Horse Creek Conceptual Scheme

Sept 2022

Prepared by Township Planning + Design Inc.

URBANSTAR GROUP OF COMPANIES

TOWNSHIP planning + design inc.

ROCKY VIEW COUNTY

Contents

Contents

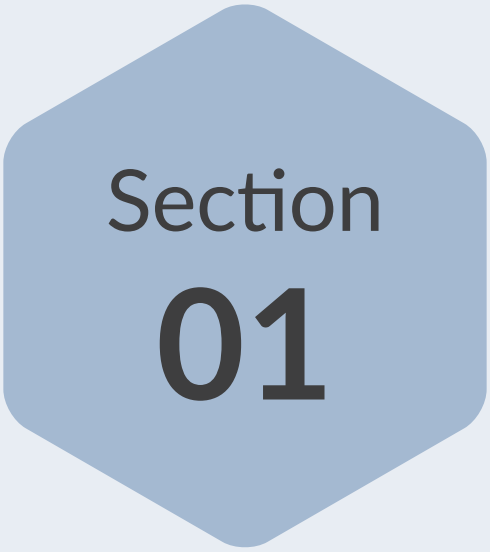
Contents

Figures

Contents

Tables

Introduction



1.1 Purpose & Overview

Purpose

The purpose of this Conceptual Scheme is to provide a comprehensive framework for the future subdivision and development of the subject lands in compliance with the policy direction within the County Plan and the Cochrane Lake Hamlet Plan ASP. The Conceptual Scheme has been developed in alignment with the following:

Land Use Strategy

The Conceptual Scheme establishes a land use strategy that will guide growth and determine a range of appropriate land uses and contextual interface conditions with existing and approved area development.

Environmental Significance

The Conceptual Scheme identifies areas of environmental significance within the plan area that are to be retained in perpetuity and protected as open space.

Vitality

The Conceptual Scheme promotes the vitality of the Hamlet of Cochrane Lake by complementing residential and hamlet commercial growth opportunities within and adjacent to the plan area.

Integration

The Conceptual Scheme integrates with the existing and planned hamlet style development in the area. The design extends the existing Hamlet high street through the community to the escarpment to allow for shared view corridors. The design considers issues identified by local stakeholders (i.e. Emergency Egress, large interface areas) and integrates these solutions into the Plan Area.

Servicing

The Conceptual Scheme capitalizes on and supports regional servicing piped infrastructure for water and wastewater. Storm water will be managed on site with no post development release in accordance with established area practices; no storm water will be released into Cocrhane Lake.

Balance

The Conceptual Scheme balances the public and private interest and promotes a vision common to stakeholders that utilizes infrastructure and moves density closer to those targets expected for the region. The Plan promotes retention of open spaces and provides a framework for evaluation of the long-term effectiveness and financial responsibility for implementation. The project provides for density that supports actual construction (not contribution) of required infrastructure in advance in order to ensure community members are not living in a perpetual construction zone.

1.2 Vision

The Horse Creek site is a signature piece of land with effortless connection to the Hamlet of Cochrane Lake and unparalleled and breathtaking 200-mile views of the Canadian Rocky Mountains. The Horse Creek Conceptual Scheme boundary is one of the few areas within the Cochrane Lake Hamlet Plan that is directly contiguous to the Hamlet of Cochrane Lake and commands unobstructed views to the west. This stunning vista is to be shared amongst all area residents with a common amenity space and park supporting this total community integration strategy.

Extending the hamlet high street to the shared westerly vantage point allows for walking and cycling into the heart of the Hamlet while allowing all area residents the opportunity to access and utilize the natural open spaces supported by Horse Creek's conservation cluster design. A major extension of the integrated trail system allows for increased health and mobility choices and continued enjoyment of the stunning views.

The Horse Creek community connects large portions of an area wide linear trial system and has an emergency egress road that can act as an additional pathway up and down the escarpment to Horse Creek Road. The Horse Creek community supports a regional utility system and is developed as a master planned cluster community, providing a smaller and diverse housing footprint for development and offering increased open space and community amenity. The community's organic urban design integrates the storm water system, enhancing the feeling of relaxation by celebrating water, air, land, and community for overall health.

1.3 Principles

Respect

The Horse Creek project respects:

- Topography and the natural environment;
- The necessity for all to share a common vantage point to the Bow Valley and Rocky Mountains to the west;
- That the connection to and support of the Hamlet is vital to community sustainability; and
- The input of stakeholders with transparent and ongoing communication.

Choice

The Horse Creek community offers a range of housing choices of varying scales, types, and densities. This can increase available housing stock across the County and supports efficient use of land.

Preservation

The Horse Creek Project preserves a large escarpment for the benefit of wildlife and provides passive recreation opportunities to area residents. The project encourages a comprehensive open space network and pathway/trail system linking residents within and outside of the neighbourhood.

Sustainable Servicing

The Horse Creek project promotes financial sustainability of existing utilities and provides a storm water system that retains post-development flows and provides added amenity for residents. This community is intended to connect to the existing regional piped water and wastewater system.

Local Amenity

The Horse Creek project provides vast open spaces, shared community view points, municipal reserve spaces, pathways and offers an emergency egress route to facilitate the overall well being of the community.

Quality

The Horse Creek Conceptual Scheme introduces a series of controls for landscaping which promote a natural theme, includes significant landscape buffers, and maintain and enhance the natural open spaces. Centering the design around the preservation of the escarpment provides residents with unmatched views and promotes a unified, organized built form. Interface with the community on every side has been thoughtfully designed.

1.4 Objectives

The objectives of the Horse Creek Conceptual Scheme are as follows:

• To inform how the Conceptual Scheme adheres to requirements of applicable municipal policy including The County Plan, Cochrane Lake Hamlet Plan ASP, The Cochrane North ASP, the Rocky View County Land Use Bylaw, and a number of other relevant statutory and non-statutory documents. The Conceptual Scheme closely aligns with the principles as outlined in The County Plan.

• To define all lands contained within the Conceptual Scheme, including current and adjacent land use. Additionally, to provide a planning and development framework that will guide the implementation process for Rocky View County.

• To identify existing environmentally and historically sensitive areas to be maintained. Also, to demonstrate sustainability principles in the implementation and integration of the community design in order to foster long term preservation of these areas.

• To introduce a series of controls for landscaping and architecture to maintain the naturally oriented and aesthetically pleasing landscaping, amenity and open space community themes.

• To establish appropriate County land use designations and development standards for all lands contained within this Conceptual Scheme.

• To identify and describe the multi-modal transportation and mobility network, which includes internal pedestrian circulation and multi-modal connections to neighbouring communities.

• To outline a sustainable community servicing policy that properly sets the stage for, and supports, connections to regional stormwater, wastewater, and potable water servicing opportunities.

• To establish phasing guidelines for development, including the naming of subdivisions, transitioning and edge treatments.

• To summarize the community engagement strategy and illustrate how stakeholder feedback was received, documented, and integrated into the Conceptual Scheme.

Regulatory Framework

Section

02

2.0 Regulatory Framework

Overview

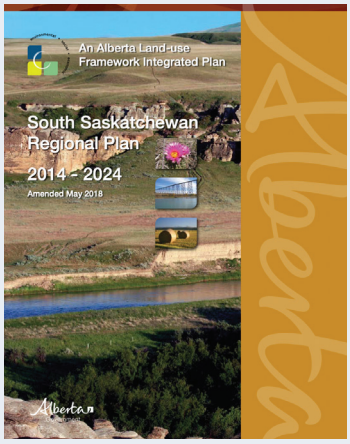
Numerous policy documents were consulted in the creation of the Horse Creek Conceptual Scheme, both statutory and non-statutory. They are listed below and categorically organized by a jurisdictional hierarchy of plans.

Provincial

The Provincial Land Use Framework/South Saskatchewan Regional Plan (SSRP) (2018);
Calgary Metropolitan Region Board Growth Plan (CMR GP) (2022);

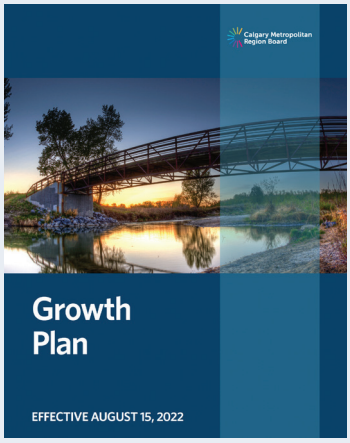
Municipal

Rocky View County Plan, Bylaw C-7280-2013 (2013)
Cochrane North Area Structure Plan C-6388-2006 (2007)
Cochrane Lake Hamlet Plan, Bylaw C-7037-2011 (2011)
Rocky View County Land Use Bylaw, Bylaw C-8000-2020 (2020)
Rocky View County Agricultural Boundary Design Guidelines
Rocky View Parks and Pathway: Planning, Development and Operational Guidelines



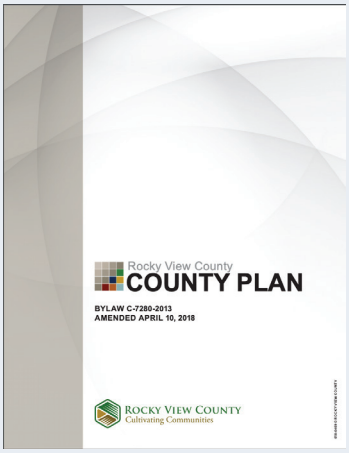
South Saskatchewan Region Plan (SSRP)

In effect since 2014, and amended in May 2018, the South Saskatchewan Regional Plan (SSRP) is the highest-level policy in the South Saskatchewan region. As such, all plans in the region must align with its directives. The SSRP provides the long term vision for the region, and guides all municipalities under its influence. The SSRP promotes efficient use of land and other natural resources. This encourages municipalities to infill and develop properties that can be serviced communally and do not prematurely fragment agricultural land.



Growth Plan

The Calgary Metropolitan Region Board (CMRB) Growth Plan (GP) was adopted by the Minister and came into effect August 15, 2022. The Plan promotes an integrated and strategic approach to planning for future growth in the Calgary Metropolitan Region. The GP identifies the overall development pattern and key future infrastructure investments that would best complement existing infrastructure, services, land uses, desired scale of development, and community visions across the region. It also proposes solutions for efficient and cost-effective growth and development to maximize benefits to the region as a whole. The Horse Creek Conceptual Scheme has been prepared to comply with the density, infrastructure and regional vision established in the Growth Plan.



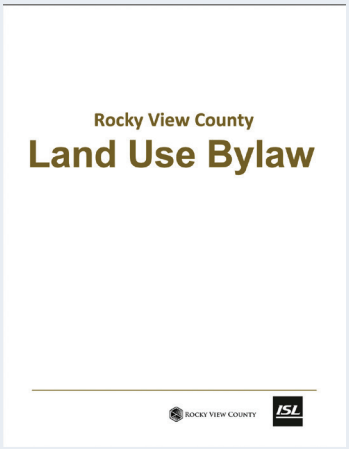
Rocky View County, The County Plan

The Horse Creek Conceptual Scheme shall align with the vision and principles of The County Plan. In a manner consistent with the County Plan, Horse Creek is proposed as a compact development form tied to both piped water and wastewater servicing. The community shall be designed with a rural feel, employing landscaping guidelines that maximize natural views, rural road standards, and architectural controls that ensure residential and commercial forms comply with and enhance the existing vernacular styles in the area. The Horse Creek community offers open space, recreational areas, varied housing types and pedestrian connections.

The proximity of the Plan Area to the County-owned Horse Creek Water and Wastewater Utility allows for the participation in a regional piped water, stormwater, and wastewater strategy that is fiscally responsible and sustainable in the long-term in alignment with County Plan principles.

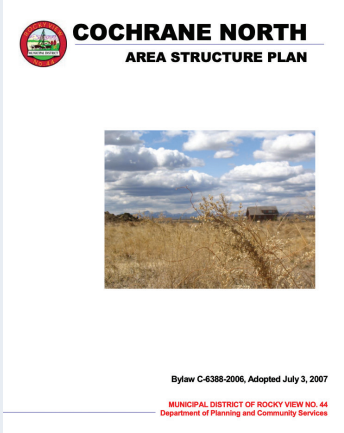
A key direction of the County Plan is to use land efficiently by directing growth to defined areas, thus conserving the remaining large blocks of land for agricultural use. The Horse Creek Plan Area is located within the boundaries of an existing area structure plan, the Cochrane North ASP, which is identified as a growth area in The County Plan.

The County Plan encourages efficient use of land by reducing the development footprint using compact residential development. It supports conservation design and allows for residentially clustered communities within existing country residential areas.



Rocky View County Land Use Bylaw

The Land Use Bylaw (LUB) divides municipal lands into a variety of land use districts (or zones). These districts determine the rules and requirements for developing the land. The LUB outlines the processes for redesignation, subdivision and development permit applications within Foothills County. The Horse Creek Conceptual Scheme will adhere to the requirements of the Land Use Bylaw for each district utilized in the Plan. The LUB supports the policies of the County Plan by allowing for the integration of residential and open spaces to create an efficiently designed community in the rural context. The LUB provides opportunity to include a variety of lot sizes and housing forms. This allows the community to meet market demand and the density requirements for the region. The LUB provides districts that support the preservation of environmentally significant features and creation of public amenity spaces. The appropriate districts in the land use bylaw have been consulted and utilized in the creation of the Horse Creek Conceptual Scheme.

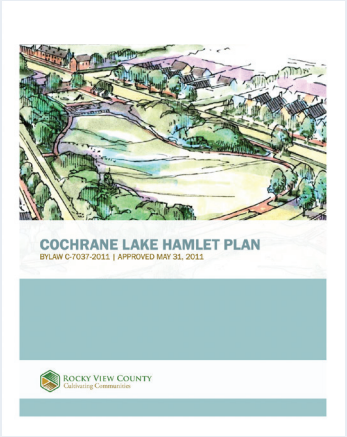


Cochrane North ASP

With increasing development pressures, the Cochrane North Area Structure Plan (CNASP) has been identified as an area for growth within the County. The subject lands are designated as Cluster Residential and Open Space within the Cochrane North ASP, which allows for compact residential development that is sensitively integrated with the natural environment. This designation suggests a residential density of 1.0 units per acre (UPA) as a base with the opportunity for density bonusing. The Cluster Residential land use allows for an array of housing types that include varied single and multi-family forms. The density of this ASP does not currently align with the objectives for the region as outlined in the CMR GP.

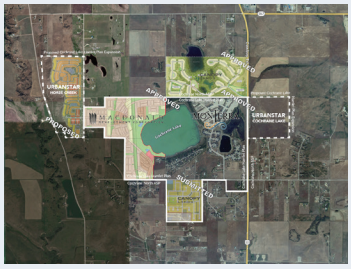
The Horse Creek Conceptual Scheme aligns with the ASP and provides open space greater than the minimum 30% open space requirement. The Conceptual Scheme plan does not align with the density provisions however, we have a density of 3.3 UPA and the Horse Creek ASP suggests 1.0 UPA as the objective. However, 1.0 UPA will not allow for front ending of any servicing, provision of amenity or diversity on housing and lot choice. Additionally, the transition to the hamlet main street / commercial area and public access to Cochrane Lake is important. We have carried those themes through our prosed community. The 3.3 UPA objective attempts to increase the density sensitively while moving closer to objectives for housing and efficient use of land as outlined by the CMR Regional Plan. In order to accomplish an increase in density on this site, a major ASP amendment is required.

Physical characteristics of the site include steep slopes and low lying grasslands. These slope and ravine areas to the west are best suited for open space dedication, which in turn will facilitate the clustering of lots to the east of the Project Site, where lands are flatter and more conducive to development.



Cochrane Lake Hamlet Plan ASP

The preparation of the Cochrane Lake Hamlet Plan is directed through the Cochrane North Area Structure Plan (CNASP). The Cochrane Lake Hamlet Plan ASP outlines the vision, objectives, and policies to guide the sustainable development of the Cochrane Lake Hamlet policy area as a community of complete neighbourhoods with a focus on Cochrane Lake as a common amenity. The ASP incorporates the historic Hamlet settlement into the community and divides the plan area into cells. Each cell consists of a complete, walkable community with a focus on a diverse network of open spaces. The plan provides the policy direction to encourage a variety of residential forms and sustainable servicing to realize efficient growth in the area.



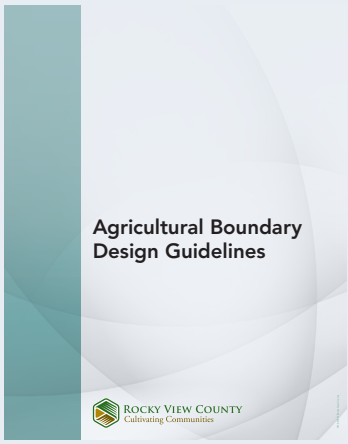
Major ASP Amendment Request

We have requested that Rocky View County consider a major amendment of the Cochrane Lake Hamlet Plan ASP and the Cochrane North ASP to create one ASP, to be entitled "The Cochrane Lake Hamlet Plan." The amendment aims to create a single ASP that better aligns with the Regional Policy Plan and fully investigates and aligns servicing and required infrastructure improvements and opportunities in the area.

The proposed Cochrane Lake Hamlet Plan ASP would include the Cochrane North ASP Plan Area, the Cochrane Lake Hamlet Plan Area, and the additional parcels owned by the UrbanStar Group of Companies (refer to the adjacent figure left and **Figure 2: Subject Lands within the Context of Existing & Proposed ASPs** on page 14).

We are requesting this revision as these lands all are required to be serviced by the Horse Creek water and wastewater system but are limited by the policies of the Cochrane North ASP to a specific lot type and density. This does not align with the policies of the Calgary Metropolitan Region Growth Plan. The proposed Cochrane Lake Hamlet Plan would allow area landowners and developers to utilize the required placetypes and achieve densities that assist in complete communities which pay for servicing, road improvements, and provide meaningful community amenities. In addition, the existing ASPs present inconsistencies, such as a different Hamlet boundary in each document, which could be reconciled in by creating a single, comprehensive document.

(The formal request for a Major ASP Amendment has been submitted separately to Rocky View County).



Agriculture Boundary Design Guidelines

The Agriculture Boundary Design Guidelines have been implemented to create a sensitive transition between the existing agricultural land-uses and the proposed Horse Creek development area. The Guidelines informed the design of perimeter buffers and the open space system to integrate Horse Creek into the context and respect the neighbours. The design concept implements several elements of the Guidelines, including maintaining a minimum of 15 metres between the existing agriculture land and the proposed development, utilizing vegetation and landscaping for screening between different land-uses, and strategically locating vegetation to maximize existing views. These elements are expanded on in section 5.5 Boundary Interface Design.

Parks and Open Space Master Plan

The Parks and Open Space Master Plan provides the foundation for creating an integrated, accessible, and safe network of paths that connect people to the parks and open spaces of Horse Creek. These parks and open spaces are a critical part of a meaningful, sustainable community that brings people together and enhances their quality of life. The design of the parks and pathways is guided by the different typologies outlined in the Master Plan to provides a variety of spaces for all users. The system provides internal circulation within Horse Creek and connects Horse Creek to the Hamlet of Cochrane Lake and beyond. It is a system of active and passive open space, designed to connect residents with the parks and views that characterize Horse Creek and create a strong sense of place.

