



VILLENEUVE AIRPORT AREA AREA STRUCTURE PLAN

February ~~September~~ 2023



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ACRONYMS, ABBREVIATIONS, DEFINITIONS

– A –

AADT – Annual Average Daily Traffic

ACRWC – Alberta Capital Region Wastewater Commission

– C –

County – Sturgeon County

CN – Canadian National Railway

– E –

EMR – Edmonton Metropolitan Region

EMRB – Edmonton Metropolitan Region Board

– F –

~~FSA – Future Study Area~~

Fortis – FortisAlberta Inc.

FTTP – Fibre-to-the-Premises Network

– H –

Hamlet – Hamlet of Villeneuve

– I –

IMP – Infrastructure Master Plan

IRTMP – Edmonton Metropolitan Region Integrated Regional Transportation 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

VAAASP, ASP, Plan - Villeneuve Airport Area – Area Structure Plan

VLM – Villeneuve Landing Network

– **Z** –

ZVL – Villeneuve Airport



EXECUTIVE SUMMARY

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 Metropolitan Region (EMR, 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 comprehensively defines and protects the Major Employment Area identified in the EMR Growth Plan, enabling the County and the Region to meet their 2044 employment targets (as shown in Figure 1).~~ The ASP defines a Local Employment Areas for local business and economic activities, which may occur outside of the Villeneuve Airport Major Employment Area (as shown in Figure 1). The Local Employment Area supports the County's agriculture and resource-based sectors, as appropriate in the growth plan's rural policy area. This enables the County to meet their ~~2044 employment targets~~. The exterior of the Plan area borders land used for agriculture, sand and resource extraction, and associated businesses. The interior plan boundary ~~surrounds~~ abuts 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.



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; **Sturgeon County**
- 5 To enable agri-business to locate in the region, **County** building on the strong agricultural foundations found in Sturgeon County;
- 6 To create employment opportunities for residents in the region; and **Sturgeon County**
- 7 To generate economic opportunities by enabling a collaborative environment in the County and region that create long-term benefits to residents and businesses.





Vision

*In the future, the Villeneuve Airport Area is a ~~world~~-leading investment and innovation hub that promotes the economic diversification of ~~the region~~ **Sturgeon County** 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~~ **County residents**.*

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

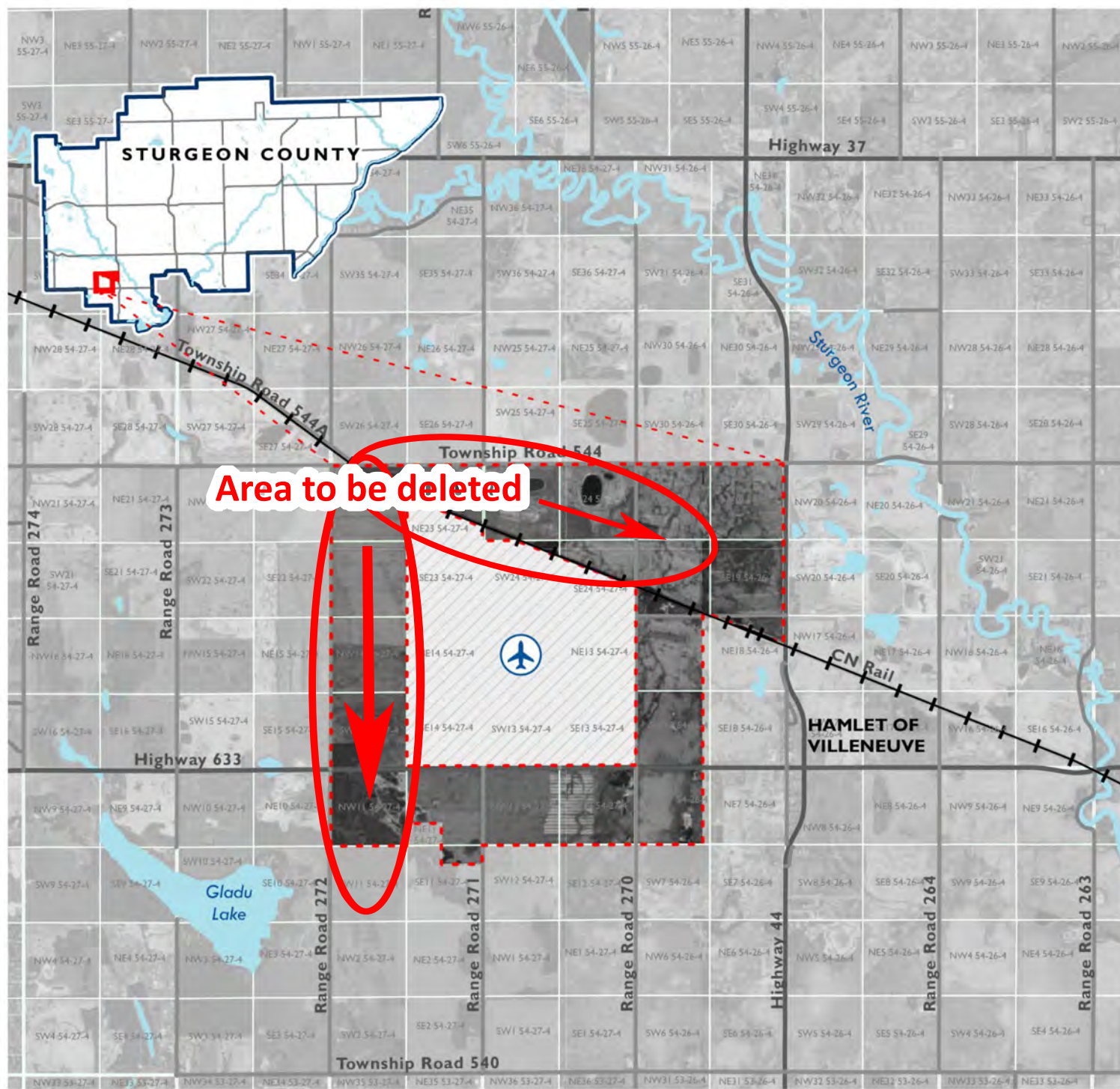
1.1 PURPOSE

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 adjacent to~~ 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 within the Edmonton Metropolitan Region Growth Plan's horizon leading to the year 2044. ~~The remaining parcels in the Plan area are identified as Future Study Area. Development in the Future Study Area requires additional steps within the Regional and County planning framework through amendments to this ASP, unless noted in Section 7.0 of this ASP.~~

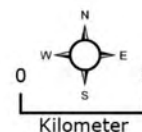
It is important to note that this ASP does not include the Villeneuve Airport, as the Airport lands are federally regulated. However, this Plan supports and protects the continued use and growth of the Villeneuve Airport.



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

Figure 1 - Area Structure Plan Location

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



1.2 INTERPRETATION

The ASP has been adopted by municipal bylaw by Sturgeon County 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

This ASP guides the future development of land in Sturgeon County, ~~surrounding adjacent to~~ 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**.

1.3.1 Plan Area Growth

The Edmonton Metropolitan Region Growth Plan (EMRGP or Growth Plan) highlights that over 470,000 new jobs will be created in the Region by 2044. Approximately 572 hectares (ha.) of employment land is conceptually illustrated on Growth Plan Schedule 3A to support employment in and around the Villeneuve Airport.

To facilitate the development vision planned for the area ~~surrounding adjacent to~~ the Villeneuve Airport, Sturgeon County has identified three prioritized areas with shorter planning trajectories, which are shown in Figure 7 (as Planning Areas 1, 2 and 3).

~~The Future Study Area, with a longer planning trajectory, will be initiated based upon infrastructure availability and market demand. It is also in place to protect employment needs beyond the 2044 Growth Plan horizon. This development approach establishes the conceptual framework for development, infrastructure and servicing.~~

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 adjacent~~ 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 continuation of current land uses until such time as development applications are received that are consistent with the development framework contained within this ASP. 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 lands.

The Strategic Plan for the Villeneuve Airport is prepared by the Airport Authority and 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 promote compatible uses that foster economic growth in the region. Airports can be economic engines of a community, creating a transportation and investment focus.

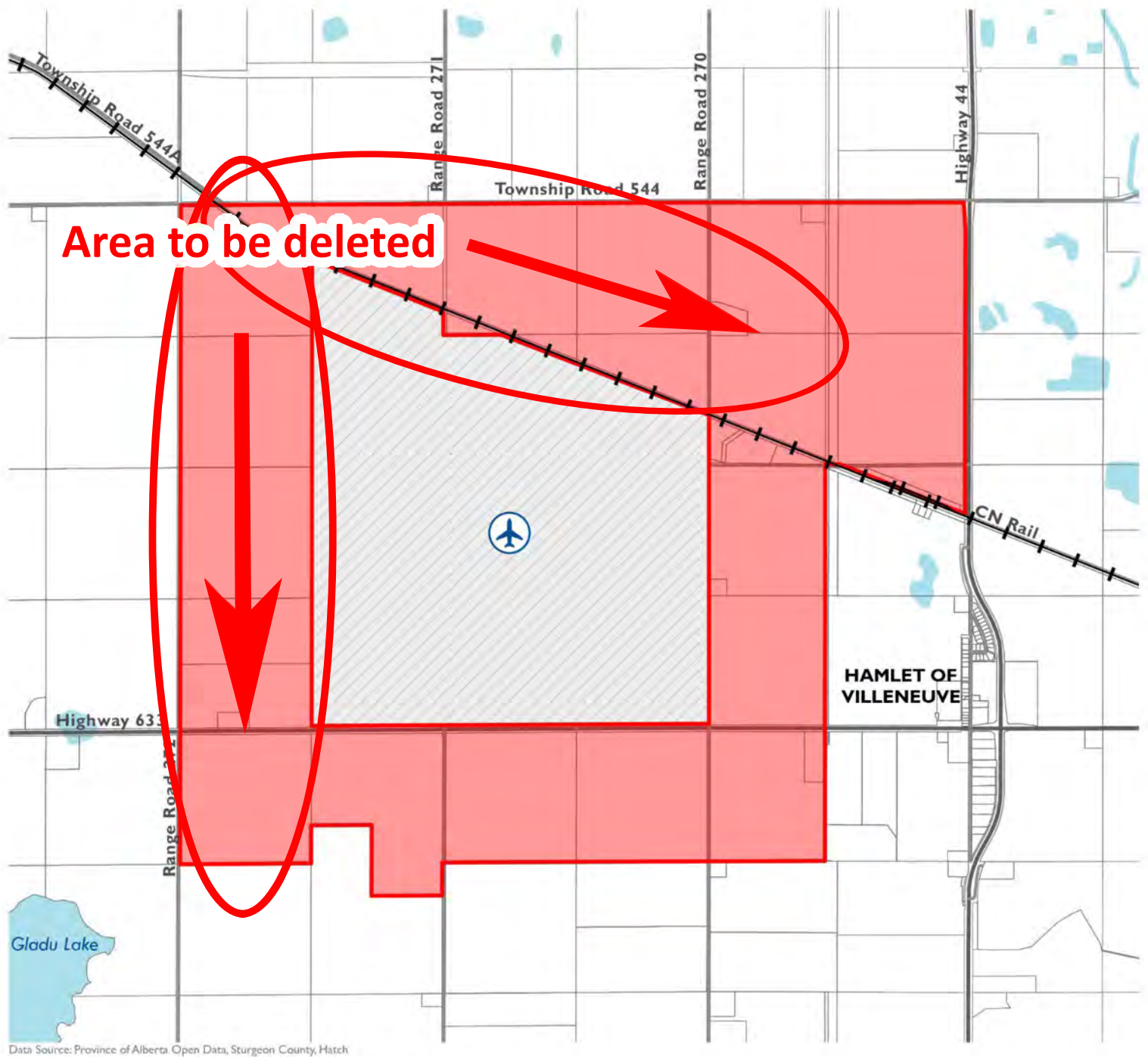
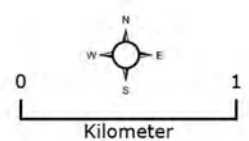
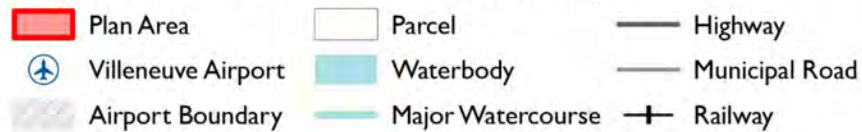


Figure 2 - Plan Area Boundary



1.4 GOALS OF THE VILLENEUVE AIRPORT AREA - AREA STRUCTURE PLAN

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1.5 OBJECTIVES OF THE VILLENEUVE AIRPORT AREA - AREA STRUCTURE PLAN

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 design.



2.0 STATUTORY PLAN AND OTHER PLANNING DOCUMENTS

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

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

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

The Edmonton Metropolitan Regional Board Growth Plan

The Edmonton Metropolitan Region Growth Plan identifies the employment lands required to meet the 470,000 new jobs that will be created in the Region by 2044. Approximately 572 ha. of employment land is conceptually illustrated on Growth Plan Schedule 3A to support employment in and around the Villeneuve Airport.

The Plan area is located adjacent to the Villeneuve Airport, which is identified as a Regional Airport on Schedule 3B of the Edmonton Metropolitan Regional Growth Plan (EMRGP). ~~The identified Major Employment Area attributed to the Plan Area, shown conceptually on Schedule 3A of the EMRGP and as outlined in the Growth Plan, is to include lands around regional airports. 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 strategically located adjacent to ~~surrounding~~ the Villeneuve Airport, which provides a transition of land uses that minimize risks to public safety and health, while supporting economic diversification. ~~The EMRGP also supports regional infrastructure investment for Major Employment Areas, including the provision of municipal services, telecommunications and utilities.~~ The EMRGP policies 1.2.2 and 1.2.6 give Municipalities the authority to designate Local Employment Areas for local business and economic activities, which may occur outside of Major Employment Areas. The Plan area aligns with the definition of a Local Employment Area and supports the County's agriculture and resource-based sectors, as appropriate in the EMRGP's rural policy area. The EMRGP defines a Local Employment Area as: a "Localized area with industrial, commercial and/or institutional land uses that have locally significant business and economic activities and generate a small concentration of employment for the local

area; or rural areas with existing resource based economic assets resulting in dispersed employment through agricultural activities, mining activities (coal, sand, and gravel) and forestry activities, etc. Local Employment Areas may be located within an existing urban community, or outside of urban communities in the rural area.” Additionally, EMRGP policy 4.1.1 requires employment growth to be planned and phased in a responsible manner, this document ensures development is contiguous with the airport lands and the Villeneuve Airport Major Employment Area.

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.

2.4 MUNICIPAL POLICY

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 adjacent~~ 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 necessary 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

County 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.

