Red Willow Park
West Master Plan Update



Final Report

For Public Distribution November 2018

City of St. Albert Cultivate Life

ISL Engineering and Land Services

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1.0
INTRODUCTION

1.1 Red Willow Park – Prior Planning

The planning for Red Willow Park started with the completion of a concept plan in 1988 and continued with an overall Red Willow Park Master Plan in 1991. In 2003 an update was prepared for the western portion of Red Willow Park in support of ongoing and planned development in the study area. The following highlights the scope of the prior planning for Red Willow Park:

- **Red Willow Park Concept Plan – 1988** *(Kippen Gibbs Landscape Architects Ltd.)*
  The Sturgeon River Valley was recognized as a multi-faceted community resource in the 1980s. The concept plan included a vision of an integrated river corridor open space system. The Red Willow Urban Park and Heritage Corridor was a conceptual plan for the overall development of the Sturgeon River Corridor which provided the framework and planning for a continuous bicycle and pedestrian trail system that runs along both sides of the Sturgeon River. The conceptual plan proposed the corridor be reforested and that urban wildlife habitat be created.
- **Red Willow Park Master Plan** – **1991** *(Kippen Gibbs Landscape Architects Ltd.)*
  This Master Plan was approved by City Council for all of Red Willow Park, from River Lot 56 on the east to the shorelands along Big Lake to the west. The Plan involved creating inventories for biophysical and heritage resources, community development, community needs, and identifying a development strategy for the Red Willow Park and surrounding areas.
- **Red Willow Park West Master Plan Update** – **2003** *(Gibbs and Brown Landscape Architects)*
  The 2003 Master Plan update was completed for the western portion of the Red Willow Park (westward from the railway trestle bridge to Big Lake within the City Boundary). The 2003 update focused on new inventories of base information and corridor resources, engaging community and interest groups, and including management guidelines for the study area.



Big Lake and Sturgeon River – two significant geographic features in the study area.

1.2 2018 Master Plan Update

This 2018 Red Willow Park West (RWPW) Master Plan Update involved updating the 2003 document to reflect several initiatives that have occurred within the master plan area since 2003. In terms of scope, the project involved:

- incorporating a larger master plan area;
- incorporating recent land development in the master plan area;
- aligning the document with recently approved provincial and municipal plans and policies;
- providing opportunities for public participation; and
- updating various components of the document, including the inventory update and concept plans for the key geographic areas within the overall study area.

The 2003 Master Plan Update was a very complete plan that has provided solid planning and development guidance to the City over the past fifteen years. The concept plans prepared in 2003 illustrated trail connections, park amenities and suitable locations for key features along the Sturgeon River corridor and adjacent to Big Lake. The overarching objective of this 2018 Update was to create a clear vision for future park development through an innovative, user friendly and achievable RWPW Master Plan document that can provide guidance to the City for the next 15-20 years. The Red Willow Park West Master Plan Update will also establish an implementation strategy, development priorities and management guidelines for the master plan area.

1.2.1 Study Area

As illustrated on Figure 1.1, the study area for the current RWPW Master Plan Update is similar to the 2003 study area, but there are a few key differences. In 2003, the study area of 2,277 hectares focused on the Sturgeon River corridor from downtown to the shorelands of the eastern portion of Big Lake. As the study proceeded, the 2003 study area expanded to include the entire eastern half of Big Lake. The study area for this current RWPW Master Plan Update totals only 842 hectares as it is focused only on the lands directly adjacent to the Sturgeon River and Carrot Creek, and the north and east shores of Big Lake (ie. not all lands around the lake).

The study area is defined by three significant geographic features – Big Lake, Sturgeon River and Carrot Creek; a major road right of way (Ray Gibbon Drive); and the Lois Hole Centennial Provincial Park (LHCPP). Each of these features are major influences to the planning and development of the future RWPW. The study area has also been divided up into four key geographic areas: Meadowview / Riel, North Big Lake, South Big Lake, and the Carrot Creek Greenway

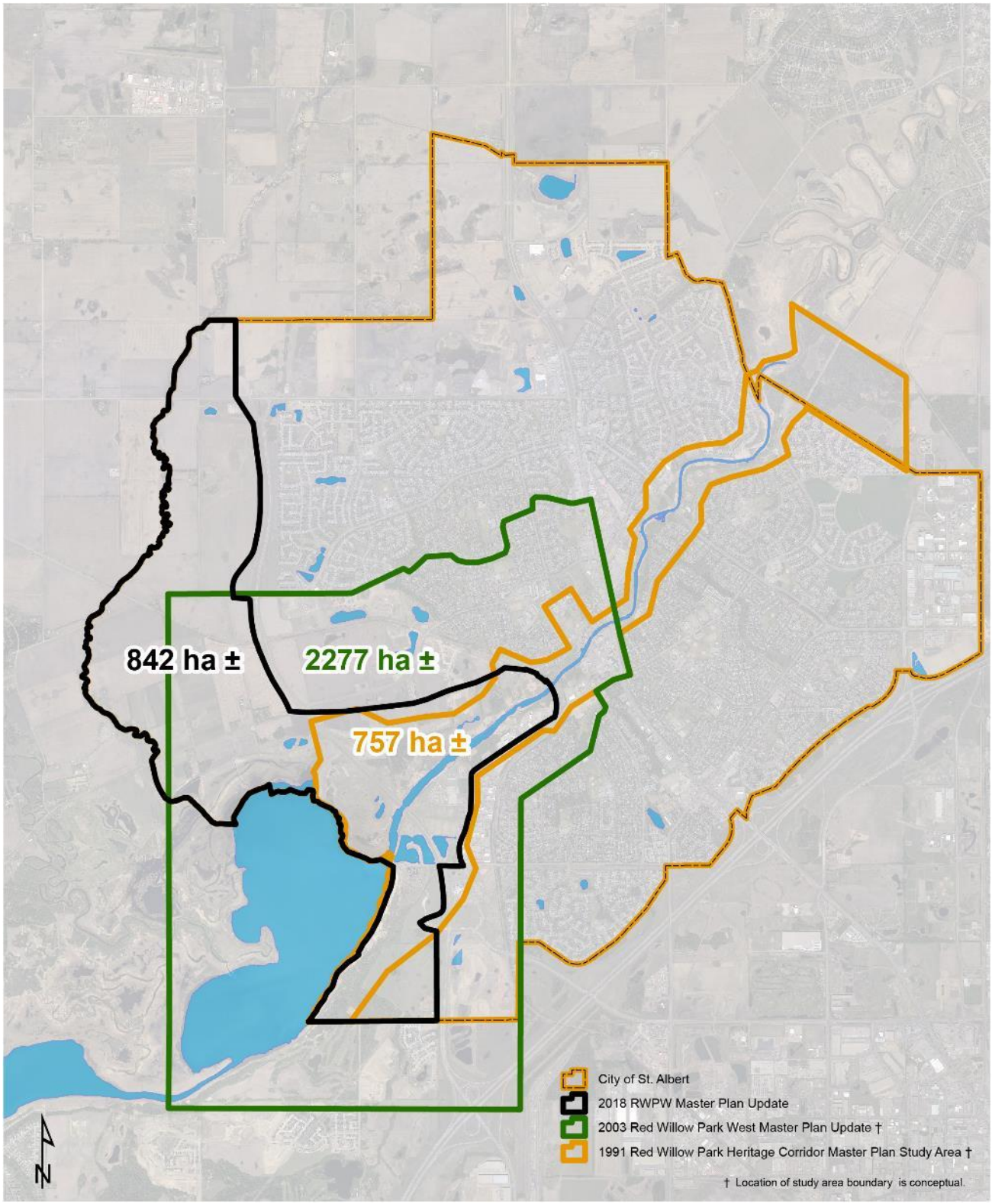


Figure 1.1: Study Area

1.2.2 Study Process

The study included four phases of work, each with a number of tasks as illustrated in Figure 1.2:

- **Setting the Stage:** this phase focused preparation of a planning background summary report and an inventory update for the entire master plan area – See Section 2.0 for a summary of this work.
- **Outreach:** this phase included the preparation of a community engagement strategy and then the design and implementation of a comprehensive community engagement program as detailed in Section 1.2.3. The *RWPW Master Plan Update – Community Engagement Summary (July 2017)* detailing the strategy and summaries of all the engagement feedback can be found in another report.
- **Draft Master Plan Report:** this phase focused on the preparation of the preliminary concept plans for RWPW and the review and refinement of these plans through engagement with internal and external stakeholders and the public. As the concept plans evolved, the initial draft report was prepared.
- **Final Master Plan Report:** this phase focused on finalizing the concept plans and the preparation of management guidelines and an implementation plan to support the long term development and management of RWPW.

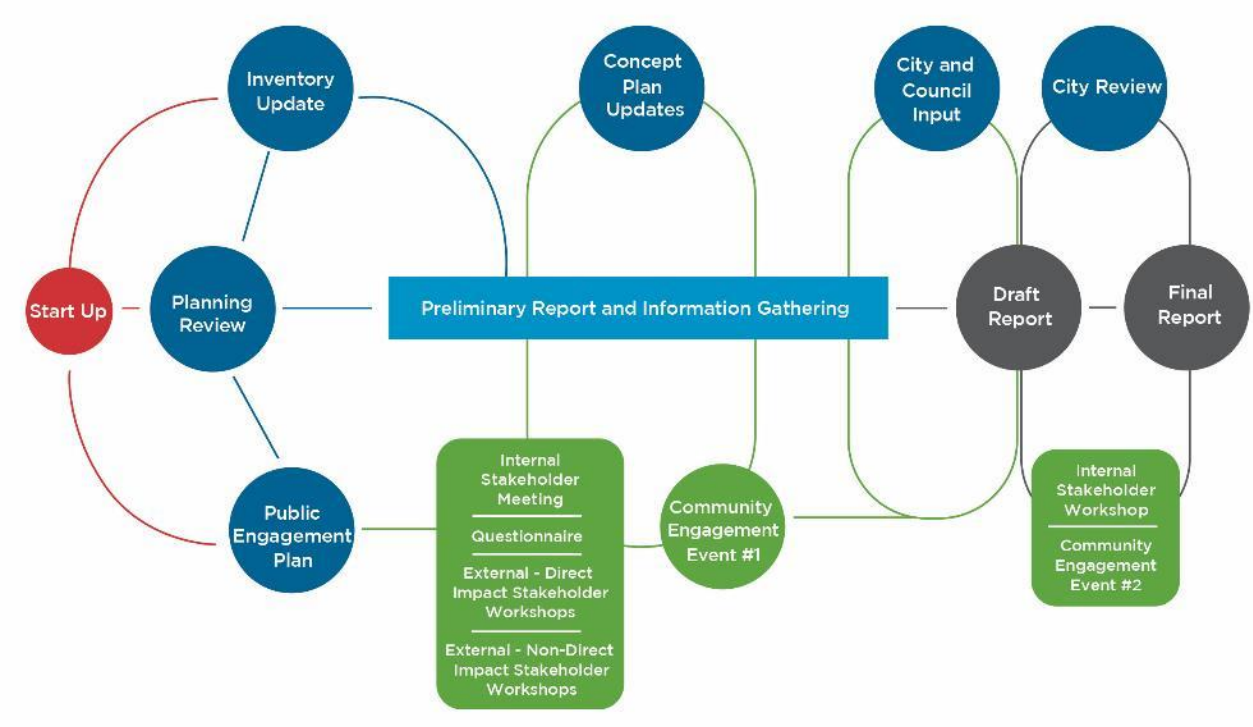


Figure 1.2: Study Process

1.2.3 Community Engagement Strategy

A key aspect of the study process was the community engagement strategy to ensure that all those stakeholders and residents who had a vested interest in the long term development and management of RWPW would have a chance to provide their input and ideas into the master plan update. The following objectives provided guidance to the community engagement process and public communications throughout the project:

- Implement a transparent process that clearly identifies how and where stakeholder feedback is incorporated.
- Ensure a broad reach with multiple opportunities and alternative methods of reaching the community.
- Inclusive and diverse dialogue opportunities for a wide range of residents, key stakeholder groups and organizations.
- To define and communicate clear and concise project objectives.
- To prepare accurate and transparent engagement summaries.
- To provide a fun and friendly environment to engage the community.

The Community Engagement strategy included the following three main activities:

1. **Strategy and Background Review**
   This activity involved finalizing the strategy and stakeholder mapping; initial meetings with internal stakeholders and interviews with external stakeholders; and the review and summary of community engagement work previously completed by the City for related projects.
2. **Community Engagement Event #1**
   This was a facilitated one-day event and online engagement (as illustrated below) that provided an opportunity for internal stakeholders (morning), external stakeholders (afternoon) and the public (evening) to affirm the master plan vision and principles; to learn about and provide input into the project context, background, and purpose; and to provide feedback on the preliminary concept plans.
3. **Community Engagement Event #2**
   This facilitated one-day event and online engagement event provided an opportunity for internal stakeholders, external stakeholders and the public to review and provide feedback on the final draft concepts and overall development program for RWPW.



Online Engagement Page.

2.0
BACKGROUND

2.1 Planning Background Summary

This section contains a summary of the finding and implications of the background research completed by the project team as a foundation for preparing the master plan update. For details on the work completed and findings for each subsection, the reader should refer to the Red Willow Park West Master Plan Update – Planning Background Summary and Inventory Update Report (December 2017), which is provided as a separate report.

2.1.1 Policy Framework

The planning policy framework in the City of St. Albert supports the RWPW Master Plan Update. Since 2003, there has been significant residential growth and subsequent changes to the City's policy framework. Most notably is the 2010 Capital Region Growth Plan and the 2016 Edmonton Metropolitan Region Growth Plan (EMRGP). The City updated their Municipal Development Plan (MDP) in 2012 to reflect the direction of the 2010 Capital Regional Growth Plan. In 2018 the City began creating a new MDP which will reflect the new EMRGP objectives and policy.

A guiding principle states that "St. Albert parks and trails system is important and should be conserved and protected for future generations." The central focus of the parks system in the MDP for Red Willow Park is the 15 kilometres of trails along the Sturgeon River from River Lot 56 to Lois Hole Provincial Park. This central natural and trail corridor also provides a connection to the City's neighbourhoods. There are currently over 95 kilometres of trails throughout the City. Updating the RWPW Master Plan will involve linking the MDP policy areas and land uses for parks, recreation and schools, environmental management; as well as intermunicipal and regional cooperation and planning to ensure the RWPW Master Plan Update aligns with the MDP goals and objectives.

Also of significance is the adoption of the statutory plans of the Riverside ASP (2012) which is the developing neighborhood adjacent to the Meadowview area within RWPW, and the Range Road 260 ASP's (2014) which form the future neighborhoods within the Carrot Creek Greenway. Both plans incorporate the direction and land use objectives of the 2003 RWPW Master Plan, which is evident through the implementation of setbacks, and the linkages to parks and open space within the plan areas. In context of the City's policy framework, the RWPW Master Plan update must consider the increase in residential density applied to future development within these new development areas, and therefore a larger population of users will live within close proximity to RWPW.

2.1.2 Demographics

St. Albert's population is characterized by an active aging population combined with a mix of younger families anticipated in developing communities such as Riverside and South Riel adjacent to the RWPW study area (See Figure 2.1). Future connections to trail activities, enjoyment of nature, family outings, and recreational activities need to be supported in the plans and recommendations of this Master Plan Update. Additional amenities and open space linkages to downtown will also need to complement the aging in place of seniors in mature and established neighbourhoods. Ensuring a continuous link of green spaces and trails will be critical to build on the connections to downtown and nearby place making opportunities. Red Willow Park West will provide opportunities for leisure activities in a natural setting for the residents of future neighbourhoods as the City grows to the west and develops future employment lands in the Lakeview Business District.

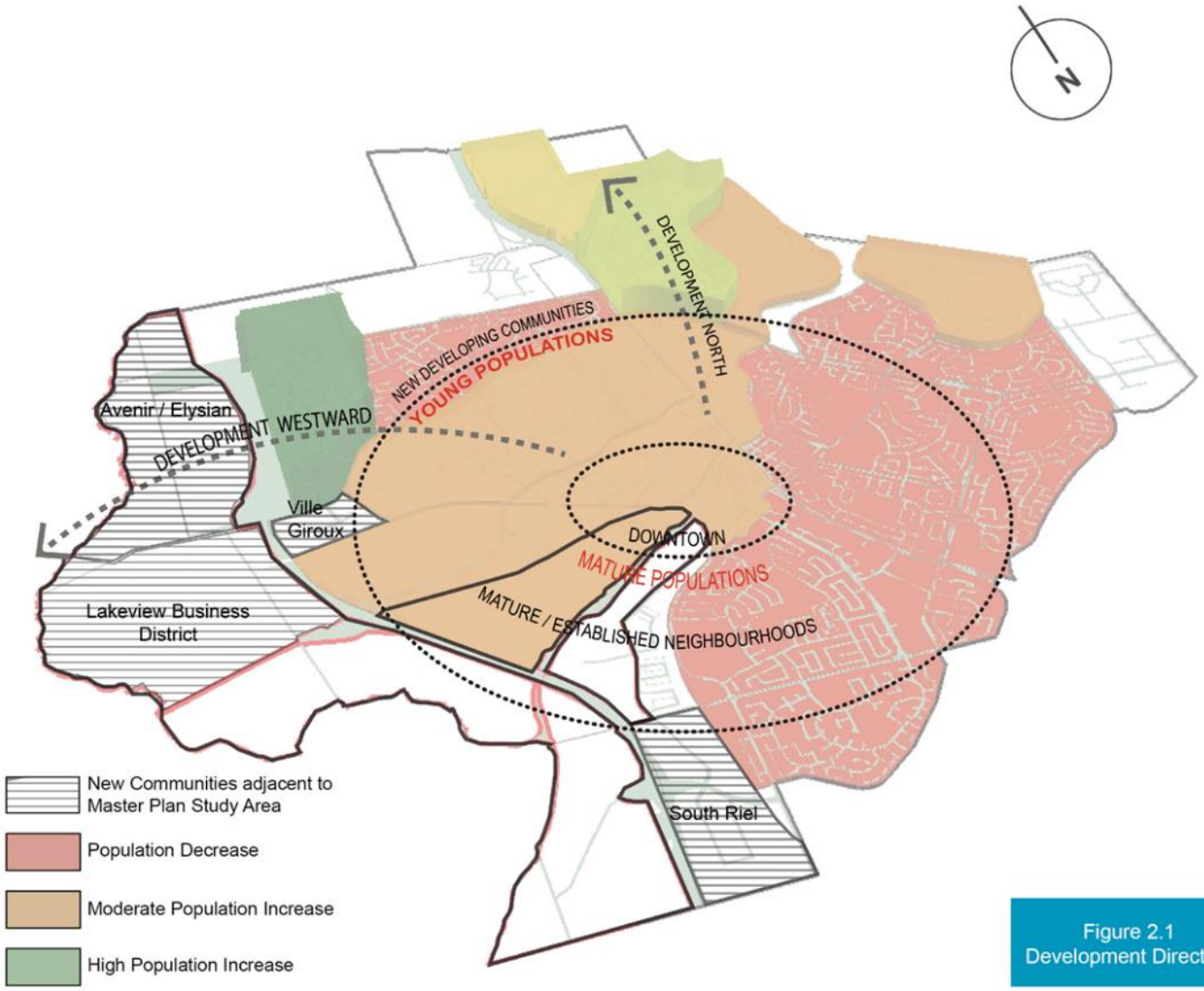


Figure 2.1
Development Direction

2.1.3 Land Ownership

As illustrated on Figure 2.2, the land base required for the development of RWPW is already partially owned by the City. The balance of land needed for the Park will be acquired largely through the land development process using statutory Environmental Reserve (ER) and Municipal Reserve (MR) dedications.

