



Matheson Meadows Area Structure Plan

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Matheson Meadows Area Structure Plan

Strathcona County, Alberta

Prepared for: Jesk Investments Ltd.

Prepared by:



Al-Terra
Engineering Ltd.

5307 - 47 Street NW,
Edmonton, Alberta T6B 3T4
T: 780.440.4411
F: 780.440.2585
al-terra.com

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1.0 Introduction

1.1 Purpose

The purpose of this Area Structure Plan (ASP) is to provide a statutory framework for the planning, provision of municipal services and infrastructure, and development staging in conformance with provincial and Strathcona County planning policies, regulations, and bylaws.

1.2 Location

The plan area is located within the south-east quarter of 34-52-22-W4M. The Area Structure Plan includes approximately 64.49 hectares (\pm 159.36 acres). It falls within the Country Residential Policy Area of the Municipal Development Plan and lies within the boundaries of the Low-Density area of the Country Residential Area Concept Plan.

The hamlet of Ardrossan is located approximately one mile north of Matheson Meadows. Ardrossan is a growing community and the home to three schools, sports fields, the Ardrossan Recreation Complex and some limited commercial services. Ardrossan provides services and amenities to residents of Ardrossan, as well as to the surrounding country residential and rural communities.

The surrounding developments share a consistent lot size range for lots adjacent to Matheson Meadows of 1.21 to 1.62 hectares (3-4 acres). All adjacent communities have been developed as country residential with single detached dwellings. These developments were built prior to the implementation of current country residential policies and have been developed to lower densities than are currently permitted by the Country Residential Area Concept Plan. Housing sizes and architectural styles vary widely between adjacent communities.

Adjacent communities include: **East Boundary** – Greenbrae; **West Boundary** – Royal Gardens; **South Boundary** – Holland’s Drive; and **North Boundary** – Willow Dale Estates.

The Matheson Meadows lands are accessible via Range Road 222 along the eastern boundary. One additional road right-of-way is provided to the north from Karin Road in Willow Dale Estates. See **Map 1 – Location Plan** for additional detail.

1.3 Vision and Principles

Matheson Meadows is envisioned to be an attractive and private country residential community with full municipal services in Strathcona County, AB. Site design will prioritize privacy and natural feature conservation through strategic public dedication of natural areas and separation from existing adjacent developments. Large lot sizes will support retention of forest between homes and within lots. Residents will have access to high-quality natural areas with recreation opportunities and a quiet country lifestyle within a beautiful natural setting. Residents will benefit from, and support, community services and schools in and around Ardrossan and Sherwood Park.

This plan is based on three core principles:

1. Develop a high-quality country residential community with full municipal servicing.
2. Respect natural features including wetlands, wildlife corridors, and trees.
3. Provide public amenities including recreation opportunities within the community.

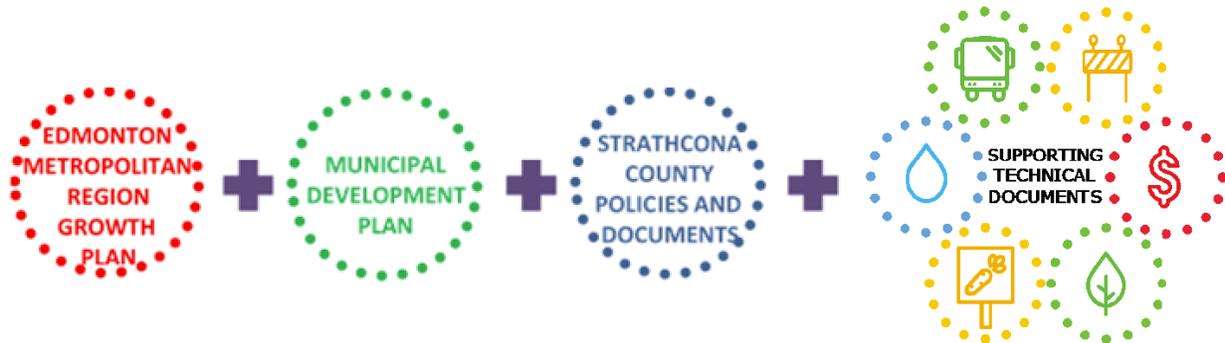


2.0 Administration

2.1 Planning Context

The Matheson Meadows Area Structure Plan should be read in conjunction with Strathcona County's Municipal Development Plan, supporting technical documents, as well as other Strathcona County policies and documents. Additionally, regional plans as well as provincial acts and regulations apply, such as the Municipal Government Act and the Edmonton Metropolitan Region Growth Plan.

Figure 1 - Planning Context (Below)



Supporting Technical Documents

Supporting documents have been summarized in **Appendix B – Background Information**. Observed conditions and recommendations identified in these studies have been incorporated into the Matheson Meadows Area Structure Plan.

2.2 Policy Structure

Sections 3.0 and **4.0** of this Plan include objectives, goals, and policies. This outline provides clear description of the ways which the ASP addresses the desired outcomes and enabling actions that will support the intent of this plan.

Goals summarize the overall intent and desired results of a specific topic or development area.

Objectives are key statements that identify the specific results that form the overall goal of a specific topic or development area. Every objective must have at least one corresponding policy.

Policies are action items that direct how an objective will be achieved. Several policies may be required to support each objective.

Strathcona County uses specific terminology within policies as outlined in **Table 1 – Policy Terms** to ensure that all policies have clear intentions and are designed to be achieved through specific actions. All policies must contain one of the following actions:

Require – These policies are compulsory and must be met in order to receive County administration support for a proposal. Require policies are always paired with **ensure**. Require is the compulsory obligation and ensure explains the result that is to be achieved.

Encourage – Proposals should be consistent with all applicable encourage policies in order to be supported by County administration. Proposals which do not meet an applicable encourage policy must provide justification to the satisfaction of County administration as to why the applicable encourage policy cannot be met. Encourage policies are always paired with **promote**. Encourage is what is expected and promote shows active County and Developer encouragement for the result that is to be achieved.

Consider – Proposals that fall under a consider policy will be evaluated on a case-by-case basis and may or may not be supported and enacted by County administration based on the specifics of the proposal and how it aligns with the goals and objectives of the plan. Consider policies are always paired with **support**. Consider is followed by criteria for when and action may be suitable, and support shows passive County support through the conditional consideration of the result that is to be achieved.

Table 1 - Policy Terms

ACTION		INTENTION	
Require	Is a compulsory obligation	Ensure	To make sure of a result through requirement
Encourage	Provides direction for what is expected.	Promote	Shows active County encouragement
Consider	Provides criteria for when actions may be suitable.	Support	Shows passive County support through conditional consideration.

2.3 Interpretation

All map symbols, locations and boundaries contained within the Matheson Meadows ASP shall be interpreted as approximate unless otherwise specified in the plan or which coincide with clearly recognizable physical features or fixed (i.e. legal) boundaries.

2.3.1 Permissive Premise

This document is intended as a permissive document. Where direction on an item is not provided, the item should not be considered.

2.3.2 Definitions

Terms of this ASP are defined in the following documents in order of priority:

- ◆ Municipal Government Act
- ◆ Edmonton Metropolitan Region Growth Plan
- ◆ Strathcona County Municipal Development Plan
- ◆ Strathcona County Land Use Bylaw

Other terms shall be given their usual and customary meanings.



3.0 General

3.1 Transportation

Primary access to Matheson Meadows is from Range Road 222, opposite the entry to the Greenbrae community. Access to Range Road 222 is available from Sherwood Park via Baseline Road or Wye Road. Range Road 222 also intersects Highway 16 north of Ardrossan, and Highway 14 approximately 12km south of the plan boundary. Traffic analysis has indicated that intersection improvements on the Range Road 222 access are required to support the proposed traffic generated by Matheson Meadows. Deceleration and acceleration lane upgrades are required to safely accommodate anticipated traffic. Land dedications from Matheson Meadows may be required for construction of these improvements. Any right-of-way dedication requirements will be evaluated at the time of the first stage of subdivision. A link extending north to Karin Drive in Willow Dale Estates connects the two communities and provides a secondary access from Township Road 530. Both access locations will be constructed by the Developer of Matheson Meadows.

The internal road network consists of rural cross section local roadways. This standard uses ditches to convey storm water. Culverts are required at each residential driveway access point to allow conveyance of stormwater. The rural road cross-section does not include installation of sidewalks.

Three cul-de-sacs are included within the plan, one in the northwest quadrant, one in the southeast quadrant and one at the westernmost extent of the central east-west roadway. Standards require that an emergency access shall be provided in the form of a paved link within a public utility lot from the northwest cul-de-sac bulb eastward towards the stormwater management facility. This public utility lot is also part of the stormwater network described in **Section 3.2** and forms part of the internal pedestrian network. The remaining cul-de-sacs do not require emergency access provision.

Three existing residences located within the ASP shall be incorporated into the Plan. These existing residences shall be accommodated in the subdivision design and provided opportunities for connection to the internal road network with road frontage ensured for all lots. For the residence on Lot 4, when the internal road is constructed adjacent to its west boundary, access is to be provided from this internal road, and the existing access from Range Road 222 removed.

It has been identified that properties along the eastern boundary of the plan area will require noise levels from Range Road 222 to be mitigated. This can be achieved through either sound attenuation fencing or implementing development setbacks and tree retention.

