



RIBBON *of* GREEN

Draft | June 2024



Edmonton

Prepared for
City of Edmonton

Prepared by
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Executive Summary

How will we ensure the River Valley and Ravines System remains a protected, vibrant and ecologically resilient open space network as the city grows?

Edmonton's North Saskatchewan River Valley and Ravine System ("River Valley") is a vital and highly-valued ecological, recreational and active transportation corridor; a place of incredible cultural significance and a draw for visitors throughout the region. With demands on the system becoming increasingly complex, there is a need for clear policy and planning guidance.

This document provides policy direction to guide the planning, programming and management of Edmonton's North Saskatchewan River Valley and Ravine System (the System). These policies were developed based on existing direction, best practices, public engagement and analysis.

The policies and spatial direction in this Plan apply to the entire River Valley and Ravine System (see map on the following page).

Indigenous Acknowledgement

The lands on which Edmonton sits and the North Saskatchewan River that runs through it have been sites of natural abundance, ceremony and culture, travel and rest, relationship building, making and trading for Indigenous peoples since time immemorial.

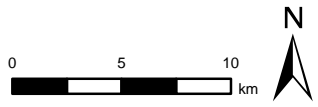
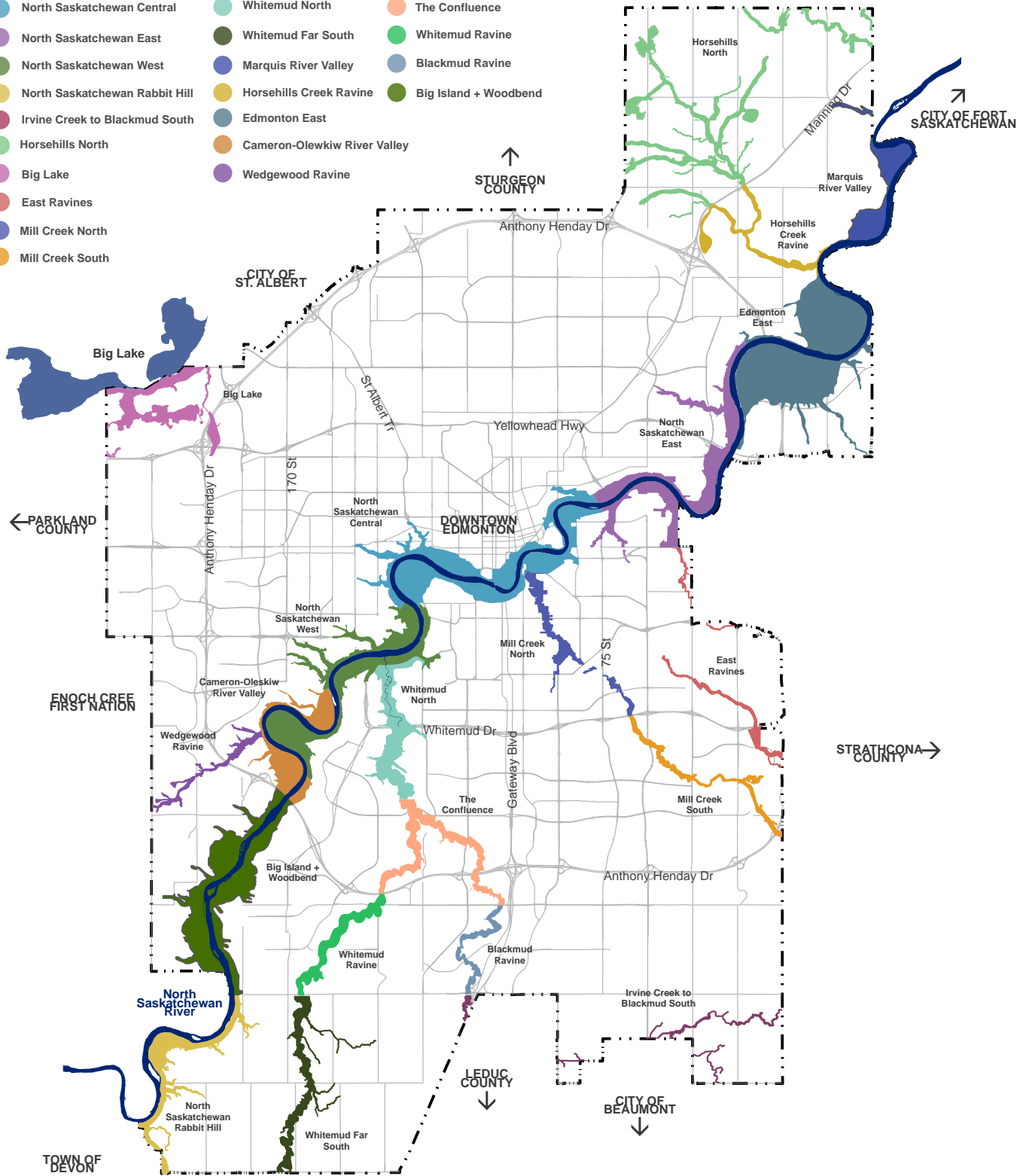
Edmonton is located within Treaty 6 Territory and within the Métis homeland. We acknowledge this land as the traditional territories of many First Nations such as the Nehiyaw (Cree), Denesuliné (Dene), Nakota Sioux (Stoney), Anishinaabe (Saulteaux) and Niitsitapi (Blackfoot). We also acknowledge this place as the home of one of the largest communities of Inuit south of the 60th parallel.

The City of Edmonton owes its strength and vibrancy to these lands and the diverse Indigenous peoples whose ancestors' footsteps have marked this territory as well as settlers from around the world who continue to be welcomed here and call Edmonton home. Together, we call upon all our collective honoured traditions and spirits to work in building a great city for today and future generations.

RIBBON OF GREEN REACH AREAS

LEGEND

- North Saskatchewan Central
- North Saskatchewan East
- North Saskatchewan West
- North Saskatchewan Rabbit Hill
- Irvine Creek to Blackmud South
- Horsehills North
- Big Lake
- East Ravines
- Mill Creek North
- Mill Creek South
- Whitemud North
- Whitemud Far South
- Whitemud Ravine
- Marquis River Valley
- Horsehills Creek Ravine
- Edmonton East
- Cameron-Olekiw River Valley
- Wedgewood Ravine
- The Confluence
- Whitemud Ravine
- Blackmud Ravine
- Big Island + Woodbend



HOW TO USE THIS PLAN

The *Ribbon of Green* is divided into five sections, each with a different intent:

INTRODUCTION VISION + PRINCIPLES Section 1

This section provides background and outlines the **Vision** and **Principles**.

This section contains policies to guide decision making and direct the planning, design, and management of the River Valley and Ravine System. The direction here ensures a consistent approach is applied throughout the System.

SYSTEM-WIDE POLICIES Section 2

This section divides the River Valley into three main Classifications:

PRESERVATION
– Ecosystem Protection
– Trail-based Recreation

CONSERVATION
– Trail-based Recreation
– Natural Recreation

ACTIVE/WORKING LANDSCAPES
– Intensive Recreation
– Agriculture and Horticulture
– Urban Services and City-wide Attractions

Site Direction: LAND MANAGEMENT CLASSIFICATIONS Section 3

These Classifications are defined in this plan and presented in Section 3. **It is important to note** that this Plan is a result of a desktop analysis using the best data available at the time. Future site-specific planning will include field assessments that may result in further refinement of these Classifications and the spatial delineation of the Sub-Classifications.

Program Guidance provides the following:

A vision for each reach:
(river valley or ravine segment)

Program guidance for each reach:
This includes spatial direction that functions as a starting point, and will be refined and confirmed during future site-specific planning processes.

Amenity Node and Primary Trailhead direction: This section includes program statements, design ideas, and circulation direction for areas of activity within each reach.

Site Direction: PROGRAM GUIDANCE Section 4

IMPLEMENTATION Section 5

This Plan concludes with an implementation section that provides direction to expand, monitor, evaluate and realize the *Ribbon of Green* over time.

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1 INTRODUCTION

1.1 The River Valley in Edmonton

The North Saskatchewan River originates over 2,000 metres above sea level at the Saskatchewan Glacier in the Columbia Icefield. It flows across western Alberta before reaching the City of Edmonton. The River Valley is incised 45 to 60 metres below the plains upon which most of the city is located – plains that were once covered by a glacial lake at the end of the last ice age. As the glaciers retreated, regional drainage patterns were restored and the North Saskatchewan River Valley began to form. The river has carved through the landscape, resulting in a unique network of river terraces, meanders, and oxbows that characterize the North Saskatchewan River Valley and Ravine System (the System) today.

The City of Edmonton lies within the Parkland Ecotone, the transition zone between boreal forest to north and prairie grassland to the south. As a transition zone, the Parkland Ecotone supports a high level of diversity of both boreal and prairie species, making its conservation critical.

The System is the Edmonton region's greatest natural asset and a significant contributor to the quality of life of Edmontonians. Long established as a gathering place for Indigenous Nations, Edmontonians continue to value the protection and celebration of the natural and cultural heritage of this area. The System provides Edmontonians with the unique opportunity to connect with nature within an urban environment. Canada is becoming increasingly urbanized, with over 80% of Canadians now living in cities. As this urbanization trend continues, the protection of the System as a natural asset within an expanding urban area will become even more important.

The North Saskatchewan River winds through the City of Edmonton from its southwest corner to its northeast corner. In addition to the river itself, the System includes multiple ravines and numerous tributaries, which measure over 100 kilometres long. Together, these watercourses form the Ribbon of Green.

This System is the most dominant physical feature within Edmonton and the surrounding region, and is the spine of the ecological system. Totalling more than 7,400 hectares, few cities can claim such an expansive area of connected urban parkland in a largely natural condition. Its unique physical, biological, historical and scenic characteristics significantly contribute to Edmontonians' quality of life and is cherished throughout the community and region.



What is the System?

The North Saskatchewan River Valley and Ravine System is referred to as the System throughout the Plan.

1.2 Purpose of the Ribbon of Green

The Ribbon of Green provides strategic direction to guide the protection and responsible use of Edmonton's River Valley and Ravine System to Edmonton's 1.5 million population horizon.

As the City of Edmonton grows, the System faces increasing pressure from urban development and use. The *Ribbon of Green Plan* helps support and sustain an interconnected System that meets the needs of the environment while providing diverse recreational and cultural experiences for those who work, play and/or live in Edmonton. The Plan provides direction to the acquisition, management, programming, and development of publicly owned land within the Plan's study area.

Specifically, the *Ribbon of Green*:

- + Contains policy direction to guide decision making, further planning, monitoring and management of the System.
- + Informs collaboration, public engagement and partnerships with communities, institutions and other orders of government.
- + Defines and applies Land Management Classifications to outline the protection and level of programming appropriate for different locations within the System.
- + Provides program direction to inform future site-specific planning.



The Ribbon of Green does not change the development rights of private landowners, as per the Zoning Bylaw, Statutory Plans, and City Policy.

It is important to note that all analyses conducted during the Ribbon of Green process have been completed at a desktop level, and that the policies and recommendations within the Plan do not supersede Federal or Provincial regulations and laws, and should be implemented in accordance with other City policies and bylaws.



The Quarry

1.3 Plan Hierarchy

The Ribbon of Green translates the City of Edmonton's high-level open space strategies, plans, and policies to guide River Valley and Ravine System management, site-specific planning, and design. The Plan provides policy and spatial direction for the System.

ConnectEdmonton and City Plan

ConnectEdmonton is Edmonton's Strategic Plan for 2019–2028. It sets the direction for our future by providing Edmonton's vision, guiding principle, four 10-year strategic goals and indicators. **The City Plan** is Edmonton's Municipal Development Plan and Transportation Master Plan guiding long-term land use and development in Edmonton to a population of 2 million.

City-Wide Policy

The following selection of policies apply to the City of Edmonton as a whole but also contain important direction for future System planning.

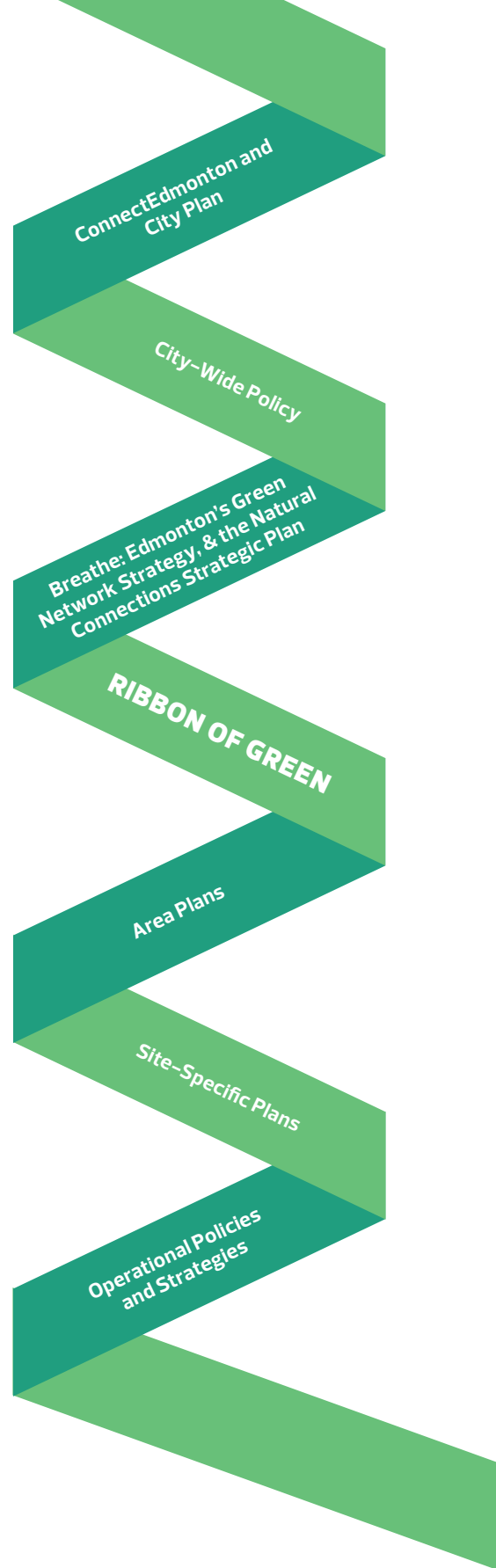
- + **Development Setbacks from River Valley/Ravine Crests (C-542A)**: This policy establishes appropriate setbacks from the river valley and ravines to preserve views, optimize public access and protect private and public property from hazardous slopes.
- + **Open Space Policy (C-594)**: This policy commits the City to evidence-based, collaborative planning in service of an integrated, sustainable, vibrant, and multi-functional green network.
- + **Natural Area Systems (C-531)**: This policy recognizes the importance of balancing environmental considerations with economic and social considerations by conserving, protecting, and restoring Edmonton's natural areas as an integrated and connected system throughout the city.

Breathe: Edmonton's Green Network Plan

Breathe: Edmonton's Green Network Plan provides the framework for the *Ribbon of Green*. Breathe is a strategy to ensure that each neighbourhood is supported by an accessible network of parks and open spaces as the city grows. Breathe will help to plan a healthy city by encouraging connected and integrated open spaces.

Natural Connections Strategic Plan

Edmonton's *Natural Connections Strategic Plan* establishes a coordinated direction for the City to conserve an ecologically functional network of natural areas in Edmonton.



The graphic above shows how the *Ribbon of Green* relates to the various plans and strategies for River Valley and Ravine System planning.

Climate Resilient Edmonton: Adaptation Strategy and Action Plan

Climate Resilient Edmonton guides the City in responding to the impacts of climate change and protecting the community, infrastructure, and services from its impacts.

Area Plans

These plans provide statutory direction to the River Valley and Ravine System and the adjacent neighbourhoods.

+ North Saskatchewan River Valley Area Redevelopment

Plan: This Plan provides the environmental review framework and policy direction for the planning and protection of the North Saskatchewan River Valley and Ravine System.

+ Area Structure Plans (ASPs), Area Redevelopment Plans (ARPs), Neighbourhood Structure Plans (NSPs) and Neighbourhood Area Structure Plans (NASPs):

These documents provide direction for neighbourhoods adjacent to the River Valley and Ravine System.

District Plans (Under Development)

Through the District Planning project, the City is preparing two planning tools to guide the redevelopment of the collection of neighbourhoods (districts) as Edmonton reaches its milestone of 1.25 million population. The District General Policy provides policies that apply to all districts and provides planning direction for the entire City. Through this process 15 district plans are being prepared which contain district-specific policies and maps that provide direction for redevelopment within a particular district.

Site-Specific Plans

The *Ribbon of Green's* directions are anchored in an extensive desktop analysis. Desktop analysis refers to written reference materials, modeling and mapping using datasets, and engagement instead of site visits and field assessments. Further System planning will involve field assessments to verify and refine the direction contained here to inform the detailed planning and design for specific sites within the System. These plans can take many forms including, but not limited to, the design and programming for a single park (e.g. the Oleskiw River Valley Park Master Plan), a management strategy for controlling erosion on a vulnerable slope, a trail alignment study, and a natural area management plan.

Site-specific plans must align with the System-wide policies within this Plan. These policies will provide concrete and consistent direction, whereas the Land Management Classifications and Program Guidance function as a starting point, which is subject to change during site-specific planning when detailed site visits, analysis, and engagement can be conducted.

Operational Policies and Strategies

The following policies guide specific amenities, uses, practices, and activities within Edmonton's open spaces.

+ Live Active Strategy (2016): The Strategy provides a road map for supporting the active recreational and sporting needs of all Edmontonians.

+ Parkland Bylaw (2202): This bylaw regulates the conduct and activities of people on City-owned or operated parkland in order to promote the safe, enjoyable, and reasonable use of parks and to protect and preserve natural ecosystems.

+ Corporate Tree Management Policy: This policy protects the tree canopy on City property by guiding the development and maintenance of the City's tree inventory, providing a tree reserve account for new planting, and coordinating all City tree planting programs.

+ Dogs in Open Spaces Strategy: The Strategy includes recommendations to help shape and update the City of Edmonton's current planning, design, and management practices regarding dog off leash areas.

+ Plan of Action for the Capital Region River Valley Park: Developed by the River Valley Alliance, this plan is a 25-year vision for a continuous and connected North Saskatchewan River Valley Park, and outlines specific improvements, amenities, and features.

+ River Access Guiding Principles Policy (C-586): This policy ensures that river access and activities are provided and managed in a responsible, orderly, equitable, and environmentally appropriate way.

+ Approach to Community Recreation Facility Planning: The Approach outlines the long-term strategic direction for the provision of recreation facilities, amenities and services, and a means to identify recreation priorities into the future.



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1.4 History of the River Valley

The First People

Humans began occupying the area around the North Saskatchewan River Valley not long after the last ice age ended. Indigenous people have used the River Valley and Ravine System for food, medicine, camping, transportation, gathering, and celebrating for thousands of years – a cultural and spiritual connection with the land that local First Nations, Métis, and urban Indigenous peoples continue to practice today. Although known archaeological sites speak to diverse Indigenous histories, countless other significant places (sacred sites, burial grounds, traditional plants, historic camps) in the System remain undocumented. An ongoing dialogue with Indigenous communities is important to identify these sites, preserve the natural and cultural heritage, respect Treaty rights, and advance reconciliation.

A Centre for Trade

The first Europeans arrived in the Edmonton area in the mid-1700s. For over a century, the North Saskatchewan River Valley was a centre of trade, commerce, and settlement in Alberta. Fur trading brought settlers to Rosedale Flats in the early nineteenth century, and soon a growing community developed to service Fort Edmonton and the many industries along the river: oil extraction, gold panning and dredging, brickyards, coal mining and farming, among others. Throughout this time, Dene, Nakota Sioux, Anishinaabe, Woodland Cree, Blackfoot, TsuuT'ina, and Métis people encamped along the river to facilitate trade with the settlers and the Hudson's Bay Company. These communities were later displaced to reserves outside the city after the implementation of the Indian Act.

Early River Recreation

After 1891, when the Edmonton, Yukon, and Pacific Railway reached Strathcona, a recreation function gradually supplanted the industrial and transportation function of the River. People would embark on ice skating and paddle steamer excursions, specifically the route between Big Island and Fort Saskatchewan. Further rail development, such as the Canadian Pacific Railway (1885), and construction of the High Level, Dawson and Walterdale Bridges (1912 to 1915) caused land use patterns to shift away from the river valley to the tablelands.

Formalizing River Valley Protection

Although Indigenous people have been stewards of the River Valley and Ravine System since time immemorial, landscape architect Frederick C. Todd was the first to suggest a formal plan to protect the System for recreational purposes. Todd remarked that being a new city, Edmonton was in a unique position to reserve lands in the river valley and ravines for park space. In 1915, the Province of Alberta adopted Todd's report, which recommended the protection of the river valley environment for future generations as a contiguous recreational and open space system.

Between 1907 and 1931, the City began acquiring river valley and ravine lands. By 1931, the City had acquired most lands on both sides of the river from Highlands golf course to Laurier Park, as well as the majority of the ravine lands. A Municipal Zoning Bylaw followed in 1933 to regulate land use by preserving the river valley as parkland.

The beauty that people sought to foster in their cities in the early twentieth century was augmented in the decades that followed by a desire to have a place where citizens could build healthy minds and bodies. Having a respite from the frenetic pace of modern cities – being able to camp, fish, picnic, skate and toboggan in nature – gave parks new purpose in this era.

Yet despite an increasing awareness of its environmental and recreational value, the River Valley and Ravine System continued to provide a convenient location for urban services that required a public land base or were perceived as “nuisances” to tableland communities. From the Grierson Dump that operated as an active landfill (and shantytown) until the late 1930s, to the unrealized Metropolitan Edmonton Transportation Study for a downtown freeway loop in the 1970s, the System has been envisioned for diverse purposes well into the twentieth century. Even today, industrial uses such as aggregate extraction and wastewater treatment facilities require careful management and/or restoration to mitigate ongoing environmental impacts.

Advancing River Valley Planning

River Valley planning accelerated in the 1970s. This acceleration began with a top-of-bank policy (the ancestor of the contemporary Policy C-542A) that delineated the boundaries of the River Valley and Ravine System and established principles and regulations around adjacent development. Throughout the remainder of the early and mid-1970s, environmental protection and acquisition planning of the System lands were reinforced by policies, regulations, and legislation adopted by various orders of government.

The Capital City Recreation Park

An important development in the history of River Valley and Ravine System planning occurred when Premier Lougheed announced an Urban Parks Program that would fund environmental protection and recreational park development in the province's largest cities. Through a partnership between the Province of Alberta and the City of Edmonton, the Capital City Recreation Park (CCRP) was approved in 1974. This Park encompassed 16 kilometres of the North Saskatchewan River Valley from the High-Level Bridge to Hermitage Park. The trails and amenities here are among the most valued places in Edmonton to this day.

Building on the River Valley Study (1975) and draft North Saskatchewan River Valley Control Bylaw (1976), City

Council approved the North Saskatchewan River Valley Area Redevelopment Plan (ARP) Bylaw in 1985. The purpose of the ARP was to protect the River Valley and Ravine System through responsible planning and environmental management. This ARP remains in use and continues to regulate development and environmental review requirements in the System.

Early Ribbon of Green Concept and Master Plans

Enabled by the renewal of the provincial Urban Parks Program (Phase II), the *Ribbon of Green Concept Plan* (1990) and *Master Plan* (1992) were developed to undertake further planning for the long-term use, care, and management of the River Valley and Ravine System. The Ribbon of Green SW + NE was prepared in 2020 to provide strategic direction to guide the protection and responsible use of the southwest and northeast portions of the Ravine System for the next 20 years. These plans established a shared vision, management approach, general development program, and prioritization criteria for the entire River Valley and Ravine System, as well as specific guidelines and programs for priority areas. These original plans provided the basis for this renewed, consolidated, and modernized *Ribbon of Green*.

Protecting Urban Biodiversity

Recognizing that its boundaries encompassed areas of natural vegetation and wetlands that contribute to urban biodiversity and ecosystem services, in 1995 the City created a Natural Areas Policy, and in 2007 a *Natural Systems Policy (C531)* and the accompanying *Natural Connections Strategic Plan*, whose purview included the river valley and ravines and acknowledged the importance of a systems approach to conservation.

A Thriving Valley – and A Vision for the Future

Edmonton's River Valley and Ravine System is a remarkable story. Each generation added a reason for retaining the natural character of Edmonton's riverside lands. Today the Ribbon of Green is a beloved destination for recreation, gathering and exploring nature. The System provides irreplaceable ecological services to humans, animals, and the environment, from air and water filtration to wildlife habitat, and urban climate regulation. The Ribbon of Green not only guides the ongoing planning, design and maintenance of this parkland, but also offers guidance and direction for future parkland in the System. This will ensure that Edmonton's most treasured outdoor space remains healthy, accessible, and celebrated for generations.

1.5 Methodology

A Plan for the River Valley and Ravine System requires multiple analyses and inputs to ensure local relevance, a reflection of best practice approaches, an appropriate relationship to the surrounding context and respect for site characteristics and conditions. Specifically, the following inputs informed the *Ribbon of Green*:

<h3>Ecological Assessment</h3>	<p>The ecological network was defined through the Ecological Resources Overview, which:</p> <ul style="list-style-type: none"> + Reviewed natural features (e.g. waterbodies, soil, vegetation, flood areas) + Evaluated areas based on biodiversity potential, ecological connectivity and representative value (how rare or unique landforms and/or vegetation is) + Classified habitats as core habitats, habitats, corridors and stepping stones <p>Areas for restoration were defined by:</p> <ul style="list-style-type: none"> + Reviewing sites with non or semi-natural land cover in Preservation or Conservation areas + Identifying locations in Active/Working Landscapes to improve wildlife connectivity while shaping, locating and clustering development in the most appropriate and least impactful locations
<h3>Cultural Assessment</h3>	<p>The Cultural Assessment included:</p> <ul style="list-style-type: none"> + Inventory of known and unknown archaeological sites and historic sites , and potential for the presence of unknown archaeological and historic sites in other areas + Evaluation to determine recommended levels of impact and interpretation
<h3>Recreation Assessment</h3>	<p>The Recreational Assessment included:</p> <ul style="list-style-type: none"> + Evaluation of recreation preferences, trends and important connections + Evaluation of nearby planned and existing adjacent open spaces to identify gaps
<h3>Geotechnical Considerations</h3>	<p>An initial Geotechnical Survey was conducted to:</p> <ul style="list-style-type: none"> + Understand the geotechnical conditions + Provide guidance for future work
<h3>Transportation Considerations</h3>	<p>To determine access requirements for all modes, the following was evaluated:</p> <ul style="list-style-type: none"> + Confirming the existing transportation infrastructure for all modes of transportation. + Overall assessment of connectivity of adjacent trail network and amenity nodes and integration with the transportation networks at the top-of-bank.
<h3>Servicing Assessment</h3>	<p>Note: The Servicing Assessment was only undertaken for the reaches in the central part of the River Valley, in consideration of the more developed context of these reaches.</p> <p>The Servicing Assessment was undertaken to review:</p> <ul style="list-style-type: none"> + Stormwater, sanitary sewer and watermain servicing and when servicing is required.
<h3>Indigenous Contribution</h3>	<p>Indigenous communities contributed valuable input that informed the policies and program guidance, including:</p> <ul style="list-style-type: none"> + Identifying opportunities to provide input during future planning, monitoring, programming, restoration, remediation work, etc. + Traditional knowledge and practices + Importance of ecological health and protection
<h3>Public Engagement</h3>	<p>Stakeholders and the public provided insights throughout the process by:</p> <ul style="list-style-type: none"> + Sharing knowledge, expertise and ideas for the future + Shaping high-level policies, Land Management Classifications and program direction + Helping to refine and confirm the Plan direction

1.6 Vision + Principles

A vision statement and principles are critical foundational statements that guide the *Ribbon of Green*. The vision defines the ideal state of the River Valley and Ravine System and the principles add further detail about the elements and actions required to achieve the vision. These statements, in turn, inform the direction in this Plan and together provide the framework to support a healthy and sustainable System enjoyed by generations of Edmontonians.

VISION

The North Saskatchewan River Valley and Ravine System is a protected, connected, ecologically resilient landscape that honours our collective history and promotes healthy living through diverse opportunities for recreation, active transportation, learning, and gathering in the tranquility of nature.



Fraser Ravine

PRINCIPLES

- 1. Ecological Integrity:** Ecosystems will be protected, connected, restored, and managed to preserve ecological integrity and resiliency, minimize the impacts of human use and respond to changing conditions
- 2. Low-impact amenities:** Any new or expanded amenities will support opportunities for people to gather and recreate in nature or provide essential urban services, and will be located and designed to minimize environmental impact and promote ecosystem function.
- 3. Access and Connectivity:** A continuous trail system and access points will connect neighbourhoods, the city, and the region to the River Valley and Ravine System, and provide safe and accessible opportunities for recreation and active travel.
- 4. Collaboration:** Through education, engagement, and partnerships, meaningful opportunities will be provided to contribute to the planning, design, and stewardship of the River Valley and Ravine System.
- 5. Heritage:** The natural and cultural heritage of the River Valley and Ravine System will shape the places, experiences, and connections within it. Natural and historical sites, features, and landscapes will be protected and, where appropriate, interpreted.
- 6. Indigenous Perspectives:** Indigenous cultural values will be recognized and supported throughout the River Valley and Ravine System, and Indigenous communities will be meaningfully engaged as active participants in the planning, stewardship and use of the River Valley.

2 SYSTEM-WIDE POLICIES

These system-wide policies for Edmonton's River Valley and Ravine System respect and guide the implementation of the Strategic Directions outlined in Breathe: Edmonton's Green Network Strategy and the Ribbon of Green Vision and Principles.



2.1 Ecological Integrity

Breathe Strategic Direction:

Preserve and enhance the ecological quality and connectivity of the green network.

The River Valley and Ravine System contains most of Edmonton's remaining ecologically valuable places. These places provide countless services that benefit humans and ecosystems alike, such as food production, water management, climate regulation, and risk mitigation. The wetlands, riparian areas, woodlands and geological features also provide habitats and corridors for diverse wildlife and plants. Taken together, these places form an ecological network that maintains wildlife movement and healthy ecological flows across the region.

Preserving ecological integrity is the foundation of the Ribbon of Green. Natural systems are intrinsically valuable, and all other activities (habitat, recreation, education, transitional uses) in the River Valley and Ravine System rely on the health of natural systems. At the same time, planning the System requires harmonizing human use with protection to enable nature-based experiences while supporting healthy ecosystems and biodiversity. Improving access to and enjoyment of the System can foster appreciation for the environment and investment in its protection. The key is facilitating this use without jeopardizing ecological health.

Currently, development, infrastructure, and erosion have disturbed valuable natural areas. Past and current disturbances can interrupt wildlife movement, damage habitats, and harm ecological health. Ongoing threats include invasive species, disease, and climate change. If improperly managed, even relatively benign activities, like walking, can bring people into contact with sensitive habitats that may be adversely affected. This is why restoration and mitigation tactics are vital and will, over time, improve ecosystem health and increase resiliency.

The Ribbon of Green harmonizes ecological protection with human enjoyment by dividing the System into Land Management Classifications (see Section 3). These Classifications protect the most sensitive areas, support restoration, and concentrate activity in areas where environmental impacts are likely to be lowest. Policies support these Classifications by providing guidance to minimize and mitigate environmental impacts and outlining review, evaluation, and monitoring processes. This supports the River Valley and Ravine System as the foundation of an integrated, multi-functional and healthy green network for decades to come.

2.1.1 RESPECTING THE ECOLOGICAL NETWORK

- a) Adopt an ecological network approach to planning and protecting the System together with adjacent municipal parks and other public open spaces in the tablelands and adjacent jurisdictions.
- b) Protect a contiguous, ecologically functional network of habitats and wildlife connectivity corridors by classifying them as **Preservation**, restoring critical areas, and limiting human activity.

2.1.2 PROTECTING THE RIBBON OF GREEN

- a) Keep the majority of the System natural. Avoid habitat loss and fragmentation by concentrating development and activity in less sensitive areas.
- b) Avoid disposition of lands within the System in order to protect the River Valley and ravines for open space uses and preserve public access.
- c) Minimize fragmentation and linear disturbances through important core and habitat areas, thereby maintaining the integrity of the natural ecosystem.
- d) Maintain adequate groundwater and surface water connections, and minimize activities and disturbances that could interfere with the water table or sub-surface flow.
- e) Investigate the modification of stormwater outfalls that drain directly into waterways to mitigate elevated water temperatures and pollution through engineering and design solutions.
- f) Limit stormwater management facilities (non-natural waterbodies) to **Active/Working Landscapes**, where they are complementary to the program and design of the open space.
- g) Limit underground utilities within the system. Where underground utilities are required, ensure that they do not compromise the primary use of the land and pursue opportunities to co-locate compatible above ground and below ground infrastructure.
- h) Investigate with partners on how to improve the health of fish populations, and collect and periodically monitor baseline information to assess the effectiveness of water quality and quantity protection measures.
- i) Implement a high level of protection for sensitive habitats and landscapes, rare or at-risk species, and wildlife movement areas by limiting human access.
- j) Employ dark sky principles throughout the System to minimize the impacts of light pollution by:
 - + Restricting the area, level (intensity) and timing (hours) of lighting to the minimum required for programming and safety needs, as per the relevant Land Management Classification
 - + Minimizing blue light emissions
 - + Using fixtures that shield and direct illumination downward to the desired surface



The Convention on Biological Diversity

Signed by 150 government leaders at the 1992 Rio Earth Summit, the Convention on Biological Diversity is dedicated to promoting sustainable development. The Convention recognizes that biological diversity is about sustainable ecosystems, but is also about people and the need for food security, fresh air and water, shelter, and a clean and healthy environment in which to live. The City of Edmonton in partnership with the Government of Canada, the Government of Alberta, and other local authorities, has made a commitment to implement the Convention.



Why is it important to maintain connections between surface water and groundwater?

The transition zone from surface water to groundwater provides ecologically important services including thermal buffering, stormwater storage, water purification capacity, habitat, and food production for fish and invertebrates.

- k) Explore opportunities to incorporate nature-based solutions, which support both human well-being and biodiversity, to increase ecosystem function in areas of existing and planned development.
- l) As opportunities arise, replace existing built infrastructure with nature-based solutions (e.g. recreating healthy riparian ecosystems for flood mitigation and pollution prevention, in place of hardscaped, engineered solutions).
- m) Preserve and enhance regional wildlife connectivity throughout the System by:
 - + Preserving natural land cover using restoration techniques, naturalized landscaping, and native vegetation to restore or replicate wildlife corridors (either continuous corridors or a series of closely connected "stepping stones") while accounting for user safety (e.g. sight lines) and programming needs
 - + Removing barriers to wildlife movement (e.g. pinch-points or narrow corridor sections, fences) or providing alternative routes (e.g. nearby corridors, wildlife passages) where feasible
 - + Minimizing disturbances (e.g. construction, human activity, pollution) in wildlife habitats and corridors
 - + Rehabilitating roadways during renewal or reconstruction projects to include wildlife passages where analysis has indicated an ecological return on investment
- n) Minimize riverbank and slope erosion and ensure proper water drainage by:
 - + Avoiding development on steep slopes susceptible to water runoff
 - + Ensuring appropriate setbacks from watercourses and the top-of-bank
 - + Orienting trails across slopes diagonally or using switchbacks to climb steep slopes
 - + Re-routing trails on failing slopes + Incorporating natural grade dips or other grading into trails to divert drainage at frequent intervals
 - + Where appropriate providing steps on steep slopes, and diverting water from the top of the steps
 - + Using context sensitive techniques (e.g. natural channel design, bio-remediation) to manage water flow and erosion
 - + Implementing measures to minimize erosion from stormwater outfalls
 - + Minimizing the removal of groundcover vegetation, and increasing the planting of groundcover vegetation where appropriate, to limit erosion



Non-paved Trail

- o) Work with landowners, including the Provincial and Federal Governments, as well as stakeholders, and Indigenous communities, to improve the ecological functioning of the entire System.
- p) Pursue conservation easements and agreements with the Provincial and Federal Governments in suitable locations, in order to deliver a high level of management, monitoring, and protection.
- q) Ensure that the ecological and environmental integrity of the non-developable upland area is retained, and that it functions as a buffer from adjacent development by providing wildlife connectivity and ensuring slope stability.
- r) Address and reduce encroachments on the System through neighbourhood design, education, and enforcement.
- s) Encourage the relocation of existing impactful uses to the tablelands, and/or transition these uses to support the **Active/Working Landscape** Classification, to reduce impacts. Over time, enable their transition into **Conservation** and/or **Preservation** areas to improve ecological functioning within the entire System.
- t) With the exception of critical infrastructure that can not be located elsewhere, avoid development within the floodway. Ensure that any infrastructure or amenities located within the flood fringe can withstand periodic flooding.
- u) Follow City assessment and removal protocols for abandoned or hazardous infrastructure, including materials that have been dumped.

2.1.3 BUFFERING SENSITIVE SITES

- a) Adopt a 'variable width' buffer approach that increases buffer distances around sensitive features and where disturbances are more impactful, and takes into account flood protection, unstable lands, and pollution prevention.
- b) Determine specific buffer zone distances and sizes through the site-specific plans.
- c) Establish natural buffers of riparian vegetation around watercourses to reduce disturbance and bank erosion in areas where the disturbance may:
 - + Compromise natural habitats or potential archaeological, cultural and/or historic sites
 - + Impact wildlife or aquatic habitats
 - + Pollute traditional plants and foods through water run-off from potentially contaminated lands (e.g. roads – salt, sand and oil, open spaces – pesticides and herbicides)
- d) Establish wetland and riparian buffers in accordance with Alberta Environment and Protected Areas' recommendations (e.g. Stepping Back From the Water, 2012), and best available science and management practices.
- e) Buffer large core habitat areas (e.g. ungulate wintering areas) to reduce "edge effects" from the surrounding amenity nodes or top-of-bank land uses.

What is a non-developable upland area?

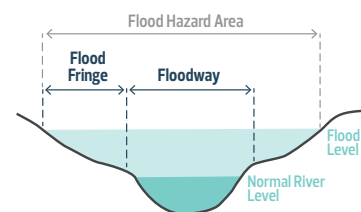
The non-developable upland area is the land between the Urban Development Line (see text box on following page) and the River Valley and Ravine System's top-of-bank or crest. This area is unstable, but provides public access for circulation, amenities and emergency response.

What is the floodway?

The floodway is the portion of the flood hazard area where flows are deepest, fastest and most destructive. The floodway typically includes the main channel of a stream and a portion of the adjacent bank.

What is the flood fringe?

The flood fringe is the portion of the flood hazard area outside the floodway. Water in this zone is generally shallower and flows more slowly than the floodway.



- f) Establish buffers of natural vegetation between areas of disturbance/active use to provide corridors for wildlife connectivity.
- g) Reclassify buffers as either **Conservation** (when adjacent to an **Active/Working Landscape**) or **Preservation** (when adjacent to the **Conservation** Classification).
- h) Classify areas between the Urban Development Line (UDL) and top-of-bank as **Conservation**.
- i) Encourage habitat restoration projects, and avoid and/or mitigate disturbance in areas identified as wildlife pinch points.

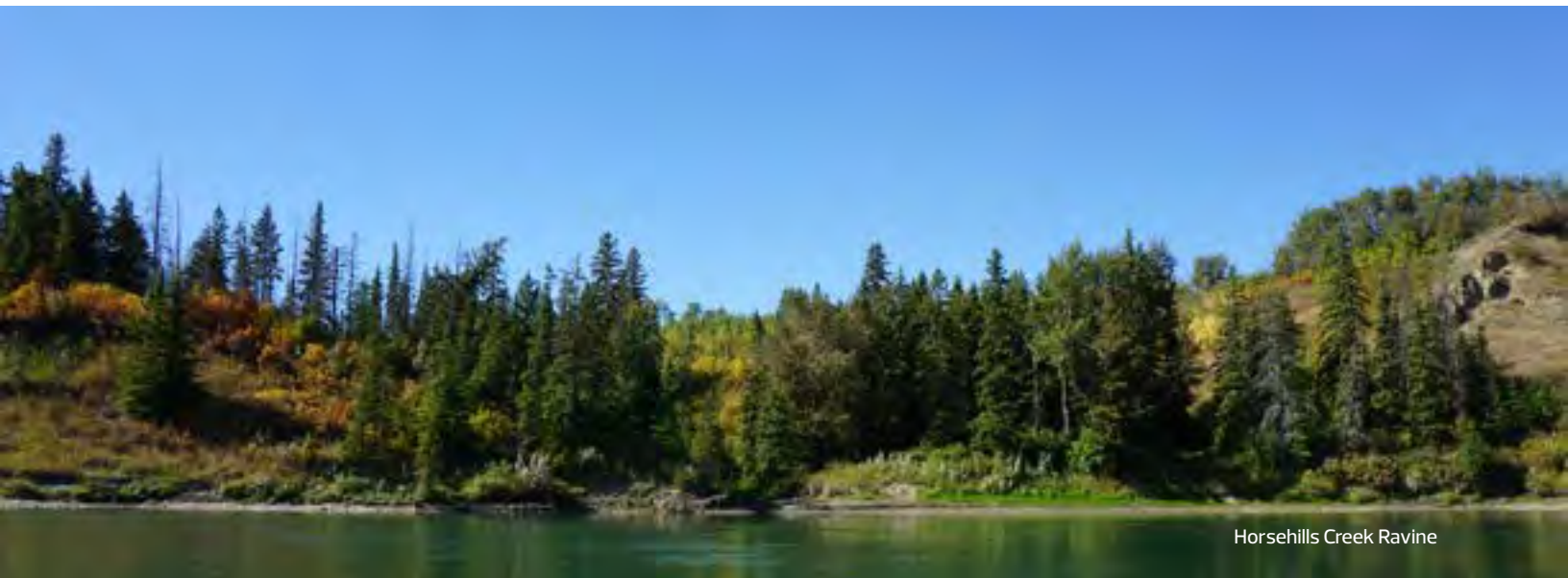


What is the Urban Development Line?

The Urban Development Line (UDL) is a scientifically-derived line marking the boundary between the developable upland area (urban development) and the River Valley and Ravine System.

2.1.4 MITIGATING ECOLOGICAL IMPACTS

- a) Establish a no net loss/net gain approach to protecting and restoring ecosystem function in the System.
- b) Establish reach-based targets for ecosystem protection that take into account existing and planned development, as well as Land Management Classification delineation.
- c) Adhere to the principles of the mitigation hierarchy of avoidance, minimization, and mitigation, with offsetting as the final option.
 - i. Anticipate potential ecological impacts prior to development and avoid such impacts where feasible.
 - ii. When avoidance is not feasible, minimize the disturbance area.
 - iii. When minimization is not feasible, mitigate any impacts.
 - iv. Where impacts are unavoidable, and only as a last resort, they should be offset through ecological restoration, habitat creation, or protection of native ecosystems outside the project area



Horsehills Creek Ravine

- d) Limit negative impacts to ecological health by applying appropriate mitigation and management techniques, including:
- + Limiting access (e.g. no access at night or during nesting season)
 - + Locating trails along the edge of, instead of through ecologically sensitive areas
 - + Implementing light, odour, and sound baffles (e.g. shelter belts, sound barriers)
 - + Concentrating amenities and facilities in appropriate locations away from habitats and corridors
 - + Consolidating amenities at trailheads to minimize further disturbance
 - + Dispersing or limiting programmed activities (e.g. limit events and impacts when the ground is wet)
 - + Limit the use of fencing to only areas with high levels of activity or security concerns, and whenever possible fencing should be wildlife friendly
 - + Use soft barriers (e.g. landscaping, vegetation) as an alternative to fencing, when appropriate
 - + Removing agricultural fencing that is no longer in use and may impede wildlife movement
 - + Landscaping with native and locally-adapted plant species that are suitable to the habitat
 - + Minimizing impervious surfaces
 - + Managing waste and other wildlife attractants
 - + Monitoring trails and amenity nodes to identify and address areas of overuse
 - + Incorporating wildlife passages where roads intersect with the System, timed with construction or rehabilitation
- e) Use signs, campaigns, programs, and enforcement to:
- + Ensure public use is restricted to appropriate areas
 - + Inform users about appropriate behaviour within sensitive ecological areas (e.g. remain on designated trails, avoid littering or making excessive noise, keep pets on leash and under control)
 - + Raise awareness about the impacts of invasive species and promote behaviours to reduce their impact (e.g. regularly checking boats, checking and cleaning footwear, using native bait)
 - + Connect with community, recreation, and environmental groups to support education and enjoyment of the System

2.1.5 RESTORING AND REMEDIATING

- a) Restore disturbed, degraded, or fragmented core natural areas with the purpose of re-establishing key ecosystem functions (e.g. wildlife connectivity, habitat integrity, erosion control, soil productivity, stormwater management).
- b) Use the restoration areas identified in this Plan (see Section 4: Program Guidance) as a starting point for further restoration site identification and evaluation conducted during the site-specific planning process.
- c) Recognize disturbed areas as locations for restoration and prioritize them based on their ability to enhance connectivity and habitat value.
- d) Focus restoration efforts on the following landscape components:
 - + Buffers around unique, critical, or sensitive sites
 - + Core habitat areas
 - + Key wildlife corridors, and pinch points
 - + Links that connect natural areas
 - + Degraded water body buffers
 - + Areas where restoration efforts will have a high likelihood of success
 - + Areas where restoration efforts will align with trail and infrastructure development
 - + Locations where topography, hydrology, soils, etc., have the potential to support diverse habitat types, rare, or sensitive species
 - + Locations where water quality and flood attenuation needs to be improved
 - + Linear patches of disturbance through otherwise intact patches
 - + Trailheads of user-created trails that have been identified for closure
 - + Opportunities to restore the scenic quality of a location
- e) Employ reforestation and/or re-vegetation techniques to stabilize denuded embankments and restore previously working landscapes, where applicable.
- f) Use habitat suitable native, non-invasive, and naturalized species in restoration projects.
- g) Remediate or manage known locations of contamination in accordance with legislative requirements.
- h) Work collaboratively with environmental groups and Indigenous communities on restoration and remediation projects.
- i) Explore capacity building opportunities for Indigenous communities as it pertains to remediation and restoration projects.



What are the impacts of trails on wildlife?

Recreation trails can have a negative impact on wildlife due to the noise and motion from people. When startled or disturbed, wildlife unnecessarily burn energy reserves or experience stress. Trails also cause habitat fragmentation which may impact some plant and animal species. Avoiding environmentally sensitive areas or educating outdoor enthusiasts about the need to keep a safe distance from wildlife can mitigate some of these impacts.



What is the limits of acceptable change?

Limits of acceptable change is the variation that is considered acceptable in a particular component or process of the ecological character of an area or ecosystem.

2.1.6 SITE-SPECIFIC PLANNING

- a) Address ecological value, protection, and management during future site-specific plans in accordance with City policies and bylaws.
- b) Ensure future site-specific plans:
 - + Ground-truth and respect ecological sensitivity (e.g. rare plants or habitats)
 - + Recognize and enhance ecological systems
 - + Include a biophysical inventory
 - + Identify mitigation and protection measures
 - + Preserve and integrate natural features and ecological resources (e.g. vegetation, wetlands, slopes, rock outcrops, habitats, tree stands, natural drainage corridors)
 - + Confirm and prioritize areas for restoration (e.g. invasive species removal, creek daylighting)
 - + Study drainage patterns, flow rates, geotechnical and hydrological conditions, wildlife movement, and potential contamination
 - + Study and confirm the conceptual wildlife passages identified within Section 4: Program Guidance. Site level planning studies are required in order to confirm where passages are required, and the design of the passage.
- c) Deter access to protect highly sensitive areas.
- d) Establish an acceptable level of ecological functioning, an assessment of current functioning and actions for the restoration and maintenance of ecological functioning during site-specific planning.
- e) Outline tactics to mitigate negative ecological impacts in site-specific plans such as:
 - + Defining the disturbance area
 - + Providing recommendations on construction timing (e.g. avoiding nesting season)
 - + Avoiding sensitive areas, as defined during the environmental review
 - + Implementing erosion control measures
- f) Design amenity nodes to facilitate wildlife movement.
- g) Assess the risk posed by wildfires to amenity nodes, facilities, and adjacent development, and mitigate where feasible. Undertake research and develop techniques to address the wildland-urban interface (the transition between wildland and human development).

2.1.7 CONDUCTING ENVIRONMENTAL REVIEWS

- a) Ensure further ecological and environmental assessments and reviews follow the processes outlined in City policies and plans. Assessments should evaluate and ground-truth the following, where applicable:
- + *The presence of sensitive flora and fauna*
 - + *Health of wildlife habitat*
 - + *Sensitive/hazardous landforms*
 - + *Floodways*
 - + *Soil conditions*
 - + *Vegetation*
 - + *Areas in need of restoration and remediation*
 - + *Opportunities for protection and management*
 - + *Cumulative impacts, particularly impacts arising from related or nearby projects*
 - + *Proposed (re)development projects (e.g. utility upgrades, slope stabilization, grading or excavation, facility expansions) to ensure that the development is compatible with the Ribbon of Green*
- b) Use the results of the environmental review to delineate the following:
- + Land Management Classifications and Sub-Classifications
 - + Ecologically sensitive areas to protect from development
 - + Mitigation measures to reduce ecological impact
 - + Locations to concentrate amenities, facilities, infrastructure and activities
 - + Monitoring measures to understand the cumulative impacts of the development
 - + Areas in need of restoration and remediation

2.1.8 MONITORING ECOLOGICAL HEALTH

- a) Establish a system-wide ecological monitoring program, including protocols, indicators and metrics, and identify appropriate monitoring cycles for each metric to provide a meaningful understanding of the condition of the River Valley and Ravine System, including ecological health, recreational use, and equity measures.
- b) Support research and monitoring projects to understand and improve the condition of wildlife populations, habitats, and other natural areas.



2.2 Safe + Inclusive

Breathe Strategic Direction:

Ensure the green network is safe, accessible, and inclusive for all.