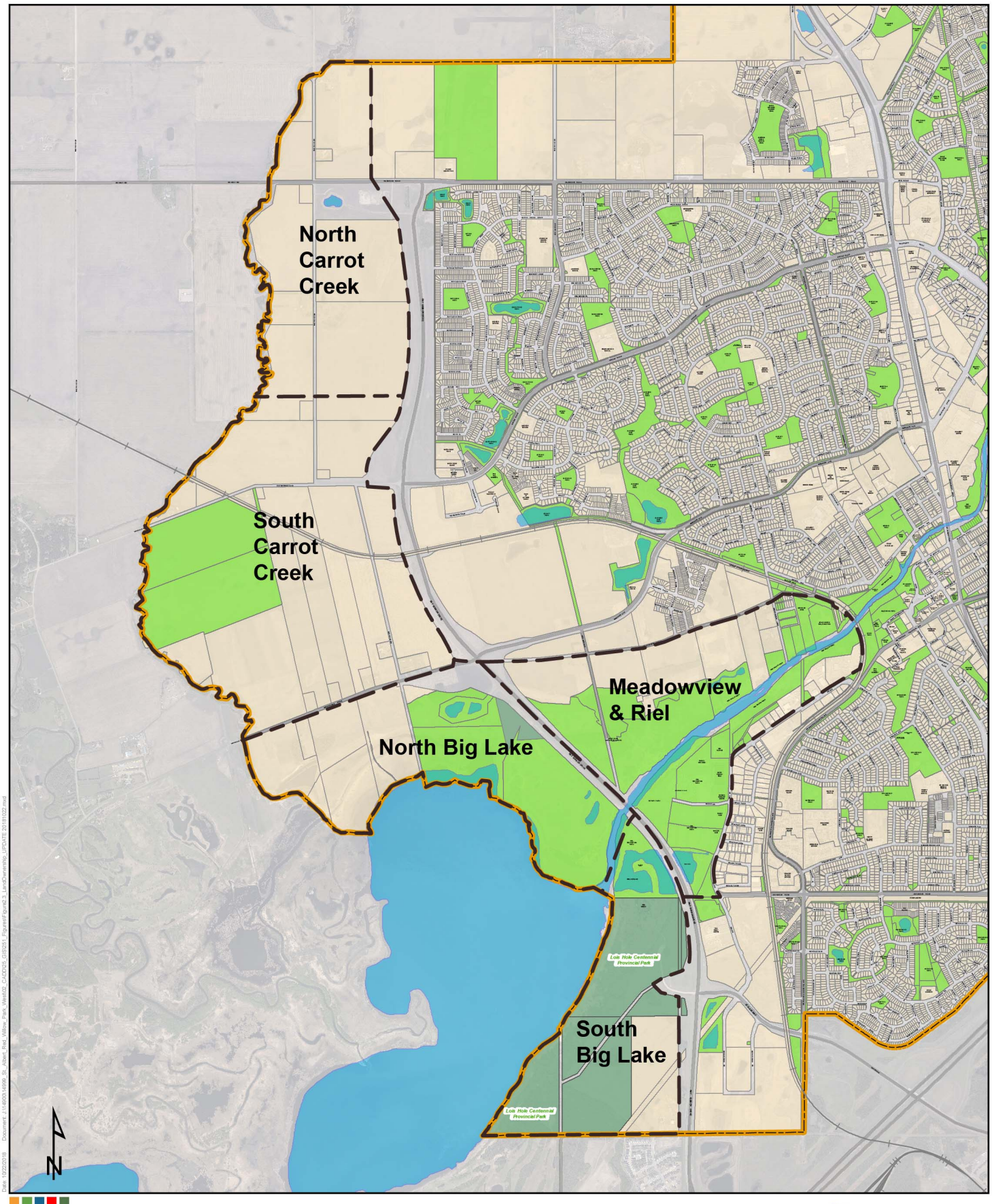
The extent of the parkland base will be negotiated with existing landowners for the major parcels of land in the Carrot Creek Greenway and Meadowview areas during the Area Structure Plan (ASP) approval process and at the time of subdivision and development. The City may potentially negotiate the dedication of land for the park at the ASP approval stage for new ASPs, such as the Lakeview Business District.

2.1.4 Land Use

Since the 2000's, St. Albert has experienced a steady increase in the City's overall development footprint with expansions in the north (Erin Ridge North, Jensen Lakes, and North Ridge Phase 2), northwest (Riverside, Ville Giroux, Avenir, Elysian Fields, Lakeview Business District), and south (South Riel).

Planned development from the Range Road 260 ASP including the future neighbourhood of Avenir, is projected to add an additional 82 ha of developable land, while adding an estimated population of 3,100 residents. In addition, the Elysian Fields neighbourhood is expected to generate a population of 1,905 residents. Future lands for the Lakeview Business District (Figure 2.3) are anticipated to create an additional 249 hectares of developable land within the study area.

All these new areas for future development will influence the decisions and land use characteristics of the RWPW study area and offer opportunities to allocate reserve lands and trail alignments that integrate these developing areas with the existing and future RWPW development.



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RWPW MP Study Area
City of St. Albert
Provincial Ownership
Municipal Ownership
Private Ownership

0 0.25 0.5 1 Km

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City of St. Albert Cultivate Life

Figure 2.2:
Land Ownership

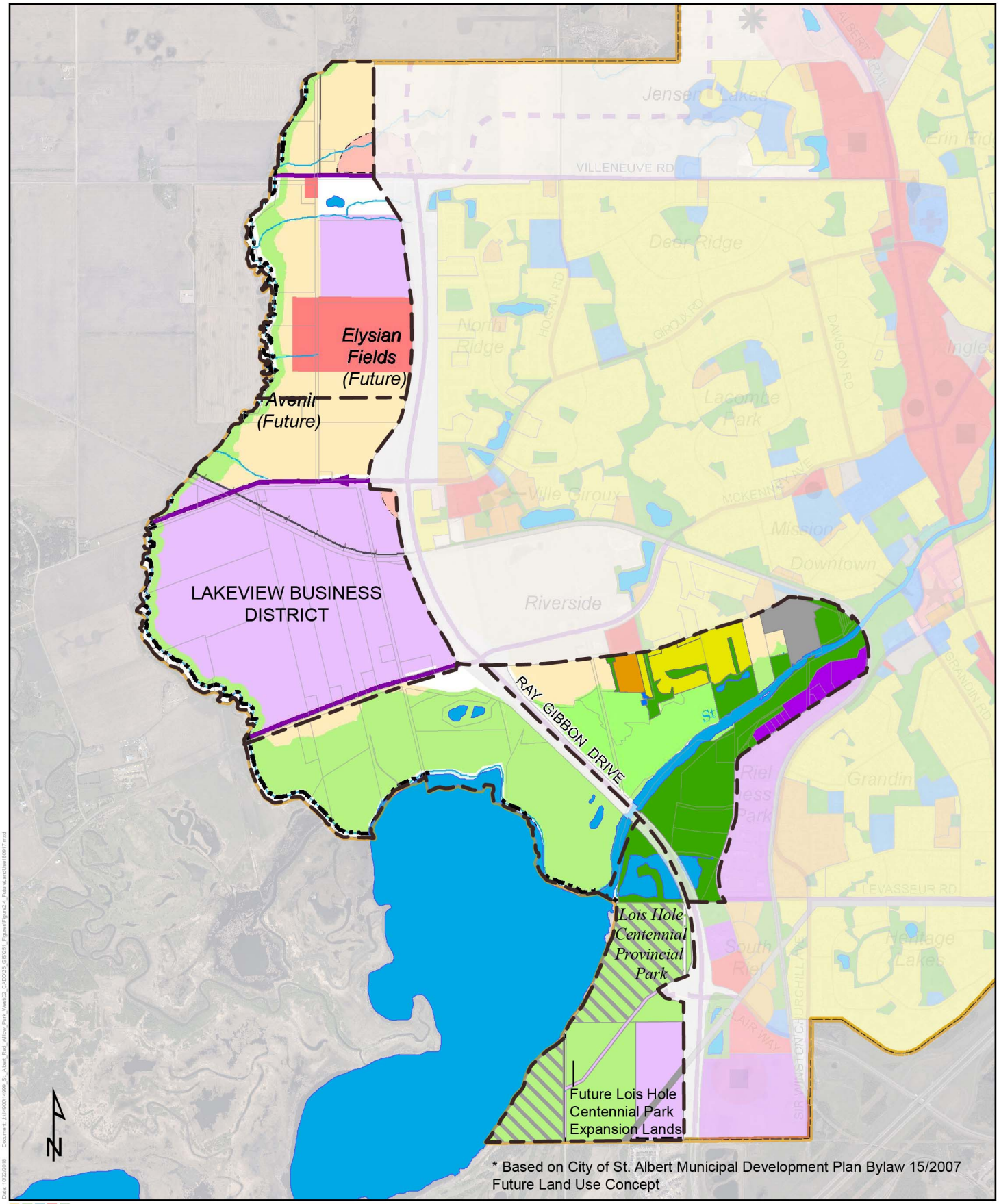


Figure 2.3:
Future Land Use

2.2 Inventory Update

This section contains a summary of the finding and implications of the inventory update completed by the project team as a foundation for preparing the master plan update. The purpose of the work was to update the inventory work completed as part of the 2003 RWPW Master Plan, as well as to create an inventory baseline for the expanded study area.

The overall goal of the inventory was to provide a clear and common picture of the current conditions within the study area with a focus on understanding what has changed since 2003. This baseline was then used to develop a list of considerations or implications for the preparation of the Master Plan. For details on the work completed and findings for each subsection, the reader should refer to the Red Willow Park West Master Plan Update – Planning Background Summary and Inventory Update Report (December 2017), which is provided as a separate report.

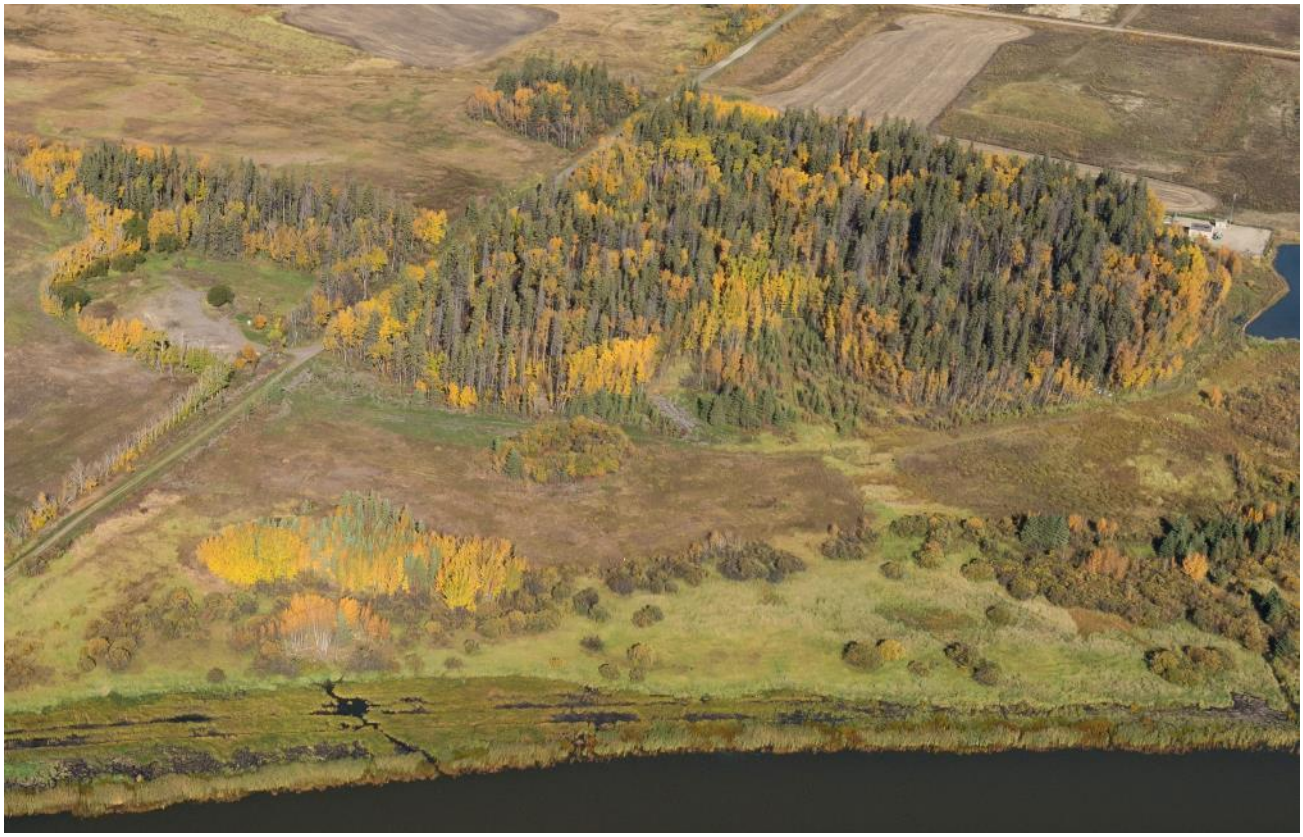
2.2.1 Natural Environment

The City, the province, naturalist groups, private developers, and others have been extensively studying and monitoring the natural environment within the study area since the 1960's. Figure 2.4 illustrates key natural environment areas as defined in previous studies and approved plans. The inventory update for this master plan has not included any additional field studies, but has been based on a desktop review of all previous studies and established regulatory standards.

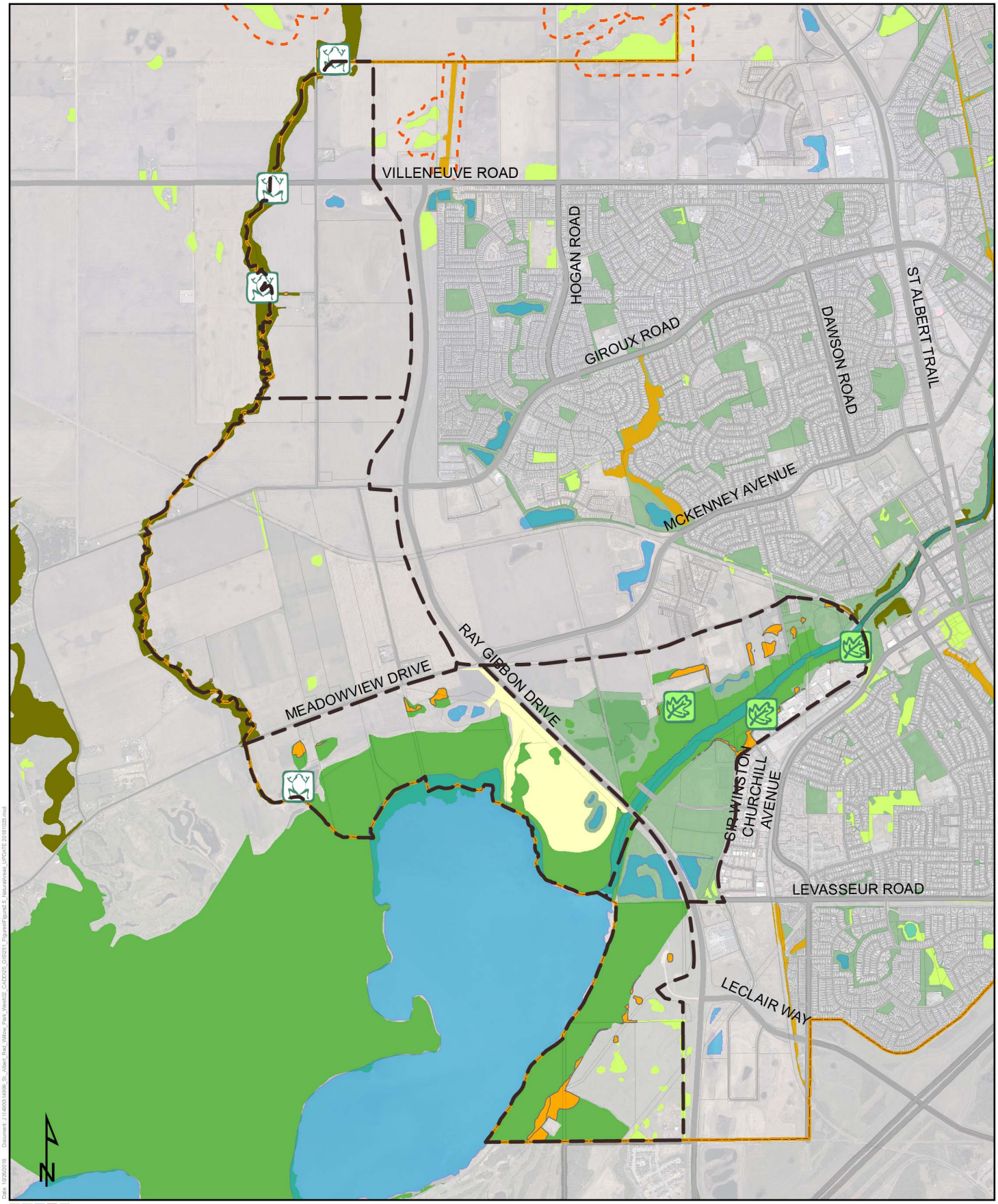
The key environmental features of RWPW are well documented and have influenced the concept plan development and the direction of this master plan. From a long term planning and implementation perspective, it is important to highlight the regulatory requirements that may affect the location and extent of features and the timing of design, approvals and construction. Beyond the standards and requirements as defined by the City of St. Albert Land Use Bylaw, Municipal Development Plan and Municipal Engineering Standards, the following Provincial and Federal standards may apply:

- ***Water Act*** – the Province owns all water resources in the province, and therefore the *Water Act* can have relevance to conservation and management of all natural areas where surface water is present within RWPW. Any activity with the potential to affect water resources may require Provincial approval.
- **Alberta Wetland Policy** – the policy prohibits unauthorized disturbance or manipulation of wetlands as the goal of the Policy is to conserve, restore, protect, and manage Alberta's wetlands. All wetlands within RWPW must be identified and delineated, classified, and assigned an ecological wetland value. Maintaining and protecting all wetlands in the study area supports the guiding principles of this master plan
- ***Public Lands Act*** – the Province owns the bed and shore of all permanent and naturally occurring bodies of water, therefore has relevance to natural area conservation and management of Big Lake, Sturgeon River, Carrot Creek and all permanent and naturally-occurring wetlands in RWPW. As planning and design proceeds, decisions regarding Crown ownership must be reached before any Water Act application submissions.
- ***Wildlife Act*** – In addition to the federal *Migratory Birds Convention Act*, birds may be protected provincially under the *Wildlife Act*. Alberta Environment and Parks (AEP) administers the *Wildlife Act*, which influences and controls human activities that may have adverse effects on wildlife or wildlife habitat. For RWPW, setbacks (of trails or recreation features) and restricted activity dates (i.e. Seasonal closures) may need to be established related to important species.
- ***Weed Control Act*** – Alberta's *Weed Control Act* aims to regulate and manage prohibited noxious weeds and designates municipalities as local authorities responsible for weed control. Through these means, this Act has direct relevance to natural area management of RWPW by the City of St. Albert.