Country residential developments rely primarily on the personal automobile and automobiles are anticipated to remain the dominant transportation choice. However, Matheson Meadows also promotes active lifestyles and active transportation. To achieve this, trail infrastructure will be developed as active transportation and recreation opportunities within the community and additionally to safely connect to adjacent communities without a personal automobile. Trails will be provided through the large natural area in the south, and through the north public utility lot to provide an active transportation loop throughout the community. Consideration has been given to the natural features within the area and therefore, granular trails are intended to provide a balance between pedestrian access and respecting natural features.

Please refer to **Map 5 – Transportation Network** for more detail.

Goal

To develop an accessible, connected, and safe multimodal transportation network.

Objectives

Strathcona County's objectives are to ensure that **transportation** in Matheson Meadows:

1. Develops an **accessible, connected, and safe** internal transportation network.
2. Provides **active transportation** options for residents.
3. Provides appropriate **emergency and maintenance access**.

Policies

Accessible, Safe, and Connected

1. **Require** all parcels, including all residential lots and municipal reserve lots to be provided with access to the internal road network to **ensure** all parcels are accessible.
2. **Encourage** all existing homes to ultimately connect to the internal road network to **promote** long term safety on Range Road 222 as traffic volumes increase.
3. **Require** construction of two paved vehicular community accesses during the first stage of development to **ensure** a safe and resilient transportation network.
4. **Require** noise mitigation along Range Road 222 to **ensure** noise levels at residences remain below acceptable thresholds.
5. **Require** the existing residence on Lot B, Plan 6738NY to be connected to the internal road network during Stage 1 development to **ensure** the opportunity to reduce the number of private access points onto the grid road network.

Active Transportation

6. **Require** a connected trail network to **ensure** the facilitation of multiple modes of transportation.
7. **Require** trails to connect public lands to **ensure** pedestrian trails are interesting, attractive, and provide access to destination features.
8. **Require** pedestrian trails within municipal reserve adjacent to environmental reserve to be granular surfaced to **ensure** pedestrian access while respecting the sensitivity of natural features.
9. **Encourage** trail network to be designed with views of environmental reserves to **promote** visibility and to attract residents to enjoy these unique and interesting natural areas.

Emergency and Maintenance Access

10. **Require** a paved emergency access to the northwest cul-de-sac to **ensure** accessibility for emergency services.
11. **Require** appropriate vehicular access to stormwater and trail infrastructure to **ensure** maintenance operations can easily perform monitoring and repairs.

3.2 Utilities

Water

Matheson Meadows utilizes piped municipal water to supply all residential lots with water services. Piped water will be brought to Matheson Meadows via existing watermains located within the Range Road 222 right-of-way and from the north along Karin Drive. Existing and proposed water infrastructure is shown on **Map 6 – Water Distribution Network**. Homes will utilize a trickle-system and onsite cisterns to provide residential water.

Fire flows are not achieved within Matheson Meadows, making Firesmart development practices an important voluntary tool for additional fire protection.

Water services for the two northernmost existing residences along Range Road 222 have been previously installed. These residences can connect to the municipal system via these existing connection points and will not require an internal water service connection. All other lots will be provided with internal water service connections to the property line by the developer.

Sanitary Sewer

Residences in Matheson Meadows utilize low-pressure sanitary systems called Septic Tank Effluent Pump (STEP) systems.

The pressure sewer system will extend north through Willow Dale Estates. The sanitary line ultimately terminates two miles north of Matheson Meadows and connects with the existing Ardrossan wastewater pumping station, south of Yellowhead Highway 16 and west of Range Road 222.

The ultimate sizing of the proposed sanitary system will be determined at the time of detailed engineering design. The system is sized to accommodate anticipated future development to the south and east and will meet or exceed municipal requirements. See **Map 7 – Sanitary Sewer** for more detail.

Storm Water Management

The storm water management system in Matheson Meadows utilizes natural features, overland drainage and an on-site stormwater management facility. Drainage has been maintained to follow natural topography as much as possible. Grading will be required to provide a major storm drainage pathway and emergency access from the northwest cul-de-sac to the stormwater management facility and for construction of internal roadways and the stormwater management facility. Runoff will be conveyed by internal roadway ditches and public utility lots to the stormwater management facility before flowing offsite at controlled rates. Overland drainage not directed to the stormwater management facility will continue to drain consistent with pre-development conditions and drainage rights-of-way. The location of the stormwater management facility is shown on **Map 8 – Storm Water Management**.

Low Impact Development (LID)

The intent of low impact development is to provide utility servicing while limiting the amount of tree clearing and site grading required. Matheson Meadows utilizes low impact development strategies to enhance the sustainability of stormwater management infrastructure and to maintain as much land in its natural state as possible.

Natural drainage within the Plan area generally flows from south to north, except for the large south wetland complex which drains westward into an existing drainage right-of-way through Royal Gardens. No clearly defined or intermittent water courses are found within the Plan area. Numerous small depressions exist, of which a small number intermittently hold water and are shown on **Map 8 – Storm Water Management**. The easterly 100 meters of Matheson Meadows drains east directly into the Range Road 222 right-of-way ditches. The rest of the site drains north and is split between draining northwest into an existing drainage right-of-way to Oldman Creek and northeast through an existing wetland which overflows into the Range Road 222 ditch and ultimately into Point Aux Pins Creek. Drainage from adjacent properties has historically been allowed to flow onto and through the site and these drainage paths are protected by drainage rights-of-way. These easements are to be retained and continued to operate as they have historically.

Naturalized Stormwater Management Facility

The northeast corner of the plan contains a stormwater management facility. This constructed facility will be designed within a natural low area which includes a priority wetland area. To offset the impacts to the existing wetlands the facility will be constructed to support wetland vegetation and provide similar habitat for local wildlife.

Goal

To ensure safe, reliable, and efficient water, sanitary, and stormwater utility systems and services for Matheson Meadows which are viable in the long term and provide an acceptable level of service.

Objectives

Strathcona County's objectives are to ensure provision of **utilities** in Matheson Meadows:

1. Provide **sanitary sewer, and water services** to all residential lots.
2. Provide **stormwater management** that maintains predevelopment conditions.
3. Integrate a **low impact development** approach to stormwater management.

Policies

Sanitary and Water

4. **Require** municipal water and sanitary services be provided to the property line of all new lots which don't have municipal service connections, to **ensure** negative environmental impacts from utility servicing are minimized.
5. **Require** existing residences within the Plan area to be provided internal sanitary connections as part of Stage 1 to **ensure** future connections are available and can be completed efficiently.
6. **Encourage** existing residences within the Plan area to be provided internal water connections as part of Stage 1 to **promote** connections to municipal water.
7. **Require** the existing residence on Lot B, Plan 6738NY to be connected to piped sewer during Stage 1 development to **ensure** its onsite septic system is discontinued before adjacent lots are developed.

Storm Water Management

8. **Require** drainage patterns in the southwest area to remain in a natural state with minimal disturbance and grading to **ensure** the areas draining in this direction continue to do so within pre-development conditions.
9. **Require** drainage from lots that abut the plan boundary to be designed in a manner that will provide surface drainage at or below pre-development rates **ensure** there is no additional stormwater impact on adjacent quarter sections.

Low Impact Development

10. **Require** priority wetlands to be integrated as part of the stormwater system to **ensure** water treatment is enhanced by utilizing natural processes, such as erosion control and water filtration through plant communities.
11. **Require** the stormwater management facility to be designed to mimic naturally occurring undulating wetlands in the region to **ensure** naturalization and enhanced aesthetic quality.
12. **Encourage** natural drainage pathways to be used to **promote** low impact design.
13. **Encourage** conservation and relocation of live soils from removed wetlands to the stormwater management facility to **promote** native species and wetland vegetation growth.

4.0 Land Use Concept

4.1 Residential

Overview

Matheson Meadows is a country residential community located within the low-density area of the Country Residential Area Concept Plan. The land use is consistent with the existing pattern of acreage development in the surrounding areas. The design of Matheson Meadows respects surrounding communities by locating larger lots to the edges and smaller lots toward the central portion of the ASP. The **Appendix A – Land Use and Population Statistics Table** shows the land use and population statistics resulting from this concept.

The development contains large private lots intended to promote natural feature protection between homes and protect the natural woodland aesthetic and ecological functions of the area. The lands are highly consistent throughout, with only small natural clearings. The land use concept has been designed to avoid bulk tree clearing and to effectively utilize the natural topography within each residential lot effectively.

Two lots have been subdivided from the subject quarter section and have existing homes on them. These lots have been incorporated into the design of Matheson Meadows. They currently access Range Road 222 directly but will ultimately be required to connect to the internal road network. A third existing residence is located on Lot B, 6738NY. This is a 40-acre agricultural parcel which will be subdivided. The existing home will be contained within a newly created lot and will also be designed to allow future internal access. See **Map 2 – Air Photo** for existing residential accesses.

Matheson Meadows is located within an area of significant forest which contains large volumes of combustible material and carries a risk of a wildfire. Voluntary design strategies can be used to help protect property and the health and safety of residents within such an extensive forest.

Goal

Accommodate residents within a variety of single dwelling housing styles to create an attractive community which retains an emphasis on a quiet country lifestyle and privacy.

