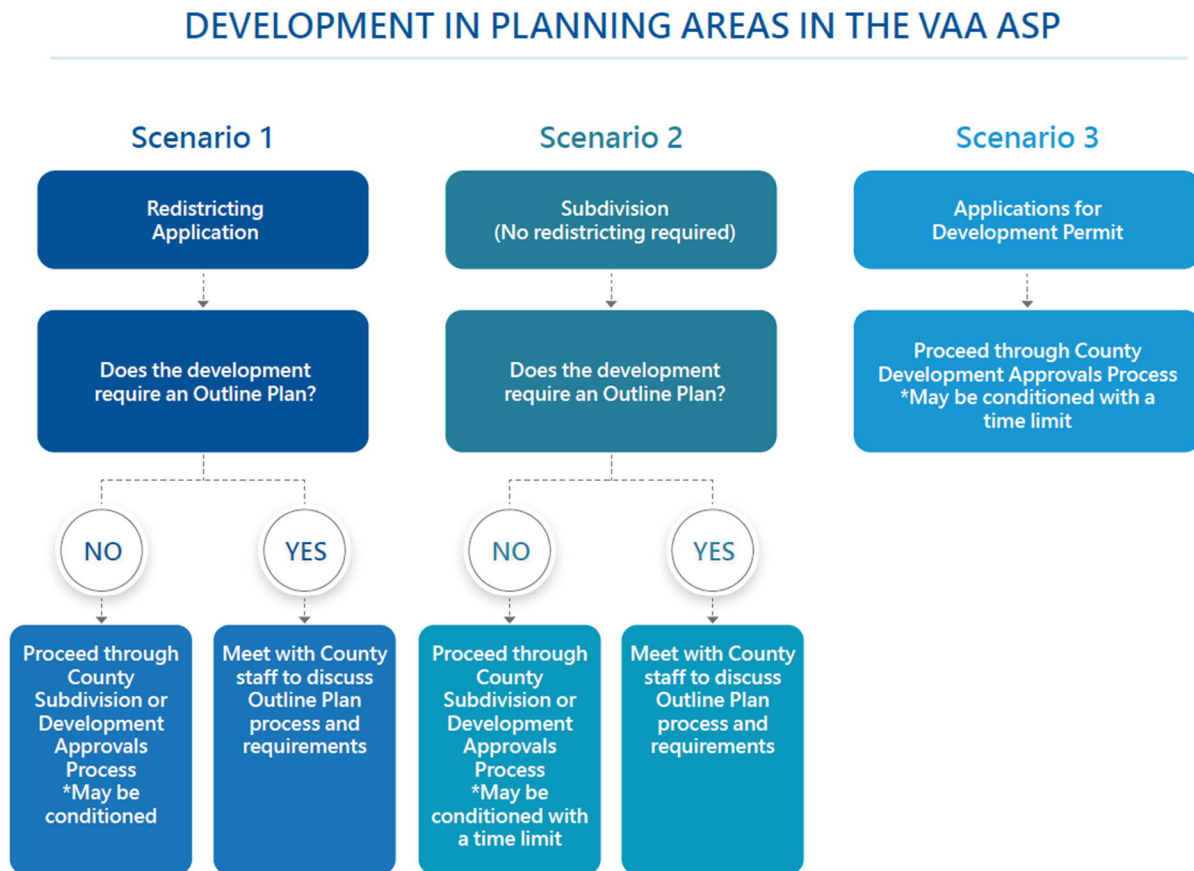
7.4.2 For the purpose of determining eligibility for an Outline Plan, a low impact development is described as a development that meets one of the following:

- Development that does not exceed the traffic thresholds to require a Transportation Impact Assessment;
- Development that does not trigger upgrades to road or intersection infrastructure; and
- Development that does not require piped services (water, sanitary, stormwater).

7.4.3 Development that can be approved as a low impact development may be conditioned by the County to specify the number of years the development is permitted to be in effect.



**Figure 12: Area Structure Plan Process Chart – Planning Areas**



## 7.5 AMENDMENTS TO THE ASP

The Plan covers a large area of land that will take time to be fully realized with the uses outlined in the Plan. There are five development areas in the Plan: three are anticipated to develop on a shorter trajectory; and two on a longer trajectory. The Plan focuses on three prioritized Planning Areas 1, 2 and 3, where development can logically and strategically proceed because of proximity to infrastructure and servicing. Amendments to this ASP will be reviewed and monitored by the County, as development occurs, to evaluate alignment with the MDP goals and objectives, and to initiate the Future Development Areas 4 and 5 that have longer trajectories. Where found necessary by County Council, elements of this ASP or the policy within will be updated by Administration, for consideration and adoption by County Council.

### 7.5.1 Development Not Requiring an ASP Amendment

The County understands that the Plan area will build out over a long period of time and commit to maintaining existing development rights of the interim land uses within the Plan area, subject to the

County's Land Use Bylaw. The following policies provide guidance regarding ASP amendments for interim development in the Plan area that do not require an amendment to this ASP:

#### Objectives:

- To enable interim development in Future Development Areas subject to the County's Land Use Bylaw.
- To provide guidance to the County when reviewing subdivision and development applications in Future Development Areas.