- ***Environmental Protection and Enhancement Act (EPEA)*** – The EPEA supports the protection, enhancement and wise use of the environment. Since the Act includes measures to protect surface and ground water quality, it is relevant to natural area management and conservation in RWPW.
- ***Migratory Birds Convention Act* (*MBCA*)** – the purpose of this Act is to protect and conserve populations, individuals and nests of migratory birds. The MBCA is relevant to the management of natural areas in RWPW as it relates to active vegetation management and nesting periods that may influence both development and management of trails and facilities.
- ***Fisheries Act*** – administered by the Department of Fisheries and Oceans (DFO). The Act prohibits work or activity that results in 'serious harm' to fish or fish habitat. Accordingly, the *Fisheries Act* is relevant to construction or management activities located within Sturgeon River, Big Lake and Carrot Creek. Proponents must have a Qualified Aquatic Environmental Specialist (QAES) self–assess all proposed activities with potential to harm fish.
- ***Grey Nuns White Spruce Forest Bylaw*** – City of St. Albert Bylaw 31/2011 designates the Grey Nuns White Spruce Forest as a municipal historic resource. This bylaw ensures protection of this important resource and defers management of the forest and Municipal Reserve lands on which it is located to the approved GNWSP Management Plan. The *Guidelines for the Protection of Natural Areas in the Timberlea Neighbourhood* prepared in 2007 provided best management practices to be used during construction activities within the Riverside neighborhood to avoid or mitigate potential impacts on natural areas. This report recommends the established 50m protective buffer around the White Spruce Forest.



Grey Nuns White Spruce Park.



RWPW Master Plan Study Area
City of St. Albert
Vulnerable Natural Lands
Grey Nuns White Spruce Forest
Important Stepping Stones
Regional core Area (RCA)

Regional Ecological Corridor (REC)
Local Ecological Corridor (LEC)
Stepping Stone (SS)
Municipal Park
Toad Breeding
Rare Plants

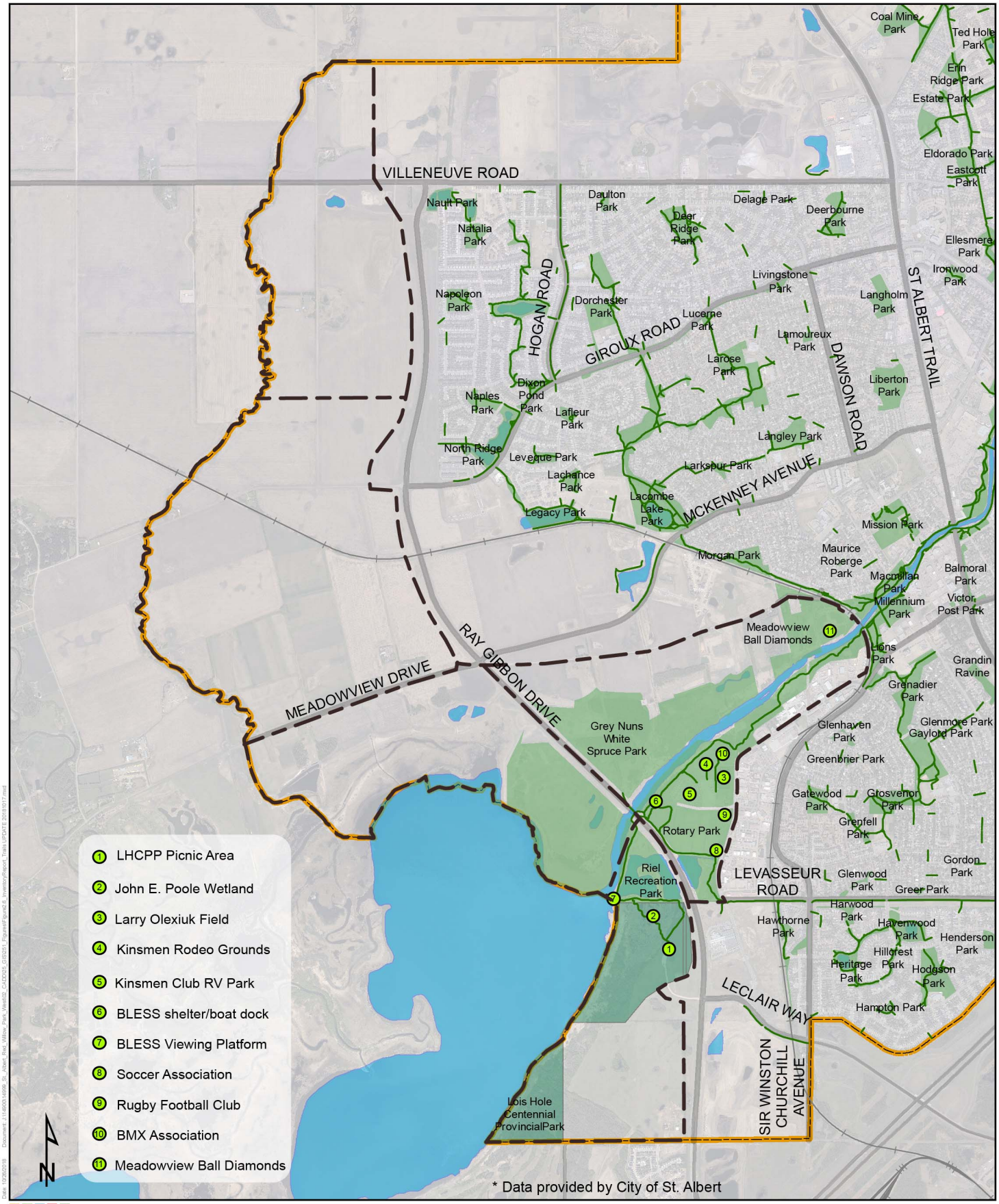
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0 0.25 0.5 1 Km

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Figure 2.4:
Natural Areas



Recreation Facility
Existing Trail
Arterial
Provincial Park
Municipal Park
City of St. Albert

ISL Engineering and Land Services

0 135270 540 810 1,080 Meters

CANA83-3TM114 1:35,000

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Figure 2.5:
Trails and Facilities

2.2.2 Trails and Recreation

As illustrated on Figure 2.5, there are already a number of well-used trails within and adjacent to the study area that are part of the Red Willow Park trail network. An overarching goal will be to create a connected trail network throughout RWPW including functional trail loops at various distances and through different environments to enhance user experience. The existing and future trails will also support and align with the City's Active Transportation Plan which is currently being prepared. There are also informal trails throughout the study area that are used year-round. Some of these trails may be formalized as part of the master plan update, and there may be some that are proposed for closure as part of future natural area management. See Section 3.2.4 for information on the proposed trails.

Riel Recreation Park provides a broad range of sports and recreation facilities that will not need to be replicated in other locations within RWPW. The provision of existing facilities will support development objectives of providing existing recreation within RWPW while expanding opportunities for outdoor pursuits in a natural setting.

Within the boundaries of the LHCPP are a few other important community facilities that are already connected to existing Red Willow Park trails including the BLESS Viewing Platform and the John E. Poole Wetland Interpretive Site. In addition, there is the LHCPP picnic area complete with shelter, vault toilets, parking area and access from LeClair Way. These existing facilities and the potential future development in this area as defined in the LHCPP Management Plan, create a great framework for an interface between RWPW and LHCPP and a great opportunity for collaboration (See Section 3.3.2).



BLESS Platform and John E. Poole Wetland Interpretive Site.

2.2.3 Hydrology



Big Lake and Sturgeon River.

The City, the Province, private developers, and others have been studying and monitoring the hydrology within the study area since the 1960's. Standards and guidelines for development are well defined through the City of St. Albert Municipal Development Plan, Land Use Bylaw, and Municipal Engineering Standards and there are Provincial and Federal requirements that will protect the water resources in RWPW through specific requirements and limitations on development and stormwater management. As it relates to recreational and trail development there are a few key considerations that have guided the preparation of concept plans:

- Development within the floodplain will be restricted but should allow the development of park related amenities (e.g. parking, picnic shelters) through formal approvals and with the use of special construction measures when required and where feasible.
- Carrot Creek environmental reserve and 50m setback must be respected.
- The staging of proposed storm trunk parallel to Carrot Creek may influence the timing and location of trails and amenities.
- Water modelling for stormwater will be of benefit in determining locations of features and opportunities for restoration.
- Trails developed below the designated flood line may require special construction measures.
- Trails that parallel the river and creek must not negatively affect the flow of surface drainage and construction measures such as culverts may be required to facilitate trail construction.

2.2.4 Transportation



Ray Gibbon Drive.

The key transportation feature within the study area is Ray Gibbon Drive (RGD), which connects Anthony Henday Drive to Villeneuve Road. The proposed long term development of the road including width and design speed was being evaluated during the preparation of this plan, with a range of potential implications on RWPW. Some of the implications include:

- The potential for current intersections to be replaced with interchanges with specific pedestrian/cycling accommodation to allow improved crossing of the corridor.
- The existing RGD Bridge over the Sturgeon River will be doubled in the future and the pedestrian/cycling accommodation under and over the bridge will need to be evaluated depending on the final road design. A new stand-alone pedestrian bridge(s) may be required.
- There will continue to be no direct access off RGB to RWPW facilities or areas, and so access to destination parking will have to be developed off the east/west roads (e.g., Giroux or Villeneuve Road).
- Limited trails have been built on the east side of RGD but there will be connections across RGD at the intersections/interchanges and across the river.
- As part of the original approval of RGD, the speed limit shall not exceed 70km/h between Leclair Way and McKenney Avenue because of the importance of this area as a wildlife corridor.
- It has yet to be determined if RWPW trails can be built within the road right-of-way. Trails paralleling the road would increase the trail network ‘loop’ opportunities.
- Planning projects are completed for LeClair Way/137 Avenue west of Ray Gibbon Drive; and Meadowview Drive west of Carrot Creek
- A Functional Plan is being completed for Fowler Way, which may shift the RGD and Villeneuve Road interchange to the north.

2.2.5 Heritage Resources

There are several heritage resources in the study area that are of note in considering opportunities for heritage interpretation as a comprehensive program opportunity within RWPW. Each of these heritage resource locations will serve as destination sites that will draw visitors into RWPW and could be part of an integrated natural and heritage interpretive program connected by the trail network:

- **St. Albert Heritage Site** – the Heritage Site Functional Plan (ISL, 2010) was prepared to provide a comprehensive restoration, design, and interpretive programming strategy for an integrated heritage site developed around the Grain Elevators and River Lots 23 and 24. Since the plan was approved, significant progress has been made on implementing the various components of the plan. Future work on the site is defined in several Capital Project Charters.
- **Founders Walk** – the proposed concept plan for Phase 3 of Founders Walk, which encompasses Perron Bridge to the Children's Bridge, includes several interpretive nodes. RWPW should align with this plan to create trail connectivity.
- **Grey Nuns White Spruce Park (GNWSP)** – the GNWSP Management Plan draft provides a framework for the management and future development of the GNWSP. The plan also highlights the location of several notable historic resources that could be included as part of an overall interpretive program that links RWPW with GNWSP for users. These could include the River Lot system, the Rounault Farm, Grey Nuns, and the St. Albert Tree Nursery.
- **Lois Hole Centennial Provincial Park (LHCPP)** – the LHCPP Management Plan provides a framework for the management and future development of the Park that will complement the development principles of the RWPW Master Plan Update. The plan also highlights the location of several notable historic resources that could be included as part of an overall interpretive program that links RWPW with LHCPP for users. The Management Plan identifies three archaeological sites that represent small ancient Indigenous campsites around the margins of Big Lake.



St. Albert Heritage Site.

3.0
MASTER PLAN UPDATE

3.1 Vision, Principles and Objectives

In addition to the guidance provided by an understanding of the existing conditions within the study area, another important framework for planning was provided by the vision, principles and objectives defined in the 2003 RWPW Master Plan *(Gibbs & Brown Landscape Architects).* The consensus of the project team was that these guiding elements still resonated, and continued to reflect and support the ongoing planning within the City and study area. The 2003 vision, principles and objectives have been maintained to guide this 2018 RWPW Master Plan Update, with slight refinements in content and terminology to reflect current planning and development conditions in the expanded study area.

3.1.1 Vision

The vision for Red Willow Park West is that it will be a multi-faceted open space resource for St. Albert, which serves as a portal onto Big Lake and Lois Hole Centennial Provincial Park (LHCPP). The components of the vision include:

- **Environmental Protection** – of Big Lake, Sturgeon River, Carrot Creek and the lands adjacent to them as important environmental resources.
- **Heritage Interpretation/Education** – RWPW is a living museum to be conserved, enhanced and interpreted.
- **Trails & Open Spaces** – it is a destination for outdoor pursuits in a natural setting with a focus on passive recreation amenities.
- **Community & Economic Development** – RWPW is an indirect source of economic health through promotion of quality lifestyle.
- **Big Lake and LHCPP** – are regional resources, which are managed cooperatively with RWPW under a common set of management principles between the City, Province and other regulatory authorities.

3.1.2 Guiding Principles

The combination of written principles and conceptual plans convey the intent of the master plan. Where RWPW interfaces with the Big Lake Natural Area (now the LHCPP), the management principles and guidelines should be harmonized through:

- **Ecological Integrity** – managed to conserve environmental biodiversity and ecological integrity.
- **Ecosystem Management** – management will recognize that it is part of a larger ecosystem/watershed.
- **Integration** – future land use decisions will strive to integrate conservation, outdoor recreation, tourism and heritage appreciation.
- **Shared Stewardship** – through partnerships private sector, land owners, other governments, not for profit groups and individual citizens.

3.1.3 Development Objectives

The principal objectives of RWPW are to:

- Protect, conserve and manage the Big Lake, Sturgeon River and Carrot Creek natural environment.
- Present and interpret the park's natural and cultural heritage.
- Maintain existing recreation while expanding opportunities for outdoor pursuits in a natural setting and in particular to provide an interconnected trail system.
- Contribute to community economic health through the promotion of a quality community lifestyle and the promotion of its capability for environmentally sensitive ecological and cultural tourism.

3.1.4 Community Engagement Summary

As indicated previously, for the complete summary of all of the community engagement input and results, readers can refer to the *RWPW Master Plan Update – Community Engagement Summary (July 2017).* The following is a list of the stakeholders that were invited to participate during the project either through interviews, stakeholder meetings or the Community Engagement Events.

Internal Stakeholders	External Stakeholders	Public and Invited Stakeholders
• Economic Development • Corporate Communications • Cultural Services • Fire Services • RCMP • Municipal Enforcement • Engineering and Development Engineering • Planning and Development • Environment • Public Works • Utilities • Transit • Community and Social Development • Recreation and Parks	• Arts and Heritage Foundation • ATCO • CN Rail • Alberta Parks • Developers • Private Landowners • St. Albert Men's Slow Pitch • Grey Nuns White Spruce Park Advisory Group • Big Lake Environmental Support Society (BLESS) • The Enjoy Centre and the Hole Family • Sturgeon County • NAIT	• General Community • Sturgeon River Watershed Alliance • St. Albert Lions Service Club • St. Albert Kinsmen Club • St. Albert Rotary Club • Ducks Unlimited • St. Albert Canoe and Kayak Club • St. Albert Nordic Ski Club • All St. Albert Community and Sport Groups • School Groups • Seniors Groups

The following is a summary of the key themes that were gathered throughout the study during the various community engagement activities.

Environment

There was strong support for the protection and management of the natural resources of RWPW, balanced with recreational access for enjoyment, appreciation and education:

- Concerns that the level of access illustrated in the draft concepts was counter to guiding principles.
- Concerns about preserving critical wildlife habitat, riparian forests, ensuring excellent birding experiences.
- Suggestions of restricting access to some areas to protect sensitive ecology – specifically North Big Lake, the area east of GNWSP and the riparian zones along Carrot Creek.
- Comments concerning proposed trail alignment in sensitive areas and suggestions for alternative alignments and areas where there should be limited or no access.
- Some suggested removing granular trails entirely, others provided modifications to the proposed trail routes.
- Concerns regarding wildlife movement and in particular animal crossings of Ray Gibbon Drive – discussions of wildlife protection barriers, increased habitat patches and connections.
- Suggestions that there should be limited development in and around the GNWSP.
- Suggestions that there should be policies and procedures to manage use and visitation.
- Identification of the key sensitive areas defined through previous inventories and assessments.

Activities and Experiences

The consensus as to the activities and experiences that users of all ages and abilities would enjoy participating in as RWPW develops includes:

- **Nature** – enjoy and explore, learn about, protect and manage, bird watching.
- **Trails** – for leisure, for fitness, for active transportation.
- **Sports –** the various facilities already provided in Riel Recreation Area; no additional sports facilities in RWPW.
- **Camping** – already provided in Riel Recreation Area.
- **Family** – walks, picnic, nature appreciation.
- **Play** – nature/natural playground; child friendly interpretive areas.
- **Learn** – natural and heritage interpretation.
- **Fish** – support for designated locations, taking into account the fishing habitat.
- **Paddle** – limited launches for canoe and kayak use only; polarized views as to need and the potential impacts on habitats of Sturgeon River and Big Lake.
- **Waters edge** – access to river and lake to experience, enjoy and learn about the water and habitat; access needs to be designated to key locations and managed.
- **Winter fun** – opportunities and amenities to support and encourage winter use.
- **Dogs** – need for off-leash dog park in west end of City; need to enforce on-leash in RWPW.