Objectives

Strathcona County's objectives are to ensure **residential** development in Matheson Meadows:

1. Provide **density transitions** from existing communities so that development within the ASP is compatible with the existing residential context.
2. Protect and enhance **privacy between lots**, between adjacent developments and natural areas.

Policies

Density Transitions

1. **Require** all new residential lots abutting the north, south, and west boundary of the plan area to have a minimum lot area of 0.8 hectare (2.0 acres) to **ensure** an appropriate transition to existing lots within adjacent quarter sections.
2. **Require** all new lots to be a minimum of 0.2 hectare (0.5 acre) in area to **ensure** a lot size that is consistent with higher density country residential.
3. **Require** a maximum of 50 lots within the plan area to **ensure** alignment with the Low-Density Area of the Country Residential Area Concept Plan.

Privacy Between Lots

4. **Encourage** retention of natural forested areas between lots within and adjacent to Matheson Meadows to **promote** visual screening, privacy, and noise mitigation.

4.2 Open Space Network

Overview

Matheson Meadows includes an integrated open space, trail, and roadway network. This provides amenities for recreation and active transportation. It also allows people to visit and enjoy the extensive protected natural areas from safe and accessible locations. The trail system is part of the overall transportation network which is described in **Section 3.1**. This plan proposes public open space in the form of municipal reserve, environmental reserve, and public utility lots.

Four key conservation recommendations have been applied to the design of Matheson Meadows:

1. Retain as much mature deciduous woodland as possible.
2. Retain as many wetlands as possible, particularly the permanent shallow water wetlands.
3. Maintain as much interior woodland habitat as possible, with a preference for round and square patches.
4. Maintain important wildlife connectivity functions.

The development integrates municipal reserve and environmental reserve to create an extensive and connected open space network. By locating municipal reserve adjacent to environmental reserve residents are able to enjoy the protected natural areas safely from public land. This also facilitates a trail network which is located safely on municipal reserve and which provides direct views to protected areas.

The proposed development concept integrates and retains the majority of each of the five conservation priority wetlands identified in the Biophysical Assessment and shown on **Map 3 – Topography and Natural Features**. The development concept results in the loss of a few small priority wetlands from within road rights-of-way. Overall, the development concept closely matches the conservation recommendations. Most importantly, the conservation objectives outlined in the Biophysical Assessment of retaining and integrating wetlands (including wetland buffers) and maintaining wildlife connectivity are respected in the development through the dedication of environmental reserve, municipal reserve, and integration of open space corridors. Specifically, significant protection of natural areas through the length of the site maintains links between all ecosystems throughout the community. The proposed large residential lot sizes are an additional mechanism which reduces the impact of development to natural features, by providing ample space between residences

for animal movement. Although many of the natural features within private lots are developable and may be impacted, it is anticipated that most residents will retain significant additional woodland at their own discretion, supporting protection of interior woodland habitat.

Wetlands

Retained wetlands provide habitat, aid in the cleaning of surface runoff, and hold stormwater to support groundwater recharge. Additionally, wetlands contribute to water quality and groundwater recharge. Matheson Meadows will be designed such that the large majority of wetlands shall be avoided, especially those identified as priority wetlands. Over 95% of priority wetland areas have been protected or will be incorporated into the naturalized stormwater management facility. A small number of seasonal wetlands may be disturbed or removed to create suitable building sites, roads and utility construction. Enhancement of the northeast priority wetland into a naturalized stormwater management facility provides significant environmental offset value of wetlands disturbed for construction. See **Map 9 – Natural Feature Impacts**.

Uplands

Matheson Meadows is heavily forested throughout and contains significant upland habitat and vegetation. To reduce the need for tree clearing and site grading, homesites will be distributed throughout the forest and roads will be kept to a minimum. This will provide residents with beautiful surroundings on each lot.

Municipal Reserve and Environmental Reserve

Municipal reserve and public utility lot dedications connect all environmental reserve areas and allows for wildlife movement throughout Matheson Meadows. Municipal reserve adds additional separation of residential parcels from environmental reserve to give additional protection to the wetland and wildlife habitat adjacent to wetlands. Municipal reserve also provides public access to environmental reserve areas and contains the continuous trail loop throughout the community.

Environmental reserve dedications include the entire large wetland complex along the southern ASP boundary and extend northeast throughout the site. The Biophysical Assessment provided recommendations to buffer the open water wetlands by 30m. Based on topographical information and historical air-photo review a maximized buffer from wetland edges to private property is provided for the south wetland complex due to relatively flat grades on the east waterbody, observed historical water ponding, and high habitat value. The topography of the remaining environmental reserve areas will not create such significant water impoundment. Marshes form a chain of priority wetlands which extends north-east through the site and only hold limited seasonal water. Natural drainage pathways carry water safely away from these areas before they can fill and grow beyond their identified boundaries. A reduced separation from the wetland edges to private property is applied to these areas.

Combined with yards which provide additional buffering between private development and environmental reserve features, buffers will be provided along interfaces between environmental reserve and municipal reserve, which are all under County management and not at risk of development encroachment into sensitive environmental areas while also allowing maintenance access.

Goals

Protect and enhance natural areas and public spaces while supporting recreational use. Development of Matheson Meadows will formalize boundaries of key environmental features, protect biodiversity, and protect the overall health of natural features within public space and on private lands.

Objectives

Strathcona County's objectives are to ensure the **open space network** in Matheson Meadows:

1. Conserves **environmental features** within the open space network.
2. Provides **municipal reserve** lands for open space for all ages, incomes and abilities.
3. Utilizes **environmental reserves** to conserve environmentally significant areas and features where they qualify under the Municipal Government Act.
4. Provides desirable amenities including interesting and attractive **recreation** opportunities within the community.
5. Develops a **trail network**.

Policies

Environmental Features

6. **Require** priority open water wetlands and priority marsh wetlands to be retained within ER lots to **ensure** protection of drainage paths, biodiversity, habitat area, and wildlife corridors.
7. **Require** that residential property lines be a minimum of 30 meters from the top of bank of priority open water wetland features along the south plan boundary to **ensure** environmental separation respects the observed topography.
8. **Require** that residential property lines and development be a minimum of 15 meters from the top of bank of priority marsh wetland features to **ensure** stormwater from these areas does not impact adjacent properties.
9. **Require** a minimum of 6 meter separation from the edge of priority wetlands to municipal reserve to **ensure** appropriate buffers from seasonal wetland changes between open spaces.
10. **Encourage** that development on residential lots is directed away from wetlands within the lot to **support** maximizing the retention of biodiversity within the Plan area.

Municipal Reserve

1. **Require** all trails to be integrated into the municipal reserve to ensure access to opportunities for recreation, healthy lifestyles and social activities.
2. **Require** dedication of municipal reserve as per **Map 4 - Development Concept** to **ensure** public space is available for public use.
3. **Require** all municipal reserve to provide frontage which is accessible by public roadways and trails connecting to internal roadways to **ensure** accessibility is equitable throughout the community.
4. **Require** municipal reserve to be oriented in a continuous manner to **ensure** the facilitation of wildlife movement through the plan area.

Environmental Reserve

5. **Require** public dedication of a majority of priority wetlands identified on *Map 3 – Topography and Natural Features* to **ensure** protection of natural features and incorporation into the overall stormwater management design.
6. **Require** dedication of environmental reserve t as per *Map 4 - Development Concept* to **ensure** priority wetlands are adequately protected.

Recreation

1. **Require** dedication of public space for recreation amenities to **ensure** healthy lifestyles and social activities can be achieved within the community.
2. **Require** development of trails to **ensure** public spaces are accessible and safe for pedestrians and cyclists of all ages and abilities.

Trail Network

3. **Encourage** trails to be constructed a minimum of 10 meters from the edge of environmental reserve areas to **promote** sustainable development of trails direct pedestrian activities a safe distance from sensitive natural features.

5.0 Implementation

All required planning policies are in place to support the development of the ASP. This ASP and all supplementary documentation, including Strathcona County statutory planning documents, directs and controls all development within the plan area.

5.1 Development Staging

5.1.1 General

Staging of development is anticipated to proceed as shown on **Map 10 – Development Staging**. Staging boundaries are conceptual and may be influenced by overall market demand, staging of infrastructure, and other external policy factors. Variations in the staging shall be coordinated with Strathcona County and subject to development agreements between the developer and the County and shall not require ASP amendment to enact staging variations.

5.1.2 Incorporation of Existing Residences

All existing residences will be incorporated into the Stage 1 subdivision and engineering design and provided with internal road connection points, internal sanitary sewer service connections to the property line, and internal water connections to all previously un-serviced lots. Should any existing residences obtain water connections prior to Stage 1, internal water connections will not be required.

The existing residence within Lot B, Plan 6738NY which has not been previously subdivided from the 40 acre agricultural parcel will be provided internal road access and sanitary sewer connection as part of Stage 1. Access from Range Road 222 will be removed for this residence with Stage 1 completion.

Lot 1, Block 1, Plan 0325029 and; Lot 1, Block 1, Plan 0224192 will not be required to connect to the services that will be installed as part of Stage 1 and will be at the discretion of the landowners, or at such time as any future County or Provincial policy would require utility connections to be completed to meet regulatory requirements. These homes may continue to utilize their current access until such time as they decide to alter their own access, any intensification of land use, or if improvements to Range Road 222 cause the accesses to be inoperable.