Regional Context

Section

03

3.0 Regional Context

The Horse Creek Plan Area is ideally positioned within the region to capture growth, being located on the fringe of a rapidly growing urban municipality with access to the provincial highway system (**Figure 1: Regional Context**). The project capitalizes on the regional utility servicing in the area which promotes the overall sustainability of that system in the long term. The Horse Creek site is one of the few land assets within the Cochrane Lake area that has an uninterrupted panoramic view to the west. It is important to ensure that residents both within and outside of the Hamlet of Cochrane Lake have an equal opportunity to walk to and enjoy the shared viewpoint and embrace this vista. The proposed Horse Creek design extends the hamlet high street to the edge of the escarpment to connect the Hamlet with Horse Creek and reinforce the Hamlet of Cochrane Lake as the heart of the community in the Cochrane region.

The design proposes a secondary emergency egress to Horse Creek Road to ensure that all area residents have an opportunity to escape the area should any intersection at the provincial highway system be blocked or closed due to an emergency.

The Horse Creek Conceptual Scheme contributes to the vision of the site, as established in the Cochrane North ASP, as an area that will "…provide for long-term redevelopment, expansion, and viability of Cochrane Lake by encouraging an appropriate range of residential, hamlet commercial, institutional, recreational, and public uses within the Hamlet."

"Through proper planning and staging of utility service provision, such infill and clustered development could house between 9,000 and 10,000 new residents. Over the effective life of this ASP (i.e., fifteen or twenty years, to 2020 or 2025) the combined population of Cochrane North and Cochrane Lake could reach 12,000 to 13,000 inhabitants" (Cochrane North ASP, p14).

Alignment with Regional Growth Management Principles

The Calgary Metropolitan Region Board (CMRB) Growth Plan was adopted by the Minister of Municipal Affairs with an effective date of August 15, 2022. This plan provides guidance on land use, population, employment, and infrastructure matters of regional significance. The Growth Plan establishes preferred growth areas and outlines placetypes and density in each area to sustainably direct growth in the region.

The Horse Creek Conceptual Scheme has been preprepared to achieve an efficient use of land and a higher density in the core areas with aspirations of complete community building as outlined in the Growth Plan. Horse Creek will accommodate a higher density than currently exists, provide for a mix of uses including shared community amenity, and make cost-effective use of existing and planned infrastructure. Horse Creek aligns with the Rural and Country Cluster placetype and will provide a variety of housing options integrated with green space as outlined in the Growth Plan. These principles align with the direction provided by the CMRB for intensification and growth in the regional context.

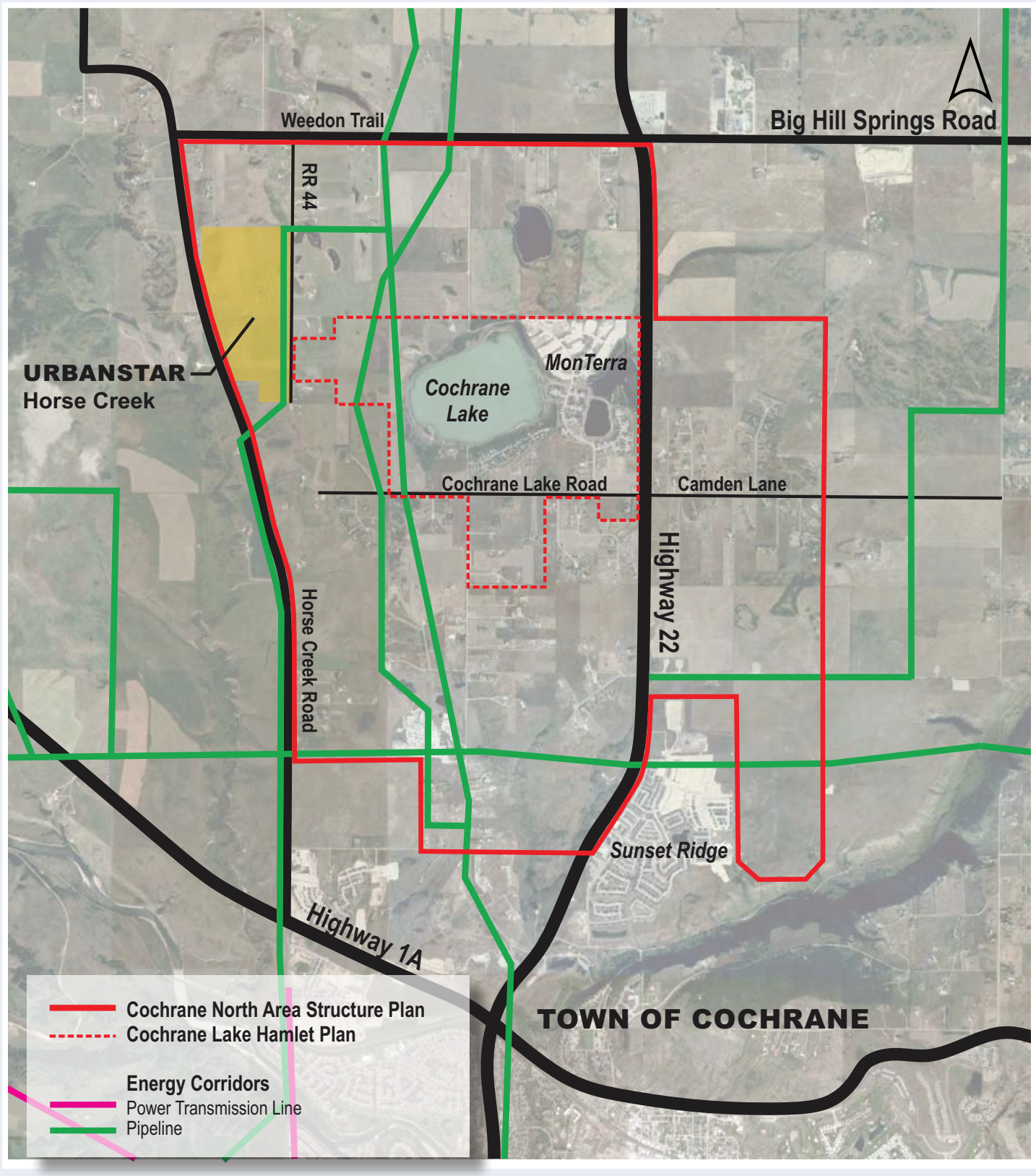


Figure 1: Regional Context

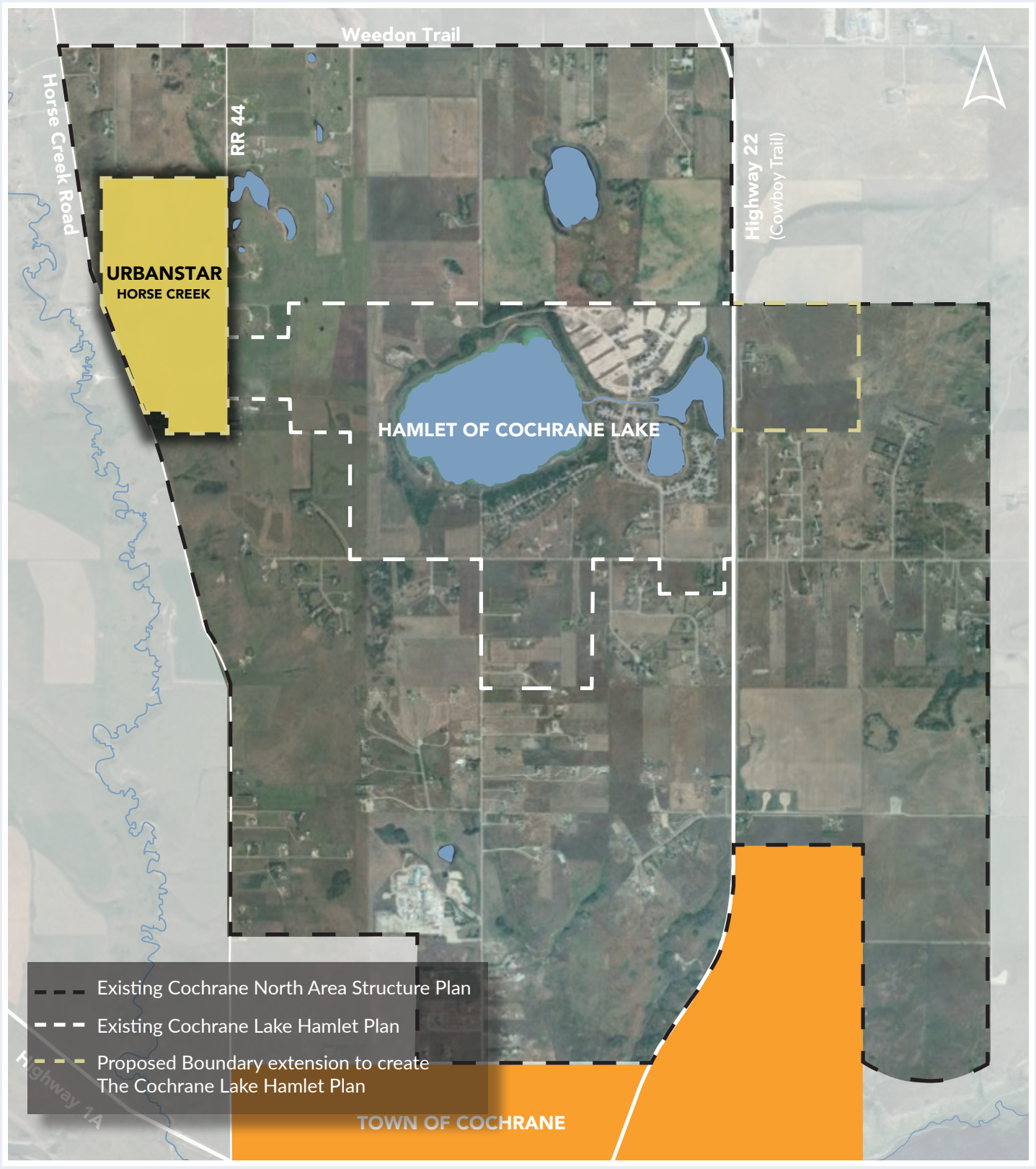


Figure 2: Subject Land in the Context of Existing & Proposed ASPs

Plan Area

Section

04

4.1 Location & Legal Description

The subject site is located three (3) kilometers north of the Town of Cochrane immediately east of Horse Creek Road (**Figure 3: Plan Area**). The site is accessed by traveling westbound on Cochrane Lake West then north on Range Road 44. Alternately, the site can be accessed from Weedon Trail by turning south on Range Road 44. The subject lands are contained within the boundary of the Cochrane North ASP with residential infill and cluster residential identified to the north and south (refer to **Figure 2: Subject Lands in the Context of the Existing & Proposed ASPs**). The subject land is bound on the west side by Horse Creek Road.

The surrounding lands consist of residential and commercial mixed use subdivision, and there are approved developments to the east (Cochrane Lake Village by MacDonald Group), to the west (Schickedanz West), and Krause Enterprises (Cochrane North) hamlet development which is primarily residential.

Table 1: Location & Legal Description Details

Parcel	Legal Description	Owner	Area	Existing Land Use District
1	NE 29-26-4 W5M	UrbanStar Horse Creek Development Ltd.	120.75 Acres (48.87 ha)	Agricultural, General District
2	SE 32-26-4 W5M Plan 1711365, Block 1, Lot 1	UrbanStar Horse Creek Development PH2 Ltd.	79.91 Acres (32.34 ha)	Agricultural, General District
3	SE 32-26-4 W5M Plan 1711365 Block 1, Lot 2	UrbanStar Horse Creek Development PH2 Ltd.	79.99 Acres (32.37 ha)	Agricultural, General District
Total	NE 29-26-4 W5M SE 32-26-4 W5M	UrbanStar Group of Companies	280.65Acres (113.58 ha)	Agricultural, General District

Figure 3: Plan Area

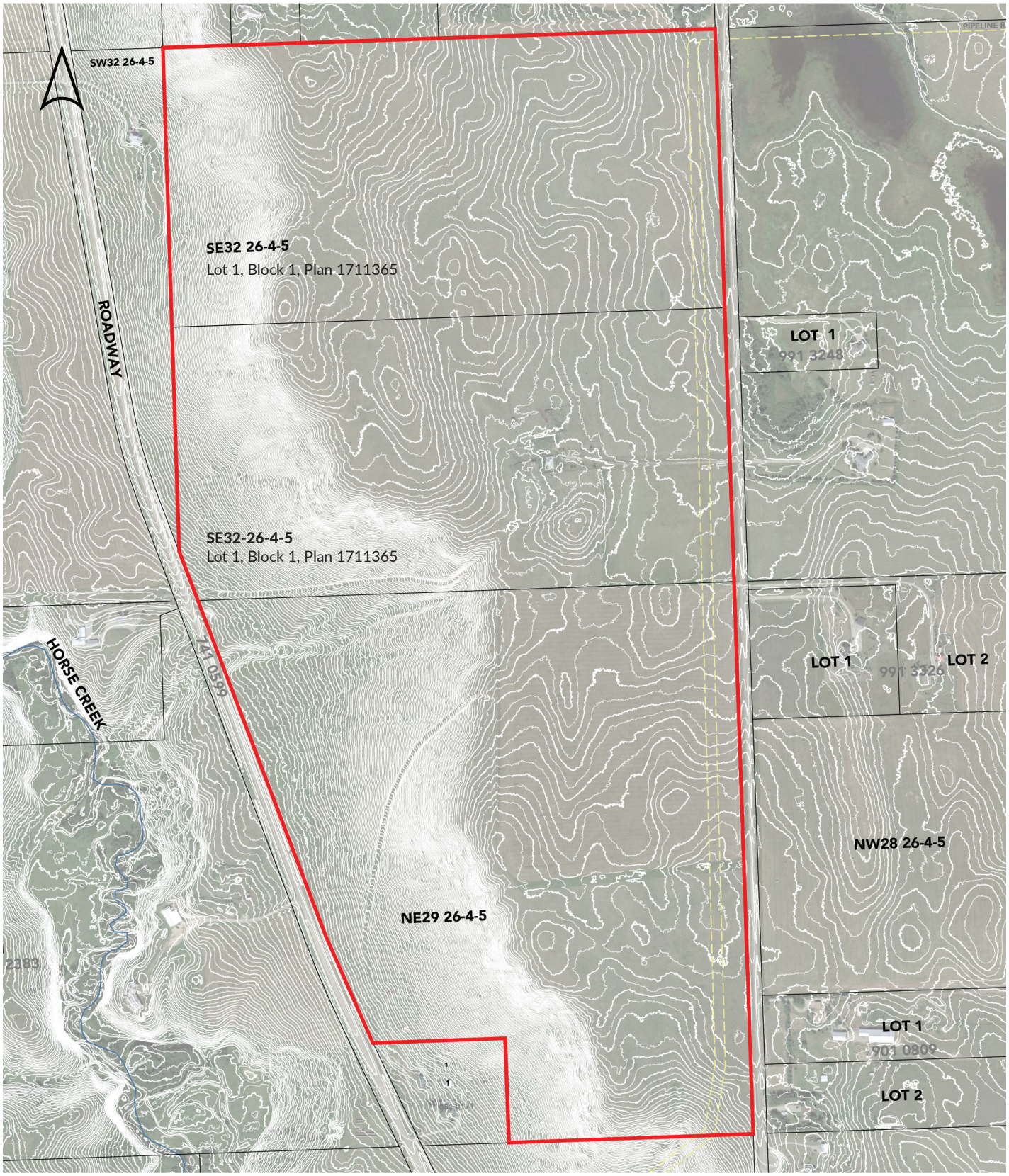


Figure 4: Topography

4.2 Physical Features

Topography

The subject land is located on top of a high slope overlooking the Bow Valley corridor and the Canadian Rocky Mountains. Terrain conditions are variable with a considerable escarpment on the western boundary. Two vegetated draws transect the western slopes while sandstone bedrock outcrops are exposed near the crest of the escarpment.

The majority of the upland to the east of the escarpment is agricultural fields on relatively flat terrain. The top of the escarpment averages 1300m above sea level. The escarpment contains some slopes over 15% and Figure 4 demonstrates the significance of the slopes on the escarpment. This slope degree varies across the face of the escarpment (refer to **Figure 4: Topography**).

The upland developable areas do not contain any slopes of significance. A Geotechnical Slope Stability Study was undertaken which informed design decisions (refer to section 3.3 Site Assessment). The property contains an existing residence and outbuildings that will not be retained post-development due to their age. The Horse Creek community connects large portions of the areas long-term linear trial system and has an emergency egress road that can act as an additional pathway up and down the escarpment to Horse Creek Road.

The design concept responds to the natural landscape and contours to minimize grading and preserve the natural systems. The design concept preserves the escarpment through an Environmental Reserve designation and retains this escarpment as an asset for Cochrane Lake area residents. The escarpment supports an existing road, which will be repurposed and designed to meet current standards in order to serve as an emergency egress to ensure the safe, all weather, vehicular movements west of the site should an incident occur on the local road network or provincial highway system.

The road also allows for passive hiking and traversing the escarpment without threatening the grassland species protected by the Environmental Reserve designation. The upland storm ponds are designed and constructed to accommodate storage of overland drainage and provide a community amenity. The Conceptual Scheme has been designed in accordance with the principles of the County Plan and Hamlet of Cochrane Lake Plan as a compact community to reduce the overall footprint of development.

Drainage

The subject lands are located within the Parkland Natural Region and Foothills Parkland Natural Subregion and primarily drain to the west. There are vegetated draws, that do not convey flow on a full-time basis, that are visible on topography analysis. The majority of upland drainage flows down the escarpment at the middle of the section, close to the identified quarter-line, and under Horse Creek Road via culvert to Horse Creek and, eventually, the Bow River. An access road is visible along the western slope and has been evidenced in air photos as far back as 1966.

The Horse Creek community is designed as a cluster residential community to support a regional utility system, provide a smaller and diverse housing footprint for development, and offer a high degree of open space and community amenity. The community's organic urban design centers around the storm water system, enhancing the feeling of relaxation by integrating water, air, land, and community for overall health.

4.3 Site Assessment

Phase 1 ESA

A Phase 1 Environmental Site Assessment was completed by Curtis GEO Solutions Inc. in April 2018. The report identified areas of potential contamination, and based on the desktop review and site reconnaissance, no further environmental investigations are recommended. The report also provides standard practice recommendations for the site development process and site activities.

Historical Resources Clearance

Historical Resources Act Clearance approval was granted by Alberta Culture and Tourism on June 20, 2018, and has been submitted under separate cover. A Historical Resources Impact Assessment (HRIA) was not required.

Historical Resources Act approval is granted for the activities described in this application and its attached plan(s)/sketch(es) subject to Section 31, "a person who discovers an historic resource in the course of making an excavation for a purpose other than for the purpose of seeking historic resources shall forthwith notify the Minister of the discovery."

It is not anticipated that any historic resources will be found during the construction of this site.

Geotechnical

A full geotechnical investigation was completed by E2K Engineering Ltd. on February 21, 2019. The geotechnical investigation consisted of drilling 36 boreholes across the site to depths ranging from 2.4 m to 8.8 m below ground surface. The drilling was performed on January 23 to 28, 2019 utilizing a track-mounted drill rig. Conventional strip and spread footings are recommended and all other geotechnical recommendations will be followed.

Slope Stability

A Geotechnical Slope Stability Report was prepared by E2K Engineering Ltd. on April 10, 2019. Based on the slope stability analysis, the slope is considered stable during and after development. As demonstrated in the slope models, house surcharge does not affect the overall stability of the slope. Therefore, a minimum setback distance from the crest of the slope would not be required for the proposed development; however, the project team has implemented a 20 metre setback for all development to protect the escarpment in alignment with the vision and objectives of this Conceptual Scheme and to allow for common use and enjoyment of the escarpment area.