#### Policies:

7.5.1.1 The County may approve a redistricting application from Agriculture to Resource Extraction in Future Development Areas without an ASP amendment.

7.5.1.2 Notwithstanding the above, an ASP amendment is required for all other redistricting applications in Future Development Areas.

7.5.1.3 Within the Plan area, the County may approve a Development Permit application, if permitted in the Land Use Bylaw, under an approved Land Use District, without an ASP amendment.

7.5.1.4 Notwithstanding the above, the County may condition a Development Permit application with an operational time limit (number of years).

### 7.5.2 Future Development Areas

An amendment to this Plan to support Outline Plans in Future Development Areas is required to demonstrate servicing, employment projections, identify land uses, outline infrastructure requirements, and any other items deemed necessary by the County. Developments in Future Development Areas shall not proceed to the Outline Plan stage prior to an ASP amendment, in accordance with this Plan. In addition, there may be situations that arise where the objectives and policies within this Plan require amending. **Figure 13** illustrates the scenarios an applicant in a Future Development Area may encounter, but **Figure 13** is subject to changes in County process; therefore, does not form a part of the policy in this ASP.

#### Objectives:

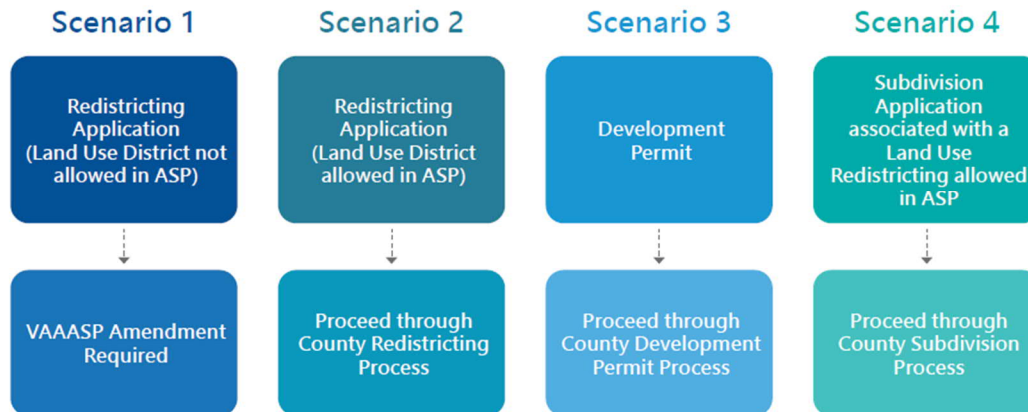
- To provide the planning process required for the County to consider the development of Future Development Areas 4 and 5.
- To identify minimum requirements for Plan amendments received by the County.

## General Policies:

- 7.5.2.1 An amendment to this Plan shall be required prior to the adoption of an Outline Plan by County Council, for those areas designated within the Future Development Areas 4 and 5 (identified in **Figure 7**).
- 7.5.2.2 Amendments to the Plan shall be in accordance with the *Municipal Government Act* and consistent with the policy contained within the County's MDP.
- 7.5.2.3 Amendments to the Plan shall be in alignment with the Edmonton Metropolitan Region Growth Plan and, if applicable, may be required to go through the REF process.
- 7.5.2.4 Amendments to this Plan to enable an Outline Plan within the Future Development Areas 4 and 5 shall identify how the proposed amendments to the Plan, and approval of the Outline Plan, will:
- Contribute to the orderly and logical development pattern within Planning Areas 1, 2 and 3 through:
    - Connections to existing and planned infrastructure (water, sanitary and stormwater) upgrades;
    - The extension of the collector and arterial roadway network identified in this Plan, informed by a Traffic Impact Assessment;
    - The active transportation network and potential impacts the future development could have on approved Outline Plans; and
    - The contiguous design of existing development areas.
  - Contribute to the orderly and logical development pattern within the remainder of Future Development Areas 4 and 5 through:
    - Potential connections to planned infrastructure (water, sanitary, stormwater and utility) upgrades;
    - Potential connections to extend the collector and arterial roadway network;
    - Potential connections to the active transportation network; and
    - Potential impacts the future development could have on approved Outline Plans; and
    - The contiguous design of existing development areas.
  - Consider the financial impact on the County, using the County's fiscal impact assessment methodology, and the Off-Site Development model; and
  - Align with the existing policies in the Plan and Edmonton Metropolitan Region Growth Plan.
- 7.5.2.5 An ASP amendment shall present justification for the amendment required and provide written recommendations for any required changes to objectives and/or policies in this ASP.

Figure 13: Area Structure Plan Process Chart – Future Development Areas

## DEVELOPMENT IN FUTURE DEVELOPMENT AREAS OF THE VAA ASP



## 7.6 OFFSITE LEVY REQUIREMENTS

The *Municipal Government Act* provides the County with the ability to establish development levies that contribute to the development of infrastructure in order for development to fund development.

### Objectives:

- To establish transparent off-site levy options and arrangements with applicants to contribute to infrastructure projects within the Plan area.
- To provide clarity to applicants around expectations and costs associated with development in the Plan area.

### Policies:

7.6.1 The County will establish an off-site levy bylaw to identify development and infrastructure costs and apply the development levy bylaw, accordingly.