In order to provide an internal road connection for Lot 1, Block 1, Plan 0325029 land will need to be provided in the form of either road right of way or a strip of land to be consolidated with Lot 1, Block 1, Plan 0325029.

5.2 Implementation Items

Policies, text, and mapping information contained within this ASP may be amended from time to time in order to remain current and relevant in response to broader or more specific issues affecting the ASP area. Any amendments to policy, text or mapping information contained within the Matheson Meadows ASP shall be in accordance with all relevant County policies.

The maps shown within this ASP are to outline the general location and size of lots. Minor variations to this plan are anticipated as part of the detailed planning and engineering process.

In order to achieve acceptable noise mitigation for residences abutting Range Road 222, one of the following two options is necessary:

1. Noise attenuation is provided in accordance with Strathcona County Traffic Noise Policy; or



- 2a. an amendment to the Strathcona County Land Use Bylaw or another method deemed appropriate by the Subdivision Authority, that will achieve a 45 meter primary residence setback from the Range Road 222 right of way to residences of lots bordering Range Road 222 prior to subdivision endorsement; and
- 2b. a minimum depth of 31 meters of existing trees abutting Range Road 222 is retained through the registration of an appropriate instrument on the title of all new lots abutting Range Road 222.

6.0 Maps



Map 1 - Location Plan

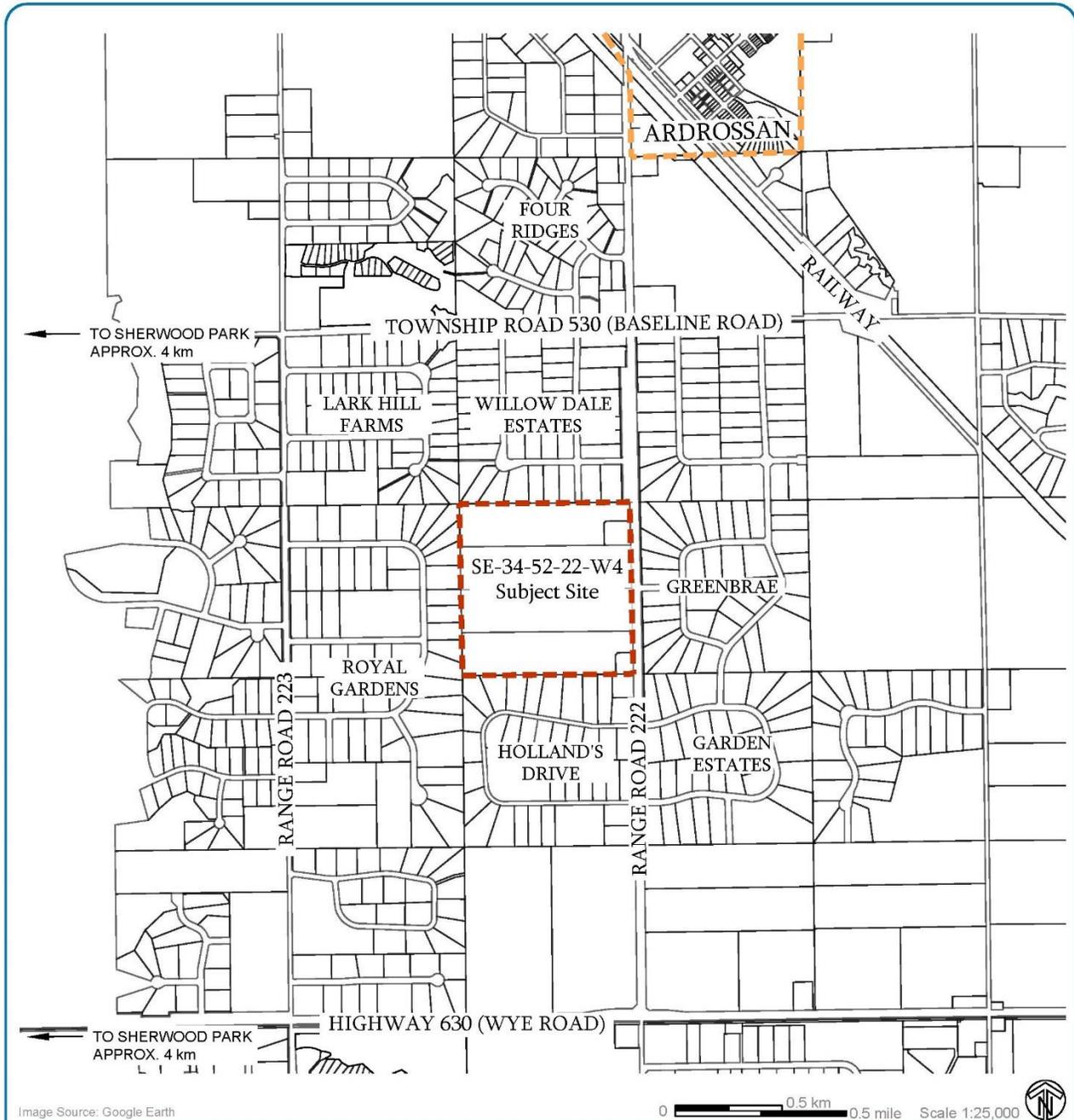


Image Source: Google Earth

0 0.5 km 0.5 mile Scale 1:25,000



Legend

- - - Subject Lands
- - - Ardrossan Boundary

Project

Matheson Meadows Area Structure Plan

Title

Location Plan

Map

1



September 2021



Map 2 - Air Photo



Image Source: Strathcona County

Scale 1:5,000 

Legend

-  ASP Boundary
-  Existing Property Line

Project

Matheson Meadows Area Structure Plan

Title

Air Photo (2019)

Map

2



September 2021



Map 3 - Topography and Natural Features



Image Source: Strathcona County

Scale 1:5,000



Legend

- ASP Boundary
- Existing Property Line
- Minor Contours (1.0m Interval)
- Major Contours (5.0m Interval)
- Wetland - Shallow Open Water
- Wetland - Marsh
- Wetland - Swamp
- Mature Balsam Poplar
- Young Aspen
- Open Shrub
- Disturbed Yard
- Tame Pasture
- Priority Wetlands

Note: All Forested Areas Not Otherwise Identified Are Mature Aspen Woodlands

Project

Matheson Meadows Area Structure Plan

Title

Topography and Natural Features

Map

3



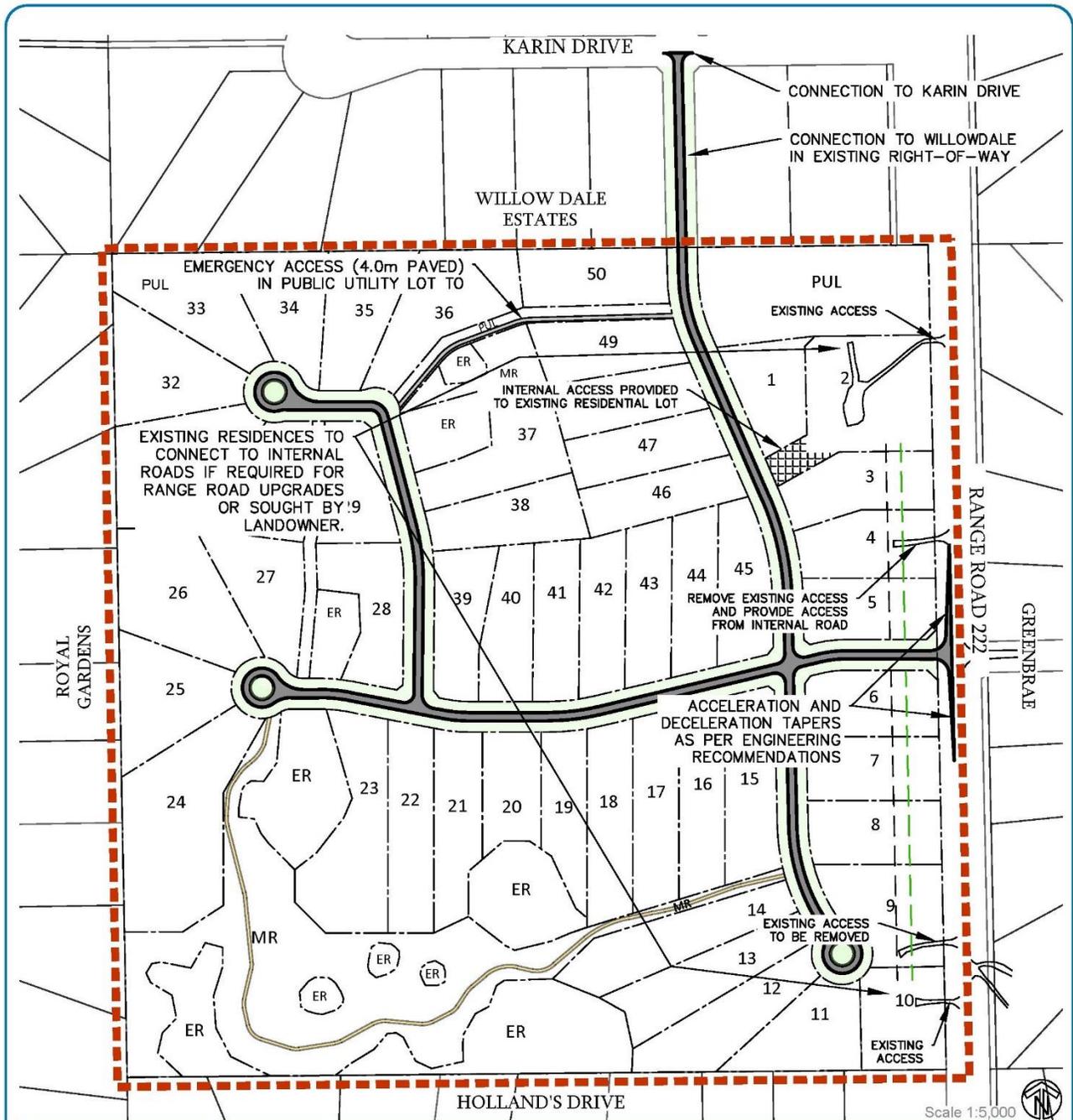
September 2021



Map 4 - Development Concept



Map 5 - Transportation Network



Legend

- - - ASP Boundary
- - - Proposed Property Line
- Proposed Road
- Paved Emergency Access (4.0m wide)
- Gravel Trail (1.5m wide)
- Noise Attenuation Setbacks