The North Saskatchewan River Valley and Ravine System holds a special place in the lives and identities of Edmonton residents – residents whose diverse incomes, genders, ages, ethno-cultural identities, and physical abilities shape their access to and experience of the System. As one of the most important community places in the city, the System should provide opportunities to experience nature, culture, and recreation in spaces that are designed and managed to accommodate Edmontonians of all ages, abilities, and backgrounds.

Creating inclusive spaces means providing appropriate physical infrastructure for diverse needs. For example, using best practices in wayfinding and park design can expand opportunities for visually or mobility-impaired community members. Amenities, such as washrooms and benches, can help encourage greater participation by everyone, especially children and older adults. Although universal physical accessibility to every part of the System is difficult to accomplish given other management priorities, the Ribbon of Green acknowledges the right to equitable access to experience the System for all Edmontonians. While parking lots and paved trails can provide access for many people, development in some areas might be restricted to low-impact natural trails due to the ecological sensitivity.

A precondition of welcoming, inclusive open spaces is safety. Design and management interventions can facilitate comfort, enjoyment, and can help mitigate crime or harassment. With appropriate ecological consideration, design, monitoring, and maintenance can address unsafe environmental conditions (e.g. unstable slopes) and ensure ongoing safety. Education and enforcement can improve understanding and help shift unsafe behaviours (e.g. trespassing in hazardous areas, canoeing during high water events) and user conflicts. It is important to acknowledge that some risk is inherent to recreation in natural areas, and to establish clear expectations so that users can make informed decisions regarding their safety and actions within the System. In many ways, concerns about safety intersect with opportunities to make open spaces more inclusive for the diverse people of Edmonton. Creating a safe and inclusive River Valley and Ravine System will ensure that Edmontonians feel welcome and comfortable when enjoying, using, or accessing one of the city's most cherished places.

2.2.1 IMPROVING SAFETY THROUGH EDUCATION + ENFORCEMENT

- a) Implement education and awareness programs, and install informational signage to improve public safety (e.g., inform people about hazards and crime prevention), and inform users how they can report hazards.
- b) Provide user safety messaging for all seasons at water access and launch points along watercourses to inform users about potential safety concerns.
- c) Use public engagement and other communication tools to educate Edmontonians about the rights of open space users to safe, welcoming environments and experiences.
- d) Increase Park Ranger and operational resources in response to the growing needs and use of the system.

2.2.2 IMPROVING SAFETY THROUGH DESIGN

- a) Incorporate established, comprehensive, and systematic environmental crime reduction methods (e.g. CPTED) in trailhead, facility, and amenity node design.
- b) Determine the need and appropriate location for lighting on a site-by-site basis, informed by the Land Management Classifications, Light Efficient Community Policy (C576), Dark Sky principles.

2.2.3 IMPROVING TRAIL SAFETY

- a) Repair and maintain trails as per the type of trail, using a risk-based approach and based on life cycle management indications.
- b) Place safety railings along sections of trails with steep grades or adjacent to steep shoulders or drop-offs, as required by the type of trail.
- c) Use sensory cues and ensure adequate sight lines where vehicles and trails intersect.
- d) Use urban design cues and chicanes to compel cyclists to stop and check for traffic before crossing busy roads.
- e) Continually monitor and maintain a safe trail network by assessing and removing hazards (e.g. removing fallen trees, and repairing washed-out trail sections).



2.2.4 CREATING INCLUSIVE + ACCESSIBLE SPACES

- a) Create welcoming spaces at strategic and appropriate locations for all ages, abilities, and backgrounds by implementing the following principles:
 - + Ensure amenity nodes and trailheads are welcoming for people of all abilities, ages, and cultures
 - + Accommodate multiple travel modes (walking or rolling, cycling, driving and/or taking transit) wherever possible
 - + Create places that facilitate interaction (e.g. locating multiple uses together)
 - + Create spaces that promote an inclusive environment for children, youth, and seniors
 - + Work with Indigenous people and other cultural communities to design safe, designated areas for the practice of cultural activities
- b) Provide open spaces, facilities, programs, experiences and amenities that are welcoming, comfortable and accessible for all Edmontonians. Relevant design and program elements may include:
 - + Adequate shade, shelter, washrooms, water fountains, and seating spaces to support personal comfort in every season
 - + Accessible play features, facilities, and trails
 - + Accessible river access points and launching facilities (e.g. accessible canoe/kayak docks)
 - + Gender-inclusive and accessible facilities in new or renovated public washrooms and change rooms
- c) Consider the principles of Universal Design on a site-specific basis according to the ecological sensitivity of the area while ensuring all major facilities, amenities, and regional trails are accessible for all users.
- d) Strategically locate facilities and amenities close to parking areas and access points to facilitate universal access. Ensure availability of accessible and courtesy parking stalls to accommodate various users.
- e) Adhere to the City's *Access Design Guide and Accessibility for People with Disabilities Policy* when developing or renovating public structures, buildings, and facilities in the River Valley and Ravine System.



2.3 Vibrant Spaces

Breathe Strategic Direction:

Make open spaces vibrant, sustainable and functional to support community identity and needs.

Open spaces are much more than simply a setting – they offer experiences that provide opportunities for learning, gathering, and leisure. The North Saskatchewan River Valley and Ravine System has a unique character that makes it foundational to the story and identity of Edmonton and Edmontonians.

The Ribbon of Green offers a range of opportunities for solitude and celebration, for people to connect with nature and each other while respecting the health of the ecosystem. The existing parks within the System attract thousands of people annually who use these spaces for recreation, celebration, reflection, appreciation, education, and relaxation. The Ribbon of Green builds upon these experiences to service a growing population while protecting ecological health.

This section provides direction to create respectful, vibrant spaces that:

- + Are tailored to the River Valley and Ravine System context
- + Attract activity and enjoyment year-round
- + Celebrate diverse community identities and cultures
- + Respect the scenic quality of the landscape
- + Allow for creative expression and interpretation of the System
- + Guide appropriate celebration opportunities
- + Expand temporary and permanent programming opportunities

The Ribbon of Green defines locations to create vibrant spaces while leaving the majority of the System for natural experiences. The right mix of uses allows Edmontonians to enjoy multiple different experiences within the River Valley and Ravine System while respecting its ecological and cultural importance.

2.3.1 EXPERIENCING THE RIVER VALLEY AND RAVINE SYSTEM

- a) Ensure activities and facilities fit the River Valley and Ravine System context, respect the scenic quality of the landscape, and provide people with the opportunity to enjoy and learn more about the System. Evaluate whether the use or facility would be better located in the tablelands.
- b) Promote, develop, and program the System as a unique, world-class natural destination that offers a diversity of year-round experiences.
- c) When determining the location of amenity nodes, trailheads, and the amenities provided, evaluate the following:
 - + The Land Management Classification and associated compatible activities, facilities and infrastructure
 - + Potential environmental impacts (short-term and cumulative)
 - + Needs assessment, including review of nearby amenities that may meet needs
 - + How people will access the area
 - + Distribution of staging areas System-wide
- d) Implement the Development Setbacks from River Valley / Ravine Crests Policy (C542A). Encourage the non-developable upland area to function as a transition zone and buffer between the neighbourhood and the river valley by providing trail connections, gathering spaces, regular seating, signage, and protecting viewscales, while ensuring the ecological and environmental integrity of the area.
- e) Monitor the use and attendance of areas and events within the System (e.g. amenity nodes, the trail system, recreation programming, boat docks and hand launches) through a variety of methods (e.g. trail counters, parking counts, and intercept surveys) to inform future planning.



What are the tablelands?

The tablelands are all areas within Edmonton that are outside the River Valley and Ravine System, beginning at the Urban Development Line.



Example Future Site Features: Amenity Node

2.3.2 EXPERIENCING THE NORTH SASKATCHEWAN RIVER

- a) Encourage the use of North Saskatchewan River as a water trail through signage and communications, and by providing supporting amenities (e.g. parking, washrooms and storage) at boat and hand launch locations, in alignment within the designated Land Management Classification.
- b) Encourage active recreation uses of the North Saskatchewan River (e.g. canoeing, kayaking, and paddleboarding), while ensuring that access is from designated launch points and that use of the river does not infringe on others' use and enjoyment of the system (e.g. noise).
- c) Support access to, and use of the North Saskatchewan River for fishing, boating, and other river-based activities in locations with good access, parking, and lower ecological sensitivity.
- d) For any new boat/hand launches and stopover facilities, use a guideline of a 2-hour float space to determine the appropriate spacing. Since river flow rates vary throughout the year and from year to year, use the most recent slowest flow rate during the summer as a benchmark to establish appropriate distances.



Parks for All

The Ribbon of Green supports and aligns with Parks for All, an Action Plan for Canada's Parks Community. Parks for All was initiated and supported through a partnership between the Canadian Parks and Recreation Association (CPRA) and the Canadian Parks Council (CPC), and promotes actions and priorities that support healthy nature and healthy people in harmony for generations to come.

2.3.3 CELEBRATING IN THE SYSTEM

- a) Expand opportunities for temporary and permanent uses and programming year-round, as per the appropriate Land Management Classification and in accordance with City policies and bylaws, such as:
 - + Festivals
 - + Events
 - + Programs (e.g. day camps, naturalist walks, educational workshops)
 - + Art installations
 - + Performances
 - + Food vendors
 - + Markets
 - + Pop-up experiences (e.g. movie screenings, winter warming shelters)
- b) Collaborate with festival and event organizers to improve the sustainability, and reduce the ecological impacts, of their operations.
- c) When locating festivals and events, consult and evaluate the following:
 - + The Land Management Classification
 - + Potential environmental impacts (short-term and cumulative)
 - + Available amenities
 - + How people will access the event
 - + Estimated maintenance costs and timelines
 - + Necessity and/or length of closures to non-attendees
 - + Distribution of festivals and events city-wide

2.3.4 ALLOWING COMMERCIAL USES

- a) Develop or permit limited commercial activities (as per the relevant Land Management Classification) which align with the Plan's vision and principles. Prioritize commercial activities that support open-space services (e.g., equipment outfitters, watercraft and bicycle rental shops, food and beverage kiosks). Where appropriate, updates to regulations or site-specific zoning amendments may be required to facilitate limited commercial development.
- b) Work with landowners and operators to improve the ecological and recreational functioning of their land through:
 - + Sustainable landscape maintenance
 - + Wildlife management practices
 - + Winter use (e.g. cross-country skiing and snowshoeing)
 - + Sustainable water management practices
- c) Within Active/Working Landscapes, consider limited commercial development to allow for additional year-round use.

2.3.5 FACILITATING YEAR-ROUND USE

- a) Encourage year-round use by locating, designing, and managing facilities and amenities to:
 - + Provide a balance of sun and shade tailored to different seasons
 - + Incorporate, where appropriate, natural and artificial lighting to expand winter use
 - + Provide infrastructure and amenities that encourage year-round use (e.g. cross-country ski and snowshoe trails at golf courses to encourage winter use)
 - + Clear stairs, paved trails, and accessible entry points of snow and debris according to the type of trail
 - + Landscape with a mix of native drought-tolerant, annual and evergreen vegetation to provide year-round colour, shade and shelter
- b) Consider creative lighting opportunities:
 - + Within **Active/Working Landscapes**
 - + Away from **Preservation** and **Conservation** boundaries
 - + When impacts to local wildlife are evaluated and minimized
- c) Use lighting to identify pedestrian connections and illuminate public buildings, facilities, and historical features, where it does not negatively impact sensitive areas.
- d) Expand year-round recreational programming, for both land and water based recreational opportunities, (as per the relevant Land Management Classification) and provide consistent and regular amenities throughout the network to enable connections, improve access, and increase the predictability of all recreational experiences.

2.3.6 INCORPORATING PUBLIC ART+ HERITAGE

- a) Use public art and heritage encounters/interpretation as a tool to tell the story of the River Valley and Ravine System.
- b) Include public art in landscaping and building design in accordance with the Percent for Art to Provide and Encourage Art in Public Areas Policy (C458C).
- c) Encourage interactive or "playable" public art and heritage encounters/interpretation into the design of facilities, in accordance with the City's public art policies.
- d) Engage with the public, stakeholders, and Indigenous communities on the design and placement of public art and heritage encounters/interpretation, in accordance with the City's public art policies.
- e) Identify areas in the System that could be designated, managed and interpreted as natural heritage sites.



Winter in the River Valley



2.4 Education + Awareness

Breathe Strategic Direction:

Improve awareness of open-space opportunities and appropriate use.

The River Valley and Ravine System offers a diversity of unique, interesting, and rewarding experiences. These include important education opportunities for students and others. At over 7,400 hectares, wayfinding is also important for directing residents and visitors toward the amenities, facilities, and spaces that interest them. Proper wayfinding and interpretative signage will help people navigate the System, and learn about its diverse types of heritage.

The City currently offers outdoor recreation programs for school groups, children, families and adults. The health and wellness benefits of being in an outdoor classroom (e.g. reduced stress, increase in happiness, restored attention capacity), along with the unique research and lesson opportunities, make the Ribbon of Green an excellent location for educational opportunities and programming. Outdoor programming and educational opportunities can cultivate a conservation ethic, raise awareness about the value of biodiversity and ecological integrity, and the benefits of connecting with nature.

To improve user comfort and awareness, wayfinding throughout the System should be complemented by interpretive signage and other awareness-building methods (outreach events, liaison staff or volunteers, media campaigns). These will share stories and facts, promote appropriate uses, and communicate restrictions. For example, signs can provide advice on how to share a trail to minimize user conflicts, raise awareness about potential hazards, and help people plan their visit.

Signs or other communications tactics can help improve transparency by sharing the rationale behind regulations, designs, and decisions, leveraging the opportunity for educational purposes. For example, a trail closure sign can also provide information about erosion mitigation, restoration efforts, and ways to get involved in stewardship initiatives. Signs can also explain why it is important to remain on designated trails to protect sensitive habitats and ensure user safety.

In these ways, education can increase awareness of the natural, cultural, and historic features of the System, including its thousands of years of geographic, natural, and human history. In this regard, the System becomes an outdoor classroom for people of all ages to learn through interpretive displays, programs, and facilities. Education is essential for promoting and building awareness of the System to help stimulate further stewardship and volunteerism, and protect this resource for future generations.

2.4.1 RECOGNIZING INDIGENOUS TRADITIONAL USE

- a)** Work with organizations, archaeologists, historians, Indigenous communities, Elders/ Traditional Knowledge Keepers, and education institutions to explore opportunities to advance reconciliation through traditional practices, and educational opportunities for all Edmontonians.
- b)** Recognize the historic significance of the River Valley and Ravine System, and the river itself, as a meeting and gathering place for Indigenous people.
- c)** Recognize and respect Traditional Territories, and Treaty rights.
- d)** Work with Indigenous communities, Elders and Traditional Knowledge Keepers, as well as organizations, archaeologists, historians and education institutions, to explore opportunities to advance reconciliation through traditional practices and educational opportunities for all Edmontonians.
- e)** Work together with Indigenous communities to identify and protect valued places for harvesting of traditional foods. As appropriate, provide education and interpretation for Edmontonians and visitors to convey the importance of these places.
- f)** Engage Indigenous communities in naming or renaming ravines, sites, features and/or roads to better acknowledge the contributions of Indigenous communities and people to the River Valley and Ravine System. Specific sites, for example, may have names in multiple languages (e.g. English and Cree) that are officially recognized and included on signage.

2.4.2 PROMOTING THE RIVER VALLEY + RAVINE SYSTEM THROUGH INTERPRETATION

- a) Offer archaeological, geological, ecological, cultural, and historical interpretation, when appropriate and respectful. Opportunities may include interpretive signs, audio-visual displays, cairns, educational programming, and events, as appropriate in the associated Land Management Classification. Opportunities should consider diverse types of heritage, including (but not limited to):
- + *Natural and geological history*
 - + *Areas of ecological significance*
 - + *Pre-contact archaeological resources*
 - + *Indigenous traditional knowledge and oral histories*
 - + *Industrial, commercial and/or agricultural resources and history*
 - + *Recreational and park-management history*
 - + *Early settler history and post-contact history*
 - + *Notable historic people or events*
 - + *Recent history and ongoing narratives of newcomers and other cultural communities*
- b) When the site or territory has Indigenous significance, defer to Indigenous communities and people to determine the most appropriate and respectful marker.
- c) Collect stories from the public about the history and importance of the System to incorporate in educational and interpretive materials and inform site programming and design.
- d) Consider spaces for exhibitions, galleries, story-telling, performances, and other expressions to celebrate and honour the River Valley and Ravine System.

2.4.3 BUILDING AWARENESS OF APPROPRIATE BEHAVIOUR IN THE SYSTEM

- a) Implement programs and services to:
- + Promote respect for historical, archaeological, and cultural resources
 - + Encourage environmentally responsible behaviours
 - + Promote respect for other users
 - + Develop awareness about the impacts of reckless or destructive human activity
- b) Use trailhead signs, parking lot signs, and trail markers to:
- + Identify permissible uses and any applicable user restrictions
 - + Show potential hazards
 - + Identify the precautions required
 - + Provide information about safe recreation
 - + Inform dog owners of proper dog waste disposal etiquette

- c) Post signs to identify water–recreation routes, distances to other river access points, and relevant river safety advice/precautions.
- d) Post signage at boat launches related to the appropriate use of river, and potential ecological impacts associated with boating (e.g. riparian damage from wakes, invasive species).
- e) Use positive language on regulatory signage to create an inviting atmosphere for visitors.
- f) Support regulations and use restrictions with educational programs and campaigns in collaboration with community groups and organizations. Campaigns could address changes in use (restrictions or new uses), unauthorized activities (user generated trails, encroachments) and user interactions with each other and the space.
- g) Work with developers and builders operating in adjacent areas to develop strategies to minimize the impact of design and construction on the System and ensure that there are appropriate buffers (e.g. limiting drainage into the System).



2.4.4 PROVIDING EDUCATIONAL OPPORTUNITIES

- a) Accommodate educational programming, information, and opportunities in a form and intensity appropriate to the relevant Land Management Classification.
- b) Place interpretive signs at viewpoints and areas of significance to:
 - + Celebrate and honour Indigenous heritage, and where appropriate, include stories told by Indigenous people
 - + Highlight ecologically, geologically, culturally, and historically significant sites
 - + Describe restoration work underway
 - + Educate the public on how to react when encountering a wild animal
- c) Explore innovative methods to educate visitors about the significance of the System.

2.4.5 WAYFINDING

- a) Maintain and apply a wayfinding signage standard that is based on best practices, is updated regularly and promotes:
 - + a consistent approach to wayfinding throughout the system
 - + visitor understanding of where they are, where they can go, how they can get there, and how far it is to key destinations
 - + safety and accessibility
 - + sign design and content that respect the river valley setting
- b) Monitor signage condition and relevance on an ongoing basis with a funded signage replacement program available.



Why include educational opportunities in the Ribbon of Green?

The River Valley and Ravine System offers important education opportunities for primary, secondary, and post-secondary students. The City currently offers River Valley Programs for school groups from kindergarten through Grade 12. The unique research and lesson opportunities, along with the health and wellness benefits of being in an outdoor classroom, make the Ribbon of Green an excellent location for educational programming.



What is foot-based travel?

Foot-based travel includes hiking, walking, jogging, etc., and includes people who use mobility aids.

2.5 Distribution + Supply

Breathe Strategic Direction:

Ensure an adequate supply, quality, diversity and distribution of open spaces throughout Edmonton.

The River Valley and Ravine System is a unique resource. It offers valuable ecological services, irreplaceable historical, archaeological and cultural resources, and unparalleled recreational experiences that support Edmonton's quality of life and environment. In contrast to the tablelands, where a park deficit can be solved by building more parks, one cannot build another River Valley and Ravine System – so protecting and enhancing this System is paramount.

Where opportunities arise, the City will work to acquire land and expand this public resource; however, access to private property is restricted for security or privacy reasons. In the meantime, the City can work with landowners to improve access through easements or other means to provide seasonal or temporary access where public use would not hinder landowners and the use of their land (e.g. cross-country skiing on private golf courses).

Equally important to securing land is understanding and enhancing the functions it provides. The City must direct the distribution of these functions and experiences within the System while ensuring ecological integrity is not compromised. This means focusing activities in appropriate locations to meet demand (current and anticipated) while leaving ecologically significant areas untouched and inaccessible. This Plan ensures that each reach of the System offers multiple recreational, natural, cultural, and educational opportunities.

The System should not fulfill the same functions as tableland parks. Specifically, the river valley and ravines offer a unique experience that complements Edmonton's open space network, natural experiences, and critical ecosystem functions within the city. Links between the System and the tablelands will support a connected network and complementary experiences. The Ribbon of Green guides the type, quality, and location of functions and experiences while protecting the System's ecological functioning.

2.5.1 EXPANDING THE RIBBON OF GREEN

- a) Pursue the assembly of private land within the System through both strategic and opportunistic means. Use the following considerations to prioritize land assembly:
 - + Ecologically significant areas, including existing pinch points which require restoration
 - + Population being served
 - + Contiguous parkland (acquiring land sequentially to avoid gaps)
 - + Land required to complete and connect to major capital infrastructure (planned or developed)
 - + Known archaeological or historic resources with a low level of acceptable impact and/or areas with a high likelihood of archaeological resources
 - + Locations that can contribute to the trail network
 - + Strategic water access locations
 - + Land that can enable recreational and/or cultural uses
- b) Dedicate all eligible lands within the River Valley and Ravine System as Environmental Reserve through the subdivision process.
- c) Expand the System through a combination of purchase, environmental reserve dedication, conservation, easements, donations, and bequeathments that allow for protection in perpetuity.
- d) Encourage and promote donation of private land to the City as an option for securing land to expand the System for public use.
- e) Where fee-simple acquisition is not possible, negotiate public access easements with landowners for the purposes of active transportation, recreation, education, or research.
- f) Work proactively with private landowners during site-specific planning to advance the vision and principles of the Plan while respecting their rights.
- g) The boundary in this Plan is conceptual only, and should be updated through site-specific planning and to reflect the Urban Development Line and North Saskatchewan River Valley Area Redevelopment Plan boundary.
- h) Location and site names within this Plan are based on available information, local sources, and adjacent communities. As the System is expanded, formalizing location and site names should include public and stakeholder engagement, and align with the City's *Naming Development Areas, Parks, Municipal Facilities, Roads and Honorary Roads Policy* (C509B).

2.5.2 PROVIDING RECREATIONAL OPPORTUNITIES

- a) Distribute amenity nodes and active areas throughout the System in locations with good access (road and/or trails), a history of disturbance, and lower environmental sensitivity.
- b) During site-specific planning, examine:
 - + The service area for the site
 - + Existing and anticipated recreational demand
 - + Important trail connections and existing user-created trails
 - + Facilities and activities that would serve a local or city-wide demand
 - + Any gaps in local amenities, facilities, or trails
 - + The optimal distribution of facilities and amenities
 - + Potential connections to programs and/or activities to nearby parks
 - + Unique uses and attractions that are appropriate for a river valley or ravine setting
 - + Opportunities for partner-run facilities that provide recreation services
- c) Accommodate passive recreation opportunities across all Land Management Classifications.
- d) Ensure supported recreational activities are aligned with the land uses outlined in the Land Management Classifications, are compatible with the protection of natural areas, and are appropriate within a River Valley setting.
- e) Provide natural play opportunities without compromising the ecological integrity of the System.
- f) Develop a framework to evaluate and manage conflicting uses, including the impact of recreational development on the ecological network, while recognizing the benefits for community health, access, and enjoyment.



2.5.3 MANAGING HERITAGE, CULTURAL + TRADITIONAL RESOURCES

- a) Use the results of the Ribbon of Green historic resource assessments and collaborate with the Government of Alberta to inform the level of additional review and oversight required for developments throughout the System.
- b) Identify, monitor, manage, and protect significant archaeological, cultural, and historic resources.
- c) Classify the most sensitive archaeological, cultural, and historic sites, where public access is not appropriate, as **Preservation**.
- d) Work collaboratively with Indigenous communities to classify areas where Indigenous burial, cultural, and archaeological sites have a high probability of occurrence.
- e) Work with heritage interest organizations and other relevant stakeholders (e.g. sporting organizations, pioneer descendants' groups, and industry associations) to identify culturally significant locations and historic resources to ensure appropriate protection and/or interpretation.
- f) Submit all development footprints (for any scale of development from trails to amenity nodes) to the Government of Alberta along with an application for Alberta Historical Resources Act (HRA) clearance prior to construction anywhere in the System. Comply with any regulatory requirements that result from the HRA clearance application.
- g) Report the discovery of historic resources to the Government of Alberta to determine strategies for on-site assessment.
- h) Protect all burial sites and follow Government of Alberta protocols for unregistered burial sites.
- i) Protect natural and undeveloped areas to enable access to traditional resources.



What are Indigenous Traditional Resources?

Indigenous traditional resources include medicinal plants, berries, fish, clay, and minerals, etc. For more information on how these resources are traditionally used, see Indigenous Traditional Use in the Glossary.

2.5.4 DEVELOPING BUILDINGS, URBAN SERVICES + FACILITIES

- a) Locate new or expanded urban services in disturbed areas, where environmental impact will be low, and where they will have the least impact to ecological and trail connectivity. Identify and mitigate any negative impacts to ecological systems and recreational uses.
- b) Cluster buildings and facilities, or combine uses within a single structure to minimize the development footprint, whenever possible.
- c) Locate buildings, urban services, and facilities within the [Active/Working Landscapes](#) and [Conservation](#) Land Management Classifications.
- d) Ensure all new or renovated City-owned, leased and/or funded buildings demonstrate sustainable design, construction, and operations practices in accordance with City policies, and advance Edmonton's Climate Resilient Strategy and Action Plan, including the goal to become carbon-neutral.
- e) Ensure the compatibility of new or expanded buildings and facilities with the surrounding environment (e.g. include elements and materials that blend buildings into the natural setting).



2.6 Public Access + Connectivity

Breathe Strategic Direction:

Improve open space access for residents and visitors.

The river and creeks stitch the River Valley and Ravine System together. Steep slopes and floodways have also helped protect much of the System from development to create a network of interconnected open spaces. Despite this network, natural and built features inhibit public access and connectivity. For example, development and infrastructure located at or near the water's edge interrupt potential wildlife connections. Steep slopes and erosion hazards add further challenges to public access and connectivity.

Planners must provide public access in areas while ensuring environmental protection within the System. For example, roads and parking provide opportunities for people with limited mobility, older adults, and children to access nature but they also impact natural systems. This is why it is important to take advantage of existing accesses and disturbed areas while leaving other locations in a more natural state.

The Ribbon of Green must consider how people access the System and how the System connects with city mobility networks for vehicles (private and ride-share), transit (ongoing and special events) and active transportation (e.g. walking and cycling). For example, trails play an important role in the active transportation network by connecting communities to destinations. Access and connectivity can also be improved by designing facilities and promoting the river itself for water transportation.

Lastly, given the popularity and desirability of trail-based recreation, providing direction for trail planning, development, and management is critical. A carefully planned trail network allows people to access and enjoy nature in harmony with the environment. The System is both ecologically and archaeologically sensitive; however, the demand for diverse trail recreation experiences is increasing. For this reason, a thoughtful and respectful trail network that offers varied experiences is critical to the enjoyment and experience of the River Valley and Ravine System.

2.6.1 ACCESSING THE SYSTEM

- a) During future site-specific planning processes:
- + Ensure that access points and uses align with the planned/existing adjacent land uses
 - + Consider demand for on-river activities and the infrastructure required to support them (e.g. washrooms, waste receptacles, parking, beach access, boat docks and hand launches)
 - + Explore the possibility of trails, parking, and amenities in transportation and utility corridors
 - + Study transportation and parking demand, based on anticipated local and regional growth, and outline access possibilities for people who walk, bicycle, drive, and/or take transit
- b) Provide multiple access points to trails and parks from adjacent neighbourhoods. To determine access point frequency:
- + Evaluate desire lines
 - + Conduct public engagement
 - + Consult local recreational groups, including both land and water-based recreations
 - + Assess the location of existing user-created trails
 - + Seek alignment with statutory plans (e.g. Area Structure Plans, Neighbourhood Structure Plans)
- c) Provide functional access to the System for emergency services and maintenance personnel.
- d) Prohibit all-terrain vehicles on City-owned/operated land within the System, with the exception of City staff and others with explicit permission from the City.
- e) Encourage public transportation to primary trailheads and amenity nodes.
- f) Encourage carpooling, transit, shuttle services, and emerging transportation solutions to support access to special events, festivals, and ecologically sensitive areas within the System.
- g) Enhance transit access during large festivals by temporarily adjusting routing and extending service to align with event hours of operation.

2.6.2 CREATING A TRAIL NETWORK

- a) Develop a trail strategy that identifies an approved trail network (including paved, granular and natural surface trails) and trail planning and management recommendations for the River Valley and Ravine System.
- b) Implement a trail network that, where feasible, provides a connected regional trail system that ties together destinations, neighbourhoods, and adjacent municipalities. The trail network will also provide a range of recreational trail opportunities throughout the System, while respecting ecological sensitivity.



Why is it important to limit trail density?

Recreation trails can cause negative ecological impacts to ecosystems, plants, and wildlife, including soil compaction, erosion, wildlife disturbance (due to noise and motion), pollution, and introduction of non-native invasive plant species. Corridors such as trails and roads also cause habitat fragmentation which may impact some plant and animal species. Limiting the number of trails within an area, or reducing trail density, as well as avoiding environmentally sensitive areas can mitigate some of these impacts.



Why is it important to provide connections to Edmonton's active transportation and transit networks?

Providing opportunities for Edmontonians to walk, roll, and cycle, regardless of age, ability, or socio-economic status enhances the safety, inclusivity and diversity of our communities, and minimizes the impact of transportation activities on Edmonton's ecosystem.

- c) With the exception of programming areas, restrict development within the System to a trail network that improves accessibility, while supporting ecological protection by avoiding key habitats and wildlife corridors, when possible.
- d) Plan the trail network strategically to provide access to nature and prevent the creation of further user-created trails while minimizing trail density as much as possible.
- e) When determining the optimal trail alignment, consider the role of the trail in the larger network, with attention paid to how it contributes to one or both of the following:
 - + A comprehensive **recreational network** that includes: hiking circuits, mountain bike routes, multi-purpose trails, a continuous system of accessible trails, winter recreational activities, and connections to amenity nodes
 - + **Active transportation** connections that include commuter routes, links across the river and ravines (where appropriate), and routes between destinations

2.6.3 FACILITATING TRAIL EXPERIENCES

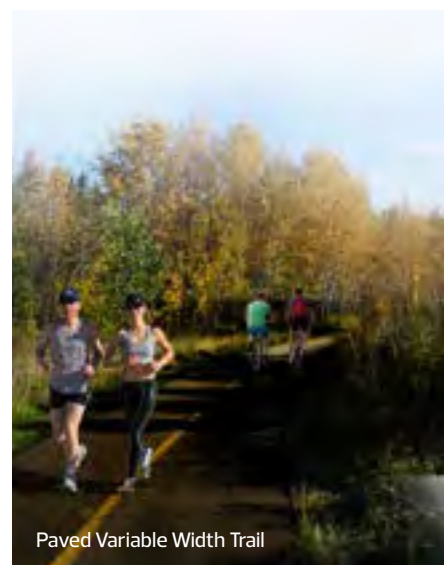
- a) Implement a trail network that provides immersive river valley experiences, as per the compatible activities outlined in the Land Management Classification section, including:
 - + **Non-paved narrow width trails** (natural surface) through more ecologically sensitive areas or challenging terrain with limited accessibility
 - + **Non-paved variable width trails** through natural environments with limited to moderate accessibility
 - + **Paved variable width trails** that support active transportation and regional connections through natural environments with maximum accessibility for people of all ages and abilities
- b) Explore opportunities to name select trails in order to provide unique destination trail experiences for users.



Non-paved Narrow Width Trail



Non-paved Variable Width Trail



Paved Variable Width Trail

- c) Provide accessible interpretive trails near points of interest, and incorporate distinctive signs and other design features to improve user experiences.
- d) Provide rest benches at frequent intervals to support passive nature appreciation activities and accommodate a range of users. Wherever possible, rest benches should be designed in alignment with the City's Access Design Guide.
- e) Limit trail density to create a sense of remoteness throughout the System and strategically incorporate higher trail densities near amenity nodes to facilitate interaction and activity.
- f) To support user comfort and safety, separate trail uses where the trails are heavily used, and/or there is evidence of user conflicts or safety concerns. Landscaping and wildlife-compatible fencing may be used to separate a trail from uses resulting in user conflicts or safety concerns.
- g) Provide an accessible trail system along the top-of-bank.
- h) Support active transportation by providing appropriate amenities along commuter routes and key connections (e.g. bicycle repair stations, water fountains).
- i) Locate trailheads at amenity nodes and ensure they are accessible and visible.
- j) Distribute waste and recycling receptacles at trailheads and major trail junctions.

2.6.4 PLANNING TRAILS

- a) During future site-specific planning, or through a comprehensive trail strategy should funding become available, include the following guidance for trails:
 - + Appropriate trail width, grade, and surfacing material
 - + Justification for the alignment and trail type (e.g. accessibility, connection, aesthetics, avoidance of sensitive areas)
 - + The locations, scale, and design of trailheads
 - + Associated amenities and infrastructure (e.g. lookouts)
 - + Educational opportunities
 - + Views from the trail and views of the trail
 - + Construction guidance to minimize impact and costs
 - + Ongoing maintenance, operations, and management requirements (including any specialized amenities such as cross-country ski tracks)
 - + Whether lighting is appropriate, and if so, in what form (e.g. bollard or overhead lighting)

- b)** Incorporate mitigation and protection measures during future site-specific trail planning, that address:
- + Changes in geological and hydro-geological conditions
 - + Hydrological connectivity
 - + Impacts from flooding
 - + Erosion and sediment control measures during and after construction
 - + Restoration and/or mitigation measures to implement
 - + Other hazards for trail users
- c)** Minimize the level of disturbance by providing fewer trails within/near sensitive and intact natural areas to reduce habitat fragmentation, or by limiting access altogether (e.g. in Preservation: Ecosystem Protection areas).
- d)** Link new and existing trails to:
- + Top-of-bank active transportation networks
 - + Tableland open spaces
 - + Recreational facilities
 - + Mobility and open space networks of adjacent municipalities
 - + Areas of higher density housing
 - + Mixed-use, commercial and employment areas
 - + Designated river access points (e.g. boat launches and docks)
- e)** When evaluating potential trail routes:
- + Connect to existing and future trail corridors
 - + Consider destinations (e.g. recreation centres and tourist attractions)
 - + Utilize utility corridors
 - + Avoid fragmenting habitat
 - + Avoid locations critical to wildlife movement
 - + Avoid the floodway and flood fringe, when possible (if not possible, refer to 2.6.4 f)
 - + Avoid rare species of vegetation or sensitive habitats
 - + Avoid slopes that are highly susceptible to erosion
 - + Avoid sensitive historic, archaeological, or cultural sites where human use is not appropriate. Where interpretation and use of the site is appropriate, ensure that trail connectivity is provided.
 - + Choose accessible routes, when possible
 - + Link to high density neighbouring uses, tableland parks, or established community access points
 - + Utilize existing user-created trails, when possible



Why construct a trail in a flood fringe?

People have a natural desire to access and walk along waterways. If there are no trails, people will often create their own informal trails, which can accelerate erosion and bank instability. Providing appropriate trails, amenities, and facilities that are developed to a higher standard will allow people to enjoy and learn about these important environments in a more sustainable manner.

- f) If a trail in a floodway or flood fringe is considered necessary or desirable:
 - + Avoid locating the trail directly adjacent to the watercourse by preserving a naturally vegetated buffer between the trail and the watercourse
 - + Implement a higher design standard (more resilient surfacing and foundation)
 - + Ensure all amenities (e.g. seating, waste receptacles) can withstand periodic flooding or avoid locating them in the floodway or flood fringe

- g) Ensure that trail connections identified in Area Structure Plans and Neighbourhood Structure Plans are compatible with this Plan, and do not encourage access to, or use of areas where that is not the intended use.

2.6.5 DESIGNING TRAILS

- a) Consider current and intended trail density, and types of users when reviewing trail standards and maintenance guidelines, and update to include non-paved narrow width trails.
- b) Employ best practice sustainable design guidelines (e.g. width, surfacing, alignment, buffers, low-impact design) to minimize the impact of trails on adjacent natural areas, and mitigate the effects of stormwater and erosion through positive drainage, water infiltration, and/or diversion.
- c) Prioritize user safety in the location, design, and management (e.g. maintenance, and closures) of trails.
- d) Design trails to reduce user conflicts in locations where they are likely to occur.
- e) Investigate separated paved and non-paved trails in circumstances such as the following:
 - + Locations with existing or potential high rates of use by both cyclists and pedestrians
 - + Trails adjacent to densely populated areas and major destinations
 - + Major active transportation commuter routes with higher than average speeds
 - + Areas with multiple complaints of conflicts
 - + Signs of wear/or damage next to the trail
- f) When designing and constructing trails, consider equipment access requirements for:
 - + Snow clearing
 - + Ongoing operations and maintenance
 - + Emergency vehicles, where required

2.6.6 MAINTAINING TRAILS

- a) Work with partners and stewardship organizations, when appropriate, to inspect and monitor trails, and to identify and resolve:
 - + Hazards
 - + Vegetation maintenance (e.g. clearing or restoration depending on the trail)
 - + Unwanted trails and short-cuts
 - + Required drainage improvements
 - + Required cleaning, repairs, or other infrastructure maintenance
 - + Adverse impacts on the surrounding natural environment
- b) Permanently or temporarily realign or close a trail, and install information signs, if there is a high risk of:
 - + Injury (e.g. due to land instability or erosion)
 - + Unanticipated damage to ecologically sensitive areas
- c) Seek opportunities, when appropriate, to work with community partners, sporting and stewardship organizations to manage trails (e.g. cross-country skiing, mountain biking, trail running), when they will not be maintained by the City.



Major Pedestrian Bridge: Jan Reimer Park



Minor Pedestrian Bridge: Access to Larch Sanctuary

- d)** Clear snow and provide winter maintenance for trails that provide active transportation links, in alignment with the City's Snow and Ice Control Policy and Procedure.
- e)** Close trails temporarily if there are reports of sensitive wildlife in the area (e.g. seasonal closures during mating/laying/calving/birthing seasons).
- f)** Relocate existing trails and trailheads away from sensitive areas (e.g. mature forests, riparian areas, threatened or endangered habitats, significant archaeological sites).
- g)** Upgrade trail surfacing, where appropriate, in order to provide a more accessible trail network.

2.6.7 MONITORING TRAILS

- a)** Create a safe trail system for all users by monitoring for safety hazards and non-permitted uses.
- b)** Consider the following methods to monitor trail use:
 - + Collect and analyze user data through on-line services that record location and movement through GPS
 - + Install pedestrian and cyclist counters along trails and at trailheads
 - + Place user perception survey forms at trailheads with a drop-box
 - + Conduct direct observation surveys to assess trail use along busy trail sections
- c)** Use the data gathered along with recreational trend analyses to forecast potential future use during site-specific planning processes.
- d)** Provide resources towards monitoring and enforcing non-permitted trail use.
- e)** Develop ecological monitoring, mitigation, and management practices for environmentally sensitive areas around trails since the impact of trails is not confined to their footprint.

2.6.8 IMPLEMENTING STAIRS + DECKING

- a) Locate stairs, decking, and other access infrastructure away from environmentally sensitive areas, unstable slopes, and areas prone to erosion.
- b) Where access to a more environmentally sensitive area is deemed appropriate or required (e.g. to manage the impact of informal use or to facilitate learning), consider decking as a way to span an area with minimal disturbance.
- c) Ensure stairs follow the contour of the land or rise above it to minimize disturbance.
- d) Use safe, durable, and environmentally sustainable materials to minimize operational costs.
- e) Provide bike rails that accommodate a variety of bicycle tire sizes on stairs along multi-use trails.

2.6.9 PLANNING PEDESTRIAN BRIDGES

- a) Ensure the design and construction of all bridges minimize the impact on sensitive land, avoid unstable topography, and facilitate important regional connections.
- b) Provide pedestrian bridge connections across the North Saskatchewan River, ravines, creeks/streams, and other necessary crossings.
- c) Locate major pedestrian bridges to accomplish the following:
 - + Maximize accessibility and connect populations to amenities on both sides of the North Saskatchewan River
 - + Connect amenity nodes to the opposite bank
 - + Facilitate a continuously accessible trail network
 - + Provide active transportation connections between destinations and for commuters
 - + Create larger recreational loops
- d) Locate minor pedestrian bridges to accomplish the following:
 - + Limit damage across sensitive riparian areas where desire-lines exist
 - + Provide important regional connections and access for communities when other, less intrusive, opportunities are unavailable
- e) Upgrade existing pedestrian bridges with improved environmental and accessibility design standards during rehabilitation projects.

2.6.10 PARKING

- a) Prioritize small dispersed parking lots throughout the system, and along the top-of-bank, as an alternative to fewer, but larger lots.
- b) Provide parking (in lots or on-street) at primary trailheads and amenity nodes.
- c) Determine the location of new parking areas on a site-by-site basis and consider the following:
 - + Locate parking areas based on current / anticipated demand, the availability of space, and environmental or other constraints (e.g. land ownership, visual impact)
 - + Prioritize on-street stalls (if possible – angled or perpendicular parking) at the top-of-bank and place signs explaining that they are for River Valley and Ravine System users
 - + Locate small parking lots along the top-of-bank in strategic locations, or utilize on-street parking to service trailheads and amenity nodes
 - + Prioritize constructing new parking lots on previously disturbed areas, and provide parking only when the environmental review has demonstrated that potential impacts can be mitigated
 - + Consider exclusive parking for boat and hand launches, people with limited mobility, park maintenance staff, and other users who require special access on a case-by-case basis
- d) Create shared parking areas for all uses within an amenity node.
- e) Explore shared parking agreements with adjacent or nearby private commercial or institutional landowners. In residential areas explore opportunities to provide parking where there are compatible land uses that do not generate high levels of on-street parking. This may include roadways along a utility corridor or the top-of-bank roadway.
- f) Design parking areas to minimize their environmental impact by:
 - + Treating stormwater runoff on-site through bioswales and rain gardens
 - + Planting shade trees
 - + Incorporating permeable surfacing instead of pavement or asphalt, where appropriate
- g) Identify parking management solutions during site-specific planning.
- h) Provide adequate bicycle and bus parking at amenity nodes and primary trailheads to facilitate System access by these modes, where appropriate.



2.7 Adaptive Management + Flexible Spaces

Breathe Strategic Direction:

Adaptively manage changing trends in growth, demographics and preferences.

The Ribbon of Green is based on extensive research, analysis, and engagement; however, the System is not static. Seasonal weather patterns constantly alter slopes and watercourses, while larger forces, like climate change, invasive species, and disease, stress ecosystems and influence the type and range of species living there.

Trends, preferences and demographics change over time and affect how the System is used and enjoyed. Edmonton is expected to grow to nearly 2 million people, which will increase recreational demand in the System. Also, an aging population necessitates greater thought devoted to infrastructure and activities suited to older adults, while simultaneously accommodating the needs of a new generation of children and youth. Some trends can be anticipated where others cannot – this is why the Ribbon of Green needs to remain flexible.

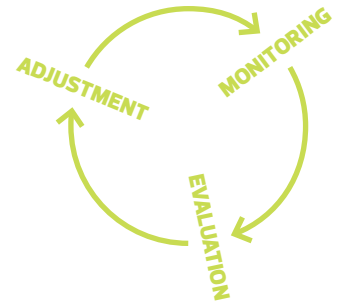
Adaptive management is one tool to address changes and pressures. Adaptive management involves a cycle of monitoring, evaluation, and adjustment to ensure decision making responds to current conditions and knowledge. The process emphasizes continuous learning to keep abreast of trends and changes; correct outdated information and direction and ensure staff can appropriately anticipate and respond to changes.

Building adaptable open spaces avoids “locking in” to preferences and management practices that may change over time. For example, instead of expensive single-purpose facilities, flexible structures and spaces designed for multi-functionality can adapt more easily to new uses. Temporary and movable programming (e.g. park furniture, classes, events, art or exhibits) can also activate spaces with minimal investment in fixed infrastructure. Natural areas can also be managed for resilience to changing conditions (e.g. planting diverse native species). This will ensure the System continues to reflect the needs of Edmontonians.

2.7.1 MANAGEMENT PRACTICES

- a) Adopt an adaptive management framework (e.g. a cycle of monitoring, evaluation and adjustment) to allow management practices to adapt to changing conditions and ensure the ongoing relevance of the Ribbon of Green.
- b) Promote a corporate culture of continuous learning so that City personnel responsible for planning and managing the System are better able to remain aware and revise the Plan in light of changing conditions, emerging trends, and evolving best practices.
- c) If current or projected human use is greater than anticipated for trails and amenity nodes (classified under **Preservation** or **Conservation**), consider:
 - + Altering the site (closing trails/moving facilities)
 - + Re-defining the use for less impact
 - + Implementing protection measures
 - + Adding educational and informational signage
- d) When assessing and developing mitigation procedures or actions for unforeseen challenges (e.g. natural disasters, severe weather events, human-caused damage, higher intensity of use), consider the following:
 - + Ecological impacts
 - + Safety concerns
 - + Acceptable level of future user risk
 - + Likelihood of event or situation reoccurring
 - + Other relevant City policies, bylaws, and procedures

Adaptive Management Framework



2.7.2 MAINTENANCE STANDARDS

- a) Define the level of maintenance for each amenity, infrastructure, or facility and ensure it is compatible with ecological and habitat protection, public safety and sustainable operational costs.
- b) Place waste receptacles at trailheads and amenity nodes, including provision of composting and recycling receptacles in suitable locations as identified in the three stream waste guidelines for open spaces.
- c) Ensure that trail maintenance regimes are appropriate to the type of trail.
- d) Evaluate and pilot alternative management practices, which may not exist in approved policy/guidelines, if they are supported by relevant City departments through the site-specific planning process (e.g. prescribed burns).
- e) Implement forest management practices, when feasible, to support ecological health, public enjoyment, and safety.

- f) Follow the direction outlined in the Integrated Pest Management Policy for the City. Notify users about recent or future chemical applications through on-site signs and online notices.
- g) Use integrated pest management and other maintenance best practices to prevent the spread of noxious and non-native plant species.
- h) Train City staff and community partners, where applicable, in the proper maintenance and monitoring of trails and amenity nodes.
- i) Extend hours of operation and/or year-round operation of washrooms, when feasible, in locations with high demand.

2.7.3 CREATING FLEXIBLE SPACES

- a) Design amenity nodes and primary trailheads to minimize their impact on natural areas, while maximizing their versatility and adaptability to funding shifts, user preferences, and advancements in technology.
- b) Integrate multi-functionality in amenity nodes and primary trailheads (e.g. trails that can be used for educational walks and sporting events).
- c) Design spaces that can change and adapt over time (e.g. installing “solar ready” sub-surface infrastructure for facilities or lighting).
- d) Maximize all-season use.
- e) Animate open spaces with diverse activities, events, and movable amenities (e.g. games, lightweight furniture) as an alternative to investment in fixed assets, where appropriate.





2.8 Community Engagement

Breathe Strategic Direction:

Empower people to become active participants and stewards in planning, sustaining and using the green network.

Community engagement is a cornerstone of open space planning in Edmonton. The City acknowledges the value of citizen involvement in decision making for the River Valley and Ravine System. For this reason, further System planning will include opportunities ranging from consultation to community empowerment.

Public engagement is essential to gain insight into the needs and desires of a community and all Edmontonians. Input from other stakeholders, such as community organizations and clubs, is also important to learn from local knowledge of specific sites and experts in the field. Developing solutions directly with stakeholders can create key partnerships for implementation and a shared responsibility to ensure long-term success. A combination of public and stakeholder engagement will be used to inform all future planning processes in the River Valley and Ravine System.

Collaboration with Indigenous communities is especially important to understand the history and importance of the System, and to develop solutions that can sustain its natural and cultural resources and uses for future generations. The City commits to meaningful ongoing collaboration with Indigenous communities and Traditional Knowledge Keepers on the System's planning and management. This will help provide insight and understanding of natural systems and processes, traditional and ceremonial uses, and potential collaboration and partnership opportunities.

Future Ribbon of Green initiatives and site-specific planning need to reach out to Edmontonians and neighbouring communities alike. The River Valley and Ravine System is one of the most cherished aspects of the city, and its future is something that all residents should have the opportunity to share in.

2.8.1 ENGAGING THE PUBLIC

- a) Ensure meaningful engagement, both city-wide and local, during the development of site-specific plans and revisions to the Ribbon of Green in accordance with the *Public Engagement Policy (C593)* and Framework.
- b) Determine the official names of trails, parks, and other features through a public engagement process with approval by the Naming Committee and in accordance with the *Naming Development Areas, Parks, Municipal Facilities, Roads and Honorary Roads Policy (C509B)*.
- c) Pursue representation (both direct and through advisory/advocacy groups) from marginalized communities during public engagement processes. Include socio-economic and cultural minorities, people experiencing homelessness, children and youth, older adults, and people with limited mobility or visual, cognitive or auditory impairments.

2.8.2 COLLABORATING WITH INDIGENOUS COMMUNITIES

- a) Identify opportunities to advance reconciliation and strengthen relationships with Indigenous communities and peoples through River Valley planning, programming and stewardship, in keeping with the City's Indigenous Framework commitments.
- b) Work with Indigenous peoples and communities, and Traditional Knowledge Keepers to identify areas of interest and the best methods for collaboration, feedback, and review.
- c) Ensure early, meaningful, in-person and ongoing Indigenous engagement for the sharing of information, the identification of issues and concerns, and collaboration on mitigation, recommendations, and management.



Henderson Estates + Haddow



2.9 Collaborative Planning

Breathe Strategic Direction:

Improve collaborative open space planning among City stakeholders, community partners, and other jurisdictions.

Collaborative planning is essential to protect the health and integrity of the River Valley and Ravine System. Even though much of the System is owned and managed by the City, many recreational facilities are operated by private corporations or non-profit entities. Also, some parts of the System remain privately-owned (including farms and industrial operations) and working with these landowners and private operators will continue to be an important and ongoing effort to implement the Ribbon of Green. Specifically, this involves:

- + Keeping an open dialogue about their plans for their land
- + Providing support for best land management practices
- + Offering incentives and, where necessary, disincentives for certain activities
- + Keeping landowners informed about corporate goals for the System
- + Establishing and maintaining strong community partnerships

The planning, design, programming, and operations of the River Valley and Ravine System is the responsibility of different City departments, so collaboration and communication across departments is essential for success.