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 any Land Use Bylaw amendments 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 compatible with airport operations~~. 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, Defence, 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

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

Portions of the Plan area that abut and encircle the Villeneuve Airport are 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

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 additional studies may 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

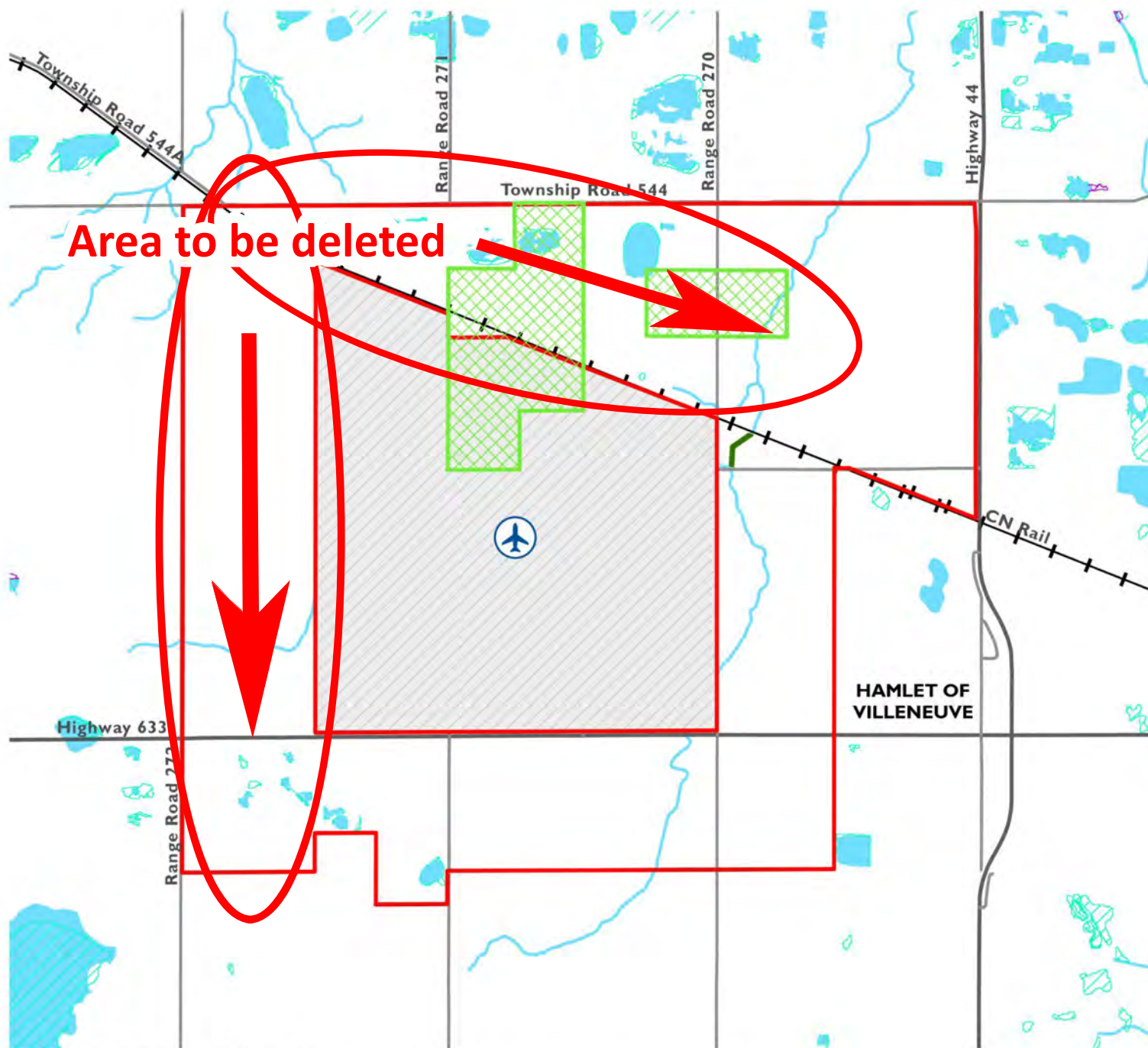
Several potential areas of interest have been identified in the Plan area, as per the *Historical Resources Act* (shown in **Figure 3**). Special consideration and future study will be required at the Outline Plan and Development Permit stages, when developing on or adjacent to these sites.

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.

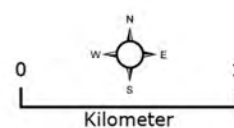
Topography

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



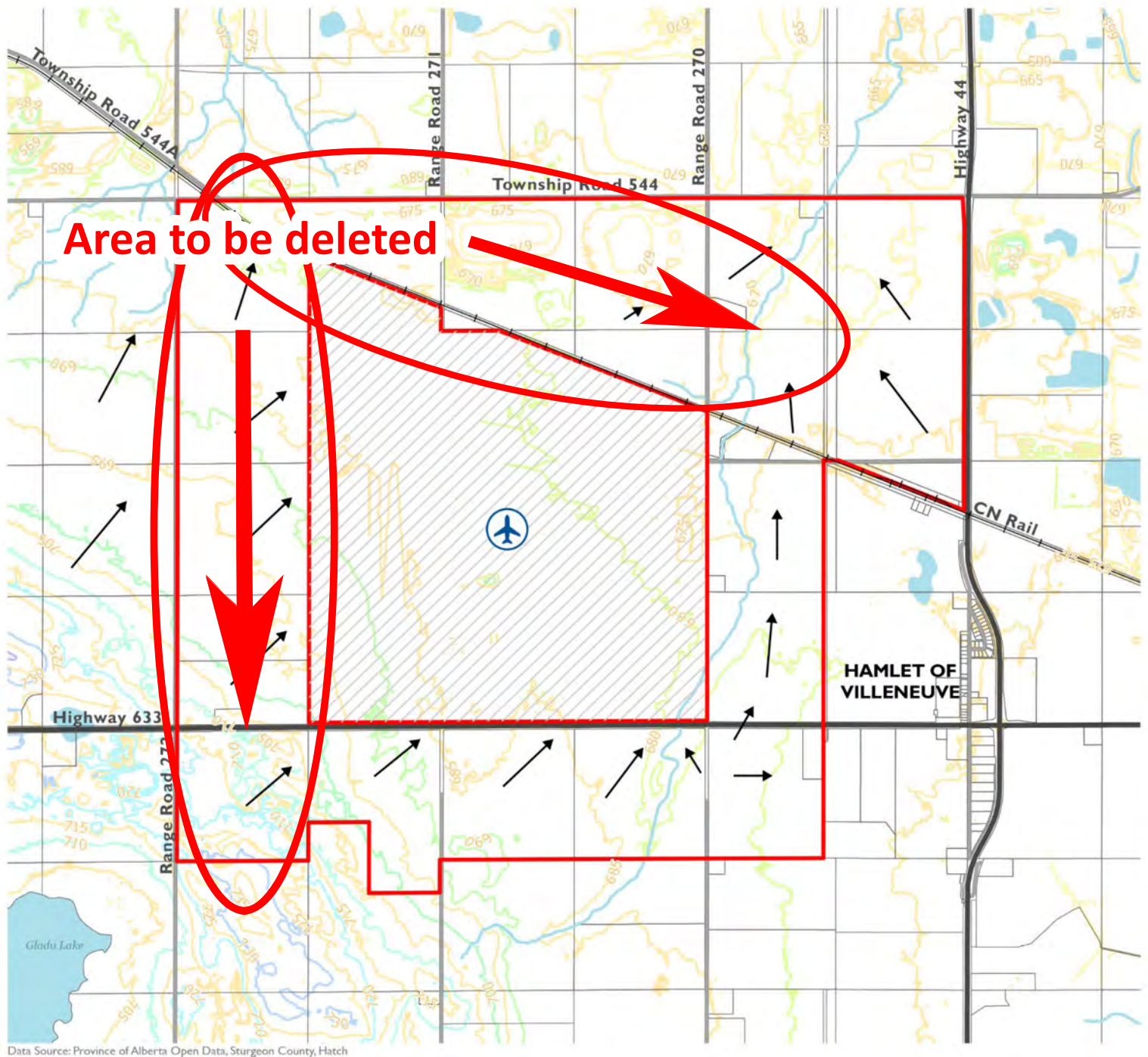
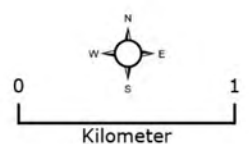


Figure 4 - Topography



3.4 EXISTING INFRASTRUCTURE

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.

As illustrated on EMRGP Schedule 8A no regional sanitary infrastructure serves the Hamlet, the Villeneuve Airport, or the Plan area. The nearest regional sanitary line is the Parkland Sanitary Trunk, which is approximately 8 km to the south and is operated by the Alberta Capital Region Wastewater Commission (ACRWC). Sturgeon County is a member municipality of the ACRWC.

Existing Hamlet sanitary flow was calculated from the annual lift station usage in 2017. The Airport average sanitary 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 existing sanitary servicing in the Plan area.

3.4.2 Water Servicing

The existing local water system includes a reservoir located in the Hamlet, two distribution pumps – one active and one on standby – and one fire pump servicing all existing development in the Hamlet. Prior to 2021, the Villeneuve Airport depended on trucked-in water and an on-site reservoir. A new 200 mm diameter water supply line was constructed from the Hamlet to Villeneuve Airport in 2021. The Airport's existing water distribution system includes an underground concrete reservoir with a storage capacity of 1,036 m³ of treated water. The reservoir has room to expand south. Currently, there are no potable water service connections directly to the Plan area between the Hamlet and the Airport.

Water supply to the local systems in the Hamlet and the Airport originates at the Oakmont Reservoir in St. Albert, which is 13.5 km to the east. The regional 550 mm Morinville Transmission Main runs northward from the Oakmont Reservoir towards Morinville. At Township Road 544, the water supply tees off and reduces to a municipal 300 mm main westward towards the Northern Lights Reservoir via the ProNorth Transmission Main. The supply continues from the Northern Lights Reservoir to the Hamlet and Airport.

The regional Morinville Transmission Main is connected to the Morinville Booster Station, located within the Oakmont Reservoir Pump house; however, the booster pump is currently not installed, and the regional Morinville Transmission Main is operating at EPCOR pressure. There is a Tri-Party Agreement (2013) that governs the capacity usage of the regional Morinville Transmission Main. Sturgeon County and the towns of Morinville and Legal have each been allocated capacity. Once the total peak demand between the three parties exceeds the current capacity, the booster pump will need to be installed and activated.

As illustrated on EMRGP Schedule 8A no regional water infrastructure exists within or adjacent to the Plan area. The two nearest existing regional water lines lie beyond the Hamlet and Plan area. The first regional water line is the Tri-Party Intermunicipal water line operated by Sturgeon County, Morinville and Legal is located approximately 14 km east of the Plan area. It runs north along the east side of St. Albert through Sturgeon County providing service to the County, Morinville and Legal. The second regional water line is located south of the Hamlet and Plan area, is operated by the Capital Region Water Services Commission (CRWSC) and runs from Edmonton to Stony Plain via the Acheson Industrial Area (Parkland County) and Spruce Grove generally along Highway 16A. This Morinville Transmission Main is 13.5 km east of the Hamlet while the CRWSC main is approximately 13 km to the south.

Section 2.0 of **Appendix C** includes additional information regarding existing 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 tributary watercourse flows through the southeast side of the Plan area and then flows northeast toward and ultimately into the Sturgeon River. The second watercourse is located in the northwest of the Plan area and crosses the railway at Range Road 272. North of the Airport there are three quarter sections with large clay lined gravel pits that were left behind from previous aggregate mining and capture most of the surface water runoff. Land west of the Airport is flatter and receives offsite surface runoff from a high point approximately 2 km to the west of the Plan area boundary, and cumulative runoff is intercepted by the existing railway ditch, which drains northwest to a culvert crossing the railway to the watercourse at Range Road 272.

Section 4.0 of **Appendix C** includes additional information regarding existing stormwater management 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

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 12**.

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 Integrated Regional Transportation Master Plan (IRTMP).

Highway 44 has important connections with other regional and provincial routes including Highway 16 to the south, and through that connection, access to Highway 216 (Anthony Henday Drive. Highway 44 also connects with Highway 633 which extends easterly to connect Highway 2 (St. Albert Trail) that serves communities in northeast Alberta. Estimates of background traffic leading to 2044 (assuming a linear background traffic growth rate of 2.5% per annum) indicates that Highway 44 would approach design thresholds of needing widening to 4 lanes regardless of any growth from the VAA-ASP.

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 IRTMP. Estimates of background traffic leading to 2044 (assuming a linear background traffic growth rate of 2.5% per annum) indicate similar future needs as Hwy 44 (widening to 4 lanes), albeit not as significant.

Junction of Highway 44 and 633 Roundabout

The construction of a modern, single lane roundabout at the junction of Highway 44 and Highway 633 at Villeneuve was completed in 2013. The scope of work included the removal of the existing intersection, grading, base, concrete curb and gutter, paving, signage and illumination. While a future bypass of the Hamlet of Villeneuve has been contemplated by Alberta Transportation as part of conceptual planning, long term solutions for HWY 44 in/around the Hamlet Villeneuve include ongoing ability to complete a variety of improvements to the roundabout. This includes options of adding a right turn channelized lane or making it a 2 lane roundabout; both of which have the ability of improving the capacity of each leg of the roundabout.

3.5.2 Municipal Roads

The Plan area is serviced by several County Range Roads and Township Roads, as shown in **Figure 12**.

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

No regional transit or trails exists within or adjacent to the Plan area as indicated on Schedule 10B. 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 by private car or taxi. There is currently no infrastructure dedicated to public transit or active transportation facilities within the Plan area. Public transit connectivity in the area would need to be driven by development and investment in and around the Villeneuve Airport.

Future transit connectivity will be informed by future passenger demand; which will be supported by the development of a higher-order transit network in the Region. Future opportunities to accommodate transit alternatives to the VAA may be explored in coordination with the County's regional partners.

Similarly Active Transportation links will be driven by development and investment in and around the Villeneuve Airport and Hamlet, with a view to connect to the County's wider Active Transportation Network.

3.6 VILLENEUVE AIRPORT

The Villeneuve Airport lands are located ~~in the centre of~~ adjacent to 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 and regulations 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.

Taking into account servicing availability, compatibility with Airport runways & operations and Airport Authority long-term strategic plans; approximately 80% of the area currently illustrated on Schedule 3A has limited to no development potential. Any future development is expected to occur to the southeast portion of the Airport lands, which is serviced from County owned and operated water and sanitary lines.

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.

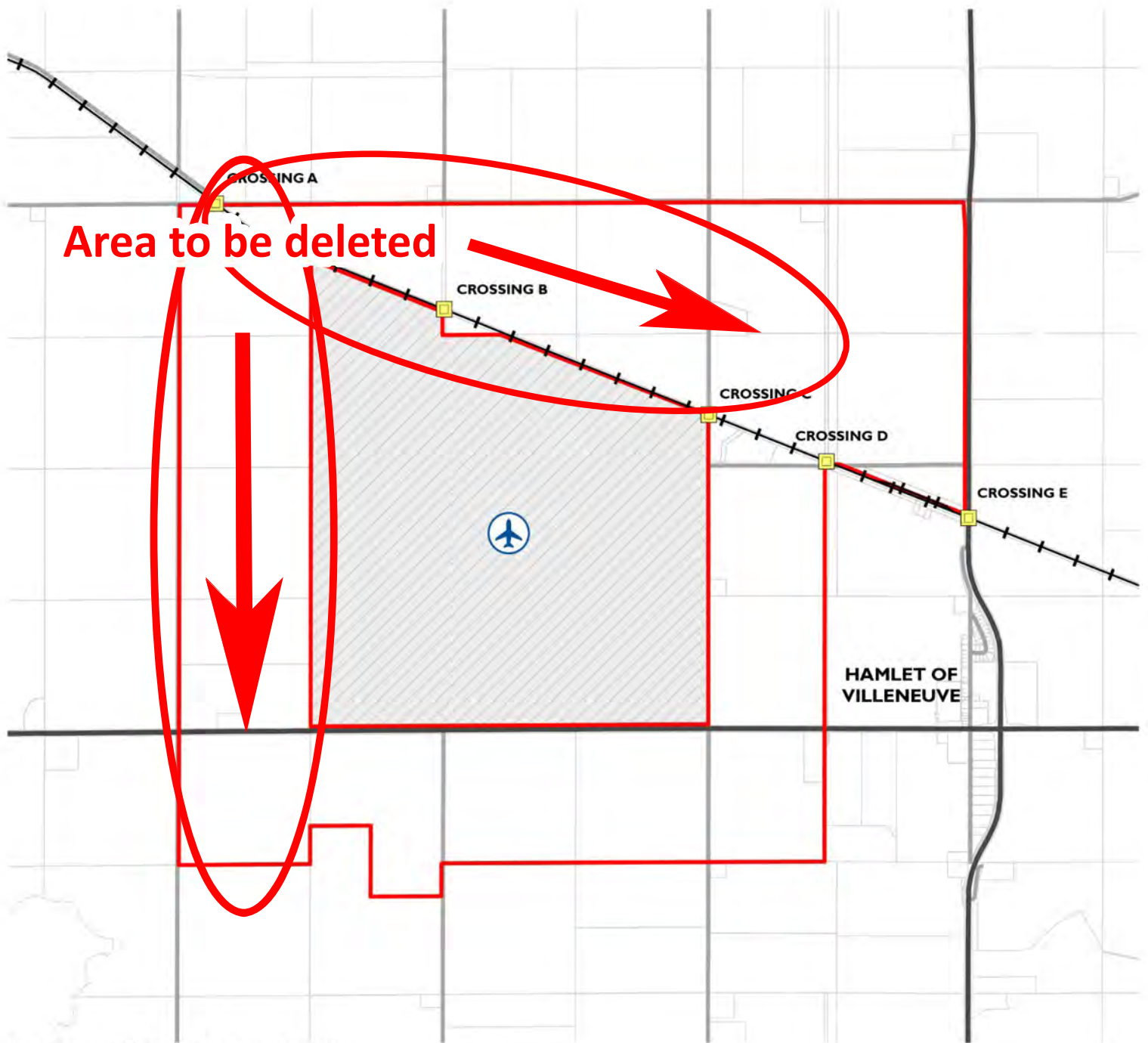
3.7 RAIL INFRASTRUCTURE

As shown on EMRGP Schedule 10C, 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 Sangudo 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 Sangudo 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**:

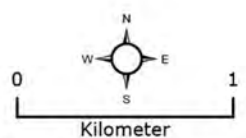
- **Crossing A:** Township Road 544 intersects the rail line at a crossing located between the intersections of Range Road 272 (west of the crossing) and Township Road 544A (east of the crossing). The crossing is at-grade and has rail crossing signage with flashing lights.
- **Crossing B:** An at-grade 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

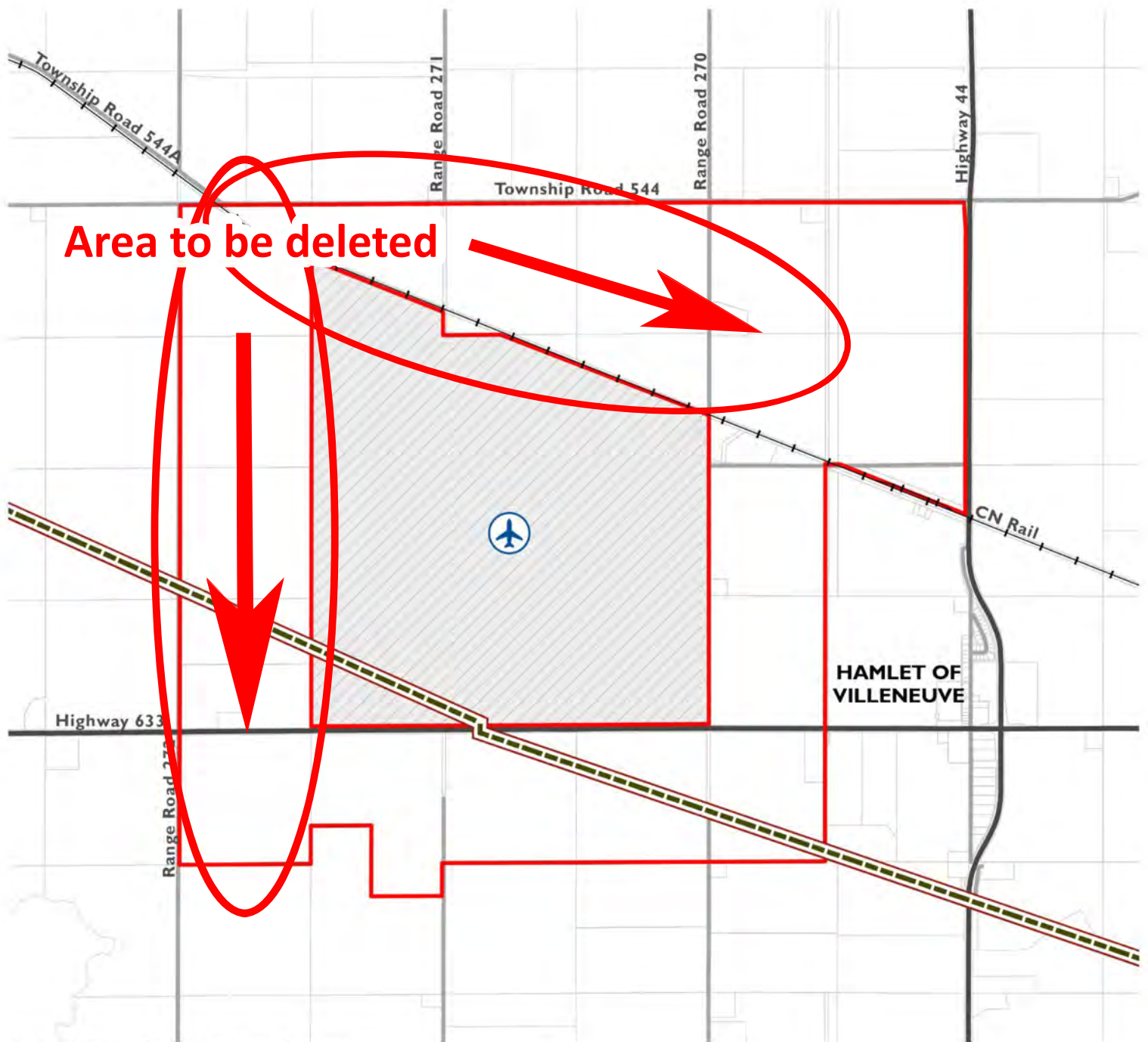
- | | | | |
|--|--------------------|---|----------------|
|  | Plan Area |  | Highway |
|  | Villeneuve Airport |  | Municipal Road |
|  | Airport Boundary |  | Railway |
|  | Rail Crossing | | |



3.8 OIL AND GAS

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.

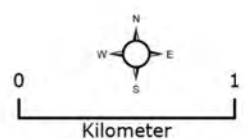
An existing ATCO transmission (high pressure) pipe runs along Range Road 270, shown in **Figure 6**. Future conversations with ATCO are required; however, it is anticipated that this transmission pipe may eventually be replaced. The relocation of the pipeline may be considered by the County through future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



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

Figure 6 - Oil and Gas Infrastructure

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



3.9 PROTECTIVE AND EMERGENCY SERVICES

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.



4.0 VILLENEUVE AIRPORT AREA DEVELOPMENT CONCEPT

4.1 DEVELOPMENT CONCEPT

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 ~~Sturgeon County the region~~, while retaining agricultural land in the County. 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 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 County. 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

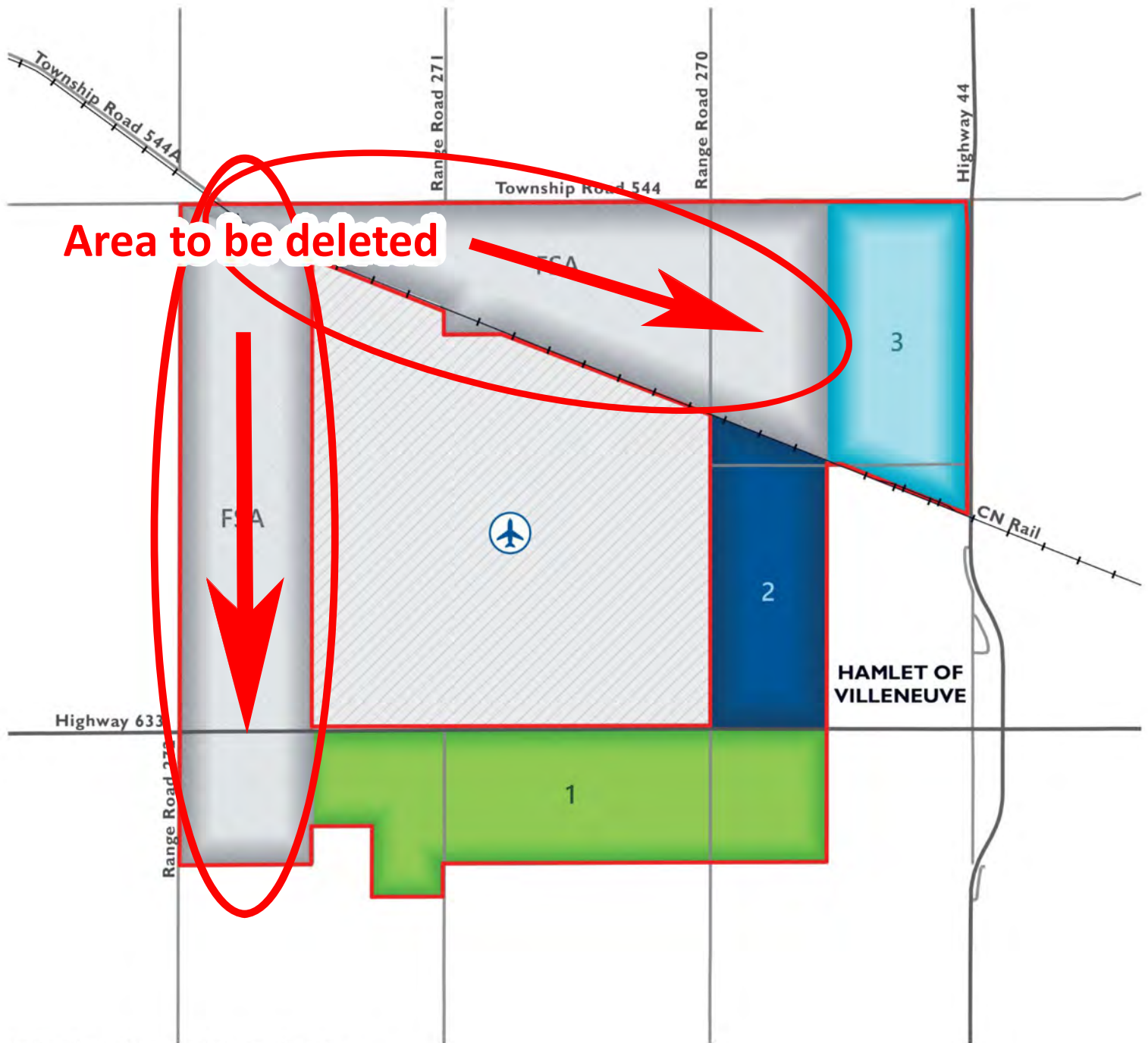
5.1 STRATEGIC PLANNING APPROACH

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. The 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: ~~which are~~ The development zones within the Plan area with shorter planning trajectories directed by the policy framework outlined in this ASP. Development of the Planning Areas will enable the EMR and County to achieve their 2044 employment targets for the Region.

- ~~Future Study Area: A development zone within the Plan area with a longer planning trajectory that will require an amendment to this ASP, prior to development being permitted. Comprehensive planning for the Future Study Area both protects and defines the Major Employment Area; while supporting development beyond the 2044 Growth Plan horizon.~~

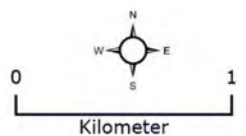
The Planning Areas ~~and Future Study Area~~ are identified on **Figure 7**.

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 Study Area~~. **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, Strugoon County, Hatch

Figure 7 - Planning Areas



5.2 STRATEGIC PLANNING APPROACH GOALS

- 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.

5.3 OBJECTIVES

- To logically phase development to maximize opportunities for efficient servicing connections;
- To identify 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 the Planning Areas and the Future Study Area.

5.4 PLANNING AREAS

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.

~~5.5 FUTURE STUDY AREA~~

~~The Future Study Area has been identified by the County in this ASP for a longer planning trajectory as servicing this area is planned to be through Planning Areas 1, 2 and 3. The Future Study Area is shown on Figure 7. Lands in the Future Study 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 the Future Study Area after the prioritized Planning Areas 1, 2 and 3, or once servicing is extended to those areas. Comprehensive planning for the Future Study Area will support development beyond the 2044 Growth Plan horizon. An amendment to this ASP will be required to allow for development in the Future Study Area to begin.~~

~~Interim uses for the Future Study Area 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

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

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

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

6.1.2 If a development proposes to deviate from an approved Outline Plan, an amendment to the Outline Plan will be required.

6.2 LAND USE CONCEPT

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 shall work with applicants seeking to develop innovative commercial and industrial uses.

6.2.2 The County shall 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 should provide supporting rationale outlining how the proposed land uses meet the following intent for each Planning Area as follows:

Planning Area 1

- Outline Plans are to demonstrate how uses support the EcoPark, Agri-Innovation and Aviation & Aerospace development concepts.

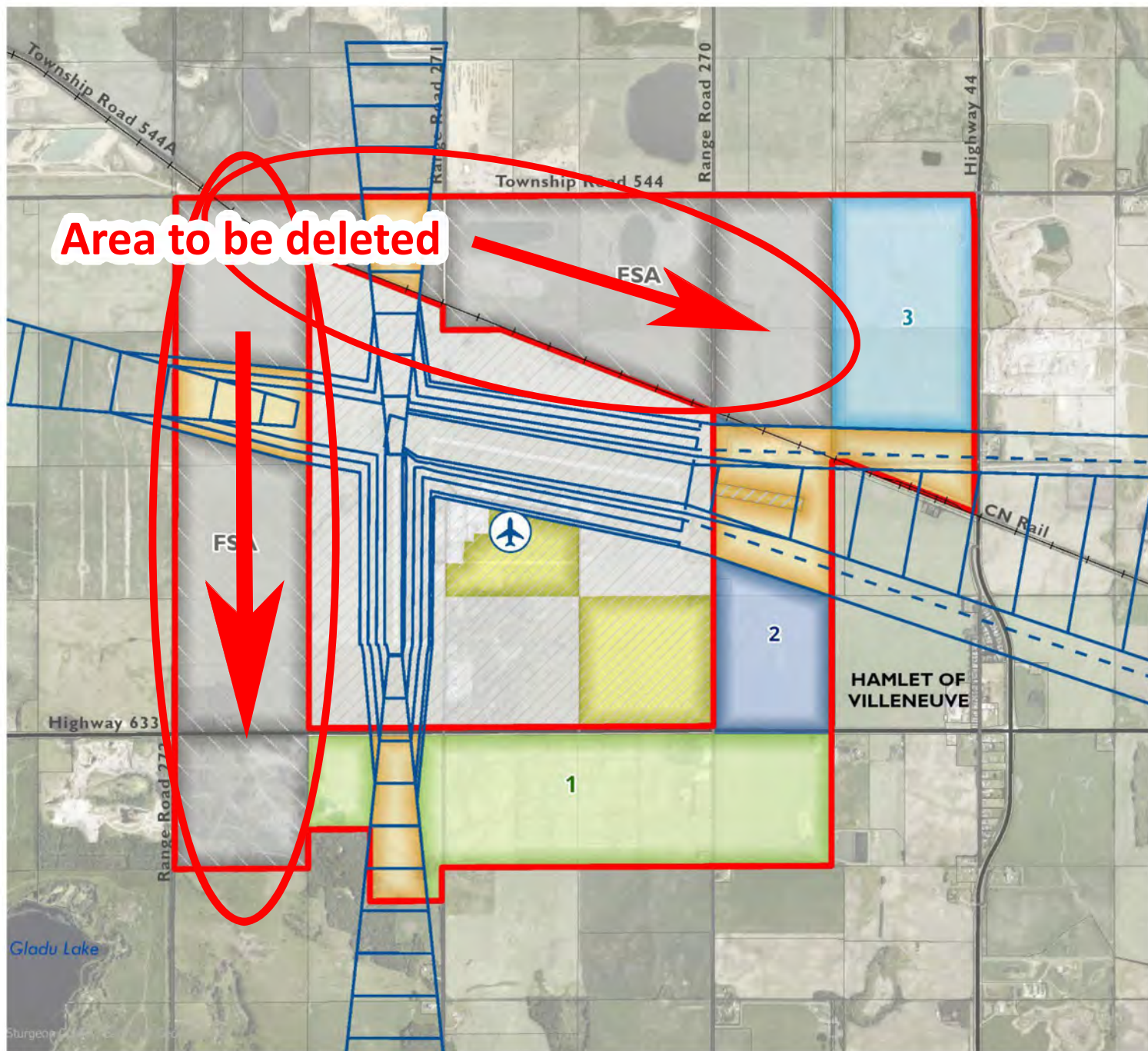
Planning Area 2

- Outline Plans are to demonstrate how uses support the EcoPark, Agri-innovation and Aviation & Aerospace development concepts.