45m Principal Residence
31m Tree Retention

Scale 1:5,000

Project

Matheson Meadows Area Structure Plan

Title

Transportation Network

Map

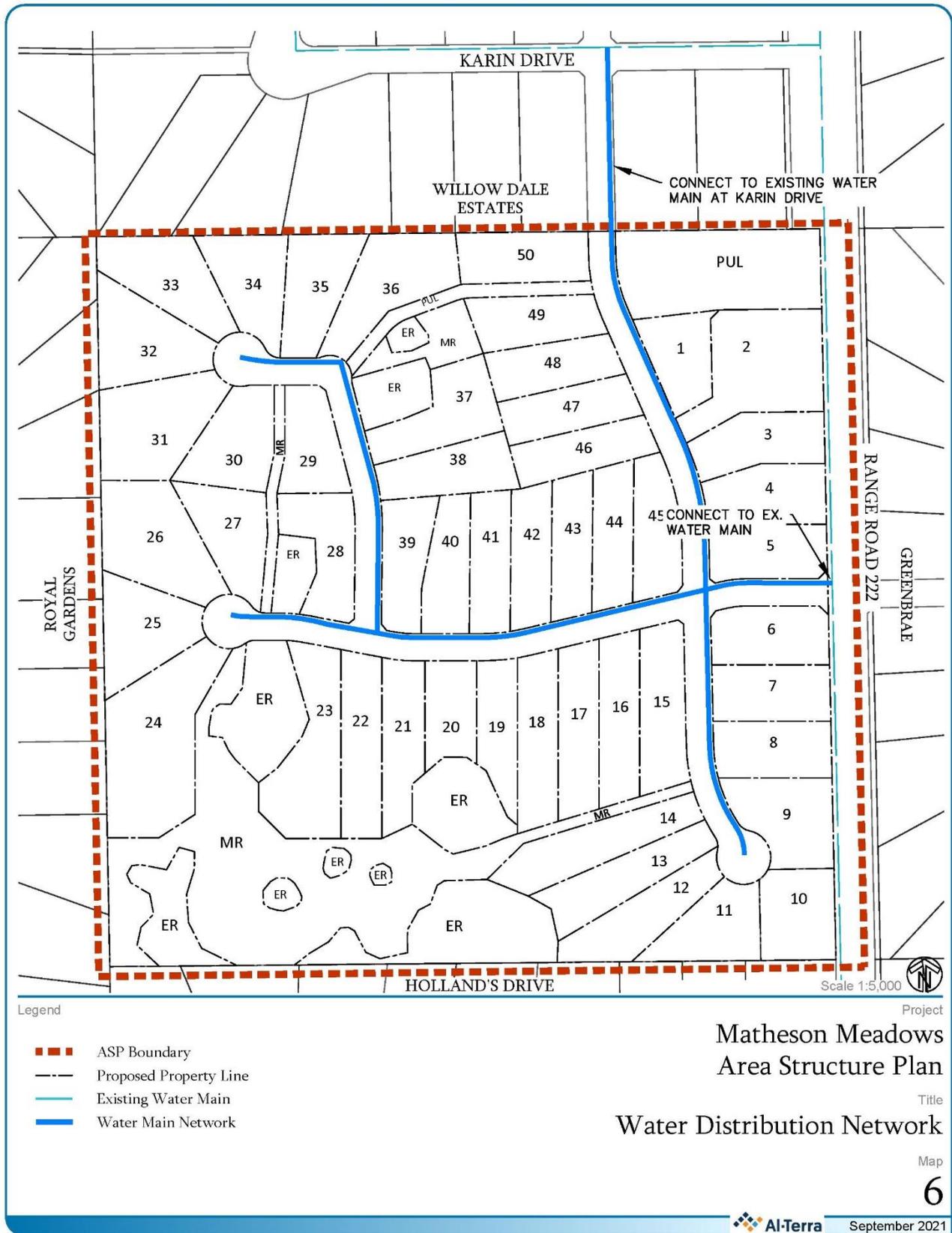
5



September 2021



Map 6 - Water Distribution Network



Map 7 - Sanitary Sewer



Image Source: Google Earth

Scale 1:5,000



Legend

- ASP Boundary
- Proposed Property Line
- Sanitary Forcemain Network

Project

Matheson Meadows Area Structure Plan

Title

Sanitary Sewer

Map

7



September 2021



Map 8 - Storm Water Management

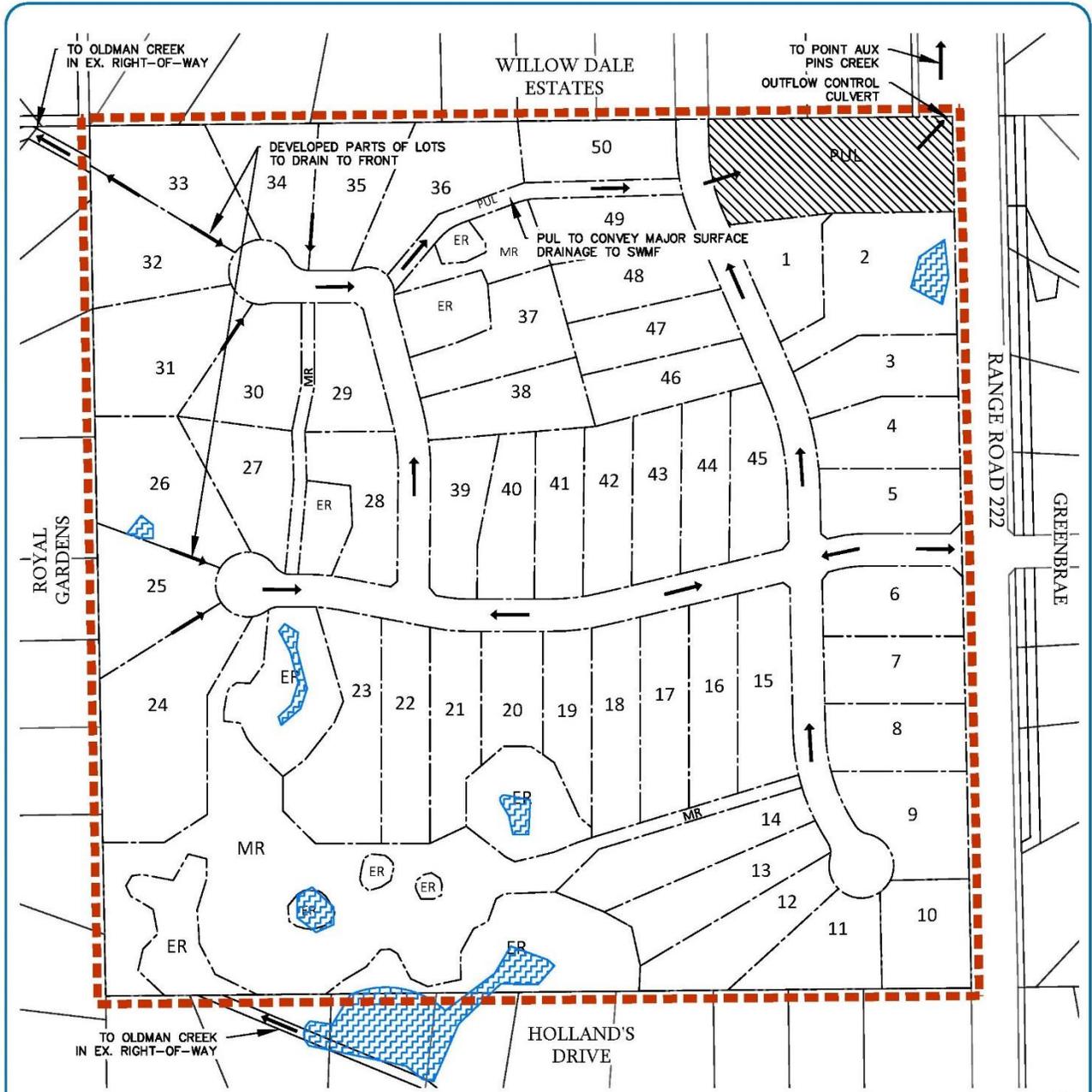


Image Source: Google Earth

Scale 1:5,000



Legend

- - - - ASP Boundary
- - - - Proposed Property Line
- Existing Natural Water Holding Areas
- Proposed SWMF Areas
- Direction of Surface Drainage