Biophysical Impact Assessment

A Biophysical Impact Assessment (BIA) has been prepared by Westhoff Engineering Resources, Inc. October 14, 2021. Two wetlands (0.43 ha), one ephemeral water body (0.13 ha) and one dug out were observed on the subject land. It was noted that the identified wetlands and water bodies have been disturbed through agricultural practices since 1966 and the overall value of area wetlands is expected to be low compared to other off-site wetlands in more natural landscapes. The wetlands are located within the proposed development areas of the concept plan. A Water Act application will be required for the removal of the wetlands and will be submitted at the appropriate time.

A number of wildlife species have the potential to occur within the subject lands of which eleven (11) were observed during field surveys. The Sprague's pipit which is listed as "sensitive" in Alberta has also been identified within the site. Wildlife are expected to move freely within the subject land and will likely travel between the subject land and areas to the west where natural landscapes and associated habitats persist along Horse Creek.

Landscape connectivity is based on the extent of connected natural habitats present within and adjacent to the subject land. Wildlife are expected to move freely within the subject land although hiding and security cover in the uplands is limited. Horse Creek Road and Weedon Trail are likely to create a sensory barrier and potential collision hazard for wildlife traveling between the subject land and surrounding areas. Wildlife are likely to travel between the subject land and areas to the west where natural landscapes and associated habitats persist along Horse Creek.
The western slopes of the Project Site were identified by the consultant team as an Environmentally Significant Area due to its natural character and diversity of plant species.

The BIA provides recommendations for mitigation measures to eliminate, reduce or control the predicted negative impacts, including but not limited to construction timing and practices, and wetland compensation. The proposed development of the site is not expected to contribute to cumulative adverse effects of water resources in the sub-basin as a whole. Recommendations as outlined in the BIA will be followed during the construction period.

Sprague's Pipit

The western slopes of the Project Site were identified by the consultant team as an Environmentally Significant Area due to its natural character and diversity of plant species.

The BIA recommends mitigation measures to eliminate, reduce or control the predicted negative impacts, including but not limited to construction timing and practices, and wetland compensation. The proposed development of the site is not expected to contribute to cumulative adverse effects of water resources in the sub-basin as a whole. Recommendations as outlined in the BIA will be followed during the construction period.

Rare Plant Species

A rare plant survey was completed in December 2018 by Zanshin Environmental Networks Inc. in support of the Biophysical Impact Assessment. The survey was conducted on June 21, 24 and August 31, 2018 in which two rare plant species and no rare ecological communities were observed.

The two rare plant species, Sandhills cinquefoil and Macoun's cinquefoil were observed along the rock outcrop, which runs north/south through the west third of the property. Based on the current design concept, a small cluster of rare plants appear within the proposed development areas. Avoidance is the preferred mitigation measure for the plants, however mitigation measures such as the transplant of individual plants to the west slopes of the uplands can be achieved.

Macoun's Cinquefoil

Community Design Strategies

Section

05

5.0 Design Strategies & Land Use

The land use and design decisions align with the Vision and Principles of the Horse Creek Conceptual Scheme and were informed by the public consultation process and review of relevant County policies. **Figures 5 and 6 Existing and Proposed Land Uses** respectively, demonstrate how the development concept respects the rural context and community and incorporates appropriate transitions between the residential and agriculture land uses.

The Conceptual Scheme features a variety of housing types and styles to diversify the built form and provide options for a diversity of residents wishing to live in a rural-urban community: the housing forms support individuals and families, to seniors ageing in place.

Horse Creek utilizes a clustered residential design to maximize the open space and provide ample community amenities. Conservation by design techniques were utilized in the site design to minimize impact on the environmental features.

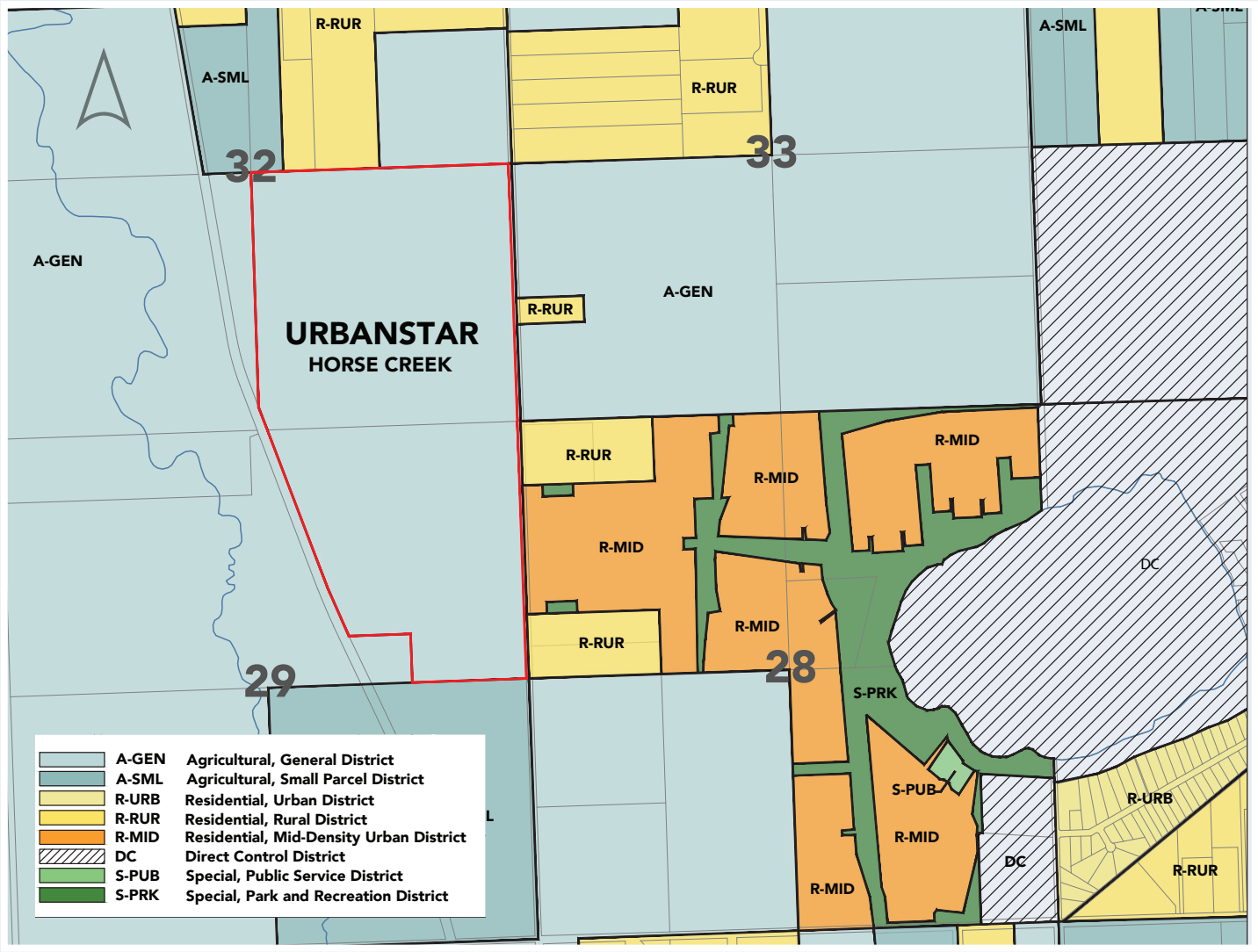


Figure 5: Existing Land Use Map

Figure 6: Proposed Land Use Concept

5.1 Homeowners' Association

A Homeowner's Association (HOA) is a group created by the developer of a community to oversee and maintain the aesthetic quality and maintenance of the community. An HOA's continued existence is ensured by registering the HOA on the title of every property in the community and creating and registering the HOA under the Society's Act of Alberta. The HOA plays an important role in ensuring the community amenities and public open spaces are well-maintained and reflect the aesthetic originally intended. This also relieves the County from maintaining open spaces that they may not have the equipment to maintain, as typically, HOA's prefer to undertake the maintenance of landscaping and common areas to their preferred standards. Typically, responsibilities of an HOA are determined by the HOA itself upon inception. The developer will release the HOA to the homeowners once the project is 50% complete.

HOA Policy

Policy 5.1.i There shall be a Homeowner's Association (HOA) established by the developer at the developer's expense and in accordance with the Society's Act of Alberta. The HOA shall be established at the subdivision stage of development for the first Phase and subsequently amended at each stage in the build out process, as required.

Policy 5.1.ii The HOA shall be responsible for maintenance of common property; monitoring of architectural and landscape maintenance controls; the collection of community waste, organics, and recycling; Dark Skies compliance; and the enforcement of the Noise Control and Unsightly Premises Bylaws.

Policy 5.1.iii The existence of the HOA shall be registered on the title of every property in the Plan Area and shall be funded annually by the payment of a compulsory fee by all homeowners in the Horse Creek community.

5.2 Architectural Controls

The various housing forms in Horse Creek should possess their own individual character while contributing to a cohesive community aesthetic and experience. This balance will be achieved through the provision of Architectural Controls that allow a variety of housing types rendered thematically similar through application of predetermined forms and colours. The HOA will be tasked with the continued enforcement of the Architectural Controls in Horse Creek.

The Architectural Controls will be influenced by the surrounding local vernacular and be derived from historical styles such as Craftsman (Arts & Crafts), Prairie, National, and Shingle. **Table 1: Architectural Control Precedents** depicts precedents to be used as inspiration for the design. These styles will be thoughtfully applied to the residential housing typologies outlined in section 5.3 Residential Development. Topography in the Plan Area will further influence locations and orientations of buildings with respect to views, privacy, and park access. Architectural features will include balance and articulation in facades and avoid complicated roof lines, excessive materials and extensive protrusions. Fenestration is to be arranged in simple fashion, providing easily accessible doorways, and appropriate sunlight through windows. Acknowledging the use of locally produced materials, the proposed architectural styles will employ wood cladding and trim, asphalt roof shingles, and concrete foundations.

Specific residential design standards will be proposed in the architectural and landscape design guidelines registered on each lot at the time of subdivision.

Architectural Controls Policy

Policy 5.2.i Architectural Controls shall be prepared by the developer at the time of subdivision and registered on title for each lot. The controls shall address exterior design and appearance including the balancing of forms, colours, and themes across all land uses in the community to create unique and beautiful homes.

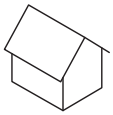
Policy 5.2.i a. Homes shall be constructed in local vernacular styles which include Craftsman, Prairie, National, and Shingle styles.

Policy 5.2.i b. Architectural features shall include balance and articulation in facades and shall avoid complicated roof lines, excessive materials, and extensive protrusions.

Policy 5.2.i c. Fenestration shall be organized simply to provide for easily accessible doorways and appropriate sunlight through windows.

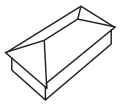
Policy 5.2.i d Local materials, including but not limited to wood cladding and trim, asphalt roof shingles, and concrete foundations shall be used as construction materials.

Policy 5.2.ii The HOA shall be responsible for the continued enforcement of Architectural Controls.



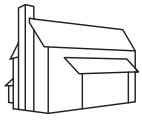
Craftsman

GABLED ROOF DESIGN
OVERHANGINGS & FRONT PORCH
LAYERED MILL WORK
DORMERS ARE FREQUENT
ONE AND A HALF STORY
HIGHLY DETAILED ROOF LINES
EXPOSED RAFTER TAILS
COLUMN BASES REACH TO GROUND
SHALLOWER PITCHED ROOF
HAND CRAFTED MATERIALS
UNIQUE MUNTIN PATTERNS
PORCHES AS LIVING SPACE
EXTERIOR GARDENS CONNECT TO STRUCTURE



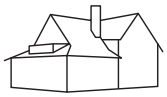
Prairie

- ELONGATED ROOF LINES
- HIGHLY DETAILED FENESTRATION
- DETAILS EMPHASIZE HORIZONTAL LINES
- HIPPED ROOF DESIGN
- LOW PITCHED ROOFS
- WIDE OVERHANGING EAVES
- TWO STORY MAIN VOLUMES BUTRESSED WITH ONE STORY WINGS
- MAIN BUILDING VOLUME IS SYMMETRICAL
- OVERSIZED COLUMNS
- INDIGENOUS NORTH AMERICAN STYLE
- HEAVY FOUNDATIONS, LIGHTER SECOND STORIES



National

- PREDOMINANT FRONT GABLED
- SIDE GABLED FEATURES FRONT DORMERS
- LIGHT FRAMING IN PARTICULAR TO EAVES AND TRIM
- MULTIPLE ROOF PITCHES
- PORCHES AS FUNDAMENTAL DESIGN ELEMENTS
- OBVIOUS FIRE PLACES AND CHIMNEYS
- FORM EXHIBITS EXPANSION OVER TIME
- VARIED MATERIALS - WOOD CLADDING PREDOMINANT
- ALWAYS ELEVATED (3-5 STEPS ABOVE GRADE)



Shingle

- IRREGULAR OR STEEPLY PITCHED ROOF LINI
- WALL AND ROOF CLADDING OFTEN MATCH
- MULTI-LEVEL EAVES
- DEVOID OF CORNER TRIM
- EXTENSIVE PORCHES
- GAMBREL ROOFS ARE COMMON (SECOND FLOOR BUILT INTO ROOF LINE)
- OFTEN ASYMMETRICAL
- COLLIDING FORMS
- CIRCULAR ELEMENTS INCORPORTAED INTO ANGULAR FORMS
- ORNATE WINDOW TRIM
- DORMERS ARE COMMON
- MAY INCLUDE MASONRY FOUNDATIONS, SIGNATURE GESTURES AND PORCH SUPPORTS

Table 2: Architectural Control Precedents

5.3 Dark Skies Community

Rocky View County adopted a Dark Skies initiative to minimize the factors that contribute to light pollution in the rural environment. The policy regulates the type of light source and fixtures that can be installed in the County in order to prevent future light pollution. As a best practice for minimizing factors that impact astronomical observation, plant and animal cycles, in addition to the health and safety of those living in the community, the Horse Creek Plan Area shall be compliant with the Dark Skies initiative.

The Horse Creek Conceptual Scheme implements three general requirements to mitigate sources of light pollution and align with the County policies, these are as follows:

• Shielding: Full cut-off fixtures (those that do not allow any light dispersion above the horizontal plane and whose bulb is recessed within the fixture) shall be installed for all exterior lighting and all fixtures shall be oriented as to direct all lighting below the horizon.

• Lamp Types: Only efficient bulbs listed by the Dark Skies initiative shall be allowed for installation in the neighbourhood. In order to maintain the rural feel existing in many Rocky View communities, Horse Creek shall also have no street lights except where reasonably practical for public safety.

• Voluntary Light Curfew: All owners of property in the Plan Area will be encouraged to extinguish artificial light at night when it is not required by use of timers and motion activation.

Dark Skies Policy

Policy 5.3.i Lighting shall be in accordance with the Land Use Bylaw.

Policy 5.3.ii The Horse Creek Conceptual Scheme shall be subject to a Dark Skies initiative as outlined in the Architectural Controls, to be enforced by the landowner/ developer, home builder, and HOA.

Policy 5.3.iii Lights on private dwellings shall possess both full cut-off fixtures and efficient bulbs.

Policy 5.3.vi Homeowners should extinguish artificial light at night when not required.

5.4 Noise Control & Unsightly Property

Horse Creek will align with the rules and regulations of both the Noise Control Bylaw and the Nuisance and Unsightly Property Bylaw of Rocky View County. The purpose of these bylaws is to protect the health, safety, and welfare of the people and property of the Municipality. Noise control violations are defined as volume-based activities carried out by an individual that prevent others from enjoying their neighbourhood, most often outside of allocated daytime hours (6:59am to 10:01pm on weekdays, 8:59am to 10:01pm on weekends). Unsightly property infractions are assigned to premises not maintained to standard, most often linked to the accumulation of garbage and refuse.

The HOA will be tasked with determining whether a property has made a noise control or unsightly property violation and with contacting homeowners to rectify the situation. Should the HOA warnings not be fixed in an appropriate time frame, bylaw officers from Rocky View County may become involved as necessary to enforce an infraction.

Noise Control & Nuisance and Unsightly Property Policy

Policy 5.4.i The Horse Creek Conceptual Scheme Plan Area shall adhere to the rules and regulations established in Rocky View County's Noise Control Bylaw and Nusiance and Unsightly Property Bylaw.

Policy 5.4.ii The HOA shall be responsible for ensuring compliance with the bylaws throughout the entire Plan Area in regard to any issues arising from noise control or nuisances and unsightly premises.

Policy 5.4.iii If a Noise Control or Nuisance and Unsightly Property Bylaw violation escalates, the HOA may involve a bylaw officer from Rocky View County who may at their discretion issue a ticket to the offending premises.

5.5 Boundary Interface Conditions

Boundary and landscape interface plays a vital role in the protection of privacy of residents both within and adjacent to proposed developments. Bordering Horse Creek are a range of land uses that will eventually transition toward residential / country residential infill.

To establish a best practice for providing transitions between the Plan Area and these lands, Rocky View County's Agricultural Boundary Design Guidelines were reviewed and applied to the entire Horse Creek boundary. The guidelines aim to minimize land use conflicts that can occur between agricultural and non-agricultural uses through provision of a set of rules that thoughtfully approach these interfaces. Refer to **Figure 7: Boundary Interface & Entry** and **Figure 8: Boundary Interface & Park** for examples of the sensitive transition between land uses.

The County guidelines recommend that a buffer of at least fifteen (15) metres between incompatible uses be established. For this Conceptual Scheme, all transitions to non-residential areas will therefore measure at least fifteen (15) metres.

The planned outcome of the buffering strategy in Horse Creek is to provide existing landowners with sensitive transitions from their lands to new development. These buffers will overlap with the open space plan, facilitate greater community connection in the long-term, and incorporate low impact development design.

Boundary Interface Design Policies

Policy 5.5.i Transitional buffer areas shall be incorporated in the Horse Creek Plan Area. They shall be detailed in plan at subdivision stage and measure a minimum of fifteen (15) metres. Buffers should result in sensitive transition utilizing vegetation, topography, low impact development strategies and pathways where required. They should also maximize mountain and vegetative views while minimizing views to adjacent properties.

Policy 5.5.ii The transitional buffer areas shall be designed by a Landscape Architect at the expense of the landowner/developer and submitted for review and approval by the County.

Boundary Interface & Entry

Figure 7: Boundary Interface & Entry

The Eastern boundary interface adjacent to Range Road 44 accommodates a pipeline right of way and varies in width from 40m in the north to 50m in the south. The entrances enhance this boundary interface space to create inviting boulevards that mark the transition into the community.