- Outline Plans are to demonstrate that uses within Planning Area 2 do not obstruct airport operations.

Planning Area 3

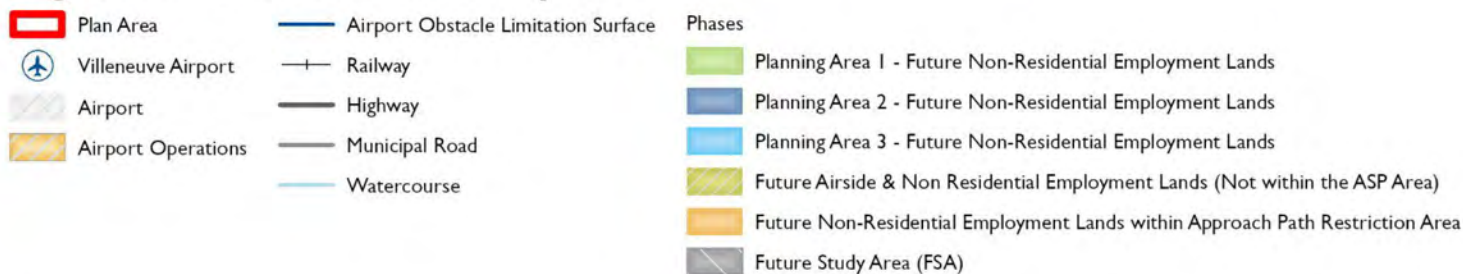
- Outline Plans are to demonstrate how uses support the Logistics Park development concept.



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

*This figure represents the Villeneuve Airport Approach Path at the time of ASP adoption. The Villeneuve Airport Approach Path should be confirmed as a part of due diligence and prior to development.

Figure 8 - Land Use Concept *



Planning Area 1: ecoPark, Agri-Innovation or Aviation & Aerospace developments near multi-modal transportation opportunities.

Planning Area 2: Agri-Innovation or Aviation & Aerospace developments in close proximity the airport and rail.

Planning Area 3: Logistics Park to take advantage of the rail, road and air links.

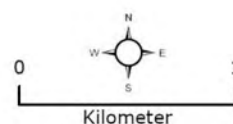


Table 1: Land Use Statistics Table

VAA ASP Area + Airport Area	+/- Area Ha.
Existing Planning Area 1 - 3 Road/Rail Allowance	17.0 Ha.
Existing Environmental Reserve	0.6 Ha.
Existing Airport Runway Instrument Landing Infrastructure	4.0 Ha.
Local Employment (resource extraction areas/existing rural industrial)	30.2 Ha.
Existing Highway 633 Right of Way	12.6 Ha.
Future Highway 633 Future Road Widening	17.2 Ha.
Total Deductions (not applicable to airport area)	78.6 Ha.
Total Gross Developable Area for Plan Area and Airport Lands	542 Ha.

Table Clarifications

1. Table 1 provides Total Gross Developable Area for total employment lands required within Growth Plan horizon leading to 2044 for both the Villeneuve Major Employment Area and the ASP Local Planning Area.
2. While the Airport lands are not within the ASP Plan Area, they are included in Figure 8 and Table 1 to be transparent regarding full regional impacts within Growth Plan horizon leading to 2044 and to demonstrate consideration for the Airport's development potential as per ASP Economic Analysis report (Appendix F).

Area Structure Plan Area: Additional Land Use Statistics

ASP Planning Area 1, 2 & 3 (Gross Area): 527.1ha

ASP Planning Area 1, 2 & 3 (Gross Developable Area): 445.5ha*

* Note: Further deductions for future Municipal Reserve (10%), Road Area (15%) and PUL (5%) to accommodate Stormwater Management and Utilities would be subtracted from Gross Developable Area at Outline Plan stage to get 'Net Developable'

6.3 NATURAL RESOURCE EXTRACTION

The County recognizes 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.

In accordance with RAMP Policy Area 2 Section 4.2, general direction for reclaimed lands is to be rehabilitated to agriculture uses. That being said, RAMP policies also indicate that reclaimed lands may also be considered for a variety of other uses including environmental, ecological, commercial, industrial, institutional or recreational uses that can leverage existing infrastructure.

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 the Future Study Area.~~ 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 the Future Study Area~~ 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.
- Reclaimed lands are to be rehabilitated to uses generally outlined in the appropriate policy area of the EMR Regional Agriculture Master Plan.

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 the Future Study Area~~, 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

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 area 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 generally small. Therefore, there are currently no NEF contour calculations for the Villeneuve airport.

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

6.4.2 Where appropriate 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

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

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:

- Through Phasing, 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 uses 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 Study Area,~~
~~e~~Existing agricultural lands within the Plan area shall be retained for agricultural purposes, until development consistent with this ASP is approved by the County.

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

6.6.4 Phasing and Development in the Planning Areas shall occur in a clustered and contiguous manner, while accommodating drainage patterns as development occurs.

Outline Plan Policies:

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

6.6.6 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 PROPOSED INFRASTRUCTURE

Municipal water and sanitary systems provide a fundamental service to County businesses. The provision of water and sanitary services will occur in coordination with phased development as it proceeds. Planning for water and sanitary services 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. Planning must also consider the impacts on the Hamlet's water and sanitary systems as well as the downstream impacts on ~~regional~~ water and sanitary infrastructure, its operators, and member municipalities. The County will explore partnerships with neighbouring municipalities, regional infrastructure providers, and their member municipalities to identify the effective provision of services for the Plan area that is not detrimental to downstream provision of the same.

6.7.1 Sanitary

Figure 9 shows the proposed sanitary servicing concept for the Plan area. Note that the Plan area, which is already divided into Planning Areas, is further partitioned into Servicing Units¹. The boundaries of each Servicing Unit generally adhere to quarter section boundaries with some exceptions along the rail line.

Planning Area Considerations

Overall, sanitary collection in the Plan area will consider decommissioning the existing lagoons and diverting the flow to the ACRWC's Parkland Sanitary Trunk approximately 8 km to the south through a proposed Villeneuve Lift Station located south of the Hamlet and a 300 mm high density polyethylene (HDP) forcemain. Both the Villeneuve Lift Station and its forcemain will be operated by the County and funded by developers through the collection of offsite levies. The proposed Villeneuve Lift Station will be located at Range Road 265, approximately 1 km east of the existing Villeneuve Lagoon. The ACRWC was consulted during the preparation of this Plan and is supportive of Sturgeon County's intention to connect and divert flows to the Parkland Sanitary Trunk in the future.

Individual servicing strategies for Servicing Units within the Plan area are described in detail in Section 3.0 of Appendix C. In general, Servicing Units 1 to 6 are proposed to be serviced through the gravity system to proposed Lift Station 1 with a dedicated forcemain to the proposed Villeneuve Lift Station. Servicing Units 8 to 10 will be serviced through the gravity system service to the proposed Lift Station 2 located at the northeast corner of Servicing Unit 8 with a dedicated forcemain to the proposed Villeneuve Lift Station. Servicing Unit 7 sanitary service will be via a local sanitary system to proposed Lift Station 2.

¹ In Appendix C, Servicing Units 1 through 10 are referred to as Parcels 1 through 10.

All lift stations will be serviced with a dedicated forcemain. If a combined forcemain is proposed, then further engineering study will be required to check for feasibility as well as operational and maintenance constraints.

Additional information regarding the development triggers and sequencing of sanitary servicing is included in Section 3.0 of **Appendix C**.

Principles for Sanitary:

- Provide for the efficient delivery of sanitary services to the Plan area in a manner that prioritizes the adequate servicing of its Planning Areas and Servicing Units.
- Identify sanitary servicing requirements for Outline Plans.
- ~~Identify sanitary servicing connections for the Future Study Area.~~

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 solutions that cross the boundary between the Airport and the Plan area, 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 9**.

6.7.1.5 The County shall collaborate with the Airport Authority and the ACRWC to finalize long-term solutions for the provision of sanitary infrastructure to service the Plan area.

6.7.1.6 The County should work with neighbouring municipalities and other sanitary utility operators to identify existing sanitary services that could be extended to service the Plan area.

6.7.1.7 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.

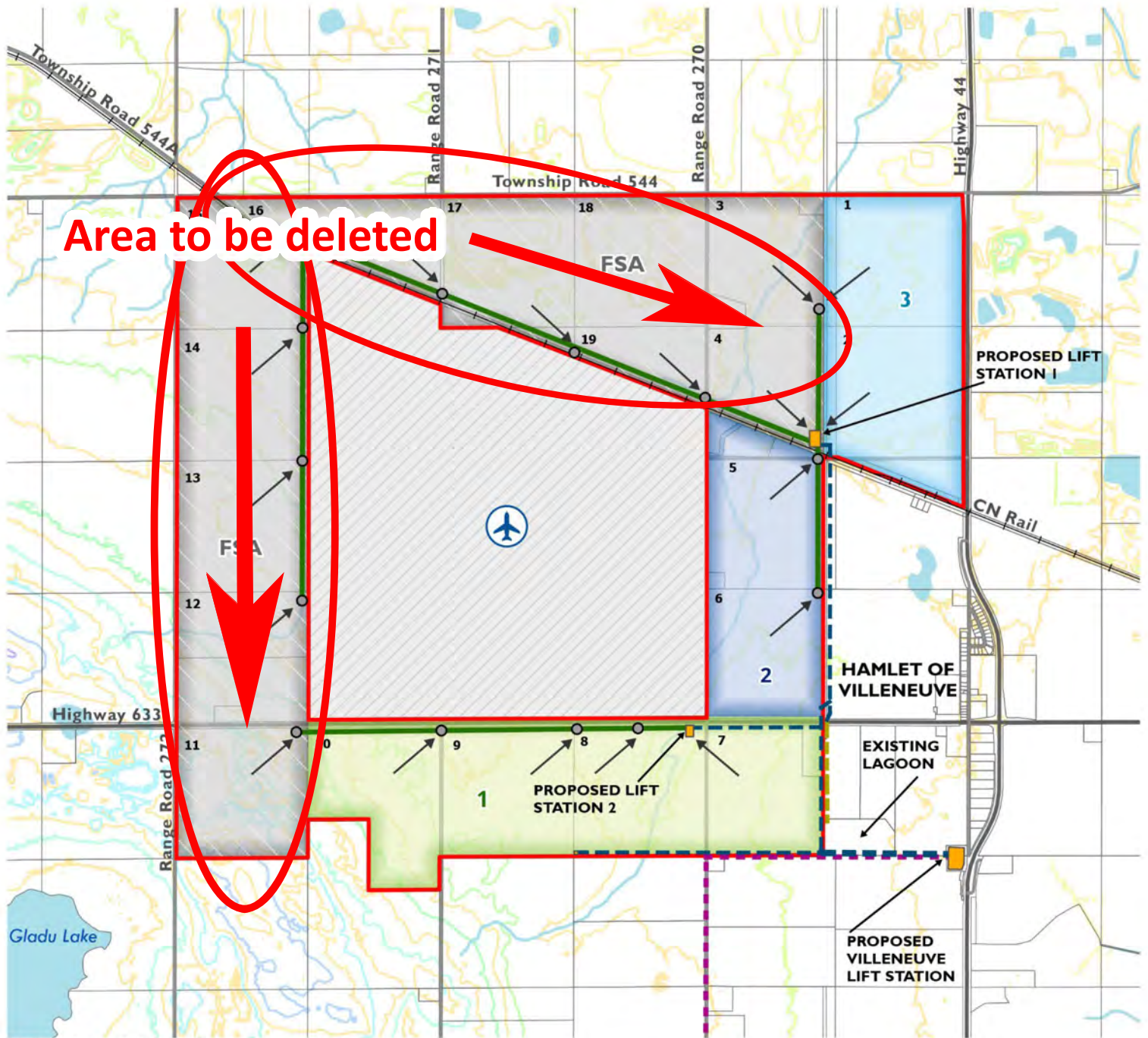
6.7.1.8 Prior to any development and in conjunction with the preparation of Outline Plans for any portion of the Plan area, a detailed Engineering Design Brief for sanitary servicing and other engineering reports deemed necessary by the County must be prepared by the developer and accepted by the County. The Engineering Design Brief shall be used to guide the design of sanitary infrastructure servicing for each Outline Plan area.

- 6.7.1.9 Sanitary services shall be constructed ~~with appropriate oversizing~~ to accommodate future development within the Plan area, as identified in the detailed Engineering Design Brief at the Outline Plan stage, as well as future offsite sanitary infrastructure, if feasible and required by the County.
- 6.7.1.10 All costs associated with the construction of onsite sanitary infrastructure required to service private sites shall be borne by developers.
- 6.7.1.11 The County shall prepare a mechanism by which a developer front-ending the cost of oversizing sanitary services will be reimbursed by future developers as they utilize the sanitary services.
- 6.7.1.12 The County shall require all developments within the Plan area to contribute proportionately to the installation and upgrades of offsite sanitary infrastructure, including the proposed Villeneuve Lift Station and forcemain to the ACRWC Trunk, through proportionate offsite levy contributions charged for sanitary infrastructure installed by developers and/or the County. Exact contributions will be determined at the time of subdivision and be as specified in the County's Offsite Levy Bylaw.
- 6.7.1.13 The County may pursue grant funding to subsidize the financing burden of offsite sanitary infrastructure construction on developers of lands in the Plan area.
- 6.7.1.14 The County shall collaborate with Alberta Transportation and Parkland County on the co-location of the future forcemain from the proposed Villeneuve Lift Station to the ACRWC's Parkland Sanitary Trunk along Highway 44 or Range Road 270.
- 6.7.1.15 The Engineering Design Brief for sanitary services prepared at the Outline Plan stage shall inform consideration of subsequent subdivision and/or development applications.

Outline Plan Policies:

- 6.7.1.16 The overall sanitary distribution system for each Outline Plan shall be guided by the County's IMP, the County's General Municipal Servicing Standards, and any subsequent approved County studies in effect at the time of development.
- 6.7.1.17 An Engineering Design Brief for sanitary services shall be required as part of the Outline Plan preparation to inform subsequent subdivision and/or development applications.
- 6.7.1.18 Outline Plans in Planning Areas 1, 2 and 3 shall identify sanitary connections to adjacent lands ~~and the Future Study Area.~~
- 6.7.1.19 The applicant shall be responsible for the cost of sanitary servicing and infrastructure that provides adequate service delivery to the Outline Plan area.

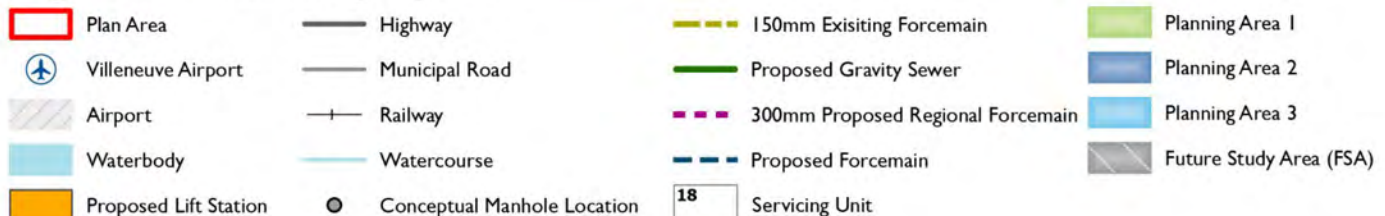
- 6.7.1.20 The Sanitary servicing system alignment is identified in **Figure 9**. At the Outline Plan stage, the sanitary distribution system should generally align with this figure.
- 6.7.1.21 Notwithstanding Policy 6.7.1.20, alternate and more cost-effective sanitary servicing alignments and locations may be considered by the County at the Outline Plan stage.
- 6.7.1.22 At the Outline Plan stage, additional studies or analysis may be required by the County to demonstrate the sanitary distribution system is feasible to 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.
- 6.7.1.23 Outline Plans and their supporting Engineering Design Briefs for sanitary servicing, as well as any additional sanitary servicing studies or analysis required by the County, shall be circulated to the Airport Authority and the ACRWC for review and comment.