Project
**Matheson Meadows
Area Structure Plan**
Title
Storm Water Management

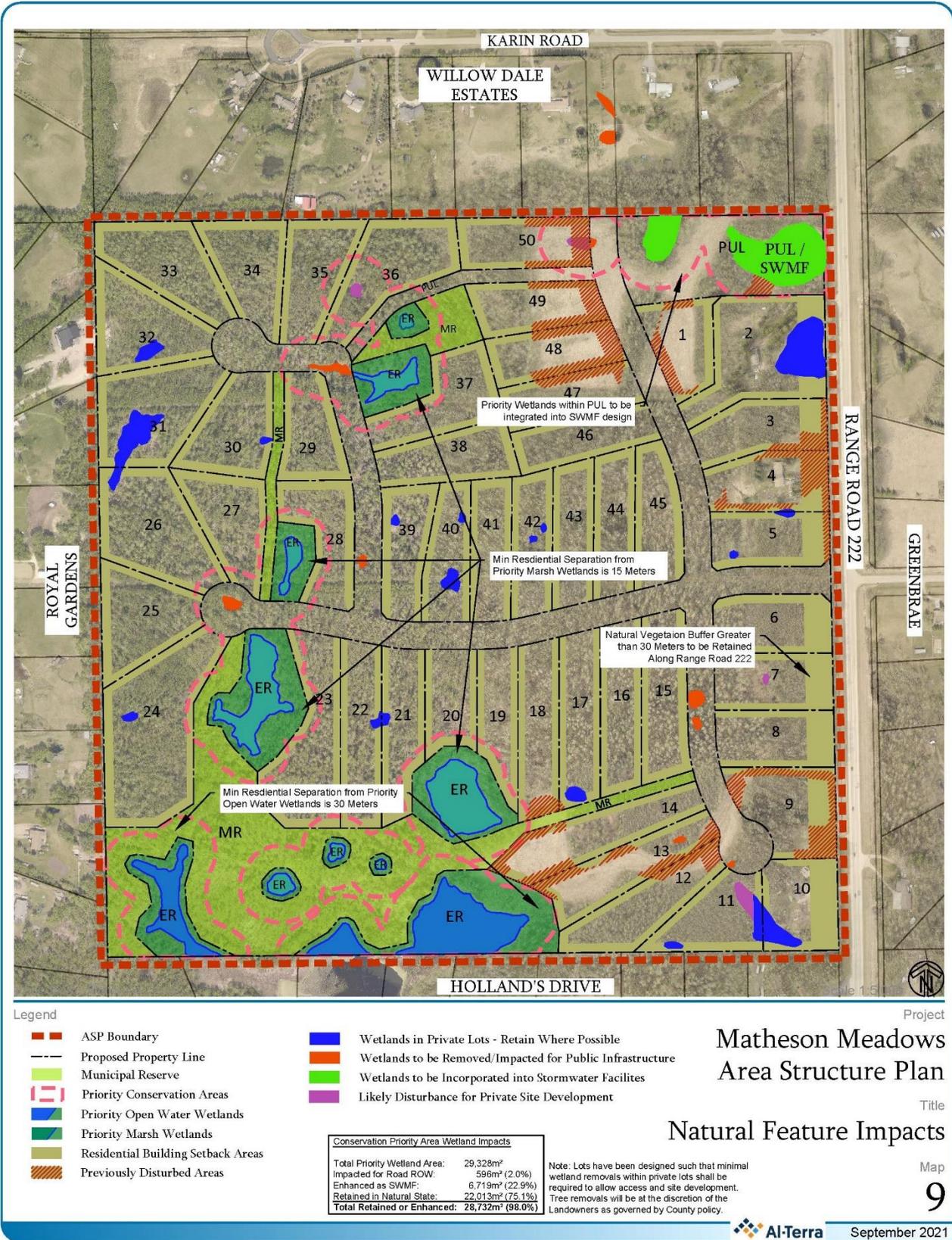
Map
8



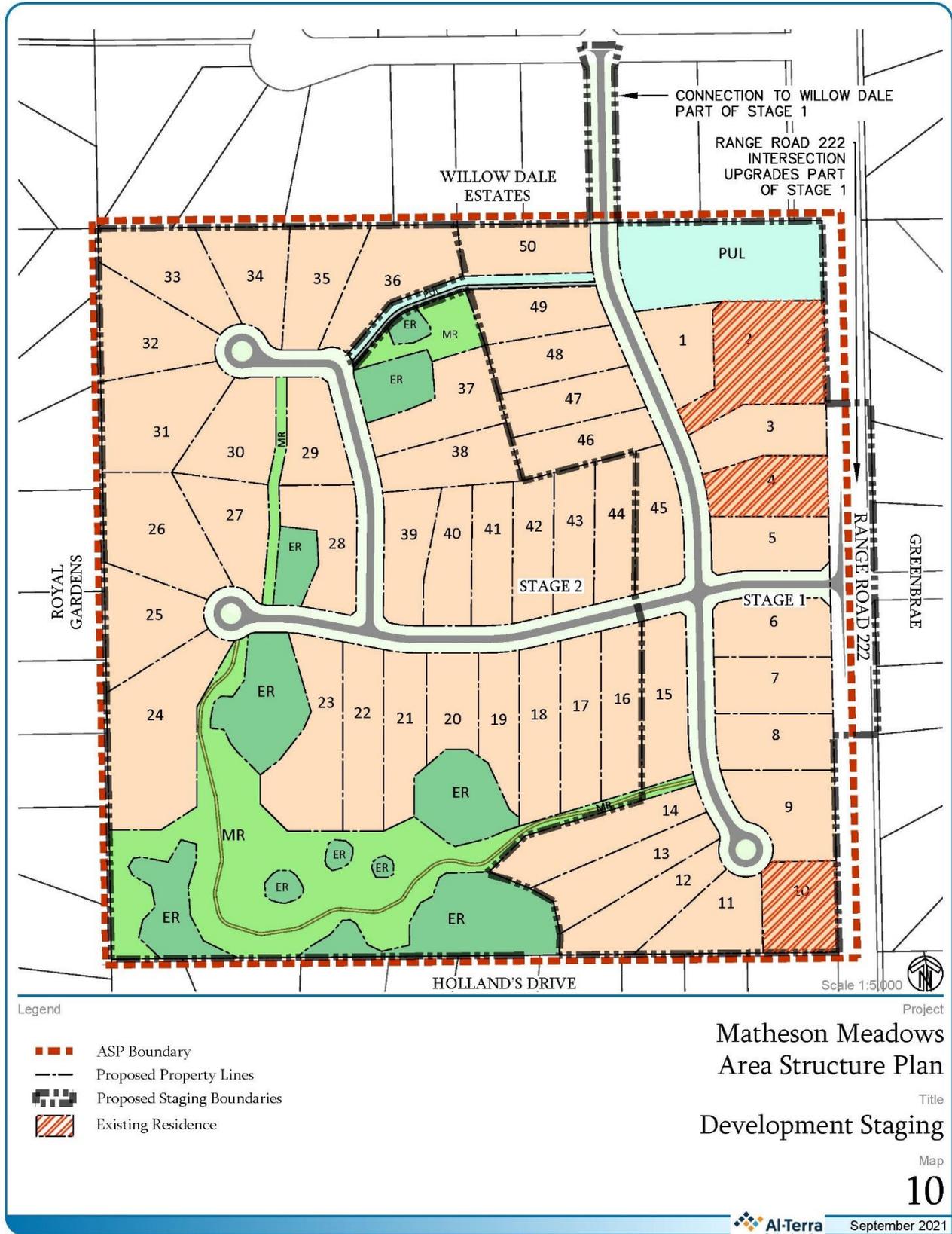
September 2021



Map 9 - Natural Feature Impacts



Map 10 - Development Staging



Legend

- ASP Boundary
- Proposed Property Lines
- Proposed Staging Boundaries
- Existing Residence

Project
**Matheson Meadows
 Area Structure Plan**
 Title
Development Staging
 Map
10



September 2021





Appendix A

Land Use and Population Statistics



Appendix B

Background Information

1.0 Introduction

This Appendix includes summary information regarding context and site conditions (**Sections 2.0, 3.0 & 4.0**), biophysical information and recommended conservation areas (**Section 5.0**), supplementary Firesmart information (**Section 6.0**), and public engagement (**Section 7.0**). This appendix references and summarizes reports prepared for the Matheson Meadows ASP.

2.0 Existing Development

Development Context

Matheson Meadows falls within the Country Residential Area Concept Plan in the Low-Density Country Residential Policy Area. As of the date of authoring of this Plan, two residential parcels have been subdivided within the Plan limits. One 1.390 hectare lot is located near the northeast corner of the Plan area. The second residential parcel is 0.825 hectares in size and is in the southeast corner of the Plan area. A third existing residence is located adjacent to Range Road 222 within Lot B, Plan 6738NY. This home is located on a 40-acre agricultural parcel. All existing homes are anticipated to be retained and incorporated into Matheson Meadows. Other than lands provided for the Range Road 222 right-of-way, municipal infrastructure and utility rights-of-way are registered within the Plan area.