At the same time, the System does not begin and end at Edmonton's city boundaries. Protecting ecological integrity, and enhancing the cultural and recreational value of the System requires cross-government collaboration. This includes adjacent municipalities (through the Edmonton Metropolitan Region Board and the River Valley Alliance), the Provincial Government, Indigenous communities and the Federal Government. These and other community partnerships are integral in ensuring that the System offers culturally sensitive regional recreational opportunities that are in harmony with the land.

2.9.1 PARTNERING

- a) Work with public and private sector partners, including other jurisdictions and other orders of government, to implement this Plan.
- b) Actively pursue opportunities to establish or reinforce formal partnerships in River Valley and Ravine System planning, development, operation, monitoring, research, public education, and protection with:
 - + Private landowners
 - + Land trusts
 - + Indigenous communities and peoples
 - + Schools and school boards
 - + Post-secondary institutions
 - + Sporting and recreation organizations
 - + Heritage interest groups
 - + Naturalist societies
 - + Arts and culture organizations
 - + Community leagues and groups
 - + Environmental organizations
 - + Utility providers
 - + Regional/provincial planning and advisory bodies
 - + Other jurisdictions
- c) Work with the Province and other jurisdictions to complete environmental research, monitor success, implement initiatives, and identify environmental, cultural, archaeological, and/or historical significance.
- d) Collaborate with adjacent municipalities, Indigenous communities, and the Government of Alberta to coordinate planning, development, and operation of River Valley and Ravine System parks.
- e) Work with research, environmental, search and rescue, and Indigenous organizations to determine how best to facilitate their use and access to restricted areas.
- f) Respect and observe Indigenous protocols (e.g. smudges, prayers, ceremonies) when projects intersect with Indigenous interests and concerns.
- g) Collaborate with local Indigenous communities to gather and preserve traditional ecological knowledge (TEK) about the System, and explore ways to incorporate TEK into the monitoring, management and decision making of culturally and historically significant areas.
- h) Coordinate historic resource management activities with the Government of Alberta.
- i) Work with tourism agencies to identify projects that align with the Ribbon of Green vision and planning guidance and enhance Edmonton's tourism marketing position.
- j) Seek community, corporate, and/or non-profit partnerships to share responsibility for planning, developing, financing, and maintaining specific initiatives.

- k) Work together with the public, volunteer organizations, and Edmonton emergency services to ensure the safety and security of all users.
- l) Partner with organizations and businesses to deliver programming and provide rentable equipment or activity kits that enable users to activate open spaces on a flexible/casual basis.
- m) Work with the Provincial and Federal governments to achieve international biodiversity commitments, including the Durban Commitment and the Convention on Biological Diversity's Aichi Biodiversity Targets.

2.9.2 COORDINATED PLANNING

- a) Promote interdepartmental coordination to:
 - + Synchronize development of System trails with the top-of-bank/tablelands active transportation network
 - + Identify opportunities to align planning, acquisition, development, operations, programming, and funding activities
 - + Improve access and connections between tableland neighbourhoods and the System
 - + Reinforce connections among natural areas, parks, and other open spaces of the System and Edmonton tablelands
 - + Strengthen public engagement and information sharing for river valley projects
- b) Review administrative processes (e.g. booking, permitting, insurance requirements) to facilitate appropriate uses (e.g. commercial uses, events, social gatherings), improved customer level of service, and community participation in stewardship activities.
- c) Work with developers to coordinate the implementation of this Plan with adjacent development, and leverage implementation opportunities.
- d) Leverage adjacent or nearby capital projects to renew existing park infrastructure and amenities.
- e) Seek approval from the Government of Alberta for any new and/or expanded infrastructure within Transportation Utility Corridors during planning processes.
- f) Work with the Government of Alberta to identify areas within Transportation Utility Corridors where mowing practices could be changed to enable passive regeneration.
- g) Work with adjacent communities to plan, develop, and manage the River Valley and Ravine System across municipal jurisdictions.

What is a Transportation Utility Corridor?

A Transportation Utility Corridor (TUC) is Government of Alberta land that accommodates, or is planned to accommodate linear transportation and utility facilities. These uses include ring roads (and associated interchanges), stormwater management facilities, petroleum pipelines, power transmission lines, and municipal regional water, sanitary and storm sewer lines.



2.10 Sustainable Funding

Breathe Strategic Direction:

Develop a sustainable funding model that responds to operational requirements, community capacity and local needs.

Funding the Ribbon of Green differs from the rest of the green network due to different needs and funding constraints. First, older open space amenities and infrastructure require increasing expenditures on maintenance, redesign or replacement. These existing open spaces are also subject to demand for new or upgraded facilities in response to contemporary needs and preferences. Also, since the River Valley and Ravine System is a citywide amenity, the City is largely responsible for improvements, in contrast to the tablelands, where community leagues have a major role in open space planning.

In addition to upgrades, the City has a mandate to acquire land in the System for public ownership. This can occur through subdivision, purchase, or other means. During subdivision, the City requires all land within the boundary of the North Saskatchewan River Valley Area Redevelopment Plan be dedicated as environmental reserve. To purchase land, the City has a special reserve fund; however, contributions are inconsistent. In the meantime, River Valley and Ravine System land prices continue to climb, and restoration, development, and maintenance work come with their own costs.

Given these realities, the City must strategically allocate resources to the System. Decisions must account for both capital and operating costs for all future initiatives. To do this sustainably, the City should explore creative solutions to acquire, develop, and maintain land. These can include governance arrangements (e.g. park conservancies), innovative funding models (e.g. community bonds) and/or alternatives to fee simple acquisition (e.g. conservation covenants, access easements).

Engagement during the Ribbon of Green process highlighted the need to partner with landowners, environmental organizations, and other stakeholders. Many are already involved in voluntary conservation programs, citizen science campaigns, trail building and maintenance and other initiatives to preserve and enhance the System. In addition, the City must work with other orders of government to ensure sufficient investment and other in-kind support where necessary. These partnerships are vital in creating and managing a financially sustainable River Valley and Ravine System.

2.10.1 SUSTAINABLE FUNDING

- a) Pursue additional revenue streams to support ongoing management, including philanthropy, leases, parking, permitting and user fees, etc. Ensure that any revenue-generating agreements conform with City policies.
- b) Support access to amenities and facilities for people of every socio-economic background through sustainable fee rates, sliding-scale fees, and/or subsidization programs.
- c) Work with funding partners (e.g. private organizations, non-profits, other jurisdictions) to ensure that any advertising, sponsorships, and funding partnerships are appropriate within the River Valley and Ravine System context and align with relevant City of Edmonton policies.
- d) Cash-in-lieu of municipal reserve, received through subdivision of industrial or commercial areas, will be used to purchase River Valley and Ravine System land (Parkland Purchase Reserve Account).
- e) Ensure that acquisitions and capital expenditures in the System are supported by a life-cycle assessment of operating and repair /replacement costs in accordance with asset management best practices.
- f) Establish a targeted minimum balance for the Parkland Purchase Reserve Account and define conditions under which funds may be borrowed for non-River Valley and Ravine System projects (e.g. project eligibility, repayment timelines).
- g) Secure funding for ecological monitoring to ensure the program is established and remains sustainable over the long term.
- h) Incorporate life-cycle resourcing estimates into departmental budget planning processes.
- i) Retain City ownership of all facilities constructed on City-owned land within the Ribbon of Green. Where permitted, private or partner operations can pursue leases with the City.
- j) Take advantage of provincial or federal infrastructure funding programs to assemble land and build or renew trails and amenities.
- k) Explore innovative tools to acquire, develop, and maintain land to reduce costs and improve the System's financial sustainability.



E.L. Smith Water Treatment Plant

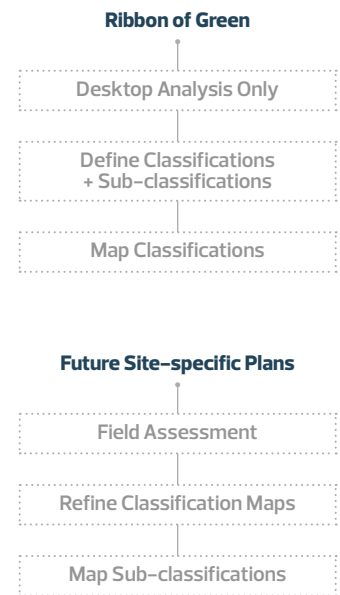
3 SITE DIRECTION: LAND MANAGEMENT CLASSIFICATIONS

The Land Management Classifications outline the level of protection or permitted development within each area. In turn, these Classifications will guide design and programming decisions to create park amenities and operations standards appropriate to their location within the River Valley and Ravine System.

3.1 Introduction

To manage the System, protect its ecological health, and offer unique recreational and cultural opportunities, the Ribbon of Green defines three Land Management Classifications, each of which contains sub-classifications. These Sub-classifications provide greater precision, certainty, and guidance.

The Ribbon of Green defines and applies the Classifications to respond to existing conditions, guide future use, protect sensitive areas and improve disturbed areas. The Ribbon of Green provides direction for the Sub-classifications while later site-specific plans will apply the Sub-classifications spatially once on-the-ground conditions are verified and the uses confirmed.



PRESERVATION		CONSERVATION		ACTIVE/WORKING LANDSCAPES		
Protect the integrity of the natural environment and restore natural functioning with limited access and recreational opportunities.		Connect people to nature by allowing people to enjoy and appreciate the System while minimizing environmental impact and restoring ecological functioning, when possible.		Facilitate gathering and recreation within the System, recognize existing uses and encourage restoration.		
ECOSYSTEM PROTECTION	PRESERVATION TRAIL – BASED RECREATION	CONSERVATION TRAIL-BASED RECREATION	NATURAL RECREATION	INTENSIVE RECREATION	AGRICULTURE + HORTICULTURE	URBAN SERVICES + CITY-WIDE ATTRACTIONS
Protect the highest value and most sensitive ecosystems and features, ensuring that these systems continue to thrive as the city's population grows. Compatible uses include conservation and stewardship activities.	Provide a network of trails in Preservation areas to support low-impact trail recreation opportunities while minimizing ecological impacts. Trail type: <i>non-paved narrow width trails (natural surface).</i> Compatible uses include a variety of low-impact trail uses. Foot-based travel and biking are considered compatible unless explicitly prohibited (e.g. through signage).	Facilitate access to and regional connectivity through the System in harmony with the natural environment. Trail types: <i>non-paved variable width OR paved variable width.</i> Compatible uses include all types of trail use.	Provide opportunities to rest, linger and enjoy nature. Compatible uses include all types of trail use, plus picnicking, unstructured play and river access.	Provide a wide-range of recreational opportunities tailored to the River Valley setting. Compatible uses include events and festivals, fitness courses and boat launches.	Recognize existing agricultural and horticultural uses. Compatible uses include farms and supporting uses.	Support city-wide attractions while acknowledging the importance of urban services to accommodate a growing city. Compatible uses include existing development, golf courses and city-wide attractions.

3.2 Overview of the System

The maps on the following pages illustrate the locations for each instance of a Classification. Sub-classifications will be defined through site-specific planning when on-the-ground conditions are verified, and uses confirmed. These Classifications will also be refined during site-specific planning based on field assessments.

The recommended Land Management Classifications (**Preservation**, **Conservation** and **Active/Working Landscapes**) were initially informed by four major spatial datasets:

1. **Ecological Evaluation Natural Area Ratings** were used to identify the most essential existing natural areas within the System, with the highest scoring areas classified as **Preservation**
2. **Landslide Risks** were identified during the geotechnical assessment, drawing on detailed aerial imagery to identify where slopes had been previously compromised
3. **The City's Environmental Sensitivity Model**, which makes Classification recommendations based on 26 datasets
4. **Archaeological Potential**, which draws from expert recommendations to identify known and likely locations of cultural and archaeological finds

In addition to the above datasets, the Land Management Classifications were refined to reflect unique circumstances such as history, existing uses, and current initiatives. For example, recreational areas (e.g. private golf courses), planned parks (e.g. Jan Reimer Park), historic recreational use (e.g. the former Klondike Campground) and areas with vehicle access (e.g. Woodbend Natural Area) were classified as **Conservation** or **Active/Working Landscapes**.

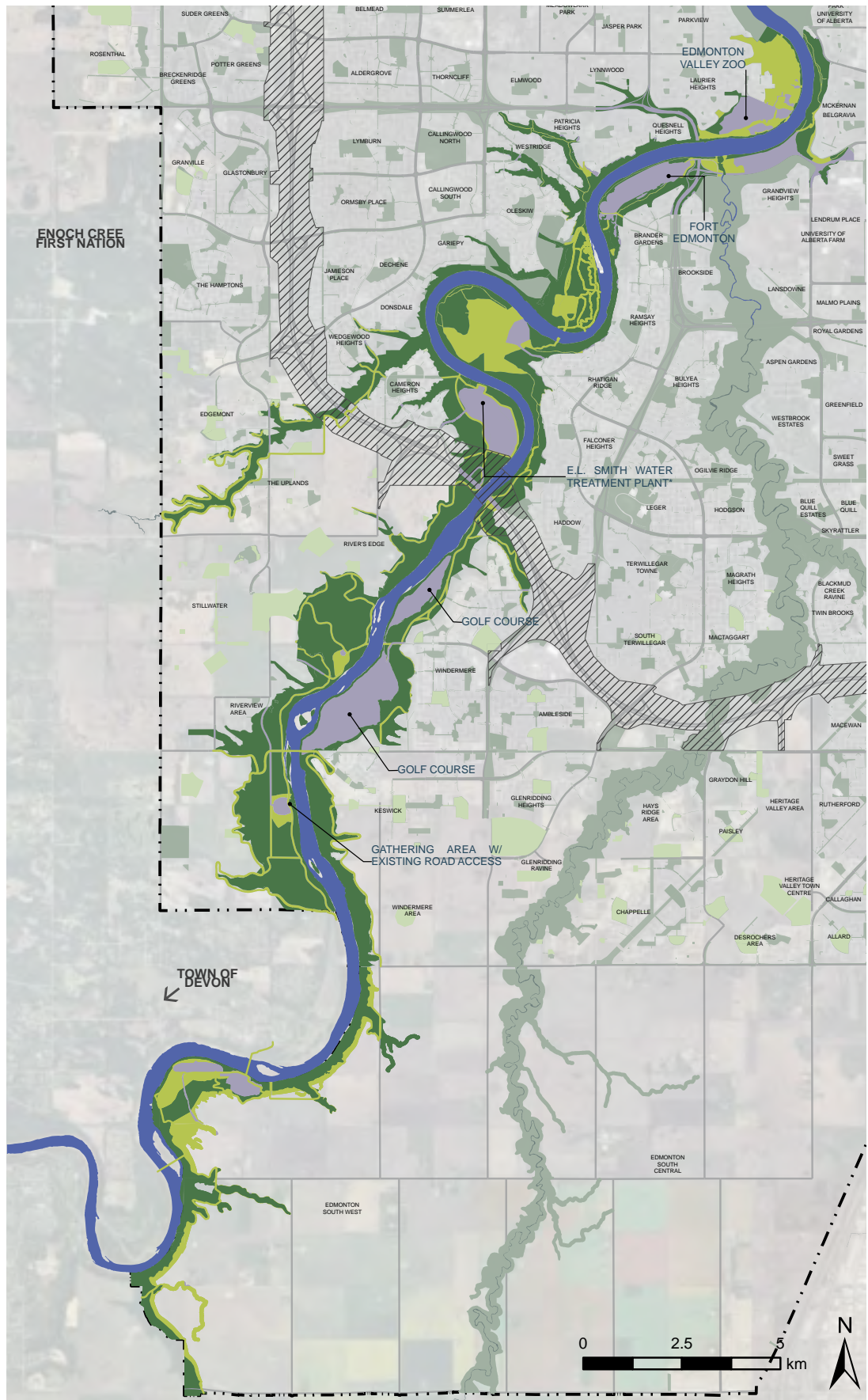
Additionally, linear bands of Conservation were created in response to the need to facilitate access and connectivity to areas throughout the System, and to mitigate any potential negative impacts from trail-based activities on natural environments. These modifications ensure the Land Management Classification system reflects existing conditions and balances ecological protection with appropriate recreational use.



Linear Bands of Conservation

The linear bands of **Conservation** are approximate and based on the desktop analysis conducted as part of this Plan. Their precise location and alignment will be defined during further site-specific planning when on-the-ground conditions can be confirmed. Also during site-specific planning, additional **Conservation** and **Preservation** trails will be identified, located and classified appropriately.

Southwest Land Management Classifications

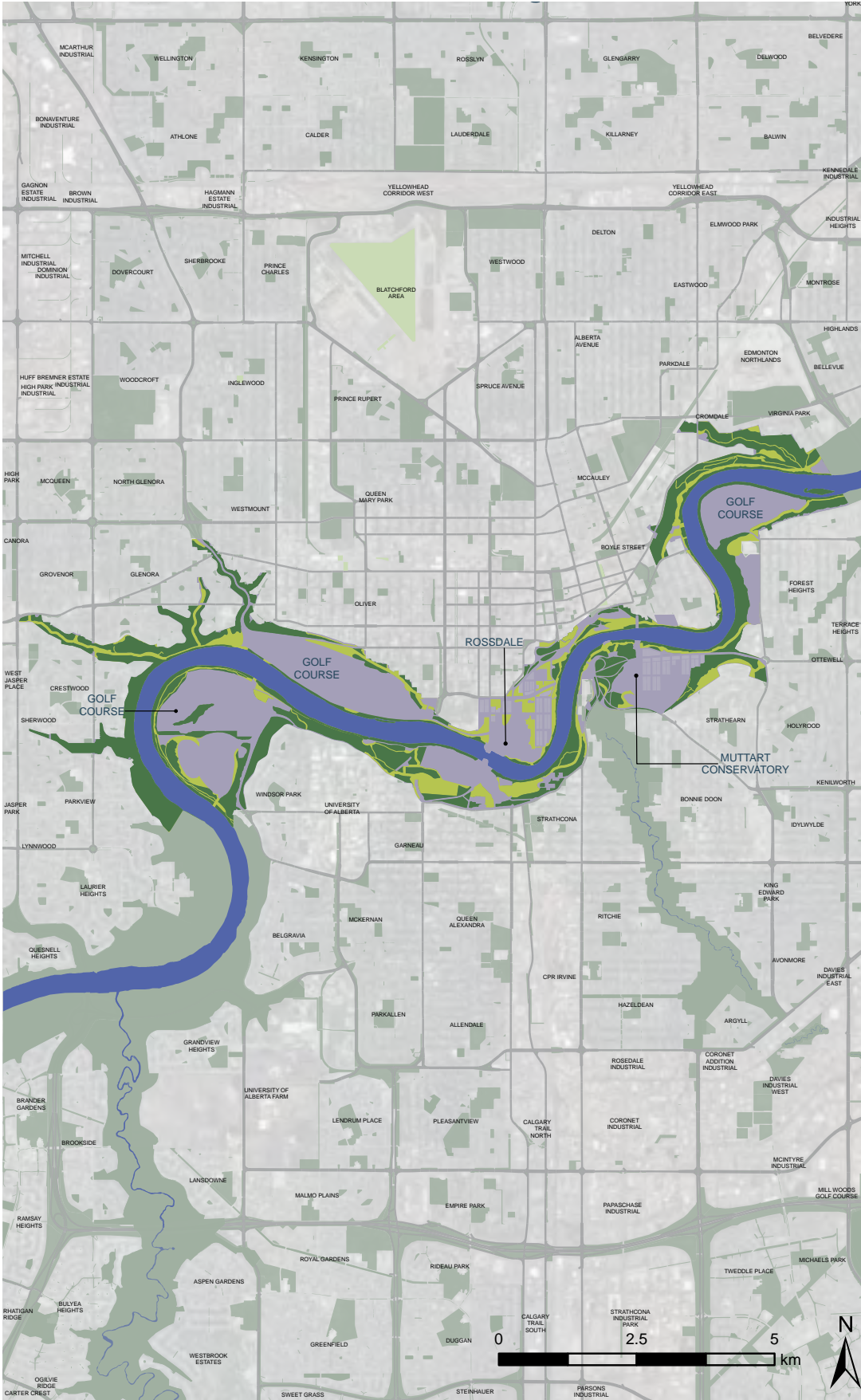


*The data-derived land management classification for a portion of the E.L. Smith Water Treatment Plant site is Preservation. The Plan identifies a portion of the site as Active / Working Landscapes in order to provide existing and expanded water treatment services. If the site is no longer required for that use, the classification is to be re-evaluated.

- LEGEND**
- Existing Parks
 - Future Parks
 - Preservation
 - Conservation
 - Active / Working Landscapes
 - Transportation Utility Corridor
 - City Boundary

For illustrative purposes only. To be confirmed through later site-specific planning.

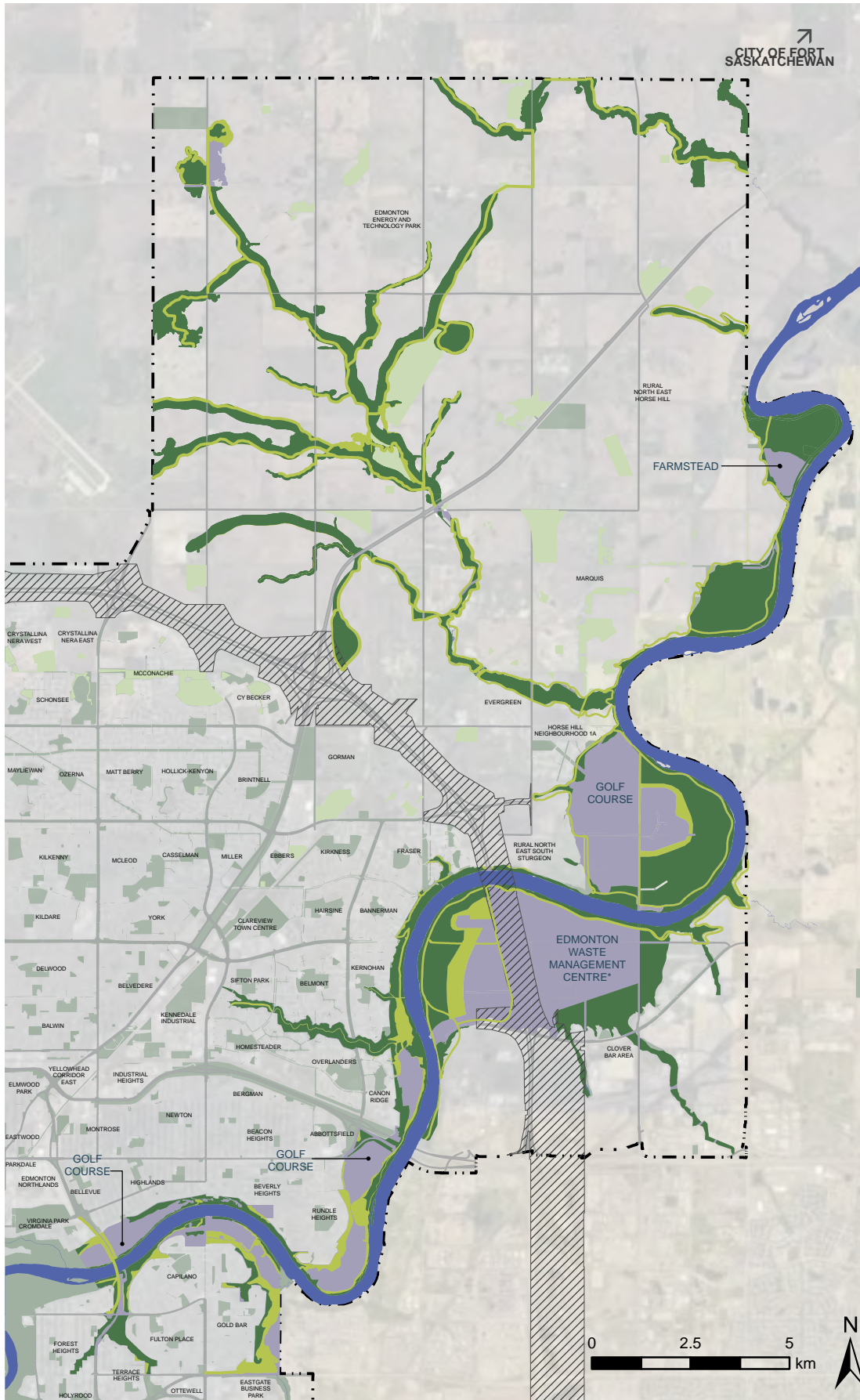
North Saskatchewan Central Land Management Classifications



- LEGEND**
- Existing Parks
 - Future Parks
 - Preservation
 - Conservation
 - Active / Working Landscapes
 - Transportation Utility Corridor
 - City Boundary

For illustrative purposes only.
To be confirmed through later site-specific planning.

Northeast Land Management Classifications



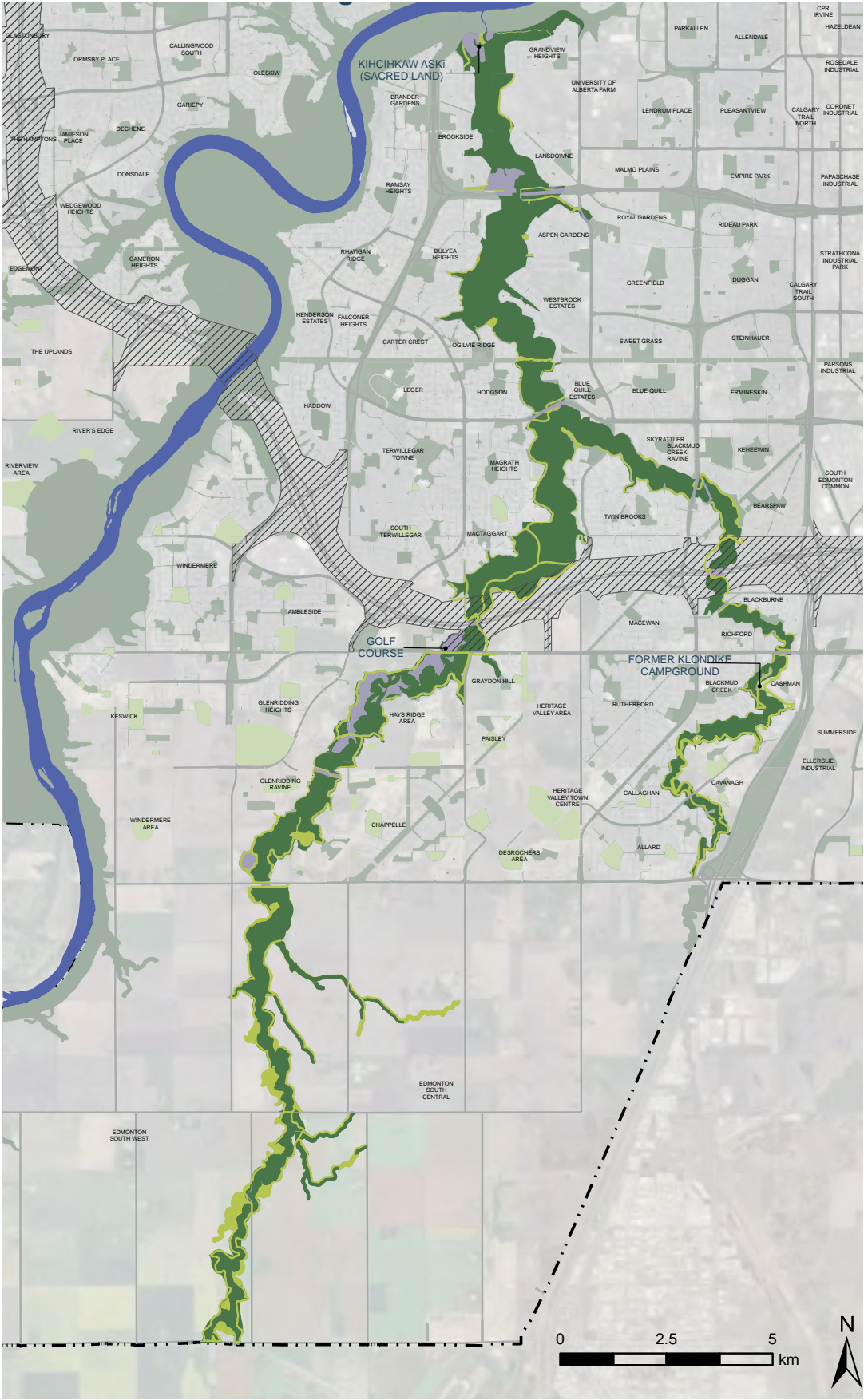
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LEGEND

- Existing Parks
- Future Parks
- Preservation
- Conservation
- Active / Working Landscapes
- Transportation Utility Corridor
- City Boundary

For illustrative purposes only. To be confirmed through later site-specific planning.

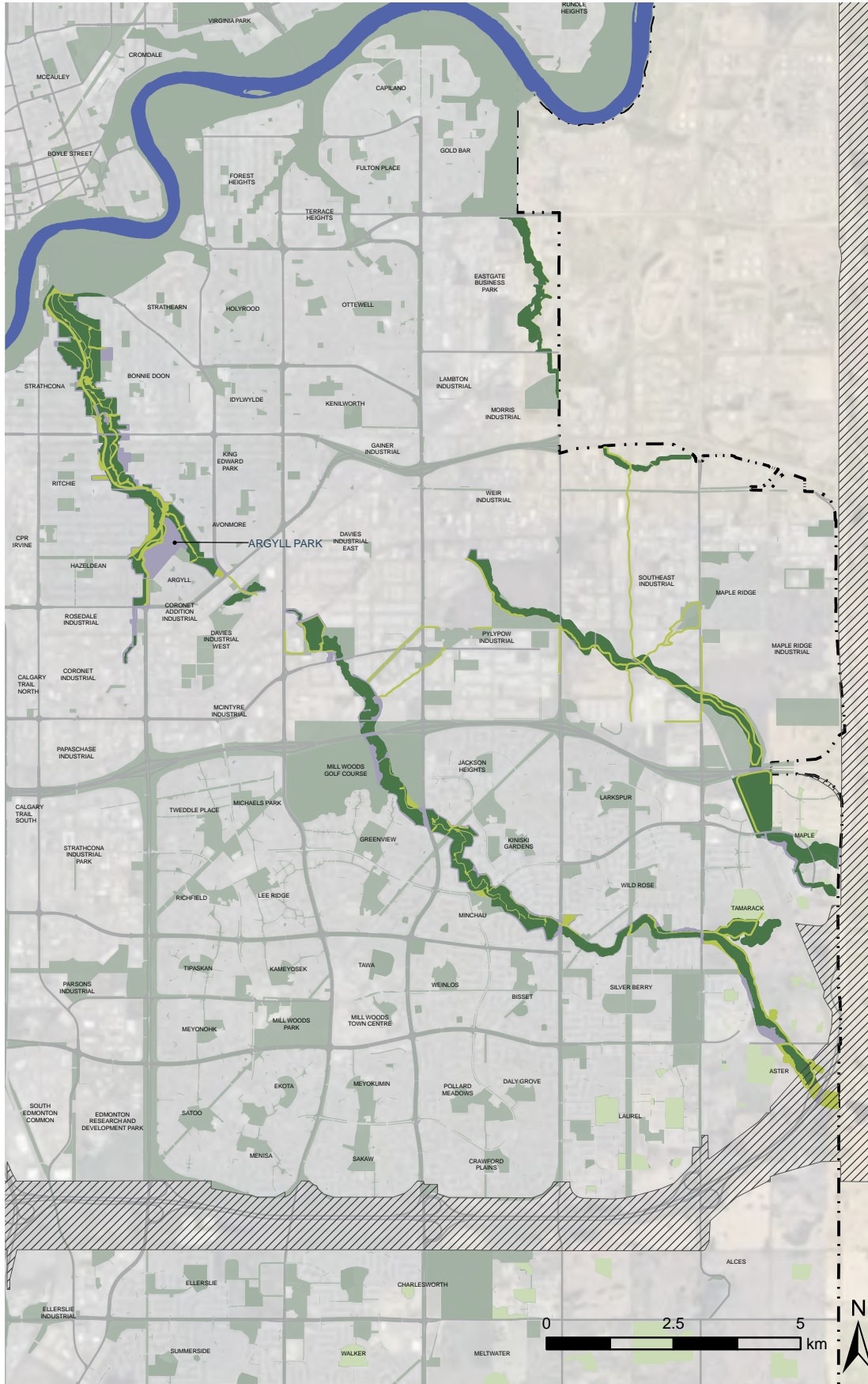
West Ravines Land Management Classifications



- LEGEND**
- Existing Parks
 - Future Parks
 - Preservation
 - Conservation
 - Active / Working Landscapes
 - Transportation Utility Corridor
 - City Boundary

For illustrative purposes only.
To be confirmed through later site-specific planning.

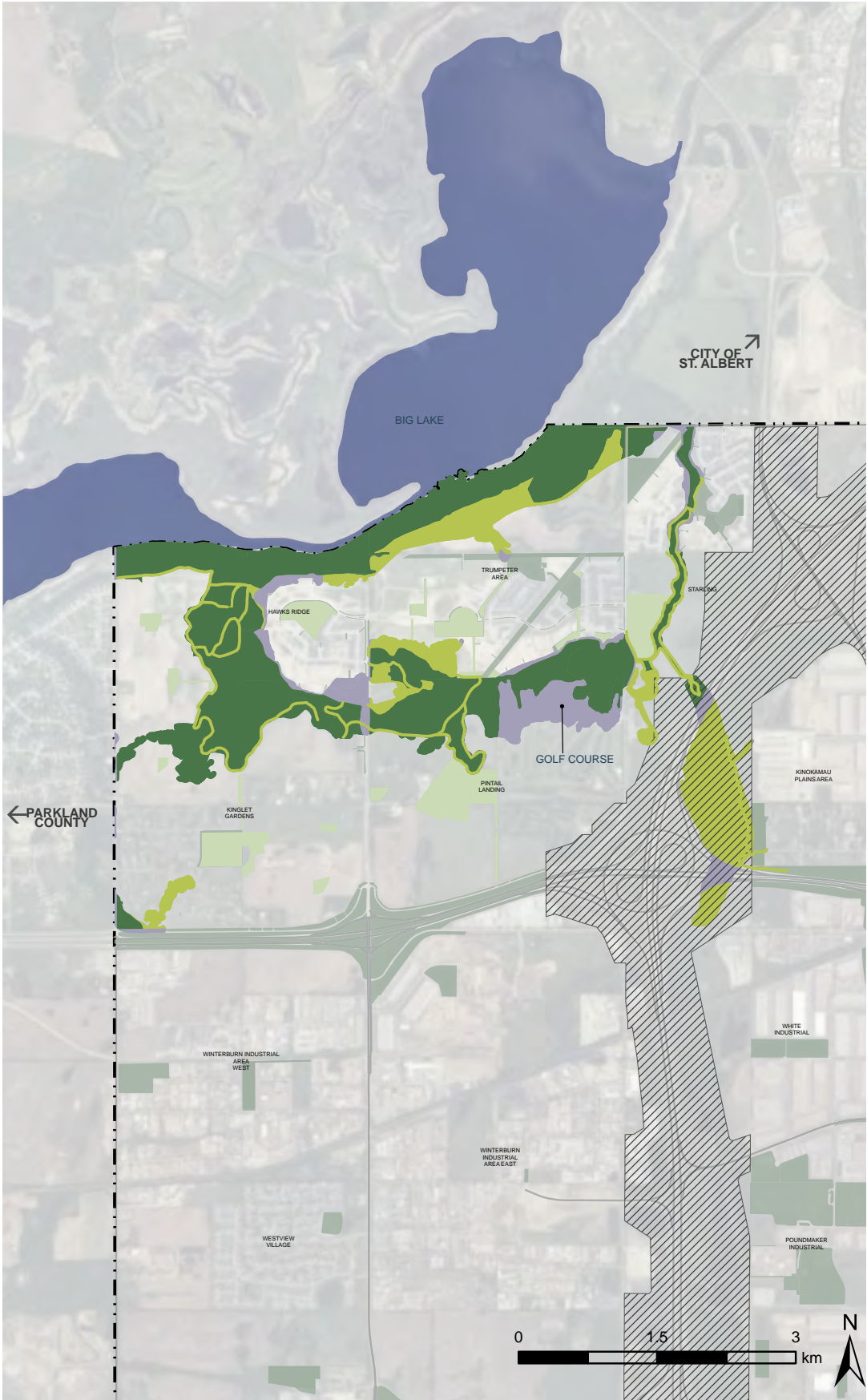
East Ravines Land Management Classifications



- LEGEND**
- Existing Parks
 - Future Parks
 - Preservation
 - Conservation
 - Active / Working Landscapes
 - Transportation Utility Corridor
 - City Boundary

For illustrative purposes only.
To be confirmed through later site-specific planning.

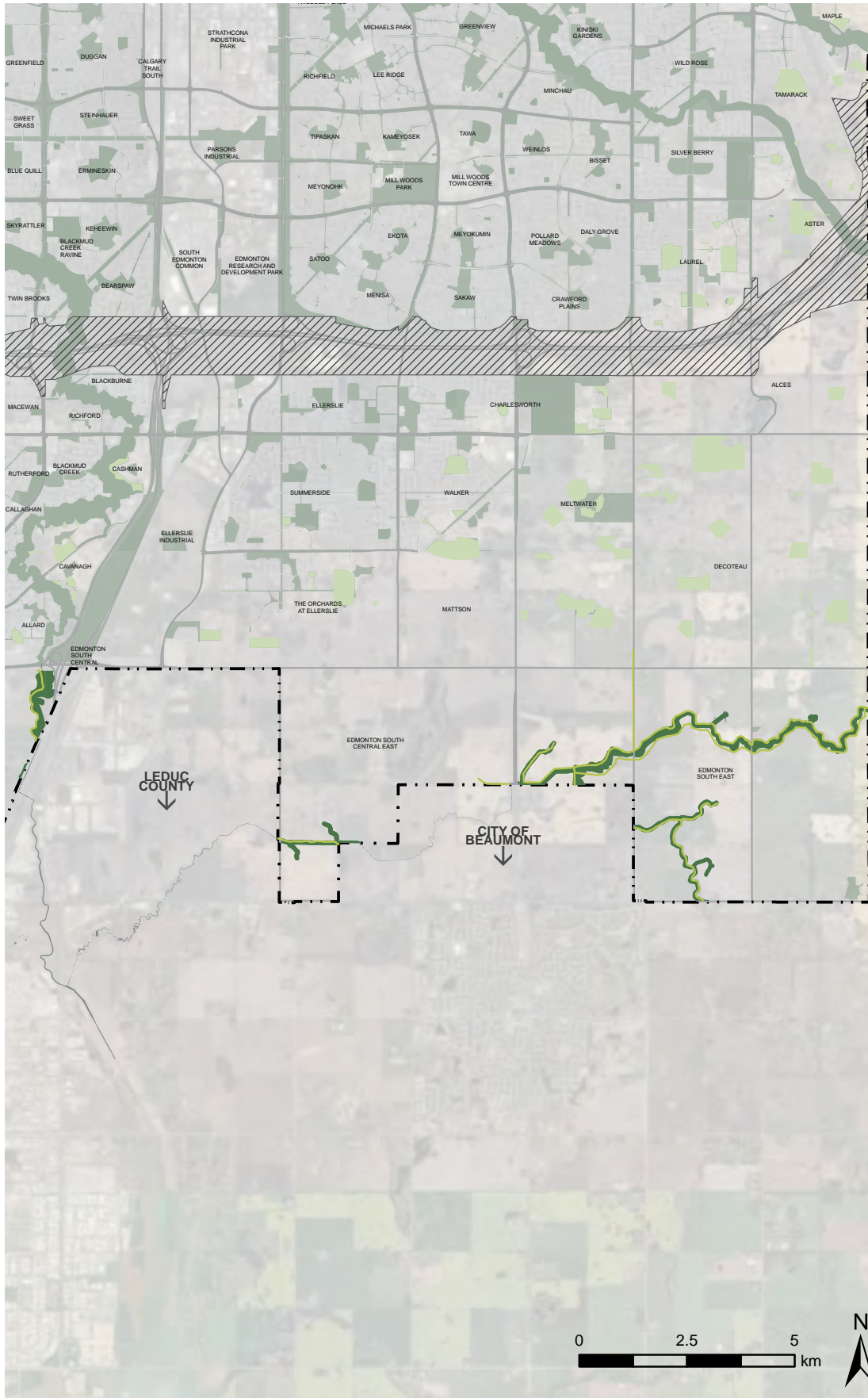
Big Lake Land Management Classifications



- LEGEND**
- Existing Parks
 - Future Parks
 - Preservation
 - Conservation
 - Active / Working Landscapes
 - Transportation Utility Corridor
 - City Boundary

For illustrative purposes only.
To be confirmed through later site-specific planning.

Irvine Creek to Blackmud South Land Management Classifications



LEGEND

- Existing Parks
- Future Parks
- Preservation
- Conservation
- Active / Working Landscapes
- Transportation Utility Corridor
- City Boundary

For illustrative purposes only.
To be confirmed through later site-specific planning.

3.3 Relationship with Breathe

Edmonton's green network is a connected network of open spaces that provide multiple services to people and the environment. These services are categorized into functions in *Breathe: Edmonton's Green Network Strategy*, which are, in turn, categorized into three theme areas:

- + **Ecology:** Supports and enhances the environment by sustaining healthy and resilient ecosystems
- + **Celebration:** Connects people to one another and builds a sense of place by providing places for communities to thrive, gather and celebrate
- + **Wellness:** Promotes healthy living and fosters wellbeing through diverse kinds of recreation, mobility and environments

These theme areas do not occur in equal measure across all of Edmonton's open spaces, but each community, regardless of their location in the city, should have access to the spectrum of open space functions nearby.

The River Valley and Ravine System primarily delivers ecological benefits, but also provides important wellness and celebration functions. The Land Management Classifications build upon the Breathe theme areas by providing greater detail about what should occur and where in the River Valley and Ravine System.

Each of Breathe's three themes are present throughout the Land Management Classifications; however, the priority and focus shifts depending on the nature and intent of the Classification. Ecological health is the priority across all Classifications, but the proportion and type of wellness and celebration functions vary.

- + **Preservation: Ecology** functions (biodiversity, climate regulation, water management, risk mitigation) dominate with small proportions of **Wellness** and **Celebration** functions (Wellness functions focus on natural, low-impact recreation, contemplative and learning experiences while celebration uses focuses on the natural aesthetic value and heritage).
- + **Conservation: Ecology** functions (all of the above in **Preservation** plus waste management) dominate with a greater proportion of **Wellness** and **Celebration** functions compared to **Preservation**. Wellness functions focus on active transportation with more recreational and learning experiences to connect people with nature while celebration functions focus on heritage interpretation, aesthetics and public safety.
- + **Active/Working Landscapes: Ecology** functions (every ecological function) dominate with an almost comparable level of **Wellness** and **Celebration** functions (the full range of Wellness functions and the full range of Celebration functions can be accommodated).

3.4 Land Management Classification Policies + Direction

This section supplements the System-wide policies with direction tailored to each Land Management Classification. Specifically, this section outlines the intent of each Land Management Classification and Sub-classification; provides policy direction to guide further planning and design; and includes compatible activities, facilities and infrastructure. **It is important to understand that the compatible activities, facilities and infrastructure do not mean that all listed items are appropriate in every instance of the Sub-classification. Rather, they form a set of options to consider during site-specific planning.**

3.4.1 LAND MANAGEMENT CLASSIFICATION APPLICATION POLICIES

The following policies apply to the application and refinement of the Land Management Classifications and Sub-classifications discussed in this section.

- a) Use the boundaries of the Land Management Classifications to guide appropriate planning, design and maintenance measures.
- b) Refine the Land Management Classifications based on the field, environmental and further archaeological assessments conducted during site-specific planning processes.
- c) Define the comprehensive trail network during site-specific planning when on-the-ground conditions can be confirmed and classify each trail type appropriately, including:
 - + Foot-based uses and biking along non-paved narrow width (natural surface) trails in more sensitive areas – **Preservation: Trail-based Recreation.**
 - + A variety of trail uses on non-paved variable width and paved variable width trails in less sensitive areas with mitigated ecological impacts – **Conservation: Trail-based Recreation**
- d) Delineate the Sub-classifications during site-specific planning processes once on-the-ground conditions and uses are confirmed.



Notes

All compatible uses, facilities, and infrastructure are discretionary and subject to further study, engagement and consideration based on the site condition and context.

All the policies in the System-wide section apply to the Land Management Classifications. Additional policies are provided in this section that are specific to the Classification or Sub-classification.

3.4.2 PRESERVATION

The intent of the **Preservation** Classification is to protect the integrity of the natural environment and restore natural functioning with minimal disturbance to wildlife and vegetation. Protecting and improving ecological health is the primary objective of **Preservation** areas. This includes protecting ecosystem functions, key habitat areas, wildlife corridors, and sensitive archaeological/cultural/historic sites. In keeping with this intent, access within **Preservation** areas is limited to foot-based travel and biking on non-paved narrow width (natural surface) trails in areas with lower relative ecological sensitivity (**Preservation: Trail-based Recreation**).

The **Preservation** Classification is divided into two Sub-classifications:

- + **Preservation: Ecosystem Protection**
- + **Preservation: Trail-Based Recreation**

The Ribbon of Green applies the **Preservation** Classification to locations throughout the System. The Sub-classifications will be applied during further site-specific planning when on-the-ground conditions are confirmed, and the precise location of uses is defined.

3.4.3 PRESERVATION | ECOSYSTEM PROTECTION

The Ecosystem Protection sub-classification supports the protection of the highest-value and most sensitive ecosystems and features, to ensure that these systems continue to thrive as the city's population grows.

Visitor Experience

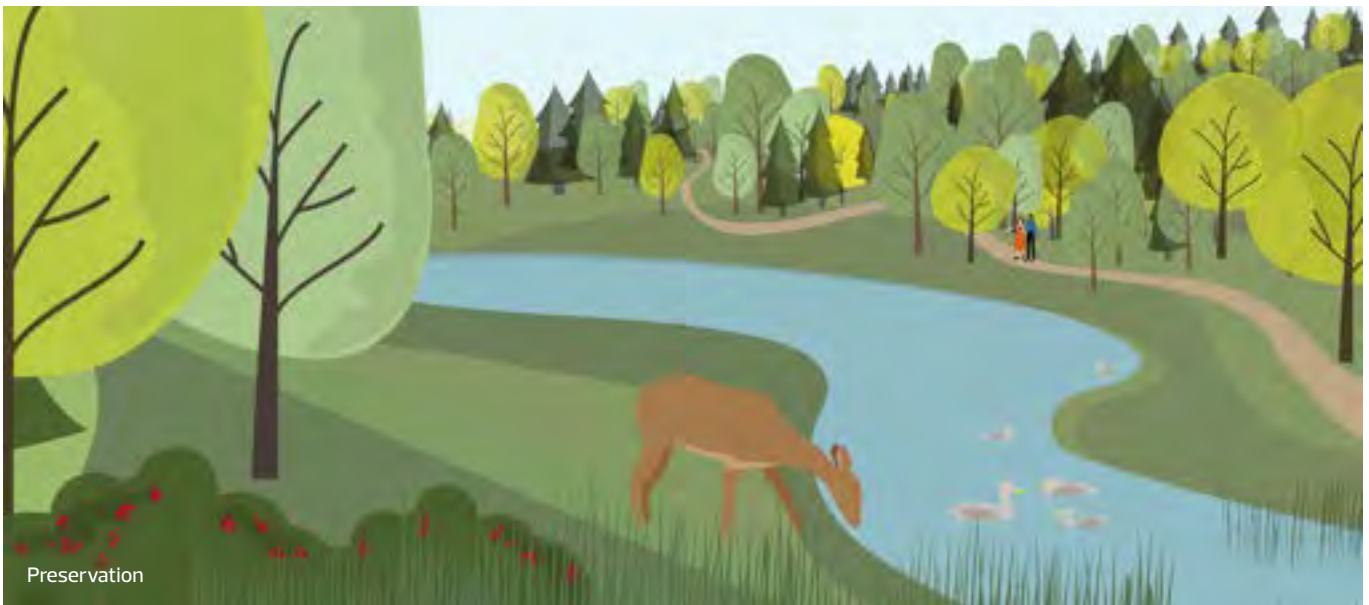
This sub-classification is not primarily focused on visitor experience. Access is limited to research and conservation management activities, search and rescue, and Indigenous traditional use. However, the protection of the lands designated Ecosystem Protection contributes to the experience of visitors traveling through Preservation areas on trails, and others accessing the system.

Impact of the Visitor Experience

Since the **Preservation** Classification's priority is ecosystem health over recreational experiences, limiting access is critical to minimize impacts. Defining levels of acceptable ecological functioning during site-specific planning is required to inform management practices and establish a baseline to monitor ongoing health.

For more information

See **Section 2.1.6** – Ecological Integrity: Site-specific Planning



3.4.3.1 COMPATIBLE ACTIVITIES, FACILITIES + INFRASTRUCTURE

PRESERVATION ECOSYSTEM PROTECTION	
COMPATIBLE ACTIVITIES	COMPATIBLE FACILITIES + INFRASTRUCTURE
<p>RECOGNIZE:</p> <ul style="list-style-type: none"> + Indigenous traditional use <p>LEARN:</p> <ul style="list-style-type: none"> + Research and conservation related activities 	<p>EXPLORE:</p> <ul style="list-style-type: none"> + Signage (regulatory) <p>PROTECT:</p> <ul style="list-style-type: none"> + Wildlife compatible fencing, and security fencing + Slope stabilization infrastructure + Restoration and naturalization areas

3.4.3.2 SPECIFIC PRESERVATION DIRECTION

Compatible Activities

- a) When evaluating activities not explicitly mentioned in the compatible activities table, determine whether the activity is appropriate within a **Preservation: Ecosystem Protection** area:
- + Ecological, archaeological, cultural or historical resources are not placed at increased risk.
 - + The potential activity can be undertaken on foot, and any required equipment (e.g., wildlife cameras or other tools to support research) will not impact the ecological integrity of the area.
 - + The activity will not leave anything behind and/or traces beyond footprints.