Nature Play

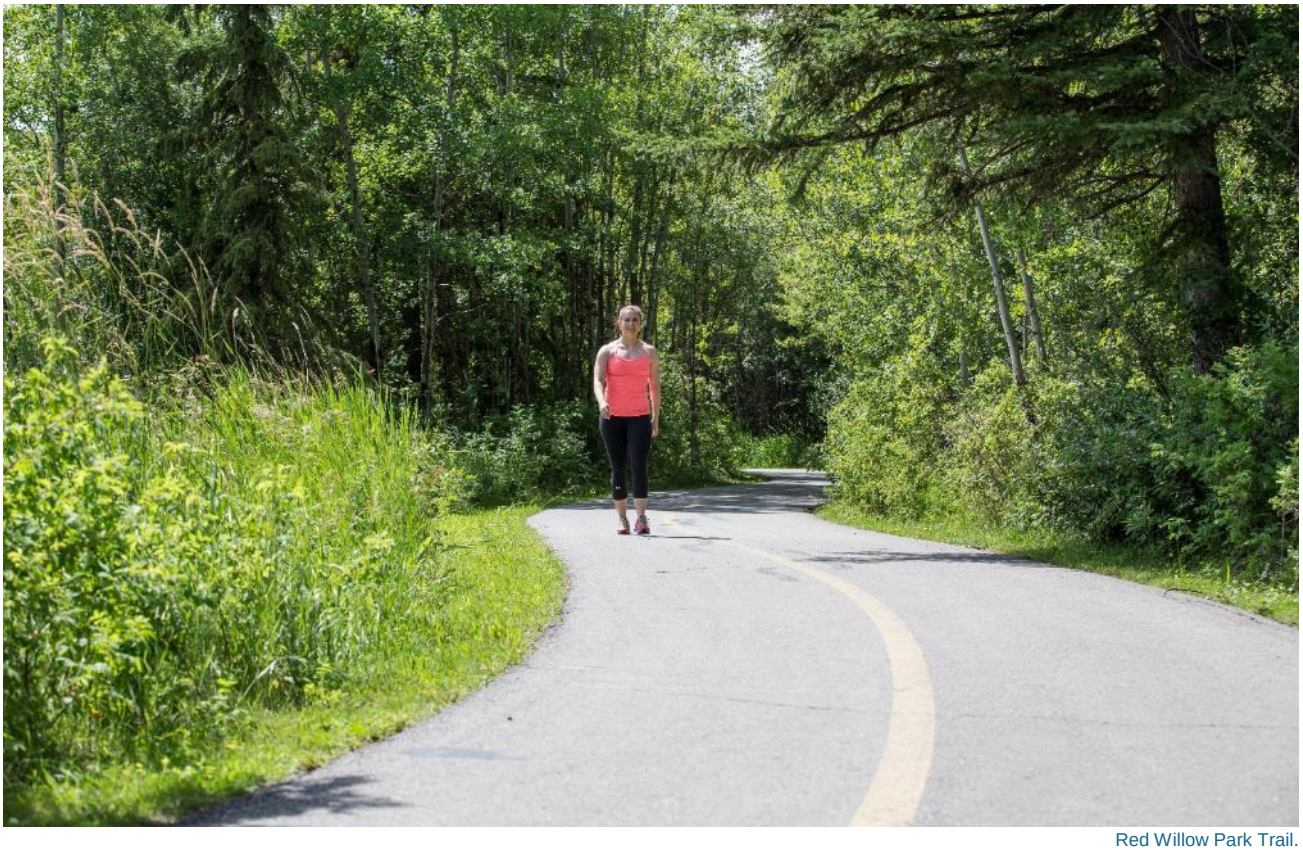


Trail Along Sturgeon River

Trails

There was strong support for the extension of the Red Willow Park trail network through RWPW with a focus on connectivity, accessibility and multi-use:

- **Connectivity** – to ensure all neighborhood links; to regional trail network plans and existing trails in City and County.
- **Trail Hierarchy** - suggestions of parallel trails for different types of users; suggestion that nature/gravel trails should not be in low, flood prone areas.
- **Transportation** - identification of the importance of planning for active transportation (commuting) and the trends toward complete streets (City developing both Active Transportation and Complete Streets Plans).
- **Accessibility** – Accessibility and inclusivity for all ages and abilities; 2018 completion of accessibility guidelines.
- **Viewpoints** – supported but some concerns about the number of proposed locations and the potential impacts; suggestion that viewpoints be set further back from bed and shore and the riparian habitats.
- **Intersections** – the importance of properly designed and safe trail/road intersections.
- **Pedestrian Bridges** – overall support for pedestrian bridges and connectivity; mixed response as to which proposed location was preferred (as illustrated preliminary concept plans); general consensus on not over-building and considering a balance between capital cost and overall benefit.



Red Willow Park Trail.

Education and Interpretation

The community feedback on this theme focused on three topics – wayfinding, interpretation and management:

- **Wayfinding** – to encourage use and support connectivity there were many suggestions on the use of wayfinding signage and maps throughout RWPW.
- **Interpretation** – identification of specific locations and features suitable for interpretation; suggestion that river lot lines be marked along the trails.
- **Management** – consensus that signage, controls measures (e.g. Gates) and active management (enforcement) will be needed to guide and encourage proper user behaviour particularly as it relates the protection of sensitive natural areas.

Key Geographic Areas

For the key geographic areas, there were good suggestions on approaches to developing and managing each area to support the balance between the protection of natural areas and access for outdoor recreation:

1. **Meadowview/Riel** – the river's edge (riparian) is an important natural area and should be protected with minimal trail access; concerns about the lack of current access to the river for Riverside residents and the importance of easy and multiple access points to the trail system; support for proposed pedestrian bridge linking Meadowview and Riel – concerns over potential impacts on wildlife corridor and the regulatory approvals and cost.
2. **South Big Lake** – suggestion to add a walking trail and small pedestrian connection across Nadeau Pond/Elke Point; concerns regarding informal trails becoming heavily used by pedestrians and mountain bike users and the potential damage to forest and habitat; concerns regarding lack of pedestrian connectivity across Ray Gibbon Drive.
3. **North Big Lake** – concerns about boardwalks, viewpoints, gravel trails and the potential impacts on sensitive upland and riparian areas which are important to wildlife and bird habitat; management of this area will directly affect the sustainability of Big Lake and the Important Bird Area designation; Province wants to work collaboratively to support the nature based recreation while mitigating risks to the significant ecological values; concern that the area is too windy and exposed for some forms of recreation.
4. **Carrot Creek** – suggestions that there needs to be the right balance in terms of what is approved as municipal reserve rather then Environmental Reserve (ER) within the corridor; concerns about allowing Stormwater Management facilities within the ER; suggestions that the future Lakeview Business Park should be more of a campus that a light industrial park, as it is important to maintain the view of lake and Provincial Park.

3.2 Master Plan Overview

As per the vision defined in the 2003 plan, Red Willow Park West will be a multi-faceted open space resource for St. Albert, which serves as a portal onto Big Lake and Lois Hole Centennial Provincial Park. It will also serve to provide access along Carrot Creek creating a natural and recreational corridor for future residents of west and north St. Albert. This important resource will be developed with a focus on protecting the natural environment, while creating opportunities for recreation in a variety of natural settings, through the development of an interconnected trail network (Figure 3.0). RWPW will be defined by the key geographic areas as described in Section 3.3. Within each area, five main components will support and contribute to the experiences that people will enjoy in RWPW in the future:

1. **Natural Environment** – the protection, conservation, enhancement, management and interpretation of the extensive natural resources of RWPW. Concept plans have been developed based on an approach of utilizing existing disturbed areas for trails and park destinations so as to minimize disturbance of natural areas.
2. **Trails** – as the primary developed component, multi-use and nature trails will provide access and connectivity throughout RWPW, across the City and to neighboring municipalities.
3. **Park Destinations** – several new park destinations will be created that will serve as locations for citizens and visitors to get access to RWPW and a range of amenities to support outdoor recreation and access to nature.
4. **Recreation and amenities** – there will be a range of low impact recreational features and amenities developed throughout RWPW to support user experience and enjoyment.
5. **Education and Interpretation** – user experience will be heightened by a comprehensive program of natural and heritage interpretation that connects multiple interpretive storylines across the heritage facilities and sites within RWPW.



Sturgeon River in RWPW.

It is important to note that there some elements proposed in 2003 such as a nature centre and canoe/kayak facility that are not included in this update as they were no longer deemed to be required or a fit within RWPW. The nature centre concept was not included as it replicated the Environmental Learning Centre that is proposed in the Lois Hole Centennial Provincial Park Management Plan. A major flat water canoe/kayak facility was deemed not to be a fit due to the Provinces desire to limit boat use on Big Lake and potential impacts to upland areas in the north Big Lake area.

3.2.1 Natural Environment

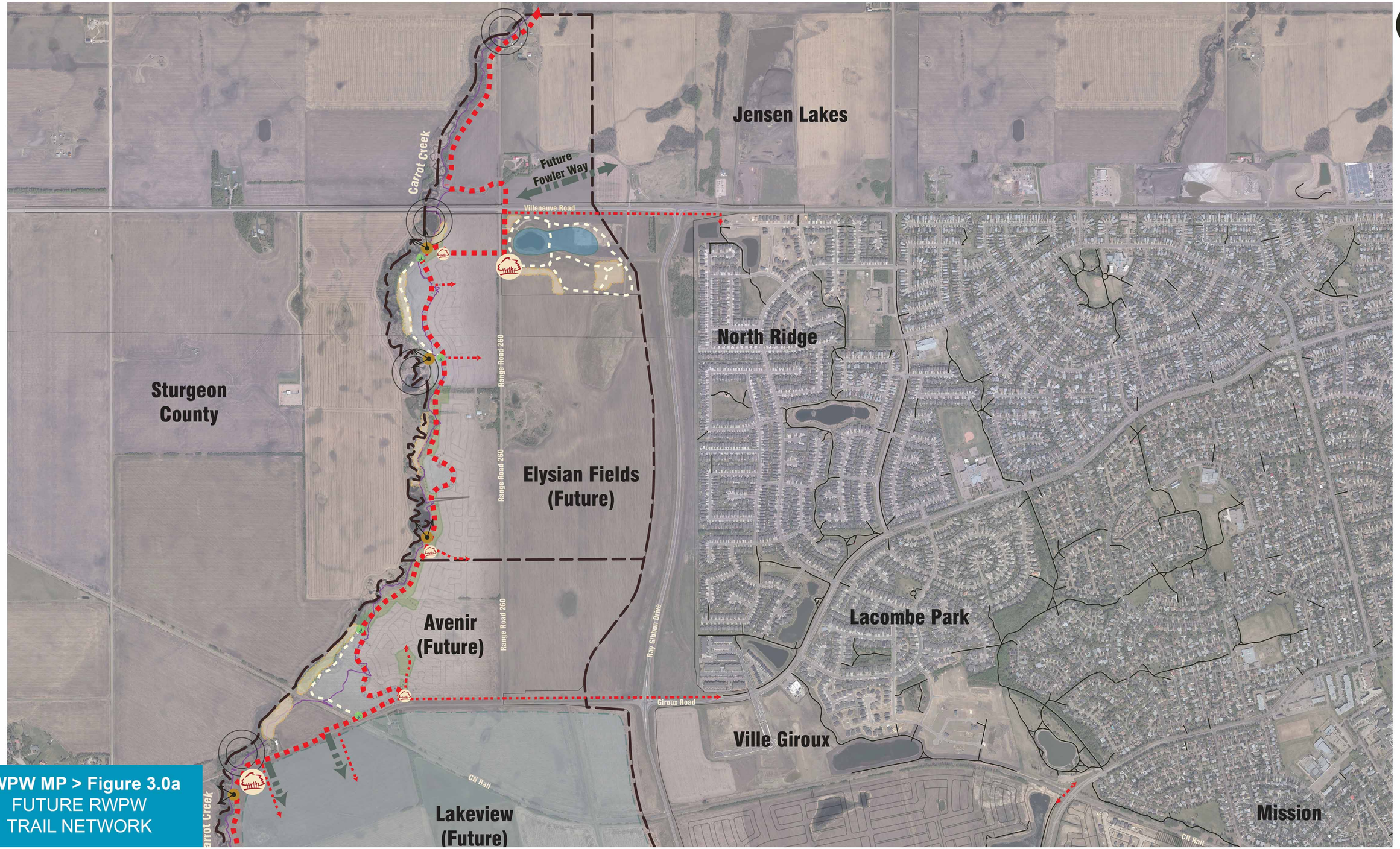
As indicated, the natural environmental features of RWPW have been well documented through numerous studies and reports as summarized in the inventory update of this master plan. The vision, guiding principles, development objectives and community engagement all provide clear direction for ensuring that future recreation in RWPW occurs without compromising the ecological integrity of any of the environmental resources. The development of the other components of the master plan will interface with the major environmental features as recommended below:

- **Sturgeon River** – to protect the riparian ecosystems and associated wildlife corridor, trails along the bed and shore will be limited.
- **GNWSP** – using the plans and strategies from the Recommended Management Plan as a guide, recreational development around and within GNWSP will be designed to clearly define the boundaries of the park, control access to the park through fencing and gateways, limit impacts through designated trails, and provide numerous educational opportunities. It is important to note that the White Spruce Forest is protected as a Municipal Historic Resource (Bylaw 31/2011).
- **Big Lake** – to protect the important ecosystems and IBA designation, recreational development around Big Lake will occur in upland areas away from the bed and shore and utilise trail controls and birdblinds at key locations to allow viewing of the lake.
- **Carrot Creek** – to protect the creek, the stream associated wetlands, and the bird and wildlife values of the corridor, trails will only be developed in the designated 50m setback. A number of sites along the creek have also been identified as being sensitive and ecologically significant. These sensitive areas have been mapped (Figure 3.0) and proposed trail development in proximity of these sites will need to be designed to ensure that there are no impacts.

In addition to the interface between natural area protection and recreational development within and adjacent to the major environmental features, the concept plans have also considered and proposed opportunities to enhance, expand and restore smaller natural features within RWPW. These natural features include small tree stands, previously disturbed lands, and clusters of important 'stepping stone' habitat patches as described in the *St. Albert Natural Area Conservation and Management Plan* (Spencer Environmental, 2015).

Potential areas for naturalization to restore and enhance these existing natural features have been illustrated on the concept plans. There are four approaches that the City can adopt to implement natural area restoration over time:

- **Capital Charters** – include allowance for naturalization/restoration as part of the capital program for each area. An allowance has been proposed as part of the capital budget for each geographic area in Section 4.2.
- **Environment** – allocate funds through Environment budget in support of Natural Areas and Urban Biodiversity objects or the tree canopy goals of the Urban Forest Management Plan.
- **Operations** – use Public Works and/or Environment budget for naturalization once RWPW capital development has occurred.
- **Stewardship Groups** – continue to use grants and other funding to support volunteer planting programs led by stewardship groups (eg. schools, scouts, guides, etc.) within RWPW.



RWPW MP > Figure 3.0a
FUTURE RWPW
TRAIL NETWORK

Concept only - Subject to change

- Proposed Multi-Use Trail
- Proposed Nature Trail
- Future Connector Pathways
- Existing Trails (outside study area)
- Proposed Road
- Designated Flood Line
- Stormwater Management
- Proposed Naturalization Area
- Proposed Park Destination
- Proposed Trail Gateway
- Proposed Nature Trail Gateway
- Proposed Viewpoint / Bird Blind
- RWPW Study Area
- Ecologically Significant and Sensitive Areas

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RWPW MP > Figure 3.0b
FUTURE RWPW TRAIL NETWORK

Concept only - Subject to change

- Proposed Multi-Use Trail
- Existing Multi-Use Trail
- Proposed Nature Trail
- Future Connector Pathways
- Existing Trails (outside study area)
- Proposed Road
- Proposed Ray Gibbon Drive Pedestrian Bridge
- Proposed Stand-Alone Pedestrian Bridge
- Stormwater Management
- Proposed Naturalization Area
- Proposed Park Destination
- Designated Flood Line
- Proposed Trail Gateway
- Proposed Nature Trail Gateway
- Proposed Key Fishing Location
- Existing Canoe / Kayak Access
- Proposed Viewpoint / Bird Blind
- RWPW Study Area

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3.2.2 Trails

As illustrated on Figure 3.0, trails will the primary developed component of RWPW and will be designed to provide access and connectivity throughout the park. Based on the concept plans, there will be a total of 15.3 km of new Red Willow Park trails and a total of 8.9 km of new nature trails. To support the trail network and enhance the experience of users, there will be a range of trail related structures and amenities as described below.

Trail Standards

Trail development will be guided by current City of St. Albert Engineering Standards and the following recommended design principles and guidelines:

- **Red Willow Park (RWP) Trails** – 3.0m wide asphalt trails that accommodate all users and provide connectivity throughout RWPW



Multi-use trail.

- **Nature Trails** – 1.5m wide granular; use of geotextile in base when developed in flood prone areas; where these trails intersect with RWPW multi-use trails, a nature trail gateway will be located. Some nature trails in GNWSP may be narrower and constructed as wood chip trails as proposed in the Management Plan
- **Boardwalks** – in low lying and very flood prone areas, boardwalks may be the most suitable approach to provide and maintain nature trail access. This can be assessed during the design stage and sections of boardwalk can be alternated with sections of granular trail.

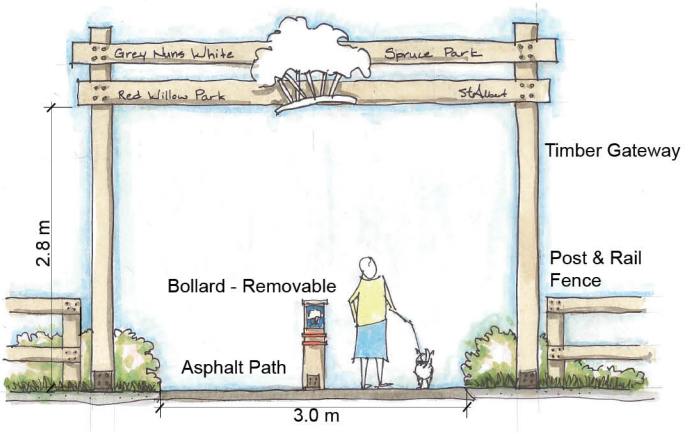


Nature Trail.