Boundary Interface & Park

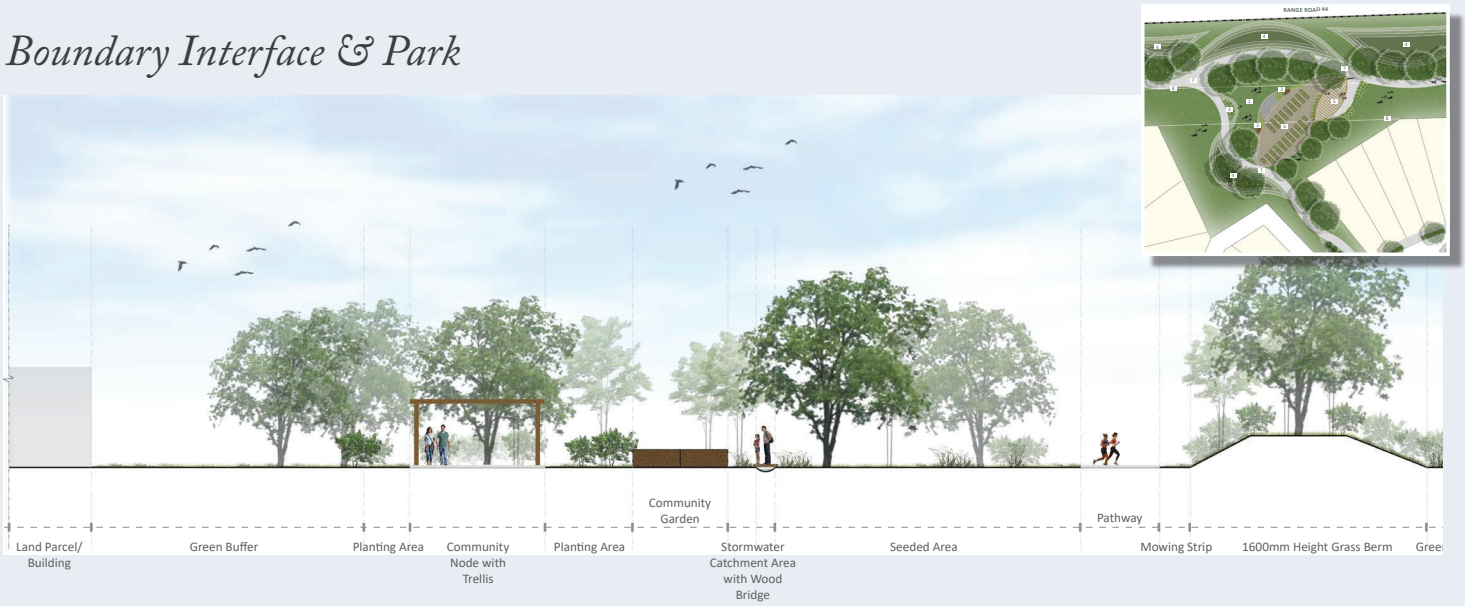


Figure 8: Boundary Interface & Park

Another strategy to create boundary interfaces will be to integrate the perimeter pathway system with parks to create a sensitive transition between adjacent land uses while providing a destination in the community.

5.6 Residential Development

The Horse Creek community will offer the choice of three distinct housing types and lot sizes for a total of 903 lots and a density of 3.3 units per acre (UPA). This is representative of a semi-urban development-style that features diversity and efficiency while maintaining the rural character of the Cochrane area. The semi-detached and townhouse typologies assist in attaining a density of 3.3 UPA, and when arranged utilizing the Rural and Country Cluster placetype, allows for the retention of 55.39% greenspace within the community.

The developer's ability to provide infrastructure funding and amenity space in Horse Creek is the product of increased residential density. By increasing the density of Horse Creek, UrbanStar can construct necessary infrastructure (such as upgrading and connecting roads, an emergency egress route, and water & wastewater servicing), and provide enhanced community amenities (such as preserving the escarpment as Environmental Reserve, quality landscaping, and urban realm enhancement).

The general description of the proposed housing options are outlined below. The variety and allocation of housing types can be found on **Figure 9: Proposed Development Concept.** The housing typologies proposed and the approximate area dedicated to each are outlined below in **Table 3: Residential Development Concept Statistics:**

Table 3: Residential Development Concept Statistics

	Phase 1	Phase 2	Total Plan Area
Total Number of Lots	+/- 284	+/- 619	+/- 903
Approximate Lot Sizes	+/- 0.05 ac to 0.15 ac	+/- 0.05 ac to 0.15 ac	+/- 0.05 ac to 0.15 ac
Total Size Area	120.75 ac	159.90 ac	280.65ac
Residential			
Single-Family Large Lot	9.24 ac	10.86 ac	20.10 ac (7.16%)
Single-Family Front Attached Garage	7.50 ac	16.27 ac	23.77 ac (8.46%)
Single-Family Rear Lane Detached Garage	0.85 ac	17.44 ac	18.29 ac (6.51%)
Villa	4.18 ac	9.09 ac	13.27 ac (4.73%)
Townhouses	6.84 ac	8.53 ac	15.37 ac (5.47%)
Open Space (Municipal Reserve)	21.67 ac	24.85 ac	46.52 ac (16.57%)
Open Space (Environmental Reserve)	53.84 ac	47.28 ac	101.12 ac (36.03%)
Stormwater Ponds	3.30 ac	4.52 ac	7.82 ac (2.79%)
Roads	13.33 ac	21.06 ac	34.39 ac (12.25%)

Residential Development Policies

Policy 5.6.i Overall density of residential development within the Conceptual Scheme shall not exceed 3.3 units per gross acre.

Policy 5.6.ii The minimum lot size shall not be smaller than 0.05 acres for any residential lot in accordance with the Land Use Bylaw.

Policy 5.6.iii All lots, regardless of size, shall be connected to piped water and wastewater servicing system.

Policy 5.6.iv The land use, road, and block layout shall generally conform with Figure 9: Proposed Development Concept. Specific subdivision design details may vary without requiring a Conceptual Scheme amendment provided the concept and lot specifications outlined in Table 3: Residential Development Concept are respected.

Policy 5.6.v There shall be a mix of dwelling types provided, with no one built form being predominant, in order to achieve open space objectives and provide an appropriate range of lots and dwelling types to meet the overall project density.

Policy 5.6.vi Architectural Controls that reflect rural community development expectations, speak to area context, compatible massing, style, and building materials shall be registered on title as a condition of subdivision endorsement.

5.6.1 Single-Family Units

A total of 62.16 acres and 492 units are proposed for single family homes. The single-family homes are considered as one dwelling unit and are completely separated by side yard and rear yard setbacks on all sides from other structures. Due to the strategic use of laneways within the single-family typology, two different configurations of garage entryways are offered: front attached garage and rear lane detached garage. Street rhythm and garage offset is important in the single-family dwelling areas and will be designed to maximize efficiency of each and create a distinct street-level character.

5.6.2 Semi-Detached Units (Villa)

A total of 13.27 acres and 146 are proposed for semi-detached (villa) units. A semi-detached unit is a single-family home that is built as one pair that share a common wall. Each dwelling has its own entrance and garage front. To ensure street rhythm and character, semi-detached dwellings should not consistently mirror one another down a street. Garage offset and shared driveway access is important to ensure an articulated and varied street presence.

5.6.3 Townhouse Units

A total of 15.37 acres and 265 units are proposed for townhouse units. A townhouse is traditionally a row house with two or more floors. These homes are connected on both sides and on all levels with the homes on either side, with the exception of end units. The units are separated from one another by impermeable or opaque party walls and share a common roof structure. Typically, a townhouse is one storey taller than a typical single-family home and the multiple levels allow for more interior space. Clusters of townhouses in the land use concept will not exceed between four to six connected units within any one townhouse block.

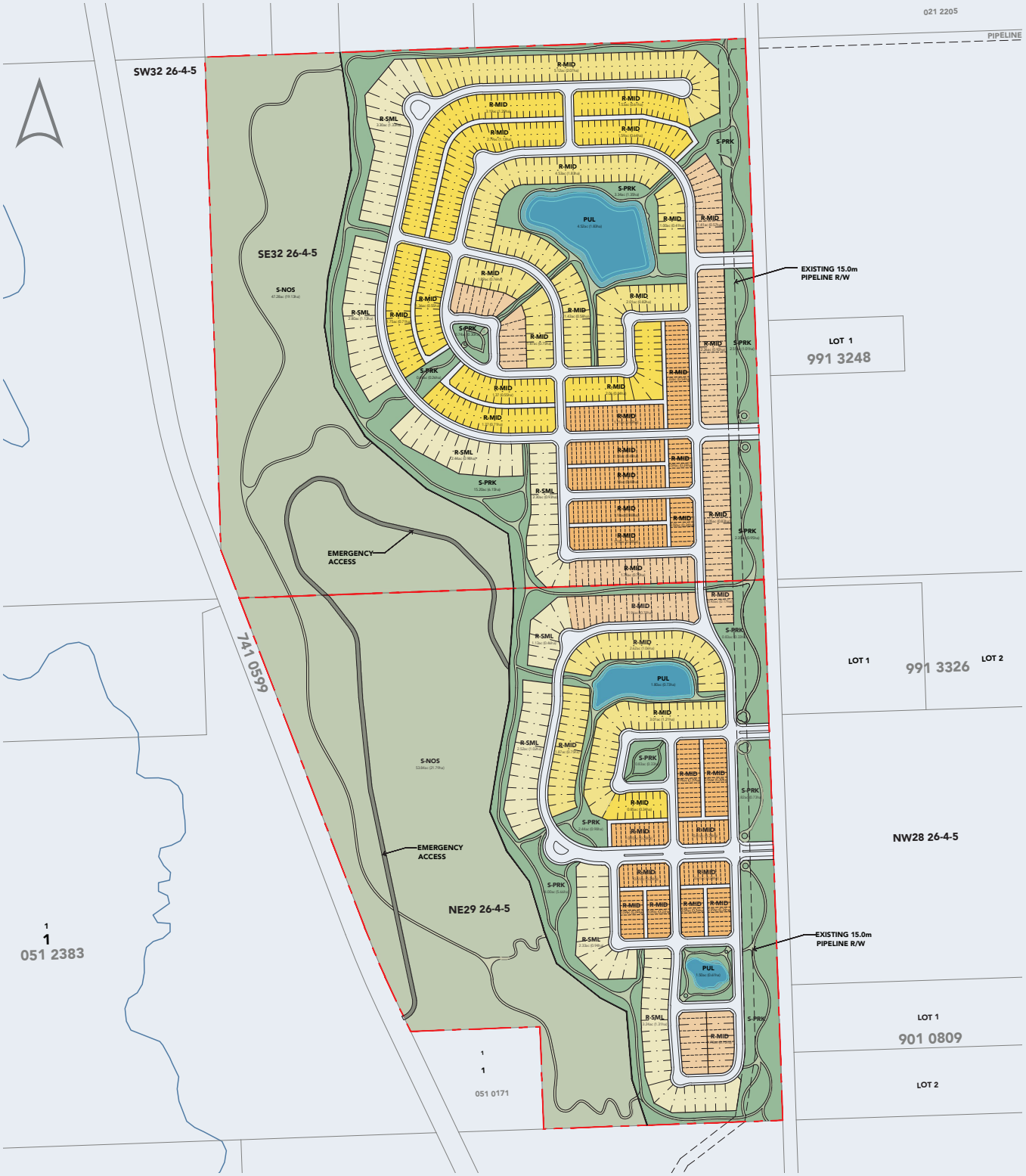


Figure 9: Proposed Residential Concept

5.7 Cluster Residential

The Horse Creek Plan Area is identified as Cluster Residential and Open Space within the Cochrane North ASP, which informed the decision to include Horse Creek as a new residential cell within the Hamlet of Cochrane Lake. Cluster Residential is a development form which integrates single and multi-family housing typologies with the natural environment. This allows the development to maximize the number of dwellings in an area, integrate with the natural environment, and preserve significant areas by keeping development compact.

Cluster Residential Policies

Policy 5.5.4.i The Cluster Residential development form shall support the character of the plan area and allow for efficient servicing while respecting the servicing plans and policies for the area.

Policy 5.5.4.ii Cluster Residential development should be designed to minimize impacts to adjacent land uses and to significant natural systems, environmentally sensitive lands, and wildlife habitat. Visual impact should be minimized through use of landscaping or other features.

5.8 Population Density & Projections

The maximum density for the entire Horse Creek Conceptual Scheme Plan Area has been assumed to be 3.3 units per gross acre (5.0 units per ha) over the total land area of 280.65 acres for a total of 903 residential units. The 2016 Federal Census indicated an average person per household value in Rocky View County of 2.7 persons per private household. The population projection for the Horse Creek community would therefore be estimated 2438.1 (903 x 2.7) persons based on a total of 903 residential units.

Population Density and Projections Policies

Policy 5.5.5.i The Horse Creek Community shall not surpass 3.3 units per gross acre.

Policy 5.5.ii The Horse Creek Community shall not surpass a total build-out of 903 units.

Open Space & Reserves

Section

06

6.0 Open Space & Reserves

The open space system, mapped in **Figure 10: Parks and Open Space Plan**, consists of lands that may be identified as Municipal Reserve (MR) (County district: Special, Parks and Recreation District), Environmental Reserve (ER) (County District: Special, Natural Open Space District), or Public Utility District (County District: Public Utility Lot). Together, these open spaces total 155.46 acres (55.39%) of the Plan Area (refer to **Table 4: Open Spaces Breakdown** for a detailed breakdown).

The Horse Creek community outlines a linear open space system along the perimeter of the Plan Area and connecting through the community. The design of this system drew inspiration from the Rocky View County Parks and Open Space Master Plan. The system provides internal circulation within Horse Creek and connects Horse Creek to the Hamlet of Cochrane Lake and beyond. It is a system of active and passive open space, with active programming to be detailed at the subdivision stage with input from the Rocky View County. The open space system will promote, conserve, and enhance an interconnected ecological and recreation network. The linear pathway system provides a buffer in the form of a green amenity interface between the community and the existing Country Residential and Agricultural lands, in alignment with the County's Agricultural Boundary Guidelines.

The design of park spaces and pedestrian pathways accommodate users of all abilities and interests, making it easy and accessible to lead a healthy active lifestyle in the County. Green spaces with meandering pathways will gently converge with urban elements such as plazas and courtyards. The organic open space design extends to the residential realm, surrounding clustered homes with varying landscapes and a network of active and passive pathways and trails. The pathways and trails are intended to introduce multi-modal transport options and this has been considered to include equestrian use.

Table 4: Open Space Breakdown

Land Use	Acres	Hectares
Special, Park and Recreation	46.52	18.82
Special, Natural Open Space	101.12	40.92
Public Utility Lot District	7.82	3.17
Total	**155.46**	**62.91**

6.1 Municipal & Environmental Reserves

Accessible parks are a significant component of the Horse Creek community. The different parks throughout the community, designated Municipal Reserves (MR), are linked by pathways, trails, and sidewalks. This creates a system of parks and open spaces which can be enjoyed in a variety of ways. The varying topography, vegetation patterns, and size of MR sets a framework for distinguishing the three types of parks that will exist: Interior Meadows, Linear Parks, and Perimeter Parks. **Figures 11, 12, and 13** depict an example of how these parks will look and feel and the amenities they will provide to the residents.

Adequate land should be provided through Municipal Reserve and Environmental Reserve dedication to meet the open space needs of Horse Creek residents and the broader public. Development of parks serving the passive recreational needs of residents with pathways and trails, sitting areas, grassy knolls, landscaped edges, and children's play areas should be communally created by the developer and maintained through an HOA created by the developer at the time of subdivision.

Municipal Reserve and Environmental Reserve Policies

Policy 6.1.i Reserves shall be dedicated at the time of subdivision in the full amount owing, at the discretion of the County, pursuant to the County Plan and MGA.

Policy 6.1.ii An HOA shall be formed by the developer and shall be responsible for monitoring architectural and landscaping controls and for maintenance of common areas, including MR and ER, as agreed to with the County.

Policy 6.1.iii All MR and ER shall be maintained and operated in accordance with County standards pursuant to a formal occupancy agreement facilitated by The County.

Policy 6.1.iv Inspection and maintenance of all MR, ER, and landscape maintenance of PULs above the high water line and any improvements including, but not limited to pathways, trails, or site furnishings located there shall be in accordance with the applicable County Maintenance Service Level.

Policy 6.1.v The location of bioswales and/or stormwater management features located within reserve lands shall be planned and executed in accordance with County Servicing Standards.

Policy 6.1.vi A transfer of creditable reserve between neighbourhood areas where land is owned by the same landowner may be permitted, if agreed to by the landowner/developer, in accordance with the MGA and subject to approval by the County to achieve:

a. Optimal distribution/location of open spaces;
b. Flexibility to utilize MR for integration of open space that otherwise does not qualify as ER.

Policy 6.1.vii Landscape Plans associated with MR, ER, and PULs shall be subject to County approval.

Policy 6.1.viii Should Rocky View County determine a school site is required within the Horse Creek Plan Area, the County and the landowner/developer will coordinate to reassign Municipal Reserve land to Municipal School Reserve to accommodate the school site to the satisfaction of the municipality. The dedication of a school site shall not detract from the residential areas.

Figure 10: Parks & Open Space Master Plan

Interior Meadows

Neighbourhood parks, known as Interior Meadows, will merge residents' backyards with the broader open space network and provide direct access to development features. The interior meadows provide space for elements including trails, forest stands, gardens, and park amenity structures. These passive green spaces will complement the larger open space design by providing destinations throughout the development which feature a restorative approach to landscape implementation. The delineation between public and private spaces will be achieved by installation of permeable fencing (i.e. chain link or wrought iron) that allows easy access and visibility to the interior meadows.

Perimeter Parks

Natural areas along the outer edge of the community, known as Perimeter Parks, will provide a transitional interface between the community and the existing country residential and agricultural lands. Averaging 20 acres in size, these large parks contribute to the Agricultural Boundary interface and will use a variety of natural features to provide a transition from the Horse Creek community to adjacent land uses. These parks feature sweeping hills and meandering trails. Trees and shrubs will provide a contextually appropriate interface to the surrounding land. Perimeter parks will also offer a variety of informal trails that connect to backyards (where desired), streets, and existing pedestrian routes. Minimal signage and landmarks will guide people through these green spaces.

Linear Parks

Linear parks along roadways, known as Green Corridors, will connect people through pedestrian pathways and activity nodes such as playgrounds, sports fields, and community plazas for gatherings. The mix of multi-use paved pathways and granular trails will merge at key intersections, guiding residents to the different park types. The landscape design will consist of native plant species, drainage swales, berming and a balance of unmaintained and manicured green spaces.

Figure 11: Interior Meadows Plan

Interior Meadow

These parks provide space for elements including trails, forest stands, gardens, and park amenity structures. These passive green spaces will complement the larger open space design by providing destinations throughout the development for passive and active recreation.

Figure 12: Perimeter Park Plan

Perimeter Park

These parks provide a transitional interface between the community and existing Country Residential developments. These large parks feature sweeping hills, meandering trails, and public gathering spaces such as community gardens.

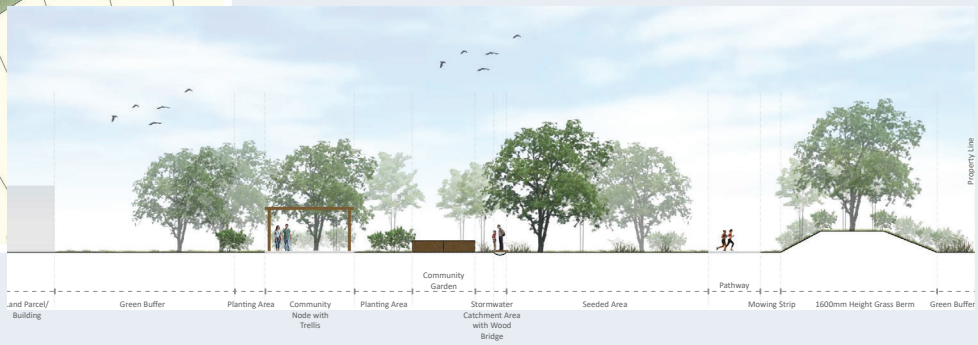


Figure 13: Linear Park Plan

Linear Parks

The interior meadows will merge with the linear pathway system to connect people by way of pedestrian pathways and activity nodes such as playgrounds, sports fields, and community plazas for gatherings.