All parcels within the Plan area are currently zoned AD-Future Development, excepting the 1.390 hectare parcel which has been previously subdivided and rezoned as RCL-Low Density Country Residential.

Historical Resources

A Historical Resources Statement of Justification was authored by The Archeology Group and submitted to Alberta Culture and Tourism under HRA File 4835-19-0023-001. Historical Resources Act Approval Clearance was granted by Alberta Culture and Tourism on April 3, 2019. The HRA approval letter has been included in the Matheson Meadows Engineering Design Brief.

Pipelines and Utilities

There are no pipelines, well sites (active or abandoned), utility rights-of-way or easements located within the Plan area.

3.0 Topography and Hydrology

The Plan area is quite flat and generally slopes from the southwest down towards the northeast. There are significant low areas in the southwest, northwest, and northeast portions of the site. Small shallow depressions are evident throughout. The elevation range is approximately 15 meters, from highest to lowest elevation. Several small knolls are in the southwest quadrant which are the highest points of the site.

Natural drainage flows from south to north, except for the large south wetland complex which drains westward into an existing drainage right-of-way through Royal Gardens. The easterly 100m meters of Matheson Meadows drains east directly into the Range Road 222 right-of-way ditches. The rest of the site drains north and is split between draining northwest into an existing drainage right-of-way to Oldman Creek and northeast through an existing wetland which overflows into the Range Road 222 ditch and ultimately into Point Aux Pins Creek. Drainage from adjacent properties has historically been allowed to flow onto and through the site and these drainage paths are protected by drainage rights-of-way. No clearly defined or intermittent water



courses are found within the Plan area. Numerous small depressions exist, some of which intermittently may hold water.

A drainage easement exists which receives water from the north-western portion of Matheson Meadows westward to Royal Gardens. A drainage easement also bring water from Hollands Drive into the south wetland complex and is subsequently directed westward through Royal Gardens to Oldman Creek.

4.0 Geotechnical

Sabatini Earth Technologies completed geotechnical testing within the subject lands. This section describes the findings and recommendations of the geotechnical information gathered by between 2003 and 2006.

Matheson Meadows is located within the Cooking Lake Uplands of the northwest edge of the Beaver Hills moraine. These lands have not historically been cleared or otherwise used for extensive agricultural activities, except for two limited areas of pasture in the northeast and southeast quadrants. Soils, topography, and extensive tree cover limit the productive capacity of the lands. The site displays characteristics of the typical “knob and kettle” terrain with a patchwork of depressions throughout. Testing revealed topsoil depth ranging from 0.02m to 0.45m. Soil stratigraphy generally consisted of topsoil over clay till which extended to the termination depth of the boreholes.

Several boreholes were found to have water present above 2.0m depth. These results necessitated further investigation. Subsequent investigations were completed in 2020 and have provided sufficient evidence that although high water tables may affect some parts of the land, each parcel is developable. Strategies for ensuring buildable areas and building site access have been identified within the engineering design brief.

5.0 Biophysical Assessment and Conservation Recommendations

A Biophysical Assessment (BA) has been prepared by Spencer Environmental Management Services Ltd. The study was created to meet the standards set forth in Strathcona County’s Environmental Policies (SER-009-032 and SER-009-036). Spencer Environmental has structured the BA such that all relevant and required information to satisfy County policies is presented. The primary objective of the BA is to provide information and professional recommendations to inform the prioritizing and dedication of Environmental Reserve, Municipal Reserve and Conservation lands based on municipal, community, environmental needs as per applicable County and provincial policies. The summary excerpt of the BA is included below.

The Matheson Meadows Area Structure Plan (ASP) is being prepared for a quarter-section of land (SE-34-52-22-W4M) southwest of Ardrossan west of Range Road 222. The ASP will describe a plan to develop the land into a country residential development comprising a total of 50 lots in accordance with the Strathcona County Country Residential Area Concept Plan (2011). Under current conditions, the Plan area consists almost entirely of native plant communities. The majority of the forested land within the study area comprises a diverse, mature aspen-dominated forest which appears to have been present on the landscape since before 1950. The majority of the parcel may have never been cleared. Within the study area, this assessment identified 35 separate wetlands scattered throughout the predominantly treed landscape. The majority of the wetlands were identified as marshes, but a small number of shrubby swamps and two shallow open water wetlands were also identified. The marsh wetlands were typically found in small depressions within the forested landscape, however, the two shallow open water wetlands are the largest within the study area and represent significant features of the Plan area.

As a result of the extensive natural cover within the Plan area, the parcel comprises an excellent representation of mature deciduous woodland, encompasses a number of wetlands, including a couple of semi-permanent and permanent wetlands, provides interior habitat for certain wildlife species and supports important wildlife connectivity functions. Stemming from these values, this assessment recommends that the Matheson Meadows ASP adopt the following conservation objectives:

1. *Retain as much mature deciduous woodland as possible.*
2. *Retain as many wetlands as possible, particularly the permanent shallow water wetlands.*
3. *Maintain as much interior woodland habitat as possible, with a preference for round and square patches.*
4. *Maintain important wildlife connectivity functions.*

5.1 Environmental Regulatory Requirements

Matheson Meadows shall adhere to provincial regulatory requirements relating to the *Migratory Birds Convention Act*, the *Fisheries Act*, the *Alberta Water Act*, *Alberta Public Lands Act*, and the *Alberta Wildlife Act* when managing natural features and habitat on site during development.

In addition, the Plan shall adhere to all relevant Strathcona County municipal environmental policies and any other relevant policies in place at the time of development.

5.2 Conservation Recommendations

Spencer Environmental has identified four key conservation recommendations which have been applied to the design of Matheson Meadows:

1. Retain as much mature deciduous woodland as possible.
2. Retain as many wetlands as possible, particularly the permanent shallow water wetlands.
3. Maintain as much interior woodland habitat as possible, with a preference for round and square patches.
4. Maintain important wildlife connectivity functions.

These recommendations form the basis for the ASP environmental conservation policies.

5.3 Priority Conservation Areas

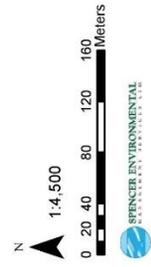
Vegetation types and priority conservation areas identified by Spencer Environmental are shown on the following map.

Figure 7.
Recommended
Conservation Priority
Areas
Matheson Meadows ASP



- Legend**
- Study Area
 - Conservation Priority Areas
- Upland Plant Communities**
- Mature aspen
 - Young aspen
 - Mature balsam poplar
 - Open shrub
 - Tame pasture
 - Disturbed/yard
- Wetlands (Class)**
- Marsh
 - Shallow open water
 - Swamp
 - Plant Community Type selection

Aerial Photograph Date: 2017
Date map created: 19 November 2019



**Figure 2.
Potential Impacts to
Forested Communities**

Matheson Meadows ASP

- Legend**
- BA Study area
 - Upland Plant Communities**
 - Mature aspen
 - Young aspen
 - Mature balsam poplar
 - Open shrub
 - Tame pasture
 - Disturbed/yard
 - Wetlands (Class)**
 - Marsh
 - Shallow open water
 - Swamp
 - Impacts**
 - Areas of Potential Tree Clearing
 - Newly Created Forest Edge (Future)*
- *Newly created forest edge not shown along proposed granular trails; narrow trail width not expected to result in significant impacts.



Aerial Photograph Date: 2017
Date Map Created: 03 February 2020

N 1:4,462

0 20 40 80 120 160 Meters



From: [Andrew Forrest](#)
To: [Connor Smith](#); "[leo broks \(leobroks@shaw.ca\)](#)"
Subject: FW: File 7576: RE: Wetland Permanence Assessment - Matheson Meadows SE 34-52-22-W4M
Date: Monday, February 11, 2019 3:35:15 PM
Attachments: [image004.wmz](#)
[image001.png](#)
[image003.wmz](#)

Gentlemen – please see below. A surprisingly quick turn around on this determination, thanks – I suspect – to the previous determination completed on this parcel. The Stantec (2006) makes no mention of this so I'm not sure at what point that would have been completed. Importantly, none of the wetlands are considered permanent and claimable by the Crown pursuant to the *Public Lands Act*. As such, there are no restrictions to construction of the SWMF as proposed, except for standard *Water Act* approval with relevant reporting and replacement requirements in line with the Wetland Policy.

Regards,

Andrew Forrest, M. Sc., P. Biol. | Environmental Scientist

Spencer Environmental Management Services Ltd.

#402, 9925-109 Street

Edmonton, AB T5K 2J8

Phone: (780) 429-2108

Fax: (780) 429-2127

Email: aforrest@spencerenvironmental.ab.ca

Web: www.spencerenvironmental.ab.ca

-

-



From: AEP Water-Boundaries <Water.Boundaries@gov.ab.ca>

Sent: February-11-19 3:25 PM

To: Andrew Forrest <aforrest@spencerenvironmental.ab.ca>

Subject: File 7576: RE: Wetland Permanence Assessment - Matheson Meadows SE 34-52-22-W4M

Hello Andrew,

I have completed the analysis of permanence of the specified water features located within the SE ¼ of Section 34 of Twp52-Rg22-W4M.