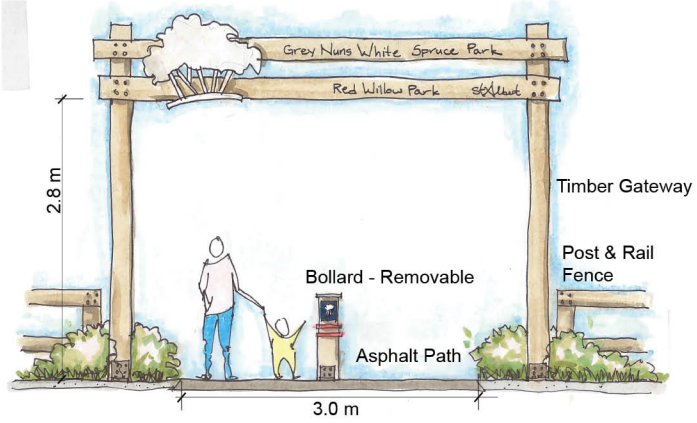
- **Connector Trails (Pathways)** – these will be separated concrete sidewalks, 3.0 m wide asphalt trails and/or dedicated bike infrastructure to ensure access to RWPW trails from adjacent neighborhoods, existing Red Willow Park trails and future City of Edmonton or Sturgeon County trails. Proposed connector trails are illustrated as on the Future RWPW Trail Network but are not part of the capital cost as they would be developed as part of future land development or transportation network projects.
- **Intersections** – where trails intersect with other trails or roads, design must focus on safety, comfort and accessibility. Design must consider the needs of all users (e.g. cyclist or family with stroller). Trail/road intersections should not occur midblock where possible.
- **Accessibility** – trails should be accessible for all ages and abilities following the recommendations of the Americans with Disabilities Act Trail development guidelines where applicable and/or the City of St. Albert 2018 Accessibility Guidelines. Nature trails that are granular can be designed, constructed and maintained to meet accessibility standards, but may not be accessible at all times (e.g. seasonally or when wet).
- **Active Transportation** – a proposed active transportation route network is included in the City of St. Albert Transportation Master Plan (2015). The network includes a number of trail routes within RWPW which are being maintained in this master plan so those key routes remain. An updated Active Transportation Plan is currently being prepared by the City.
- **Complete Streets Guidelines** – the City of St. Albert is currently developing Complete Streets Guidelines, which may propose changes in the type of bicycle infrastructure along the primary roads which cross through RWPW (e.g. Meadowview Drive and Giroux Road). This master plan recommends multi-use trails along one side of these roads as a key component of connectivity for the trail network. A combination of sidewalks and bike lanes (as currently proposed in the draft Complete Streets Guidelines) could also meet the connectivity objectives.
- **Ray Gibbon Drive** – pending final design requirements of the Ray Gibbon Drive corridor, a Complete Streets concept may be applied to an arterial roadway cross-section where as restrictions may be applied to a Highway standard design. If the roadway is constructed to an arterial cross-section standard with associated trials and landscaping, connectivity to the larger active mode network should be a consideration and objective.

Park Gateway

Elevation - Option A

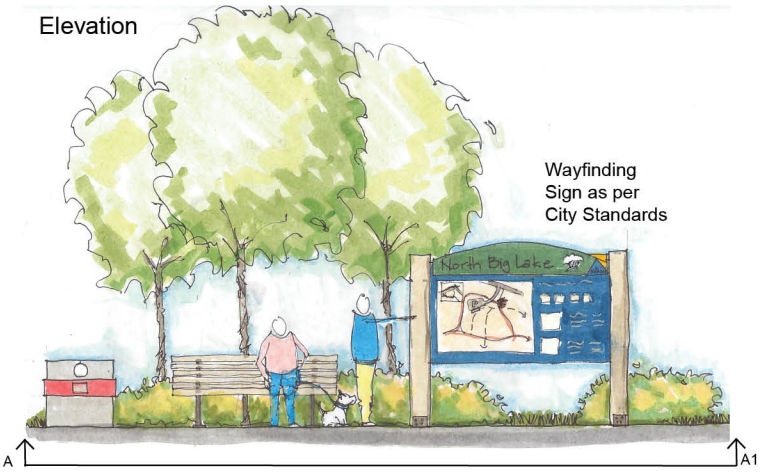


Elevation - Option B

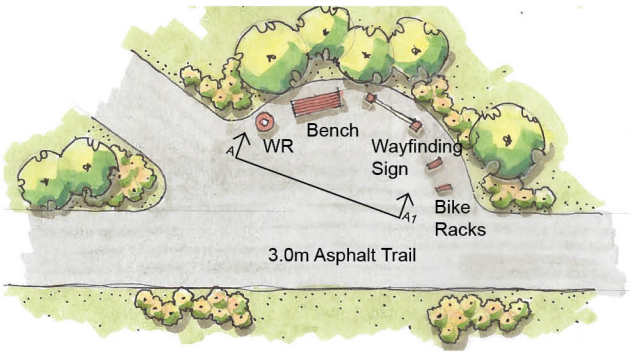


Trail Gateway

Elevation



Plan

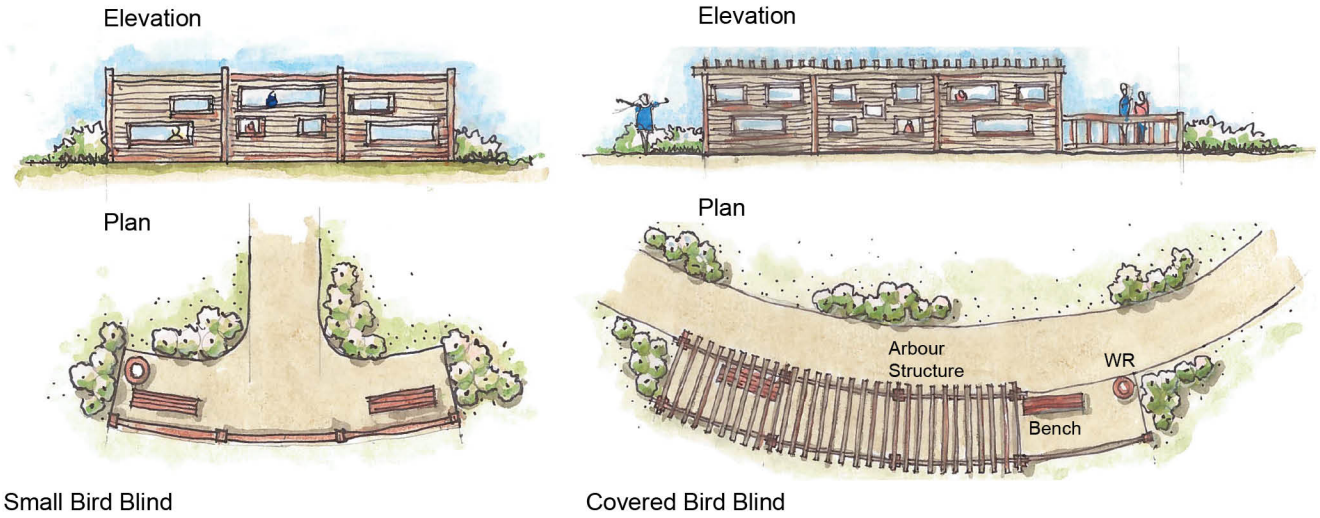


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Figure 3.1a Trail Structure Concepts

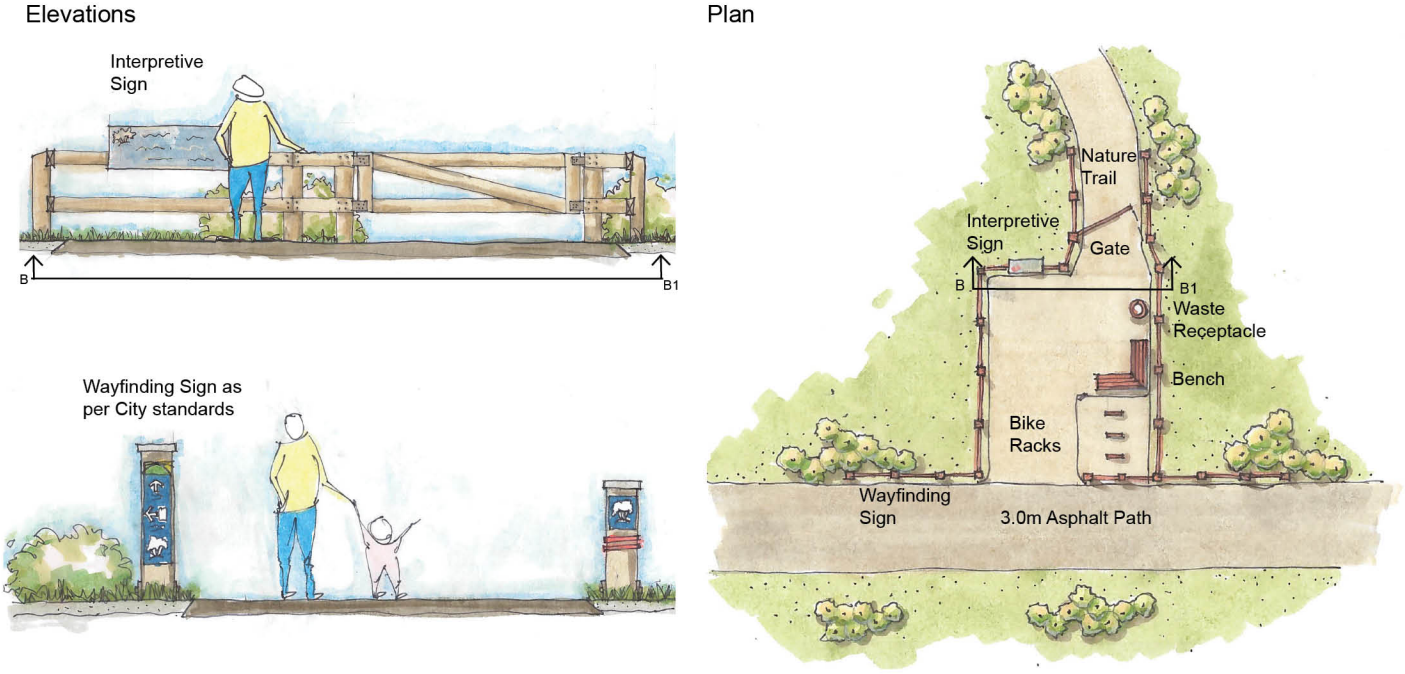
Bird Blind



Small Bird Blind

Covered Bird Blind

Nature Trail Gateway



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Figure 3.1b Trail Structure Concepts

Trail Structures

A number of trail structures are proposed to guide and support trail users – See Figure 3.1 for illustrations of some of the structures:

- **Trail Gateways** – gateways are designed to create entrance points to RWPW along the trail and provide wayfinding information and a rest stop or meeting/gathering point. Often located where multi-use trails intersect, the Trail Gateway will include wayfinding signage, a waste receptacle and seating. Where a trail gateway is far from a larger park shelter, a small shelter could be provided.
- **Nature Trail Gateway** – these gateways will create a visible and physical entrance and transition from the multi-use trails into more sensitive natural environments in RWPW. They will be defined by post and rail fences and planting, designed to encourage those on bikes to stop and park their bike using the bike racks provided. The gateways will include both management and interpretive signage to educate users on the natural area that they are about to enter. Wayfinding signage, waste receptacle and seating will also be provided. The gateways will be designed to facilitate seasonal closures by the City in sensitive habitats, for example during nesting season.
- **Rest Nodes** – as per the Engineering Standards, rest nodes with a bench and trash receptacle are to be located every 400m along the trail. Rest nodes may also be strategically located as viewpoints and/or interpretive nodes with educational signage.
- **Bird Blind** – Bird blinds provide amenities to allow visitors to view local bird and other wildlife while maintaining a safe and comfortable separation from sensitive habitats. Bird Blinds are proposed as curved wood structures, open to the back for safety, with openings for viewing.
- **Viewpoints** – designated viewpoints will be placed at key locations to create viewing opportunities along the Sturgeon River, Carrot Creek and Big Lake. Viewpoints are proposed as either expanded rest nodes (asphalt surface with wood railings) or wood structures (deck) on piles that extend a small distance into the riparian zone. Where feasible, access to touch the water (though steps, seasonal ramp or a platform) should be explored where is can safely be provided and where regulatory approvals will allow.
- **Pedestrian Bridges** – currently there is one pedestrian crossing of the Sturgeon River that is part of the northbound lane of the Ray Gibbon Drive (RGD) bridge. As illustrated on Figure 3.3, it is recommended that there be a second bridge associated with the southbound lanes of RGD to provide access to the North Big Lake area. That pedestrian bridge should be developed in conjunction with the future RGD bridge, either as a stand-alone or attached structure depending on the road design standard (e.g. arterial vs freeway). A third pedestrian bridge is also recommended north of RGD to provide a direct connection between the Meadowview area (and neighborhoods to the north), and Riel Recreation Park. This bridge would create a crossing within 1.0km of the Children's Bridge to the north, which reflects the typical distance between pedestrian crossings along the entire Sturgeon River corridor through St. Albert.



Children's Bridge.

- **Wayfinding Signage** – wayfinding signage in support of trail users will include trail maps at gateways, directional/distance signage along the trail, and facility signage at park locations (types of facilities offered at a location). All signage to follow the latest City Park signage guidelines and standards.
- **Management Signage** – this will be the regulatory signage designed to raise awareness and guide appropriate user behaviour in support of the environmental protection and management objectives. These signs will also be designed to address public safety and provide direction on hours of operation, bylaws and acceptable activities. It is recommended that management signage be placed strategically at park and trail gateways and in other key locations (as need arises) in support of the management, operations and enforcement programs.



St. Albert Park Information Map.

- **Trail Amenities** – trail amenities will include seating (bench, picnic tables), trash and recycling, and bike parking and should follow current City standards for furniture. It is recommended that water-filling stations be provided at park gateways or other locations throughout RWPW where water service can be cost effectively provided. Washrooms are proposed at the park gateways (see 3.2.3)
- **Lighting** – it is recommended that lighting be provided at the park gateways (See 3.2.3), but not in any locations along the trail network. As part of the Active Transportation Plan, the City may wish to consider lighting along RWPW trails that are deemed to be key commuter routes.

3.2.3 Park Destinations

As a key feature of the RWPW Master Plan Update, park destinations have been introduced as the key locations for residents and visitors to travel to in order to access the trail network and natural features of RWPW. As illustrated on Figure 3.0, there are four park destinations proposed for RWPW that are balanced across the five geographic areas. These park destinations will provide the following features and amenities to support user experience in RWPW:

- **Access and Parking** – park destinations will include vehicle access, bus drop-off and parking (approximately 20 stalls initially).



Park Destination

- **Washrooms** – destinations will have small washroom buildings to provide washrooms at regular locations across RWPW. Portable washrooms can be provided in the early development of the gateways until need increases. Portable washrooms may also be required in locations below the designated floodline.
- **Shelter** – all park destinations will have a shelter of some form and size (as determined through detailed design) to offer protection from the elements and that could be programmed or booked for events. Shelters could be enclosed, four seasons building with both gathering and storage functions depending on the determined program at the time of detailed design. All shelters should be designed to be sustainable in terms of building materials, energy, water use, waste and durability.
- **Picnic Facilities** – gateways will offer picnic facilities that will range from large bookable sites (e.g. groups of 20) with a shelter and tables, small bookable sites with shelters and tables (one or two families) and individual sites with tables.
- **Trail Gateway** – in each location there will be a trail gateway close to the parking lot with a trail map, directional and management signage to orient those arriving to use the trail network.
- **Lighting** – it is recommended that lighting be considered at the park gateways around parking, trail gateways and washrooms.

- **Water** – it is recommended that water-filling stations be provided at park destinations where water service can be cost effectively provided.
- **Recreation Features and Amenities** – the park destinations will be designed to include other recreation features and amenities as outlined in Section 3.2.4 and as illustrated in the proposed concepts for each gateway provided in Section 3.3.
- **Natural Environment** – a key draw of each locations will be the natural environmental features in that area, and as indicated previously, these features will be protected and may be managed and/or interpreted as part of the final design for that destination.

3.2.4 Recreation

In addition to the natural environmental features, the trails and trail structures, and the park gateways, RWPW will provide users with access to other recreational amenities. Included in this are the various recreation and sports facilities already provided in Riel Recreation Park, as well as the existing viewing platform and boardwalk near the mouth of the Sturgeon River. It is important to note that the list of proposed recreational features reflects the vision and guiding principles of this master plan, as well as by the public's desire to protect and manage the environmental resources of RWPW. The following additional recreational amenities are proposed and are illustrated in the concepts for each area provided in Section 3.3:

- **Playground** – A nature/adventure playground and interpretive site is proposed as part of the gateway at GNWSP. The concept envisions the use of natural materials to provide an unstructured play environment that inspires the imagination and engages children with the natural world. Like nature play, adventure play favors natural materials and structures that are integrated with the landscape.
  Adventure play does not preclude traditional play elements, such as swings and slides, but rather reinterprets them in creative and challenging ways. The elements are designed for creative and physical unstructured play with graduated learning about the environment of GNWSP and safe risk-taking opportunities.



Nature Play

- **Fishing Platforms** – two dedicated fishing platforms are proposed along the Sturgeon River to direct users to specific locations with a defined gravel edge or wood deck designed to protect bed and shore vegetation.

-
- **Canoe/Kayak Launch** – pending permitting, the existing launch in Riel should be enhanced with improved slopes and gravel surface to improve dock installation operations and protect the bed and shore from further erosion. Additional future boat launches on the Sturgeon River will need discussion between the City and Alberta Environment and Parks in an effort to manage the level of recreational use of Big Lake.
- **Dog On and Off Leash** – all areas of RWPW will follow the current bylaws and will require dogs to be on-leash at all times. The exception to this will be within the proposed off-leash area in the North Carrot Creek park gateway (See 3.3.5).
- **Winter Activities** – there are no designated winter recreation facilities proposed in RWPW such as sliding hills or skating rinks. Winter use, much like in the summer, will be focused on the passive activities and the enjoyment of nature associated with the use of the trails and trail amenities
- **Trail Structures** – as described in Section 3.2.2
- **Picnic** – as described in Section 3.2.3
- **Rentals** – there was some interest expressed by the public for access to a rental facility to support activities in the park (e.g. bikes, inline skates). This type of programming or for-profit activity can be evaluated in the future based on need

3.2.5 Natural and Heritage Interpretation



As described in Section 2.2.4, there are several significant natural and cultural heritage sites within RWPW that provide the foundation for a comprehensive and integrated heritage interpretation program that can be enjoyed by all visitors to RWPW. It is recommended that the City partner with Alberta Parks and other stakeholders, to prepare a Natural and Cultural Heritage Interpretive Master Plan, that will serve as a guide for the long term development of an integrated interpretive program for RWPW and LHCPP.