Compatible Facilities + Infrastructure

- b) Evaluate the infrastructure and structures with the following criteria to determine whether the infrastructure is essential and appropriate within a **Preservation: Ecosystem Protection** area:
- + The infrastructure serves an engineering function (e.g. improves drainage, slope stability, or prevents erosion) that is critical for the protection of infrastructure or for ensuring safety in areas adjacent to the Ecosystem Protection area.
 - + The infrastructure protects habitats, species, landscapes, vegetation, and / or landforms.
 - + The infrastructure uses the least intrusive method for achieving the desired purpose.
 - + The infrastructure cannot be located in any other Land Management Classification while meeting its objectives.
 - + The infrastructure supports the purpose of this sub-class to preserve ecosystem integrity.
- c) Essential infrastructure may include:
- + Construction to stabilize slopes, provide erosion control, and improve drainage
 - + Interpretive, wayfinding and regulatory signage communicating limitations to access, and why the area is being preserved.
 - + Restoration and naturalization. Restoration refers to the re-establishment of ecosystem function and biodiversity on a degraded site, whereas naturalization is the reintroduction of native species on a disturbed site (i.e., naturalizing turf areas).
- d) Signage within **Preservation: Ecosystem Protection** areas is limited to regulatory signage, but wayfinding and interpretive signage should be located at appropriate locations around the periphery of these areas to reroute users and to explain why access is limited.

Ecological Protection

- e) Native and locally-adapted vegetation that forms the principal wildlife movement route shall be retained and managed with human access limited.
- f) Allow fencing, if necessary to protect sensitive areas. Ensure all fencing is wildlife-compatible.
- g) Establish a buffer between Ecosystem Protection areas and **Active/Working Landscapes** areas of a width sufficient to mitigate the impacts of noise, light and other pollution, whenever possible.
- h) Maintain wetlands and riparian areas with an appropriate variable-width buffer, to be determined on a case-by-case basis, to maintain overland, waterborne and aerial wildlife movement.

Restoration + Rehabilitation

- i) Restore disturbed landscapes in Ecosystem Protection areas.

Heritage + Cultural Resources

- j) Work with Indigenous communities to identify culturally significant and sacred locations (e.g. natural occurrences of traditional medicinal plants) to protect them from public use.

Recreational Uses

- k) Recreational uses are not permitted in areas identified as **Preservation: Ecosystem Protection**, in order to protect the ecological integrity of these areas.

Access + Trails

- l) Only activities associated with research and conservation and approved by the City are considered compatible. General public access is restricted in order to protect the ecological integrity of these areas.
- m) Where access to areas with sensitive or potentially unsafe environmental conditions (e.g. unique vegetation cover, nest or den sites, wet areas, unstable slopes, or erosion prone conditions) is required for permitted activities, ensure that appropriate precautions are taken to ensure the safety of users and the protection of sensitive areas.
- n) Reduce or manage user-created trails through education, signage, restoration, design and enforcement. Engage with the public about the change or closure, and post notices on site. Ensure trail access is provided *around* Ecosystem Protection areas to maintain connectivity.

Other Uses

- o) Do not permit commercial uses.

Education + Awareness

- p) Provide educational information about why **Preservation: Ecosystem Protection** areas are important and why access is limited.

Maintenance + Operations

- q) Limit active maintenance and management to:
 - + Conservation practices
 - + Inventory and monitoring of ecosystem health
 - + Closure and renaturalization of user-generated trails
- r) Reduce edge effects and prevent weed introduction from nearby developments or high-use areas by adopting disturbance-management practices.
- s) Maintain existing vegetation to provide habitat and shelter for wildlife.

Monitor + Study

- t) Develop a plan to monitor wildlife populations and movement, as well as plant communities, to ascertain whether there are any adverse impacts from human use, and respond to these impacts.

3.4.4 PRESERVATION | TRAIL BASED RECREATION

This sub-classification provides a network of trails in Preservation areas to support low-impact trail recreation opportunities while minimizing ecological impacts and habitat fragmentation.

Visitor Experience

Limiting recreation to foot-based travel and biking along non-paved narrow width (natural surface) trails within the **Preservation: Trail-Based Recreation** sub-class will facilitate the enjoyment and appreciation of immersive experiences in nature. These trails will be located strategically where they do not damage sensitive habitats, landforms, or archaeologically significant sites.

Impact of the Visitor Experience

Since the Preservation Classification's priority is ecosystem health over recreational experiences, defining levels of acceptable ecological functioning during site-specific planning is required to inform management practices and establish a baseline to monitor ongoing health. If ecosystem health is negatively impacted by overuse, restoration, closures, and use limitations are required.

3.4.4.1 COMPATIBLE USES, FACILITIES + INFRASTRUCTURE

PRESERVATION TRAIL BASED RECREATION	
COMPATIBLE ACTIVITIES	COMPATIBLE FACILITIES + INFRASTRUCTURE
<p>RECOGNIZE:</p> <ul style="list-style-type: none"> + Indigenous traditional use <p>LEARN:</p> <ul style="list-style-type: none"> + Research and conservation related activities + Nature study, observation and photography <p>MOVE:</p> <ul style="list-style-type: none"> + Foot-based travel + Biking + Cross-country skiing (non-track set only) + Snowshoeing + Paddling <p>PLAY:</p> <ul style="list-style-type: none"> + Dogs (on-leash) 	<p>EXPLORE:</p> <ul style="list-style-type: none"> + Signage (interpretive, wayfinding and regulatory) <p>MOVE:</p> <ul style="list-style-type: none"> + Non-paved trails (narrow width, natural surface) + Hand launch (no dock) <p>PROTECT:</p> <ul style="list-style-type: none"> + Wildlife compatible fencing, and security fencing + Slope stabilization infrastructure + Restoration and naturalization areas

3.4.4.2 SPECIFIC PRESERVATION: TRAIL-BASED RECREATION DIRECTIONS

Compatible Uses

- a) When evaluating uses not explicitly mentioned in the compatible use table, determine whether the use is appropriate within the **Preservation: Trail-based Recreation** Classification:
- + Ecological, archaeological, cultural or historical resources are not placed at increased risk.
 - + The use will not close off portions of the area or limit the availability of trails to the public (e.g. races)
 - + The use will not leave anything behind and/or traces beyond footprints (e.g. chalk marks, flags, and litter)

Compatible Facilities + Infrastructure

- b) Evaluate the infrastructure and structures with the following criteria to evaluate whether the infrastructure is essential and appropriate within a **Preservation: Trail-based Recreation** area:
- + The infrastructure improves visitor safety.
 - + The infrastructure serves an important engineering function (e.g. improves drainage, slope stability, or prevents erosion).
 - + The infrastructure protects habitats, species, landscapes, vegetation, and / or landforms
 - + The infrastructure uses the least intrusive method for achieving the desired purpose
 - + The infrastructure cannot be located in any other Land Management Classification while meeting its objectives
- c) Essential infrastructure may include:
- + Construction to stabilize slopes, provide erosion control, and improve drainage
 - + Mitigation measures to reduce the impact of trails and other infrastructure
- d) Limit unnecessary signage clutter.



Larch Sanctuary

Ecological Protection

- e) Allow fencing, if necessary to protect sensitive areas and ensure visitor safety. Ensure all fencing is wildlife compatible.
- f) Where feasible, consolidate multiple trails into a single, well-designed trail that minimizes ecological impact.
- g) Where closures are determined to be necessary, restore trails through planting native vegetation and removing non-natural materials.
- h) Implement erosion control measures and rehabilitate disturbed soils.
- i) When delineating the **Preservation: Trail-based Recreation** Subclassification, maintain wetlands and riparian areas with an appropriate variable-width buffer, to be determined on a case-by-case basis, to maintain overland, waterborne and aerial wildlife movement.

Restore + Rehabilitation

- j) Restore and/or rehabilitate areas that have been degraded due to excessive use (e.g. habitats adjacent to trail alignments, or erosion prone slopes).
- k) Restore trails that have been permanently closed.

Heritage + Cultural Resources

- l) Work with Indigenous communities to identify culturally significant and sacred locations (e.g. natural occurrences of traditional medicinal plants) to protect them from public use and ensure that trails avoid these areas.

Recreational Uses

- m) Limit recreation to foot-based travel and biking on non-paved narrow width (natural surface) trails to facilitate enjoyment of nature while minimizing visitor impact.
- n) Dogs must be kept on leash to avoid impacts to wildlife.
- o) Limit river access to designated launch points.

Access + Trails

- p) Ensure that each trail route within **Preservation: Trail-Based Recreation** areas offers a unique experience, focusing on localized natural environments, providing access to natural sights, or curating interpretive loops.
- q) Weave trails around existing vegetation and topography to reduce their overall footprint and disturbance to existing vegetation.
- r) Manage the number and density of trails to limit habitat fragmentation and disruption.

Other Uses

- s) Do not permit commercial uses.

Education + Awareness

- t) Provide educational signs and enforcement to minimize disturbances to wildlife from inappropriate behaviour (e.g. cautioning against loud activities, littering, or interacting with wildlife).
- u) Provide educational information about why **Preservation: Trail-based Recreation** areas are important, and the potential impacts of excessive or intensive recreational use and unauthorized trail creation.

Maintenance + Operations

- v) Limit active maintenance and management to:
 - + Trail safety and functionality improvements
 - + Conservation practices
 - + Inspections and repairs of any infrastructure/structures
 - + Litter clean-ups in partnership with communities and organizations
 - + Inventory and monitoring of ecosystem health
 - + Any other monitoring and maintenance guidance as defined in the site-specific plan
 - + Preventing the creation of additional user-created trails through education, design and outreach
- w) Reduce edge effects and prevent weed introduction from nearby developments or high-use areas by adopting disturbance-management practices in natural areas.
- x) Maintain the existing vegetation understory around trails to provide habitat and shelter for wildlife.
- y) Do not provide snow clearing services.

Monitor + Study

- z) Develop a plan to monitor wildlife populations and movement, as well as plant communities, to ascertain whether there are any adverse impacts from human use, and respond to these impacts by restricting access, if necessary.

3.4.5 CONSERVATION

The **Conservation** Classification's intent is to connect people with nature. This Classification offers more recreational opportunities to enjoy and explore nature than the Preservation Classification; however, maintaining and restoring ecosystem health remains important.

The **Conservation** Classification is divided into two Sub-classifications:

- + **Conservation: Trail-based Recreation**
- + **Natural Recreation**

The *Ribbon of Green* applies the **Conservation** Classification to locations throughout the System. The Sub-classifications will be applied during further site-specific planning when on-the-ground conditions are confirmed and the precise location of uses is defined..

3.4.6 CONSERVATION | TRAIL-BASED RECREATION

Conservation: Trail-based Recreation supports ecological protection and restoration with a connected trail network that connects people to the System and provides a range of trail-based experiences.

The *Ribbon of Green* high-level trail network defines major access points and regional connections, and is not a comprehensive trail inventory. Instead, it functions as a starting point for further site-specific planning, where field assessments and public engagement will define the complete trail network. Some trails will remain in **Preservation** but most (based on an environmental review) will become **Conservation: Trail-based Recreation**. Site-specific plans may also realign or remove trails in the *Ribbon of Green*.

Visitor Experience

For many, trail-based recreation is the quintessential River Valley and Ravine System recreational activity. Edmontonians desire a variety of trail experiences and this Sub-classification will fulfill that desire through multiple trail types and uses year-round.

Impact of the Visitor Experience

This Sub-classification, applied during site-specific planning, will focus trails in appropriate areas to limit their ecological impact. This Sub-classification will apply to the entire trail network, except the foot-based travel only non-paved trails that fall under **Preservation**. This trail network will:

- + Provide regular access into the System
- + Facilitate recreation and active transportation
- + Reduce the incentive to create user-created trails that may damage the System



What is the role of different plans for trails?

Through desktop assessment, the *Ribbon of Green* outlines major access points and regional trail connections. These trail areas are classified as **Conservation**.

Site-specific plans will refine the alignment of those connections, and identify any additional recreational trails and access points, through public engagement and field assessments. Trails will be classified during this site-specific planning as **Conservation: Trail-based Recreation** (if they are non-paved variable width, or paved trails), or **Preservation: Trail-based Recreation** (if they are non-paved narrow width trails).

3.4.6.1 COMPATIBLE USES, FACILITIES + INFRASTRUCTURE

CONSERVATION: TRAIL-BASED RECREATION	
COMPATIBLE USES	FACILITIES + INFRASTRUCTURE
<p>RECOGNIZE:</p> <ul style="list-style-type: none"> + Indigenous traditional use <p>LEARN:</p> <ul style="list-style-type: none"> + Research and conservation related activities + Nature study, observation and photography + Educational and nature-based programming, including Indigenous Knowledge, ways of knowing, and storytelling <p>MOVE:</p> <ul style="list-style-type: none"> + Foot-based travel + Snowshoeing + Paddling + Biking + Horseback riding (designated areas only) <p>EXPLORE:</p> <ul style="list-style-type: none"> + Orienteering <p>PLAY:</p> <ul style="list-style-type: none"> + Geo-caching + Dogs (on-leash) + Dogs (off-leash) – designated areas only <p>GATHER:</p> <ul style="list-style-type: none"> + Trail-based events <p>ACCESS:</p> <ul style="list-style-type: none"> + River access 	<p>APPRECIATE:</p> <ul style="list-style-type: none"> + Viewpoints and platforms + Bird blind <p>EXPLORE:</p> <ul style="list-style-type: none"> + Signage (interpretive, wayfinding and regulatory) <p>MOVE:</p> <ul style="list-style-type: none"> + Paved trails + Non-paved trails + Stairs, decks, and boardwalks + Pedestrian bridges + Trailheads + Hand boat launch and docks <p>PROTECT:</p> <ul style="list-style-type: none"> + Wildlife compatible fencing, and security fencing + Retaining walls + Slope stabilization infrastructure + Restoration and naturalization areas <p>RELAX:</p> <ul style="list-style-type: none"> + Seating areas and benches <p>OTHER:</p> <ul style="list-style-type: none"> + Low-impact Development (LID) + Lighting (trail and security) + Waste and recycling receptacles



Conservation: Trail-based Recreation

3.4.6.2 SPECIFIC TRAIL-BASED RECREATION DIRECTIONS

Compatible Uses

- a) When evaluating uses not explicitly mentioned in the compatible use table, determine whether the use is appropriate within a **Conservation: Trail-based Recreation** area if the use can be wholly contained within the width of the trail.

Compatible Facilities + Infrastructure

- b) Evaluate all infrastructure and structures with the following criteria to evaluate whether the infrastructure is essential and appropriate within a **Conservation: Trail-based Recreation** area:
 - + The infrastructure is required to ensure visitor safety.
 - + The infrastructure provides an important engineering function (e.g. improves drainage or slope stability).
 - + The infrastructure uses the least intrusive method for achieving the desired purpose.
 - + The infrastructure protects habitats, species, landscapes, vegetation, and landforms.
 - + The infrastructure provides space to rest, repair equipment, or take a break without blocking the trail for other users.
 - + The infrastructure connects or provides the opportunity to create a recreational circuit.
 - + The infrastructure provides a direct link to facilitate active transportation or fills a gap in the larger trail network.

Ecological Protection

- c) Use **Conservation: Trail-based Recreation** areas as a transition zone to separate intensive uses from **Preservation** areas, whenever possible.

Restoration + Rehabilitation

- d) Restore and/or rehabilitate areas that have been degraded due to excessive use (e.g. habitats adjacent to trail alignments, or erosion prone slopes).
- e) Restore trails that have been permanently closed.

Heritage + Cultural Resources

- f) Place interpretive displays along trails to highlight important historic and cultural sites.

Recreational Uses

- g) Accommodate multiple trail-based recreational uses year-round.
- h) Work with user groups and organizations (e.g. mountain biking, cross-country skiing) to find suitable trail locations to support an enjoyable experience, and to seek opportunities for shared management where appropriate.
- i) Provide seating along trails, where feasible, to provide places to rest, take in views or scenery, and enjoy the natural setting.

- j) Limit river access to designated launch areas.

Access + Trails

- k) Provide a well-connected trail network that supports active transportation connectivity and accessibility within the System.
- l) Use trail buffers to reduce “edge effects” between trail disturbances and adjacent natural areas and increase the width of the buffers based on the degree of anticipated use.
- m) Employ every reasonable effort, including, but not limited to, engineering solutions and/or alternative alignments, to minimize the extent of disturbance from the development of trails.
- n) Weave trails around existing vegetation or important sites and ecological features to reduce their overall footprint and disturbance to vegetation.
- o) Apply caution when finalizing the alignment of paved trails to avoid ecologically sensitive areas due to the larger extent of disturbance relative to non-paved trails.
- p) Create a variety of trail experiences for different purposes, users, routes, and destinations.
- q) Separate slower and faster-moving uses through designated trails, as appropriate, to minimize conflict and facilitate an enjoyable experience for different users.
- r) Implement and enforce trail closures to minimize the impact of human overuse, erosion and human-wildlife conflicts, where necessary.
- s) During site-specific planning, designate trails specifically for certain uses (e.g. mountain biking, horseback riding, walking) if appropriate.

Other Uses

- t) Do not permit permanent commercial uses.

Education + Awareness

- u) Provide educational signage and enforcement measures to minimize disturbance to wildlife from inappropriate behaviour in **Conservation** areas (e.g. cautioning against loud activities, littering, or interacting with wildlife).

Maintenance + Operations

- v) Ensure trail maintenance is tailored to the type of trail.
- w) At the top-of-bank, ensure that stormwater run-off is directed to the stormwater system instead of allowing it to flow down the river valley or ravines.
- x) Maintain the existing vegetation understory around trails to provide shelter for wildlife.

Monitor + Study

- y) Develop a plan to monitor wildlife populations and movement, as well as plant communities, to ascertain whether there are any adverse impacts from human use, and respond to these impacts by restricting access, if necessary.



Conservation: Natural Recreation

3.4.7 CONSERVATION | NATURAL RECREATION

The **Conservation: Natural Recreation** Sub-classification's intent is to provide opportunities to exercise, relax, play, and gather with friends and family in a natural setting. This Sub-classification also applies to trailheads. This Sub-classification offers unstructured passive recreational opportunities in a natural setting and can also buffer **Preservation** areas.

The **Conservation: Natural Recreation** Sub-classification provides recreation opportunities in a natural setting while minimizing environmental impact and restoring ecological functioning, when possible. **Conservation: Natural Recreation** areas can be thought of as "nodes" to complement **Conservation: Trail-based Recreation's** "corridors". This reflects their purpose as areas to stop and enjoy nature, whereas **Conservation: Trail-based Recreation** facilitates movement through nature.

Visitor Experience

The type of activities permitted are unstructured and non-programmed to allow people to experience nature individually or in small groups. Activities include picnicking, reading, nature observation, and launching a canoe or kayak.

Impact of the Visitor Experience

Conservation: Natural Recreation can buffer **Preservation** areas from more intense uses to help protect the most sensitive and vulnerable parts of the System. These areas are also intended to protect ecological functioning and maintain wildlife movement while allowing visitors to enjoy a natural setting. The types of activities are limited to control the number of people and their potential impact. Connecting people with nature also helps grow personal investment and appreciation of nature that may, in turn, lead to stewardship, advocacy, and volunteering.

3.4.7.1 COMPATIBLE USES, FACILITIES + INFRASTRUCTURE

CONSERVATION: NATURAL RECREATION	
COMPATIBLE USES	FACILITIES + INFRASTRUCTURE
<p>RECOGNIZE:</p> <ul style="list-style-type: none"> + Indigenous traditional use <p>LEARN:</p> <ul style="list-style-type: none"> + Research and conservation activities + Nature study, observation, and photography + Educational and nature-based programming, including Indigenous Knowledge, ways of knowing, and storytelling <p>MOVE:</p> <ul style="list-style-type: none"> + Foot-based travel + Biking + Cross-country skiing (track and non-track set) + Snowshoeing + Paddling + Active transportation from neighbourhoods to regional destinations + Horseback riding (designated trails only) <p>EXPLORE:</p> <ul style="list-style-type: none"> + Orienteering <p>PLAY:</p> <ul style="list-style-type: none"> + Geo-caching + Dogs (on-leash and off-leash in designated areas) + Day camps + Low-impact camping + Unstructured play + Tobogganing <p>GATHER:</p> <ul style="list-style-type: none"> + Picnicking + Trail-based events <p>ACCESS:</p> <ul style="list-style-type: none"> + Vehicular access + River access 	<p>APPRECIATE:</p> <ul style="list-style-type: none"> + Viewpoints and platforms + Bird blind <p>EXPLORE:</p> <ul style="list-style-type: none"> + Signage (interpretive, wayfinding, and regulatory) <p>MOVE:</p> <ul style="list-style-type: none"> + Paved trails + Non-paved trails + Stairs, decks, and boardwalks + Pedestrian bridges + Trailheads <p>PROTECT:</p> <ul style="list-style-type: none"> + Wildlife compatible fencing, and security fencing + Retaining walls + Slope stabilization infrastructure <p>RELAX:</p> <ul style="list-style-type: none"> + Seating areas and benches + Warming huts + Campgrounds (unserviced) <p>GATHER:</p> <ul style="list-style-type: none"> + Picnic sites (no shelter) <p>PLAY:</p> <ul style="list-style-type: none"> + Off-leash dog areas (up to 1 ha in size) + Nature and adventure play features + Flexible turfed open areas + Activity pads + Hand boat launch and docks <p>ACCESS:</p> <ul style="list-style-type: none"> + Parking area, local road, turn-around (existing) <p>OTHER:</p> <ul style="list-style-type: none"> + Low Impact Development (LID) + Lighting (trail, security, and parking lot) + Public art + Drinking fountains + Washrooms + Waste and recycling receptacles

3.4.7.2 SPECIFIC NATURAL RECREATION DIRECTIONS

Compatible Uses

- a) Use the points below to evaluate whether a use is appropriate within **Conservation: Natural Recreation** areas:
- + The use does not contain any facilities that require bookings/reservations
 - + The use does not require the construction of specialized facilities beyond washrooms, warming huts, hand boat launches, Green Shacks, picnic tables, fire pits/BBQ areas, and/or other minor user amenities
 - + The use does not require any special maintenance and management beyond clearing snow and setting cross-country skiing tracks
 - + The use does not result in impact to ecologically sensitive areas

Compatible Facilities + Infrastructure

- b) Evaluate all infrastructure and structures with the following criteria that indicate whether the infrastructure is essential and appropriate within **Conservation: Natural Recreation** areas:
- + The infrastructure improves visitor safety
 - + The infrastructures provides an important engineering function (e.g. improves drainage, slope stability)
 - + The infrastructures uses the least intrusive method for achieving the desired purpose
 - + The infrastructure protects habitats, species, landscapes, vegetation, and landforms
 - + The infrastructure provides space to rest, picnic, relax, exercise a dog or undertake impromptu games and activities without damaging sensitive ecological areas
 - + The infrastructure provides trailhead amenities appropriate for the location and type of trail served

Ecological Protection

- c) Use **Conservation: Natural Recreation** areas to separate intensive uses from **Preservation** areas, whenever possible.
- d) Ensure that site-specific planning processes to determine the location, design, construction and maintenance of any proposed water-based infrastructure (e.g. docks and boardwalks) addresses and mitigates any negative effect on the aquatic environment.

Restoration + Rehabilitation

- e) During the site-specific planning process, refine, and potentially identify future areas for remediation, restoration or rehabilitation.
- f) Restore areas disturbed through development.

Heritage + Cultural Resources

- g) Place interpretive displays in **Conservation: Natural Recreation** areas to highlight important historic and cultural sites.
- h) Work with Indigenous communities to identify appropriate Indigenous gathering spaces that should consider the following:
 - + Clean soil
 - + Not previously cultivated or disturbed
 - + Offers privacy
 - + Can accommodate river access, and close to natural areas

Recreational Uses

- i) Allow node-based passive recreational opportunities that complement the natural setting and require minimal infrastructure (e.g. picnic sites, washrooms, warming huts, rest areas, hand boat launches, and turf areas for casual games/hobbies/sports).
- j) Determine which areas are appropriate for low-impact camping (e.g. walk-in or canoe/kayak-in) and how they would be operated through site-specific plans.
- k) Provide viewpoints at key sites while minimizing impacts to ecological integrity.
- l) In **Conservation: Natural Recreation** areas, off-leash dog parks should be fenced to minimize impacts on adjacent natural areas and wildlife.
- m) Limit river access to designated launch areas.

Access + Trails

- n) Classify all trailheads as **Conservation: Natural Recreation**.
- o) Create universally accessible trailheads, wherever possible.
- p) Design trailheads based on the type of trail they service. Trailheads can fall into one of the following three categories:

TRAILHEAD TO PRESERVATION AREAS	TRAILHEAD TO CONSERVATION AREAS	TRAILHEAD TO CONSERVATION + ACTIVE/WORKING LANDSCAPES
<p>Trail Access Points: These trailheads lead to a natural surface (non-paved narrow width) trail that accommodates foot-based travel and biking. These trailheads require few amenities but typically provide signage, seating and, potentially, bicycle and/or vehicle parking.</p>	<p>Local Trailhead: These trailheads lead to trails that accommodate all types of non-paved trail activities on variable width paved or non-paved trails. Given their greater use, these trailheads typically include some vehicle parking, signage, seating, and bicycle parking.</p>	<p>Primary Trailhead: These trailheads service paved and non-paved trails that accommodate users of all ages and abilities. As a result, they require more amenities and consideration. Universal accessibility is required and typical amenities include: vehicle parking, signage, seating, washrooms, and bicycle parking.</p>

Other Uses

- q) Do not permit permanent commercial uses. **Education + Awareness**
- r) Provide educational signs and enforcement measures to minimize wildlife disturbances from inappropriate behaviour (e.g. cautioning against loud activities, littering, interacting with wildlife), and interpret environmentally significant sites.

Maintenance + Operations

- s) Reduce edge effects and prevent weed introduction from nearby developments or high-use areas by adopting disturbance-management practices in natural areas.

Monitor + Study

- t) Monitor wildlife populations and movement to ascertain whether there are any adverse impacts from human use, and restrict access, where necessary.

3.4.8 ACTIVE/WORKING LANDSCAPES

Active/Working Landscapes are located regularly throughout the River Valley and Ravine System and accommodate the highest intensity of uses while minimizing ecological impact. This Classification applies to existing uses, such as farms, industry, recreational facilities, utilities, and attractions. It also applies to new areas to focus and concentrate recreational activities; these areas were placed in locations with existing access, site disturbance and lower ecological value. Overall, this Classification intends to transition existing development that does not serve the Ribbon of Green vision, to more compatible uses over time.

Active/Working Landscapes have three Sub-classifications:

- + Intensive Recreation
- + Agriculture and Horticulture
- + Urban Services and City-wide Attractions

The Ribbon of Green applies the overall **Active/Working Landscapes** Classification to locations throughout the System. The Sub-classifications will be applied during further site-specific plans when on-the-ground conditions are confirmed and the precise nature of uses defined.

3.4.9 ACTIVE/WORKING LANDSCAPES | INTENSIVE RECREATION

The **Active/Working Landscapes: Intensive Recreation's** intent is to accommodate a range of more intensive recreational opportunities appropriate to the river valley and ravines. These opportunities allow people to exercise, play, learn and gather with friends and family in a unique park setting that cannot be replicated in tableland parks. Since **Active/Working Landscapes** have lower levels of ecological sensitivity, they have the greatest potential to accommodate multiple activities and services to meet the needs of visitors.

Despite that overall recreational purpose, **Active/Working Landscapes: Intensive Recreation** areas must minimize their footprint, incorporate green features and support ecological functioning. Also, like **Preservation** and **Conservation**, opportunities will be sought to restore and/or enhance ecosystem functions.

Visitor Experience

Active/Working Landscapes: Intensive Recreation's locations provide opportunities for gathering and interaction through multiple outdoor recreational and cultural opportunities. Given the disturbed nature of these sites, there is the opportunity to design environments that facilitate a breadth of recreational experiences while also improving ecological functioning and respecting local history.

Impact of the Visitor Experience

These are largely disturbed areas with a history of agricultural, industrial, and other development. Maintaining and restoring the ecological functioning and protecting wildlife movement, while accommodating unique recreational experiences, is the priority.

ACTIVE/WORKING LANDSCAPES: INTENSIVE RECREATION

COMPATIBLE USES

RECOGNIZE:

- + Indigenous traditional use

LEARN:

- + Research and conservation activities
- + Nature study, observation, and photography
- + Educational and nature-based programming, including Indigenous Knowledge, ways of knowing, and storytelling

MOVE:

- + Foot-based travel
- + Cross-country skiing (track and non-track set)
- + Snowshoeing
- + Paddling
- + Active transportation from neighbourhoods to regional destinations
- + Biking
- + Horseback riding (designated areas only)

EXPLORE:

- + Orienteering

PLAY:

- + Geo-caching
- + Dogs (on-leash)
- + Day camps
- + Low-impact camping
- + Unstructured play
- + Swimming in constructed facilities
- + Fitness courses
- + Tobogganing
- + Downhill skiing / snowboarding
- + Niche activities (hot air ballooning, model boating, hang gliding, archery)

GATHER:

- + Picnicking
- + Events and festivals

ACCESS:

- + Vehicular access
- + River access
- + Ice skating

GROW:

- + Urban gardens

SHOP:

- + Commercial spaces



Active/Working Landscapes: Intensive Recreation

ACTIVE/WORKING LANDSCAPES: INTENSIVE RECREATION

FACILITIES + INFRASTRUCTURE

APPRECIATE:

- + Viewpoints and platforms
- + Bird Blind

EXPLORE:

- + Signage (interpretive, wayfinding and regulatory)

MOVE:

- + Paved trails
- + Non-paved trails
- + Stairs, decks, and boardwalks
- + Pedestrian bridges
- + Trailheads

PROTECT:

- + Wildlife compatible fencing, and security fencing
- + Retaining walls
- + Slope stabilization infrastructure

RELAX:

- + Seating areas and benches
- + Warming huts
- + Campgrounds (unserviced)

GATHER:

- + Picnic sites
- + Amphitheatres
- + Bookable meeting/event space

PLAY:

- + Off leash dog areas
- + Nature and adventure play features
- + Flexible turfed open area
- + Activity pad
- + Hand launches and docks
- + Boating facilities and launches (motorized)
- + Spray decks and swimming pools
- + Sports fields
- + Climbing and play structures
- + Recreation facilities (indoor and outdoor)
- + Fitness circuits
- + Skating rinks and trails

ACCESS:

- + Parking area, local -road, turn-around
- + Mechanized access (e.g. funicular)

GROW:

- + Urban gardens

SHOP:

- + Restaurants and cafés
- + Ancillary retail

OTHER:

- + Low-impact Development (LID)
- + Lighting (trail, security, parking lot and aesthetic)
- + Public art
- + Drinking fountains
- + Aesthetic fountains/water features
- + Washrooms / change rooms
- + Waste and recycling receptacles

3.4.9.2 SPECIFIC INTENSIVE RECREATION DIRECTION

Compatible Uses

- a) Use the points below to evaluate whether a use is appropriate within an **Active/Working Landscapes: Intensive Recreation** area:
- + The use implements the Ribbon of Green vision and principles.
 - + The use provides the public with an opportunity to learn more about the ecological, archaeological, cultural and historical importance of the System.
 - + The use requires the river valley and ravine setting.
- b) Transition any existing development or use that does not serve the Plan's vision and principles over time to more compatible uses.

Compatible Facilities + Infrastructure

- c) Evaluate all infrastructure and structures with the following criteria to determine whether it is essential and appropriate within **Active/Working Landscapes: Intensive Recreation** areas:
- + The infrastructure improves visitor safety.
 - + The infrastructure provides an important engineering function (e.g. improves drainage, slope stability).
 - + The infrastructure provides or supports an active recreational opportunity appropriate for the area.
 - + The infrastructure protects habitats, species, landscapes, vegetation, and landforms.

Ecological Protection

- d) Establish larger buffers between areas prone to high densities of site visitors, loud noises, and/or other substantive disturbances.



Whitemud – Anthony Henday Wildlife passage

- e) Ensure that site-specific planning processes determine the location, design, construction, and maintenance of any proposed water-based infrastructure (e.g. docks, boardwalks) and address and mitigate any negative effects on the aquatic environment.
- f) Ensure adequate fencing to prevent wildlife habituation (e.g. from unsecured waste collection areas) or unmitigable human-wildlife conflicts (e.g. from unsecured dog off-leash areas near important wildlife corridors).

Restoration + Rehabilitation

- g) Restore landscapes degraded through recreational development or activities that are no longer in use.

Heritage + Cultural Resources

- h) In locations with a high level of disturbance from previous uses (e.g. quarries), incorporate and acknowledge this history in the design of the public space.
- i) Ensure that the design of celebration and gathering spaces (e.g. amphitheaters, pavilions, picnic shelters) in **Active/Working Landscapes: Intensive Recreation** areas address topography, maintenance and operation costs, sustainability, and accessibility in their design.
- j) Work with Indigenous communities to identify appropriate Indigenous gathering spaces that should consider the following:
 - + Clean soil
 - + Not previously cultivated or disturbed
 - + Offer privacy
 - + Can accommodate river access, and close to natural areas

Recreational Uses

- k) Focus outdoor active recreational facilities in **Active/Working Landscapes: Intensive Recreation** areas, including specialized facilities that can accommodate more intensive uses (e.g. mountain bike skills courses, canoe/kayak course).
- l) Ensure celebration and wellness active recreational opportunities are customized to, and suit the river valley and ravine setting, for example:
 - + Skating trails through a restored woodland
 - + Mountain bike skills courses that mimic the challenging terrain experienced in nature
 - + Urban agriculture demonstration projects that incorporate native and edible river valley and ravine plants
 - + Natural play features that incorporate local materials like stumps and rocks
- m) In **Active/Working Landscapes: Intensive Recreation** areas, off-leash dog parks may be larger and (potentially) not fenced if it is determined through the environmental review that the dogs will not damage the ecological functioning of the area.
- n) Limit river access to designated launch areas.

Access + Trails

- o)** Ensure vehicular access is provided from collector and arterial roads, wherever possible.
- p)** Provide paved parking for heavily used sites and incorporate design solutions (bioswales and other low-impact development) to reduce and treat stormwater runoff.
- q)** Provide access to recreational opportunities and day-use areas via multiple active transportation modes (walking, hiking, running, biking, skiing, snowshoeing).
- r)** Provide ample bicycle parking at amenity nodes.
- s)** Provide accessible routes for all users from parking areas or trailheads to River Valley and Ravine System destinations.
- t)** Work with Edmonton Transit Service to provide public transit access to **Active/Working Landscapes: Intensive Recreation** areas when there is a significant demand/draw.

Other Uses

- u)** Ensure that commercial amenities (e.g. cafés, restaurants, food kiosks, equipment rentals) support surrounding recreational/educational/community gathering uses.
- v)** Minimize environmental impacts of commercial amenities.
- w)** Incorporate urban gardens, where appropriate, including raised beds and green roofs.
- x)** Enhance picnic facilities with features such as universally accessible tables and shelters, family-style picnic tables, fire pits, bake ovens, etc.
- y)** Provide drinking fountains and water bottle refill stations at public facilities wherever infrastructure permits.

Education + Awareness

- z)** Provide cultural, historic appreciation, and biodiversity-related programming and information (e.g. plant and bird identification, guided walks, installations) to promote knowledge and skills development that enhances visitor experience.
- aa)** Manage potential user conflicts (e.g. cycling and off-leash dogs) through enforcement, signs or separation of uses.

Maintenance + Operations

- ab)** Ensure that public facilities are adequately protected from wildfires and flooding.
- ac)** Ensure that odour control and waste management services are in place to reduce the appeal to wildlife and minimize negative effects on users and adjacent residential areas.
- ad)** Manage stormwater on-site.

Study, Monitor + Adapt

- ae)** Implement ecological monitoring practices to ensure that human activities do not compromise the ecological functioning of surrounding Preservation or Conservation areas.

3.4.10 ACTIVE/WORKING LANDSCAPES | AGRICULTURE + HORTICULTURE

The **Active/Working Landscapes: Agriculture and Horticulture** sub-classification's intent is to recognize, support, and protect existing farms and agriculture uses where there is public value. This is especially relevant in the northeast parts of the System that contain multiple farms, which have been identified through statutory plans and whose long-term viability could be protected through partnerships. Local agriculture and food culture can grow through opportunities to celebrate local food – such as farm-to-table opportunities, markets, greenhouses, public programs and more. This Classification should not be applied to new agricultural or horticultural uses.

Visitor Experience

Public access may be limited due to the agricultural land use and private ownership. However, public access is still encouraged in order to maintain trail and recreational connectivity throughout the System. The City will work with landowners to address public access concerns and limit impacts to agricultural operations.

Impact of the Visitor Experience

The impact of this visitor experience is the continued agricultural legacy established in the area. The City will partner with landowners to maintain and improve the ecological functioning of these sites.



Active/Working Landscapes: Agriculture + Horticulture

3.4.10.1 COMPATIBLE USES, FACILITIES + INFRASTRUCTURE

ACTIVE/WORKING LANDSCAPES: AGRICULTURE + HORTICULTURE

COMPATIBLE USES

RECOGNIZE:

- + Indigenous traditional use

LEARN:

- + Research and conservation activities
- + Nature study, observation, and photography
- + Educational and nature-based programming, including Indigenous Knowledge, ways of knowing, and storytelling
- + Indoor educational programming

MOVE:

- + Foot-based travel
- + Cross-country skiing (track and non-track set)
- + Snowshoeing
- + Active transportation from neighbourhoods to regional destinations
- + Biking
- + Horseback riding (designated trails only)

GATHER:

- + Picnicking

ACCESS:

- + Vehicular access

GROW:

- + Urban Gardens
- + Agriculture (urban and rural)

SHOP:

- + Commercial spaces

FACILITIES + INFRASTRUCTURE

APPRECIATE:

- + Viewpoints and platforms
- + Bird blind

EXPLORE:

- + Signage (interpretive, wayfinding and regulatory)

MOVE:

- + Paved trails
- + Non-paved trails
- + Stairs, decks, and boardwalks
- + Pedestrian bridges
- + Trailheads

PROTECT:

- + Wildlife compatible fencing, and security fencing
- + Retaining walls
- + Slope stabilization infrastructure

RELAX:

- + Seating areas and benches
- + Warming huts

GATHER:

- + Picnic sites (no shelter)

ACCESS:

- + Parking areas and local park roads
- + Emergency vehicle access points

GROW:

- + U-picks, market gardens and stalls
- + Urban gardens
- + Agricultural operations and greenhouses

SHOP:

- + Restaurants and cafés
- + Ancillary retail

OTHER:

- + Low Impact Development (LID)
- + Lighting (trail, security, parking lot and aesthetic)
- + Public art
- + Drinking fountains
- + Aesthetic fountains/water features
- + Washrooms
- + Waste and recycling receptacles

3.4.10.2 SPECIFIC AGRICULTURE + HORTICULTURE DIRECTION

Compatible Uses

- a) Use the questions below to evaluate whether a use is compatible and appropriate within **Active/Working Landscapes: Agriculture and Horticulture** areas:
- + The use supports an existing agricultural or horticultural operation
 - + The use offers educational or skills building opportunities for the public related to local food production

Compatible Facilities + Infrastructure

- b) Evaluate all infrastructure and structures with the following criteria to determine whether it is essential and appropriate within **Active/Working Landscapes: Agriculture and Horticulture** areas:
- + The infrastructure improves visitor safety
 - + The infrastructure provides an important engineering function (e.g. improves drainage, slope stability)
 - + The infrastructure supports the agricultural purpose of the area
 - + The infrastructure protects habitats, species, landscapes, vegetation, and landforms

Ecological Protection

- c) Work with private landowners to restrict agricultural land cover to the current extent.
- d) Encourage native species for hedgerows and windbreaks.
- e) Buffer riparian systems with zones of native vegetation to filter stormwater runoff from fields, yards, and service roads.
- f) Work with private landowners to enhance habitat connectivity of agricultural lands, and between agricultural areas and surrounding natural vegetation.

Restoration + Rehabilitation

- g) Restore/naturalize riparian areas surrounding agricultural uses to minimize the likelihood of runoff and erosion.

Heritage + Cultural Resources

- h) Facilitate the harvesting of traditional and local food.
- i) Provide interpretation opportunities that share agricultural history and acknowledge this history through design, landscaping, and programming.

Recreational Uses

- j) Promote passive recreational opportunities that complement the agricultural function (e.g. hiking, walking, horseback riding, picnicking).
- k) Ensure that recreational access near agriculture operations is managed to promote visitor safety and awareness of private land.
- l) Support active recreational opportunities related to agriculture and food production.
- m) Limit river access to designated launch areas.

Access + Trails

- n) Provide access via multiple active transportation modes to cafés, market and urban gardens, in collaboration with private landowners.
- o) Provide accessible routes for all users from parking areas to amenities and facilities, when possible.
- p) Work with landowners to accommodate trails for leisure, active transportation, or educational purposes.

Other Uses

- q) Preserve existing agricultural uses within the System or restore these areas.
- r) Ensure supplementary uses and activities support or enhance the current agricultural use.
- s) Support the expansion of food-related commercial, education, and community-building uses such as market gardens, community kitchens, food shares, cooking/agricultural courses and camps, work-stay programs, etc.
- t) Partner with local businesses and farms to improve access to the river for the public.

Education + Awareness

- u) Promote the northeast river valley as a multi-functional destination, providing both nature- and agriculture-based recreation and educational opportunities.

Maintenance + Operations

- v) Support partners and landowners in applying farming best management practices to reduce greenhouse gas emissions, improve moisture infiltration/nutrient cycling, and increase the climate change resilience of their lands and operations.

Monitor + Study

- w) In collaboration with private landowners, implement ecological monitoring practices to ensure that human activities do not compromise the ecological functioning of surrounding Preservation or Conservation areas.
- x) Support wildlife monitoring to understand the impacts of agricultural practices on wildlife.

3.4.11 ACTIVE/WORKING LANDSCAPES | URBAN SERVICES + CITY-WIDE ATTRACTIONS

The **Active/Working Landscapes: Urban Services and City-wide Attractions**

Sub-classification's intent is to acknowledge existing uses (e.g. Edmonton Waste Management Centre) and attractions that relate to the river valley and ravine setting. Specifically, urban services refer to existing industrial, utility, and waste management uses in the System.

City-wide attractions include both indoor and outdoor recreational uses. What distinguishes the outdoor recreational uses in this Sub-classification from **Active/Working Landscapes: Intensive Recreation** is controlled admission, most frequently through admission fees (e.g. golf courses).

Visitor Experience

City-wide attractions are, mostly, unique river valley and ravine experiences that draw attendance from the city and region; any new development in this Sub-classification will continue that legacy. These uses are located on disturbed land and often include buildings and infrastructure that draw multiple attendees. The intent is to offer a one-of-a-kind Edmonton experience.

This Classification also includes existing working landscapes such as the Edmonton Waste Management Centre and E.L. Smith Water Treatment Plant, among others. These are working areas and often have limited public access, but they provide valuable municipal services that will likely continue for the foreseeable future. As opportunities arise, consideration will be given to whether these uses could be relocated outside of the river valley to allow for ecological restoration or expansion of other open space uses.

Impact of the Visitor Experience

Like the other Sub-classifications under **Active/Working Landscapes**, the intent is to maintain and improve ecological functioning, when possible. All new buildings must incorporate sustainable design features that can include on-site electricity generation, green roofs, local or recycled materials, and low-impact development, among others.

3.4.11.1 COMPATIBLE USES, FACILITIES + INFRASTRUCTURE

ACTIVE/WORKING LANDSCAPES: URBAN SERVICES + CITY-WIDE ATTRACTIONS

COMPATIBLE USES

RECOGNIZE:

- + Indigenous traditional use

LEARN:

- + Research and conservation activities
- + Nature study, observation, and photography
- + Educational and nature-based programming, including Indigenous Knowledge, ways of knowing, and storytelling

MOVE:

- + Foot-based travel
- + Cross-country skiing (track and non-track set)
- + Snowshoeing
- + Active transportation from neighbourhoods to regional destinations
- + Trail destinations (e.g. stacked trail loops, interpretive trails)
- + Canoeing/kayaking
- + Golf carts

EXPLORE:

- + Orienteering

PLAY:

- + Geo-caching
- + Day camps
- + Unstructured play
- + Swimming
- + Tobogganing
- + Downhill skiing / snowboarding

GATHER:

- + Picnicking
- + Events and festivals

ACCESS:

- + Vehicular access
- + River access
- + Ice skating

FACILITIES + INFRASTRUCTURE

APPRECIATE:

- + Viewpoints and platforms (informal non-constructed and constructed)
- + Bird blind

EXPLORE:

- + Signage (interpretive, wayfinding, and regulatory)

MOVE:

- + Paved trails
- + Non-paved trails
- + Stairs, decks, and boardwalks
- + Pedestrian bridges
- + Trailheads

PROTECT:

- + Wildlife compatible fencing, and security fencing
- + Retaining walls
- + Slope stabilization infrastructure

RELAX:

- + Seating areas and benches
- + Warming huts
- + Campgrounds (serviced and unserviced)

GATHER:

- + Picnic areas (with and without shelters)
- + Amphitheatres
- + Meeting and event spaces

PLAY:

- + Golf courses (existing)
- + Downhill ski hills (existing)
- + Swimming pools (existing)
- + Fitness courses

ACCESS:

- + Parking areas, local park roads
- + Emergency vehicle access points
- + Mechanized access (e.g. funicular)

SHOP:

- + Restaurants and cafés
- + Ancillary retail

OTHER:

- + City-wide attractions
- + Low-impact Development (LID)
- + Lighting (trail, security, parking lot and aesthetic)
- + Public art
- + Drinking fountains
- + Aesthetic fountains/water features
- + Washrooms
- + Waste and recycling receptacles
- + Park operations yards
- + Stormwater management facilities (existing)
- + Water treatment plants (existing)
- + Wastewater treatment plants (existing)
- + Power generation and transmission stations (existing)

3.4.11.2 SPECIFIC URBAN SERVICES + CITY-WIDE ATTRACTION DIRECTION

Compatible Uses

- a) Use the questions below to evaluate whether a new or expanded use is appropriate within **Active/Working Landscapes: Urban Services and City-Wide Attractions** areas:
- + Does the use improve the overall sustainability and mitigate the ecological impact of existing operations?
 - + Does the use provide services/programs that benefit the entire city (e.g. ecologically, culturally, historically, and/or archaeologically)
 - + Does the use provide an urban service that cannot feasibly be located outside the river valley?

Compatible Facilities + Infrastructure

- b) Evaluate all new or expanded infrastructure and structures with the following criteria to determine whether it is essential and appropriate within **Active/Working Landscapes: Urban Services and City-wide Attractions** areas:
- + The new facility provides space to support ecological, archaeological, cultural, historical, and recreational purposes related to the System.
 - + The facility provides a municipal service (e.g. power, water, wastewater services) that is essential to meeting the needs of a growing population and where there is no viable alternative location outside the System.
 - + The location of the facility is appropriate within the River Valley and Ravine System context.
- c) Include spaces for community programming and meetings within facilities.
- d) Integrate services to increase efficiency and reduce duplication, when possible.
- e) Ensure that any new facilities are located on disturbed sites and make every effort to preserve significant/sensitive ecological features and important wildlife movement corridors.



Ecological Protection

- f) Mitigate the impact of the facilities by preserving, enhancing, or replicating ecosystem functions, wherever possible. Examples include:
- + Incorporating technologies and management practices that replicate natural stormwater management services (e.g. water filtration)
 - + Including native tree and vegetation plantings, green roofs, and wood-based construction (where required) to promote carbon sequestration
 - + Ensuring facility design or landscaping supports wildlife habitat and connectivity corridors
 - + Employing bioremediation to address landscape contamination
 - + Protecting or restoring fish overwintering/spawning habitat where it has been damaged by outfall locations
 - + Incorporating native non-invasive and locally-adapted species vegetation in landscaping
- g) Ensure adequate fencing to prevent wildlife habituation (e.g. from unsecured waste collection areas), unmitigable human-wildlife conflicts (e.g. from campground play areas near important wildlife corridors), and hazards to wildlife (e.g. stormwater outfalls).

Restoration + Rehabilitation

- h) Rehabilitate existing disturbances to restore wildlife movement patterns, when possible.

Heritage + Cultural Resources

- i) When planning city-wide attractions, explore amenities that celebrate the archaeology, culture, and history of the System. This can include:
- + **Art Spaces** – e.g. spaces that can include permanent and temporary displays, performance spaces, artist-in-residence programs – all with a focus on the System's natural and human history
 - + **Exhibition and Interpretation Spaces** – e.g. exhibition and programming spaces that facilitate multiple forms of expression, celebration of history, and programming to tell the story of the System
 - + **Community Gathering Spaces** – e.g. flexible spaces and meeting rooms that provide a river valley experience
 - + **Indigenous Ceremonial Spaces** – e.g. spaces for a variety of ceremonies (e.g. pow wows), events (e.g. National Indigenous Peoples Day), activities (e.g. culture camps) and uses (e.g. storytelling)
 - + **Education and Natural Learning Spaces** – e.g. spaces that provide exhibits, research opportunities/space, resources, educational opportunities, theatres or flexible spaces for the purpose of educating on, and protecting local ecology and natural history
- j) Ensure that amenities honour the site's history through design and programming.

Recreational Uses

- k) Ensure facilities are, when possible, open to Edmontonians and visitors. Provide opportunities for non-structured activities, and accommodate drop-ins.
- l) Ensure that new facilities are appropriate to be located within the River Valley and Ravine System, and are not better located outside of the System.
- m) Create unique new facilities within the System that are known for their sustainable design.
- n) Continue the use of existing facilities created for downhill skiing, camping, climbing, organized sports, swimming, and golfing.
- o) Focus programming on:
 - + Site remediation
 - + Education
 - + Research opportunities/testing new management practices
 - + Unique visitor experiences
 - + Income generation
 - + Tourist attractions (e.g. eco-tourism, historical tourism, recreational tourism)
 - + Ecosystem functions
 - + Industrial operations (only existing)
- p) Plan for visitors from outside of the City, and provide appropriate services and amenities.
- q) Limit river access to designated launch areas.