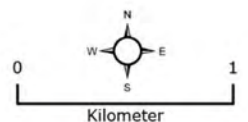
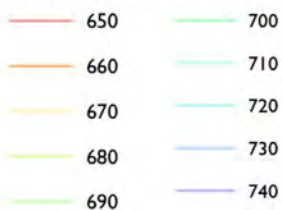
Data Source: Province of Alberta Open Data, Sturgeon County, Hatch

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 9 - Sanitary System



Contour Value



6.7.2 Potable Water System

Figure 10 shows the proposed potable water servicing concept for the Plan area. Note that the Plan area, which is already divided into Planning Areas, is further partitioned into Servicing Units². The boundaries of each Servicing Unit generally adhere to quarter section boundaries with some exceptions along the rail line.

Planning Area Considerations

Overall, two reservoirs and a connected 300 mm loop are proposed. The Northeast Reservoir will be fed through the distribution line during the nighttime and to support water distribution needs during the daytime. The Southwest Reservoir is proposed at the northwest corner of Servicing Unit 10 at an elevation of 700 m. The Southwest Reservoir will be fed through a combined transmission and distribution line up to the westernmost edge of Servicing Unit 7 before splitting to a dedicated transmission feed line to the southwest and a distribution line for the parcel to the west. The configuration is proposed to supply Servicing Units 7 to 10 through both the Hamlet Reservoir and the proposed Southwest Reservoir in the interim state. Due to the high elevation located in the southwest portion of the Plan area there is a pressure zone boundary proposed along elevation 693.5 m. Pressure reducing valves will be used to manage pressure from the Southwest Reservoir. The actual reservoir locations will be refined by further study. Ultimately, the two reservoirs and its associated transmission mains will be operated by the County and funded by developers through the collection of offsite levies. As Outline Plans are submitted, the County will work with developers/applicants to identify opportunities for servicing connections as the Plan area develops and demand arises, while the County will engage with the towns of Morinville and Legal on the implications. All proposed water service systems should be designed with upgrading flexibility to accommodate actual demand generated in the Plan area.

Fire flow requirements for the Plan area are high but the average demand rate may be considerably lower. This could pose potential water quality issues for the Villeneuve Hamlet Reservoir and the proposed reservoirs due to the large storage capacity for fire flow demands but low water demand rates. To address this potential, the County will pursue a policy investigation to collaborate with the Airport Authority for demand support in the event of emergency fire flow. This could reduce the reservoir size and help address any reservoir water quality issues.

Interim servicing was investigated to determine the number of Servicing Units that could be serviced without triggering the need to construct either of the proposed reservoirs and the 300 mm looping around the northwest corner of the Plan area. Along the south, the Hamlet Reservoir and pumps can service up to Servicing Unit 9 before requiring the Southwest Reservoir. The Hamlet Reservoir can supply Servicing Unit 10 right up to the pressure zone boundary of 693.5 m. For servicing beyond the pressure zone boundary and past Servicing Unit 10, the Southwest Reservoir will be needed.

² In Appendix C, Servicing Units 1 through 10 are referred to as Parcels 1 through 10.

A combined transmission and distribution line are proposed to supply Servicing Unit 7 and split after Servicing Unit 7 to a transmission line to the Southwest Reservoir and distribution line to supply Servicing Units 8 and 9. The transmission line will supply flow to the Southwest Reservoir without impacting the servicing pressure for Servicing Units 8 and 9. The proposed interim system allows for the Southwest Reservoir to support the Hamlet Reservoir in supplying Servicing Units 7 to 9; however a pressure reducing valve will be required at the pressure boundary to mitigate the system pressure between the Southwest Reservoir and Hamlet Reservoir. Further study at the detailed planning stage will explore sharing the storage requirement between the Southwest Reservoir and Hamlet Reservoir.

Along the east, the Hamlet Reservoir and pumps have servicing potential before requiring the Northeast Reservoir. In the long-term, the Northeast Reservoir may be required to support increasing water demand. As development occurs within the Plan area, the actual water demand will be determined, and reservoir storage requirement and pumping capacity will be further refined.

Future development within the Plan area will trigger discussions with EPCOR about increasing the water supply in the Morinville Transmission Main, installing the Morinville Booster Pump (with further discussions with EPCOR), and potentially twinning the transmission mains. Using the standard demand rate of 20,000 L/ha/d, transmission main twinning for the Morinville, ProNorth and Villeneuve Transmission Mains is required. In addition, installing and commissioning the Morinville Booster Pump and upgrades at Northern Lights Reservoir are required. The 20,000 L/ha/d standard is conservative and intended to be used for sizing of local distribution mains. The County is committed to further investigation of other potential sources of water supply from within the Edmonton Metropolitan Region for the Plan area.

Section 2.0 of **Appendix C** includes additional information regarding potable water services in the Plan area.

Principles for Potable Water:

- To provide for the efficient delivery of potable water services to the Plan area in a manner that prioritizes the adequate servicing of its Planning Areas and Servicing Units.
- ~~To identify potable water servicing connections for the Future Study Area.~~
- To identify potable water servicing requirements for Outline Plans.

Policies:

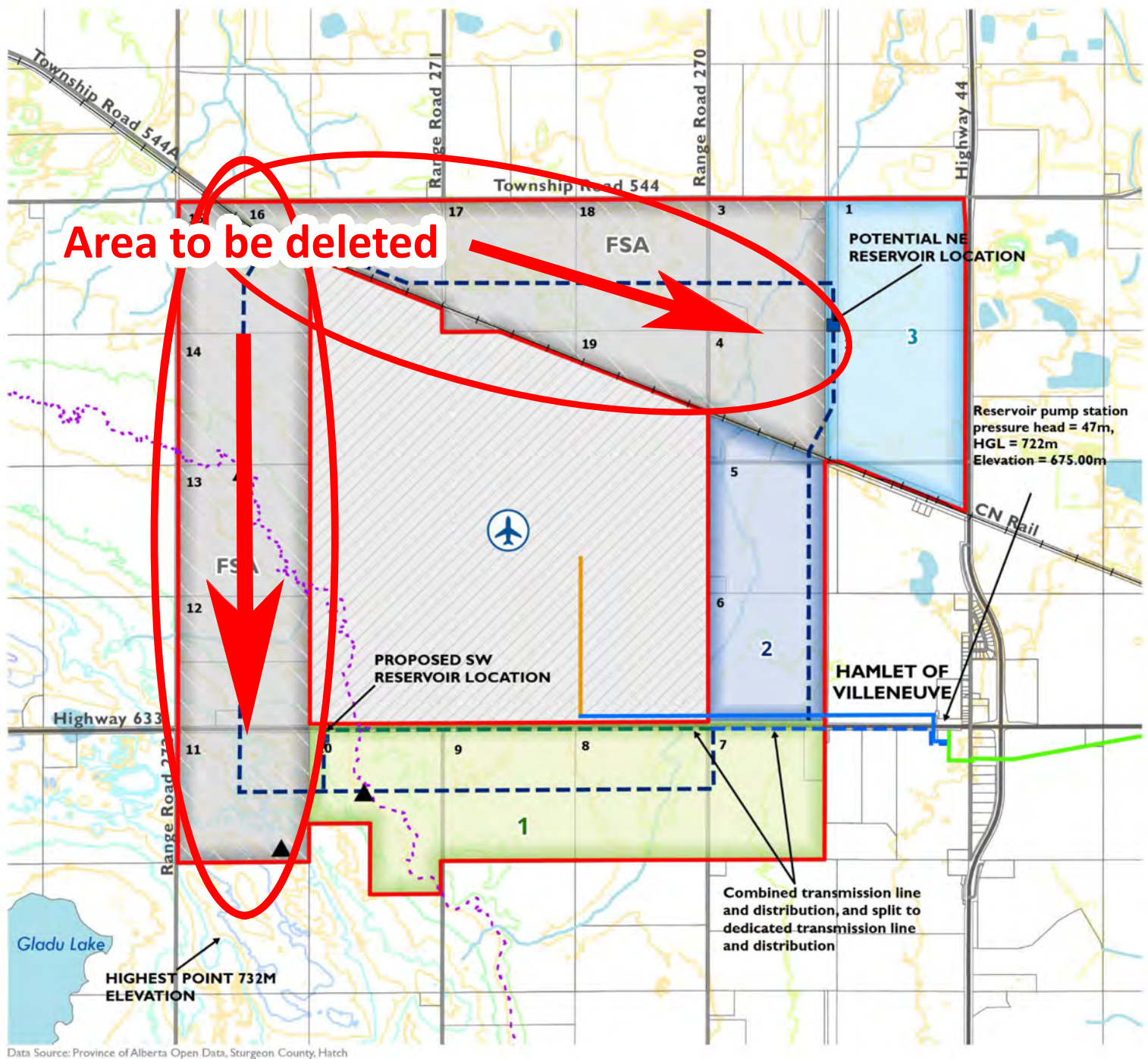
- 6.7.2.1 The potable water distribution system shall be designed in accordance with the County's General Municipal Servicing Standards.
- 6.7.2.2 Potable water distribution systems shall align with the County's IMP in effect at the time of development and subsequent approved County studies.
- 6.7.2.3 Prior to any development and in conjunction with the preparation of Outline Plans for any portion of the Plan area, a detailed Engineering Design Brief for potable water servicing and other engineering reports deemed necessary by the County must be prepared by the developer and accepted by the County. The Engineering Design Brief shall be used to guide the design of potable water infrastructure servicing for each Outline Plan area.
- 6.7.2.4 Where initiatives involve solutions that cross the boundary between the Airport and the Plan area, the County shall work with the Airport Authority to identify existing potable water services that could be extended to service the Plan area.
- 6.7.2.5 The potable water distribution system should generally align with **Figure 10**.
- 6.7.2.6 The County shall collaborate with the Airport Authority, the towns of Morinville and Legal (as participants to the 2013 Tri-Party Agreement on the Morinville Transmission Main), and EPCOR (as supplier to the Morinville Transmission Main) to finalize long-term solutions in the provision of water infrastructure to be extended to service the Plan area.
- 6.7.2.7 The County should work with neighbouring municipalities and other water utility operators to identify existing water services that could be extended to service the Plan area.
- 6.7.2.8 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.
- 6.7.2.9 Water services shall be constructed ~~with appropriate oversizing~~ to accommodate future development within the Plan area, as identified in the detailed Engineering Design Brief at the Outline Plan stage, as well as future offsite water infrastructure, if feasible and required by the County.
- 6.7.2.10 All costs associated with the construction of onsite water infrastructure required to service private sites shall be borne by developers.

- 6.7.2.11 The County shall prepare a mechanism by which a developer front-ending the cost of oversizing water services will be reimbursed by future developers as they utilize the water services.
- 6.7.2.12 The County shall require all developments within the Plan area to contribute proportionately to the installation and upgrades of offsite water infrastructure, including the proposed reservoirs and transmission mains, through proportionate offsite levy contributions charged for water infrastructure installed by developers and/or the County. Exact contributions will be determined at the time of subdivision and be as specified in the County's Offsite Levy Bylaw.
- 6.7.2.13 The County may pursue grant funding to subsidize the financing burden of offsite water facilities and servicing infrastructure construction on developers of lands in the Plan area.
- 6.7.2.14 The County shall collaborate with Alberta Transportation on the co-location of a twinned Villeneuve Transmission Main along Highway 633, if necessary.
- 6.7.2.15 The Engineering Design Brief for water services prepared at the Outline Plan stage shall inform consideration of subsequent subdivision and/or development applications.

Outline Plan Policies:

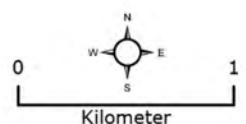
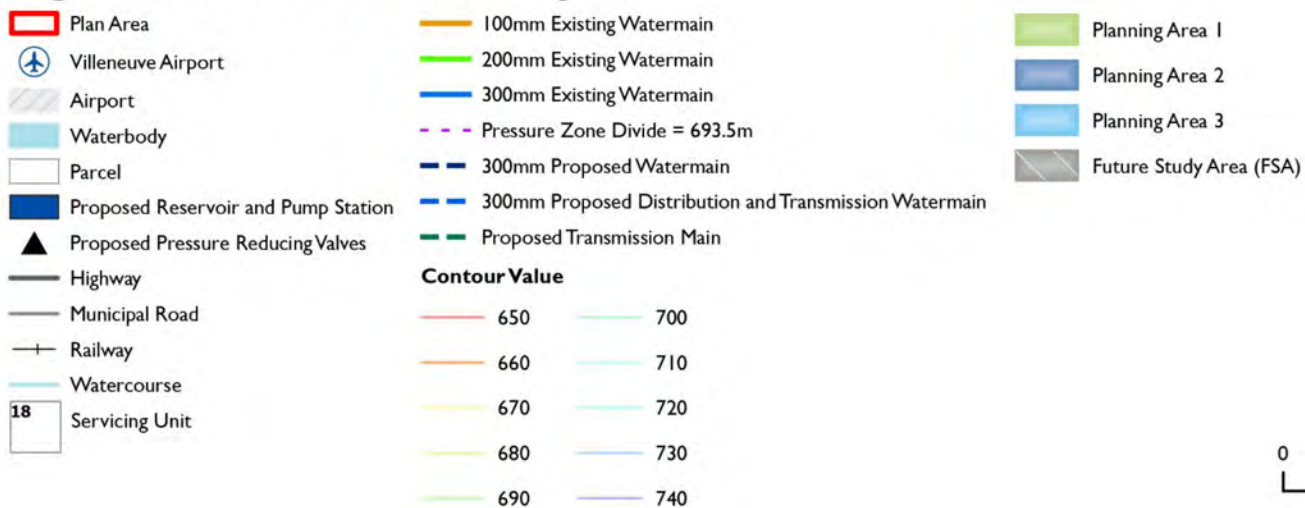
- 6.7.2.16 The overall water distribution system for each Outline Plan shall be guided by the County's IMP, the County's General Municipal Servicing Standards, and any subsequent approved County studies in effect at the time of development.
- 6.7.2.17 Outline Plans in Planning Areas shall identify water connections to adjacent lands.
- ~~6.7.2.18 Outline Plans in Planning Areas adjacent to the Future Study Area shall identify water connections to the adjacent Future Study Area.~~
- 6.7.2.198 Outline Plans shall identify the size and location of dedicated water reservoirs and supporting infrastructure.
- 6.7.2.2019 Engineering Design Briefs for Outline Plans shall, in addition to such other matters deemed necessary by the County, include further study at the detailed planning stage to explore sharing the storage requirement between the Southwest Reservoir and Hamlet Reservoir.
- 6.7.2.210 The potable water distribution system shall provide a level of service that meets the Fire Protection standards required to service the Outline Plan area.
- 6.7.2.221 The applicant shall be responsible for the development of water servicing infrastructure that provides adequate service delivery to the Outline Plan area.

- 6.7.2.2~~32~~ Water distribution alignment is identified on **Figure 10**. At the Outline Plan stage, the water distribution system should generally align with this figure.
- 6.7.2.2~~43~~ Notwithstanding Policy 6.7.2.23, 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.
- 6.7.2.2~~54~~ At the Outline Plan stage, additional studies or analysis may be required by the County to demonstrate the proposed water distribution system is feasible to 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 developer applicant.
- 6.7.2.2~~65~~ Outline Plans should be encouraged to identify water maintenance programs including the employment of water conservation techniques.
- 6.7.2.2~~76~~ Outline Plans and their supporting Engineering Design Briefs for water servicing, as well as any additional water servicing studies or analysis required by the County, shall be circulated to the Airport Authority and the towns of Morinville and Legal for review and comment.



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

Figure 10 - Potable Water System



6.8 STORMWATER MANAGEMENT

Figure 11 shows the stormwater servicing concept proposed to address surface drainage in the Plan area.