The master plan could utilize the St. Albert Heritage Site and the proposed future LHCPP Environmental Learning Centre as the anchors of the program, with a focus on the cultural and natural history of the area. Through collaboration with Indigenous community members, the master plan could protect important sites and tell the stories of Indigenous peoples' connection to this region.

The master plan would also take advantage of the great diversity of important natural habitats and environments that exist within RWPW and LHCPP, to develop a nature-based educational and interpretive program that would support the vision, guiding principles and development objectives of RWPW.

3.3 Master Plan Geographic Areas

As part of the inventory update for RWPW, the study area was divided into four key geographic areas. During the development of the master plan, the four areas were split into five areas in an effort to better describe and illustrate the proposed future development. In this section of the report, the proposed development in each of the five areas is described and then illustrated on an overall concept plan and then a park destination concept plan at a higher level of detail.

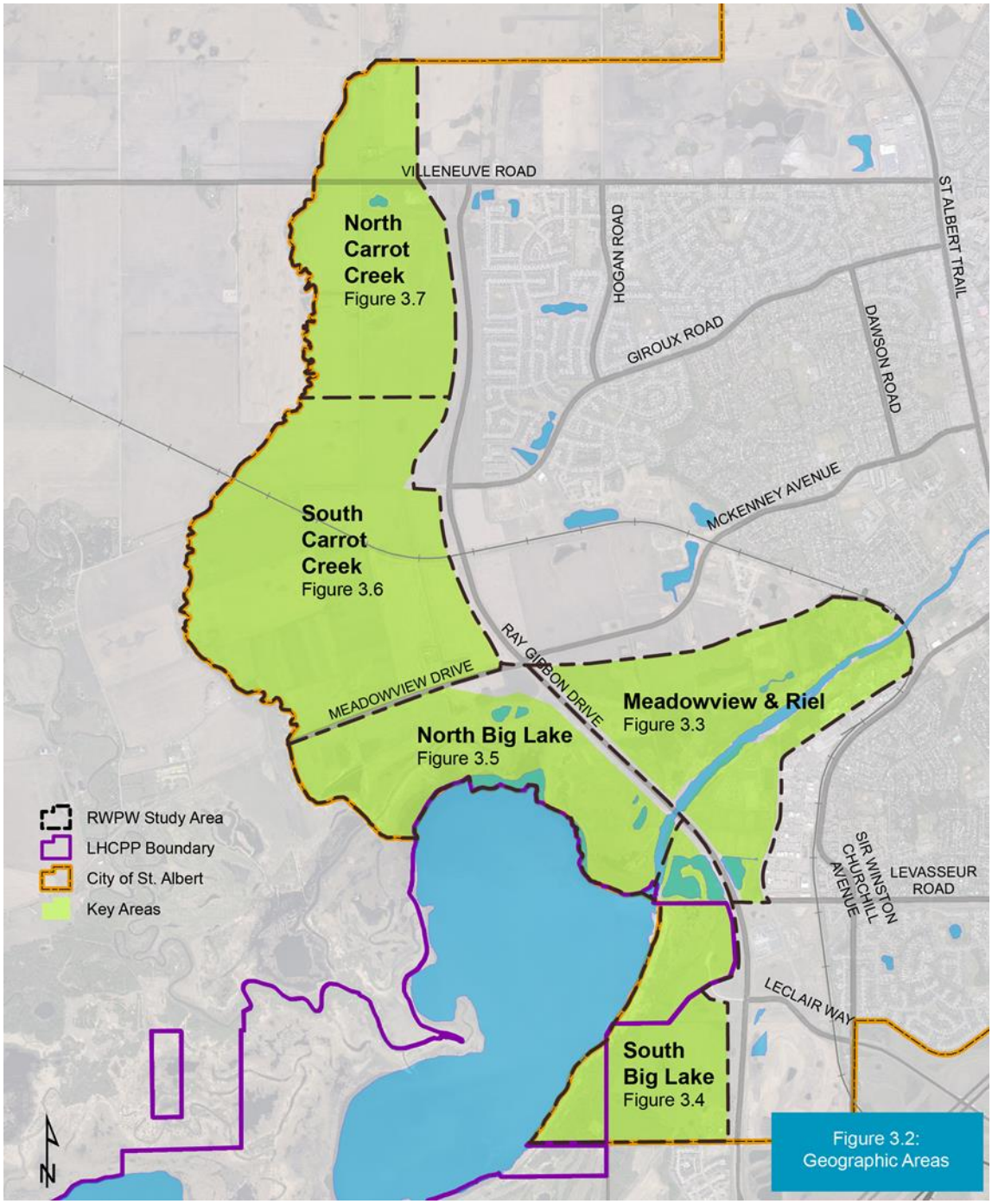


Figure 3.2: Geographic Areas

3.3.1 Meadowview / Riel



Overview

Meadowview / Riel flanks the Sturgeon River from the trestle bridge to Ray Gibbon Drive, and includes a number of defined places including the St. Albert Heritage Site, Meadowview Ball Diamonds, Grey Nuns White Spruce Park (GNWSP), the developing Riverside neighborhood and the Riel Recreation Area. Since 2003, a significant amount of recreational facility and trail development has been completed in the Riel Recreation Area.

Through the inventory process and during discussions with stakeholders, the following opportunities were identified for consideration during the development of concepts in Meadowview/Riel:

- Opportunities to connect to trails in future Riverside development.
- Potential to have a trail under CN trestle bridge to connect to the existing Red Willow Park trail that is east of the Children's pedestrian bridge.
- Important wildlife corridor and riparian habitat along Sturgeon River – consideration of human wildlife interaction will be important consideration for trail development.
- Unique ecological areas (Grey Nuns White Spruce Forest, riparian vegetation) to be protected.
- Trail concept designs have already been proposed in the GNWSP Management Plan, the Heritage Site Functional Plan, and the 2003 RWPW Master Plan Update.
- Limitations on trail development and restoration within the Atco pipeline right of way that crosses this area, and potential short term impacts of the proposed Atco pipeline upgrading.

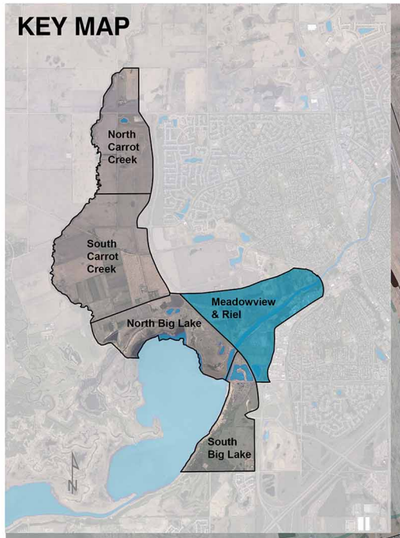
Concept Plan

The concept for RWPW in this area is to connect these places with a multi-use trail and provide nature trails for a quieter experience with a focus on nature appreciation and education. The Grey Nuns White Spruce Park will be the gateway to this area and a destination for citizens and visitors. In Riel, development will include some new trail connections and a trail gateway, enhancements to the canoe/kayak launch, and a fishing pier

As illustrated on Figure 3.3, proposed features of the concept plan for the Meadowview / Riel area include:

- **Natural Environment –** there are a few locations where naturalization planting will be used to enhance and expand existing natural features. This would include the plans for restoration within GNWSP. A key in this area is that there has been an effort to minimize development to protect the riparian vegetation, maintain wildlife habitat and corridor values and limit potential flood related impacts on recreation infrastructure.
- **RWP Trails and Trail Gateways** – a multi-use trail will parallel the river along the designated flood line from the trestle bridge to the RGD bridge. As described in 3.2.2, a new pedestrian bridge is proposed to connect Meadowview to Riel. A viewpoint is also proposed at the terminus of Meadowview Lane, and a number of trail connections will link the main trail to Mission, Riverside and across the river to Riel. A trail is also proposed to parallel RGD, connecting Riel to the future North Big Lake area. A total of four trail gateways are proposed in key locations in this area.
- **Nature Trails and Gateways** – a natural trail is proposed along previous disturbed lands between the White Spruce forest and the river which will create a walking loop (potential interpretive loop) from the future GNWSP parking lot (see below) out to the river's edge. Nature trails are also proposed in the Heritage Site and GNWSP. Nature Trail gateways are proposed to create controlled entry points from the RWP trails.
- **GNWSP** – As illustrated on Figure 3.3.1, this park destination will include a parking lot and bus drop off area (for school groups), trail gateway node, washroom, picnic area, interpretive gathering area, and a nature play area. Nature trails within the park will be located for minimal impact and to control use. Nature trail gateways and some post and rail fencing will be used to create designated access points for control, education and wayfinding prior to entry. The RWP trails are proposed to go around (not through) the park.
- **Riel Recreation Park** – this park already includes the key features and amenities of the other proposed park destinations in this master plan including parking, shelter, picnic and washrooms. A trail gateway has also recently been added to the park. It is recommended that the canoe/kayak launch be upgraded in the park and a new fishing deck be added to provide improved fishing access and reduce potential conflicts between those using the boat launch and those fishing.

KEY MAP



Mission

Riverside

Grey Nuns White Spruce Park

CN Rail

Heritage Site

Meadowview Ball Diamonds

Downtown

Meadowview Drive

North Big Lake see Figure 3.5

Ray Gibbon Drive

Sturgeon River

North Big Lake see Figure 3.5

Riel

CN Rail

Grandin

RWPW MP > Figure 3.3
MEADOWVIEW & RIEL

Legend

- Proposed Multi-Use Trail
- Existing Multi-Use Trail
- Proposed Nature Trail
- Existing Trails (outside study area)
- Proposed Road
- Proposed Ray Gibbon Drive Pedestrian Bridge
- Proposed Stand-Alone Pedestrian Bridge
- Stormwater Management
- Proposed Naturalization Area
- Proposed Park Destination
- Designated Flood Line
- Proposed Trail Gateway
- Proposed Nature Trail Gateway
- Potential Key Fishing Location
- Existing Canoe / Kayak Access
- Proposed Viewpoint / Bird Blind
- RWPW Study Area

Concept only - Subject to change

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RWPW MP > Figure 3.3.1
GREY NUNS WHITE SPRUCE PARK CONCEPT

Legend

- Proposed Multi-Use Trail
- Proposed Nature Trail
- Proposed Road
- Proposed Park Destination Boundary
- Proposed Viewpoint / Bird Blind
- Proposed Trail Gateway
- Proposed Nature Trail Gateway
- Stormwater Management
- Proposed Naturalization Area
- Existing White Spruce Forest

Concept only - Subject to change

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3.3.2 South Big Lake



Overview

The South Big Lake area is located to the west of South Riel and Ray Gibbon Drive, and east of Big Lake, and is primarily made up of lands that are part of Lois Hole Centennial Provincial Park (LHCPP). The key land use features in this area include:

- **LHCPP East Facility Zone** – this future facility development area (LHCPP Management Plan) contains the existing parking lot, shelter and washrooms and is the proposed site of the Park's future Environmental Learning Centre.
- **South Riel ASP** – the approval of the adjacent South Riel ASP has begun to open up lands for residential development adjacent to LHCPP and east of Ray Gibbon Drive. A walkway/trail and formalized pedestrian crossing will be needed to get future residents across to the park and connect them to RWPW.
- **LeClair Way** – this road provides access into the South Big Lake area, will serve as the primary entrance to LHCPP, and will extend to a future connection on 137 Avenue.

Specific opportunities considered during the development of concepts for the South Big Lake area within RWPW include:

- Big Lake is an internationally recognized bird area (IBA) and provincial park, regional biodiversity core area and wildlife corridor.
- Opportunities existing to restore disturbed areas to native habitats.
- Opportunity to formalize the interface between LHCPP and RWPW so that users know when they are entering or exiting.
- Will be important for the City and Province to partner to develop an extension of the RWPW trails to the south to link up to City of Edmonton neighborhoods south of 137 Avenue.
- Opportunity for the Province to formalize some of the informal trails through the East Facility Zone to create nature trails along the east shore of Big Lake.

Concept Plan

The majority of this area is within the LHCPP and as defined in the Management Plan, is the proposed site of a future Environmental Learning Centre. The concept for this area is limited to the development of multi-use trail and a trail gateway which introduces LHCPP visitors to RWPW. The trail gateway will provide an opportunity on the edge of the Provincial Park for visitors to learn about and be encouraged to recreate in RWPW. The City should work cooperatively with the Province in the development and management of the features in this area.

As illustrated on Figure 3.4, proposed features of the concept plan for the South Big Lake area include:

- **RWP Trails and Trail Gateways** – A short section of multi-use trail is proposed to upgrade a granular trail connecting the two ends of the existing boardwalk. Future multi-use (and nature) trails in LHCPP will be the responsibility of the province. A trail gateway with a RWPW trail map, directional and management signage near the end of the boardwalk.
- **LHCPP** – as illustrated on Figure 3.4, this site already includes the key features and amenities for a park destination (e.g. parking, shelter, and washrooms), that although in the Provincial Park, will likely be well used by St. Albert residents as an extension of RWPW.



RWPW MP > FIGURE 3.4
SOUTH BIG LAKE CONCEPT

Legend

- Proposed Multi-Use Trail
- Existing Multi-Use Trail
- Existing Trails (outside study area)
- Proposed Road
- Proposed Ray Gibbon Drive Pedestrian Bridge
- Designated Flood Line
- Existing Viewpoint
- RWPW Study Area
- Proposed Trail Gateway
- Stormwater Management
- Proposed Naturalization Area

Concept only - Subject to change

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3.3.3 North Big Lake



Overview

The North Big Lake area is located to the southwest of Ray Gibbon Drive and north of Big Lake, and consists predominately of lands owned by the City. The key land use and environmental features in this area include:

- **Red Willow Park West** – the 2003 Master Plan update provided a concept for this area that included the reconfiguration of the former City tree nursery, the retention of land for long-term recreational needs and a potential site for a Big Lake nature centre and canoe/kayak facility. As part of this Master Plan, these two potential uses were no longer considered to be suitable uses due to the importance of the upland area las part of Big Lake's critical habitat for waterfowl (see below).
- **Ray Gibbon Drive** – defines the north boundary of this area and influences future development due to noise and impacts on wildlife habitat and movement.
- **LHCPP** – the boundary of the Park is the bed and shore of Big Lake but the lands of North Big Lake have been identified in the LHCPP Management Plan as potential future land acquisition.
- **Big Lake** – as an internationally recognized bird area (IBA) and provincial natural area the upland areas surrounding the lake are seen as critical habitat for waterfowl so recreational development will need to be sensitive to protection of the IBA designation.

Specific opportunities to consider during the development of concepts for the North Big Lake area include:

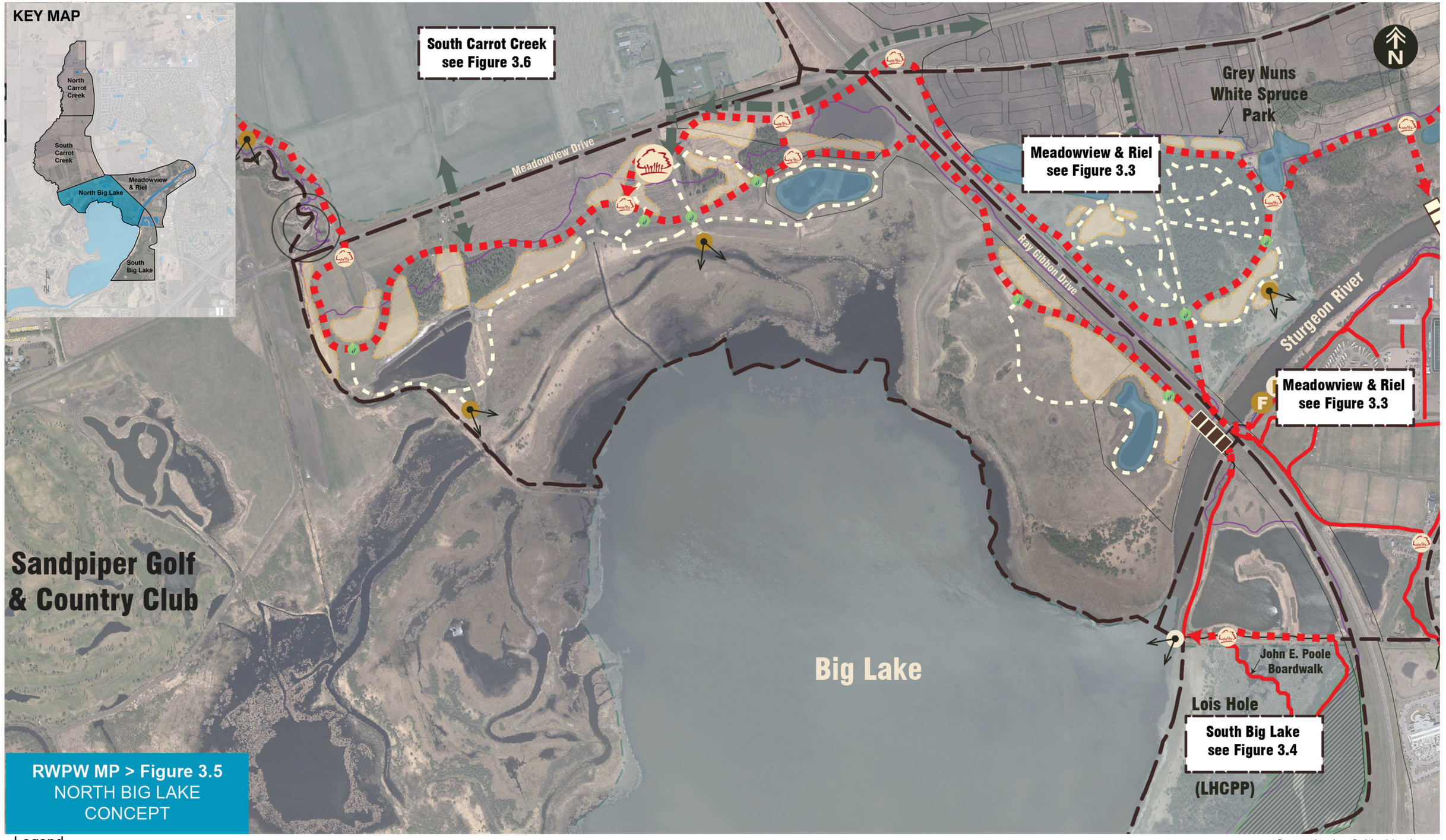
- Opportunities to restore disturbed or agriculturally impacted areas to native parkland habitats.
- Restoration (wetland/uplands/forests) may provide further opportunities for wildlife use, and corridor enhancement.
- Remnant forested areas in North Big Lake serve as wildlife islands as they move along the corridor – these areas to be preserved.
- The privately constructed dugout on the west shore of Big Lake may provide opportunities for habitat and/or recreation – further studies needed to determine opportunities based on depth and hydrology.
- Carrot Creek/North Big Lake interface will serve as key connecting piece between Carrot Creek, LCHPP and Meadowview.
- The existing tree farm remains and the remnant native tree species can be integrated with naturalization to develop future forest stands and wildlife habitat.
- Archaeological sites identified at the north end of Big Lake will need to be avoided with trail alignments.
- Riparian ecosystem at north edge of Big Lake has high wildlife and rare plant potential and must be protected from intensive recreational development.