Access + Trails

- r) Maintain buffers and access management around urban service infrastructure to ensure public safety.
- s) Ensure that facilities are accessible via multiple transportation modes, including public transit and active transportation, where appropriate.
- t) Provide sufficient parking at city-wide attractions and employment areas. Explore opportunities to monitor use of parking lots to more accurately determine parking needs, and adjust parking provision as necessary.
- u) Provide ample bicycle parking at city-wide attractions and employment areas.
- v) Provide accessible transportation for all users from parking to facilities.

Other Uses

- w) Support accessory commercial uses in city-wide attractions.

Education + Awareness

- x) Ensure that wayfinding at city-wide attractions complements city-wide River Valley and Ravine System wayfinding.

Maintenance + Operations

- y) Ensure that facilities are adequately protected from wildfires and flooding.

Study, Monitor + Adapt

- z) Implement ecological monitoring practices to ensure that human activities do not compromise the ecological functioning of surrounding **Preservation** or **Conservation** areas.
- aa) Develop a close-out plan to reclaim industrial or commercial uses (e.g. golf courses, water treatment facilities) before the end of their operating lives. Begin a site-specific planning process as soon as possible after the creation of close-out plans to determine the most appropriate future use and design of the site, and areas suitable for restoration.



Larch Sanctuary

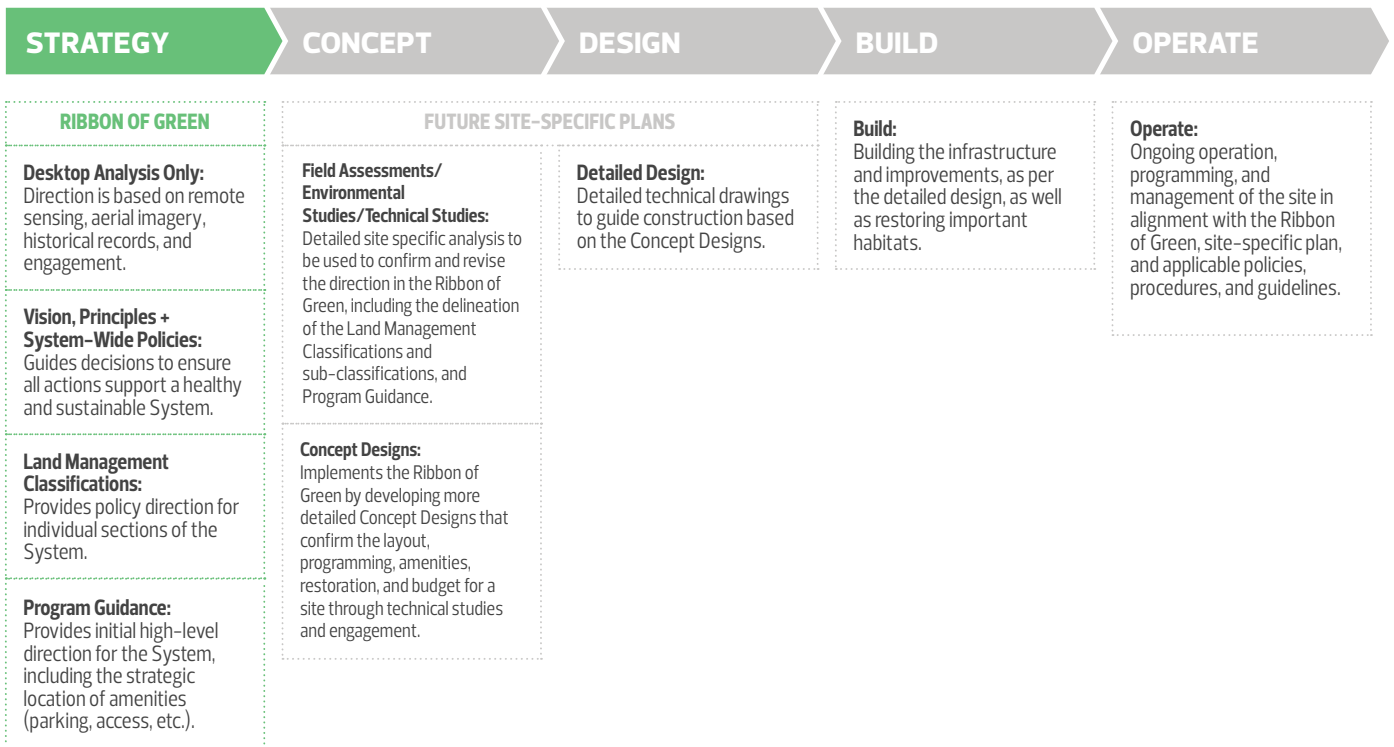
4 SITE DIRECTION: PROGRAM GUIDANCE



4.1 Introduction

This section provides program direction for the River Valley and Ravine System, specifically, the high-level trail network, amenity nodes, and primary trailheads. Amenity nodes and primary trailheads are sites that accommodate a higher level of use through a concentration of amenities and programming, located at appropriate intervals. They connect to each other via a high-level trail network, which in the Ribbon of Green, includes access points and key regional connections. Together this forms a high-level recreational and active transportation network that is a starting point for further site-specific planning. This network approach focuses human activity in appropriate locations while protecting more ecologically sensitive areas.

CONTINUUM OF RIVER VALLEY AND RAVINE PLANNING



This section is separated into reaches. Each reach is small enough to provide clear spatial direction while remaining at a high-level scale to show how this spatial direction relates to the larger ecological and recreational networks. Also, these reaches demonstrate how different amenity nodes connect to access points and regional trail connections.

This Plan identifies the following reaches:

REACHES		
+ North Saskatchewan Rabbit Hill	+ Whitemud Far South Reach	+ East Ravines Reach
+ Big Island + Woodbend	+ Irvine Creek to Blackmud South Reach	+ North Saskatchewan East Reach
+ Cameron-Oleskiw River Valley Reach	+ Blackmud Ravine Reach	+ Edmonton East Reach
+ Wedgewood Ravine Reach	+ North Saskatchewan West Reach	+ Horsehills Creek Ravine Reach
+ Whitemud Ravine North Reach	+ Central Reach	+ Horsehills North Reach
+ The Confluence (Mactaggart / Larch Sanctuary) Reach	+ Mill Creek North Reach	+ Marquis River Valley Reach
+ Whitemud Ravine Reach	+ Mill Creek South Reach	+ Big Lake Reach

4.1.1 PROGRAM GUIDANCE COMPONENTS

The Program Guidance for each reach includes:

1. A Vision for the Reach:

Each vision statement contains elements relating to the ecology, culture, and recreation opportunities of each reach. The vision statements were developed using input from the environmental, cultural, and recreation analyses in addition to public input.

2. Program Statements for each Primary Trailhead and Amenity Node:

These define the desired activity and amenities for each amenity node and primary trailhead and were informed by the analyses and public feedback.

3. Illustrated Ecological Guidance:

- + Existing natural features (e.g. wetlands, waterbodies, floodways, wildlife corridors)
- + Existing habitat areas (e.g. core areas, corridors)
- + Potential restoration areas

4. Illustrated Program Guidance:

- + Primary Trailhead and Amenity Node locations
- + Design features (amenities and facilities to consider for each site)
- + Circulation plan (key access points, connections, and trail types)



Amenity Nodes

Amenity nodes are key destinations in the System that facilitate various activities, from picnicking in a natural setting to more intensive amenities, pavilions, community gathering spaces and road access.

Primary Trailheads

Primary trailheads provide a city-wide starting and meeting point where amenities and facilities can be located, acting as staging areas for trail and river recreation, and supporting entry points into the broader trail network.

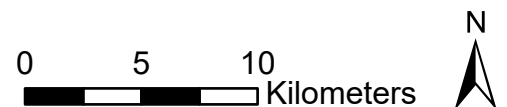
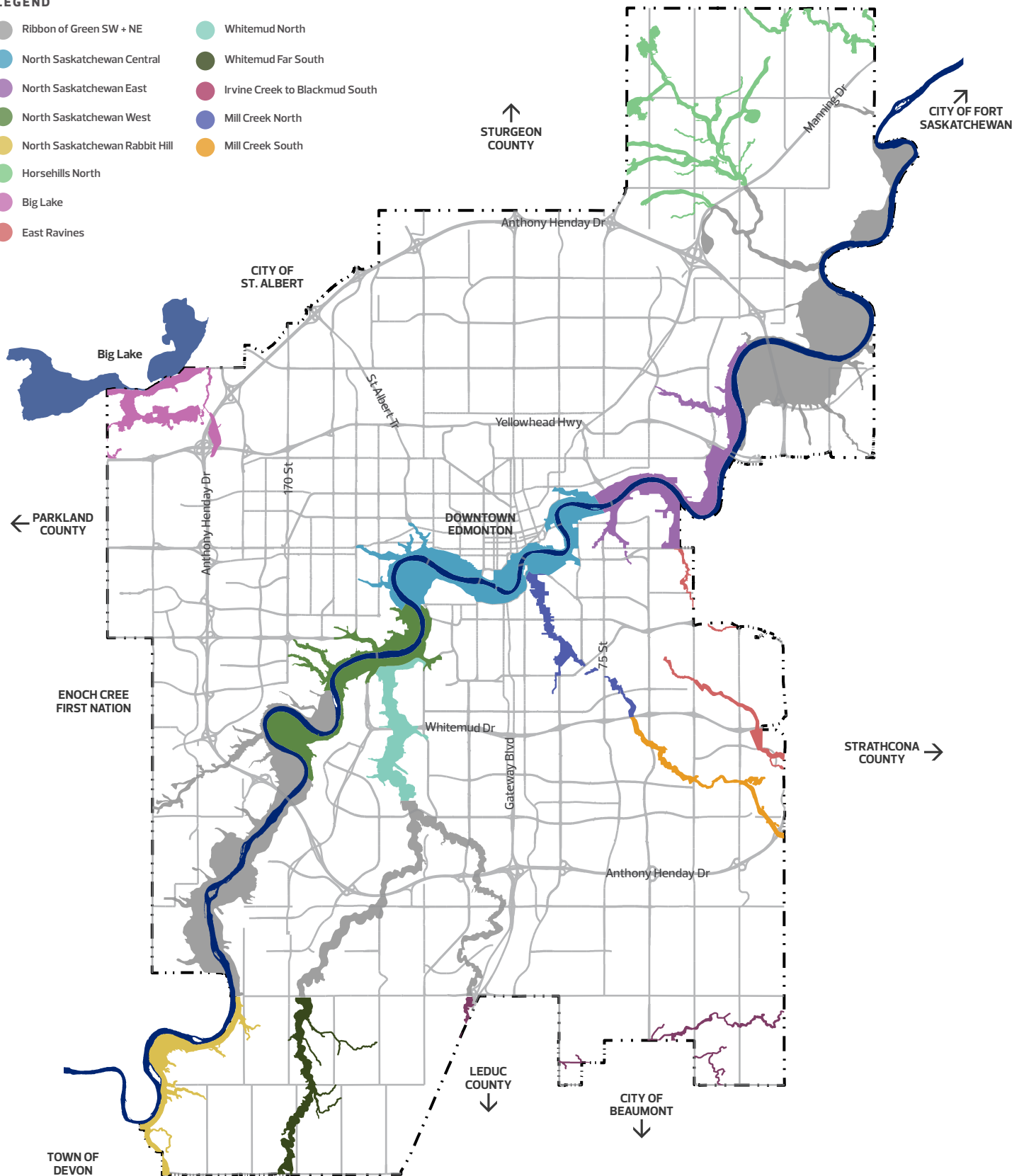
Local Trailheads

Local trailheads provide regular access from neighbouring communities and will be confirmed through later site-specific planning phases.

Edmonton River Valley Plan Reaches

LEGEND

- Ribbon of Green SW + NE
- North Saskatchewan Central
- North Saskatchewan East
- North Saskatchewan West
- North Saskatchewan Rabbit Hill
- Horsehills North
- Big Lake
- East Ravines
- Whitemud North
- Whitemud Far South
- Irvine Creek to Blackmud South
- Mill Creek North
- Mill Creek South



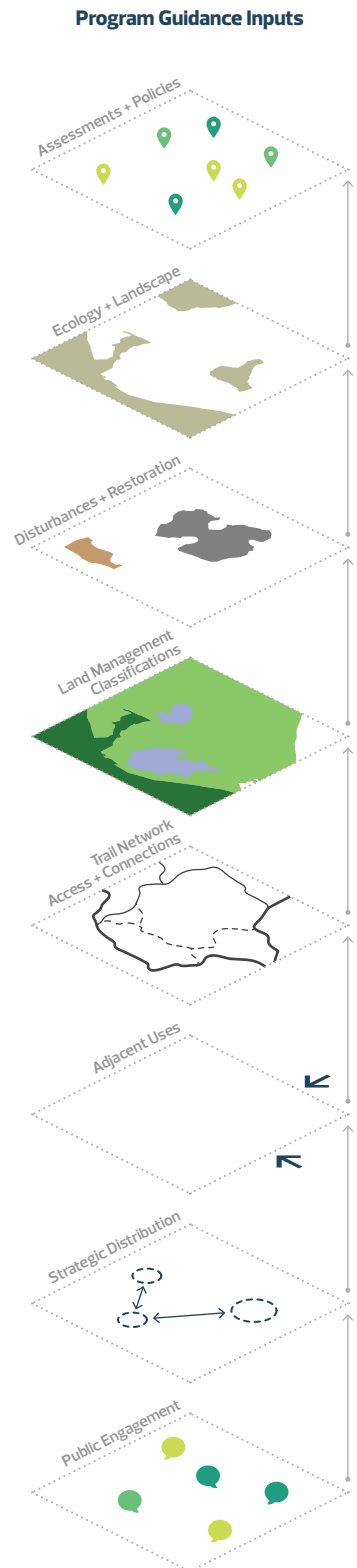
4.1.2 PROGRAM GUIDANCE METHODOLOGY

All analyses conducted during the Ribbon of Green process have been completed at a desktop level using data available at the time.

LOCATING AMENITY NODES AND PRIMARY TRAILHEADS

The following informed the location of the amenity nodes and trailheads:

- + **Recreation Analysis:** Highlighted potential locations to consider for day use, active recreation opportunities, and support amenities
- + **Ecological Analysis:** Defined locations with moderate or low environmental sensitivity that may be appropriate for recreation. Some areas with higher ecological value were included to provide opportunities for the public to learn about and appreciate the natural environment
- + **Historic Analysis:** Identified locations with historical recreational use that can be re-introduced, as well as locations with sensitive archaeology to avoid
- + **Public Engagement:** Noted locations to focus recreational activities and locations to avoid due to ecological/cultural considerations
- + **Existing or Past Development and/or Disturbance:** Presented opportunities to locate recreational facilities in areas that were already disturbed as well as locations for restoration
- + **Existing Road and/or Paved Trail Access:** Provided opportunities to connect with existing accesses





DEFINING THE HIGH-LEVEL TRAIL NETWORK

(Major access points and key regional connections only)

The following informed the high-level trail network presented in this Plan:

- + **Existing Network:** Built off of existing trails, access points and trail-use data, and also evaluated planned access points and trails
- + **Ecological and Landscape Characteristics:** Used topography, soil type, vegetation, waterbodies, and geological features to inform the access points and regional connections to ensure they avoid sensitive areas
- + **Adjacent Uses:** identified access points and connections to top-of-bank parks, active uses, and neighbourhoods
- + **Public Engagement:** Included connections that the public identified throughout the engagement process
- + **Network Considerations:** Focused on providing a continuous trail along the river valley bottom and opportunities for accessible connections to the top-of-bank and parking areas (this Plan is not intended to provide a comprehensive trail plan, that will be done through further site-specific planning)
- + **Trail Types:** Recommended trail types based on the importance of the connection as an accessible route into the System as well as the ecological and geological conditions

LAYING OUT PROGRAM DIRECTION

The following informed the Program Guidance layout:

- + **Land Management Classifications:** Defined appropriate uses, facilities, and infrastructure for each area within the System
- + **City Policy:** Identified opportunities to align with other City policies and initiatives as well as provide a guiding framework to define management and use practices within the System
- + **Site Understanding:** Accomplished through site analysis and research (including the analyses discussed above)
- + **Amenity Node, Primary Trailhead and High-level Trail Network:** Identified the major locations and routes for recreational activity to start shaping the program guidance
- + **Public Engagement:** Provided ideas for future use, protection, and restoration
- + **Strategic Locations:** Distributed facilities and amenities throughout the system that require equitable and appropriate distribution (e.g. boat launches, bridge crossings, parking, washrooms)
- + **Restoration Areas:** Located restoration areas in disturbed areas within **Preservation** and **Conservation** areas as well as locations in **Active/Working Landscapes** to help shape and concentrate development in appropriate locations while improving ecological health

Breathe Open Space Classification System

All open space will be classified using the open space classification system in Breathe: Edmonton's Green Network Strategy at the time of land assembly, and confirmed through site-specific planning. Regardless of the classification, the direction within the Ribbon of Green will still apply. The following are the applicable classifications that may be used:

Metropolitan Parks are large, feature parks intended to provide value to residents and visitors throughout Edmonton and the greater Metro region. Metropolitan Parks may have a variety of functions and uses, but usually contain features and amenities that are not available elsewhere in the City.

District Parks are designed to meet the needs of multiple communities. They may be more specialized than community parks, but also may provide multi-functional amenities. Some district parks contain unique attractions.

Ecological Parks are managed for the primary purpose of preserving natural processes, species and habitat elements. Human activities are primarily passive (e.g. nature interpretation) with the exception of trails for walking, bicycling, and running where those uses do not compromise the primary purpose of protection.



Activity Nodes vs. Amenity Nodes

The River Valley Activity Node is a site-specific zone in the Edmonton Zoning Bylaw that allows uses not found in the zones most commonly used in the River Valley and Ravine System. Although some Amenity Nodes may be zoned River Valley Activity Node, not all will be. The zoning will be determined through site-specific planning exercises.

4.2 North Saskatchewan Rabbit Hill

Vision Statement:

The North Saskatchewan Rabbit Hill reach will serve as an increasingly popular recreation destination for the City of Edmonton and surrounding region, while maintaining key ecological connections for wildlife. Important natural areas along the valley slopes and top-of-bank will be preserved, providing significant regional wildlife connectivity throughout the River Valley and supporting overall biodiversity. Existing recreational amenities will be supported through the development of a top-of-bank trail that will connect the City of Edmonton with the Town of Devon. Development will be appropriately set back from the river and top-of-bank to support wildlife movement, while providing space for trail connections.

Ecology

- + Significant core habitat is present throughout the reach that supports wildlife movement within the River Valley and along top-of-bank in areas with steep, eroding cliffs. Corridors for wildlife movement should be maintained along the top-of-bank through forested buffers, and restoration of the riparian areas should be prioritized.
- + Steep slopes and eroding cliff faces are present throughout this reach, with unique forested vegetation present along the north-facing slopes and ravines.
- + Ecological connectivity from the surrounding landscape is important for wildlife movement, and will be facilitated through establishment of natural connections, including a Habitat Greenway identified in the City Plan.

Culture

- + The North Saskatchewan Rabbit Hill reach contains several known archaeological sites. Stone tools, projectile points, fire cracked rocks, hammerstones, rock flakes, and bone fragments have been found along the terraced lands of the River Valley.
- + In the 1890s, several German-speaking Lutherans from the Russian province of Volhynia settled in the lands adjacent to the Rabbit Hills. The settlers named their community Heimthal and erected a church and cemetery on lands donated by the Government of the Northwest Territories.
- + Numerous abandoned coal mines, dating back over a century, can be found along the banks.

Recreation

- + As adjacent residential and agricultural development increases, establish a regional top-of-bank trail paralleling the North Saskatchewan River, and providing connections to the north, and southwest to the Town of Devon.
- + In winter, a segment of the proposed top-of-bank trail could be used for cross country skiing, snowshoeing, or fat biking.
- + There are numerous historic abandoned coal mines present along the River Valley slopes. Adjacent to the top-of-bank trail, consider installing a network of educational interpretive signage describing the site's coal mining history.
- + Facilitate regional recreational connectivity through the establishment of Urban Greenways as per the City Plan.
- + Explore low-impact opportunities for limited, permanent and/or temporary (e.g. pop-up) commercial uses to support surrounding recreation, education and community gathering activities.
- + Retain existing recreation amenities at Rabbit Hill Snow Resort and the Shalom Park Water Ski Site and support all-season uses at these sites. If the existing private facilities close, redevelopment opportunities could be explored (e.g. development of a natural amphitheatre concert venue).
- + Explore mountain biking and cyclocross opportunities southwest of the Rabbit Hill Amenity Node.
- + Coordinate with surrounding municipalities to ensure intermunicipal continuity of the trail network.

4.2.1 RABBIT HILL 41 AVENUE PRIMARY TRAILHEAD

Program Statement

With existing vehicular access off 41 Avenue SW, Rabbit Hill 41 Avenue Staging Area provides a year-round entry point to the Rabbit Hill Ravine.

Ecological Opportunities *(see Ecological Guidance map)*

- + Preserve and maintain natural forest cover, and ecological and wildlife connectivity, including the forested wildlife corridor connection to the Big Island and Woodbend reach.
- + Trail development should minimize fragmentation and disturbance to core habitat.
- + Environmentally sensitive areas should be protected.
- + Develop natural connections via the Habitat Greenway along 41 Avenue SW as per the City Plan.

Program Opportunities *(see Program Guidance map)*

- + Long-term, promote development of this area as a staging and passive gathering point along the ravine trail network.

Circulation *(see Program Guidance map)*

- + Existing on-street parking along 41 Avenue SW.
- + Proposed top-of-bank trail along the North Saskatchewan River Valley.

4.2.2 RABBIT HILL 184 STREET PRIMARY TRAILHEAD

Program Statement

With existing vehicular access off 184 Street SW, Rabbit Hill 184 Street Staging Area provides a year-round entry point to the Rabbit Hill Ravine. The meander of the ravine system that feeds into the North Saskatchewan River Valley creates an irregularly shaped pocket that may preclude some future development.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain and preserve existing natural forest cover and where feasible, and increase existing natural cover with native vegetation species.
- + Restoration efforts should consider the surrounding agricultural land use to reduce non-native and invasive plant species and improve native vegetation diversity in disturbed areas.
- + Trail development should minimize fragmentation and disturbance to core habitat.

Program Opportunities *(see Program Guidance map)*

- + Long-term, promote development of this area as a staging and passive gathering point along the ravine trail network.

Circulation *(see Program Guidance map)*

- + Existing on-street parking along 184 Street SW.
- + Proposed top-of-bank trail along the North Saskatchewan River Valley.

4.2.3 RABBIT HILL 197 STREET PRIMARY TRAILHEAD

Program Statement

With existing vehicular access off 197 Street SW, Rabbit Hill 197 Street Staging Area provides a year-round entry point to the Rabbit Hill Ravine.

Ecological Opportunities *(see Ecological Guidance map)*

- + Preserve and maintain existing natural forest cover, and ecological and wildlife connectivity.
- + Maintain ecological connectivity and wildlife corridors through and around the existing recreational amenity footprints in the tablelands above Rabbit Hill.
- + Trail development should minimize fragmentation and disturbance to core habitat.

Program Opportunities *(see Program Guidance map)*

- + Long-term, promote development of this area as a staging and passive gathering point along the ravine trail network.

Circulation *(see Program Guidance map)*

- + Existing on-street parking along 197 Street SW.
- + Proposed top-of-bank trail along the North Saskatchewan River Valley.
- + Develop connections from the proposed top-of-bank trail to the valley bottom. Ensure trails do not interfere with the operation of the Rabbit Hill Ski Resort and are properly designed to reduce erosion.

4.2.4 RABBIT HILL AMENITY NODE

Program Statement

Rabbit Hill Amenity Node is an all-season recreation destination that centers on the Rabbit Hill Snow Resort. One of Edmonton's most popular ski hills, Rabbit Hill offers amazing views of the River Valley and with a vertical drop of 91 metres the node is a key link from the top-of-bank trails to the valley bottom. While primarily a winter destination for skiing, snowboarding, and tubing, the Resort is expanding into all-season uses (e.g. summer tubing) and is an existing hub with opportunities for future recreation development.

Ecological Opportunities *(see Ecological Guidance map)*

- + Preserve and maintain natural forest cover, and ecological and wildlife connectivity through the tablelands above Rabbit Hill and in the riparian area along the river.
- + Minimize impact on regional wildlife movement through the area and improve wildlife connectivity through integration of wildlife passages into proposed pedestrian bridges and other transportation corridors.
- + Trail development should minimize fragmentation and disturbance to core habitat.
- + Environmentally sensitive areas should be minimally disturbed.
- + Maintain existing wetlands and habitat.
- + Maintain ecological connectivity through and around the existing recreational amenity footprints.

Program Opportunities *(see Program Guidance map)*

- + As the adjacent population grows, explore the inclusion of a standard, stand alone, all-season, inclusive and barrier free public washroom facility that is accessible from the existing parking lot and future trail network.
- + Given existing vehicle access, parking, and the proposed boat launch and pedestrian bridge, foster the development of additional river-focused amenities that have the potential to absorb some of the demand for events in the North Saskatchewan Central Reach of the River Valley. Consider establishing a river-oriented flexible gathering space that can be used for community-level celebrations and events.

Circulation *(see Program Guidance map)*

- + Proposed top-of-bank trail along the North Saskatchewan River Valley.
- + Develop connections from the proposed top-of-bank trail to the valley bottom. Ensure trails do not interfere with the operation of Rabbit Hill Snow Resort and are properly designed to reduce erosion.
- + A pedestrian bridge connecting the northern and southern banks of the North Saskatchewan River is proposed at the base of the ski hill. Ensure that any circulation upgrades tie in with the proposed pedestrian bridge crossing.

4.2.5 RABBIT HILL LOOKOUT AMENITY NODE

Program Statement

Areas around the Town of Devon offer exceptional views of the North Saskatchewan River Valley. The Rabbit Hill Lookout celebrates those views, taking advantage of the steep River Valley slopes that provide expansive sunset views to the west. The lookout also takes advantage of the meandering ravine system that feeds into the North Saskatchewan River Valley. This ravine system creates irregularly shaped pockets of land that may preclude some future development. Long-term, it is recommended that this area is developed as a passive gathering point along the ravine trail network.

Ecological Opportunities *(see Ecological Guidance map)*

- + Preserve and maintain natural forest cover, and ecological and wildlife connectivity within the ravines and along the banks of the North Saskatchewan River.
- + Minimize impact on regional wildlife movement through the area and improve wildlife connectivity through integration of wildlife passages into proposed pedestrian bridges.
- + Trail development should minimize fragmentation and disturbance to core habitat.
- + Environmentally sensitive areas should be minimally disturbed.
- + Restoration efforts should consider the surrounding agricultural land use to reduce non-native and invasive plant species and improve native vegetation diversity in disturbed areas.

Program Opportunities *(see Program Guidance map)*

- + Install viewfinders on the River Valley facing both upstream, towards the Town of Devon, and downstream, towards the proposed pedestrian bridge.
- + Amenity development should seek to support local passive uses and minimize impacts to the ecology of the ravine. For example, well-positioned shaded/sheltered seating areas would be appropriate.
- + Local Trailhead.

Circulation *(see Program Guidance map)*

- + Existing on-street parking along 73 Avenue SW.
- + Develop a natural connection, via a Habitat Greenway to the south reach of Whitemud Ravine (Whitemud 73 Avenue SW Trailhead), as referenced in the City Plan.
- + Top-of-bank trail along the North Saskatchewan River Valley.

4.2.6 BATTERY CREEK TRAIL CONNECTOR AMENITY NODE

Program Statement

The Battery Creek Trail Connector is situated at the intersection of the North Saskatchewan River Valley and the extension of Rabbit Hill Ravine to the south. The meander of the ravine system creates a slightly irregular pocket of land that may preclude some future development. Amazing views of the North Saskatchewan River are visible to the west. The node provides an opportunity to celebrate the far reaches of the River Valley system as well as the connection between the City of Edmonton and the Town of Devon.

Ecological Opportunities *(see Ecological Guidance map)*

- + Preserve and maintain natural forest cover within the ravine.
- + Environmentally sensitive areas should be minimally disturbed.
- + Minimize impact on regional wildlife movement through the area and improve regional wildlife connectivity through integration of a wildlife passage at Highway 19 .
- + Trail development should minimize fragmentation and disturbance to core habitat.
- + Seek opportunities to restore native vegetation diversity and address invasive plants in surrounding agricultural lands.

Program Opportunities *(see Program Guidance map)*

- + Install viewfinders directed across the River Valley upstream towards the Town of Devon.
- + Amenity development should seek to support local passive uses and minimize impacts to the ecology of the ravine. For example, well-positioned shaded/sheltered seating areas would be appropriate.

Circulation *(see Program Guidance map)*

- + Proposed top-of-bank trail along the North Saskatchewan River Valley that links to the existing Battery Creek Trail to the west.
- + Extension of the trail network to the south to Highway 19 into Leduc County..

North Saskatchewan Rabbit Hill Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

North Saskatchewan Rabbit Hill Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.3 Big Island + Woodbend Reach

Vision Statement:

As a connected and accessible green network, Big Island + Woodbend will remain an essential link to regional ecological systems, including the Devon Dune Field. It will incorporate nature-focused recreation and river access for Edmonton's growing population. The integrity of this ecologically and culturally significant landscape will be protected and restored through design with nature, creating a sense of place and opportunities to celebrate the river valley.

Ecology

- + There is rare vegetation in locations along the river valley slopes adjacent to Woodbend, Keswick, and Windermere neighbourhoods.
- + The reach contains important wildlife movement corridors, with opportunities for improved connections through the existing golf courses.
- + Permanent wetlands and areas of environmental sensitivity are also located in this reach.

Culture

- + Public input indicated a desire to commemorate the historical use of this reach for recreation, including the 19th century picnic and boating area in Big Island.
- + Big Island is also an important site for Indigenous people in Edmonton.
- + Other significant historical uses include gold dredging and resource extraction.
- + This reach was previously adjacent to Enoch Cree Nation.

Recreation

- + Through engagement activities, the public has indicated that this reach should be accessible for people of all abilities.
- + Desired activities include nature watching, boating, and small community gatherings

Important Adjacent Plans

- + River's Edge NSP
- + Riverview ASP
- + Keswick NSP
- + Windermere NSP
- + Windermere ASP

4.3.1 RIVERS EDGE + WINDERMERE AMENITY NODE

Program Statement

Currently two private golf courses, Rivers Edge + Windermere, present opportunities to work with landowners to improve the short-term ecological functioning and connectivity of the sites. A new bridge connection to Big Island is proposed, along with a potential staging area for trail-based activities near the river crossing. There are opportunities to improve trail connections and ecological functioning with landowners.

Ecological Opportunities *(see Ecological Guidance map)*

- + Potential restoration of sites to improve wildlife connectivity, biodiversity, and habitat

Circulation *(see Program Guidance map)*

- + Pedestrian bridge crossing from Henderson Estates/Haddow area to the E.L. Smith area under the Anthony Henday (existing)
- + Pedestrian bridge crossing from Windermere Blvd. to Big Island
- + Pedestrian bridge crossing from Ellerslie Road to north of the Woodbend Natural Area
- + Proposed trail connection – Paved top-of-bank trail
- + Proposed trail connection – Non-paved trail in ravine
- + Trail connections from a paved north-south trail that connect to the parks system within the Windermere neighbourhood



Sources:

1. Park of Luna stormwater ponds, The Netherlands, HOSPER Landscape Architecture and Urban Design

landezine.com/index.php/2011/06/park-of-luna-by-hosper-and-drftwd-office-associates

4.3.2 WOOBEND NATURAL AREA AMENITY NODE

Program Statement

The western side of the node is a protected natural area with limited human access, focused environmental remediation and ongoing ecological monitoring of the sensitive wetland systems.

The eastern side becomes an ecologically dynamic park that celebrates natural processes and restoration opportunities while accommodating cultural gatherings, recreational uses, and small events that are sensitive to the natural surroundings and its location within the floodway. Low-impact trails and boardwalks welcome visitors into restored natural areas. Small clearings become resting places for quiet contemplation or gathering spaces for small groups. Access to the river is formalized to accommodate a hand launch. A proposed park pavilion acts as a meeting location, education facility, and washroom.

Ecological Opportunities (see Ecological Guidance map)

- + Unique and rare vegetation along slopes should be protected
- + Key wildlife connections from the river valley leading west to the Devon Dunes region should be maintained
- + Wetlands should be protected and hydrological connectivity maintained
- + Complete hydrological studies as part of site-specific planning
- + Trail development should minimize fragmentation and disturbance to core habitats
- + This node is located within the North Saskatchewan River's flood fringe

Program Opportunities (see Program Guidance map)

- + Parking that minimizes its ecological impact, and could include on-street parking, and/or a parking lot adjacent to the park pavilion
- + Washroom facility
- + Accessible dock and hand launch
- + Programmed use area – Park Pavilion
 - + *The programmed area could provide functions such as a space for meetings, education, partner activities, and day use facilities. Some small gatherings, such as performances or cultural events, could take place here as well.*

Circulation (see Program Guidance map)

- + Pedestrian bridge crossing from Ellerslie Road to north of the Woodbend Natural Area
- + Proposed vehicle access to programmed use area and boat dock and hand launch
- + Proposed trail connection – Paved trails along top-of-bank, along river edge, and east-west connection
- + Interpretive trail connections into Woodbend Natural Area (white arrows)
 - + *Trails could connect to boardwalks in the preserved and restored wetland areas*
- + Trail connections to create a trail loop to Big Island, Natural Area NW 384, and through the adjacent neighbourhoods



Sources:

1. Existing wetlands in Woodbend Natural Area

2. Maritime Youth House boating pavilion, Copenhagen, Julien De Smedt, Bjarke Ingels

[flickr.com/photos/evandagan/7716223886](https://www.flickr.com/photos/evandagan/7716223886)

3. Winnipeg Folk Fest stage, Birds Hill Provincial Park - example of low-impact event stage

mustdocanada.com/finding-true-music-at-the-winnipeg-folk-fest/winnipegfolkfeststage

4. Low-impact accessible canoe/kayak dock, Camden Maine

https://www.penbaypilot.com/sites/default/files/2017/08/field/gallery_large/%28H%290460_RampPic.jpg

4.3.3 BIG ISLAND AMENITY NODE

The Province of Alberta is undertaking a planning process to determine the future of the Big Island Provincial Park. Once future direction has been confirmed through this process, the Ribbon of Green will be updated to reflect this guidance.

Big Island + Woodbend Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

Big Island + Woodbend Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.4 Cameron–Oleskiw River Valley Reach

Vision Statement:

Cameron–Oleskiw River Valley is an essential wildlife corridor through the restoration of native ecological communities along the river edge. Trailheads will connect residents to natural, trail-based recreation opportunities while interpretative elements, enhanced viewpoints, and places to gather will offer opportunities to teach and learn about the history of the River Valley.

Ecology

- + Cameron–Oleskiw River Valley contains unique and rare vegetation, important wildlife movement areas, and areas of environmental sensitivity.
- + It will be essential to maintain the riparian buffer and improve wildlife network connections through restoration.
- + Public input has identified this reach as an important natural place for native plants and wildlife movement.

Culture

- + The 1908 surrender of the Enoch Cree Nation is part of the Cameron–Oleskiw River Valley Reach. The area is valuable to Indigenous peoples, and has a high interpretive potential due to the socio-political and cultural significance of the location.
- + The Edmonton Golf and Country Club is the third oldest golf course in Canada, and relates to the recreational history in the province.
- + The Holy Redeemer College and cemetery, which was a minor seminary for Catholic students and a training location for a federal penitentiary, is located in this reach.
- + Public input has identified the importance of neighbourhood connections into this area, as well as unique historical features, such as old farm equipment and fossils.

Recreation

- + The public has expressed the desire for improved trail connections, nature-watching, on-leash dog walking, and viewpoints.
- + Existing trails are available for walking, running, cycling and being immersed in nature. There is potential to improve trail connections and provide opportunities for food vendor services, outdoor recreation, stargazing, and Indigenous and traditional use.

Important Adjacent Plans

- + Riverbend ASP
- + Henderson Estates NSP
- + Cameron Heights NASP
- + West Jasper Place South ASP

4.4.1 JAN REIMER PARK AMENITY NODE

Program Statement

Jan Reimer Park (formerly known as Oleskiw River Valley Park) plays a vital role in Edmonton's open space network, offering visitors access to nature for low-impact recreation, interpretation, and cultural learning. The park includes a diverse network of trails, including paved shared-use paths that connect to both Terwillegar Park and Fort Edmonton Park, and natural surface trails that provide a quieter visitor experience, with access to the river and adjacent forest habitat. Renewal of the landscape through naturalization and opportunities for community education and stewardship are primary goals for the future of this park.

Ecological Opportunities *(see Ecological Guidance map)*

- + Restore riparian habitat.
- + Advance naturalization of previously disturbed areas.
- + Create a forested buffer along the west edge of the park.
- + Explore partnerships for research and on-going natural asset management.

Program Opportunities *(see Program Guidance map)*

- + Promote opportunities for a variety of park visitors to experience nature through creating viewpoints, rest points, and gathering places.
- + Introduce educational and stewardship opportunities for the broader community.
- + Collaborate with Indigenous communities for programming and cultural opportunities in the park.
- + Promote trail-based activity in the park during winter months.
- + Develop a program for the installation of winter warming huts along trails.
- + Working with Indigenous communities and partner organizations, create interpretive elements to teach visitors about the natural and cultural heritage of the park.

Circulation *(see Program Guidance map)*

- + Restrict vehicle access into the park to service and emergency vehicles via existing park entrances.
- + Maintain and improve existing pedestrian entrances and existing trail networks.
- + Develop new granular trails to provide access into the park by different user groups.
- + Implement a signage and wayfinding strategy, at the parking areas and throughout the trails.

4.4.2 E.L. SMITH WATER TREATMENT PLANT PRIMARY TRAILHEAD

Program Statement

The trailhead takes advantage of the proposed connection to Terwillegar Park. Visitors learn about water treatment, using the proposed trail network to circle the land near the river. Partnership opportunities with EPCOR will be explored to strengthen educational components of the site. Vegetation is restored along the river's edge to enhance wildlife connectivity through the site.

Ecological Opportunities *(see Ecological Guidance map)*

- + Wildlife connectivity through the river valley should be maintained
- + Riparian buffer along the North Saskatchewan River should be maintained and restored where feasible

Program Opportunities *(see Program Guidance map)*

- + The data-derived land management classification for a portion of the E.L. Smith Water Treatment Plant site is Preservation. The Plan identifies a portion of the site as Active/Working Landscapes in order to provide existing and expanded water treatment services. If the site is no longer required for that use, the classification is to be re-evaluated.
- + Primary trailhead
- + Parking lot adjacent to trailhead
- + Explore opportunities with partners to provide additional parking and a washroom facility

Circulation *(see Program Guidance map)*

- + Proposed bridge crossing to Terwillegar Park
- + Proposed trail connection to Cameron Heights
- + Proposed trail connection – Paved north-south trail
- + Proposed trail connection – Non-paved trail around the site



Sources:

1. Klickitat Trail Trailhead, Washington

klickitat-trail.org

4.4.3 HENDERSON ESTATES + HADDOW PRIMARY TRAILHEAD

Program Statement

This trailhead is a regional multi-use trail connection that links to broader recreational and active transportation networks. It provides opportunities for historic interpretation, environmental education and ecological restoration where appropriate. This trailhead could be enhanced with interpretive elements and programming. The City may want to explore partnerships with community groups, Indigenous communities, or organizations focused on healing and nature restoration.

Ecological Opportunities *(see Ecological Guidance map)*

- + Trail development on the east bank should ensure that wildlife connectivity is maintained.
- + Natural cover should be maintained
- + Riparian areas should be protected and restored

Program Opportunities *(see Program Guidance map)*

- + Primary trailhead
- + On-street parking (existing)

Circulation *(see Program Guidance map)*

- + Multi-use paved trail connection to utility corridor (existing)



Sources:

1. Interpretive Sign at Millhaven Creek, Kingston, Ontario

southfrontenac.net/en/things-to-do/trails.asp?mid_30003

2. Trail Head at The Bluff forest pathway, Belgium, OMGEVING

landezine.com/index.php/2015/12/the-bluff-by-omgeving

3. Composting Washroom, Comey Loggan Burke Architects, Laurance S. Rockefeller Preserve, Grand Teton National Park, Wyoming

clivusmultrum.com/parks-recreation-toilet-systems-lsr.php

Cameron-Oleskiw River Valley Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

Cameron-Oleskiw River Valley Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.5 Wedgewood Ravine Reach

Vision Statement:

Wedgewood Ravine is a protected ravine system providing a top-of-bank active transportation link to adjacent communities. Existing ecosystems, wildlife corridors, and geological features will be preserved, contributing to a unique nature experience.

Ecology

- + Wedgewood Ravine is a narrow hydrological corridor, transporting water from the outer boundary of the city to the North Saskatchewan River.
- + There is potential for restoration in disturbed areas along the ravine edge.
- + This ravine provides an essential connection between the North Saskatchewan River and intact upland habitats to the west and north.

Culture

- + The Wallbridge and Imrie House (or "Six Acres") was completed in 1957 and is located in Wedgewood Ravine. It was Canada's first all-female architectural firm.

Recreation

- + Recreation should mainly occur on trails along the top-of-bank, with key bridge connections in less sensitive areas.
- + There is potential to partner with Enoch Cree Nation to create a trail connection between the First Nation and this reach.

Important Adjacent Plans

- + Cameron Heights NASP
- + Wedgewood Heights NASP
- + West Jasper Place South ASP
- + The Uplands NSP
- + Edgemont NASP

4.5.1 WEDGEWOOD RAVINE PRIMARY TRAILHEAD

Program Statement

Wedgewood Ravine is an active transportation corridor adjacent to a protected ravine system. A Primary Trailhead in Wedgewood Heights and the proposed trail network provide key connections to surrounding parkland and communities.

Ecological Opportunities *(see Ecological Guidance map)*

- + Preserve existing vegetation in the ravine
- + Restore areas of non-native vegetation along the ravine edge
- + Strengthen ecological connections at the river edge and to adjacent green spaces to the west
- + Limit trail development in the ravine and monitor informal trail use
- + Maintain buffer surrounding streams and wetlands
- + Minimize impact on wildlife movement through the area
- + Improve wildlife connectivity through wildlife passages

Program Opportunities *(see Program Guidance map)*

- + Primary trailhead with wayfinding signage and on-street parking in Wedgewood Heights

Circulation *(see Program Guidance map)*

- + Proposed trail connection – Paved top-of-bank trail
- + Proposed trail connection – Non-paved ravine trails
- + Explore non-paved trail connections along the river where feasible



Sources:

1. Wald.Berlin.Klima trailhead sign and seating, hochC Landscape Architects

landezine.com/index.php/2017/07/wald-berlin-klima-exhibition-in-the-forest-by-hochc-landscape-architects/01-wbk_foto_gewerkdesign

2. Assiniboine Park Washrooms, Winnipeg, Peter Sampson Architecture Studio Inc.

wolfromeng.com/Projects/Play-Work/Assiniboine-Park-Washrooms.html

Wedgewood Ravine Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

Wedgewood Ravine Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.6 Whitemud Ravine North Reach

Vision Statement:

Whitemud Ravine North is one of Edmonton's most ecologically significant and valued areas, and includes a designated nature reserve. This reach will continue to be protected from future environmental disturbance, while providing Edmontonians with a space for nature based recreation and learning. Improving riparian and aquatic health of the creek and preserving the unique geological features, diverse and sensitive native vegetation and ecological connectivity for wildlife is a key priority for this reach. The creation of spaces for Indigenous cultural and ceremonial practices and land-based learning, and enhanced public interpretive opportunities provides people with the chance to learn and celebrate the long history of these lands and foster a continued tradition of stewardship.

Ecology

- + Whitemud Ravine North is an ecologically diverse landscape that contains many unique features including local springs, uncommon and rare vegetation and areas of high environmental sensitivity.
- + The Tufa Springs site supports pockets of rare plant species (including the yellow lady slipper orchid), and the springs, which remain ice-free year-round, provide important habitat to resident birds in the winter.
- + The relatively intact contiguous forest provides significant core habitat for wildlife and other species and represents a key wildlife movement corridor.
- + Identify areas of the formal ravine trail network that require repairs and prioritize to protect the surrounding natural habitat
- + The lower reaches of Whitemud Creek, including the confluence with the North Saskatchewan River, support significant aquatic and fish spawning habitat. Preservation, restoration, and creation of fish habitat in Whitemud Creek through improvements to fish habitat and water quality will be prioritized.
- + Prioritize restoration activities that increase biodiversity, with particular focus on riparian areas and wildlife pinchpoints. Increased vegetated buffers will provide an extra level of protection for the watercourse.
- + Support open space management and integrated stormwater management planning to appropriately manage and co-exist with the healthy beaver population in Whitemud Creek, acknowledging their important role in the ravine ecosystem, while also protecting native vegetation.
- + Portions of this node are located within the North Saskatchewan River flood fringe. With the exception of essential infrastructure, avoid development within the floodway. Ensure that any infrastructure or amenities located within the flood fringe can withstand periodic flooding.

Culture

- + On the west side of the ravine, the hillside downhill from Bulyea Park is thought to be a historic hunting lookout and staging area. This location would have offered views into the Whitemud Ravine where animal movement was more constrained and predictable.
- + The Edmonton Section of the Alpine Club of Canada established the Whitemud Alpine Hut in 1932. Located at the outskirts of the City, Whitemud was considered a wonderful weekend hiking spot offering a break from the rushed pace of the city.
- + In the early part of the twentieth century, underground coal mining was the second largest employer in Edmonton. One of the last coal mines in Edmonton proper, the Whitemud Creek Coal Mine operated from 1952 to 1974. Small "pit ponies" were used to transport coal out of the mine.
- + West of Whitemud Creek, the kihcihkaw aski (Sacred Land) grounds opened in 2023. It provides a space for Indigenous peoples, groups and communities to host spiritual ceremonies, sweatlodges, cultural camps and talking circles, grow medicinal herbs and facilitate intergenerational learning.

Recreation

- + Explore opportunities to improve access to trailheads for multiple transportation modes.
- + Facilitate regional recreational connectivity through the establishment of Urban Greenways as per the City Plan.
- + Develop opportunities for cultural and geological interpretation (e.g. Tufa Springs, historic hunting lookout east of Bulyea Park, Whitemud Creek Coal Mine).
- + To mitigate potential conflicts, horseback riding along the narrow trails in the Whitemud Ravine should not be permitted.
- + Consider development of a ravine-top trail connecting the neighbourhoods of Grandview Heights and Lansdowne, directly west of the University of Alberta Farm.
- + Formalize bike connection to Grandview, parallel to Fox Drive NW. To support ecological protection priority within Whitemud Nature Reserve, continue to restrict bike use and unsanctioned construction of trails within the ravine.
- + The existing ravine-top trail south of Butchart Drive NW is within less than ten meters of a significant slope failure. Geotechnical assessments of the slope should be completed to inform trail realignment/stabilization.

4.6.1 ALFRED H. SAVAGE CENTRE AMENITY NODE

Program Statement

This Amenity Node features a variety of year-round amenities and offers a transit-accessible gateway to Whitemud Ravine North. West of Whitemud Creek, the kihcihkaw askî (Sacred Land) grounds provide a gathering place for Indigenous ceremony and land-based learning. To the east, the Alfred H. Savage Centre enhances visitors' use of the park, providing washroom facilities, water fountains, a small rental venue and a place to warm up after an afternoon of sledding or walking in the ravine.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain natural forest cover and minimize impacts to wildlife movement through the area by maintaining ecological connectivity.
- + Protect and restore riparian vegetation along creek banks.
- + Restore and naturalize maintained perimeter areas adjacent to Whitemud Creek to native vegetation communities where feasible, considering existing recreational use.
- + Protect ecologically sensitive areas, including formal protection of the Tufa Springs site located on the east slopes of Whitemud Creek.

Program Opportunities *(see Program Guidance map)*

- + The first permanent, urban Indigenous ceremonial ground in Canada, kihcihkaw askî (Sacred Land) provides a site for Indigenous ceremonial practices and land-based learning opportunities for Indigenous and non-Indigenous people.

Circulation *(see Program Guidance map)*

- + Improve the sidewalk connection beneath Fox Drive NW linking Whitemud Park and the Alfred H. Savage Centre to facilitate a sense of safety and comfort for pedestrians.

4.6.2 SNOW VALLEY AMENITY NODE

Program Statement

Tucked within the Whitemud Ravine valley bottom, Snow Valley is an active, all-season destination and entry point into Whitemud Ravine North. Key attractions during the summer months include the Snow Valley Aerial Park and Rainbow Valley Campground, and the Snow Valley Ski Club during the winter.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain natural forest cover and minimize impact on wildlife movement through the area by maintaining ecological and wildlife connectivity through strategic corridor restoration
- + Protect and restore riparian vegetation along Whitemud Creek, using restoration techniques that mimic natural riparian ecosystems.
- + Restore and naturalize maintained perimeter areas to non-maintained native vegetation communities where feasible, being mindful of the need to avoid attracting wildlife to major transportation corridors.
- + Consider opportunities for nature-based solutions (e.g., tree/shrub plantings and vegetated swales) in adjacent parking lots to improve canopy cover and local biodiversity.

Program Opportunities *(see Program Guidance map)*

- + Long term, develop a standard, stand alone, all-season, inclusive, and barrier free public washroom facility that is accessible from the existing trail network.
- + Located where the Snow Valley Ski Club sits today, the Whitemud Creek Coal Mine was the last coal mine to operate in Edmonton and offers an opportunity to interpret the coal mining history of the ravine.

Circulation *(see Program Guidance map)*

- + Given the multiple parking lots and many facilities within the Snow Valley Amenity Node, develop signage and wayfinding strategy, at the parking lots. Strengthen signage and legibility of the existing trail at the entrance to the Rainbow Valley Campground.