Land titles for this quarter section are silent on Crown ownership of bed and shore.

Feature labeled "16" in your material (see image below) was previously assessed by our Unit and considered not permanent.

Air photos dated 1950 to 2016 were reviewed and it was found that none of the other features meet the criteria for Crown ownership of bed and shore under Section 3 of the *Public Lands Act*.



Note: The above assessment of the water bodies ownership should not be taken to mean that authority has been granted under the provincial *Water Act* to alter, infill, or drain a water body. Please contact your local Environment and Parks Office for additional information regarding any approval requirements.

Have a nice day,

Ricardo Barbosa

Waterbody/Boundary Research Analyst
Provincial Wetlands & Water Boundaries Section
Operations Division
Provincial Programs Branch

2nd Floor, South Petroleum Plaza
9915 – 108 Street NW
Edmonton, Alberta, Canada T5K 2G8

Office: (780) 638-9618
ricardo.barbosa@gov.ab.ca

From: Andrew Forrest <aforrest@spencerenvironmental.ab.ca>
Sent: Monday, February 04, 2019 3:12 PM
To: AEP Water-Boundaries <Water.Boundaries@gov.ab.ca>
Cc: Connor Smith <CSmith@al-terra.com>; Leo Broks <LBroks@al-terra.com>
Subject: Wetland Permanence Assessment - Matheson Meadows SE 34-52-22-W4M

Hello,

Please find attached a *Wetland Permanence Assessment for the Matheson Meadows Area Structure Plan - SE 34-52-22-W4M, Strathcona County* prepared in compliance with the Guide (2016). The assessment pertains to a single, 0.516 ha semi-permanent shallow open water wetland.

The attached PDF report file includes all of the following:

- Precipitation data
- Historical (and current) aerial photographs
- Site photographs
- Analysis/summary table

Please let me know if any further information is required. Please acknowledge the receipt of this submission by way of a reply email and, if at all possible, please provide an approximate time frame for the review of this submission.

Thank you kindly – regards,

Andrew Forrest, M. Sc., P. Biol. | Environmental Scientist

Spencer Environmental Management Services Ltd.

#402, 9925-109 Street

Edmonton, AB T5K 2J8

Phone: (780) 429-2108

Fax: (780) 429-2127

Email: afortrest@spencerenvironmental.ab.ca

Web: www.spencerenvironmental.ab.ca

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6.0 Firesmart

FireSmart Canada leads the development of resources and programs designed to empower the public and increase community resilience to wildfire across Canada. Leveraging partnerships with a comprehensive network of leading wildland fire science researchers allows FireSmart Canada to develop programs and resources that are based on peer reviewed and defensible science.

Strathcona County supports the application of FireSmart principles in country residential developments. FireSmart principles have been developed to protect people and property located in forested and treed areas. These preventative measures are intended to help protect the vegetation and wildlife habitat to the greatest extent possible at all times, while protecting life and property in the event of a wildfire. These guidelines are not intended to prevent all damage from fires, but rather to minimize risk factors which may increase the damage and damaging power of wildfires, such the location of fuel and other combustible chemicals.

The factors identified as key FireSmart concerns are:

- ◆ Siting
- ◆ Landscaping
- ◆ Location of Combustibles
- ◆ Roof Materials and Cleanliness
- ◆ Eaves, Vents and Openings
- ◆ Exterior Walls
- ◆ Balcony, Deck or Porch
- ◆ Access to tools
- ◆ Doors and Windows
- ◆ Chimneys
- ◆ Power Lines and Propane Tanks
- ◆ Burn Barrels and Fire Pits
- ◆ Mobile and Manufactured Homes
- ◆ Fire Suppression

Lot purchasers will be referred to FireSmart information to aid in site design and explain the importance of fire safety in this heavily vegetated area. The application of FireSmart principles shall be encouraged whenever possible. Additional FireSmart information can be accessed through Strathcona County's website and www.firesmartcanada.ca.

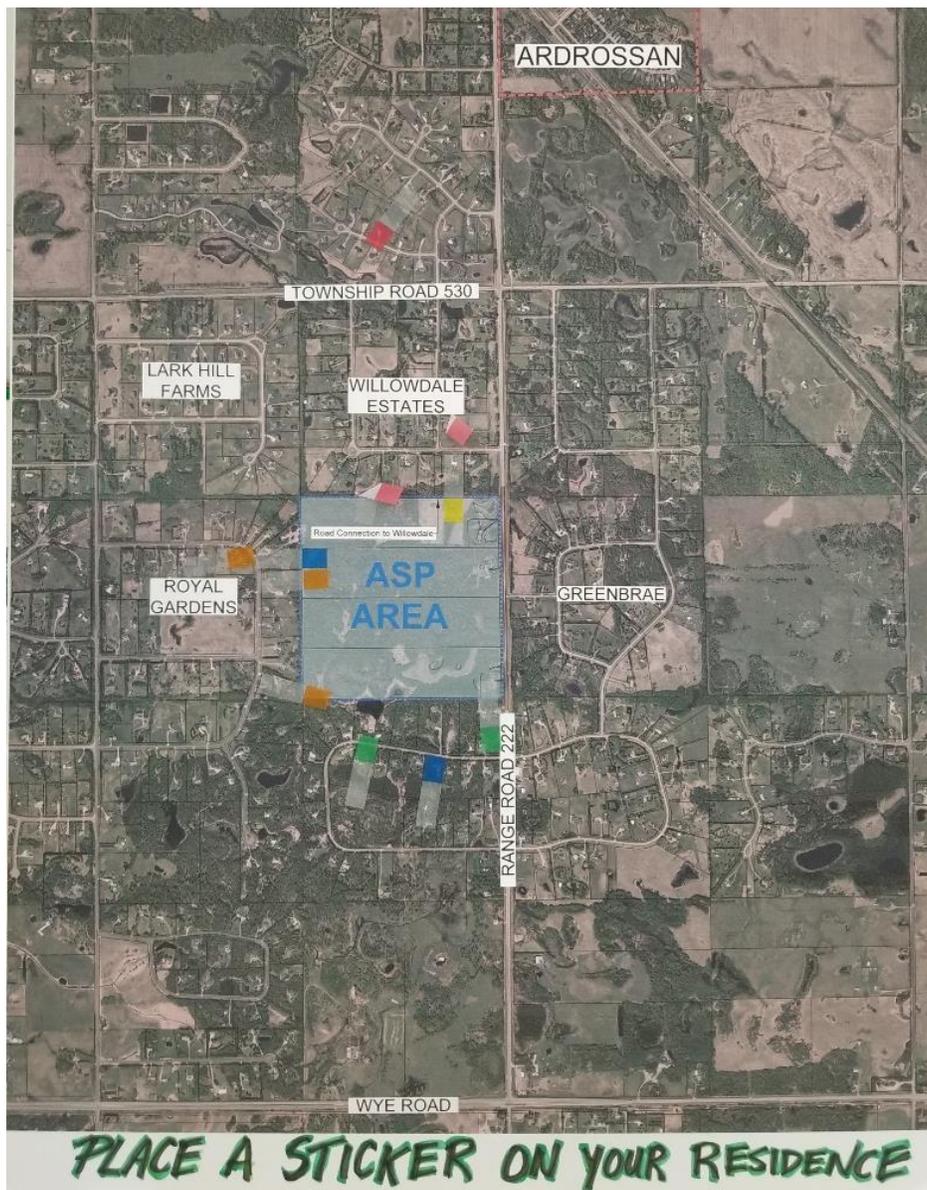


7.0 Public Engagement

Public engagement requirements for Area Structure Plans are outlined in Strathcona County policies. This ASP was developed utilizing the input from Public Engagement events required by Strathcona County.

A Public Information Session was held on November 8, 2018 at the Ardrossan Recreation Centre. All adjacent residents were invited by direct mail-out to attend and provide feedback. Notification was made to the public at large through newspaper advertisements in the Sherwood Park News two consecutive weeks prior to the event.

Approximately 30 residents attended the session, comprised mostly of residents living directly adjacent to Matheson Meadows.



(Above): Location of Open House #1 Attendee's Residences

During the Open House and afterwards many points were raised and discussed. The primary areas of concern to residents are:

- ◆ Traffic increases and possible congestion
- ◆ Vehicular road link to Willow Dale Estates (north of ASP area) and traffic impacts
- ◆ Drainage and flooding issues
- ◆ Protection of wildlife habitat and corridor for their movement
- ◆ Disturbance to quiet country residential lifestyle – During and after construction
- ◆ Loss of recreation lands
- ◆ Timing of development
- ◆ Fencing and security (pre and post-development)
- ◆ Tree protection (residents voice support for strict tree removal limits)
- ◆ Permitted housing types and architectural controls
- ◆ Privacy

Of the comments received, it is clear that the most significant concern is potential flooding occurring as a result of the development. Some residents from Willow Dale did not support the idea of a road being constructed in the ROW provided from Matheson Meadows.

This Plan addresses all concerns raised by residents at the initial Open House. Specifically, through preliminary engineering detailing drainage, traffic assessment, buffering from adjacent communities, and environmental protection design and policies.

{Description of 2nd Engagement to be added once complete}

In addition to public engagement events, the approval by Council of this ASP and any major amendment shall only occur after a *Public Hearing* has been held in accordance with the *Municipal Government Act*.