Concept Plan

The North Big Lake Area is a large area (147 Ha.) with potential for conservation and recreation/nature appreciation, but it is an area with challenging access constraints. The concept for North Big Lake envisions addressing the access constraints by having a future pedestrian bridge providing trail users a route north. A multi-use trail through this area is important to overall trail and gateway connectivity for RWPW. The protection of the bed and shore and adjacent upland habitat is also seen as a critical to managing the area and protecting the Important Bird Area designation. To provide access to the northwest edge of Big Lake, the North Big Lake Park is proposed with parking, washroom, picnic and other amenities off of Meadowview Drive.

As illustrated on Figure 3.5, proposed features of the concept plan for the Meadowview / Riel area include:

- **Natural Environment** – as illustrated on the concept plan, the environmental focus will be on adding naturalization planting to enhance and expand existing forest patches into a more continuous forest over the long term to improve habitat connectivity and value. In this area there has been an deliberate effort to minimize development to protect the important and sensitive upland and bed and shore habitat from disturbance.
- **RWP Trails and Trail Gateways** – a multi-use trail will be parallel to RGD and Meadowview Drive connecting South Big Lake to Carrot Creek. As described in 3.2.2, a new pedestrian bridge is proposed in proximity or connected to the future southbound Ray Gibbon Drive bridge to give access to North Big Lake. A future trail along Meadowview Drive will also connect North Big Lake and Meadowview (and the Riverside neighborhood). There are two trail gateways proposed in this area.
- **Nature Trails and Gateways** – there are two natural trails proposed in this area that parallel but are set well back from the edge of Big Lake. Nature Trail gateways are proposed to create controlled entry points from the RWP trails and there are two proposed viewpoints.
- **North Big Lake Park** – As illustrated on Figure 3.5.1, this park destination will include a parking lot trail gateway, washroom, and a picnic area with group and individual sites. A nature trail loop within the park will allow visitors to get views of the lake and walk through the forest that is being restored and enhanced. Nature trail gateways and some post and rail fencing will be used to create designated access points for control, education and wayfinding prior to entry. A key feature of this gateway will be a viewpoint / birdblind that will be connected to the parking lot with an asphalt trail designed to allow visitors with more limited mobility an opportunity to view the lake.



RWPW MP > Figure 3.5
NORTH BIG LAKE CONCEPT

Legend

- Proposed Multi-Use Trail
- Existing Multi-Use Trail
- Proposed Nature Trail
- Designated Flood Line
- Proposed Road
- Proposed Ray Gibbon Drive Pedestrian Bridge
- RWPW Study Area
- Proposed Viewpoint / Bird Blind
- Existing Viewpoint
- Stormwater Management
- Proposed Naturalization Area
- Proposed Park Destination
- Proposed Trail Gateway
- Ecologically Significant and Sensitive Areas
- Proposed Nature Trail Gateway

Concept only - Subject to change

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RWPW MP > Figure 3.5.1
NORTH BIG LAKE
PARK CONCEPT

Legend

- Proposed Multi-Use Trail
- Proposed Nature Trail
- Proposed Road
- Proposed Park Destination Boundary
- Proposed Viewpoint / Bird Blind
- Proposed Trail Gateway
- Proposed Nature Trail Gateway
- Stormwater Management
- Proposed Naturalization Area
- Existing Forest Patch

Concept only - Subject to change

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3.3.4 South Carrot Creek



Overview

The Carrot Creek Greenway is located west of Ray Gibbon Drive and the creek forms the City of St. Albert and Sturgeon County boundary. For the purpose of the master plan, the Carrot Creek Greenway was divided into South Carrot Creek and North Carrot Creek. The key land use feature in South Carrot Creek will be the proposed Lakeview Business District, which will provide future employment lands within the study area.

Specific opportunities to consider during the development of concepts for the South Carrot Creek Greenway within RWPW include:

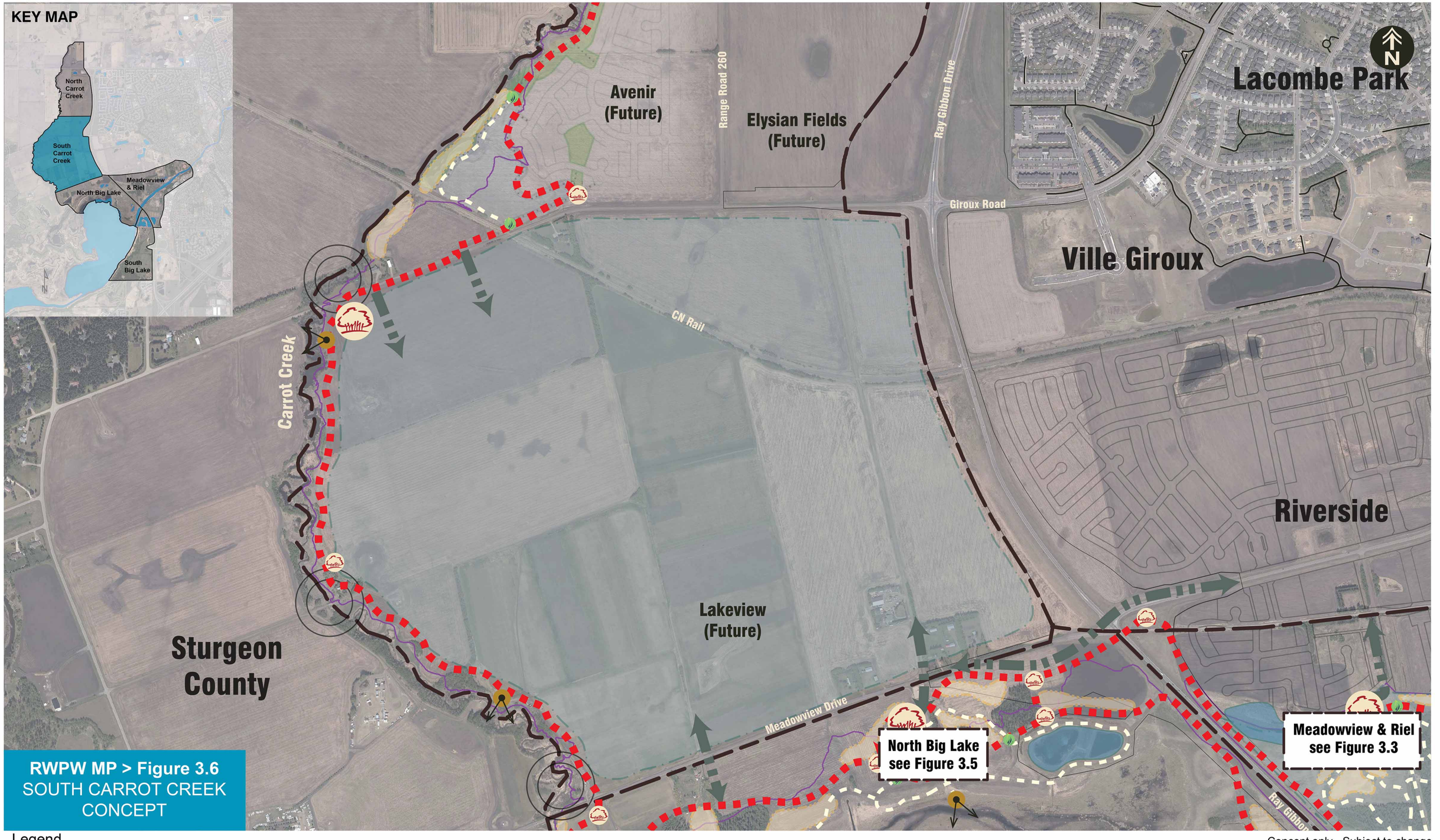
- The greenway corridor is bisected by Giroux Road/Old McKenney Avenue, Meadowview Drive and the CN rail line. These crossings over Carrot Creek impede wildlife movement to some degree and future roadway improvements present an opportunity to mitigate the barrier effect and maximize connectivity under roads.
- The RWPW trail will cross the roads and the CN railway and so intersections and crossings will need to be planned to ensure safe crossing.
- Stormwater management along the creek corridor must be designed as per the standards that are in place to prevent degradation of the creek.
- Carrot Creek from Villeneuve Road to Big Lake is part of a Regional Ecological corridor and so the wildlife habitat value must be protected.
- Trail development below the designated flood line will require regulatory approvals. The goal should be to propose trail development within the setback to be along the eastern edge (away from creek) to limit impacts on the regional ecological corridor.

- All trail and trail structure development will need to be designed to ensure that there are no impacts to the key environmental sensitive areas that have been identified and mapped within the creek corridor.
- Stream-associated wetlands along the creek are ecologically sensitive and provide high potential for nesting birds, waterfowl and rare plants. Trail development that disturb this landscape should be avoided but there should be opportunities for sensitively placed natural interpretation viewpoints for wildlife and waterfowl viewing.
- Pipelines – a regulating station located in Sturgeon County directly west of the creek has many pipelines associated with it that cross under and along both sides of the creek and the adjacent lands planned for the Lakeview Business District. The pipelines should not result in any significant limitations to trail and park development but additional time may be required to allow for development approvals and crossing permits as required.

Concept Plan

The South Carrot Creek area of RWPW will develop as the Lakeview Business District development occurs, and the goal will be to balance recreation access with the protection and enhancement of the creek corridor. The concept (Figure 3.6.) envisions a multi-use trail paralleling the creek, strong trail connections into the adjacent future development, and a park destination for use by workers from the Business Park and visitors from west of the City.

- **Natural Environment –** a regional ecological corridor follows Carrot Creek from Villeneuve Road to Big Lake. A 50m setback has been established in both the MDP and IDP to protect the creek from the impacts of development. Restoration including plantings of native riparian species will be undertaken to enhance the natural edge of Carrot Creek particularly where previously disturbed by farming. The seasonal / temporary marsh just north of Old McKenney Avenue (Giroux Road extension) is sensitive and should be protected.
- **RWP Trails and Trail Gateways** – a multi-use trail will parallel Carrot Creek with connecting trails linking into the future Lakeview Business District. It is recommended that the trail be designed to meander along the eastern edge of the 50m buffer, expanding the vegetated riparian buffer where possible to provide additional habitat adjacent to the creek. A multi-use trail will be developed as part of the future Giroux Road extension and a formalized crossing of the CN rail will be required. As the trail heads north, it will be developed as part of the future Avenir development as defined in the Range Road 260 ASP. There are two trail gateways proposed in this area.
- **Nature Trails and Gateways** – in this concept there is only one short section of nature trail proposed with gateways at each end.
- **South Carrot Creek Park** – this park destination should be developed with a vision towards use in the future by those working in the Lakeview Business District. The concept (Figure 3.6.1) includes parking, washroom, a large bookable picnic site and open space for activities and events (e.g. Company picnic, fun run), as well as a trail gateway and fitness park.



RWPW MP > Figure 3.6
SOUTH CARROT CREEK CONCEPT

Legend

- Proposed Multi-Use Trail
- Proposed Nature Trail
- Existing Trails (outside study area)
- Proposed Road
- Designated Flood Line
- RWPW Study Area
- Proposed Viewpoint
- Stormwater Management
- Proposed Naturalization Area
- Proposed Park Destination
- Proposed Trail Gateway
- Proposed Nature Trail Gateway
- Ecologically Significant and Sensitive Areas

Concept only - Subject to change

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Sturgeon County

Avenir (Future)

to Giroux Rd

CN Railway

Carrot Creek

Fitness Station

Future Access to Lakeview Business District

WR

Parking

Group Picnic Site w/ Shelter

Unprogrammed Open Space

Lakeview (Future)

to Big Lake

RWPW MP > Figure 3.6.1
SOUTH CARROT CREEK PARK CONCEPT

Legend

- Proposed Multi-Use Trail
- Proposed Nature Trail
- Proposed Road
- Proposed Park Destination Boundary
- Proposed Viewpoint / Bird Blind
- Proposed Trail Gateway
- Proposed Nature Trail Gateway
- Stormwater Management
- Proposed Naturalization Area

Concept only - Subject to change

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3.3.5 North Carrot Creek



Overview

The key land use feature in the North Carrot Creek area is the Range Road 260 Area Structure Plan which will provide future residential development in the study area (Avenir and Elysian Fields).

Specific opportunities to consider during the preparation of concepts for the North Carrot Creek area within RWPW include:

- The greenway corridor is bisected by Villeneuve Road and this crossing over Carrot Creek impedes wildlife movement to some degree. Future roadway improvements present an opportunity to mitigate the barrier effect and maximize connectivity under roads. The RWPW trail will cross the road and intersections will need to be planned to ensure safe crossing.
- Stormwater management along the creek corridor must be designed as per the standards that are in place to prevent degradation of the creek.
- Carrot Creek from Villeneuve Road to Big Lake is part of a Regional Ecological corridor and so the wildlife habitat value must be protected.
- Trail development below the designated flood line will require regulatory approvals. The goal should be to propose trail development within the setback to be along the eastern edge (away from creek) to limit impacts on the regional ecological corridor.
- All trail and trail structure development will need to be designed to ensure that there are no impacts to the key environmental sensitive areas that have been identified and mapped within the creek corridor.
- Stream-associated wetlands along the creek are ecologically sensitive and provide high potential for nesting birds, waterfowl and rare plants. Trail development that disturb this landscape should be avoided but there should be opportunities for sensitively placed natural interpretation viewpoints for wildlife and waterfowl viewing.

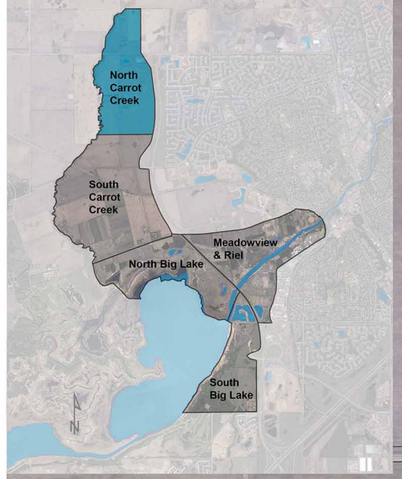
Concept Plan

The North Carrot Creek area will develop as adjacent land development occurs as defined in the Range Road 260 ASP. The goal will be to balance recreation with the protection and enhancement of the creek corridor. The concept envisions a multi-use trail paralleling the creek with strong trail connections into the adjacent development. The concept for the North Carrot Creek Park envisions a place for people to park and get access to a washroom before heading out on the trails, as well as the development of a future off-leash dog park.

As described above and illustrated on Figure 3.7, proposed features of the concept plan for the North Carrot Creek area will include:

- **Natural Environment** – a regional ecological corridor follows Carrot Creek from Villeneuve Road to Big Lake. A 50m setback has been established in both the MDP and IDP to protect the creek from the impacts of development. Restoration including plantings of native riparian species should be undertaken to enhance the natural edge of Carrot Creek particularly where previously disturbed by farming. The in-stream wetlands in this area have high ecological values and should be protected.
- **RWP Trails and Trail Gateways –** a multi-use trail will parallel Carrot Creek with connecting trails linking into the Avenir neighborhood. It is recommended that the trail be designed to meander along the eastern edge of the 50m buffer, expanding the vegetated riparian buffer where possible to provide additional habitat adjacent to the creek. A multi-use trail will be developed as part of the future Fowler Way and the trail should cross to the north at a signalized intersection. There are two trail gateways proposed in this area.
- **Nature Trails and Gateways** – in this concept there is only one short section of nature trail proposed with gateways at each end.
- **North Carrot Creek Park** – as illustrated on Figure 3.7.1, this park destination will include a parking lot and washrooms designed to support trail users as well as park visitors. The land around the park is City owned (15 Ha) and includes a stormwater management facility. The concept envisions this land being fenced and then developed as an off-leash dog park with granular trails, open space and areas of forest naturalization.
- **Public Works Maintenance Facility** – to meet the long term operational needs of managing and maintaining RWPW and future parks development to the north of the study area, it is recommended that a Public Works Maintenance Facility be located in the North Carrot Creek area as part of the gateway development. Built on existing City owned land in conjunction with the gateway, parking and off-leash park, this site is well suited and well located to meet long term Public Works requirements. A site of 2.0 ha. is deemed suitable based on current programming that has been completed for a Facility being planned currently for another site.

KEY MAP



Jensen Lakes

Carrot Creek

Future Fowler Way

Villeneuve Road

North Ridge

Sturgeon County

Range Road 260

Avenir (Future)

Elysian Fields (Future)

RWPW MP > Figure 3.7
NORTH CARROT CREEK CONCEPT

Legend

- Proposed Multi-Use Trail
- Proposed Nature Trail
- Existing Trails (outside study area)
- Proposed Road
- Designated Flood Line
- RWPW Study Area
- Proposed Viewpoint
- Stormwater Management
- Proposed Naturalization Area
- Proposed Park Destination
- Proposed Trail Gateway
- Proposed Nature Trail Gateway
- Ecologically Significant and Sensitive Areas

Concept only - Subject to change

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Wildlife

Fowler Way TBD

Villeneuve Rd

Off-Leash Dog Park

Carrot Creek

Parking

WR

Off-Leash Dog Park

Unprogrammed Open Space

Public Works Maintenance Yard & Shop

Avenir (Future)

Elysian Fields (Future)

Legend

RWPW MP > Figure 3.7.1
NORTH CARROT CREEK PARK CONCEPT

- Proposed Multi-Use Trail
- Proposed Nature Trail
- Proposed Road
- Proposed Park Destination Boundary
- Proposed Viewpoint / Bird Blind
- Proposed Trail Gateway
- Proposed Nature Trail Gateway
- Stormwater Management
- Proposed Naturalization Area

Concept only - Subject to change

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4.0
IMPLEMENTATION

4.1 Implementation Strategy

The successful implementation of this master plan over the short and long term will require the City to commit to a plan for responding to priorities and opportunities, setting suitable capital and operational budgets, and following through on management objectives and operational requirements. This section provides recommendations for the implementation of the RWPW Master Plan Update.