4.6.3 WHITEMUD PRIMARY TRAILHEAD

Program Statement

With easy vehicular access off Rainbow Valley Road NW, Primary Trailhead provides a year-round entry point into the southern part of the reach. The trailhead provides opportunities for nature-based learning.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain natural forest cover and minimize impact on wildlife movement through the area by maintaining ecological and wildlife connectivity through strategic corridor restoration.
- + Protect and restore riparian vegetation along Whitemud Creek.
- + Restore and naturalize perimeter areas of maintained parkland to native vegetation communities where feasible, considering existing recreational use.
- + Consider opportunities for nature-based solutions or low impact development installations/features (e.g. rain gardens) to reduce stormwater runoff from existing gravel parking lot.

Program Opportunities *(see Program Guidance map)*

- + Explore opportunities to include low-impact public washroom facilities adjacent to the parking lot.

Circulation *(see Program Guidance map)*

- + Develop a trail along Rainbow Valley Road NW to connect the ravine with the bus routes along 119 Street NW and the neighbourhood of Royal Gardens to the east.
- + Through future detailed planning and public engagement, existing unimproved trail networks will be refined to ensure appropriate recreational access and connectivity without compromising ecological integrity.
- + Add trailhead wayfinding signage.

Whitemud Ravine North Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

Whitemud Ravine North Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.7 The Confluence Reach

Vision Statement:

The Confluence will remain an essential area of protected wildlife habitat with improved trail connections from adjacent communities. As a culturally significant place, the confluence of Whitemud and Blackmud Creek will incorporate trail-based interpretive and recreational opportunities for visitors to enjoy the ravine system and learn about their layered history.

Ecology

- + The Confluence contains unique and rare vegetation, as well as important wildlife movement areas, throughout the site.
- + Whitemud and Blackmud Creeks provide important wildlife connections.
- + Areas of extremely high environmentally sensitive areas are located throughout the site, and permanent wetlands can be found in this reach.
- + Public input has indicated a desire to maintain a natural feel and protect wildlife habitat.

Culture

- + This area includes the Larch Sanctuary, a conservation easement managed by the Edmonton and Area Land Trust.
- + The Mactaggart Sanctuary, also within this reach, was donated to the University of Alberta, and through the cooperation of the donor, the Province, the University, and the City of Edmonton, has been made available for public access.
- + The reach contains natural features of significance for Indigenous people.
- + Other historical features in the reach include the Twin Bridges (a community gathering space for picnics), traces of historic coal mining, and the Canadian Northern Western Railway Trestle bridge.

Recreation

- + This reach can provide trails for immersion in nature.
- + It can also provide opportunities for outdoor recreation, photography, and Indigenous and traditional use.
- + Public input has indicated a desire for parking, viewpoints, and pedestrian and bike access.

Important Adjacent Plans

- + Hodgson NASP
- + Magrath Heights NASP
- + Mactaggart NASP
- + Twin Brooks NASP

4.7.1 LARCH SANCTUARY PRIMARY TRAILHEAD

Program Statement

This trailhead is an area for the protection of environmentally sensitive areas, supported by the existing Larch Sanctuary, managed by the Edmonton and Area Land Trust. It provides an opportunity for people to embark on trail excursions through natural areas north of Anthony Henday Drive. Additional opportunities for the interpretation of past land uses and programming partnerships with the Edmonton and Area Land Trust will be explored.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain existing wetlands and habitat
- + Wildlife pinchpoints should be minimally disturbed
- + Improve wildlife connectivity through wildlife passages or corridor restoration where feasible

Program Opportunities *(see Program Guidance map)*

- + Primary trailhead
- + Existing parking
- + Washroom facility
- + Viewpoints
- + Improved connections through neighbourhood to ensure connectivity around locations where slope instability exists

Circulation *(see Program Guidance map)*

- + Opportunity to formalize user-created trails into low-impact recreational trails
- + Proposed Trail Connection – Paved top-of-bank trail heading north adjacent to Blue Quill Estates



Sources:

1. Information signs and parking at Rockefeller Prairie Trail trailhead, Kansas

landezine.com/index.php/2017/07/wald-berlin-klima-exhibition-in-the-forest-by-hochc-landscape-architects/01-wbk_foto_gewerkdesign

2. Public washroom with views, Niushou Mountain Scenic Spot, Jiangning Qu, Nanjing Shi, Jiangsu Sheng, China, LiZhu (architects)

archdaily.com/783153/view-public-toilet-lizhu

3. Bridge access to Larch Sanctuary

4.7.2 MACTAGGART SANCTUARY PRIMARY TRAILHEAD

Program Statement

This trailhead connects the Twin Brooks neighbourhood to the Mactaggart Sanctuary. It provides an access point for people to use the trail system in the Mactaggart Sanctuary and along the Whitemud Creek. Education opportunities and interpretation, in partnership with the University of Alberta, will be explored.

Ecological Opportunities *(see Ecological Guidance map)*

- + Wildlife pinchpoints and habitat should be minimally disturbed
- + Natural cover should be maintained where possible

Program Opportunities *(see Program Guidance map)*

- + Primary trailhead
- + Small parking lot
- + Washroom facility

Circulation *(see Program Guidance map)*

- + Proposed Trail Connection – Paved top-of-bank trail extension to connect to existing top-of-bank trail
- + Proposed Trail Connection – Non-paved trail to Whitemud – Anthony Henday Wildlife passage Primary Trailhead and the Mactaggart neighbourhood



Sources:

1. Interpretive signage and parking at Waskasoo Park, Red Deer, Alberta

https://www.redpointcreative.ca/wp-content/uploads/2016/03/maskepetoon_A182481.jpg

The Confluence Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

The Confluence Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.8 Whitemud Ravine Reach

Vision Statement:

Whitemud Ravine will be protected from future environmental disturbance and will remain an important wildlife corridor. The ravine will be restored wherever possible and ecological connections will be supported in the surrounding landscape. Improved trail connections will immerse visitors in nature and provide access to trail-based interpretation of the surrounding land use history.

Ecology

- + Whitemud Ravine contains a wildlife passage under Anthony Henday Drive.
- + The reach contains unique and rare vegetation, as well as important wildlife movement areas (generally located along the top-of-bank).
- + Connections from the surrounding landscape are important for wildlife movement.

Culture

- + Whitemud Ravine contains several known archaeological resources.
- + Historical features located in the area of the Whitemud Ravine Reach include: Rabbit Hill United Church, Ashby Farm and Elevators, Hiller Pumphouse, Whitemud School, and a historic oil well.

Recreation

- + Whitemud Ravine is an appropriate location to provide trails for walking, running, cycling, and being immersed in nature.

Important Adjacent Plans

- + Ambleside NSP
- + Glenridding Heights NSP
- + Windermere NBHD NSP
- + Graydon Hill NASP
- + Hays Ridge NASP
- + Chappelle NASP

4.8.1 WHITEMUD – ANTHONY HENDAY WILDLIFE PASSAGE PRIMARY TRAILHEAD

Program Statement

This trailhead presents an opportunity for ecological protection and reclamation with a focus on promoting wildlife connectivity. It also provides an opportunity for people to embark on trail excursions north or south of Anthony Henday Drive through the wildlife underpass and trail. This trailhead is supported by a washroom facility and a small parking lot.

Ecological Opportunities *(see Ecological Guidance map)*

- + Improve wildlife corridors and pinchpoints through wildlife passages
- + Maintain natural cover

Program Opportunities *(see Program Guidance map)*

- + Primary trailhead
- + Washroom facility
- + Parking
- + Interpretation of geological features

Circulation *(see Program Guidance map)*

- + Proposed trail connection – Paved top-of-bank trail



Sources:

1. Trailhead Signage, Warfield Railgrade Trail Head, Kootenays, BC

ehcanadatransport.com/gallery/picture/10704-ailgrade-trail_001/category/1321-railgrade-trail

2. Tommy Thompson Park pavilion, Toronto, DTAH

explorewaterfrontoronto.ca/project/tommy-thompson-park

3. View into Whitemud Ravine

4.8.2 SOUTH WHITEMUD RAVINE PRIMARY TRAILHEAD

Program Statement

This trailhead is a connection to the Whitemud Ravine with opportunities to learn about aquatic habitats, the hydrological system, geology, and past land uses; and gather with friends and family for unstructured recreation. This amenity node offers the opportunity to appreciate the dramatic landscape.

Ecological Opportunities (see Ecological Guidance map)

- + Maintain natural cover
- + Restore formerly disturbed areas
- + Incorporate a wildlife passage in future road construction
- + Buffer environmentally sensitive areas and core habitat from 41 Ave. SW

Program Opportunities (see Program Guidance map)

- + Primary trailhead
- + Washroom facility
- + Parking
- + Viewpoint
- + Geological interpretation
- + Day use area – Picnic and Interpretive Lookout
 - + *This area will capitalize on the dramatic landscape to create a unique experience for users by incorporating opportunities for interpretive recreation and providing lookout points. This area will feature a picnic site situated on a plateau with trail access into the South Whitemud Ravine System.*

Circulation (see Program Guidance map)

- + Proposed vehicle access north of the day use area
- + Proposed trail connection – Paved top-of-bank trail
- + Interpretive non-paved trails into ravine from day use area



Sources:

1. The Bluff lookout, Belgium, OMGEVING

landezine.com/index.php/2015/12/the-bluff-by-omgeving

2. Parking and washrooms at West Fork Trail, Sedona

sedonahikingtrails.com/images/west_fork_trail/West-Fork-Trail-1-5.htm

3. Seating at Rochetaillee banks of the Saone, Lyon, In Situ Architectes Paysagistes

landezine.com/index.php/2016/09/rochetaille-banks-of-the-saone-by-in-situ

Whitemud Ravine Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

Whitemud Ravine Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.9 Whitemud Far South Reach

Vision Statement:

The ravine and riparian corridor of Whitemud Far South will be protected from future environmental disturbance and will remain an important conduit for biodiversity and wildlife movement with ecological connections to the surrounding landscape. Hydrological flows to Whitemud Creek will be maintained and riparian habitat will be restored wherever possible. A new well-designed, top-of-bank trail system will provide low-impact access from surrounding communities to this area and the rest of the River Valley and Ravine system.

Ecology

- + The northern extent of the reach contains significant core habitat for wildlife, representing a key wildlife movement corridor which should be preserved and well managed.
- + Unique geological formations and steep slopes are found in the northern portions of the reach, while the southern extent of the reach is characterized by a meandering channel with numerous oxbow wetlands.
- + Whitemud Creek is an important tributary to the North Saskatchewan River. Maintaining water quantity and quality through effective drainage planning and preservation of the creek and buffer areas is critical.
- + Implement bioengineering for riparian restoration in areas with slope instability or geotechnical risks.
- + Explore opportunities to restore a vegetated connection through agricultural land conversion from Whitemud Far South reach to the North Saskatchewan Rabbit Hill reach to prioritize wildlife movement.
- + Restoration efforts should consider the surrounding agricultural land use to reduce non-native and invasive plant species, restore riparian areas and buffers that have been historically cultivated or cleared and conserve natural areas by minimizing wetland loss.

Culture

- + The name Whitemud Creek was coined by Dr. James Hector of the Palliser Expedition, who in 1858 observed the white-coloured mud from the creek being used to whitewash the walls of Hudson Bay Company buildings.
- + The Rabbit Hill Baptist Church and Cemetery are located west of the Whitemud Far South Reach. The original Rabbit Hill Baptist Church was erected in 1986 by German-speaking Baptist families. The church provided regular services in German until 1946.

Recreation

- + As adjacent development occurs, establish a regional recreation corridor providing connections to the north, east towards Nisku, and west towards the North Saskatchewan Rabbit Hill reach and the Town of Devon.
- + Maintain tributary buffers and develop top-of-bank trails that link future developments to the trail system along the main stem of Whitemud Creek.
- + Slopes located on the western side of the creek, south of 41 Avenue SW, provide important habitat for bank swallow nesting. Explore opportunities for experiential learning in which protection of habitat for this sensitive species is prioritized, through a viewing platform or fenced area.
- + Facilitate regional recreational connectivity through the establishment of Urban Greenways as per the City Plan.
- + Coordinate with surrounding municipalities to ensure intermunicipal continuity of the trail network.

4.9.1 WHITEMUD PARK SOUTH AMENITY NODE

Program Statement

This amenity node, characterized by the branching pattern of Whitemud Creek and one of the main tributaries of the creek, is a larger informal gathering place along the ravine trail network.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain natural cover.
- + Protect and restore riparian vegetation to native vegetation and tree cover where feasible.
- + Minimize impact to wildlife movement through the area and improve wildlife connectivity along Whitemud Creek with a potential wildlife passage structure at 41 Avenue.

Program Opportunities *(see Program Guidance map)*

- + Support local passive recreation opportunities and minimize impacts to the ecology of the ravine.

Circulation *(see Program Guidance map)*

- + Proposed top-of-bank trails along both the eastern and western sides of Whitemud Creek, and along the northern side of the tributary feeding into the creek.

4.9.2 WHITEMUD 73 AVENUE PRIMARY TRAILHEAD

Program Statement

This trailhead is a connection to the southern part of Whitemud Ravine with opportunities to explore the unique landscape and local wildlife.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain natural cover.
- + Protect and restore riparian vegetation along creek and tributary banks.
- + Restore areas of non-native vegetation to native vegetation and tree cover to improve local biodiversity and habitat where feasible.
- + Minimize impact to wildlife movement through the area and improve wildlife connectivity along Whitemud Creek with a potential wildlife passage structure at 73 Avenue.

Program Opportunities *(see Program Guidance map)*

- + Develop a natural connection, via a Habitat Greenway west towards Rabbit Hill (Rabbit Hill Lookout Amenity Node), as referenced in the City Plan.

Circulation *(see Program Guidance map)*

- + Proposed local catchment parking lot off 73 Avenue SW.
- + Proposed top-of-bank trails along both the eastern and western sides of Whitemud Creek.
- + 73 Avenue SW provides an existing crossing over Whitemud Creek. In the future, develop a pedestrian route across the Creek in this location.

4.9.3 WHITEMUD CONNECTOR AMENITY NODE

Program Statement

This Amenity Node provides a year-round entry point to the Whitemud Far South reach and serves as a connecting node for those enjoying the trail system. As the area develops, instead of installing multiple new crossings over Whitemud Creek, it is recommended that the existing road crossing be upgraded to include a pedestrian link.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain natural cover.
- + Protect and restore riparian vegetation along creek and tributary banks.
- + Restore areas of non-native vegetation to native vegetation and tree cover to improve local biodiversity and habitat where feasible.
- + Minimize impact to wildlife movement through the area and improve wildlife connectivity along Whitemud Creek with a potential wildlife passage structure at 167th Street.

Program Opportunities *(see Program Guidance map)*

- + Amenity development should seek to support local passive uses and minimize impacts to the ecology of the ravine. For example, in the near to medium term, a series of star gazing circles could be developed. Typically consisting of a ring of tilted benches, these sites are minimally invasive and provide a unique all-season recreational opportunity.
- + Existing on-street parking along 167 Street SW.

Circulation *(see Program Guidance map)*

- + Proposed top-of-bank trails along both the eastern and western sides of Whitemud Creek.
- + 167 Street SW provides an existing crossing over Whitemud Creek. In the future, develop a pedestrian route across the Creek in this location.

4.9.4 WHITEMUD HIGHWAY 19 PRIMARY TRAILHEAD

Program Statement

This trailhead is a gateway and staging area for people to explore the southern section of Whitemud Ravine through passive recreation and learn about local wildlife. The trailhead is supported by catchment-level parking.

Ecological Opportunities *(see Ecological Guidance map)*

- + Protect and restore riparian vegetation along creek banks.
- + Restore areas of non-native vegetation to native vegetation and tree cover to improve local biodiversity and habitat, where feasible.

Program Opportunities *(see Program Guidance map)*

- + Proposed local catchment parking lot off 167 Street SW.
- + Additional amenity development should seek to support local passive uses and minimize impacts to the ecology of the ravine.

Circulation *(see Program Guidance map)*

- + Proposed top-of-bank trails along both the eastern and west sides of Whitemud Creek.

Whitemud Far South Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

Whitemud Far South Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.10 Irvine Creek to Blackmud South Reach

Vision Statement:

Designated as a future growth area, this locally important natural area will see increased importance as the lands around it are developed. Restoring and naturalizing riparian vegetation along the banks of Irvine Creek and adjacent wetlands, and developing natural connections to Cawes Lake, will serve to increase ecological resilience and biodiversity in this area, while enhancing the attractiveness of the reach for recreation use. Development of a setback trail network will promote local passive recreational use of the area and allow the rest of the city to view this reach a recreational destination.

Ecology

- + Irvine Creek is an important tributary that flows into Blackmud Creek, connecting into the Blackmud Ravine just east of Highway 2.
- + Numerous riparian and pothole wetland features throughout the reach and adjacent areas provide important hydrological and ecological functions, as well as habitat for wetland-dependent species.
- + To ensure ecological connectivity is retained and to promote biodiversity, explore opportunities to restore corridors and stepping stones adjacent to Irvine Creek as the lands are developed.
- + Maintain existing hydrological regime to support the Creek and surrounding wetlands through effective drainage planning and preservation of the Creek and buffer areas and work with surrounding municipalities to improve water quality.

Culture

- + Blackmud Creek is a direct translation of the creek's original Cree name, kaskitewâw asiskiy.
- + The reach is located directly south of the future residential area of Decoteau, which is named after Alex Decoteau. The first Indigenous police officer in Canada, Decoteau represented Canada in the 1912 Summer Olympics and served as trench runner during the First World War.

Recreation

- + The development of the Emerald Crescent to the north provides a landscape-driven, open space vision for Edmonton's southeast. As the Emerald Crescent is built out, apply relevant lessons learned to the Irvine Creek to Blackmud South reach.
- + Develop a pedestrian connection north along 34 Street to link the reach with the Emerald Crescent in the Decoteau area. A looped trail system around Irvine Creek, as illustrated on the Program Guidance Map, is recommended.
- + Maintain tributary buffers and develop top-of-bank trails that link future developments with the trail system.
- + Locate light industrial or commercial use closer to the reach and set back heavy industrial land uses. This may help provide greater access to the reach.
- + Coordinate with the surrounding municipalities to maintain continuous top-of-bank trails.

4.10.1 BEAUMONT CITY ENTRANCE AMENITY NODE

Program Statement

Located at the intersection of 50 Street SW and Irvine Creek, north of Beaumont, the Beaumont City Entrance Amenity Node is designated by the City of Edmonton as a City Entrance (City Plan). Instead of a basic entry sign and some landscaping, the node provides an opportunity to celebrate the far reaches of the River Valley system as well as the connection between the City of Edmonton and the City of Beaumont.

Ecological Opportunities *(see Ecological Guidance map)*

- + Support and maintain healthy riparian vegetation buffers along Irvine Creek.
- + Restore areas of non-native vegetation to native vegetation and tree cover to improve local biodiversity and riparian habitat along Irvine Creek where feasible.
- + Consider wetland restoration opportunities to increase wetland habitat and biodiversity where feasible.
- + Prioritize restoration of the channelized portions of the creek to its historical meander to enhance resiliency and climate mitigation and explore opportunities to develop and preserve a natural connection to Cawes Lake.
- + Improve wildlife connectivity through the implementation of a wildlife passage at 50 Street SW Irvine Creek crossing.

Program Opportunities *(see Program Guidance map)*

- + Possible gathering location at the intersection of Irvine Creek, and the municipal boundary between the City of Edmonton and the City of Beaumont.

Circulation *(see Program Guidance map)*

- + Proposed top-of-bank trail along the northern side of Irvine Creek.
- + 50 Street SW provides an existing crossing over Irvine Creek. In the future, develop a pedestrian route across the creek in this location.

4.10.2 IRVINE CREEK OXBOW AMENITY NODE

Program Statement

The configuration of the existing oxbow in Irvine Creek may preclude some future development. The meander of the creek offers additional space to buffer the creek system and could be a future passive gathering point along the ravine trail network.

Ecological Opportunities *(see Ecological Guidance map)*

- + Support and maintain healthy riparian vegetation buffers along Irvine Creek.
- + Restore areas of non-native vegetation to native vegetation and tree cover to improve local biodiversity and riparian habitat along Irvine Creek where feasible.
- + Consider wetland restoration opportunities to increase wetland habitat and biodiversity where feasible.
- + Prioritize restoration of the channelized portions of the creek to its historical meander to enhance resiliency and climate mitigation.

Program Opportunities *(see Program Guidance map)*

- + In the future, as the area develops, install interpretive signage on river morphology. Interpretative panels may include information on oxbow channels, the unintended impacts of channelization, and what it means to “leave room for the river.”

Circulation *(see Program Guidance map)*

- + Proposed top-of-bank trails along the southern and northern side of Irvine Creek.

4.10.3 IRVINE CREEK 17 STREET PRIMARY TRAILHEAD

Program Statement

With existing vehicular access off 17 Street SW, Irvine Creek 17 Street Primary Trailhead provides a year-round entry point into the Irvine Creek Ravine. The meander of the creek in this location offers additional space to buffer the creek system and could be a future passive gathering point along the ravine trail network. In the future, as development in the area increases, installation of a local catchment-level parking lot may be appropriate.

Ecological Opportunities *(see Ecological Guidance map)*

- + Preserve and maintain natural forest cover, core habitat and ecological connectivity in the eastern part of the reach.
- + Support and maintain healthy riparian vegetation buffers along Irvine Creek, restoring disturbed areas to native vegetation where feasible.
- + Improve wildlife connectivity through implementation of wildlife passage at 17 Street SW crossing of Irvine Creek.

Program Opportunities *(see Program Guidance map)*

- + Proposed local catchment parking lot off 17 Street SW.

Circulation *(see Program Guidance map)*

- + Proposed top-of-bank trails along the southern and northern side of Irvine Creek.
- + 17 Street SW provides an existing crossing over Irvine Creek. In the future, develop a pedestrian route across the creek in this location.

Irvine Creek to Blackmud South Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

Irvine Creek to Blackmud South Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.11 Blackmud Ravine Reach

Vision Statement:

Blackmud Ravine will become a restored ravine system, providing ecological services as well as opportunities for passive recreation and nature appreciation for the surrounding neighbourhoods. The previous histories of the site will be recognized through interpretive elements and community stewardship of the landscape.

Ecology

- + The Blackmud Ravine Reach contains important wildlife movement areas as well as unique and rare vegetation.

Culture

- + The Papaschase Indian Reserve included large portions of Blackmud Creek. It will be necessary to determine if physical or archaeological remains exist. There are additional historic land uses of significance to Indigenous people in this reach.
- + Other historical features in the Blackmud Ravine Reach include the Big Island Coal Company Mine, Walker Farm, and the Samuel Adam Blacksmith Shop and Farm.

Recreation

- + The Blackmud Ravine Reach is ideal for trails for walking, running, cycling, and experiencing nature. Other uses could include low-impact outdoor recreation and Indigenous and traditional use.
- + As a previous campsite, the old Klondike campground provides infrastructure that may be used for community gathering and recreation.
- + Public input identified a potential user conflict with dog-walking in the area and a desire for improved wayfinding.

Important Adjacent Plans

- + Richford NASP
- + Blackmud Creek NASP
- + Callaghan NASP
- + Allard NASP
- + Blackburne NASP
- + Cashman NASP
- + Cavanagh NASP

4.11.1 FORMER KLONDIKE CAMPGROUND AMENITY NODE

Program Statement

All-season trails provide a local connection to this natural area. Riparian vegetation is maintained and restored where possible, and human activity is limited to reduce impacts to important bird habitat.

The heritage of the site is celebrated and physical remnants of the former campground are maintained as locations for picnicking, small cultural gatherings and other unstructured recreation. In the winter, select trails are transformed into winter activity paths. The park is supported with a washroom facility, parking, and regional trail connections.

Ecological Opportunities *(see Ecological Guidance map)*

- + Protect and restore riparian areas
- + Re-naturalize areas of the former campground

Program Opportunities *(see Program Guidance map)*

- + Parking
- + Washroom facility
- + Programmed use area – Picnic and Winter Use
 - + *This area will become an all-season amenity node by utilizing the former campsites in the area for winter activities, and picnic sites during the summer months.*
 - + *Warming huts, or other amenities required to make this a winter destination*

Circulation *(see Program Guidance map)*

- + Proposed trail connection – Non-paved along west top-of-bank



Sources:

1. Existing pathway through former Klondike campground

2. Interpretive area with picnic tables, Round Lake Preserve, Town of Malta, NY

thelagroup.com/wp-content/uploads/2015/10/Interpretive-Area.jpg

3. Victoria Park Iceway Edmonton

globalnews.ca/news/3162839/victoria-park-iceway-isnt-the-only-skating-trail-in-edmonton

4.11.2 SOUTH BLACKMUD RAVINE PRIMARY TRAILHEAD

Program Statement

This trailhead is a gateway and staging area for people to explore the southern section of the Blackmud Ravine and learn about aquatic habitats, the hydrological system, and the geology of the area. The trailhead is supported by on-street parking and washroom facilities.

Ecological Opportunities *(see Ecological Guidance map)*

- + Restore watercourse and riparian vegetation
- + Maintain existing natural cover
- + Re-naturalize disturbed areas
- + Avoid development within the wildlife pinchpoints
- + Restoration of creek bank along former 7 Oaks Golf Course lands

Program Opportunities *(see Program Guidance map)*

- + Primary trailhead
- + On-street parking (existing)

Circulation *(see Program Guidance map)*

- + Proposed trail connection – Paved top-of-bank trail
- + Opportunity for recreational trails and to formalize minor pedestrian bridges where historic crossings existed at the former 7 Oaks Golf Course



Sources:

1. The Bluff forest pathway, Belgium, OMGEVING

landezine.com/index.php/2015/12/the-bluff-by-omgeving

2. View into Blackmud Ravine

Blackmud Ravine Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

Blackmud Ravine Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.12 North Saskatchewan West Reach

Vision Statement:

The River Valley West reach is an important destination for diverse recreational experiences and is an ecologically diverse area that provides a critical corridor for wildlife movement along both sides of the North Saskatchewan River, with considerable areas of core habitat for wildlife and other species. Unique attractions such as Fort Edmonton Park, John Janzen Nature Centre, and Edmonton Valley Zoo, provide opportunities for Edmontonian and visitors alike to learn about the River Valley's history, cultural value, and natural systems. The reach also includes Terwillegar Park, which is a destination off-leash dog park for many in the City. Improved trail connections provide important recreational and active transportation connections eastwards into the Central reach. Restoration of riparian vegetation along the slopes and banks of the North Saskatchewan River will serve to improve ecological integrity and biodiversity.

Ecology

- + Large, intact forested core habitat areas throughout the reach are important areas for maintaining local wildlife and biodiversity, while facilitating regional ecological connectivity and wildlife movement. Core habitat areas within Terwillegar Park, Fort Edmonton Park and Buena Vista Parks, as well as in Wolf Willow and Patricia Ravines, should be preserved and well-managed. Explore opportunities to address wildlife pinchpoints through restoration of riparian vegetation along the North Saskatchewan River.
- + Steep slopes and eroding cliff faces occur along the north and south banks of the North Saskatchewan River, with unique microclimates, vegetation communities and plant species present within Wolf Willow and Patricia Ravines.
- + Presence of non-native and invasive plant species throughout North Saskatchewan West including legislated weeds should be managed through removal and control measures. Areas should be restored with native vegetation species post-removal.
- + Maintain and enhance wildlife connectivity at locations where steep valley slopes create pinchpoints for wildlife movement. Additionally, prioritize restoration within riparian areas near Fort Edmonton, at Buena Vista Park, and through Terwillegar Park.

Culture

- + The terrace overlooking the Whitemud Equine Centre offers amazing views west to the North Saskatchewan River. Unearthed stone artifacts found on the terrace offer insight into the early history of the area.
- + Fort Edmonton Park opened in 1974 and is an attraction with both original and reconstructed buildings from different eras of Edmonton's past. The attraction includes the Indigenous Peoples Experience (iyiniwak okiskêyihitamowiniwaw) which provides a perspective on Indigenous life in the Beaver Hills (Edmonton region).
- + Yorath House is a city-owned rental facility and designated Historic Resource in Buena Vista Park. Originally a private home owned by the Yorath Family, the house was constructed in 1949 during the postwar housing boom.
- + The Edmonton Valley Zoo was officially opened by Mayor William Hawrelak in 1959. Today the Zoo offers authentic and engaging animal experiences that inspire the protection and conservation of animals in the world we live in.
- + Keillor Road once ran precariously close to the southern bank of the North Saskatchewan River. In 2002 a landslide washed the road into the river leaving behind a stack of 5.0m tall vertical concrete pillars and a disconnected road. Ultimately, the road was converted to a shared-use path and the pillars retrofitted to become a lookout that was named Keillor Point to honour Dr. Frederick Keillor (1883-1971).

]

Recreation

- + Due to steep river valley slopes, the trail network paralleling the north and south bank of the North Saskatchewan River is not continuous (e.g. there is no trail west of Ramsay Heights). In a few locations trail users must re-route to the other side of the river. Ensure pedestrian bridges across the river are well signed and easily accessible so that trail users, unfamiliar with specific crossings, can easily navigate their route.
- + To mitigate potential conflicts, horseback riding should only be permitted within fenced lands leased by the Whitemud Equine Centre Learning Association and along the existing designated looped trails north of Fox Drive NW.
- + Formalize a non-paved narrow width trail network. Identify low-impact connections that support recreation and identify areas where existing trails need to be improved/enhanced or reduced/eliminated.
- + Heavy use of an area by dogs can have unintended negative impacts on the surrounding environment (e.g. soil loss, vegetation disturbance). Adaptive management techniques should be used to strategically identify, implement, and monitor carefully considered restoration activities in off-leash areas (e.g. Terwillegar Park, Buena Vista Park). Sweeping restoration measures that involve limiting access to large off-leash areas is not advised.
- + Explore low-impact opportunities for limited, permanent and/or temporary (e.g. pop-up) commercial uses to support surrounding recreational/educational/community gathering activities.

4.12.1 TERWILLEGAR PARK AMENITY NODE

Program Statement

Terwillegar Park is a large destination park in southwest Edmonton that is bordered on three sides by the North Saskatchewan River and contains large areas of core habitat. A dog walking and mountain biking hub, the park offers public art, spectacular views, a hand boat launch and an extensive network of mostly unpaved trails. The trail system is a major draw and offers many different types of experiences. The Terwillegar Park Footbridge is an important connection linking Terwillegar Park with Jan Reimer Park on the north bank of the river.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain natural forest cover and ecological connectivity.
- + Riparian buffer along the North Saskatchewan River should be maintained and restored where feasible.
- + Restore and naturalize disturbed areas adjacent to the ponds.
- + Consider opportunities for nature-based solutions or low impact development installations (e.g. rain gardens) to reduce stormwater runoff from existing parking lot.
- + Adaptive management techniques should be utilized to strategically identify, implement, and monitor carefully considered restoration activities in off-leash areas. Sweeping restoration measures that involve limiting access to large off-leash areas is not advised.
- + Control and manage legislated weeds and non-native invasive plant species through removal and restoration.
- + Limit new trail development.

Program Opportunities *(see Program Guidance map)*

- + Explore opportunities to include additional amenities, including a nature playground, canoe/kayak teaching area, picnic areas, and/or sledding hill.
- + Ensure that future improvements, particularly around high-use areas like the parking lot, consider public safety and accessibility. Review opportunities for parking lot lighting (taking into account dark sky principles and designing to minimize impact to wildlife).
- + Prioritize the development of a low-impact, all-season, inclusive, and barrier free public washroom facility.
- + Continue to permit temporary commercial activities (e.g. food trucks, guided raft tours, kayak/canoe workshops) that support open-space services.
- + Locate permanent facilities and major amenities near the existing parking lot.

Circulation *(see Program Guidance map)*

- + Develop an accessible, cohesive trail network that considers the needs of different user groups (e.g. people hiking, biking or walking dogs).
- + Develop a pedestrian bridge into Terwillegar Park from the west (e.g. from E.L. Smith Water Treatment Plant/Cameron Heights/Anthony Henday).
- + Through future detailed planning and public engagement, existing unimproved trail networks will be refined to ensure appropriate recreational access and connectivity without compromising ecological integrity.

4.12.2 FORT EDMONTON PARK AMENITY NODE

Program Statement

Fort Edmonton Park is home to the attraction of the same name. Fort Edmonton Park is an immersive living history museum, which together with neighbouring John Janzen Nature Centre, offers a variety of family-friendly activities throughout the year as well as venues for private events. The amenity node provides diverse opportunities for trail-based recreation, including a riverside looped trail and a shared-use trail that connects people to the rest of the River Valley trail network.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain natural forest cover and ecological and wildlife connectivity, particularly in pinchpoint areas.
- + Consider opportunities for nature-based solutions or low impact development installations/features (e.g. rain gardens, permeable asphalt or concrete) to reduce stormwater runoff from existing parking lot.
- + Naturalize turf areas adjacent to the parking lot with native tree, shrub and perennial plantings to improve structural diversity and local biodiversity.

Program Opportunities *(see Program Guidance map)*

- + Consider installation of trail-based nature and cultural interpretation that complements existing programming.

Circulation *(see Program Guidance map)*

- + Ensure clear wayfinding signage is available to direct users to and from the Quesnell Bridge and Whitemud Park.
- + Widen / improve the pathway along the east side of Fort Edmonton Park Road between Fox Drive and the turnoff to the pedestrian bridge crossing Whitemud Creek.

4.12.3 WHITEMUD EQUINE CENTRE/WHITEMUD PARK NORTH AMENITY NODE

Program Statement

This amenity node sits at the confluence of Whitemud Creek and the river, making it ecologically unique and valuable, and provides diverse recreational and learning opportunities, including horse riding programs (Whitemud Equestrian Centre), river access and fishing, informal gathering and trail-based recreation.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain natural forest cover and ecological and wildlife connectivity, particularly in pinchpoint areas.
- + Minimize impact on wildlife movement through the area.
- + Riparian buffer along the North Saskatchewan River should be maintained and restored where feasible.
- + Restore and naturalize maintained perimeter areas of Whitemud Park, as well as impacted areas north of the amenity building, to native vegetation communities.
- + Remove legacy infrastructure associated with the former Keillor Road.
- + Consider opportunities for nature-based solutions or low impact development installations/features (e.g., rain gardens, permeable asphalt or concrete) to reduce stormwater runoff from existing gravel parking lot.
- + This node is located within the North Saskatchewan River and Whitemud Creek flood fringe. With the exception of essential infrastructure, avoid development within the floodway. Ensure that any infrastructure or amenities located within the flood fringe can withstand periodic flooding.

Program Opportunities *(see Program Guidance map)*

- + To mitigate potential conflicts, horseback riding should only be permitted within fenced lands leased to the Whitemud Equine Centre and along the existing designated looped trail north of Fox Drive NW.
- + Consider establishing cultural interpretive signage to share the archaeological significance of the terrace overlooking Whitemud Equestrian Park, further enhancing interpretive signage throughout this area and the Ravine System.

Circulation *(see Program Guidance map)*

- + Install a pedestrian-controlled light at the Fort Edmonton Park Road NW crosswalk.
- + Explore options to address high demand for parking in this area, including potential development of additional parking spaces along Keillor Road NW close to the existing parking lot and washroom facilities. Strategically locate parking in existing open areas away from tree stands.

4.12.4 EDMONTON VALLEY ZOO/SIR WILFRED LAURIER PARK AMENITY NODE

Program Statement

An active family-friendly park, Sir Wilfrid Laurier Park is home to the Edmonton Valley Zoo and serves as an important gathering spot along the north bank of the North Saskatchewan River. Edmonton Valley Zoo is a city-wide attraction that provides year-round, family-focused experiences as well as venues for private events. This amenity node offers a variety of passive and active recreational opportunities as well as a hand-launch, vehicle-launch, and dock to facilitate water-based recreation. The park is particularly well-used throughout the summer months and is one of the busiest picnic destinations in the River Valley.

Ecological Opportunities *(see Ecological Guidance map)*

- + Preserve and maintain natural forest cover, and ecological and wildlife connectivity, particularly in pinchpoint areas.
- + Minimize impact on wildlife movement through the area.
- + Restore and naturalize perimeter areas of maintained parkland to native vegetation communities where feasible.
- + Consider opportunities for nature-based solutions (e.g. structurally diverse native vegetation plantings) or low impact development installations/features (e.g. rain gardens, permeable asphalt or concrete) to reduce stormwater runoff from existing gravel parking lots, and as part of future Zoo parking lot improvements.
- + Explore opportunities to undertake and feature wetland restoration as part of natural wildlife exhibits at the Valley Zoo.
- + Consider planting for forest succession in select locations to support the longevity of the existing mixed forest.

Program Opportunities *(see Program Guidance map)*

- + Develop a public washroom facility adjacent to the existing boat launch and dock facilities.
- + Explore opportunities to expand winter use of the park. During winter, review the opportunity to develop a temporary warming station at the parking lot closest to the nature playground.
- + Continue to promote temporary commercial uses (e.g. food trucks, guided raft tours) that support surrounding recreational/educational/community gathering uses.
- + During peak summer season, where feasible, consider "overflows" of Zoo programming into the parking lot or other adjacent public areas, including conservation education on the Central Parkland and the river valley as well as climate change impacts and mitigation.

Circulation *(see Program Guidance map)*

- + Traffic calming measures (e.g. speed bumps and painted raised crosswalks) around the Valley Zoo parking may be considered with future parking lot improvement projects, which include paving the lot and providing lighting.

Transformative Opportunities

- + The Edmonton Valley Zoo Parking lot is completely unshaded and does not have any interior tree canopy. This could be an excellent opportunity to install a solar canopy over a portion of the lot. A solar canopy in this location could serve as a demonstration project and provide a portion of the Zoo's power. To "soften" the feel of a solar canopy, it is recommended that standard tree planting and pockets of native shrubs and perennials are planted within the parking lot (e.g. along the northern and western extent of the lot).

4.12.5 BUENA VISTA PARK AMENITY NODE

Program Statement

Buena Vista Park provides important all-season trail connections linking Sir Wilfrid Laurier Park, William Hawrelak Park, and a preservation area to the north. The park includes a public rental facility at Yorath House, a dock, as well as facilities for the Edmonton Rowing Club and Edmonton Whitewater Paddlers. Largely designated as an off-leash dog park, Buena Vista Park is well-used by local dog owners.

Ecological Opportunities *(see Ecological Guidance map)*

- + Preserve and maintain natural forest cover, and ecological and wildlife connectivity, particularly in pinchpoint areas.
- + Minimize impact on wildlife movement through the area.
- + Restore and naturalize perimeter areas of maintained parkland to native vegetation communities where feasible. In off-leash areas, adaptive management techniques should be utilized to strategically identify, implement, and monitor carefully considered restoration activities without detracting from off-leash use.
- + Control and manage legislated weeds and non-native invasive plant species, including extensive stands of caragana, through removal and restoration.

Program Opportunities *(see Program Guidance map)*

- + Encourage temporary commercial uses (e.g. food trucks) that support surrounding recreational/educational/community gathering uses.
- + Develop gathering spaces for groups to meet up and rest off the trail system and away from busy trail intersections and parking lots.

Circulation *(see Program Guidance map)*

- + Support increased transit access to Buena Vista Park. (Refer to the Edmonton Valley Zoo/Sir Wilfrid Laurier Park circulation section for additional discussion).

North Saskatchewan West Reach Section 1 – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

North Saskatchewan West Reach Section 2 – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

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4.13 Central Reach

Vision Statement:

The North Saskatchewan Central Reach is a vibrant recreational destination and gathering place for the city, providing a diverse range of experiences from large event spaces to natural spaces. Valued cultural spaces are honoured and appropriately interpreted. A well-connected network of sustainable trail connections promotes active travel and recreation while protecting the River Valley's natural features. Restoration efforts and designated preservation areas improve ecological connectivity through the reach, provide habitat for local wildlife and enhance the City's biodiversity, while protecting unique landscapes within existing parkland.

Ecology

- + The Central reach is highly developed and well-used, which has impacted the quality and availability of habitat in the reach. Preservation of remaining core habitat and strategic restoration efforts will be essential to maintain wildlife corridors and biodiversity, particularly in and around connectivity pinchpoint areas.
- + This reach is an important wildlife movement corridor providing passage through the City, with opportunities for improving connectivity through the existing golf courses, as well as along the north bank of the river and where the steep valley slopes create pinchpoints for movement
- + Unique landscape features such as the Dawson Park and Kinnaird Ravine hoodoos and natural springs are present within this reach and will be protected.
- + Areas of steep and/or unstable slopes are present throughout the reach, including in the Forest Heights area, and careful management of these areas is required.
- + Site-specific planning should consider the maintenance of existing wildlife corridors of utmost importance, and redevelopment projects should ensure that improved connectivity is incorporated. Recreational uses in and around core habitat should be limited.
- + Much of the residential lands through this reach are within the provincial flood hazard boundary and provide a level of ecological connectivity. Redevelopment and ongoing use of these lands should be managed to minimize risks and costs associated with flooding

events and continue to promote maintenance and establishment of native vegetation in these areas to facilitate ecological connectivity.

- + Extend River Valley connectivity into adjacent neighbourhoods through Habitat Greenways (south from Kinsmen Park and north into Downtown), as identified in the City Plan.
- + Further explore opportunities for daylighting within Groat Ravine and Rat Creek, to provide better connected riparian corridors and improved ecological function.

Culture

- + Indigenous peoples have lived along the North Saskatchewan River Valley since time immemorial. The Central Reach in particular has a long, rich, layered history and has significant historical and cultural importance.
- + In 1882, a government-approved survey of the lands surrounding Fort Edmonton was completed. The survey followed a river lot pattern along the North Saskatchewan River and staked 44 lots. Originally farmed primarily by Métis people, these lots and the names of many of the early owners have left their mark on Edmonton's downtown and central neighbourhoods.
- + John Walter (1849–1920) was an important early Edmonton businessman. The John Walter Museum sits at the site of three of John's historic residences and invites visitors to learn about Edmonton's history during the late 1800s..
- + "Stupendousness of High Level Bridge is Amazing!" claimed the Edmonton Journal when the High Level Bridge opened in 1913. During the opening ceremonies, university students, including one riding a donkey, tore down the bridge barricades and were the first people to cross the bridge.
- + Constructed between 1938 – 1950, Rosedale Power Plant is a decommissioned power generation plant that occupies approximately 17 hectares along the northern bank of the North Saskatchewan River. The plant is one of the oldest surviving examples of industrial mid-twentieth century architectural design in Alberta and remains an iconic landmark in the River Valley.
- + In 1964, a six-lane highway running through MacKinnon Ravine was proposed. Local artist Margaret Chappelle created the Save our Parks Association to protest the development, calling for "Treeways – not freeways." After years of stop-and-go, the proposal was defeated in 1984, when City Council prohibited installing major road and utility construction in the River Valley.

Recreation

- + Explore low-impact opportunities for limited, permanent and/or temporary (e.g. pop-up) commercial uses to support surrounding recreation/education/community gathering activities in amenity nodes.
- + Facilitate high-quality, diverse, and accessible recreation experiences throughout the reach.
- + Identify management plans for distributing intensive use (eg. events, popular attractions) beyond the Central Reach to limit further degradation of natural areas.
- + Seek to accommodate future demand for recreation in ways that do not compromise the ecological integrity of areas of natural vegetation cover or ecologically sensitive features.
- + Ensure that River Valley parks are well-supported with access by public transit and well-connected with the city's bike network.
- + The River Crossing Heritage Interpretive Plan (2017) provides a foundation for understanding the importance of the River Crossing area and how this history can be shared.
- + Support local access to the River Valley trail network by ensuring adequate connections with surrounding neighbourhoods.
- + Extend River Valley connectivity into adjacent neighbourhoods through Urban Greenways (from MacKinnon and Mackenzie Ravines and Queen Elizabeth Park), as identified in the City Plan.
- + In addition to showcasing Edmonton's history in the central river valley and project amenity nodes, explore opportunities to recognize/ interpret lesser-known areas of local cultural and historical importance.

Transformative Projects

- + Touch the Water Promenade is developing a new design for the central stretch of the river valley in two distinct project areas, Rosssdale and the North Shore, to celebrate the area's multi-layered heritage, encourage recreation and connect people with nature.
- + The High Level Line is a proposed four kilometer long linear park along the top of the High Level Bridge, creating a new pedestrian connection from Downtown to Old Strathcona over the North Saskatchewan River. The multi-modal corridor – envisioned by the High Level Line Society – would be built along the existing rail infrastructure and include park and seating areas along the trail.
- + The 100 Street Pedestrian Bridge Concept Design Overview (2022) proposed a new pedestrian bridge over 100 Street NW linking the plaza at the top of the 100 Street Funicular with Veterans Park to the west.
- + The Downtown Public Places Plan (2020) identifies Rosssdale and McDougall Hill Roads as major barriers to pedestrians and cyclists accessing the River Valley trail network. The plan proposes the redevelopment of the 104 Street staircase into a destination grand staircase that provides an enhanced connection linking Downtown Edmonton to Rosssdale and the River Valley.
- + The Downtown Public Places Plan (2020) also proposes a continuous top-of-bank east-west pedestrian link between the top of the top of the 100 Street Funicular and the Edmonton Convention Centre and Louise McKinney Riverfront Park to the east.

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.13.1 WILLIAM HAWRELAK PARK AMENITY NODE

Program Statement

Named after Edmonton's longest serving mayor, William Hawrelak Park is described as one of the jewels in Edmonton's River Valley Park system. A flexible, multi-season destination in the heart of the city, the park hosts some of the city's most beloved events including the Edmonton Heritage Festival in the summer, and Silver Skate Festival during the winter, and provides many opportunities for informal gathering and play in the heart of the river valley. This amenity node also includes the Royal Mayfair Golf Club.

Ecological Opportunities *(North Saskatchewan Central Reach, Section 1 see Ecological Guidance map)*

- + Increase local treatment and infiltration of stormwater and snowmelt through the inclusion of LID installations (e.g. rain gardens) in the park.
- + Preserve and maintain natural forest cover, and ecological and wildlife connectivity, particularly in pinchpoint areas.
- + Support and maintain healthy riparian vegetation along the riverbank, as well as core habitat to the south and east of the maintained park area.
- + The Royal Mayfair Golf Club is highly important for wildlife movement, and should be managed to maintain consistent corridors.
- + Minimize impact on wildlife movement through the area.

Program Opportunities *(see North Saskatchewan Central Reach, Section 1 Program Guidance map)*

- + Provide year round activities (eg. skating, boating), including, where possible, equipment rentals to support access.
- + Provide universally accessible, inclusive experiences and amenities throughout the park
- + As a highly desirable park, establish management practices to address competing uses to ensure access and availability of park spaces for all users.
- + Support temporary and permanent commercial activities including cafe operation, equipment rentals, and mobile vending.

Circulation *(see North Saskatchewan Central Reach, Section 1 Program Guidance map)*

- + Given its popularity, strongly encourage park access via active modes of transportation.
- + Ensure pedestrian crossings within parking lots and roadways are well defined.
- + Maintain an accessible looped pathway system to support pedestrian use.
- + Add sharrows to the roadway to support the continued heavy use by cyclists and vehicles
- + Develop park circulation as outlined by the William Hawrelak Park Rehabilitation Project.

4.13.2 EMILY MURPHY PARK AMENITY NODE

Program Statement

Named after Edmonton suffragette Emily Murphy, this lively riverfront park provides year-round opportunities for day use, gathering and play; well-connected trails to William Hawrelak Park, Kinsmen Park, and to the north side of the river along Groat Road Bridge; and a hand-launch to facilitate water-based recreation.

Ecological Opportunities *(see North Saskatchewan Central Reach, Section 1 Ecological Guidance map)*

- + Preserve and maintain natural forest cover, and ecological and wildlife connectivity, particularly in pinchpoint areas.
- + Support and maintain healthy riparian vegetation and natural habitat along the banks and slopes of the North Saskatchewan River, particularly adjacent to the hand boat launch.
- + Consider opportunities for nature-based solutions (e.g., tree/shrub plantings) within and along the existing parking lot to improve shade cover, canopy structure and local biodiversity.
- + Minimize impact on wildlife movement through the area.
- + Improve wildlife connectivity on the slopes between Emily Murphy Park and the University of Alberta, where the steeper slopes create pinchpoints for movement.

Program Opportunities *(see North Saskatchewan Central Reach, Section 1 Program Guidance map)*

- + Encourage temporary commercial uses (e.g. food trucks, guided raft tours) that support surrounding recreational/educational/community gathering uses.
- + Upgrade the existing hand boat launch to be universally accessible.

Circulation *(see North Saskatchewan Central Reach, Section 1 Program Guidance map)*

- + While the existing west staircase does have bike rails, formalize an accessible route from Groat Bridge into the park.
- + As use within the park continues to increase, consider paving the existing gravel trail and developing a paved looped trail to improve accessibility adjacent to picnicking and parking areas.

4.13.3 GOVERNMENT HOUSE PARK AMENITY NODE

Program Statement

Government House Park is a riverfront, passive recreation-focused park, located at the bottom of the Groat Ravine. Daylighting and the development of a naturalized wetland to manage stormwater from the ravine have the potential to transform the park into an ecologically dynamic, truly unique gathering space along the north bank of the river.

Ecological Opportunities *(North Saskatchewan Central Reach, Section 1 see Ecological Guidance map)*

- + Support the development of a naturalized wetland to manage stormwater run-off from Groat Ravine, in alignment with the 2021 Touch the Water and North Shore Promenade Concept Design Report.
- + Preserve and maintain natural forest cover and minimize impact on wildlife movement through the area.
- + Riparian buffer and natural vegetation cover along the banks and slopes of the North Saskatchewan River should be maintained and restored where feasible.
- + Restore and naturalize perimeter areas of maintained parkland areas adjacent to picnic sites to native vegetation communities where feasible, considering existing recreational uses.