6.2 Recreational Opportunities

Horse Creek is committed to allocating 55.39% of the Plan Area to open space for passive and active recreation opportunities. The parks (as outlined in section 6.1) will be minimally programmed and very well connected by an extensive pathway and trail network, providing community members the opportunity to circulate the neighbourhood to reach natural and programmed recreational destinations.

6.2.1 Pathways and Trails

The pedestrian connectivity of Horse Creek is essential in preserving rural character and encouraging active lifestyles. **Figure 14: Regional Pathways and Trails** depicts the pedestrian network throughout the Region. **Figure 10: Parks & Open Space Master Plan**, depicts the local pathways and trails throughout the Plan Area, which includes a robust and interconnected trail network includes Regional offering a variety of experiences to future residents (refer to **Figures 15: Internal Pathway Adjacent to Residences** and **Figure 16: Perimeter Pathway & Trail** for cross sections of the local pathway system). The trails connect to other neighbourhoods and amenities including parks and community nodes, they connect and support the on-street network of sidewalks. Each trail type will be designed pursuant to Rocky View County's Parks and Pathways Planning, Development, and Operational Guidelines, and will be open for use by the public.

The comprehensive multi-modal pathway network in Horse Creek provides accessible recreational opportunities to users of all abilities. Pathways and trails will be constructed to accommodate pedestrians and cyclists while respecting the natural landscape through use of varied surface materials that place low impact on the land. Berming will be introduced along pathways and trails, especially those that abut Range Road 44, Weedon Trail, and adjacent agricultural lands for beautification first and foremost but also to provide sound attenuation and visual screening purposes.

Pathways & Trails Policies

Policy 6.2.1.i An extensive pathway and trail network shall be constructed in Horse Creek to connect residences to the open space system and neighbourhood amenities, to the satisfaction of the County.

Policy 6.2.1.ii The Plan Area shall be well connected by both the road and multi-modal pathway networks. These networks shall safely and quickly connect residents to homes, open space, and community amenities. The networks shall be designed with wayfinding signage and vegetative landmarks to strengthen community identity and connectivity.

Policy 6.2.1.iii All pathways and trails shall be planned and constructed in accordance with County classification and construction standards.

Policy 6.2.1.iv All pathway and trail alignments and their construction materials shall be subject to approval by the County.

Policy 6.2.1.v All pathways and trails shall be bi-directional and constructed to be accessible for users of all ages and abilities.

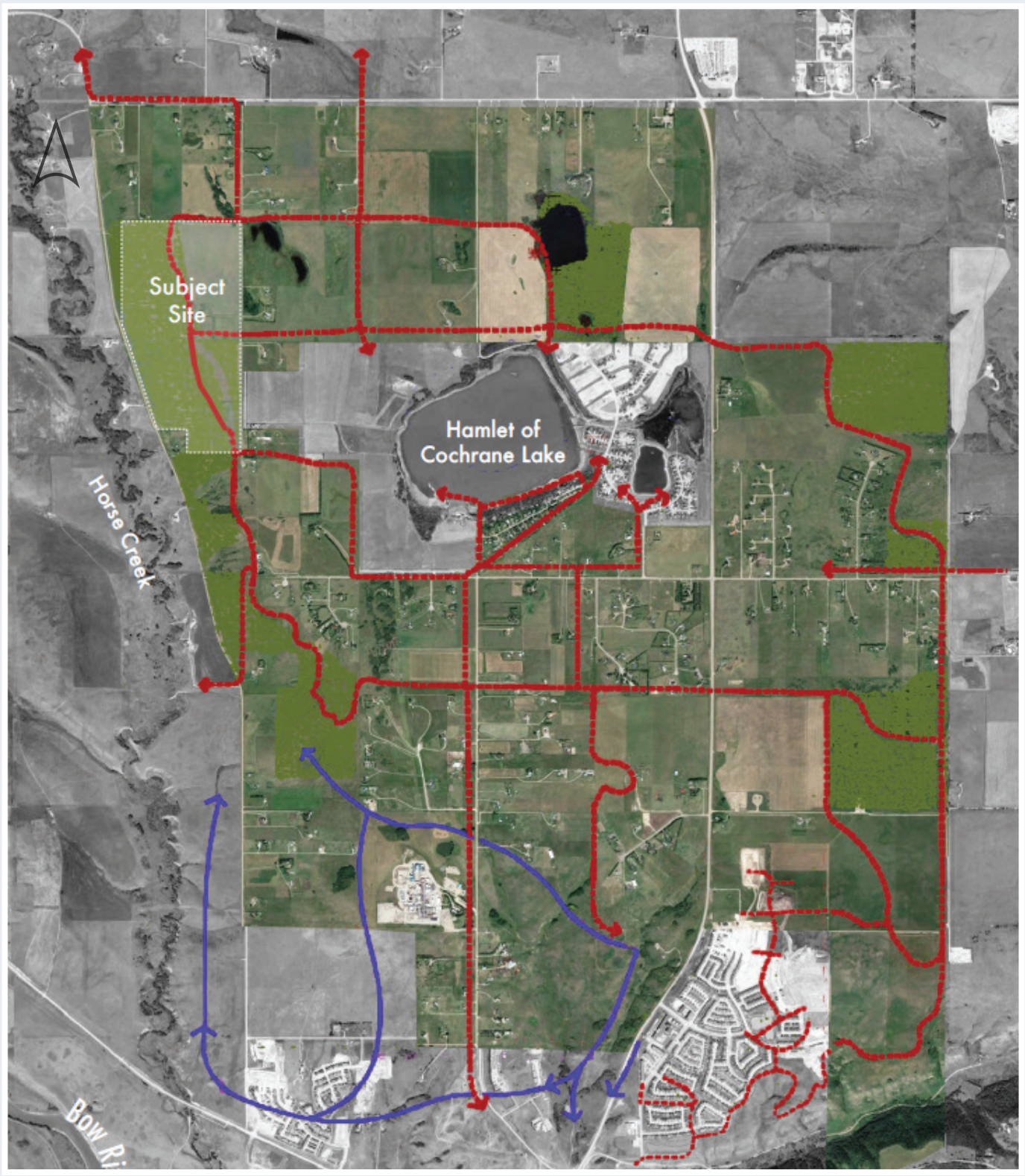


Figure 14: Regional Pathways and Trails

Figure 15: Internal Pathway Adjacent to Residences

Figure 16: Perimeter Pathway & Trail

Transportation Network

Section

07

7.0 Transportation Network

The regional transportation system has been developed based on improvements identified as necessary to support the background development expected in the area as well as the growth associated with other approved plans in the area. Network improvements required to accommodate the Horse Creek development and internal roadway classifications were identified in the Transportation Impact Assessment (TIA) completed by Bunt & Associates Engineering Ltd. in July 2022.

7.1 Regional Transportation System

The regional road network refers to the higher order roads in the municipality that provide access to the Plan Area and the provincially operated roads adjacent to the site. The regional transportation system has been developed in alignment with improvements identified as necessary to support Horse Creek and the approved ASPs in the area (refer to **Figure 17: Regional Transportation Network**).

The regional transportation system considers the Calgary Metropolitan Growth Plan and the requirements for an interconnected regional transit system. Given that this Conceptual Scheme aligns with the major ASP Amendment of the Cochrane North and Hamlet of Cochrane Lake ASPs, the Scheme considers the transit routes and stops in the area that would be required for integration with the regional system.

Improvements required to accommodate the Horse Creek Concept Scheme were identified in the Transportation Impact Assessment (TIA) completed by Bunt & Associates Engineering Ltd. in July 2022. The TIA provides options for the Horse Creek transportation system to support safe, efficient, and integrated vehicular movement through the Plan Area and the region.

7.1.1 Existing Network

The regional network consists of several local roads and highways that run adjacent to or into the Plan Area. These include Highway 1A (provincial highway), Highway 22 (also refered to as Cowboy Trail - provincial highway), Weedon Trail, Cochrane Lake Road, Range Road 44, and Horse Creek Road. The TIA completed by Bunt & Associates identifies several improvements to this existing network to support the Horse Creek development. These improvements are outlined in Section 7.1.2 Future Network section.

7.1.2 Future Network

The Horse Creek transportation network proposes four new access points constructed from Range Road 44. Range Road 44 connects to Weedon Trail which intersects with Highway 22 (Cowboy Trail) to the east and Horse Creek Road to the west. An emergency access route is proposed to be constructed west to connect the Plan Area to Horse Creek Road.

Future network improvements take into consideration the projected increases in volume and road capacity from build-out of the Cochrane North ASP, Cochrane Lake Hamlet Plan, Monterra, Heritage Hills, and the typical network growth.

The TIA identifies the total trip generation to be between 595 trips at the morning peak and 738 trips at the afternoon peak. To accommodate these estimated vehicle trips, several major upgrades to intersection and roadways are recommended. **Figure 18: Post-Development Intersection & Roadway Improvements** indicates the location and proposed upgrades required to support Horse Creek and surrounding developments.

Alberta Transportation Improvements

Alberta Transportation plans to build a new interchange at Highway 22 (Cowboy Trail) & Highway 1A. This interchange will result in the closure of the Range Road 43 connection to Highway 22. Alberta Transportation has also completed the conceptual design for a roundabout improvement at Highway 22 and Highway 567 (Weedon Trail).

Background Improvements

Background traffic is traffic that would be present on the road network in future years regardless of the development of the site. This traffic is representative of yearly growth on the roadways as well as other residential, commercial, or industrial developments that have been approved in the area. A linear growth rate of 2% was applied for movements on Highway 22 (Cowboy Trail), Highway 1A, Horse Creek Road, and Weedon Trail, as well as turning movements associated with Highway 567. The background improvements are recommended to be completed before opening day and only reflect upgrades necessary to accommodate the existing traffic flows.

Intersections

Existing

- Highway 22 & Weedon Trail/Highway 567 – A traffic signal or single lane roundabout is required.
- All other intersections operate within acceptable capacity parameters.

Opening Day

- Highway 22 & Cochrane Lake Road West – A traffic signal or dual lane roundabout is required.
- All other intersections are expected to operate within acceptable capacity parameters.

Long Term

- Highway 22 & Weedon Trail/Highway 567 – A roundabout widening (second lane) is needed.
- Highway 22 & Cochrane Lake Road West – If signalized, improvements (eastbound right turn merge lane, additional lanes on Highway 22) are needed. No change if a roundabout.
- Horse Creek Road & Highway 1A – Additional turn lanes (westbound right, dual southbound left) is required to accommodate Background traffic.
- All other intersections are expected to operate within acceptable capacity parameters.

Roadways

Existing

- Roadways will not be upgraded prior to opening day.

Opening Day

- Cochrane Lake Road between MacDonald to Highway 22 will be a Regional Arterial.

Long Term

- Highway 22 South of Weedon trail will be upgraded to a 4-lane highway.
- Weedon Trail between Range Road 43 and Highway 22 will be a Regional Collector

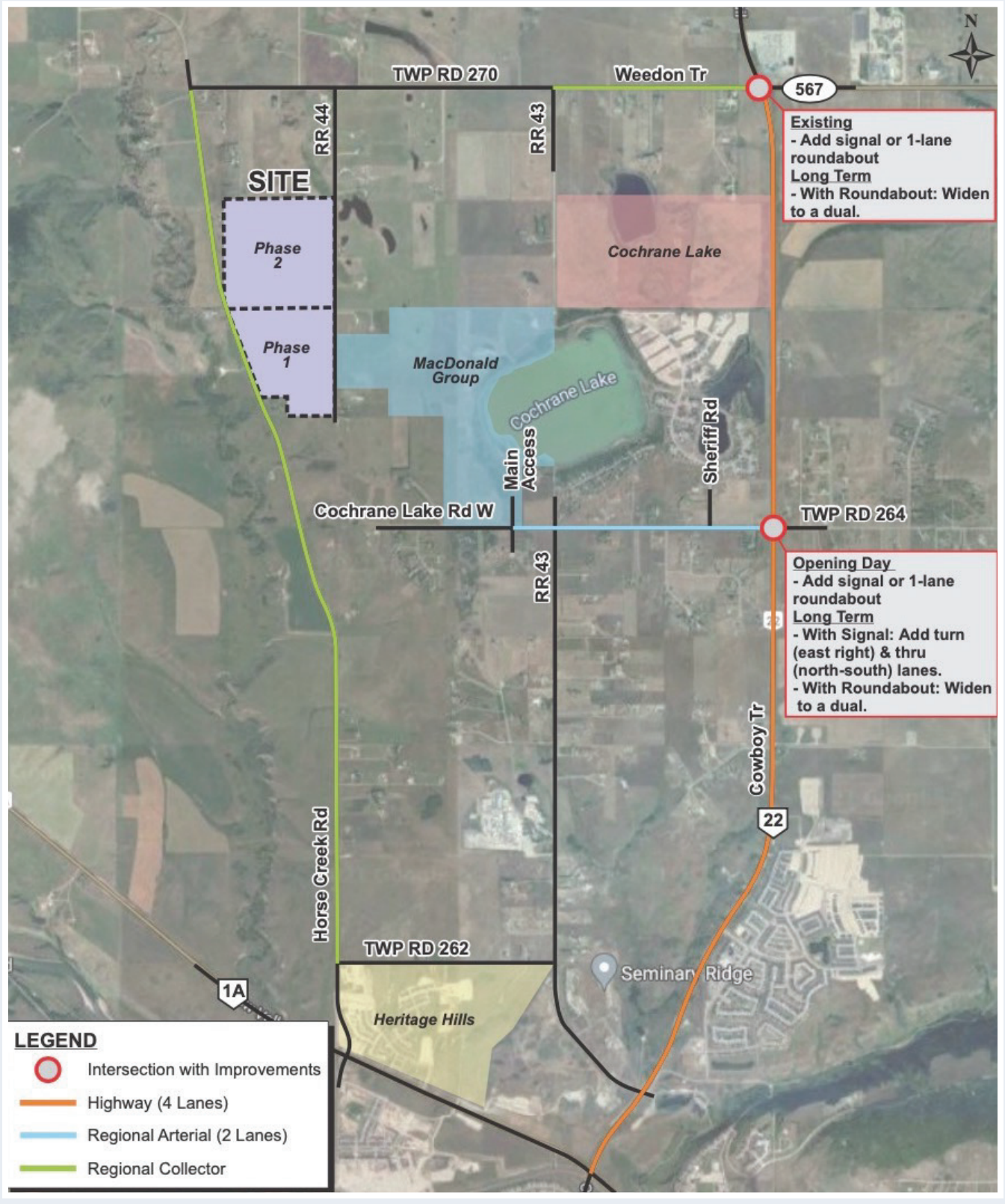


Figure 17: Background Intersection & Roadway Improvements

Post- Development Improvements

The TIA recommends several improvements to intersections and roadways to accommodate the traffic flows after Horse Creek is fully developed. The recommendations include upgrades to be completed for opening day and those recommended in the long-term as traffic grows in the area. These post-development improvements assume that the Background development improvements have been completed and therefore account only for traffic generated by Horse Creek.

Intersections

Opening Day

- All intersections are expected to continue operating within acceptable capacity limits in both scenarios after accounting for Background improvements.

Long Term

- Highway 22 & Weedon Trail/Highway 567 – Only a traffic signal can accommodate vehicle volumes; a dual lane roundabout would operate with delay. A separate westbound turn lane is needed with a signal.
  Highway 22 & Cochrane Lake Road West – A dual lane roundabout will accommodate the expected traffic.
- MacDonald Access & Cochrane Lake Road West (Scenario 1) – Roundabout may be required to accommodate the expected traffic through the region and Horse Creek.
- Sheriff Road & Cochrane Lake Road West (Scenario 1) – Roundabout may be required to accommodate the expected traffic through the region and Horse Creek.
- All other intersections are expected to operate within acceptable capacity parameters.

Updates to the TIA may be required as part of the subdivision application for each phase if deemed necessary. Please refer to **Figure 19: Post-Development Intersection & Roadway Improvements.**

Roadways

Opening Day

- Weedon Trail between Horse Creek to Range Road 43 will be a Regional Collector.
- Weedon Trail between Range Road 43 to Highway 22 will be a Rengional Arterial (2-lanes).
- Range Road 44 South of Weedon Trail will be a Regional Arterial.
- Hore Creek Road between Weedon Trail to Township 262 will be Regional Collector.
- Site Access will become a Collector Road.

Long Term

- Weedon Trail between Horse Creek to Range Road 43 will be a Regional Arterial (Scenario 1).
- Cocrhane Lake Road bewteen MacDonald to Highway 22 will be upgraded to 4-lanes (Scenario 1).
- Horse Creek Road between Weedon Trail to Township 262 will be a Regional Arterial (Scenario 2).
- Site Access will remain as a Collector Road.

Regional Transportation Network Policies

Policy 7.1.i The developer shall be responsible for any costs associated with transportation improvements identified within the TIA this may be offset by the required Transportation Off-Site Levy provided, at the discretion of Rocky View County.

Policy 7.1.ii The landowner/developer shall be required to pay the County Transportation Off-Site Levy.

Policy 7.1. iii An emergency access route connecting directly to Horse Creek trail shall be constructed as part of the development.

Policy 7.1.iv As development proceeds to the land use and subdivision stages, the TIA shall be reviewed in the event that updates are required to support specific phases of development. Collaboration with Alberta Transportation shall be required when improvements are regarding access to Highway 22 and Highway 1A.