The following implementation strategy identifies the recommended priorities for the staged development of RWPW. Priorities were determined with consideration of extending the current reach of Red Willow Park, connecting adjacent neighborhoods, protecting environmental features and integrating with related City projects that are proposed in the near term. The priorities that have been established are defined as being high (1-3 years) and medium (3-5 years). Beyond five years, the plan should be reviewed and new priorities set based on the same considerations as outlined above. The following are the recommended development components in order of priority:

- **Meadowview** – the first priority for development is the extension of the existing RWP trail from the east side of the trestle bridge to connect to the RGB bridge along the floodline boundary between the new Riverside neighborhood and RWPW (Sturgeon River). This will extend the trail, connect Riverside and Riel Recreation Park, and create a loop on both sides of the River. (Priority: High)
- **Trail Connectivity** – an important strategy will be for the City to develop trails that support the continuous linear trail development to extend the reach of RWP trails and to provide linkages from adjacent neighborhoods through the short term implementation of short trail sections that were not previously developed. This work should also be with consideration of future Active Transportation objectives. (Priority: High)
- **GNWSP** – the development of this Park should follow the implementation of Management Plan objectives and specific scope designed to protect and manage the resource. The goal should be to define boundaries, establish controls and put in place management signage before improving connectivity and access to this area. (Priority: High)
- **Ray Gibbon Drive** – if road development includes a complete streets approach with associated trails and landscaping there is an opportunity to build on this development to meet master plan trail connectivity objectives. (Priority: High – once a decision occurs on RGD)
- **Land Acquisition** – as indicated the majority of land needed for the long term development of RWPW will be provided through the land development process through municipal and environmental reserve dedication. In the short to medium term there are a few identified parcels that the City should acquire through negotiated purchase or dedication in advance of development. (Priority: High- for parcel in Meadowview area)
- **Other City Plans** – it is important that this Master Plan be in alignment with and inform other City documents as they are prepared or updated such as the MDP (City Plan), Land Use Bylaw, Engineering Standards Active Transportation Plan, Complete Streets Guidelines, and Area Structure Plans. (Priority: High)
- **Partnerships** – initiated during the design and development process through working with other partners when the opportunity arises. Partnership could take a variety of forms such as stewardship groups, partners for recreational development, sponsors, service clubs and community groups that may have the ability to receive grants in support of development or management. (Priority: Medium and ongoing)

- **Trail Gateways** – it will be important to install trail gateways in the Meadowview/Riel and South Big Lake areas as part of early trail development to create the RWPW identity (personality and image) and introduce users to the wayfinding management signage designed to encourage appropriate user behaviour. This development should occur in coordination with the City park and trail signage implementation plan. (Priority: Medium)
- **Off-Leash Dog Park** – there is an identified need to develop an off leash dog park in west St. Albert and so the development of the North Carrot Creek Gateway which includes a 15ha off-leash park on land already owned by the City, would be a good short term development opportunity. (Priority: Medium)
- **Lois Hole Centennial Provincial Park** – proposed LHCPP development may create opportunities for the City to time related RWPW development to match. (Priority: Medium)

4.2 Projected Capital Costs

The purpose of the capital costs subsection is to summarize the projected funding requirements to support the master plan implementation. The following provides order-of-magnitude costs associated with the development of all of the proposed features within each geographic area of RWPW. The order-of-magnitude costs have been estimated based on an understanding of the projected scope of the construction, using actual unit costs from similar projects constructed in the past year. A contingency of 35% is factored into the estimated total cost of each area to account for unknowns, and a factor of 15% is added to cover future design/engineering and environmental approvals. The total estimated capital cost for all elements of the master plan is approximately $32.3 million, in 2018 dollars.

Table 4.1: Meadowview / Riel Cost Summary.

Item	Project	Total Cost
1.1	Grey Nuns White Spruce Park	$1,925,000
1.2	Red Willow Park Trails	$1,034,000
1.3	Trail Gateways	$48,600
1.4	Nature Trails	$54,000
1.5	Nature Trail Gateway	$34,800
1.6	Viewpoints / Birdblinds	$68,000
1.7	Pedestrian Bridge	$7,800,000
1.8	Canoe/Kayak Launch	$18,000
1.9	Fishing Deck	$33,000
1.10	Naturalization planting	$420,000
	Meadowview / Riel Subtotal	**$11,435,400**
	Contingency 35%	$4,002,390
	Engineering & Approvals 15%	$1,715,310
	Meadowview / Riel Total	**$17,153,100**

Table 4.2: South Big Lake Cost Summary

Item	Project	Total Cost
2.1	Red Willow Park Trails	$88,000
2.2	Trail Gateways	$16,200
	South Big Lake Subtotal	**$104,200**
	Contingency 35%	$36,470
	Engineering & Approvals 15%	$15,630
	South Big Lake Total	**$156,300**

Table 4.3: North Big Lake Cost Summary

Item	Project	Total Cost
3.1	North Big Lake Park	$2,110,000
3.2	Red Willow Park Trails	$968,000
3.3	Trail Gateways	$32,400
3.4	Nature Trails	$387,000
3.5	Nature Trail Gateway	$87,000
3.6	Viewpoints / Birdblinds	$184,000
3.7	Naturalization planting	$680,000
	North Big Lake Subtotal	**$4,448,400**
	Contingency 35%	$1,556,940
	Engineering & Approvals 15%	$667,260
	North Big Lake Total	**$6,672,600**

Table 4.4: South Carrot Creek Cost Summary

Item	Project	Total Cost
4.1	South Carrot Creek Park	$1,473,500
4.2	Red Willow Park Trails	$704,000
4.3	Trail Gateways	$32,400
4.4	Viewpoints / Birdblinds	$88,000
4.5	Naturalization planting	$162,500
	South Carrot Creek Subtotal	**$2,460,400**
	Contingency 35%	$861,140
	Engineering & Approvals 15%	$369,060
	South Carrot Creek Total	**$3,690,600**

Table 4.5: North Carrot Creek Cost Summary

Item	Project	Total Cost
5.1	North Carrot Creek Park	$1,923,500
5.2	Red Willow Park Trails	$572,000
5.3	Trail Gateways	$32,400
5.4	Nature Trails	$54,000
5.5	Nature Trail Gateway	$34,800
5.6	Viewpoints / Birdblinds	$132,000
5.7	Naturalization planting	$325,000
	North Carrot Creek - Subtotal	**$3,073,700**
	Contingency 35%	$1,075,795
	Engineering & Approvals 15%	$461,055
	North Carrot Creek - Total	**$4,610,550**

4.3 Management Guidelines

As defined in the guiding principles, RWPW is to be developed and managed with a focus on maintaining ecological integrity while integrating low impact outdoor recreation. To ensure that these principles can be met, the City, with the support of users and partners (principle of shared stewardship), will need to adopt and enforce a set of management guidelines and standards.

Based on the input from the public and stakeholders, RWPW users will want a safe place to recreate while enjoying nature. Part of this expectation is that the park and the activities of users will be properly managed, but not with excessive controls or an overabundance of regulatory signage that will impact the natural values of the RWPW. This will be an important balance that can be achieved best by educating users, having a regular presence of Public Works staff and volunteers, and through consistent enforcement of the rules.

The following is a summary of some of the specific management guidelines that are already in place in approved documents that can provide a guide for the long term management of both the users and the natural environment within RWPW.

City of St. Albert Natural Area Conservation and Management Plan

- Maintain wildlife habitat value of natural areas – when replanting disturbed areas, use native species that provide food and/or shelter for a variety of wildlife. Manage natural area vegetation to maximize wildlife habitat value.
- Minimize wildlife mortality and disturbance – Enforce on-leash and off-leash rules and requirements for domestic dogs as per the City's Animal Bylaw (11/2013) within natural areas.
- Reduce wildlife mortality in the vicinity of natural areas – erect wildlife-crossing signs, or consider other mitigation measures, at roadway locations adjacent to natural areas documented to have a high frequency of wildlife crossings and/or wildlife-vehicle collisions.
- Maintain natural hydrology of natural areas – Monitor for unnatural ponding of water (i.e., not present in natural, pre-development conditions) resulting from development impacts. If ponding has the potential to

cause substantial change in the plant community, consider possible mitigative options in consultation with Public Works and Utilities.

- Promote good water quality of natural water bodies – Restrict the active management of natural vegetation (e.g., clearing, cutting, pruning, pesticides and mowing) to the minimum extent necessary within 30 m of water bodies.
- Maintain natural areas in a manner that ensures public safety while minimizing impacts to natural area ecology – Clear trails, prune encroaching vegetation and manage hazard trees, and downed woody debris as required to achieve desired safety objectives while preserving habitat trees.
- Restrict human use of natural areas to designated areas and appropriate low-impact activities – Clearly identify designated trails and post notices that keeping to trails is required. Discourage use of informal trails by blocking/obscuring trail entry points using boulders, downed woody debris, or plantings. Seasonally close trails or other recreational access to natural areas if warranted to protect sensitive wildlife from human disturbance or to protect humans from unsafe conditions (e.g., seasonally flooded areas).

Lois Hole Centennial Provincial Park – Draft Management Plan (2017)

- **Ecosystem Function and Biodiversity** – Restrict access to ecologically sensitive areas. Protect terrestrial and aquatic ecosystems from human disturbance.
- **Fauna** – Maintain status of Big Lake as an Important Bird and Biodiversity Area (IBA) according to Canadian IBA Criteria.
- **Invasive Species** – Manage and monitor invasive species according to Government of Alberta policies, legislation and best practices.
- **Cultural Heritage and Historic Resources** – Protect historic resources for the purposes of scientific study and visitor appreciation.
- **Environmental Literacy Programming, Planning and Design** – Build environmental literacy among diverse target audiences and foster appreciation and caring for nature through intentional, collaboratively developed nature-based educational and interpretive programming.
- **Public Safety, Information and Regulatory Compliance** – Enhance Alberta Parks and volunteer steward presence at LHCPP for face- to-face education opportunities.

Grey Nuns White Spruce Park Recommended Management Plan (2014)

Within the GNWSP Management Plan are specific recommendations and strategies for ‘Management for the People’ to ensure that future use by visitors does not have negative impacts on the sustainability of the forest. These management strategies are outlined below and reflect in the concepts of this RWPW master plan:

- Provide a natural forest venue for recreational opportunities that have low ecological impact and maintain GNWSP as a park for passive recreation.
- Develop plans for access to park for a range of visitors while always considering minimizing ecological impact of visitors.
- Clear existing trails of deadfall to improve safety for visitors and reduce the likelihood of trail braiding and leave deadfall to create microsites for forest regeneration.
- Restrict access to west side of forest to allow for treatment to establish regeneration.
- Use high-impact user controls such as surface materials, types of gates, fences, and dissuasive vegetation (e.g. wildrose) as appropriate to the individual trail.
- Construct raised boardwalks on trails crossing wetlands.
- Develop infrastructure that welcomes users to the park and encourages responsible and appropriate recreational use of the park by individuals and families and provides historical and educational information.

- Create two distinct entrances to the park, at both north and south approaches, to welcome and inform patrons.
- Develop entryways that use features, such as walk-through gates, bike parking, trail material changes, and dissuasive vegetation to discourage high-impact users (cyclists, inline skaters, skateboarders) from using the natural-surface trails within the forest.
- Use image-based signs to communicate appropriate users for each trail type.

Bylaws, Regulations and Local Rules

To ensure that the increasing use is properly managed, the City has the ability to enact and enforce bylaws and local rules to ensure a safe and comfortable experience for users.

- **Bylaws** – there are two primary City bylaws which can be enforced to manage use in RWPW: (1) Parks Bylaw (37/2017) which defines rules that apply to all users of parks; and (2) Animal Bylaw (11/2013) which regulates on and off-leash use.
- **Enforcement** – Peace Officers and Bylaw Enforcement Officers will monitor RWPW for safety and can enforce the fines if bylaws are not followed. The application of bylaws for inappropriate and unsafe uses is limited to the resources of the City and so an increase in the level of staffing related to operations in RWPW in the future is recommended as development occurs. An increased presence in RWPW should help to reduce the incidence of unlawful behavior.
- **Regulations** – The enforcement of provincial and federal regulations would require monitoring by other agencies such as Alberta Environment and Parks, Alberta Sustainable Resource Development and Alberta Public Lands. These are the primary provincial bodies that monitor, regulate and enforce both provincial and federal legislation with respect to the recreational use of the Sturgeon River and Big Lake.
- **Local Rules** – may be applied in the application of the Parks Bylaw to manage or facilitate specific uses. An example would be the seasonal closure of trails or areas within RWPW. Other local rules may be considered on an as needed basis as the use and number of users increases.
- **Education and Safety** – it is recommended that a marketing and education campaign be designed and implemented to raise awareness about RWPW and the proposed development and to encourage shared use and enjoyment. The City should partner with community/stewardship groups on this program.
- **Recreation Management** – as RWPW is developed, the City may want to consider implementing a recreation management program (group) that includes dedicated staff responsible for tasks such as coordinating partnerships, stewardship activities, managing recreational bookings (eg. Shelters), and educational programming (eg. School groups).
- **Safety** – from a safety perspective, Crime Prevention Through Environmental Design (CPTED) standards should be applied in the detailed design of the parks facilities and amenities.
- **Management Signage** – as described previously, this will be the regulatory signage designed to raise awareness and guide appropriate user behaviour in support of the environmental protection and management objectives. These signs will also be designed to address public safety and provide direction on hours of operation, bylaws and acceptable activities. It is recommended that management signage be placed strategically at park and trail gateways and in other key locations (as need arises) in support of the management, operations and enforcement programs.

4.4 Operational Implications

The responsibility for maintenance and operations of RWPW will reside predominately with the City of St. Albert Public Works Department. Based on input from Public Works, the following are some of the key operational requirements that will be addressed through maintenance practices as RWPW develops:

- **Natural Environment** – maintenance practices may include ongoing restoration planting, seasonal access restrictions for habitat protection, weed control, seasonal mowing of native grass areas (and other techniques) as required for weed control.
- **Restoration planting and landscaping –** following the maintenance and warranty work of the initial contractors, maintenance (watering, fertilizing, weed control) of restoration planting and other Park landscaping will be required for up to five years to ensure establishment.
- **Asphalt Trails** – all asphalt trails will be classified as Red Willow Park Trails and so will be maintained to the City's highest trail standard including 'broom to pavement' clearing in winter. Other trail maintenance practices include regular trail inspections, vegetation clearing, erosion controls, surface repairs, and maintenance of trail structures and amenities. Mowing on either side if the trail (1.8m width) will be done through open park space areas but not through natural/forested areas.
- **Nature Trails** – gravel and wood chip trails will need to be maintained to address root impacts, erosion, accessibility (compaction), weeds and drainage (culverts).
- **Built amenities** – regular maintenance of built amenities such as viewpoints, nature playground, signage, shelters, benches, river access infrastructure, drinking fountains and washrooms will require dedicated resources to ensure that the amenities are maintained to a satisfactory standard. Following Final Acceptance (FAC), new amenities will be added to the Public Works inventory with an expectation of a 20 year lifespan. Operational budgets should account for 4-5% replacement annually.
- **Mowing** – mowing in RWPW will be limited to trail edges (as described above), along the boundary between public and private property (1.8m wide) and though dedicated open space areas within the Park Gateways.
- **Trash collection** –trash will need to be collected on a weekly basis, year round, but can be reduced through the provision of larger in-ground receptacles at key locations.
- **Roads and Parking** – any roads and parking lots within RWPW will be maintained for four seasons use. Snow clearing and snow storage needs to be accommodated in the design.
- **River and Creek** – maintenance activities along the rivers edge which will focus on protecting the banks from erosion as well as to maintain limited but safe access to the water. These activities may include restoration planting, weed control, trail maintenance and access restrictions. Informal river access locations should be discouraged to prevent erosion and impacts to river's edge habitat. On an annual basis, Parks staff should identify informal access locations (trails) and then implement restoration measures (native planting) and temporary control measures (fence and signs).
- **Signage** – Management activities may include sign maintenance and repair, as well as updating and changing out signs to keep the information current or to address seasonal changes and invasive species.
- **Weed and Pest Control** – over the long term, a program for controlling weeds in natural and restored areas of RWPW will be important. Since this could require significant resources, it is the type of program that may best be accomplished by Public Works with support of organized volunteer activities on an annual basis (E.g. "Weed control Day"). In addition to weed control, wildlife management guidelines will be followed as necessary to manage wildlife pests.

5.0
SUMMARY

The Red Willow Park West Master Plan Update provides a long-term vision and comprehensive plan for the development and management of Red Willow Park West. The master plan update has been prepared by building on the information and planning from the 1991 and 2003 master plans and by engaging with the City, stakeholders and the public to refine the vision and define new concepts for the key geographic areas within RWPW.

The key components of this master plan update include:

- **Vision, Principles and Objectives** – the 2003 vision, principles and objectives have been maintained to guide this 2018 RWPW Master Plan Update, with slight refinements in content and terminology to reflect current planning, environmental and development conditions in the expanded study area.
- **Natural Environment** – the protection, conservation, enhancement, management and interpretation of the extensive natural resources of RWPW.
- **Trails –** as the primary developed component, multi-use and nature trails will provided access and connectivity throughout RWPW, across the City and to neighboring municipalities.
- **Park Destinations** – there are several proposed parks that will serve as destination locations for citizens and visitors to get access to RWPW and a range of amenities to support outdoor recreation and access to nature.
- **Recreation and amenities** – there will be a range of low impact recreational features and amenities developed throughout RWPW to support user experience and enjoyment.
- **Natural and Heritage Interpretation** – user experience will be heightened by a comprehensive program of natural and heritage interpretation that connects multiple interpretive storylines across the heritage facilities and sites within RWPW.
- **Implementation Strategy** – recommended priorities for the staged development of RWPW determined with consideration of extending the current reach of Red Willow Park, connecting adjacent neighborhoods, protecting environmental features and integrating with related City projects that are proposed in the near term.
- **Management Guidelines** – RWPW is to be developed and managed with a focus on maintaining ecological integrity while integrating low impact outdoor recreation. To ensure that these principles can be met, the City, with the support of users and partners (principle of shared stewardship), will need to adopt and enforce a set of management guidelines and standards.
- **Operational Implications** – as RWPW develops and expands the requirements to operate and maintain the natural and recreational components will also increase and maintenance practices, staffing and budgets will need to respond to ensure that guiding principles can be met.

As it develops, Red Willow Park West will become a much loved and well used resource that the citizens of St. Albert, and those visiting the community, will use as a place for a range of recreational activities in a unique natural setting, now and into the future.