Program Opportunities *(see North Saskatchewan Central Reach, Section 1 Program Guidance map)*

- + Support the development of an accessible ramp network connecting the park to the multi-use path along Groat Road, in alignment with the Touch the Water and North Shore Promenade Concept Design
- + The Touch the Water and North Shore Promenade Concept Design Report (2021) proposes reconfiguring how stormwater run-off from Groat Ravine is managed. Instead of the existing stormwater outfall, the concept includes the development of naturalized wetlands to allow for additional water quality improvements and infiltration.
- + To take advantage of key views and the southern aspect, consider development of tiered gathering spaces, consistent with Touch the Water (2021).
- + Develop standard, standalone, all-season, inclusive and barrier free public washroom facilities.

Circulation *(see North Saskatchewan Central Reach, Section 1 Program Guidance map)*

- + To make the node more transit accessible, establish a pedestrian connection that links the park with Government House and the former site of the Royal Alberta Museum to the north.

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4.13.4 VICTORIA PARK AMENITY NODE

Program Statement

Victoria Park offers year-round recreational opportunities and access to the River Valley trail network. An all-season, active recreation hub, the park includes the Victoria Golf Course, Canada's oldest municipal golf course, as well as the city's only outdoor long track speed skating oval. Victoria Park Pavilion is an important node within the park, providing public washroom facilities and a place to warm up after an afternoon of winter fun.

Ecological Opportunities *(see North Saskatchewan Central Reach, Section 2 Ecological Guidance map)*

- + Explore opportunities to increase the urban tree canopy (e.g. additional tree planting lining River Valley Road NW).
- + Riparian buffers and natural vegetation cover along the banks of the North Saskatchewan River should be maintained and restored where feasible.
- + Naturalize and restore the south-facing slope below Victoria Park Road.

Program Opportunities *(see North Saskatchewan Central Reach, Section 2 Program Guidance map)*

- + The existing ball diamond in the northeast corner of Victoria Park presents a unique park redevelopment opportunity. Determine the current usage of the ball diamond throughout the year. If the field is underused, consider redeveloping the site prioritizing local community use (i.e. by those living in the Downtown and Oliver neighbourhoods).
- + Due to lack of lighting, poor visibility triangles, and limited use, safety and operational concerns are present at the parking lot on the east side of Victoria Park (by the Royal Glenora Club). To bring more activity and natural surveillance to the area, explore opportunities for activation/programming.
- + The Touch the Water and North Shore Promenade Concept Design Report (2021) identifies an accessible platform lookout south of River Valley Road NW.

Circulation *(see North Saskatchewan Central Reach, Section 2 Program Guidance map)*

- + To separate vehicles from pedestrians, consider development of a north-south pedestrian route through the main Victoria Golf Course parking lot connecting River Valley Road NW with the existing staircase located west of the Victoria Golf Course Clubhouse.
- + The nearest bus service is a stop located along Victoria Park Road, a 1.2km (16 min) walk from the entrance to Victoria Park. Improved transit access to this area should be explored.

4.13.5 CONSTABLE EZIO FARAONE PARK AMENITY NODE

Program Statement

Perched at the top of the slope west of the Alberta Legislature Grounds, this park provides a space to honour the memory of Constable Ezio Faraone, an Edmonton policeman who died in the line of duty, and other fallen officers. The park serves as a gateway to the River Valley, provides a pedestrian link across the High Level Bridge, and boasts impressive views. At the top of the slope, the park provides a restful area for passive leisure activities such as relaxing, picnicking, and strolling. The Royal Glenora Stairs are popular for exercise, provide a direct connection to the lower River Valley trail network, and visually link the park to the wider River Valley.

Ecological Opportunities (*North Saskatchewan Central Reach, Section 1 see Ecological Guidance map*)

- + Natural cover should be maintained and enhanced where feasible.
- + Numerous user generated trails are present along the steep slopes below Constable Ezio Faraone Park. The bike routes have degraded the slope and exacerbated erosion. Following development of a suitable bike route, restoration of unimproved trails should be explored.

Program Opportunities (*see North Saskatchewan Central Reach, Section 1 Program Guidance map*)

- + Constable Ezio Faraone Park can feel removed and disconnected from the River. Endeavor to better link the park to the River Valley. Ensure the park signage is consistent with other River Valley parks and consider installing viewfinders directed across the River Valley.

Circulation (*see North Saskatchewan Central Reach, Section 1 Program Guidance map*)

- + A formal, safe, accessible bike route down the slope is needed to connect Ezio Faraone Park with the valley bottom.
- + The Downtown Public Places Plan (2020) proposes a redesign of 109 Street NW and 97 Avenue NW to strengthen the east-west linkage between Constable Ezio Faraone Park and the Alberta Legislature Grounds. The plan includes a potential grade separated crossing over 109 Street NW.

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4.13.6 KINSMEN PARK AMENITY NODE

Program Statement

Kinsmen Park is an extremely popular, high-use, riverfront, multi-season destination park. The park provides a pedestrian link across the Walterdale Bridge as well linkages to Queen Elizabeth Park to the east and Emily Murphy Park to the west. The Queen Elizabeth Outdoor Pool, Kinsmen Spray Park, the Grizzly Bear Lodge Playground, and sports fields provide a range of active recreational opportunities. The park is also home to the John Walter Museum which invites visitors to learn about the life of settler John Walter..

Ecological Opportunities (see *North Saskatchewan Central Reach, Section 3 Ecological Guidance map*)

- + Consider opportunities for nature-based solutions (e.g., tree/shrub plantings) or low impact development installations/features (e.g. porous paving, permeable pavers, rain gardens) to reduce stormwater runoff from existing parking lots and improve shade and canopy cover.
- + Preserve and maintain natural forest cover, and ecological and wildlife connectivity, particularly in pinchpoint areas.
- + Riparian buffer and natural vegetation cover along the banks and slopes of the North Saskatchewan River should be maintained and restored where feasible.
- + Re-establish riparian vegetation upstream of the Walterdale Bridge in areas that have experienced erosion.

Program Opportunities (see *North Saskatchewan Central Reach, Section 3 Program Guidance map*)

- + Foster awareness of the John Walter Museum and ensure the site remains well-connected to the surrounding park.
- + Increase picnic opportunities and bookable spaces around the Kinsmen Spray Park and the Grizzly Bear Lodge Playground.
- + The existing public washroom facilities north of the Kinsmen Club of Edmonton are in poor condition. Replace or redevelop the facilities to be inclusive, barrier free, and accessible year round.
- + Consider replacement of the boathouse to create a facility that better services outdoor program needs.
- + The "lost" space beneath the High Level Bridge is easily accessible from the trail network and could be transformed into a unique amenity space. Consider softening the daytime aesthetic of the bridge through vertical planting and murals.
- + The retained concrete abutment of the original Walterdale bridge is another "lost" space within the park. The abutment could be redeveloped as a viewing platform that ties in to the trail network and frames the view of the Walterdale Bridge.
- + The existing ball diamond east of the Kinsmen Club tennis courts presents a unique park redevelopment opportunity. Determine the current usage of the ball diamond throughout the year. If the field is underutilized, consider redeveloping the site for another passive or active recreation activity.
- + Given the existing spray park and large canopy trees, promote Kinsmen Park as a cool-down stop along the River Valley trail network.

Circulation (see *North Saskatchewan Central Reach, Section 3 Program Guidance map*)

- + Consider developing a paved pedestrian trail linking the Walterdale Bridge to the Dudley B. Menzies Bridge pedestrian crossing.
- + Develop the missing pedestrian connection linking the north parking areas (by Huskie House) to the Kinsmen Sports Centre.
- + Assess long-term parking solutions and connections for the park.

4.13.7 QUEEN ELIZABETH PARK AMENITY NODE

Program Statement

Queen Elizabeth Park is a destination riverfront park and gathering place in the heart of Edmonton's River Valley. The park's natural amphitheatre provides quintessential views of the Downtown skyline including the Walterdale Bridge. Primarily a place for passive recreation, the park provides year-round opportunities for picnicking, day use, and play. The Indigenous Art Park : ᐃᓄᓄ (INIW) River Lot 11∞ is a particularly unique place for deeper reflection on Edmonton's Indigenous history and layered past.

Ecological Opportunities *(see North Saskatchewan Central Reach, Section 3 Ecological Guidance map)*

- + Preserve and maintain natural forest cover, and ecological and wildlife connectivity, particularly in pinchpoint areas.
- + Riparian buffers and natural vegetation cover along the banks and slopes of the North Saskatchewan River should be maintained and restored where feasible.
- + To increase local treatment and infiltration of stormwater and snowmelt, encourage development of LID installations (e.g. rain gardens) around the existing and proposed parking lots.

Program Opportunities *(see North Saskatchewan Central Reach, Section 3 Program Guidance map)*

- + Following construction of the Queen Elizabeth Bike Park it is anticipated that bike related activities and events will naturally gravitate to the park.
- + Support pop-up events and temporary commercial uses near the Walterdale Bridge (e.g. food trucks, summer open-air markets).
- + Significantly renovate or replace the existing washroom facility to ensure the park is well serviced with safe, universally accessible, inclusive washrooms, including warm up spaces for the winter.

Circulation *(see North Saskatchewan Central Reach, Section 3 Program Guidance map)*

- + The park is bisected by a busy arterial road. The pedestrian bridge crossing over Queen Elizabeth Park Road identified in the Queen Elizabeth Park Master Plan (2013) will provide an essential connection between the upper and lower park.
- + Queen Elizabeth Park is well connected to the city's bike network and has limited parking availability. Strongly encourage park access via active modes of transportation. Consider providing secure bicycle storage.

4.13.8 RIVER CROSSING AMENITY NODE

Program Statement

Guided by the Council-approved River Crossing Heritage Interpretive Plan and River Crossing Business Plan, River Crossing is a major transformational project and community redevelopment in the heart of the City. River Crossing includes the creation of new public spaces; a new transportation network that supports connectivity to, through and around the district; enhancements to servicing that will enable redevelopment and introduce more sustainability to the community including through LID and District Energy; and new connections to the river. The vision is a vibrant, diverse mixed-use community that honours the area's significance for Indigenous peoples and becomes a special destination for Edmontonians and visitors.

Ecological Opportunities *(see North Saskatchewan Central Reach, Section 3 Ecological Guidance map)*

- + Riparian buffers and natural vegetation cover along the banks of the North Saskatchewan River should be maintained and restored where feasible. Support the expansion and diversification of the tree canopy, and restoration of disturbed portions of the river bank.
- + Support plantings of traditional use plant species based on Traditional Knowledge concepts in Consultation with Indigenous groups due to high cultural importance of the area.
- + Ecological opportunities should align with the River Crossing Business Plan and River Crossing Heritage Interpretive plan as well as the Touch the Water and North Shore Promenades Project(s).
- + Consider opportunities for additional nature-based solutions (e.g., tree/shrub plantings) within and along the existing parking lot to improve shade cover, canopy structure and local biodiversity.

Program Opportunities *(see North Saskatchewan Central Reach, Section 3 Program Guidance map)*

- + Edmonton's River Crossing area has a complex history and has substantial cultural and historical significance. Redevelopment and programming should celebrate, reflect, and reference the deep history of the site. The River Crossing Heritage Interpretive Plan (2017) provides a foundation for understanding the importance of the River Crossing area and how this history can be shared.
- + The River Crossing Interpretive Park is an important part of the area's redevelopment. The park will provide a space to share and honour the Indigenous history of the River Crossing area and is intended to be a site for cultural ceremony, learning, and connection.

It is recommended that ongoing cultural learning opportunities for Indigenous and non-Indigenous people be strongly supported.

- + There are numerous proposed and ongoing transformative projects in the River Crossing area and surrounding lands. Well-considered placemaking and integration between projects is needed to realize a cohesive and interconnected transformation of the area.
- + The Touch the Water and North Shore Promenades Preliminary Design Report (2022) and Concept Design Report (2021) proposes a multi-use, public plaza to the east of the Walterdale Bridge. The Concept Design Report also proposes an accessible overlook “at the bend” to the east of the Rossdale Power Plant.

Circulation (see *North Saskatchewan Central Reach, Section 3 Program Guidance map*)

- + The Rossdale Transportation Network Project (2022) includes the transformation of Rossdale Road into a parkway, the creation of grand boulevards along 105 Street NW and 97 Avenue NW, expanded neighbourhood connections, and enhanced connections into Downtown. The plan redefines the pedestrian and vehicular transportation strategy in Rossdale.

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4.13.9 GALLAGHER PARK AMENITY NODE

Program Statement

Gallagher Park is a major, multi-season hub in the River Valley and is home to the Muttart Conservatory, Edmonton Ski Club, and Cloverdale Community League. The park is a multi-use, flexible space that is well connected to existing public transportation (Muttart LRT Station) and the River Valley trail network. The site of the Edmonton Folk Musical Festival, Gallagher Park hosts over 25,000 visitors each day during the event in August.

Ecological Opportunities (see *North Saskatchewan Central Reach, Section 4 Ecological Guidance map*)

- + Naturalize the areas south of the Muttart LRT Station to provide additional screening to 98 Avenue NW and Connors Road NW.

Program Opportunities (see *North Saskatchewan Central Reach, Section 4 Program Guidance map*)

- + Upgrades should seek to ensure the continued flexible use of the park.
- + Explore options to support additional winter programming opportunities, including the development of a track-set cross-country ski loop, expansion of the sledding hill, and development of temporary warming stations. Ensure alignment with planning and programming associated with the new Edmonton Ski Club Lodge.
- + Develop standard, stand-alone, all-season, inclusive and barrier free public washroom facilities west of the Cloverdale Community League as identified in the Gallagher Park Concept Plan Design Report (2021).
- + Given the spray park and shaded picnic table seating, promote the playground near Cloverdale Community League as a cool-down stop along the River Valley trail network.

Circulation (see *North Saskatchewan Central Reach, Section 4 Program Guidance map*)

- + Prioritize development of a pedestrian route from the Muttart LRT Station to the natural amphitheatre on the east side of the park through Gallagher Park where the main stage of the Edmonton Folk Musical Festival is located.
- + Consider the installation of new sidewalks along 96a Street NW, 96 Avenue NW, and 95 Street NW, as illustrated in the Gallagher Park Concept Plan Design Report (2021).
- + Ensure signage identifies available amenities (e.g. washroom facilities, cool-down stops) and connections within and to the park.

4.13.10 LOUISE MCKINNEY RIVERFRONT PARK AMENITY NODE

Program Statement

Louise McKinney Riverfront Park has been described as one of the front doors to Edmonton's River Valley. Activated by the neighbouring convention centre and Quarters Downtown, the park features spectacular views of the River Valley, a Riverfront Plaza, a public dock, an open-air stage (Shumka Stage), a Chinese Garden, and flexible space for exercise, relaxation and gathering.

Ecological Opportunities *(see North Saskatchewan Central Reach, Section 4 Ecological Guidance map)*

- + Riparian buffers and natural vegetation cover along the bank of the North Saskatchewan River should be maintained and restored where feasible. Consider additional bioengineering measures (e.g. joint planting) and revegetation of the riparian banks where needed.
- + Control and manage legislated weeds and non-native invasive plant species through removal and restoration to native vegetation communities.

Program Opportunities *(see North Saskatchewan Central Reach, Section 4 Program Guidance map)*

- + Continue to support appropriate commercial activity in the designated vendor location. Activities should seek to support high quality visitor experiences and could include rental of recreation equipment, trail tours or food and beverage service.
- + Ensure programming and amenity development within the park are responsive to development of the Downtown Quarters.

Circulation *(see North Saskatchewan Central Reach, Section 4 Program Guidance map)*

- + The roadway leading to Riverfront Plaza is well-used by pedestrians and cyclists. To limit potential conflict between vehicles and active modes of transportation, consider limiting vehicle access to service vehicles only.
- + The Downtown Public Places Plan (2020) proposes a pedestrian bridge connection over Grierson Hill Road NW, linking the 96 Street SW Armature to Louise Riverfront McKinney Park.

4.13.11 RIVERDALE PARK AMENITY NODE

Program Statement

Riverdale Park is an important community park for the neighbourhood of Riverdale. Home to the Riverdale Community League, including a playground, splash pad, ice rink, skate park, solar gazebo, community garden, and open fields. In addition to serving the community of Riverdale, the position of Riverdale Park along the River Valley trail network makes it a potential amenity stop for users of the trail network.

Ecological Opportunities *(see North Saskatchewan Central Reach, Section 4 Ecological Guidance map)*

- + South of Cameron Avenue NW there is a user generated trail that runs along the crest of the River Valley slope. The position of the trail along the crest of the slope may exacerbate erosion of the bank and in future destabilize the slope. Consider restoring the trail.
- + Consider opportunities for additional nature-based solutions (e.g., tree/shrub plantings) within and along the existing parking lot to improve shade cover, canopy structure and local biodiversity.

Program Opportunities *(see North Saskatchewan Central Reach, Section 4 Program Guidance map)*

- + Given the spray park and shaded picnic table seating, promote Riverdale Park as a cool-down stop along the River Valley trail network.

Circulation *(see North Saskatchewan Central Reach, Section 4 Program Guidance map)*

- + Develop an accessible pedestrian route from 100 Avenue NW to the Riverdale Community League building entrance.

4.13.12 FOREST HEIGHTS PARK AMENITY NODE

Program Statement

Forest Heights Park boasts amazing views of the Downtown as well as linkages to the River Valley trail network. With multiple parking lots, the site is easily accessible by vehicle and is a popular active recreation and trail-based recreation destination.

Ecological Opportunities (see *North Saskatchewan Central Reach, Section 4 Ecological Guidance map*)

- + Preserve and maintain natural forest cover, and ecological and wildlife connectivity, particularly in pinchpoint areas.
- + Riparian buffer and natural vegetation cover along the banks and slopes of the North Saskatchewan River should be maintained and restored where feasible.
- + Restoration opportunities include naturalizing unimproved trails that are not part of the primary recreational trail network, especially in areas of geotechnical instability.

Program Opportunities (see *North Saskatchewan Central Reach, Section 4 Program Guidance map*)

- + The river valley slopes to the west of Forest Heights Park have experienced significant bank erosion. Direct trail users away from the closed trails to paved trails and top-of-bank trail network, with additional signage and wayfinding at the Rowland Rd NW parking Lot and north-bound trail connection off of 98 Ave NW.
- + Trail realignment and closure may be required in areas where erosion issues persist and cannot be sufficiently mitigated.
- + As use of the area increases, develop a new, inclusive and barrier free washroom facility.
- + Formalize existing viewpoints overlooking the river.

Circulation (see *North Saskatchewan Central Reach, Section 4 Program Guidance map*)

- + Support development of an active transportation route via wayfinding maps and signage along the trail from George F Hustler Memorial Plaza and Strathearn Park to Rowland Park. Develop lookouts along the top-of-bank to promote connectivity between these park sites.
- + Formalize the pedestrian connection linking Riverside Golf Course, through the Rowland parking lot, to the top of bank west of McNally High School.

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4.13.13 DAWSON PARK AMENITY NODE

Program Statement

Dawson Park is a riverfront park that offers a variety of trail and water based recreational opportunities, including off-leash dog walking, nature-based exploration, and river access. The main hub by the central parking lot accommodates small events, picnicking, and access to water-based recreation including a universally accessible hand boat launch. A space for all Edmontonians, the Braille Trail is uniquely designed for the visually impaired which provides a space for individual nature appreciation. The park is supported by the amenity building which acts as a staging location, education facility, and public washroom.

Ecological Opportunities *(see North Saskatchewan Central Reach, Section 5 Ecological Guidance map)*

- + Protect eroding slopes and associated unique landscapes including the hoodoo formations present in the park. The development of trails or a boardwalk to an observational area should be considered to aid in preservation and to deter unimproved trails through the area. Various restoration works are required in this park due to invasive plant species, impacts associated with non-permitted uses of the park, and soil contamination.
- + Preserve and maintain natural forest cover and minimize impact on wildlife movement through the area.
- + Riparian buffers and natural vegetation cover along the banks and slopes of the North Saskatchewan River should be maintained and restored where feasible.
- + Re-naturalize disturbed areas of the park to promote biodiversity and provide opportunities for nature education.

Program Opportunities *(see North Saskatchewan Central Reach, Section 5 Program Guidance map)*

- + The Dawson Park and Kinnaird Ravine Master Plan (2019) proposes several new amenities for the park including a new amenity building, playground, universally accessible hand boat launch, a river lookout, improved picnic sites, shaded gathering areas, additional river access, and a fishing area located adjacent to the existing parking lot.
- + A renewed public washroom facility will be included in the proposed new amenity building. The design of this washroom should be inclusive and barrier free.
- + Seek to showcase the Braille Trail, as well as the proposed accessible hand launch with key stakeholders as well as the broader public.
- + Pursue partnerships with organizations or community groups who can activate this space in winter months with small winter festivals and events.
- + Consider strategies to ensure that park users, including dogs, do not exacerbate the erosion of hoodoos.

Circulation (see *North Saskatchewan Central Reach, Section 5 Program Guidance map*)

- + Develop a new main vehicular access road into Dawson Park from Rowland Road.
- + Formalize the entry into the park under Latta Bridge considering safety and accessibility.
- + Support more top-of-bank connections linking the park with Jasper Avenue.
- + Expand the existing parking lot, include accessible spaces and an expanded drop-off area.

4.13.14 KINNAIRD RAVINE AMENITY NODE

Program Statement

Located adjacent to the LRT Stadium Station, Kinnaird Ravine is easily accessible by public transportation and connects the surrounding communities to the River Valley. The park supports small gatherings, nature appreciation, and trail-based recreation including off-leash dog walking. Unique hoodoo formations provide an interpretive opportunity for people to learn about the geology of the area. Riparian vegetation is maintained and human access to the steep valley slopes is limited to reduce environmental impacts.

Ecological Opportunities *(see North Saskatchewan Central Reach, Section 5 Ecological Guidance map)*

- + Preserve and maintain natural forest cover and minimize impact on wildlife movement through the area.
- + Explore opportunities for Rat Creek Daylighting. Protect eroding slopes and associated unique landscapes including the hoodoo formations present in the park through effective management.
- + Support the placement of fencing to protect the sensitive geological formations. The development of trails or a boardwalk to an observational area should be considered to aid in preservation and to deter unimproved trails through the area
- + Support adjustments to off-leash areas to mitigate conflict and reduce impacts to sensitive areas.

Program Opportunities *(see North Saskatchewan Central Reach, Section 5 Program Guidance map)*

- + The Dawson Park and Kinnaird Ravine Master Plan (2019) proposes a new river access point, potential public art, a playground addition in Sheriff Robertson Park, and a prairie garden.
- + Kinnaird Ravine, particularly near the LRT Stadium Station, is home to a number of informal encampments for Edmonton's unhoused. Recognize that safety is an important consideration for users of the ravine, particularly at night and during the darker winter months. Continue to work with partner organizations in providing needed supports to people experiencing and at risk of homelessness.
- + In areas with significant safety concerns, consider the installation of lighting while respecting Dark Sky Principles.
- + In 2015, as part of the KinnArt Ravine Project, 60 hand-painted murals were installed along the Kinnaird ravine trails. Support similar programs and explore other opportunities to draw in positive, community focused initiatives.
- + Consider strategies to ensure that park users, including dogs, do not exacerbate the erosion of hoodoos.
- + Support low-impact trail-based winter activities in the park.

Circulation (see *North Saskatchewan Central Reach, Section 5 Program Guidance map*)

- + Create a formalized park entrance and staircase from Ada Boulevard and from 78 Street NW.
- + Establish a gravel trail connection between Kinnaird Ravine and LRT Stadium Station.
- + Develop a low impact structure over Rat Creek to link the neighbourhood of Virginia Park with Kinnaird Park.
- + Reconfigure the roadway entrance to Dawson Park to separate park traffic from the community.

Central Reach, Section 5 – Ecological Guidance

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4.14 Mill Creek North Reach

Vision Statement:

Mill Creek North is a unique ravine corridor that connects south Edmonton to the downtown core. The ravine system provides important ecological connections and habitat for wildlife and other species, while supporting wildlife movement, active transportation, and year-round recreation. LRT stations at Muttart Conservatory and Davies Transit Centre provide opportunities for increased commuter and recreational use of the reach. Improved connection between Roper Pond and the ravine system to the north is a key long-term objective for active transportation and facilitating wildlife movement.

Ecology

- + Wildlife movement within and through this reach is important. Contiguous forested habitat in the central portion of the reach contains core habitat for local wildlife and other species and should be preserved as use of Mill Creek Ravine North increases. Preserving the forested habitat and naturalizing perimeters of maintained parkland should be prioritized to increase the area of native vegetation to improve ecological function and integrity.
- + Mill Creek receives a large amount of stormwater via numerous outfalls, which has led to pollution of the creek and high salinity levels. To increase local treatment and infiltration of stormwater and snowmelt, encourage development of low impact development installations to replace outfalls where feasible. Support nature-based solutions through riparian restoration to improve water quality and downstream aquatic health.
- + Restoration opportunities within Mill Creek Ravine should focus on repairing heavily used sections of the ravine trail network, and reconciling the unimproved trail network to minimize habitat fragmentation.
- + Areas of Mill Creek North have extensive erosional areas that will require restoration of the bank and riparian conditions. Explore opportunities for restoration through the implementation of bioengineering or nature-based solutions to improve water quality and fish habitat.
- + Opportunities for daylighting of Mill Creek should be further explored and prioritized in addition to reducing and removing barriers to fish passage throughout the reach. Daylighting would provide fish passage from the North Saskatchewan River to Mill Creek,

and would provide exceptional opportunities to re-establish native fish habitat. It could also foster learning and provide opportunities for the community to connect with nature. Explore daylighting of the two segments from the North Saskatchewan River to 93 Ave and north of Argyll Road to Roper Pond.

- + Regulated weeds and other non-native vegetation species are present throughout Mill Creek North. Prioritize removal of weeds and restoration of these areas to native vegetation communities.

Culture

- + Mill Creek's name was derived from a flour mill that was established in 1878 by William Bird, a member of the Métis Community. The mill was near to where the Muttart Conservatory stands today.
- + The ravine was once home to part of the Edmonton, Yukon & Pacific Railway line, which carried passengers and served ravine industries. While operation of the railway in the ravine ceased in 1954, its legacy continues – in the 1980s the city converted the railway right-of-way to a paved multi-use trail.
- + At the turn of the twentieth century, Mill Creek was busy with the sounds of industry. By the late 1920s a shanty town called Ross Acreage had sprung up in the ravine.
- + During this same time, the Donnan Family established a dairy on the east side of the ravine at the site of the present-day Shamrock Curling Club. Starting with just one cow, the dairy ultimately covered 500 acres with pasturelands in the neighbourhoods of Bonnie Doon, King Edward Park, Avonmore, and Idylwyld.

Recreation

- + Ensure commuter trails are well-signed and well-maintained in all seasons, and that detours are clearly communicated during construction, in support of Mill Creek's role as a District Connector (Edmonton Bike Plan).
- + Facilitate regional recreational connectivity through the establishment of Urban Greenways as per the City Plan.
- + Work is needed to develop a long-term cohesive trail network within the ravine. Reconcile user-generated trails including closing/naturalizing redundant trails. Trail modifications should be evaluated on a case-by-case basis. Infrastructure such as stairs that dead-end at the creek should be considered for removal.
- + All trail upgrades should seek to minimize environmental impacts and, where possible, restore ecological function, while meeting circulation and accessibility requirements.
- + Review and reconcile existing links, and address missing links, from the ravine into the surrounding residential and industrial areas and to the Davies Transit Centre to support the use of this reach as a commuter route and to ensure connections are servicing the most people possible.
- + Support year-round recreational use through continued maintained cross-country ski tracks in Argyll Park, and trail-based nature interpretation.
- + Support the continuation of unique events which bring vibrancy and community connection (e.g. Flying Canoë Volant), while minimizing their impact on surrounding natural areas.

Transformative Opportunities

- + Daylighting of two segments from the North Saskatchewan River to 93 Ave and north of Argyll Road to Roper Pond.

4.14.1 MAURICE LAVALLÉE FIELDS PRIMARY TRAILHEAD

Program Statement

This amenity node provides a local connection from the top of the valley into the ravine from the Bonnie Doon neighbourhood. A new local trailhead and access route at 92 Avenue NW is recommended. The ravine slopes in this area are quite steep and vegetation along the ravine edges should be restored where possible.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain natural forest cover in the ravine area.
- + Restore and naturalize perimeter areas of maintained parkland along the ravine edge to native vegetation communities where feasible, considering recreational site use.
- + Protect and restore riparian vegetation along creek banks.

Program Opportunities *(see Program Guidance map)*

- + At 92 Avenue NW, develop a new local trailhead and access route into the ravine. At the trailhead include wayfinding signage.

Circulation *(see Program Guidance map)*

- + Improve wayfinding to better connect existing sidewalk and trails within the Bonnie Doon community to the North Mill Creek trail system.

4.14.2 MILL CREEK OUTDOOR POOL AMENITY NODE

Program Statement

One of Edmonton's favourite outdoor pools, Mill Creek Outdoor Pool is a seasonal recreation facility that draws families from surrounding neighbourhoods. The associated parking lots within Mill Creek Ravine Park provide easy access not only to the pool, but also to the ravine trail network for cyclists, dog walkers, and other ravine users..

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain natural forest cover in the ravine area.
- + Protect and restore riparian vegetation along creek banks.
- + Consider opportunities for nature-based solutions or low impact development installations (e.g. infiltration trench, grass strips, permeable asphalt or concrete) to reduce stormwater runoff from existing parking lots.

Program Opportunities *(see Program Guidance map)*

- + Explore opportunities for development of a standard, all-season, inclusive, and barrier free public washroom facility near the parking lot for ravine users.

Circulation *(see Program Guidance map)*

- + Traffic calming measures (e.g. speed bumps and painted raised crosswalks) around the Mill Creek Outdoor Pool and parking lots may be considered.

4.14.3 DONNAN PARK AND ARENA PRIMARY TRAILHEAD

Program Statement

This primary trailhead strengthens the connection between the top of valley amenities at Donnan Park and Arena, including all-season recreational facilities and seasonal sportsfields, and the trail network within the ravine. The trailhead is supported with a kiosk and existing on street parking.

Ecological Opportunities (see *Ecological Guidance map*)

- + Maintain natural forest cover in the ravine area.
- + Protect and restore riparian vegetation along creek banks.
- + Explore opportunities to remove barriers to fish passage southwest of Donnan Park.

Program Opportunities (see *Program Guidance map*)

- + Establish a primary trailhead by upgrading the entrance to the ravine north of the Shamrock Curling Club.

Circulation (see *Program Guidance map*)

- + Through future detailed planning and public engagement, existing unimproved trail networks will be refined and wayfinding signage will be added to ensure appropriate recreational access and connectivity without compromising ecological integrity.

4.14.4 ARGYLL PARK AMENITY NODE

Program Statement

Argyll Park is an all-season flexible amenity node and event space with a focus on family and recreational-level sport and community events. The park features the Argyll velodrome, a BMX racing track, a playground, multiple baseball diamonds, a soccer field, and the Argyll Community League as well as seasonal cross-country ski/snowshoe trails and an informal sledding hill. The park also includes off-leash trails which are popular with local dog owners. With the opening of a new indoor velodrome, a site specific planning process should be undertaken to reconsider the park's programming and amenities.

Ecological Opportunities (see *Ecological Guidance map*)

- + Restore and naturalize perimeter areas of maintained parkland to native vegetation communities where feasible, considering recreational site uses.

Program Opportunities (see *Program Guidance map*)

- + Argyll Park should remain a flexible amenity node and event space that provides opportunities for diverse community events.
- + Explore opportunities for development of a standard, stand alone, all-season, inclusive, and barrier free public washroom facility.
- + Consider development of additional active winter amenity spaces to accommodate multiple activities.
- + In addition to being a River Valley Park, Argyll Park serves the Argyll community in important ways. Ensure programming direction is consistent with the local community's vision for the park.

Circulation (see *Program Guidance map*)

- + Through future detailed planning and public engagement, existing unimproved trail networks will be refined to ensure appropriate recreational access and connectivity without compromising ecological integrity.

4.14.5 ROPER POND AMENITY NODE

Program Statement

Situated within an industrial area, Roper Pond is a constructed wetland park that provides important function in stormwater management and wildlife habitat. Built to mimic a riverine marsh ecosystem, it provides both passive recreation and nature-based learning opportunities, including as a recreational refuge for those working in the surrounding industrial area, as well as a possible transit-accessible destination for nature enthusiasts. Edmonton South Soccer Centre is located on the east side of the pond and is a well-used hub for the soccer community.

Ecological Opportunities *(see Ecological Guidance map)*

- + Protect and restore riparian vegetation.
- + Restore and naturalize disturbed areas around Roper Pond to native vegetation communities to improve local biodiversity and wetland function.

Program Opportunities *(see Program Guidance map)*

- + A local catchment-level parking lot in the southwest corner of Roper Pond Natural Area Park would increase the accessibility of the park.
- + Explore opportunities to incorporate a small, low-impact seating area (e.g. shaded picnic tables) to support enjoyment by those working in the surrounding industrial area.
- + Nature-based amenities, such as a shaded bird viewing platform, bird viewing blinds, and associated signage, could support use by nature enthusiasts and school groups.
- + Explore feasibility of a low impact washroom at Roper Pond.

Circulation *(see Program Guidance map)*

- + Roper Pond is bordered by a railway line to the north, which isolates the park. Legible and safe active transportation links connecting Roper Pond to the Davies Transit Centre and by extension the rest of Mill Creek Ravine to the north are needed.

Mill Creek North Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

Mill Creek North Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.15 Mill Creek South Reach

Vision Statement:

Mill Creek South reach is a valued recreational destination for residents of the surrounding neighbourhoods providing opportunities for passive recreation and nature appreciation, while retaining important ecological connections and core habitat for wildlife and other species. Strong connections with Jackie Parker Park provide an important staging area for use of the Ravine System, and for larger community events. Top-of-bank trails and trails within ravine valley provide a range of recreational opportunities for residents. Restoration of riparian vegetation along the Creek banks will help mitigate impacts of trail use. As the city continues to develop, important wetlands will be maintained, and natural ecological connections out of the city will be improved.

Ecology

- + Forested areas in the central and eastern portions of this reach contain core habitat for wildlife and creek banks provide habitat for sensitive species.
- + Where high traffic areas challenge wildlife movement, explore opportunities for wildlife passage within the reach while avoiding high risk areas for wildlife such as the Anthony Henday.
- + Restore connectivity and address habitat fragmentation throughout the reach, through restoration and protection of wildlife corridors.
- + Preserve natural ecological connections eastward from the city and into the surrounding landscape.
- + Mill Creek is an important tributary to the North Saskatchewan River and downstream portions of the reach contain critical fish spawning habitat. Restoring riparian vegetation and improving water quality (salinity issues) within Mill Creek are critical to maintaining downstream aquatic health.
- + Explore opportunities for in-stream restoration of Mill Creek and the use of natural channel design principles via natural in-stream structures to provide support and stability as well as fish habitat.

Culture

- + Mill Creek South contains several known archaeological sites. Artifacts uncovered from various sites include stone flakes, a cobble chopper, bone fragments, fire cracked rocks, and a prehistoric campsite.
- + The northern portion of the reach includes lands that were once part of the Papaschase First Nation IR 136 Reservation. Following the signing of an adhesion to Treaty 6 in 1877, members of the Papaschase First Nation settled in the area.
- + In 1897, German-speaking immigrants purchased a quarter section of the Papaschase First Nation Reserve and established a log church, church farm, and cemetery. Church services were conducted in German and the church farm grew crops to raise revenues for church expenditures. The Bruderfeld Moravian Cemetery, now called the Millwoods Moravian Community Church Cemetery, is recognized today as a Municipal Historical Resource.
- + When it was developed in the 1970s, Mill Woods was the largest City planned and funded land assembly in North America. Intended to provide affordable housing to newcomers, Mill Woods is one of the first areas in Edmonton to adopt a curvilinear street design.

Recreation

- + Facilitate regional recreational connectivity through the establishment of Urban Greenways as per the City Plan.
- + Assess whether a pedestrian-controlled crosswalk, across 34 Street NW, linking the existing trail network is desirable. A crossing study would be required to assess the feasibility of a crossing in this location.
- + Ensure the ravine valley trails do not impact the health of the creek. Restore user-generated trails in sensitive areas along the ravine valley bottom.
- + Explore low-impact opportunities for limited, permanent and/or temporary (e.g. pop-up) commercial uses to support surrounding recreation/education/community gathering activities in amenity nodes and activity centres adjacent to the reach (e.g. Jackie Parker Park).

4.15.1 MILL CREEK AMENITY NODE

Program Statement

The Mill Creek Amenity Node provides passive space for residents to unwind and serves as an extension of the recreation centre and neighbouring schools – offering flexible outdoor amenity space and educational opportunities.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain natural forest cover.
- + Protect and restore riparian vegetation.
- + Explore opportunities to realign and restore the creek into a natural meander to preserve ecological function and provide flood resiliency in the watershed.
- + Preserve the wetland complex northeast of the Mill Creek Amenity Node.
- + Manage sensitive ecological areas with signage or fencing.

Program Opportunities *(see Program Guidance map)*

- + Explore the creation of an outdoor classroom or learning amphitheatre that can be used by community groups and schools.
- + Support winter recreation opportunities (e.g. a network of looped cross-country ski tracks).
- + Provide numerous gathering areas with amenities that appeal to a wide range of ages, uses, and interests (e.g. shaded picnic tables, open fields, bird viewing areas).
- + Explore opportunities to create a habitat and recreational corridor connecting this amenity node with Fulton Marsh Constructed Wetland to the northeast.

Circulation *(see Program Guidance map)*

- + Develop linkages to the Fulton Meadows Community League to the north, the Meadows Community Recreation Centre and Meadows Library to the southwest, and new residential developments to the south.
- + Prioritize the trail link with the Fulton Meadows Community League. Once established this link will tie in with the existing trail network and will connect the Mill Creek ravine trail network with the Fulton Marsh Constructed Wetland to the northeast.

Mill Creek South Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

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4.16 East Ravines Reach

Vision Statement:

Fulton and Gold Bar Ravines will see improved water quality and increased ecological function. Restoring and enhancing riparian vegetation in these reaches will increase ecological resilience and local biodiversity, as well as facilitate wildlife connectivity and movement. Development of a setback trail network along the ravine network will provide passive recreational opportunities and possible commuter access, including access to unique natural amenities such as Fulton Marsh Constructed Wetland and the Pylypow Constructed Wetland.

Ecology

- + While situated within Edmonton's industrial east and heavily modified by infrastructure development, portions of Fulton and Gold Bar Ravines provide considerable ecological value to the surrounding area. Fulton Ravine is more heavily impacted and ecologically disconnected, with few remnant forested stands, while Goldbar Ravine contains natural wetlands and unique vegetation, as well as core habitat for wildlife and other species.
- + Restore and naturalize historically disturbed riparian areas and buffer areas. Where feasible, increase both the urban tree canopy and understory vegetation through establishing native shrubs and pollinator habitat..
- + Explore daylighting opportunities to reduce habitat fragmentation and upgrade culvert infrastructure at creek crossing locations to restore contiguous natural connection to protect from surrounding industrial land use.

Culture

- + Developed in the 1970s and annexed by the City of Edmonton in 1982, Maple Ridge is the only residential neighbourhood in an otherwise predominantly industrial part of the city.
- + The Edmonton tornado of 1987 was a devastating tornado that passed through eastern Edmonton including the East Ravines. The tornado left a path of destruction over 30 kilometers long and nearly 1.3 kilometres wide.
- + Fulton Marsh Constructed Wetland and the Pylypow Constructed Wetland (completed 2010) provide regional stormwater storage to reduce downstream flooding of Fulton Creek.

Recreation

- + Maintain creek buffers and develop set-back top-of-bank trails.
- + In lands adjacent to the reach, prioritize redevelopment of heavy industrial land use to light industrial or commercial use. This may help provide recreational opportunities that are not typically available in highly disturbed and developed areas.
- + Develop a trail connection along the existing transmission line right-of-way west of 25 Street NW, linking a remnant of Gold Bar Ravine with Fulton Ravine to the south.
- + Connect the trail system with the existing pedestrian crossing over Whitemud Drive NW at 34 Street NW.
- + Develop trail connections from the Fulton Ravine to the Maple Ridge neighbourhood to the northeast.
- + Focus amenity development to support local use from the surrounding industrial lands.
- + Harden the existing looped trail around Fulton Marsh Constructed Wetland.

East Ravines Reach – Ecological Guidance

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East Ravines Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.17 North Saskatchewan East Reach

Vision Statement:

The North Saskatchewan East reach provides a well-connected trail network and amenities that support diverse recreation and gathering opportunities for residents of surrounding neighbourhoods and users from across the city. Trail connections provide excellent access through the River Valley and eastwards into Strathcona County. Wildlife connectivity and local biodiversity is strengthened and enhanced through restoration efforts along the riparian edge of the river and the valley slopes.

Ecology

- + Preserving existing native habitat and naturalizing managed vegetated buffers between golf courses, parks and the North Saskatchewan River is a critical priority for maintaining and enhancing local biodiversity, ecological connectivity and wildlife movement in this reach.
- + Restoration opportunities include naturalization of perimeter areas of maintained parkland to increase forested habitat and buffer to the North Saskatchewan River and ravine system.
- + Reforest Kennedale Ravine west of 40 Street NW. Given seasonal informal sledding utilization south of the trail, focus revegetation efforts north of the trail.

Culture

- + In 1975, the Provincial Government and the City of Edmonton signed a joint agreement dedicating \$45 million dollars to the Capital City Recreation Park – a 16 kilometer stretch along the River Valley in Edmonton's east end. During the development 200 million perennial wildflower seeds were planted by helicopter.
- + Victoria Trail NW bisects Kennedale Ravine. During the fur trade era, Métis peoples used horse- and oxen-drawn Red River Carts to transport goods along the original Victoria Trail, which led to Fort Garry in Winnipeg.
- + Gold Bar Park is named after the surrounding neighbourhood of Gold Bar. The name comes from the gravel bars in the North Saskatchewan River, where in the 1880s prospectors optimistically panned for gold.
- + Rundle Park, including the Rundle Park Golf Course, is built over an old landfill. Prior to being annexed in 1961, the land was originally the Town of Beverly's landfill.

Recreation

- + Support the development of compatible recreational uses (e.g. fenced off-leash dog run, community garden plots, hardened trail loops, urban beehives) in Fulton Ravine and in the "lost spaces" adjacent to Wayne Gretzky Drive south of the North Saskatchewan River (e.g. the open spaces southeast of 104A Avenue NW and 75 Street NW and northwest of 101 Avenue NW and 63 Street NW).
- + Align planning direction with the results of the Highlands Trail Renewal Feasibility Study (completed in 2023).
- + Explore opportunities to connect Fulton Ravine South and associated amenities (e.g. Fulton Ravine Park, Capilano Library) with the River Valley.
- + Formalize a natural-tread trail network. Identify low-impact connections that support recreation and identify areas where existing trails need to be improved/enhanced or reduced/eliminated.
- + Formalize local trailheads with signage.
- + Improve access to Capilano Bridge (Wayne Gretzky Drive Bridge) by replacing stair connections at the north and south pedestrian access points and with accessible ramps.
- + Develop a continuous cycle connection between 112 Avenue NW and 106 Avenue NW across Capilano Bridge (Wayne Gretzky Drive Bridge). A stair-free connection is needed, particularly on the northside of the River.
- + Explore opportunities to strengthen the linkage between the Capilano Community League and the River Valley – for example, through a trail connection from the trail system to 65A Street NW, Capilano Crescent or Hardisty Drive.
- + Facilitate regional recreational connectivity through the establishment of Urban Greenways as per the City Plan.
- + Consider developing unique amenities in the "lost" space beneath existing bridges (e.g. beneath the Capilano Footbridge and Capilano Bridge (Wayne Gretzky Drive Bridge)).
- + Provide accessible trail access into Kennedale Ravine from the surrounding neighbourhoods (e.g. Sifton Park, Belmont, Kernohan, Homesteader, Hermitage, Overlanders).

4.17.1 CAPILANO PARK AMENITY NODE

Program Statement

Capilano Park is a key link for those boating along the River. The park features washrooms, picnicking, a ball diamond and parking and is close to an existing dock, vehicle boat launch, and hand boat launch at the end of 50 Street NW, making it an ideal spot to end a day of paddling down the river. In addition to its proximity to an important river access point, the position of Capilano Park along the regional trail, adjacent to the Capilano Bridge, makes it a useful amenity stop for users of the trail network.

Ecological Opportunities *(see Ecological Guidance map)*

- + Riparian buffer and natural vegetation cover along the slopes of the North Saskatchewan River should be maintained and restored where feasible.
- + Restore and naturalize perimeter areas of maintained parkland within Capilano Park to native vegetation communities where feasible, considering recreational uses.

Program Opportunities *(see Program Guidance map)*

- + The current washroom facilities at Capilano park are somewhat accessible but are not barrier free. Upgrade the public washroom facility to be barrier free and inclusive.
- + The “lost” space beneath Capilano Bridge is easily accessible from the trail network and could be transformed into a unique, hidden, amenity (e.g. a swing set, commissioning of a mural on the bridge pier, artist-commissioned site furniture).

Circulation *(see Program Guidance map)*

- + Support the implementation of the Bike Plan's district connector along 50 Street on both the south and north sides of the river.

4.17.2 FLODEN PARK AMENITY NODE

Program Statement

Located along the northern bank of the North Saskatchewan River along the River Valley trail network, Floden Park is an important community park for the neighbourhood of Beverly Heights. The park features the Beverly Heights Hall, associated parking lot, and community-focused active recreation amenities. In addition to serving the community of Beverly Heights, the position of Floden Park along the River Valley Trail network makes it a potential amenity stop for users of the trail network.

Ecological Opportunities *(see Ecological Guidance map)*

- + Restore and naturalize perimeter areas of maintained parkland adjacent to SUP to native vegetation communities where feasible, considering recreational uses.

Program Opportunities *(see Program Guidance map)*

- + Consult with neighbouring communities to determine if a community garden or community wildflower garden would be of interest.

Circulation *(see Program Guidance map)*

- + An additional trail connection is needed on the northside of 109 Avenue NW from the intersection of Ada Boulevard NW and 109 Avenue NW to 40 Street NW.

4.17.3 GOLD BAR PARK AMENITY NODE

Program Statement

Gold Bar Park is an attractive all-season park that links Rundle Park, Capilano Park, and Goldstick Park to the south. An important gateway to the River Valley trail network, the park provides an opportunity for people to embark on trail excursions including dog walking, biking, cross-country skiing, and snowshoeing. The park also provides opportunities for passive recreation, primarily all-season picnicking. It is serviced by a parking lot, pavilion, and washroom facility.

Ecological Opportunities *(see Ecological Guidance map)*

- + Preserve and maintain natural forest cover, and ecological and wildlife connectivity, particularly in pinchpoint areas.
- + Riparian buffer and natural vegetation cover along the slopes of the North Saskatchewan River should be maintained and restored where feasible.
- + Convert the existing ornamental ponds to constructed wetlands to increase wetland habitat and biodiversity.
- + Consider opportunities for nature-based solutions (e.g., tree/shrub plantings) or low impact development installations/features (e.g., rain gardens) to reduce stormwater runoff from existing parking lots and improve shade canopy cover.
- + Restore and naturalize perimeter areas of maintained parkland areas to native vegetation communities where feasible, considering recreational uses.

Program Opportunities *(see Program Guidance map)*

- + Encourage temporary commercial uses (e.g. food trucks, portable saunas) that support surrounding recreational/educational/community gathering uses.
- + Consider the development of family/community spaces (e.g. new playground, community gardens) adjacent to the existing picnic area.

Circulation *(see Program Guidance map)*

- + Support the implementation of the Bike Plan's district connector along 50 Street.

4.17.4 GOLDSTICK PARK AMENITY NODE

Program Statement

An active recreation park, Goldstick Park features three regulation-size ball diamonds, a soccer field, and trail-based recreation. The park is well-connected to the neighbourhood of Gold Bar to the west and is an important node for the baseball and softball communities.

Ecological Opportunities *(see Ecological Guidance map)*

- + Consider opportunities for nature-based solutions (e.g. tree/shrub plantings) to improve canopy cover and local biodiversity.
- + Restore and naturalize perimeter areas of maintained parkland areas to native vegetation communities where feasible, considering recreational uses.

Program Opportunities *(see Program Guidance map)*

- + Develop a new master plan for Goldstick Park, that would encompass the needs of existing stakeholders, community users, and adjacent industrial users groups.

Circulation *(see Program Guidance map)*

- + Establish trail connections along the west side of the ravine to provide linkages to the Gold Bar neighbourhood.
- + Provide an active transportation connection from the existing/future district connector along 50 Street to Goldstick Park.

4.17.5 RUNDLE PARK AMENITY NODE

Program Statement

The perfect place to take in a festival or kick back with family and friends, Rundle Park is an all-season destination park that offers a wide array of outdoor and indoor active recreational opportunities and spaces for leisurely gathering. ACT Aquatic and Recreation Centre and Rundle Family Centre anchor the park and offer year-round programming for Edmontonians. Picturesque ornamental ponds, one of which is used seasonally for paddling boating, provide the ideal space for a family picnic. The sledding hills and outdoor skating iceway are particularly popular winter attractions.

Ecological Opportunities *(see Ecological Guidance map)*

- + Preserve and maintain natural forest cover, and ecological and wildlife connectivity, particularly in pinchpoint areas.
- + Riparian buffers and natural vegetation cover along the slopes of the North Saskatchewan River should be maintained and restored where feasible.
- + Consider naturalizing one or more ornamental ponds to constructed wetlands to increase wetland habitat and local biodiversity, where feasible, considering existing recreational use.
- + Restore and naturalize perimeter areas of maintained parkland to native vegetation communities where feasible, considering existing recreational uses.
- + Portions of this node are located within the North Saskatchewan River flood fringe. With the exception of essential infrastructure, avoid development within the floodway. Ensure that any infrastructure or amenities located within the flood fringe can withstand periodic flooding.