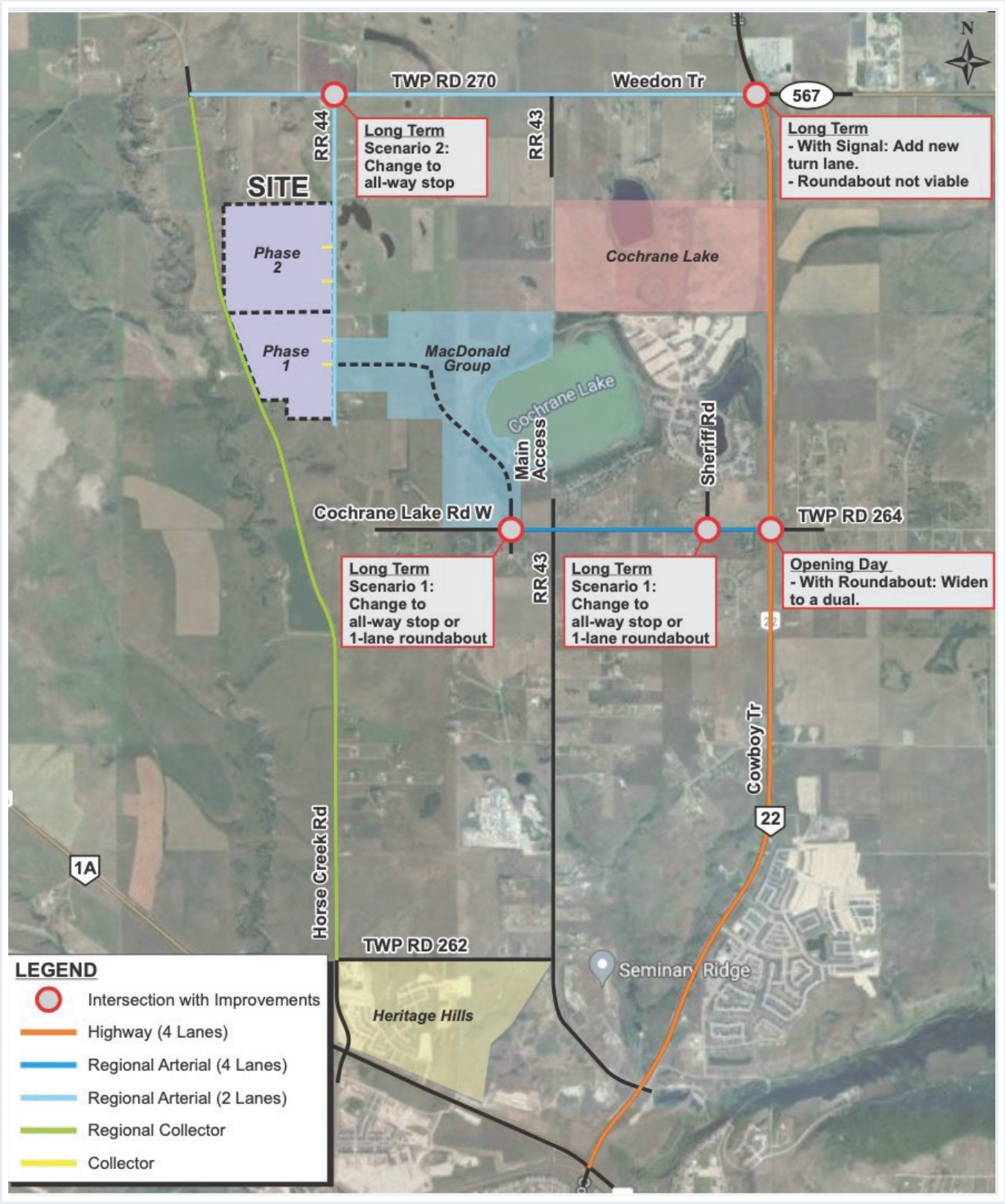


Figure 18: Post-Development Intersection & Roadway Improvements

7.2 Internal Transportation Network

The internal road network for Horse Creek is designed with an east-west divided road that will act as the backbone of the development connecting the Hamlet high street through Horse Creek. There will be four new direct internal connections to Range Road 44. For internal traffic flow purposes, roundabouts will be incorporated at larger internal intersections.
There are three types of internal roads being proposed, as identified in **Figure 19: Internal Transportation Network**. The standards are organized as follows:

Road Standards
Local Residential: These roads will have a right of way of 16.0 metres and compose the roadways adjacent to residences. They are composed of one driving and one parking lane on each side of the road. Beside the parking lanes are a sidewalk and a vegetated boulevard.

Residential Collector: Local entrances connect local residential roads with the regional collectors and provide a 25.0 metres right-of-way. These roads can be found at the entrances into Horse Creek along Range Road 44. On either side of the road is a sidewalk, followed by a landscaped boulevard.

Residential Collector with Median: the residential collector road with median will connect Horse Creek to the future Hamlet High Street creating a west-east connection through the new Cochrane Lake Hamlet Plan. It provides a 27.0 metres right-of-way consisting of four lanes, a sidewalk, landscaped boulevard, and the landscaped median.

Emergency Access: an emergency access road will connect to the road type providing an egress route west to Horse Creek road. This emergency access road will be designed to ensure emergency vehicles can easily navigate the road.

Internal Transportation Network Policies

Policy 7.2.i The design and construction of roadways within the local transportation network, and between the local network and the provincial and regional transportation networks, shall align with the County's road design standards. Should there be any minor revisions required to the network, they shall be determined at the subdivision stage.

Policy 7.2.ii The designation and design of local roads within the transportation network, including classification, street sizing, and intersection access spacing, shall be determined at the time of subdivision and be consistent with the Horse Creek Conceptual Scheme to the satisfaction of the County.

Policy 7.2.iii The identified emergency access location shall be provided to the satisfaction of the County.

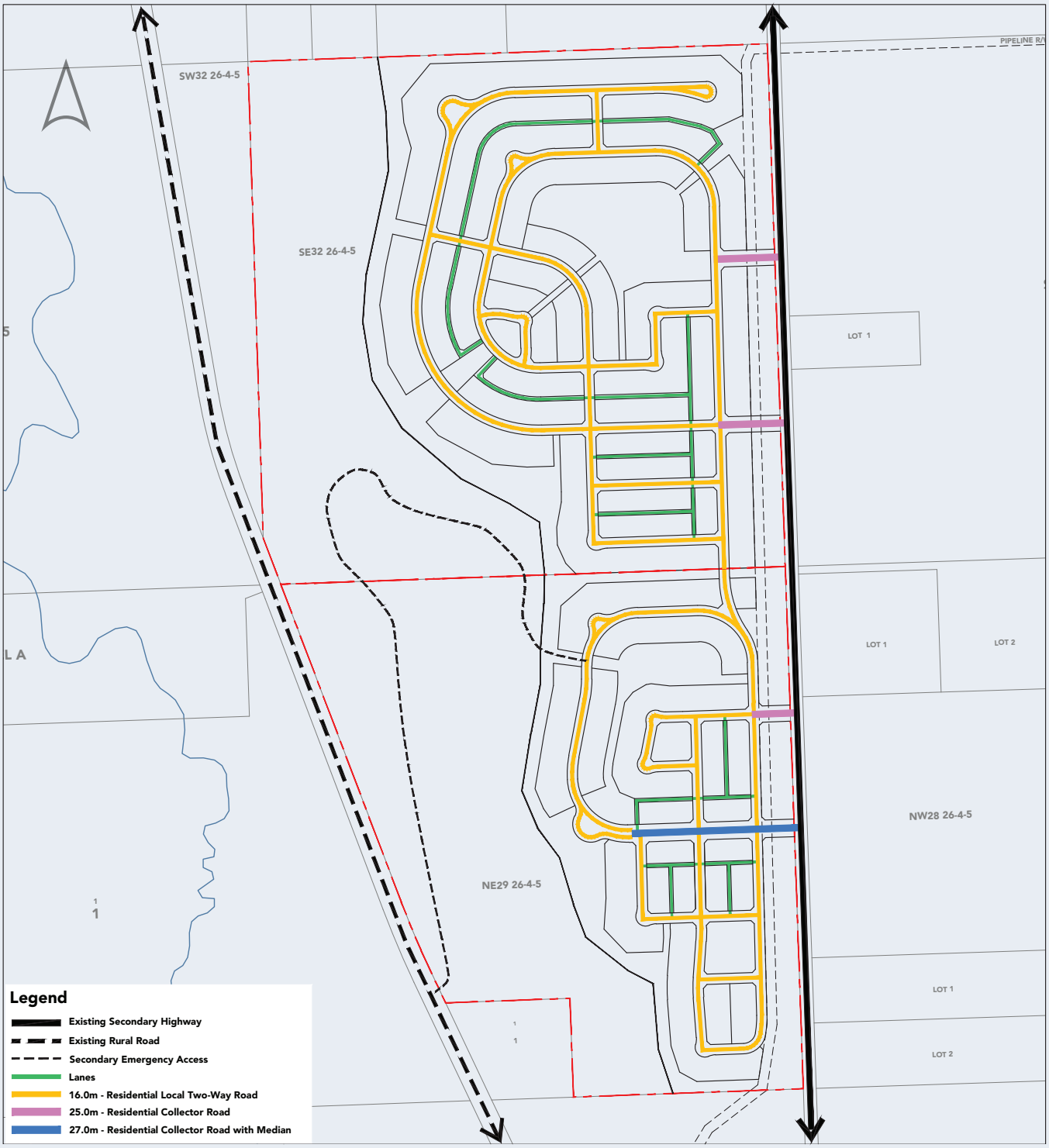


Figure 19: Internal Transportation Network

Servicing Strategy

Section

08

8.0 Servicing Strategy

Horse Creek will utilize a regional piped servicing strategy for water and wastewater. Development within Horse Creek will be supported by an environmentally and economically sustainable municipal utility system that capitalizes on existing infrastructure and introduces innovative solutions. To justify the cost and to adequately support this level of servicing to the community and beyond, the clustered residential densities reflected in the Land Use Concept (**Figure 5**) were selected. The proposed average density of 3.3 UPA allows Horse Creek to participate in the regional servicing, which decreases costs associated with constructing a new water treatment plant and expanding associated wastewater infrastructure. From a stormwater perspective, Horse Creek will implement strategies to reduce water consumption within the community and use low impact design and zero discharge strategies.

Servicing Policies

Policy 8.1.i Servicing requirements, phasing, and cost contributions for regional infrastructure shall be identified at the subdivision stage.

Policy 8.1.ii The developer shall be required to pay the Rocky View County Water and Wastewater Off-site Levy applicable to the Horse Creek System if relying on proposed regional piped water and wastewater utility services.

Policy 8.1.iii The developer shall be responsible for installation of all on site and off site utility infrastructure required to service the plan area.

Policy 8.1.iv Where the alignment of the potable water service network is demonstrated to provide benefit to lands outside the participating area of this Plan, the County shall implement a Cost Recovery in accordance with the Infrastructure Cost Recovery Policy C-406.

8.1 Water Servicing

Connection to the existing Horse Creek water system is considered the most feasible and sustainable servicing option and is supported by the County. In addition, connecting to the regional system reflects the principles of the Hamlet of Cochrane Lake Plan and CMRB Growth Plan.

Based on discussion with the County, there is adequate capacity in the Horse Creek Water Services license to service the Horse Creek Conceptual Scheme. Given the water demands for Horse Creek and the Cochrane Lake area, the existing 300 mm raw water supply line has adequate capacity to facilitate the Horse Creek community and support the proposed and existing developments in the Cochrane Lake area.

Water treatment is proposed to be provided by the Horse Creek Water Treatment Plant located in Monterra. The capacity of the WTP will be confirmed following the County's assessment of the system to determine required upgrades to facilitate Horse Creek and other developments in the Cocrhane Lake area. However, based on the existing treatment capacity, two additional treatment trains and facility expansion are required to support the Horse Creek development and surrounding developments.

The proposed water system consists of an on-site reservoir, which is filled via a dedicated reservoir fill line from the Horse Creek WTP in Monterra along Township Road 264 and Range Road 44. This system is shown in **Figure 20: Water Servicing Plan, Regional Connections**. Potable water flows from this reservoir through the distribution system to service Horse Creek. Alternatively, a twinned 100 mm reservoir fill line may be implemented. Twinning of the proposed reservoir fill line is not required but additional storage capacity, such as two average days plus fire flow, may be recommended to provide redundancy for the Horse Creek Development. The water servicing plan for the Plan Area is detailed in **Figure 21: Water Servicing Plan, Plan Area**.

Upgrades to the raw and potable water reservoirs are to be reviewed once the assessment of the Horse Creek system is prepared by the County to determine current and required capacity. However, the servicing study has determined that there will be an on-site reservoir in Horse Creek to serve the community.

Water Servicing Policies

Policy 8.1.1 Land Use applications relying on piped utility servicing shall not be supported until the County has confirmed servicing capacity and raw water licensing either exists or will be provided. The design shall be in accordance with County Servicing Standards.

Policy 8.1.2 The Plan Area shall receive water from the regional piped utility, supplied from the Bow River and treated at the County's Water Treatment Plant.

Policy 8.1.3 A Water Use Assessment shall be required with subdivision applications to determine water demand and infrastructure required to meet that demand.

Policy 8.1.4 All residential lots in the Plan Area shall be connected via individual service to water mains in the streets which shall connect to a distribution loop fed by the treatment plant.

Policy 8.1.5 An on-site water supply with capacity sufficient to service the Horse Creek Conceptual Scheme shall be implemented for peak demand and fire protective services to the satisfaction of the County.

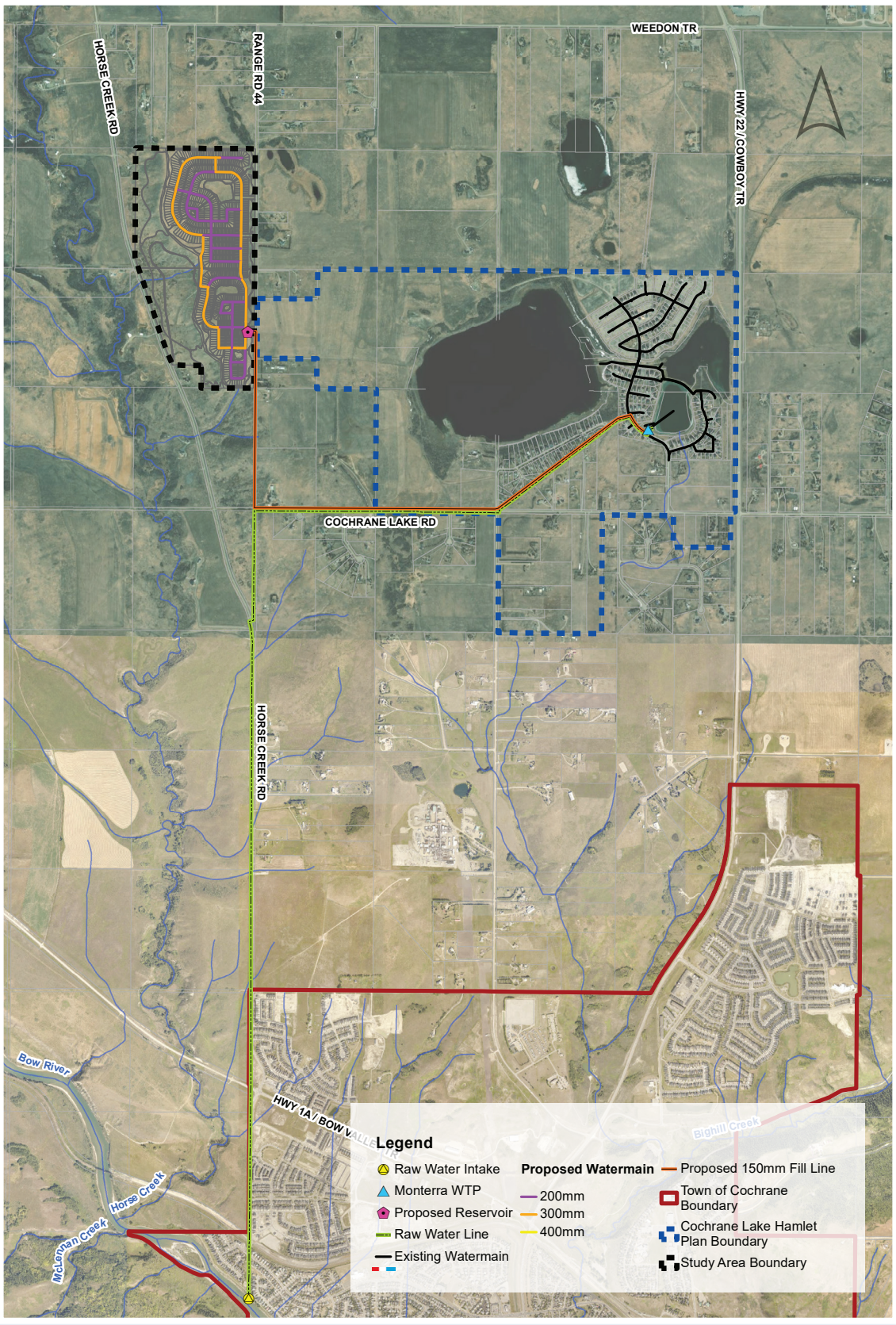


Figure 20:Water Servicing Plan, Regional Connections

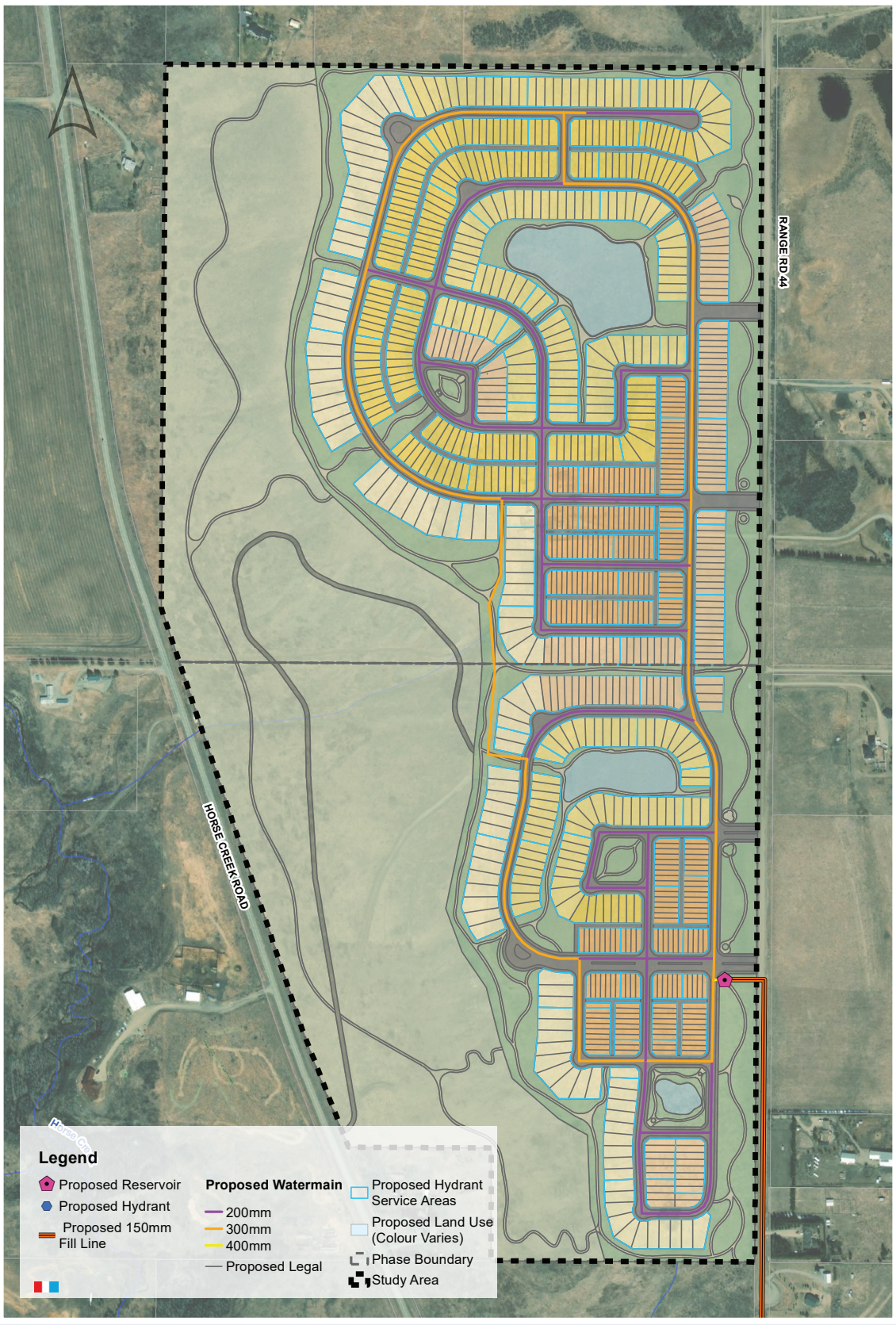


Figure 21:Water Servicing Plan, Plan Area

8.2 Wastewater Servicing

Wastewater efficiencies start with using less water. Horse Creek encourages re-use of effluent for irrigation and non-potable uses. The wastewater system consists of the Monterra system and station: the Monterra Lift Station is located adjacent to the WTP along Monterra Drive and pumps wastewater flows from the Monterra wastewater system to the Town of Cochrane. The lift station has a capacity of approximately 30 L/s; therefore, the discharge to the Town of Cochrane's system is limited to this rate.