Planning Area Considerations

The stormwater servicing concept for the Plan area partitions the identified Planning Areas further into Servicing Units³. The boundaries of each Servicing Unit generally adhere to quarter section boundaries with some exceptions along the rail line. Most Servicing Units will have a dedicated Stormwater Management Facility (SWMF) located at the lowest point of each Servicing Unit. Stormwater ponds shown in Figure 11 are conceptual and further engineering study in conjunction with Outline Plans will be required to refine pond location and confirm whether pumping is required.

The ponds in Servicing Units 8 to 10 are connected through a series of pipes that will ultimately release at a downstream watercourse at a controlled rate of 2.5 L/s/ha. Servicing Unit 7 requires overall grading toward the storm ponds especially for the west side. Servicing Units 1 to 10 will drain to the watercourse flowing through the Plan area on the east side.

Stormwater pond sizes were estimated based on the gross catchment area that is flowing toward the lowest point in the Servicing Unit, using an 80% imperviousness for the developable area, 10% imperviousness for offsite undeveloped land and a total rainfall depth for the 1 in 100 year, 24-Hour Huff simulated storm.

Outfalls are proposed to be located as indicated on **Figure 11**. 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.

³ In Appendix C, Servicing Units 1 through 10 are referred to as Parcels 1 through 10.

Interim servicing options may be evaluated for Servicing Units 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.

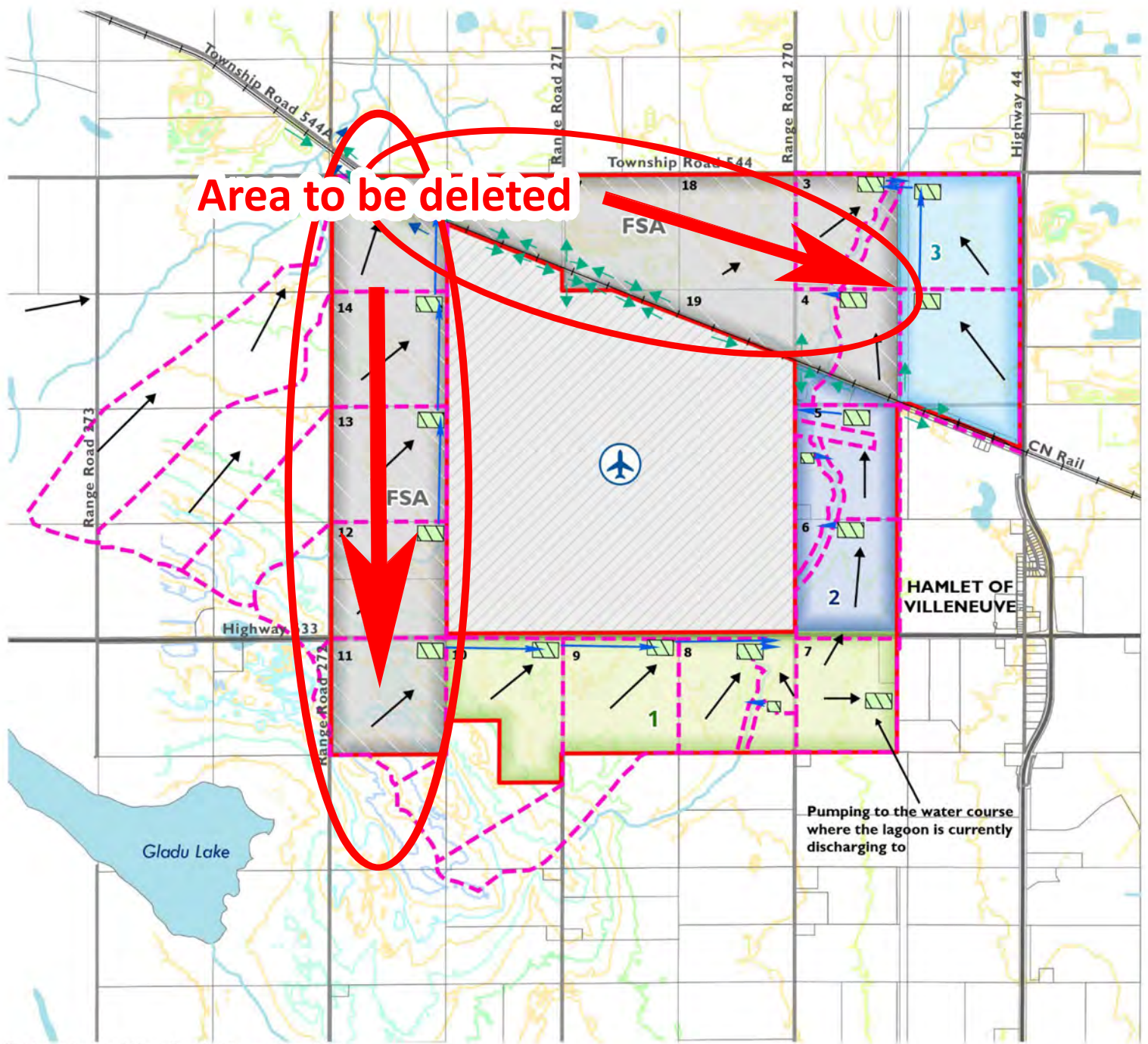
6.8.6 Stormwater Management Plans should generally align with **Figure 11**.

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.

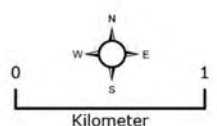
Outline Plan Policies:

- 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 11**. 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 11 - Stormwater Management System



6.9 OIL AND GAS INFRASTRUCTURE

Underground pipelines, as well as 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

A high-pressure gas transmission line (**Figure 6**) transects Planning Area 1 ~~and the Future Study Area~~. 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

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

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

The transportation network shown in **Figure 12** 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 network in the Plan area has been designed at a high level to connect the Planning Areas ~~and the Future Study Area~~ 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.

Planning Areas 1 through 3 will be required to gain approvals from Alberta Transportation for access to and across both Highway 44 and 633. As the intent would be to line up with Alberta Transportation's future long-range plans for both HWY 633 and 44; development in Planning Area 1 and 2 would look to stay below the threshold of widening to 4 lanes. There may be more long-term options related to HWY 44, as widening due to background traffic is already pushing the capacity limits of this road. Similar to Planning Areas 1 and 2, the intent of any future developments in Planning Area 3 would be to limit the impacts to HWY 44 as much as possible.

Development adjacent to highways is subject to approval by Alberta Transportation. At the time of development Alberta Transportation will identify provincial requirements for development adjacent to highways. Associated level of service to maintain road efficiency and safety are those that are provided by the Transportation Association of Canada. Alberta Transportation will play a key role in ensuring that these associated levels of service will be met through development of the Plan Area, as all Outline Plans in Planning Area 1 through 3 will be referred to Alberta Transportation for review.

Given that the Transportation Analysis includes background traffic estimates that stretch well beyond the ASP Plan area, it is not possible to articulate the timing of any road widening for Planning Areas 1 through 3. The level of development submitted via Outline Plans will provide further detail to support the planning for future regional transportation needs such as protection of future road ROW, requirements for future roads, and demonstrating where future connections will be needed.

A high-pressure pipeline shown in **Figure 12** 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.
- Ensure transportation network improvements protect future roadway requirements and minimize impacts on regional transportation infrastructure.
- 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 and align with the Complete Streets design philosophy.
- 6.12.2 The transportation network should be planned and designed to align generally with the network shown in **Figure 12**.
- 6.12.3 The County in consultation with Alberta Transportation shall explore the potential for any upgrades to contribute to enhanced growth, regional connectivity and the efficient movement of goods and people across the Region.
- 6.12.4 Where new major infrastructure is required, the County shall identify the availability for funding and timing of construction, and determine what level of development may or may not occur.
- 6.12.5 The County shall liaise with Alberta Transportation regularly to ensure that the County's information on provincial transportation plans is relevant and up to date.
- 6.12.6 The County shall support planned upgrades to Provincial Highway 44 and 633 by assisting with right-of-way land acquisition and providing technical assistance to Alberta Transportation when required.
- 6.12.7 The County shall work with Alberta Transportation to support ongoing improvements to the roundabout at the junction of Highway 44 and Highway 633 and the potential for a future bypass road for the Hamlet of Villeneuve.
- 6.12.8 Within the Plan Area, major roadways are expected to function at acceptable levels of service to maintain road efficiency and safety.

Outline Plan Policies:

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

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

6.12.10 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.

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

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

6.12.12 An Outline Plan transportation network should demonstrate general conformance with future connections to the transportation network shown in **Figure 12**.

6.12.13 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.

6.12.14 Outline Plans shall utilise the Complete Streets design philosophy and demonstrate connections to the Sturgeon County Active Transportation Network and the Regional Transit Network where appropriate.

6.12.15 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

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 12** 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

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.

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 the Future Study Area 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:

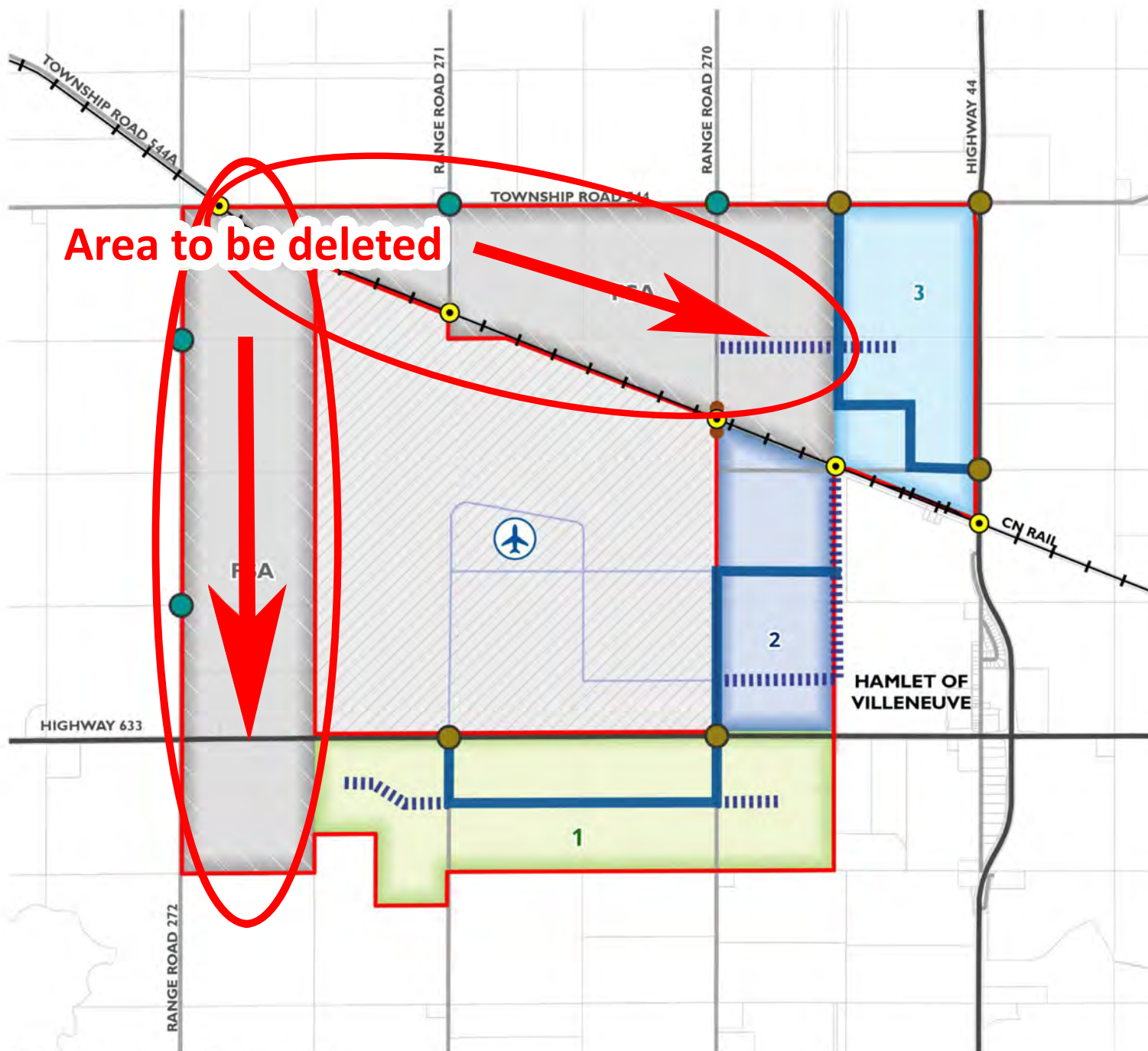
- Identify the location of new intersections through consultation with Alberta Transportation and the County.
- ~~• Identify future intersection opportunities in the Future Study Area.~~

Policies:

- 6.13.1 Applicants for development 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 shall be required to identify upgrades to highway accesses to accommodate traffic volumes for the full development of the Plan area, subject to a detailed Traffic Impact Assessment.

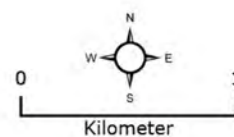
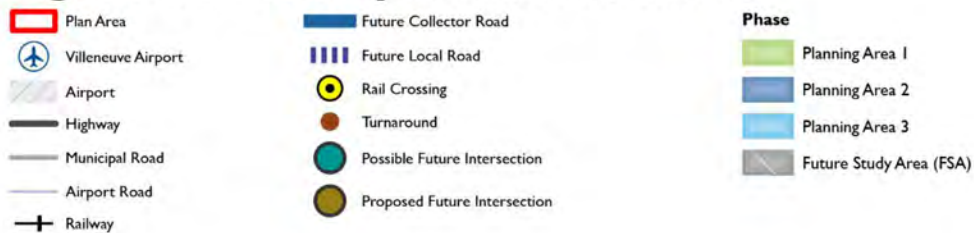
Outline Plan Policies

- 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 12 - Transportation Network



6.14 TRANSIT

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. Public transit to the Plan area would require the development of the Plan area (or appropriate portion of the Plan area), which will yield the necessary passenger demand required to make public transit feasible.

Public transit to the Plan area must be supported by a higher-order transit network. The network would include mobility hubs in St. Albert, which connect to transit priority corridors of dedicated rapid transit lines within St. Albert and Edmonton.

Transit Principles:

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

Policies:

6.14.1 Future opportunities to accommodate transit alternatives to the Plan area may be explored in coordination with County's regional partners.

6.14.2 Joint planning or cost sharing with regional partners may be established in the development of transit service(s) or road and infrastructure development or expansion within the Plan area.

Outline Plan Policies:

6.14.3 Outline Plans applications shall include a Transit Demand Analysis where necessary, to determine if passenger demand warrants transit facilities to be incorporated into the development.

6.14.4 If warranted by the Transit Demand Analysis, Outline Plans shall identify specific locations for transit facilities.

6.14.5 Transit facilities, services and routes should be planned in consultation with the County, and regional partners where appropriate, in accordance with EMRB policy.

6.15 ACTIVE TRANSPORTATION AND ACCESSIBILITY

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. Facilitating connections to the Hamlet and County's Active Transportation Network where feasible. 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:

- Demonstrating the Complete Streets design philosophy, developments will provide direct and inter-connected linkages for pedestrian, bicycle, and other active transportation modes within and between developed areas, to the Hamlet and the County's wider Active Transportation Network where appropriate.
- Create a built form that is accessible and inclusive.

Policies:

6.15.1 Development proposals shall utilise the Complete Streets design philosophy and connect to existing active transportation infrastructure, facilitate active travel within and across the development site where appropriate and will seek to facilitate the growth of the County's Active Transportation Network.

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 shall 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, embedding the Complete Streets design philosophy into the development.

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:
- o 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.
 - o Maximize pedestrian access through the transportation network design and block spacing.

6.16 RAIL INTERFACE

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 appropriate stage of the planning process.
- 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.

6.16.5 The County in consultation with the rail owner will explore the potential for any upgrades to contribute to the efficient movement of goods across the Region.

Outline Plan Policies:

6.16.6 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 appropriate stage of the planning process.

6.16.7 A proposed rail spur shall be subject to approval by the rail line owner at the appropriate stage of the planning process.