Wastewater discharge to the Town of Cochrane's wastewater system is currently limited to 42 L/s. The County is currently in discussions with the Town of Cochrane and The City of Calgary, as Cochrane's system discharges to Calgary's system for wastewater treatment, to increase this discharge limit.

As a result of this discharge limit, two servicing options were prepared based on interim and final system connections. The interim option assumes that there is no available capacity within the discharge limit. This option directs flows to communal holding tanks where wastewater would be vacuumed out and hauled to the City of Calgary for disposal as needed. However, this option is not supported by the County's servicing standards; therefore the final wastewater servicing connection is preferred to be to the Town of Cochrane. Due to existing and future development surrounding Cochrane Lake as well, as the distance to the Monterra lift station and potential capacity constraints, a separate major/primary lift station is proposed for the Horse Creek Conceptual Scheme (refer to **Figures 22 and 23 :Wastewater Servicing Plan Scenario 1 Regional Connections and Plan Area** respectively and **Figures 24 and 25: Wastewater Servicing Plan Scenario 2, Regional Connections and Plan Area**).

To reduce the amount of discharge to the existing system, several other wastewater servicing measures were reviewed. These measures assist in reducing water demand requirements for new water sources and reduce total volume of wastewater for disposal. Possible reduction measures include:

- Treated wastewater effluent re-use
- Use of snowfluent for wastewater effluent disposal
- Treatment wetlands for wastewater effluent disposal
- Groundwater recharge for wastewater effluent disposal.

The proposed final wastewater system consists of a major/primary lift station that pumps the wastewater from the Horse Creek development via a forcemain to the Town of Cochrane along Range Road 44.

Wastewater flows from the development are collected in the proposed wastewater collection system and conveyed to the major/primary lift station. Two configurations for the development have been prepared. Scenario 1 includes only the major/primary lift station located in the northeast corner of the development. In this scenario, wastewater is conveyed from Phase 1 to a main wastewater sewer adjacent to Range Road 44 where flows from Phase 2 also connect to the lift station. The proposed wastewater system for Scenario 1 is shown in **Figures 22 and 23 :Wastewater Servicing Plan Scenario 1 Regional Connections and Plan Area** respectively.

Scenario 2 incorporates a minor/secondary lift station to connect Phase 2 to Phase 1. This scenario allows the major/primary lift station to be located at the northeast corner of Phase 1; therefore, reducing the system extents for Phase 1 compared to Scenario 1. Wastewater for Phase 2 is conveyed to the primary/secondary lift station, which utilizes a 200 mm forcemain to connect to the major/primary lift station. The proposed wastewater system for Scenario 2 is shown in **Figures 24 and 25: Wastewater Servicing Plan Scenario 2, Regional Connections and Plan Area.**

Wastewater Servicing Policies

Policy 8.2.i A Wastewater Servicing Study shall be required with subdivision applications to determine the wastewater demand and the infrastructure required to meet that demand.

Policy 8.2.ii Sump pumps and stormwater drainage systems shall not be connected to the wastewater system.

Policy 8.2.iii Wastewater and effluent generated by the Plan Area shall connect to the Horse Creek wastewater system and treatment plant.

Policy 8.2.iii All residential lots in the Plan Area shall be connected via individual service to wastewater mains in the streets which shall connect to a wastewater treatment plant.

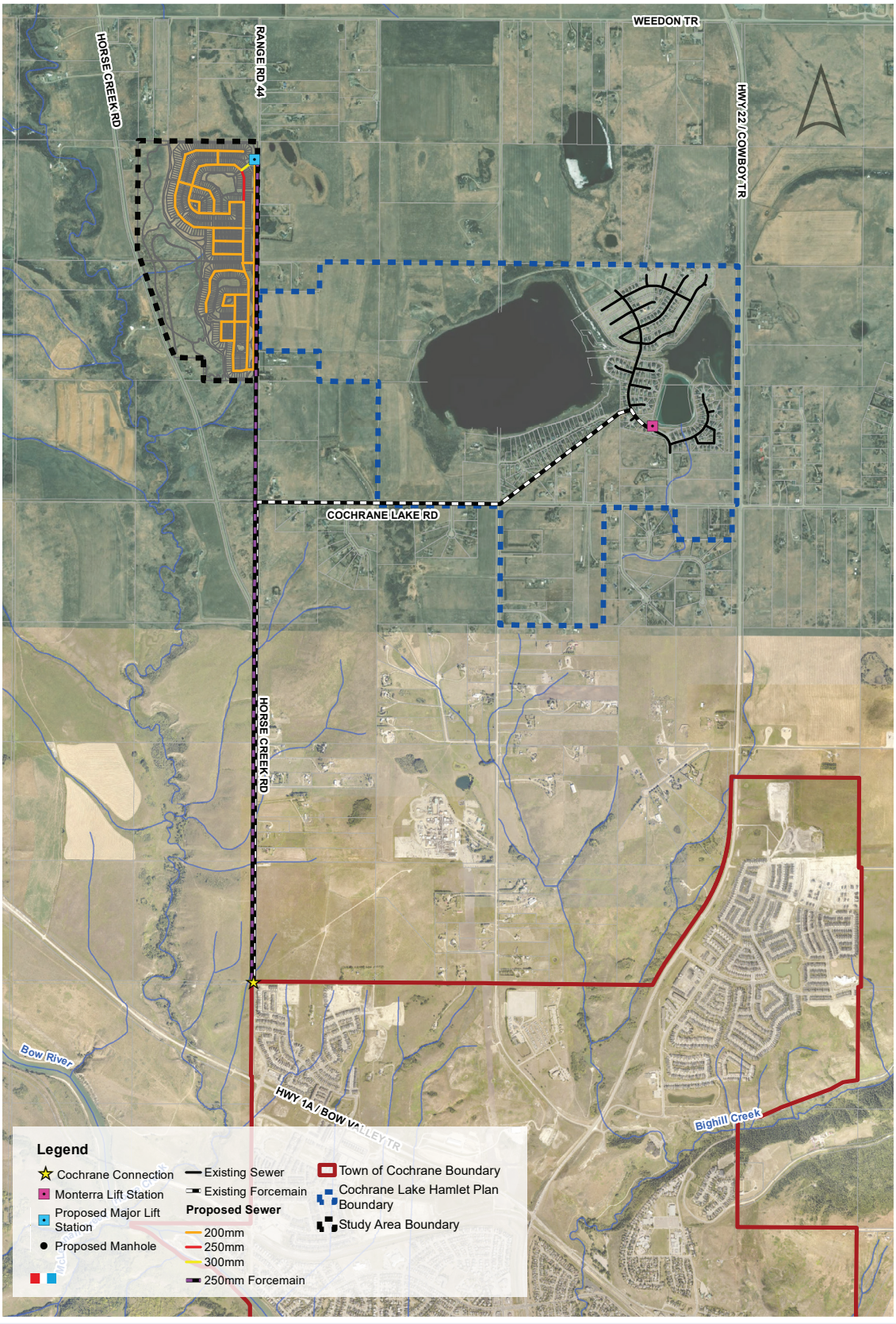


Figure 22:Wastewater Servicing Plan Scenario 1, Regional Connections

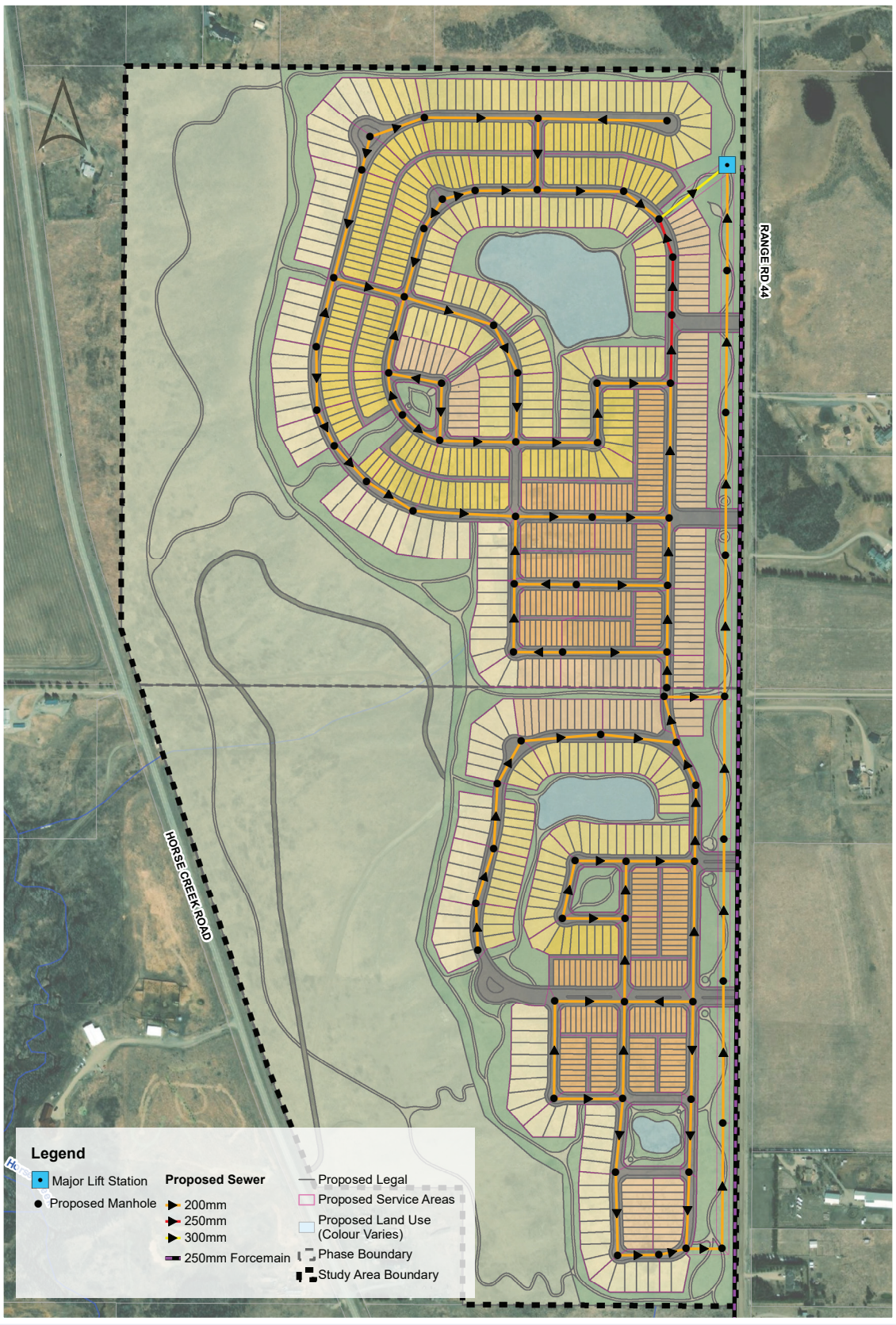


Figure 23:Wastewater Servicing Plan Scenario 1, Plan Area

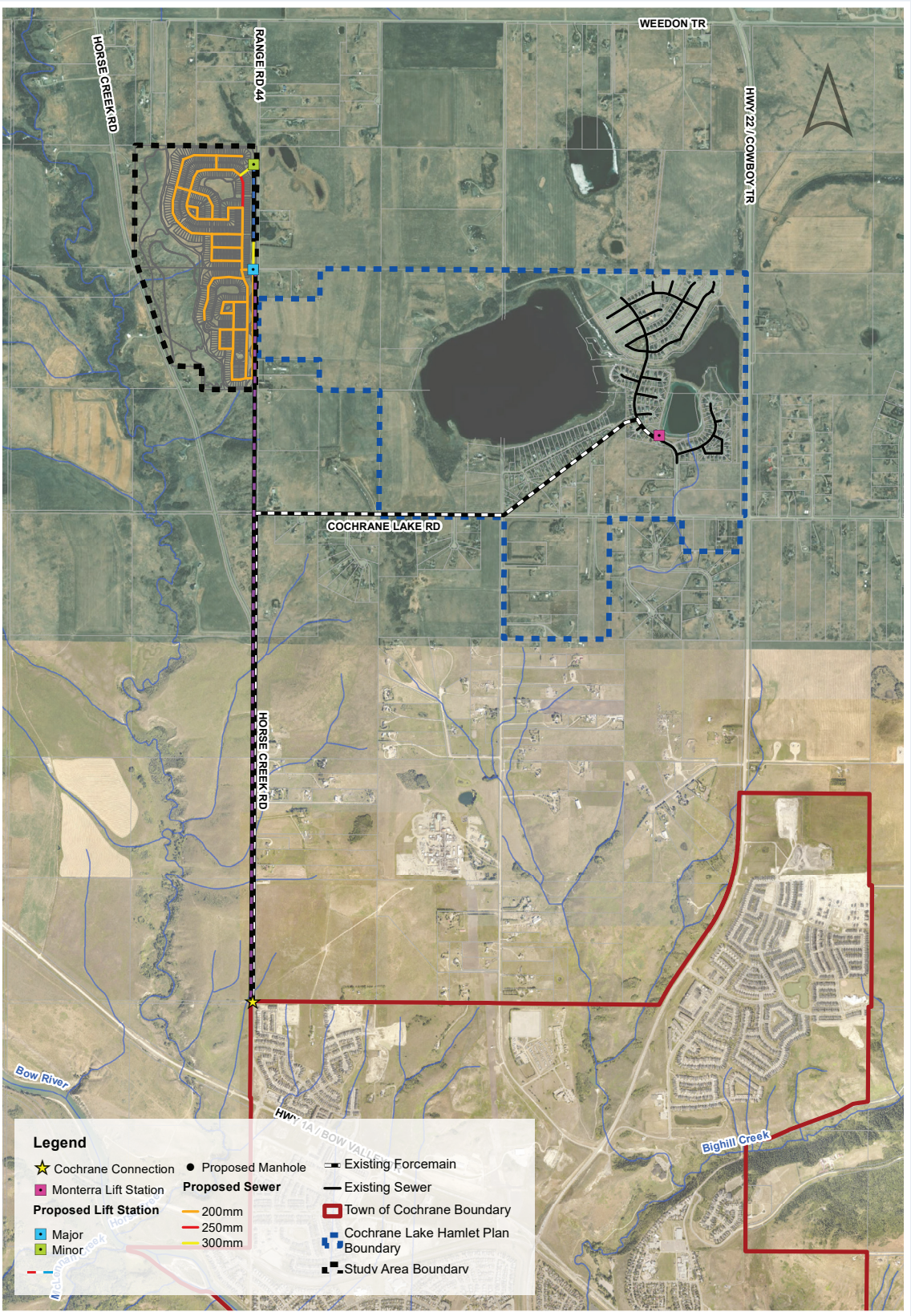


Figure 24:Wastewater Servicing Plan Scenario 2, Regional Connections

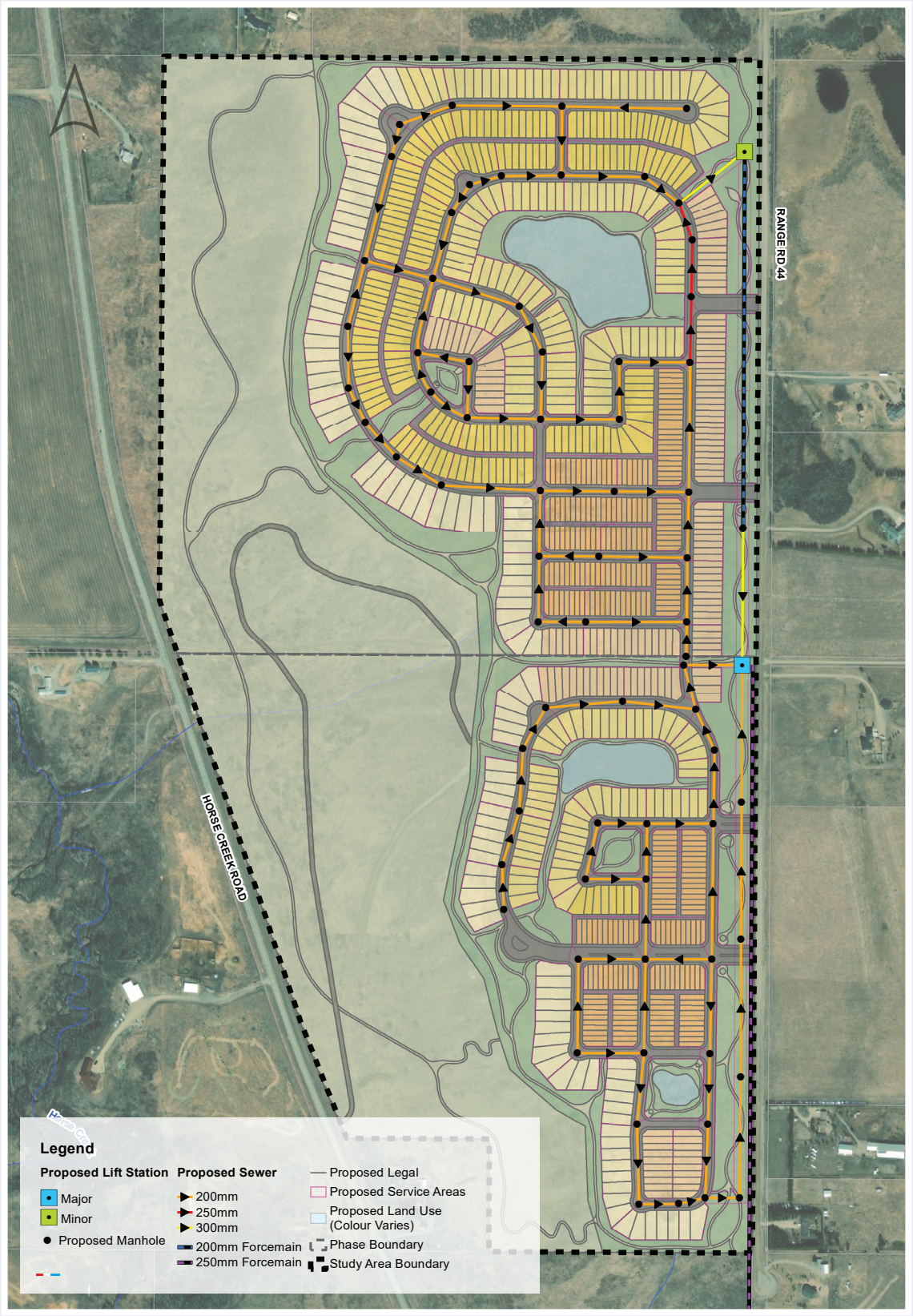


Figure 25:Wastewater Servicing Plan Scenario 2, Plan Area

8.3 Stormwater Management

The Horse Creek community lies within the Horse Creek watershed and features three catchment areas as indicated on **Figure 26: Proposed Regional Catchments**. To develop this land, major (surface drainage systems) and minor (piped) stormwater drainage systems are required to collect and control runoff in these areas. This is best accomplished by collecting stormwater runoff via storm sewers and conveying it to a Stormwater Management Facility (SWMF) where the release rate can be controlled.

The stormwater system within the Plan Area is primarily agricultural consisting of a combination of natural and built elements including surface (overland) drainage, road ditches, natural watercourses, culverts, storage facilities, and wetlands (refer to **Figures 27: Proposed Development Catchments** and **Figure 28: Proposed Stormwater Drainage System)**. There are existing culvert crossings that convey flows east to west towards Horse Creek as well as overland conveyance to natural watercourses northeast of the study area. In instances where stormwater cannot be reabsorbed through natural systems, the stormwater will collect in roadway catch basins which convey the stormwater to storm sewers in the street. These storm sewers will carry stormwater to the Cochrane Stormwater Management Facility where the release rate can be controlled.