6.16.8 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

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 the Future Study Area.~~ 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 at the appropriate stage of the planning process.

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 and dedicated at the time of subdivision.

6.17.5 An Outline Plan shall require the submission of a Phase I Environmental Impact Assessment and any subsequent phases, as recommended.

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

7.1 PLAN ADOPTION

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

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 Ste. 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;
- **EMRB Administration;**
- 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 the above regional partners as this Plan is implemented. The County will also work with other regional infrastructure providers not listed above including Alberta Transportation, Canadian National, the ACRWC, EPCOR, and the Town of Legal (as the third municipal partner to the Tri-Party Agreement associated with the Morinville Transmission Main) as the Plan is implemented.

7.3 OUTLINE PLANS

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 Development within Planning Areas should be implemented in an orderly and phased manner generally consistent with Figure 13 to ensure contiguous built form and support the logical, efficient extension of infrastructure. Phasing boundaries are approximate and may be subject to minor refinement informed by detailed Engineering Design Briefs and evaluation of proposed Servicing Units at the time of Outline Plans.

7.3.2 An Outline Plan shall include the required elements identified in the County's Outline Plan Application Package.

7.3.3 Notwithstanding policy 7.3.2, 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:

- o A report demonstrating how the Outline Plan is consistent with the objectives and policies of this ASP;
- o How parcels adjacent to the Outline Plan area could be conceptually developed through extensions of transportation networks and utilities within the Outline Plan area;
- o A Transit Demand Analysis;
- o The location of any land to provide community services such as emergency services;
- o 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;
- o Proposed phasing within the Outline Plan area; and
- o Architecture and landscaping design guidelines to the satisfaction of the County.

7.4 DEVELOPMENT NOT REQUIRING AN OUTLINE PLAN

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 applications 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.

Process Chart 1 illustrates the scenarios an applicant in a Planning Area may encounter, but **Process Chart 1** 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:

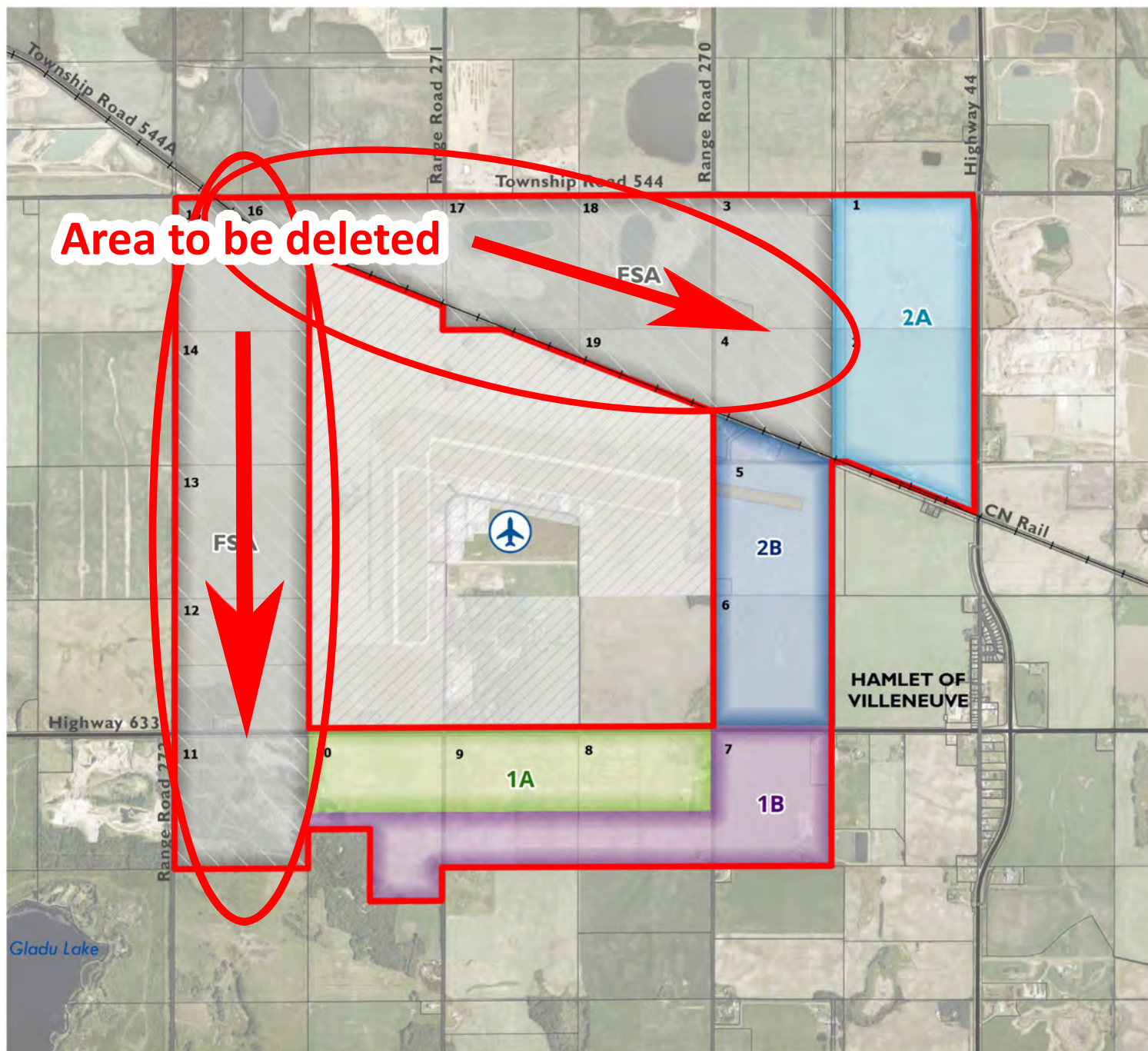
7.4.1 Development scenarios where an Outline Plan would not be required include:

- o The subdivision of agricultural parcels in the Agricultural (AG) District and Agriculture 2 (AG2) District as allowed in the Land Use Bylaw;
- o 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 for the current use; and
- o 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:

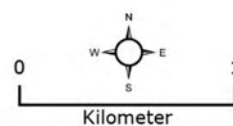
- o Development that does not exceed the traffic thresholds to require a Transportation Impact Assessment;
- o Development that does not trigger upgrades to road or intersection infrastructure; and
- o Development that does not require piped services (water, sanitary, stormwater).

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.



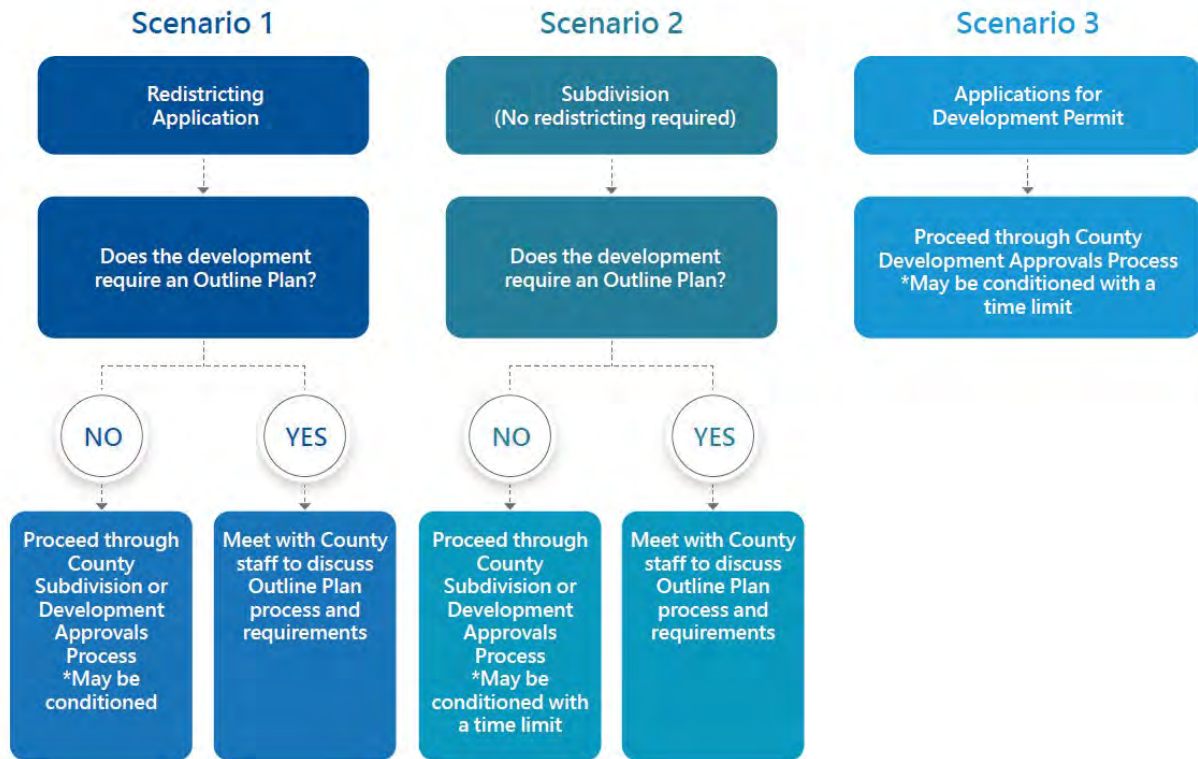
Data Source: Province of Alberta Open Data, Sturgeon County, Hatch

Figure 13 - Phasing



Process Chart 1: Area Structure Plan Process Chart – Planning Areas

DEVELOPMENT IN PLANNING AREAS IN THE VAA ASP



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 four development areas in the Plan: three are anticipated to develop on a shorter trajectory; and one 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 Study Area with a longer trajectory.~~ 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 the Future Study Area~~ subject to the County's Land Use Bylaw.
- To provide guidance to the County when reviewing subdivision and development applications in the ~~Future Study Plan Area~~.

Policies:

~~7.5.1.1 The County may approve a redistricting application from Agriculture to Resource Extraction Districts in the Future Study Area without an ASP amendment.~~

~~7.5.1.2 Notwithstanding 7.5.1.1, an ASP amendment is required for all other redistricting applications in the Future Study Area.~~

7.5.1.~~31~~ 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.~~42~~ Notwithstanding 7.5.1.~~31~~, the County may condition a Development Permit application with an operational time limit (number of years).

~~7.5.2—Future Study Area~~

~~An amendment to this Plan to support Outline Plans in the Future Study Area is required to demonstrate servicing, identify land uses, outline infrastructure requirements, and any other items deemed necessary by the County. Developments in the Future Study Area 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. **Process Chart 2** illustrates the scenarios an applicant in the Future Study Area may encounter, but **Process Chart 2** 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 the Future Study Area.~~
- ~~• 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 lands designated within the Future Study Area (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.~~

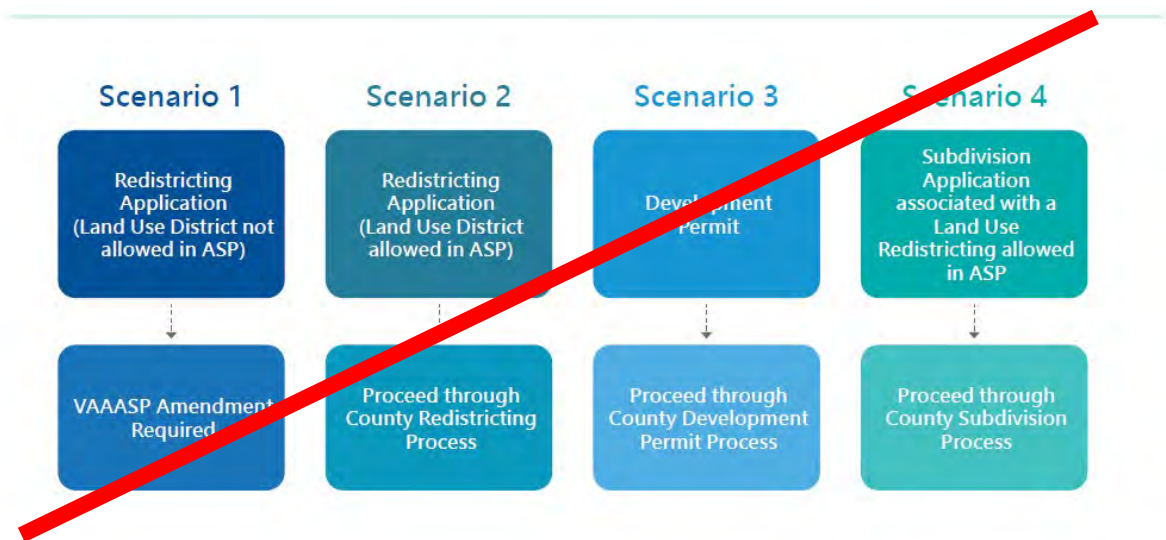
~~7.5.2.4 Amendments to this Plan to enable an Outline Plan within the Future Study Area shall identify how the proposed amendments to the Plan, and approval of the Outline Plan, will:~~

- ~~○ 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 the Future Study Area 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;~~
 - ~~● 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 and provide written recommendations for any required changes to objectives and/or policies in this ASP.~~

~~Process Chart 2: Area Structure Plan Process Chart – Future Study Area~~

~~DEVELOPMENT IN FUTURE STUDY AREAS OF THE VAA ASP~~



7.6 OFFSITE LEVY REQUIREMENTS

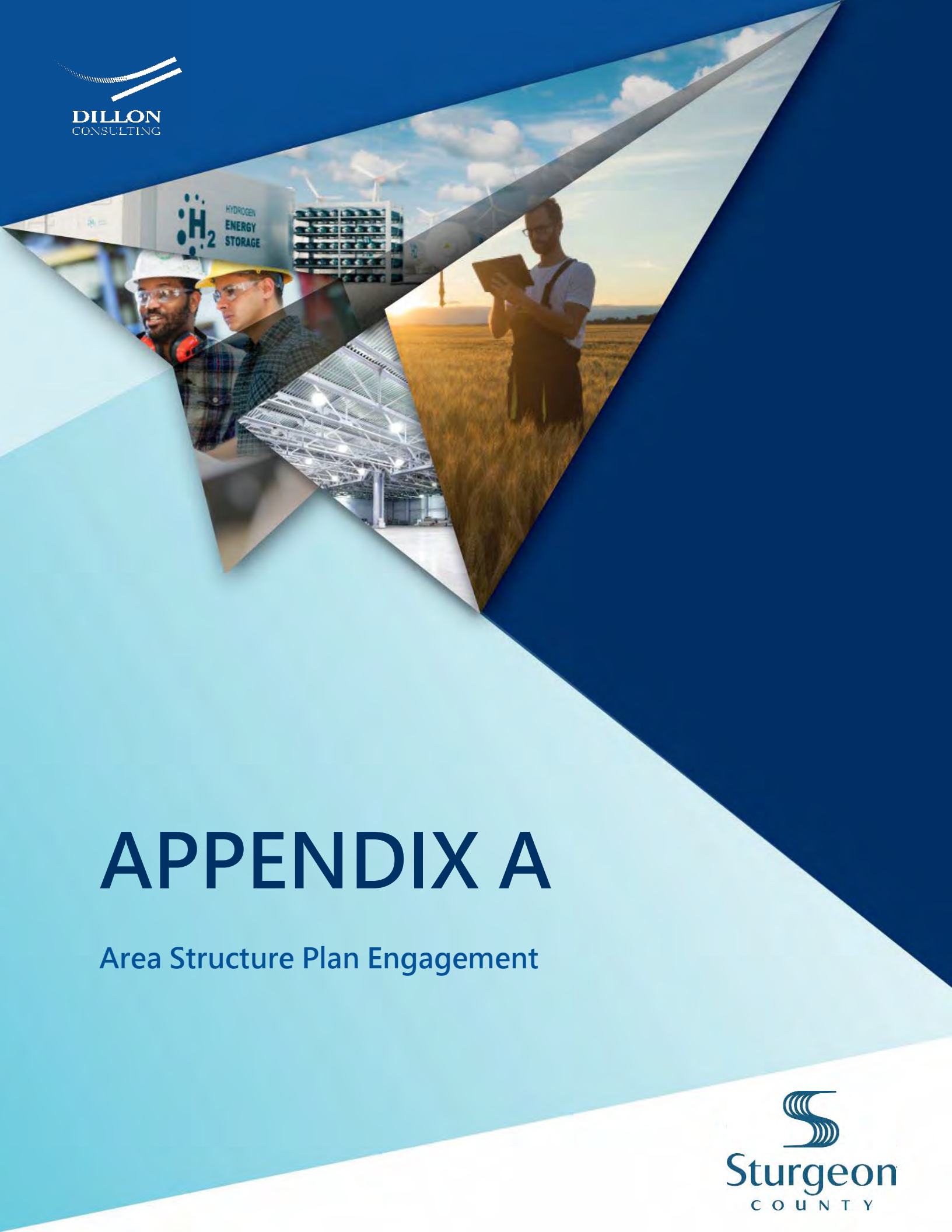
The *Municipal Government Act* provides the County with the ability to establish development levies that contribute to the development of infrastructure in order for development to fund development.

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.

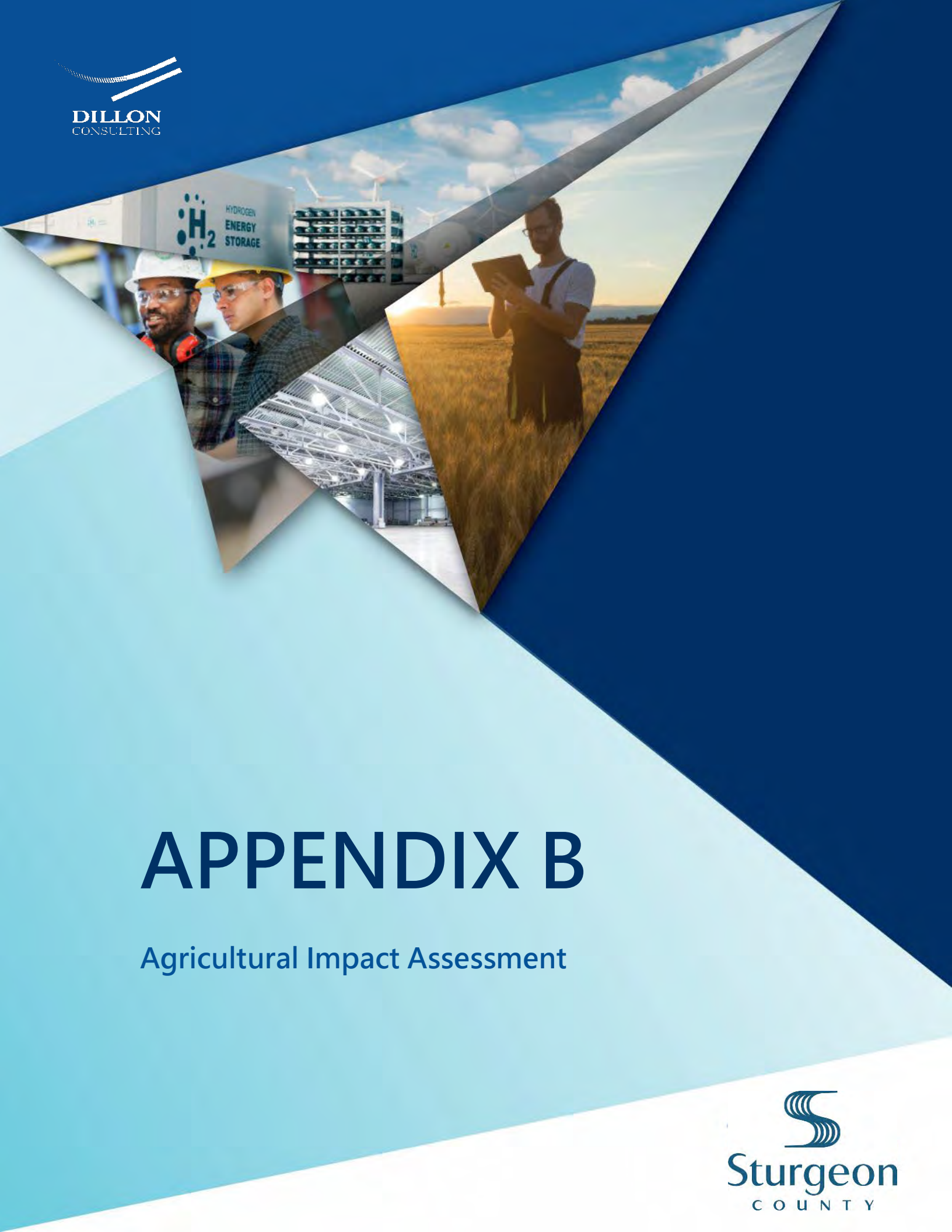
Policies:

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



APPENDIX A

Area Structure Plan Engagement



APPENDIX B

Agricultural Impact Assessment



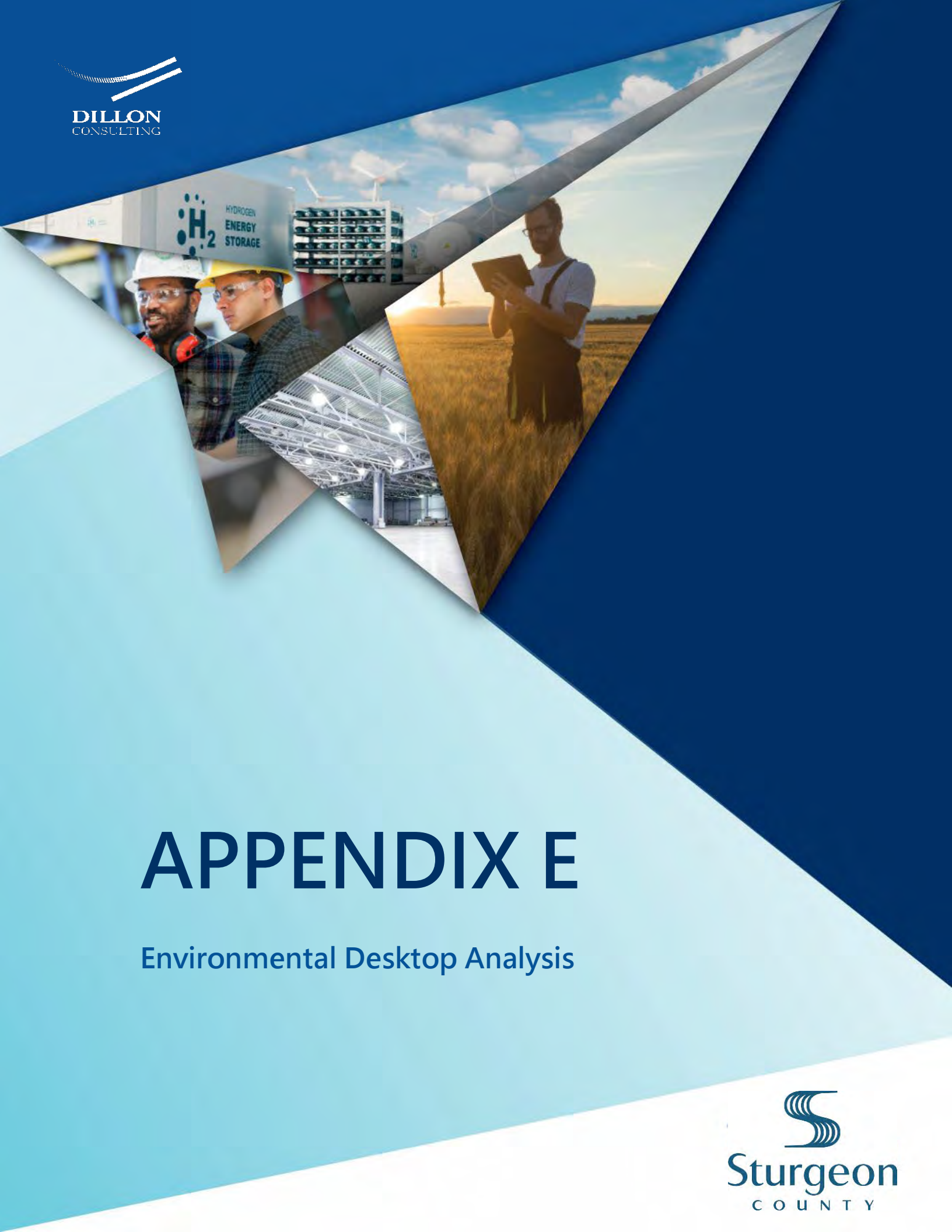
APPENDIX C

ISL Memo - Servicing



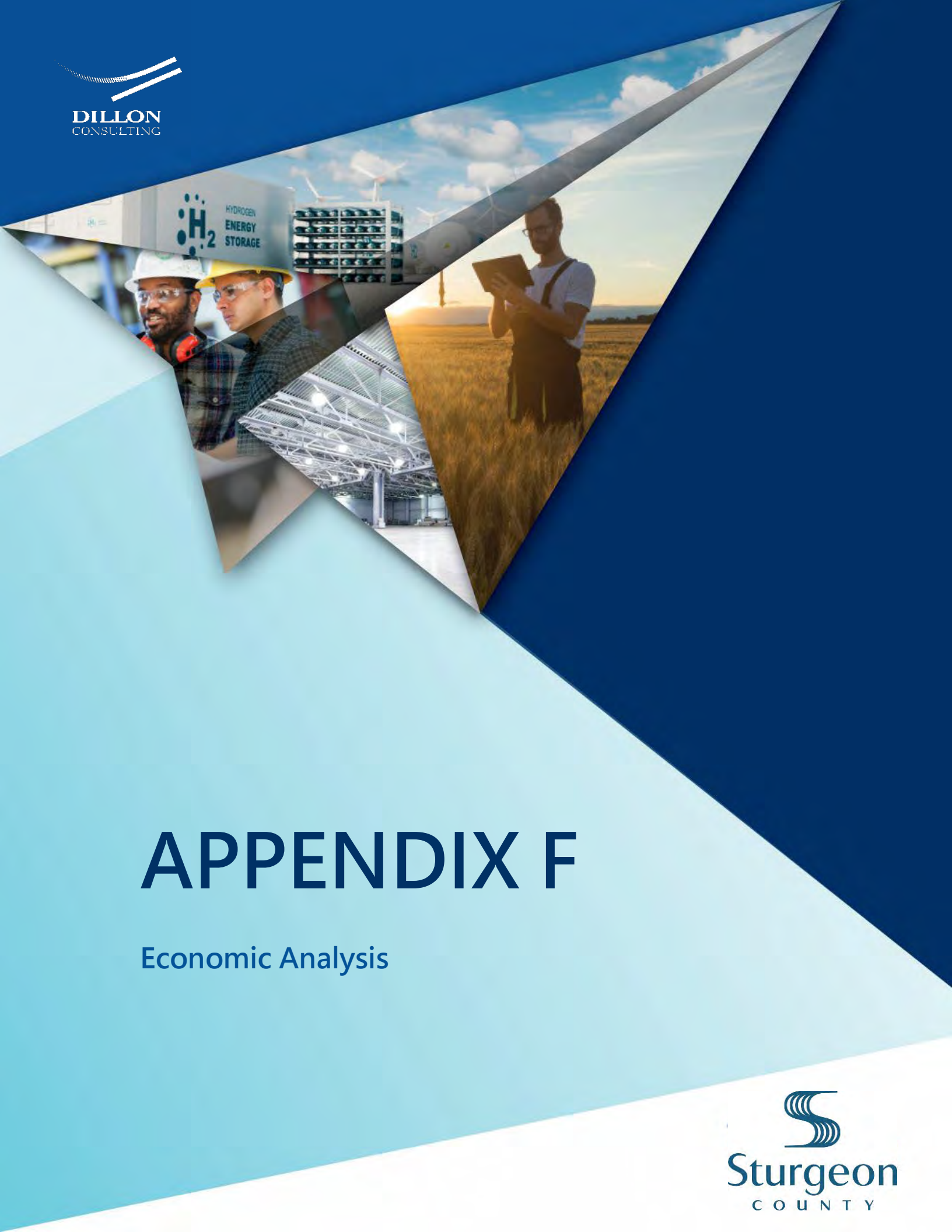
APPENDIX D

Transportation Analysis



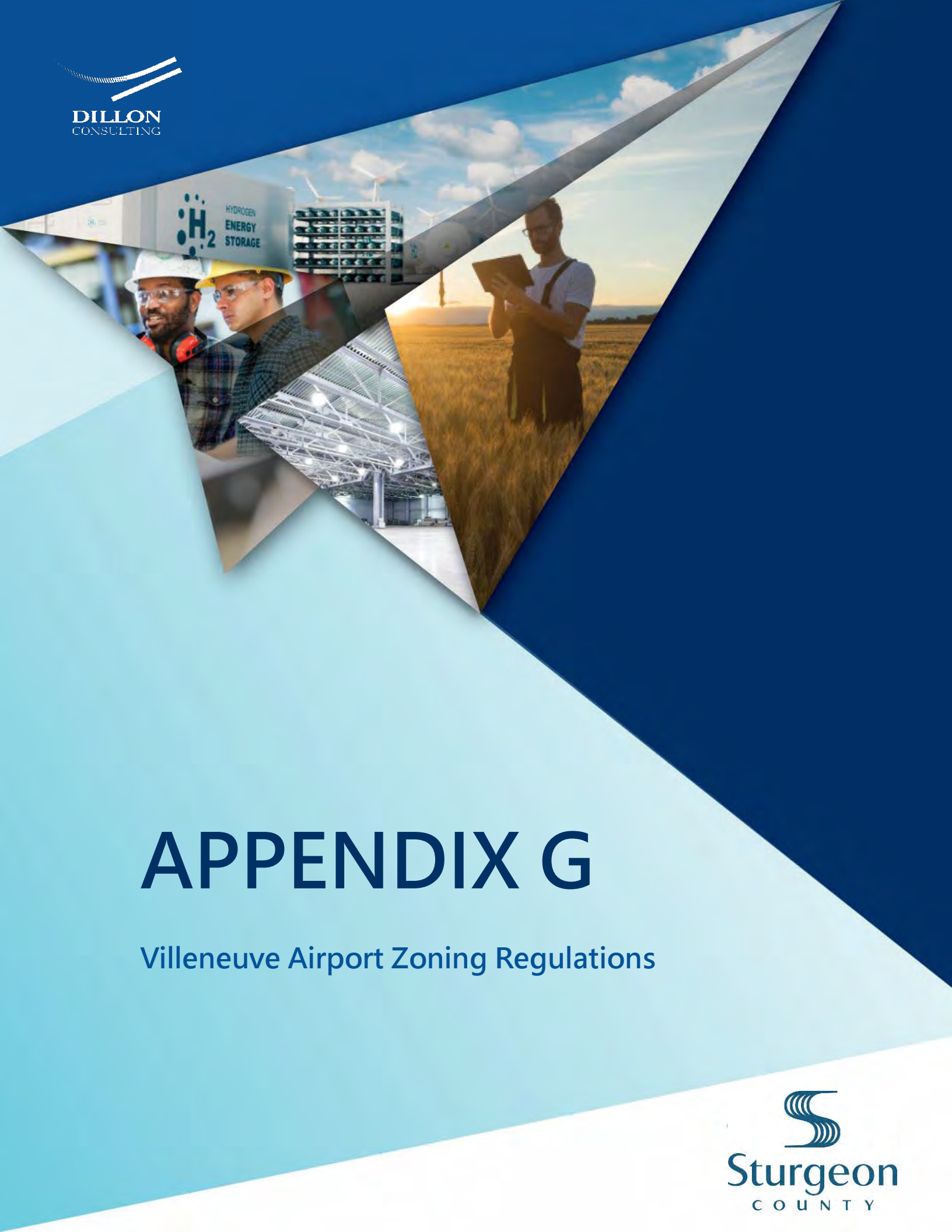
APPENDIX E

Environmental Desktop Analysis



APPENDIX F

Economic Analysis



APPENDIX G

Villeneuve Airport Zoning Regulations