Based on AEP's regulations, it is specified that post-development flows released should not exceed pre-development flows, therefore Horse Creek community will implement several Low Impact Development techniques to reduce the runoff produced by the developed site. Integrating LID into the stormwater design of individual lots and park areas within the overall development will improve the volumes and quality of water flowing to the proposed SWMFs, resulting in a reduced required pipe and pond size.

Stormwater Management Policies

Policy 8.3.i A finalized Stormwater Master Drainage Plan (SWDP) prepared for the Plan Area is required at the subdivision stage for the initial development stage. The SWMDP shall conform to the preliminary Stormwater Management Plan completed by ISL Engineering. Any subsequent development within the Plan Area shall conform to the Stormwater Master Drainage Plan and be completed in accordance with guidelines established by Alberta Environment and to the satisfaction of the County.

Policy 8.3.ii The development of stormwater management shall focus on achieving a system of natural drainage that enhances the community landscape, reduces peak discharges, and improves water quality.

Policy 8.3.iii Stormwater shall not be released into Cochrane Lake.

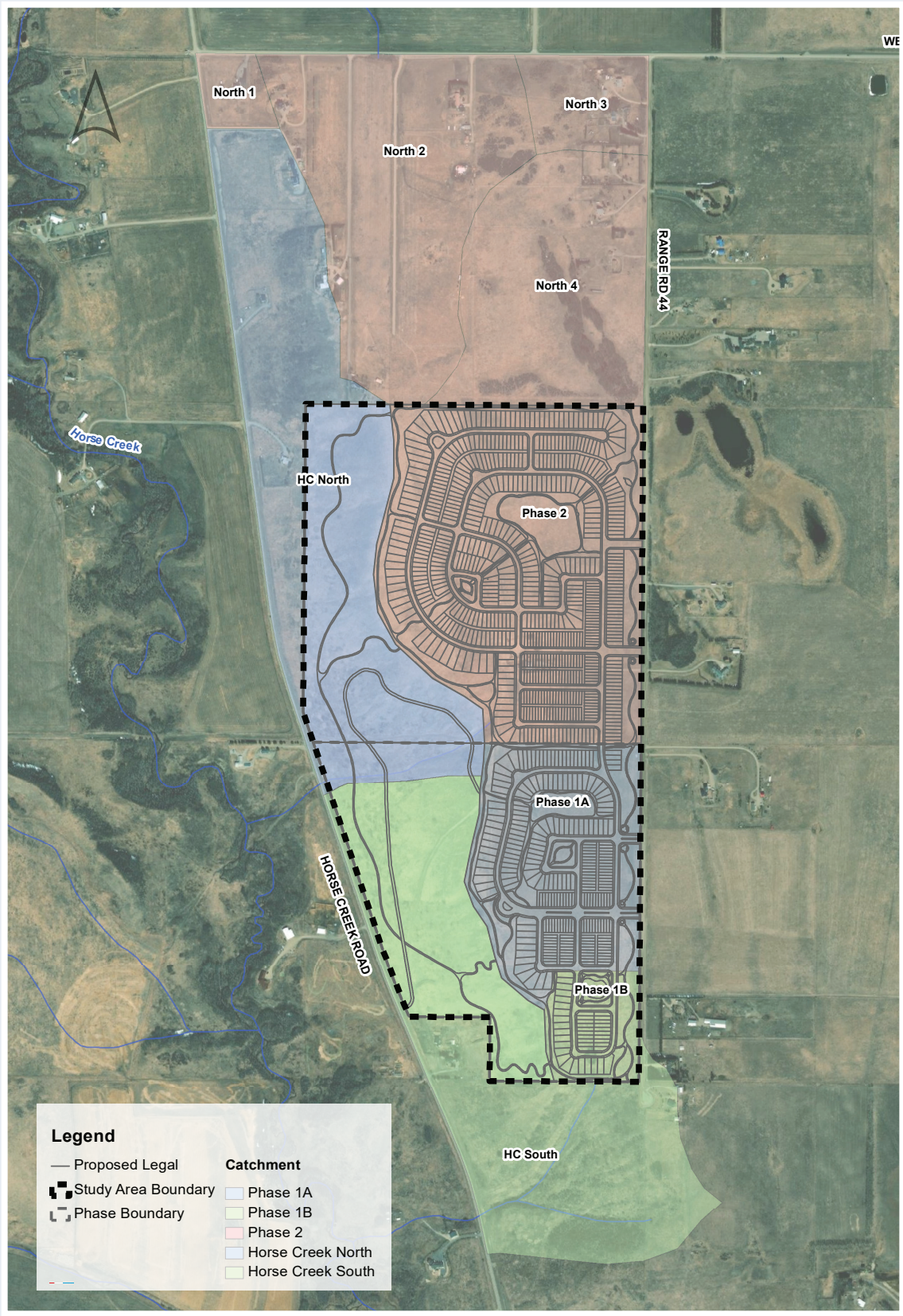


Figure 26: Proposed Regional Catchments

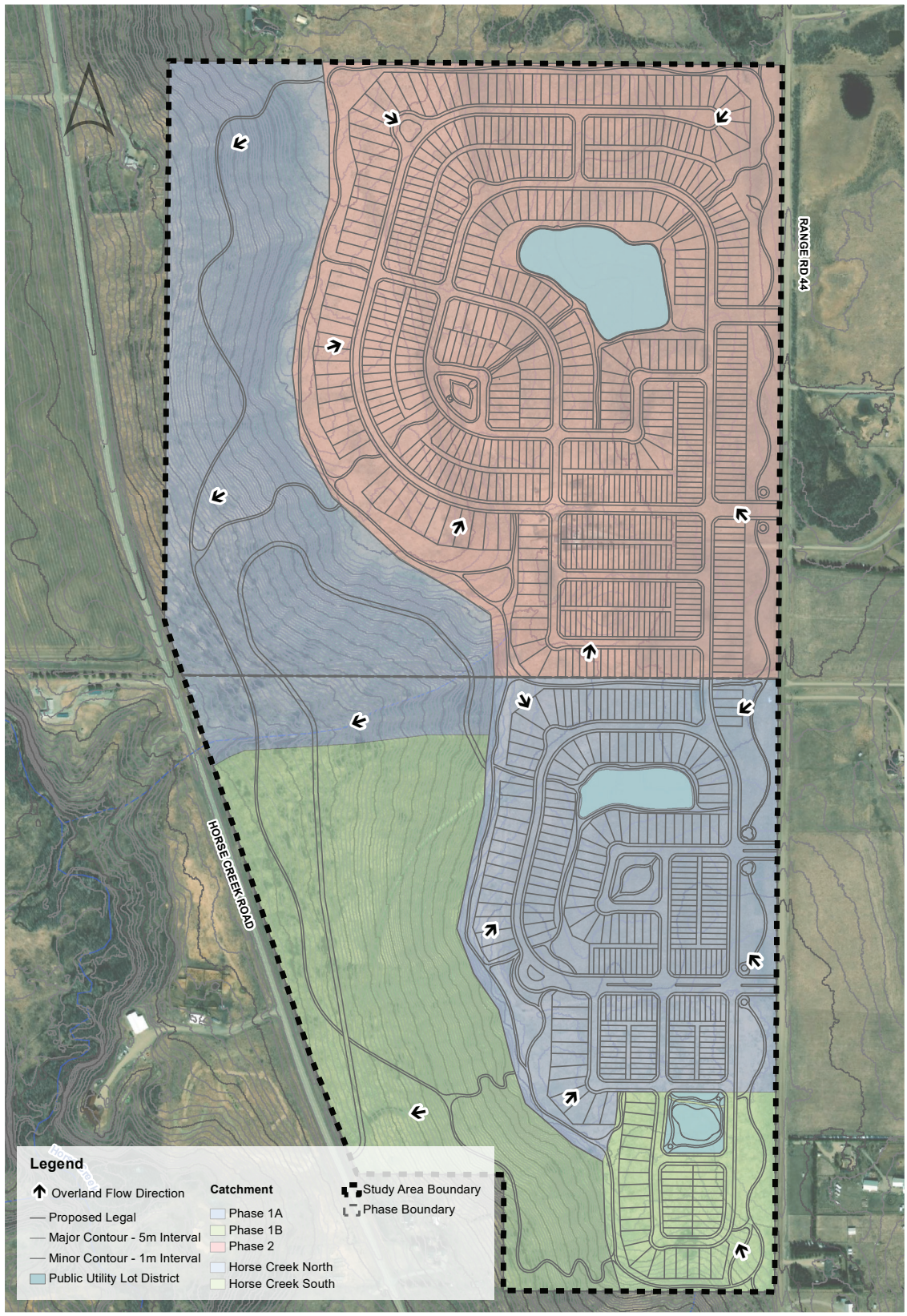


Figure 27: Proposed Development Catchments

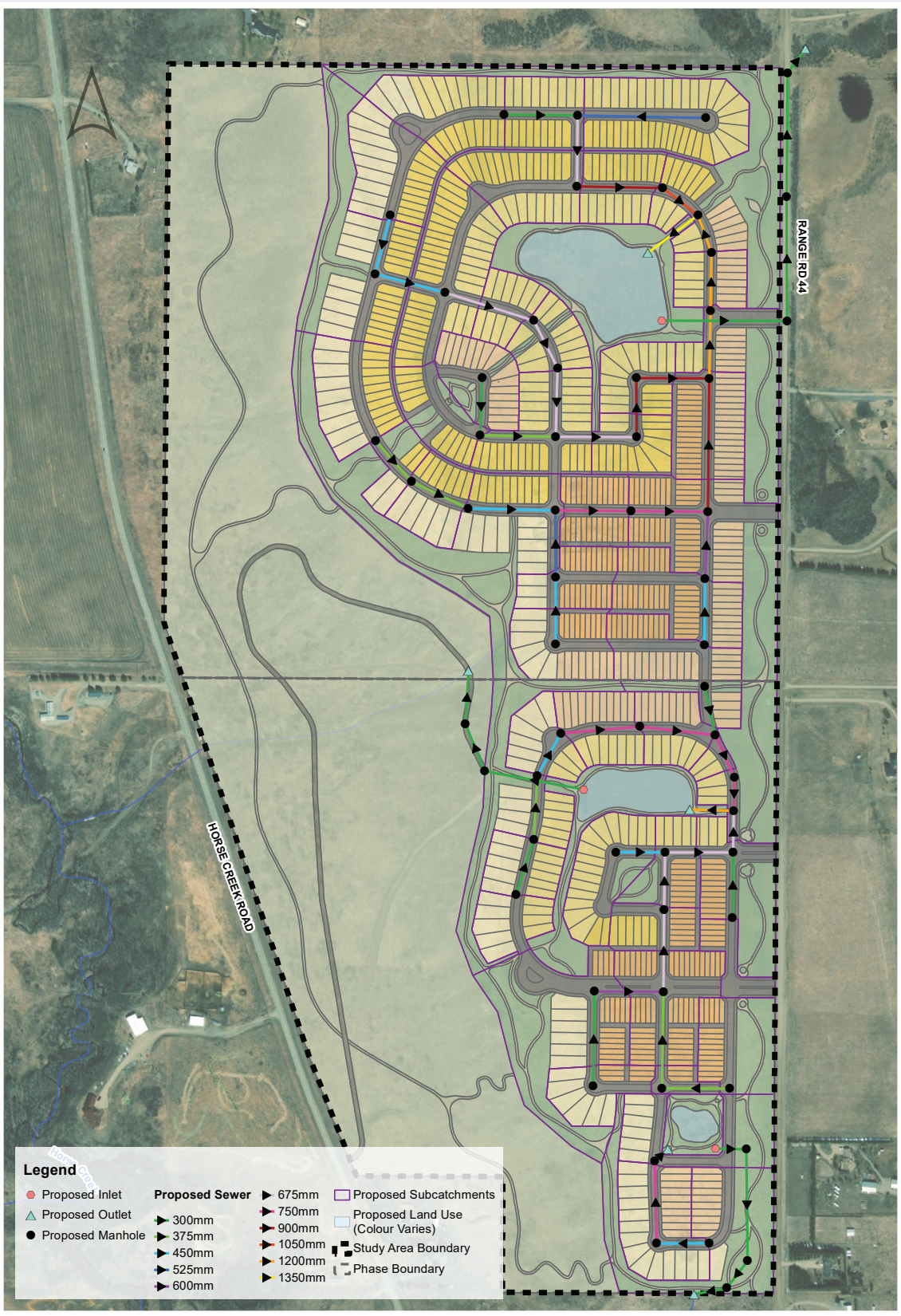


Figure 28: Proposed Stormwater System

8.4 Solid Waste Management

The HOA will be responsible for overseeing and coordinating solid waste management. It will be their responsibility to contract a solid waste disposal company. Additionally, the HOA will be responsible for a recycling and organics program.

Solid Waste Management Policies

Policy 8.4.i A waste management strategy, including solid waste removal and waste diversion of recycling and organic materials, shall be submitted by the landowner/developer upon subdivision. The waste management strategy shall align with the County's Servicing Strategy (2021).

Policy 8.4.ii The HOA shall be responsible for the continued operation of the waste management programs once the HOA has been incepted and put the waste management strategy in place.

8.5 Shallow Utility Servicing

Shallow utilities to be installed as part of the Horse Creek development will include electricity, natural gas, cable, high-speed internet, and telephone. These services will be installed along road rights-of-way during construction and will be installed in conjunction with deeper utility servicing such as water and sanitary.

Shallow Utility Servicing Policies

Policy 8.5.i The Plan Area shall be serviced by shallow utilities including electricity, gas, cable, high speed internet, and telephone. The utilities shall be installed at the expense of the landowner/ developer to the extent required by the development agreement with the County.

Policy 8.5.ii The location of all shallow utilities and the provision of rights-of-way and easements and related line assignments should be addressed to the mutual satisfaction of the County, the landowner/developer, and the utility companies.

Policy 8.5.iii The provision of shallow utilities as part of an application for redesignation, subdivision, and/ or development shall be at the sole expense of the landowner/developer to the extent required in the Development Agreement as outlined in the Municipal Government Act and in alignment with County policies.

Policy 8.5.vi Utility rights-of-way and easements shall be provided to accommodate County utilities at the discretion of the County and shallow utilities as determined necessary by utility providers.

Policy 8.5.vii Utility rights-of-way and easements, public utility lots, and road rights-of-way may be required as determined necessary to facilitate orderly and sequential development in accordance with the phases detailed in this plan.

Policy 8.5.viii A landowner/developer may be required to provide, or enter into an agreement to provide when required, the utility rights-of-way or easements necessary to accommodate the extension of County utilities through or adjacent to a site to allow for the servicing of a site.

Utility Right-of-Way

Section

09

9.0 Utility Right of Way

There is a utility right-of-way (URW) designated along the eastern edge of the site running north-south (refer to **Figure 29: Utility Right of Way**). The URW is for a transmission pipeline and has been considered as part of the conceptual design. It provides an additional natural buffer between the proposed residential developments and the existing landowners.

Utility Right of Way Servicing Policies

Policy 9.0.i The incorporation of the URW into the open space network shall be considered as a condition of subdivision to the satisfaction of the County.

Figure 29: Utility Right of Way

Emergency Services

Section

10

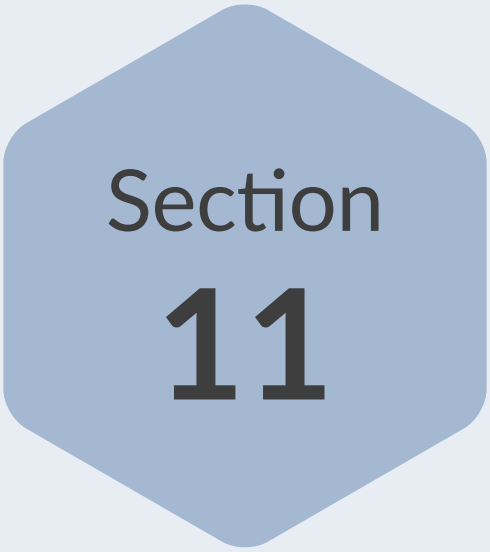
10.0 Emergency Services

The County requires that proposals for redesignation, subdivision, and/or development include appropriate levels of emergency servicing and access for police, fire, and ambulance services. The Plan Area will be policed by the RCMP. County Fire fighting service will be provided by Bearspaw Fire Station 103 (Highway 1A and Lochend Road). For medical emergencies and ambulance, 911 service shall be extended to the Plan Area.

Emergency Services Policies

Policy 10.1.i An emergency access/egress shall be provided to connect the Plan Area to Horse Creek road, and designed to the satisfaction of the County.

Implementation



11.1 Phasing

Horse Creek is a large residential development covering +/- 280.78 acres, which requires municipal infrastructure including roads, stormwater management, treated piped water supply, and regional wastewater connections. There is a logical sequence to phasing that addresses all of these needs in a manner that minimizes ground disturbance, respects the needs of existing residents, and allows costs to be applied to the development incrementally. The phasing presented in **Figure 30: Plan Area Phasing Strategy** is based on assumptions regarding regional, off-site, and on-site servicing improvements. More than one phase may proceed at the same time and the order and size of phases may change without amendment to this plan.

Phasing Policies

Policy 11.1.i Details regarding internal road systems, specific lot sizes, and distribution of lots shall be finalized at the subdivision stage.

Policy 11.1.ii To accommodate market conditions, the order of development may vary from the proposed phasing plan without requiring an amendment to this Conceptual Scheme.

Table 5: Lot Breakdown by Phase

Phase	Lots	Area
Phase 1	+/- 284	+/- 120.88
Phase 2	+/- 619	+/- 159.90
Total	**+/- 903**	**+/- 280.78**

Figure 30: Plan Area Phasing Strategy

11.2 Subdivision Naming

Horse Creek is the current name of the Conceptual Scheme Plan Area, and was chosen as homage to the Horse Creek Road that creates the western-most boundary and provides a primary north-south connection in the region. However, as the development proceeds to land use, subdivision, and implementation phases, other names considered evocative of the history and environmental or cultural significance of the region may be selected for these sites. Once names of the Plan Area have been solidified, neighbourhood and street naming shall proceed in theme with these titles, continuing to reflect the local context.

Subdivision Naming Policies

Policy 11.2.i Prior to the approval of the subdivision and land use for the first phase of development, an overall project name shall be confirmed.

Policy 11.2.ii Neighbourhood names shall be determined at the subdivision stage. Internal road names shall align with the neighbourhood theme, all to the satisfaction of the County.

11.3 Plan Amendment

The Horse Creek Conceptual Scheme falls within a hierarchy of applicable plans. The County Plan and the Cochrane North ASP are the guiding documents for all development within the County. The Land Use Bylaw (LUB) establishes the land use rules and regulations. The Conceptual Scheme presents a greater level of planning detail within the specific Plan Area and is required to be consistent with the County Plan, the ASP, and LUB. Development in the Plan Area should be acceptable to the community and be consistent with policy contained within this document. The Horse Creek Conceptual Scheme does not supersede, repeal, replace or otherwise diminish any other statutory plan in effect in the Plan Area.

Plan Amendment Policies

Policy 11.3.i Given that the Conceptual Scheme is adopted by Council through bylaw, a formal process as outlined in the Municipal Government Act shall be required to amend the Conceptual Scheme.

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