Program Opportunities *(see Program Guidance map)*

- + The current washroom facilities south of the Rundle Park Tennis Courts are dated and are not barrier free. Upgrade the public washroom facility to be barrier free and inclusive.
- + Determine a plan for the vacant trail house, with consideration to conversion to a washroom facility, lease opportunities or demolition.
- + Encourage temporary commercial uses (e.g. food trucks, portable saunas) that support surrounding recreational/educational/community gathering uses.
- + Given the availability of parking, accessibility of washrooms, and the existing recreational uses, consider hosting larger events year-round.
- + To increase the usability of sledding hills, review the opportunity to install permanent/temporary lighting at the top of each hill (taking into account dark sky principles).
- + Align planning direction with any future plans that the Government of Alberta has to upgrade Strathcona Science Provincial Park.

Circulation *(see Program Guidance map)*

- + Reconcile user generated trails in the central picnic area, east of the ornamental ponds. Formalize the connection to the shared trail along the river.

4.17.6 HERMITAGE PARK AMENITY NODE

Program Statement

Hermitage Park is the largest off-leash dog park in northeast Edmonton, connects Kennedale Ravine to the larger River Valley trail network, and provides opportunities for trail-based and passive recreation. During the summer months, the picnic sites and stocked fishing pond are always busy. Formerly a gravel pit, the Kennedale End-of-Pipe Constructed Wetland is a key feature in the park. The wetland treats stormwater before it enters the North Saskatchewan River and is a cornerstone project of the City's Stormwater Quality Strategy.

Ecological Opportunities *(see Ecological Guidance map)*

- + Preserve and maintain natural forest cover, and ecological and wildlife connectivity, particularly in pinchpoint areas.
- + Riparian buffers and natural vegetation cover along the slopes of the North Saskatchewan River should be maintained and restored where feasible.
- + Restore and naturalize perimeter areas of maintained parkland along riparian areas to native vegetation communities where feasible, considering existing recreational uses.
- + Portions of this node are located within the North Saskatchewan River flood fringe. With the exception of essential infrastructure, avoid development within the floodway. Ensure that any infrastructure or amenities located within the flood fringe can withstand periodic flooding.

Program Opportunities *(see Program Guidance map)*

- + Work is needed to develop an accessible, cohesive trail network that considers the needs of different user groups (e.g. pedestrians, dog walkers, mountain bikers).

Circulation *(see Program Guidance map)*

- + Through future detailed planning and public engagement, existing user-generated trail networks will be refined to ensure appropriate recreational access and connectivity without compromising ecological integrity.
- + Consider formalizing a trail or stair system at the cul-de-sac south of The Ridge at Hermitage apartment building.
- + Establish an accessible trail connection with the Kernohan neighbourhood.

North Saskatchewan East Reach – Ecological Guidance

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4.18 Edmonton East Reach

Vision Statement:

The Edmonton East Reach will become an all-season regional destination, building upon the altered sites and conserving ecologically rich places to create opportunities for new activities and experiences in the System. The area will be reclaimed as an ecological asset for the city, establishing wildlife habitat, productive landscapes, and a variety of educational and recreational opportunities unique to Edmonton's River Valley.

Ecology

- + The Edmonton East Reach includes important wildlife movement areas and areas of environmental sensitivity, including permanent wetlands.
- + Historic and present industrial land use has impacted the quality of habitat in the reach; restoration efforts will be essential during and after the closing of present operations.

Culture

- + The recent history of the site is tied to the fur trade and mining. Historic locations include a potential campsite of Anthony Henday, the Black Rock Mine, and the Clover Bar Coal Co. Ltd. Mine.

Recreation

- + The Edmonton East Reach is suited to active use, including multi-use fields, campgrounds, festival sites, and an ecology park. Active use should be closely tied and complementary to restoration efforts.
- + Trail connections to surrounding communities will become more important as the population increases.
- + Public input has indicated a desire for this reach to become a regional destination, maintaining opportunities for boating, fishing, viewpoints, multi-season trails, and places to rest and enjoy nature.

Important Adjacent Plans

- + Horse Hill ASP
- + Marquis NSP

4.18.1 THE QUARRY AMENITY NODE

Program Statement

This future regional destination immerses visitors in the ecological systems of the North Saskatchewan River Valley through recreational and cultural experiences. The park can offer facilities such as constructed waterbodies, a mountain bike skills course, an event space, an ecological park, an accessible dock and hand launch, and an all-season trail network. Restoration, re-forestation and re-naturalization of the industrial landscape will improve this area's ecological health and functioning, and complement the proposed development.

Ecological Opportunities *(see Ecological Guidance map)*

- + The forest buffer, wetlands, and watercourses should be restored.
- + Restore natural areas in active use zones to complement programming.
- + Restoration of the eastern portions of the quarry should ensure greater wildlife connectivity through the area.
- + Development of a dock and hand launch should avoid significant fish habitat.

Program Opportunities *(see Program Guidance map)*

- + Event / festival site (in previously disturbed areas).
 - + *This area can host small to medium events (e.g. concerts and festivals) through a centralized open space that may have a fixed or temporary event infrastructure.*
- + Regional ecological interpretive centre .
 - + *This area can offer events, programming and interactive exhibits to support learning about the unique ecology of the River Valley and ravines, and the work underway to restore impacted areas within the reach and beyond. It can also support commercial and eco-tourism activities.*
 - + *Ensure good trail connectivity to the site for a range of active transportation modes.*
- + Field and recreation staging area.
- + Day use area with picnic and informal use programming.
- + Retain the constructed waterbodies and support use by small watercraft. Additional waterbodies can be considered for future development upon closure of quarry operations.
- + Parking lots.
 - + *Parking is an important consideration for the uses proposed. Parking lots should be integrated into the landscape, using low-impact development techniques and design best practices. Public transportation or a shuttle from the site to the future LRT station to the north could improve public access to the site.*
- + Washroom facility, and accessible dock and hand launch.
- + Opportunity for the City to partner with aggregate operators to coordinate site restoration, and explore partnerships to provide interpretive and educational information regarding former land uses.

Circulation (see *Program Guidance map*)

- + Pedestrian bridge crossing north of the Quarry to Strathcona County
- + Recreational trail connections into the forest for uses including mountain biking, hiking, snowshoeing and cross-country skiing (white arrows)
- + Vehicle access

4.18.2 CLOVER BAR AMENITY NODE

Program Statement

Clover Bar River Valley is a destination and city-wide attraction in a reclaimed public open space. Wetlands, stormwater management ponds, and restored forested areas are designed in cooperation with the closure plan for the aggregate operation, providing an ideal setting for a river valley waterfowl sanctuary and interpretive centre. Opportunities for restoration, recreation, interpretation, and viewpoints will be explored, as portions of the Edmonton Waste Management Centre transition to other uses.

Productive use of the landscape may be explored by working to showcase innovative sustainability initiatives (e.g. food systems, carbon sequestration) along side recreational opportunities, leveraging the site location, access to infrastructure and resources.

Ecological Opportunities *(see Ecological Guidance map)*

- + Restore wetlands and riparian buffer to create a waterfowl sanctuary
- + Buffer the waterfowl sanctuary from the highway with vegetation
- + Possible contamination from industrial activities will require field review and potential remediation efforts

Program Opportunities *(see Program Guidance map)*

- + The data-derived land management classification for the Edmonton Waste Management Centre is a combination of **Preservation**, **Conservation** and **Active/Working Landscapes**. The Plan identifies the site as **Active/Working Landscapes** in order to provide existing and expanded waste management services. If the site is no longer required for that use, the classification is to be re-evaluated.
- + Interpretive centre for meetings, events, and other programmed uses
- + Parking lot
- + Washroom facility
- + Opportunities for restoration, recreation, interpretation, and viewpoints will be explored as portions of the Edmonton Waste Management Centre transition to other uses

Circulation *(see Program Guidance map)*

- + Existing bridge connection on Anthony Henday Drive
- + Proposed trail connection – Paved trail near the river
- + Interpretive trail connections into the restored landfill site and the waterfowl sanctuary
- + Pedestrian bridge crossing to Hermitage Park



Sources:

1. Fort Whyte Interpretive Centre, Winnipeg

where.ca/manitoba/winnipeg/essential-city-winter-wonderland/slide/fortwhyte-alive

2. Bioremediation in an industrial site, Montreal – example of bioproduction and restoration method

biopolis.ca/en/projects/phytoremediation-of-eastern-montreal-industrial-sites

3. Thalie Park, France, URBICUS – example of a park built on a former landfill site

landezine.com/index.php/2015/02/thalie-park-by-urbicus

4.18.3 FRASER RAVINE PRIMARY TRAILHEAD

Program Statement

The ravine becomes a connection between Hermitage Park and the northeast lengths of the North Saskatchewan River Valley with opportunities for ecological, geological, and wildlife interpretation, and a pedestrian bridge.

Ecological Opportunities *(see Ecological Guidance map)*

- + Remediate damage to bank caused by informal trails
- + Limit development to avoid additional pressure on wildlife pinchpoints

Program Opportunities *(see Program Guidance map)*

- + Primary trailhead
- + Parking (existing on-street)

Circulation *(see Program Guidance map)*

- + Existing trail connection – Paved top-of-bank trail
- + Opportunity to improve the pipeline crossing to increase safety and connectivity



Sources:

1. Henry David Thoreau Footbridge, Connecticut, Gray Organschi Architecture

grayorganschi.com/projects/details/henry_david_thoreau_footbridge
[#d115_13](#)

Edmonton East Reach – Ecological Guidance

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4.19 Horsehills Creek Ravine Reach

Vision Statement:

Horsehills Creek Ravine will be a restored wildlife corridor connecting to the northern reaches of the North Saskatchewan River in Edmonton. The ravine's unique ecological features will be protected from disturbance and will be appreciated by visitors using the interconnected trail system for passive, trail-based recreation. Minor amenities will support greater access into the ravine system. Interpretive elements will educate trail users on the history of the river, including its role in transportation and trade.

Ecology

- + This reach contains unique and rare vegetation as well as important wildlife movement areas.
- + The ravine's steep slopes show signs of erosion.
- + Permanent wetlands are present in the reach, and it may also contain underground springs.

Culture

- + The recent history of the landscape has a relation to the fur trade. Hudson's Bay Company employees and families pastured horses at Horse Hill for Fort Edmonton.

Recreation

- + Through public consultation, the public has identified the need for pedestrian and cyclist crossings, as well as the desire for limited top-of-bank development.
- + Trail connections to adjacent communities will become more important as neighbourhoods are built out.
- + Appropriate trail activities include hiking, walking, running, and cycling.

Important Adjacent Plans

- + Horse Hill ASP
- + Marquis NSP

4.19.1 NORTH HORSEHILLS CREEK PRIMARY TRAILHEAD

Program Statement

This trailhead is a gateway and staging area for people to explore Horsehills Creek, which includes restored areas and links to the future town centre. The trailhead is supported with a kiosk, washroom facility, and a small parking lot.

Ecological Opportunities *(see Ecological Guidance map)*

- + Restore riparian vegetation
- + Manage invasive species
- + Pursue a wildlife passage under Manning Drive

Program Opportunities *(see Program Guidance map)*

- + Primary trailhead
- + Washroom facility
- + Small parking lot

Circulation *(see Program Guidance map)*

- + Proposed trail connection – Paved top-of-bank trail
- + Trail connection to future neighbourhood development



Sources:

1. Syncline West parking, trail head sign and day use area, Castle Public Recreation Area, Alberta

alberta.ca/release.cfm?xID=48344324B0DA3-AC99-A5B9-AD6AC2D89EC67591

4.19.2 HORSEHILLS CREEK PRIMARY TRAILHEAD

Program Statement

This trailhead provides opportunities to restore and learn about habitats and wildlife while enjoying an all-season trail system. There are also opportunities to improve wildlife connectivity under the rail corridor, and interpret historical use of the ravine by the Hudson's Bay Company.

Ecological Opportunities *(see Ecological Guidance map)*

- + Restore riparian vegetation
- + Pursue a wildlife passage under the rail line
- + User activity should be restricted to the top-of-bank areas to prevent further slope erosion

Program Opportunities *(see Program Guidance map)*

- + Primary trailhead east of Evergreen
- + Washroom facility
- + On-street parking
- + Recreation trails

Circulation *(see Program Guidance map)*

- + Proposed Trail Connection – Paved top-of-bank trail
- + Proposed pedestrian bridge east of Meridian St. NW



Sources:

1. Lewis Creek Park shelter and washroom, Bellevue, Washington

parks.bellevuewa.gov/rentals/outdoor-rentals/lewis-creek-park-picnic-shelters

2. View into Horsehills Creek Ravine

Horsehills Creek Ravine Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

Horsehills Creek Ravine Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.20 Horsehills North Reach

Vision Statement:

As development proceeds in the lands surrounding the Horsehills North reach, the headwater tributaries of Horsehills Creek will be protected and restored to maintain water quantity (flow) and water quality to downstream reaches and the North Saskatchewan River. Restoring and naturalizing riparian vegetation along the creek banks and surrounding wetlands will serve to increase ecological resilience and biodiversity in this area, providing habitat and ecological connectivity for wildlife. A low-impact trail system supported by small footprint access nodes will provide those working in the surrounding future industrial area with access to the natural creek system.

Ecology

- + The tributaries within the Horsehills North reach form the headwaters of the Horsehills Creek drainage and are fed by the numerous wetlands that are present in this area.
- + Wetlands are present within and outside of the perimeter of the reach providing important ecological functions and habitat for numerous wildlife species.
- + Riparian buffers should be maintained, and riparian vegetation restored with native vegetation to promote flood resilience and improve biodiversity and ecological connectivity.
- + Maintaining natural ecological connections is important for wildlife movement and could be facilitated through strategic placement of wildlife passages at known wildlife pinchpoints.
- + Maintain ecological connectivity and local biodiversity, through strategic and opportunistic restoration of corridors and steppingstones adjacent to stream channels as the lands are developed.
- + Implement effective drainage planning to maintain the hydrologic function of the Creek and associated tributaries, as well as surrounding wetlands as the area is developed.
- + Prioritize Manning Drive wildlife crossing structures to maintain connectivity.

Culture

- + The Horsehills were initially used by European settlers to over winter horses used for pack trains. Early trade routes transported goods north to Fort Assiniboine and west to Henry House close to Jasper.
- + The Excelsior Grain Elevator is a wooden grain elevator that was constructed in the 1920s. Still visible from the highway, the elevator is a designated Municipal Historical Resource.
- + Founded in 1967, the Alberta Railway Museum is a seasonal museum dedicated to Alberta's rich railway history. The museum includes displays of over 65 rail cars and locomotives.
- + Opened in 1996, the 30,000 square foot Nanaksar Gurdwara is the largest Sikh Temple in Alberta and is located in the reach along Horsehills Road NW.

Recreation

- + Maintain tributary buffers and develop setback trails that link future developments to the trail system along the main stem of Horsehills Creek and the reach amenity nodes.
- + Facilitate regional recreational connectivity through the establishment of Urban Greenways as per the City Plan.
- + Coordinate with surrounding municipalities to ensure intermunicipal continuity of the trail network.
- + Long-term, plan to link the Horsehills North trail network with the existing River Valley trails and the Edmonton Strathcona pedestrian bridge across the North Saskatchewan River at 167 Avenue NW.

4.20.1 HORSEHILLS PARK NORTH PRIMARY TRAILHEAD

Program Statement

Horsehills Park North Primary Trailhead provides a gateway for people accessing the Horsehills Creek trail network from the northern part of the Edmonton Energy and Technology Park.

Ecological Opportunities *(see Ecological Guidance map)*

- + Improve ecological connectivity through placement of wildlife crossing infrastructure at 50th Street.
- + Restore hydrological connectivity of the wetland complexes along the Creek and naturalize riparian habitats to native vegetation.
- + Maintain and preserve existing natural cover and where feasible, increase existing natural cover with native vegetation species.
- + Maintain and preserve healthy riparian vegetation buffers along the tributaries, restoring historically disturbed areas with native vegetation.
- + Explore opportunities to restore the Creek to its natural meander after historical modification to preserve ecological function and provide flood resiliency in the watershed.

Program Opportunities *(see Program Guidance map)*

- + Amenity development should seek to support local use from the surrounding future industrial lands.
- + Shaded picnic sites, gathering locations, and seating areas within a semi-naturalized setting are appropriate uses.

Circulation *(see Program Guidance map)*

- + Proposed top-of-bank trails along tributaries of Horsehills Creek.

4.20.2 HORSEHILLS PARK WEST PRIMARY TRAILHEAD

Program Statement

Horsehills Park West Primary Trailhead is characterized by the branching pattern of three tributaries of Horsehills Creek. This branching pattern creates irregular pockets of land that may preclude some future development. In the future, the area may serve as a connecting node for those enjoying the trail system. Instead of multiple crossings over the three tributaries a single crossing in this node is recommended.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain and preserve healthy riparian vegetation buffers along the tributaries, restoring historically disturbed areas with native vegetation.
- + Restore and naturalize the perimeter areas of the park with native vegetation species to improve local biodiversity and enhance riparian buffers.
- + Consider wetland restoration opportunities to increase wetland habitat and biodiversity where feasible.

Program Opportunities *(see Program Guidance map)*

- + Amenity development should seek to support local use from the surrounding future industrial lands.

Circulation *(see Program Guidance map)*

- + Proposed top-of-bank trails along tributaries of Horsehills Creek.
- + Proposed crossing over the Horsehills Creek tributary.

4.20.3 HORSEHILLS PARK AREA AMENITY NODE

Program Statement

Horsehills Park Area provides a gateway for people accessing the Horsehills Creek trail network from the southern part of the Edmonton Energy and Technology Park. Horsehills Creek and the branching configuration of one of the main tributaries feeding into the creek precludes a large contiguous area from future development. It is anticipated that primary users will be from the surrounding future industrial areas.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain and preserve healthy riparian vegetation buffers along the creek and tributaries, restoring historically disturbed areas with native vegetation where feasible.
- + Improve ecological connectivity through strategic placement of wildlife passages and associated wildlife crossing infrastructure.
- + Restore and naturalize the perimeter areas of the park with native vegetation species to improve local biodiversity and enhance riparian buffers where feasible.
- + Consider wetland restoration opportunities to increase wetland habitat and biodiversity where feasible.

Program Opportunities *(see Program Guidance map)*

- + Amenity development should seek to support local use from the surrounding future industrial lands.
- + Shaded picnic sites, gathering locations, and seating areas within a semi-naturalized setting are appropriate uses.

Circulation *(see Program Guidance map)*

- + Horsehills Lake Area serves as a connection point, linking two of the primary tributaries of Horsehills Creek.
- + Proposed top-of-bank trails along tributaries of Horsehills Creek.

4.20.4 HORSEHILLS LAKE AREA AMENITY NODE

Program Statement

The Horsehills Lake Area Amenity Node provides a green node within the Edmonton Energy and Technology Park. In the future, the area may serve as a gathering space for those working in the surrounding industrial lands and seeking a short trail loop

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain and preserve healthy riparian vegetation buffers along the tributary, restoring historically disturbed areas with native vegetation where feasible.
- + Establish a riparian buffer around Horsehills Lake and identify and protect steppingstones or other natural linkages to expand the ecological network.
- + Preserve, and as appropriate, restore wetlands and riparian habitat.

Program Opportunities *(see Program Guidance map)*

- + Amenity development should seek to support local use from the surrounding future industrial lands.
- + Shaded picnic sites, gathering locations, and seating areas within a semi-naturalized setting are appropriate uses.
- + As the area is built out, develop a local trailhead, local parking lot, and standard, all-season, stand alone, inclusive, and barrier free public washroom facility.

Circulation *(see Program Guidance map)*

- + Proposed top-of-bank looped trail around Horsehills Lake.

4.20.5 HORSEHILLS EAST PRIMARY TRAILHEAD

Program Statement

The configuration of the existing ox bow precludes a large contiguous area adjacent to the tributary from future development. The meander of the tributary in this location offers additional space to buffer the hydrological network and could be a future passive gathering point along the ravine trail system.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain and preserve healthy riparian vegetation buffers along the tributary, restoring historically disturbed areas with native vegetation where feasible.
- + Maintain and preserve existing natural cover and where feasible increase existing natural cover with native vegetation species.

Program Opportunities *(see Program Guidance map)*

- + Amenity development should seek to support local use from the surrounding future industrial lands.
- + In the future, as the area develops, install interpretive signage on river morphology. Interpretative panels may include information on ox box channels, historical/conventional approaches to developing around meandering hydrological systems, and what it means to “leave room for the river.”

Circulation *(see Program Guidance map)*

- + Proposed top-of-bank trail along the southern side of the tributary.
- + Long-term, link the proposed top-of-bank trail with the Strathcona County trail system to the east.

Horse Hills North Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

Horse Hills North Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.21 Marquis River Valley Reach

Vision Statement:

The Marquis River Valley will become a place for community-building, nature preservation, and the re-establishment of ecological systems. The restoration of natural areas will improve wildlife connectivity in the northern reaches of Edmonton's River Valley, while the continued operations of agricultural land will support social enterprises and cultural programming. New trail connections to surrounding neighbourhoods will provide future residents with access to the River Valley and Ravine System for the passive enjoyment of nature.

Ecology

- + The Marquis River Valley Reach contains unique and rare vegetation, as well as environmentally sensitive areas, including permanent wetlands present in South Sturgeon Park.
- + The riparian buffer should be maintained and restored, where necessary, in this reach to improve wildlife connectivity.

Culture

- + The recent history of the reach is focused on food and resource production. Pointe la Pie (McLellan and Featherstonough sawmill) acted as a steamboat landing site and a location for river excursions and picnics. It was also a location for the transport of flour and coal between Edmonton and Fort Saskatchewan.
- + A number of agricultural operations existed in the area.
- + Both the reach, and the neighbourhood it is located adjacent to, are named after Marquis, a variety of wheat that was developed in Canada during the early 1900s.

Recreation

- + The Marquis River Valley Reach is a place for the passive enjoyment of nature.
- + Local food production and low-impact recreational activities are appropriate uses.
- + Trail connections to adjacent communities will become more important as the population increases.
- + Public input has indicated this reach as a good location for dog walking and cycling.

Important Adjacent Plans

- + Horse Hill ASP
- + Marquis NSP

4.21.1 THE FARMSTEAD AMENITY NODE

Program Statement

Existing social enterprises and community wellness programming at the Farmstead, including urban gardens, food education programs and environmental education, are supported through public and private partnerships.

Ecological Opportunities *(see Ecological Guidance map)*

- + Maintain forest with limited disruption
- + Preserve riparian vegetation
- + Encourage sustainable agricultural practices

Program Opportunities *(see Program Guidance map)*

- + Primary trailhead
- + Parking adjacent to top-of-bank park
- + Washroom facility
- + Partnerships with Edmonton & Area Land Trust and landowners to maintain and interpret agricultural uses and ecologically sensitive areas

Circulation *(see Program Guidance map)*

- + Pedestrian bridge crossing to Fort Saskatchewan
 - + *Alignment and location of pedestrian bridge to be determined through site-specific planning exercises*
- + Proposed trail connection – Paved top-of-bank trail and connection to proposed bridge crossing
 - + *Alignment of trail to be determined through statutory plan amendments and site-planning exercises*



Sources:

1. River edge along Riverbend Gardens
2. Rivebend Gardens

Photo credit: Mack Male

4.21.2 SOUTH STURGEON PARK AMENITY NODE

Program Statement

A bird sanctuary where people can enjoy, appreciate, and learn about wildlife through a network of trails. Habitats are restored for various species of waterfowl. Nesting sites and habitat for migratory birds are restored on the formerly disturbed landscape. A trail network encircles the site, creating wildlife viewing opportunities. Vehicle access and parking support an interpretive centre, vehicle boat launch, recreational trails and boardwalks for interpretive use.

Ecological Opportunities *(see Ecological Guidance map)*

- + Restore wetlands and habitats for ecological benefits and interpretation
- + Maintain riparian buffer
- + Improve wildlife connectivity

Program Opportunities *(see Program Guidance map)*

- + Interpretive centre
- + Parking
- + Washroom facility
- + Vehicle boat launch and hand launch

Circulation *(see Program Guidance map)*

- + Extend existing access road at 33 St NE to support river access
- + Proposed trail connection – Paved top-of-bank and river adjacent trails
- + Trail connections along top-of-bank
- + Non-paved recreational trails and interpretive boardwalks



Sources:

1. East Point Park Bird Sanctuary bird blind, Toronto, PLANT Architect

branchplant.com/building/eastpoint.html

2. EVOA Bird Observatory, Portugal, maisr arquitetos

designboom.com/architecture/maisr-arquitetos-evoa-environmental-interpretation-center

3. Upper Canada Migratory Bird Sanctuary + Campsite, St Lawrence Parks Commission, Ontario – Example of wildlife viewing opportunities in a natural setting

Marquis River Valley Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

Marquis River Valley Reach – Program Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.22 Big Lake Reach

Vision Statement:

Big Lake lies south of Lois Hole Centennial Provincial Park, an internationally recognized Important Bird Area and regionally important freshwater wetland ecosystem. Critical shoreline and riparian habitat along Big Lake and surrounding valley slopes will be protected from future environmental disturbance through effective use of setbacks and management measures, and will remain an important conduit for supporting regional and local biodiversity and the natural function of the landscape in this area. Wildlife movement will be facilitated by maintaining ecological connections to the surrounding landscape. A well-connected top-of-bank trail system will provide passive recreational opportunities primarily for the surrounding residential communities.

Ecology

- + As an internationally recognized Important Bird Area, Big Lake provides a critical staging site for migratory birds. It also provides breeding and foraging habitat for numerous waterfowl and waterbird species, as well as other migratory birds and wildlife species.
- + Maintain existing forested core habitat, wetlands and wildlife corridors within the Big Lake reach due to connections on a regional scale. Maintain core habitat through protection and development setback implementation.
- + Shallow riparian marshes are present surrounding Big Lake, and a peat-forming wetland complex is located to the east of Horseshoe Lake. Maintaining hydrologic function of Big Lake and tributaries is critical as surrounding areas are developed.
- + Preserve and protect unique vegetation areas identified within the reach and riparian areas adjacent to Big Lake. Important to manage non-native and invasive species to preserve biodiversity and habitat.
- + Restoration opportunities exist within riparian areas and buffer areas that have been historically cultivated or disturbed.
- + Prioritize opportunities for wildlife passages and associated wildlife crossing infrastructure at existing pinchpoint locations to maintain wildlife passage. Noting that wildlife passages should not lead wildlife into heavily trafficked areas such as the Anthony Henday.

Culture

- + Big Lake contains several known archaeological sites including prehistoric campsites. Artifacts such as quartzite tools, fire cracked rocks, and petrified wood have been found in the area.
- + Lois Hole Centennial Provincial Park, located directly north of the Big Lake area, is named after former Lieutenant Governor of Alberta, Lois Hole. Established in 2005, the park provides important nesting grounds and habitat for migratory waterfowl and shorebirds.
- + "If we hope to preserve our way of life, the first thing we must do is rediscover our respect for the land, the water, and the entire natural world." – Lois Hole.

Recreation

- + Align planning and management with the Lois Hole Centennial Provincial Park Management Plan.
- + Facilitate regional recreational connectivity through the establishment of an Urban Greenway as per the City Plan.
- + As adjacent residential development occurs, establish a regional recreation corridor providing connections northeast towards St. Albert.
- + Maintain tributary buffers and develop top-of-bank trails that link future developments with the existing trail system.
- + A peat-forming wetland is located east of Winterburn Road (215 Street NW). To recognize the importance of this unique ecological feature, consider installing educational interpretative signage and seating. Within walking distance of the Pintail Landing school site, this can be a space for school groups and residents to learn about wetlands.
- + Bordered by Anthony Henday Drive to the west and Yellowhead Trail NW to the south, Kirk Lake is a large, isolated waterbody adjacent to the rural residential Kinokamau Plains Area Neighbourhood. A top-of-bank trail system along the eastern bank of Kirk Lake can provide passive recreational opportunities for residents.
- + Coordinate with surrounding municipalities to ensure intermunicipal continuity of the trail network.

Big Lake Reach – Ecological Guidance

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

During Phase 4 engagement, the Program and Ecological Guidance mapping is being shared in this [online map](#), where you can also provide input on the proposed guidance.

4.23 SYSTEM-WIDE ACCESS

The following two maps show the high-level trail network and North Saskatchewan River access points previously presented in the Program Guidance section, but at a city-wide scale. Map components include:

Trail Network Access

- + Existing high-level trail network and connections into adjacent neighbourhoods
- + Proposed paved variable width trails and connections into adjacent neighbourhoods
- + Proposed and existing pedestrian bridge crossings
- + Proposed primary trail heads

North Saskatchewan River Access




- + System-wide existing and proposed boat dock and vehicle launches
- + System-wide existing and proposed boat dock and hand launches
- + Proposed docks

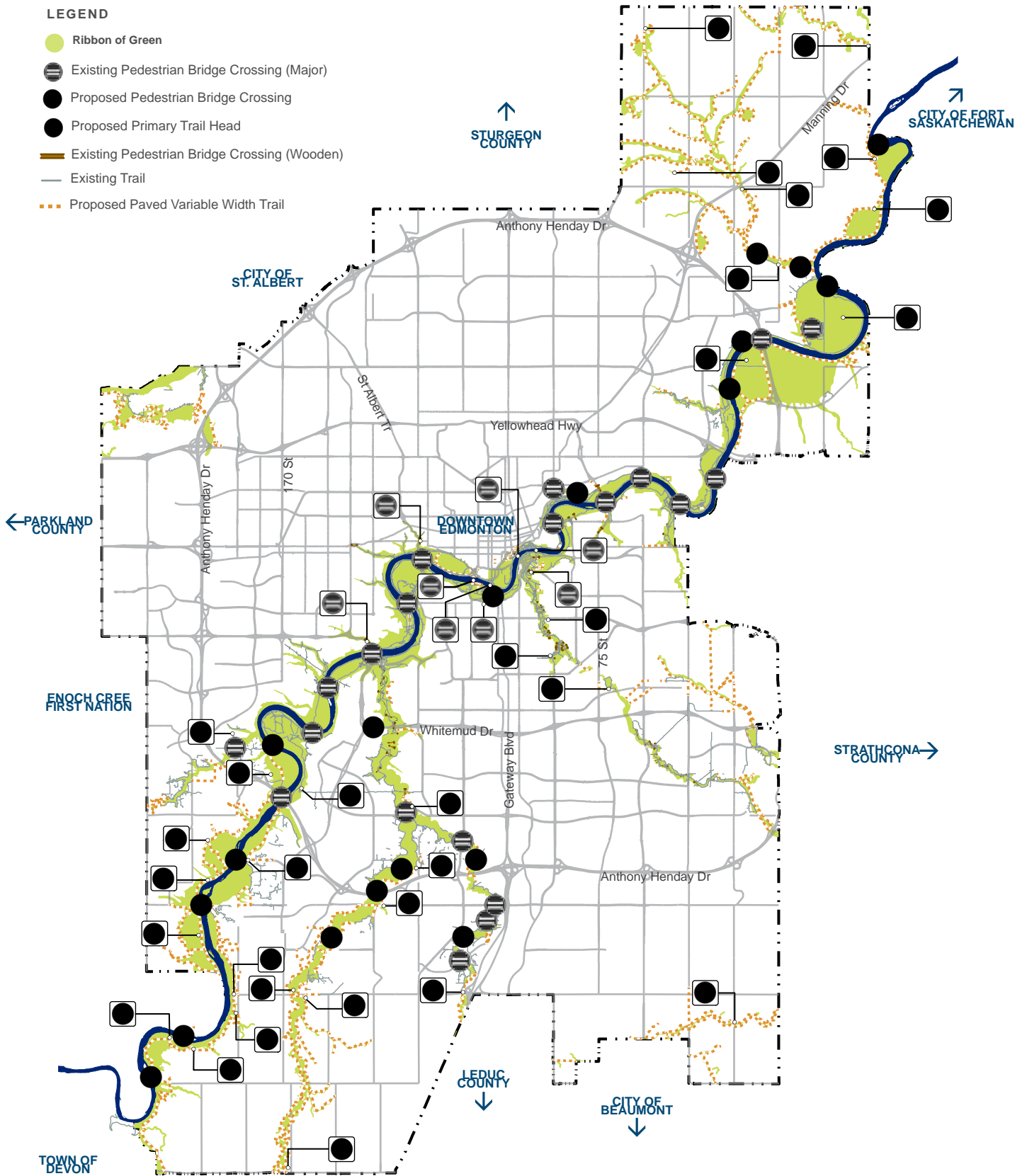


Wedgewood Ravine

RIBBON OF GREEN TRAIL NETWORK ACCESS







LEGEND

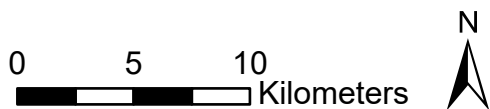
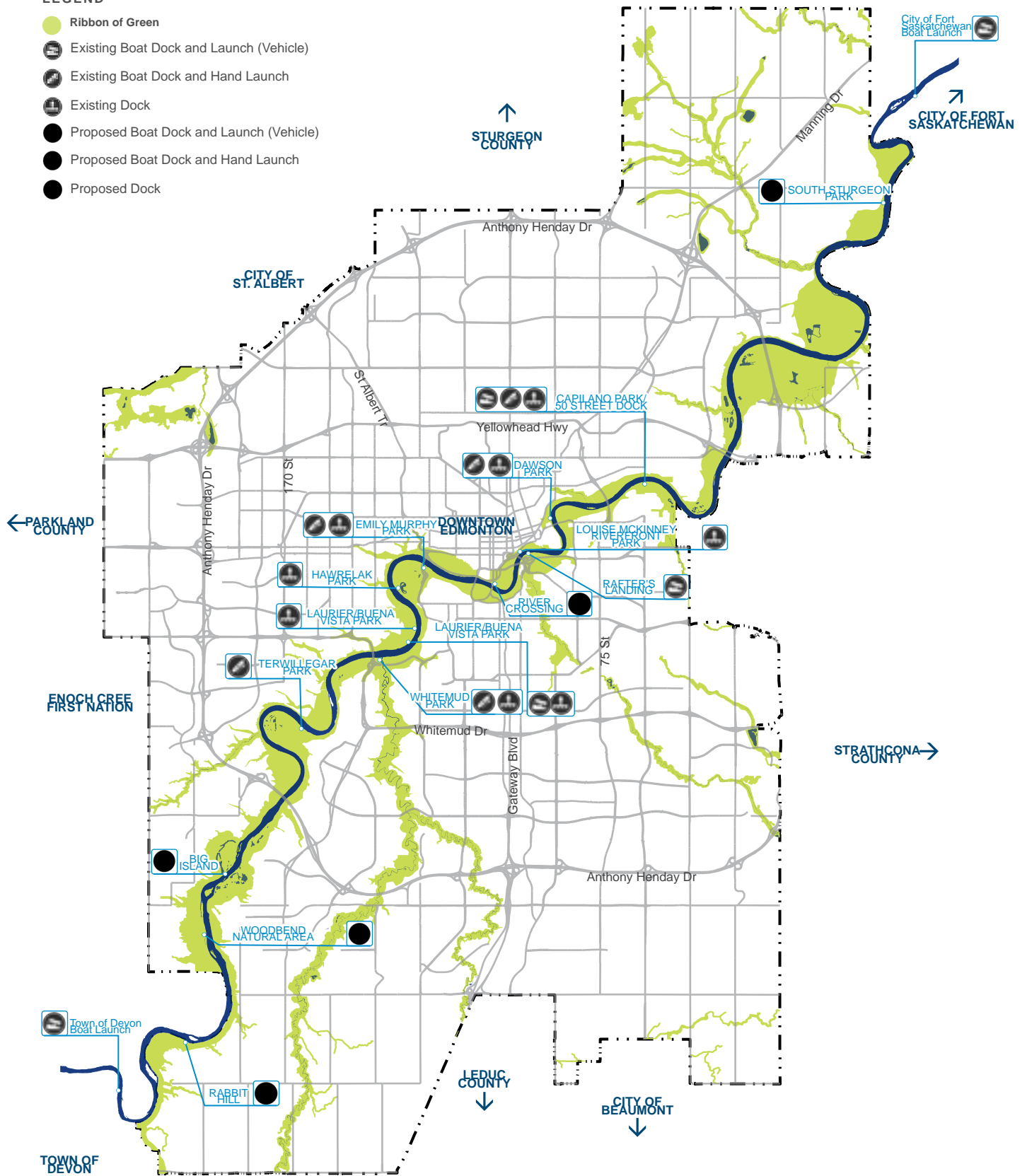
- Ribbon of Green
-  Existing Pedestrian Bridge Crossing (Major)
-  Proposed Pedestrian Bridge Crossing
-  Proposed Primary Trail Head
-  Existing Pedestrian Bridge Crossing (Wooden)
-  Existing Trail
-  Proposed Paved Variable Width Trail



RIBBON OF GREEN NORTH SASKATCHEWAN RIVER ACCESS

LEGEND

- Ribbon of Green
-  Existing Boat Dock and Launch (Vehicle)
-  Existing Boat Dock and Hand Launch
-  Existing Dock
-  Proposed Boat Dock and Launch (Vehicle)
-  Proposed Boat Dock and Hand Launch
-  Proposed Dock





5 IMPLEMENTATION

5.1 Introduction

The Ribbon of Green provides a vision, principles, and policies that outline a consistent approach to River Valley and Ravine System management, planning, and development. To do this effectively, a comprehensive implementation program is required. The implementation program includes both implementation actions, which are outlined in the **Ribbon of Green and River Valley Area Redevelopment Plan Work Plan**, as well as the following areas:

- + Program Guidance Implementation Principles
 - + Land Assembly
 - + Site-Specific Planning + Development Prioritization
 - + Emerging Opportunities
- + Plan Monitoring, Evaluation, and Review
 - + Plan Monitoring + Evaluation
 - + Plan Review + Amendments



5.2 Program Guidance Implementation Principles

Strategic planning for the North Saskatchewan River Valley and Ravine System acknowledges that the System's important geological, habitat, structural and functional connectivity should be prioritized. All future plans for the River Valley and Ravine System should include direction for the protection, enhancement, restoration, use, and integration among the ecology, celebration and wellness networks (outlined in Breathe: Edmonton's Green Network Strategy) and identify ecological and active transportation connections to the tablelands and citywide green network. This section provides the principles to evaluate and prioritize the direction outlined in Section 4: Program Guidance.

5.2.1 LAND ASSEMBLY

As per System-Wide Policy 2.5.1: Expanding the Ribbon of Green, the City of Edmonton will pursue the protection and designation of private land within the System.

Through a Land Assembly Program, identified in Section 5.2.2, the City of Edmonton will use the following principles to achieve a complete open space system:

- + Pursue environmental reserve opportunities, whenever possible.
- + Evaluate spontaneous acquisition opportunities on a case-by-case basis, using a variety of tools.
- + Support and coordinate the work of partners, including other levels of government, to acquire or protect land through legal tools and funding support, where the vision and principles of this plan align with the goals of the organization.
- + Coordinate assembly timing with existing land uses and planned infrastructure. This involves working with landowners and may include a phased approach to acquisition of a site.



Jan Reimer Park

The City of Edmonton recognizes that assembly of private land within the system is a long-term goal, and depends on external factors such as neighbourhood development staging and existing land uses. The City will work proactively with landowners to advance the vision and principles of the Plan, while respecting their rights. In the short and medium term, where land assembly is not feasible, the City will explore interim measures to provide access and improve ecological functioning through private sites, such as easements.

5.2.2 SITE SPECIFIC PLANNING + DEVELOPMENT PRIORITIZATION

Site-specific plans are required in order to implement the Ribbon of Green, and will be completed for the elements identified within Section 4: Program Guidance. Site-specific plans will vary in scale and scope, and may range from a trail connection to restoration site, up to an entire river valley reach. Wherever feasible site planning should be comprehensive in area, as this allows the City to plan, develop, and manage the River Valley and Ravine System holistically, ensuring comprehensive environmental review, efficient use of resources, and limited disturbances to the wellness and ecology networks.

Given limited municipal resources, the City must prioritize site-specific plans in order to have the most immediate benefit either by satisfying a local/regional demand, mitigating further ecological impact, or addressing a recreational gap. This will be done based on the following criteria:

PRIORITIZATION OF SITE-SPECIFIC PLANNING AND DEVELOPMENT EXERCISES WILL CONSIDER:

- + Ownership status, including whether or not the site is under public ownership and has legal access, or is anticipated to be by the end of the planning exercise.
- + Opportunity to fill gaps in the active transportation system by providing connections from and between neighbourhoods.
- + The planned and existing population in an adjacent area.
- + Monitoring indicators (identified through Section 5.2-A), including:
 - + The proliferation of unauthorized user-generated trails
 - + Safety, including user conflicts
 - + Poor or very poor infrastructure condition rating
 - + Impact to the functioning or protection of sensitive ecological, historical, or cultural sites
- + Opportunities for:
 - + Partnerships for development, programming, or management
 - + Gaps to be filled in the system (e.g. river access, restoration, programming, recreation, education, interpretation, celebration, accessibility, cultural interpretation)
 - + Coordination between other municipal or regional initiatives (e.g. top-of-bank development, shared-use trail development, restoration opportunities, district park development, neighbourhood renewal, utility upgrades)

5.2.3 EMERGING OPPORTUNITIES

It is recognized that opportunities will emerge outside of the site-specific planning process (e.g. recreational trails, interpretive opportunities) that are desirable and align with the Plan. These opportunities will be reviewed based on the policies within this Plan, and if appropriate, undertake an environmental review as required by City policies and bylaws. The City will:

- + Review the proposal to ensure that it complies with the policies outlined in this Plan.
- + If a full site-specific planning exercise is warranted, direct the opportunity to be included as part of that process, considering the opportunity in the prioritization of the site-specific planning work.



Larch Sanctuary

5.3 Plan Monitoring, Evaluation + Review

5.3.1 PLAN MONITORING + EVALUATION

To measure the effectiveness of the Ribbon of Green plan indicators are required. The City will establish a baseline, develop indicators, and monitor indicators upon approval of the Plan and through the Monitoring and Reporting Plan action identified and in conjunction with broader open space and ecological monitoring.

5.3.2 PLAN REVIEW + AMENDMENTS

Regular reviews will allow planners to evaluate changes in the System and adjust if necessary. This will ensure that the Ribbon of Green remains relevant over time and reflects adaptive management best practices.

- a) Review and amend the Ribbon of Green every 5 years in order to consider administrative updates, emerging trends, implementation progress, and policy gaps.
- b) Increase the review frequency if Ribbon of Green plan indicators do not show improvement, and in alignment with resource capacity.
- c) Undertake administrative updates in alignment with Council approved environmental reviews and site-specific planning in order to ensure the plan is relevant and useful. This may include:
 - + Update maps as site-specific planning is completed, when site-specific engagement is conducted and on-the-ground conditions are verified.
 - + Edit the Land Management Classifications delineation as existing uses change or new uses are identified based on detailed field assessments.
 - + Define the sub-classifications during site-specific planning and update the maps contained in here to reflect those plans.

A GLOSSARY

Access Easements: An access easement is a legal agreement between a landowner and the City to allow public use or access through privately-owned land.

Active Recreation: Activities, sports, or events that require a developed space with supporting infrastructure and often require specialized parkland development and management. The emphasis is placed on providing opportunities for community gathering, games, events, and sports. Compared to passive recreation, active recreation requires more intensive management and maintenance, and often results in higher costs. Typical uses include fields, play features, golf courses, skating rinks, event spaces, urban agriculture, and motorized boat launches.

Active Transportation: Travel by means of non-motorized locomotion (e.g. walking, cycling, roller blading, skateboarding, cross-country skiing, canoeing, kayaking, rowing).

Agriculture: The cultivation of animals, plants, fungi, and other life forms for food, fiber, biofuel and other products.

Amenities: These are structures or features that improve the physical, psychological, or social comfort of an area. In the System, amenities include seating, fire pits, warming shelters, etc.

Amenity Node: Locations within the River Valley and Ravine System where activities, amenities, facilities and sometimes buildings are co-located and concentrated. This focuses the most intensive activities, facilities, and structures in one key destination that facilitates various activities to minimize impacts on more ecologically sensitive areas.

Bicycle Parking: Rack, railing, locker or other structurally sound device to secure one or more bicycles in an orderly fashion.

Biodiversity Inventories: An inventory of the variety and variability of species within an area.

Boardwalks: A wooden walkway across sand, marshes, or other waterbodies.

Buffer: An area of land separating two distinct land uses, or land types, that softens or mitigates the effects of one land use, or land type, on the other.

Campground: Areas that provide seasonal short-term use for holiday trailers, motor homes, tents, campers and similar recreational vehicles, and are not used as year-round storage or accommodation for residential use.

Campground (Serviced):

Campground (Unserviced): Walk-in, bike-in, or kayak/canoe-in camping with minimal impact on the surrounding area, and with minimal amenities.

City-wide attractions: Facilities that draw visitors from across the city. They are often unique attractions that are not located elsewhere in the city or are relatively common or popular attractions but the System setting makes them an attraction (e.g. golf courses).

Urban Gardens (Community Gardens): The practice of growing and raising food, either as a group or as an individual, in a shared garden space. Community gardens are often located on public lands or undeveloped private land and are the result of a group of people coming together to make land available for gardening. Community gardens often contain raised beds, allotment plots, tool sheds, water access, public art and educational signage, among other features.

Compatible Activities: Activities are listed under each Land Management Classification and Sub-classification. The presence of an activity on these lists does not mean it is automatically appropriate, it means it can be considered and evaluated during subsequent site-specific planning. Before a use is planned for a site, it must be evaluated through a public engagement process and its potential ecological, cultural and recreational impacts studied to determine if it is appropriate.

Connectivity: The degree to which a landscape facilitates or impedes wildlife movement through natural areas. It also refers to a connected trail network. Connectivity may be provided through corridors, stepping stones, or compatible adjacent land uses.

Conservation: The sustainable use and management of natural resources including wildlife, water, air and earth. Compared to **Preservation**, **Conservation** does not mean keeping areas pristine (or as close to pristine as possible), instead it protects ecological functioning while accepting that development is necessary to facilitate public access, appreciation, recreation and use in balance with ecological needs.

Conservation Easements: Conservation easements are voluntary legal agreements between landowners and the City or an environmental stewardship organization, in which the land owner agrees to property restrictions in order to protect the natural values of the land.

Corridor: A linear connection that facilitates through-movement across the landscape, such as greenways and utility corridors for animals and humans. Some corridors are contiguous (physically connected) while others are a linear series of spaces (stepping stones).

CPTED: Crime prevention through environmental design (CPTED) uses urban design tactics and interventions to deter criminal behaviour.

Dark Sky Practices: Dark sky practices protect natural areas from the impacts of light pollution by limiting the number and type of lighting.

Day Camps: Day camps provide activities in a social setting for school-aged children during the day. In a river valley and ravine setting, this means a facility or a structure in an amenity node for children to gather, eat lunch and receive instruction. They can then embark on hikes, bicycle rides, or other activities throughout the System, appropriate to the Classification. It is important that a parking facility, which can potentially accommodate a school bus, is located nearby.

Day-Use Areas: Day-use areas provide a staging function for further River Valley and Ravine System activities. They are located near access points (either vehicular or other) and include seating and signage. Day-use areas may provide washrooms, picnic tables, and other facilities to accommodate longer stays.

Desire-line: A desire-line is a path created through erosion or wear, and caused by human or animal movement.

Development Footprints: An area impacted by any development activity. Hardscape, access roads, parking lots, facilities, structures, and construction impact areas are all included in the development footprint.

Dogs (on-leash): Dogs must always be on a leash when on public property and outside of a designated off-leash area.

Dogs (off-leash): Shared use and relatively undeveloped areas that may have fencing and special measures to protect wildlife and ecosystems. Off-leash areas may also accommodate a small neighbourhood fenced dog park, which is a fenced area that serves residential neighbourhoods within walking distance and within a conservation area. Sizes and surfacing options vary depending on level of use. These areas can include small, durable “urban dog parks” or “dog runs”.

Drainage Outfalls: A discharge point for a wastewater / stormwater stream into a body of water.

Ecological Functioning: The joint effects of all processes (fluxes of energy and matter) that sustain an ecosystem over time and space through biological activities. Given the dynamic nature of biological systems, the balance may shift within a given natural range.

Ecological Integrity: The ability of an ecosystem to support and maintain ecological processes and a diverse community of organisms.

Ecological Resilience: The capacity of an ecosystem to respond to a perturbation or disturbance by resisting damage and recovering quickly.

Ecological Stewardship: Responsible use, care, and protection of the natural environment through conservation and sustainable practices.

Ecologically Sensitive Area: Areas of land or water that are particularly sensitive or vulnerable to ecological disturbance, such as fragile grassland habitats or riparian areas prone to erosion.

Ecosystem Functions: A biological, geochemical, or physical process that takes place within an ecosystem.

Edge Effects: Changes in population or community structures that occur at the boundary of two habitats.

Educational Programming: The placement of interpretive elements and features to educate the public about a site, its ecology or history.

Emergency Vehicle Access: An access route that can accommodate an emergency vehicle, it may or may not accommodate other vehicles.

Environmental Reserve: A land dedication that occurs during the subdivision of private land, where the ownership of environmentally sensitive land is transferred to the City. This includes swamps, gullies, ravines, coulees, natural drainage courses, land subject to flooding or land not less than six meters abutting a body of water.

Environmental Review: Environmental review is an overarching term for the ecological and technical reviews required to satisfy the requirements of the *North Saskatchewan River Valley Area Redevelopment Plan* (Bylaw 7188, as amended).

Essential Infrastructure: Essential Infrastructure are uses and facilities deemed necessary for a location. The parameters for what types of infrastructure can be considered essential are outlined in Land Management Classification policy within this plan and further defined during the Environmental Review.

Facilities: These are places or equipment that are provided for a particular purpose and/or activity. In the River Valley and Ravine System, facilities include picnic areas, trails, boat launches, buildings, etc.

Fee Simple Acquisition: In the System, a fee simple acquisition transfers full ownership of the property to the City after they purchase the land.

Fitness Courses: Programmed courses that include equipment to facilitate specific exercises. The equipment can be purpose-built or incorporate natural materials; however, signage is required to educate participants on how to use the equipment and for what purpose.

Foot-Based Travel: Foot-based travel includes hiking, walking, jogging, etc. and includes those who use mobility aids.

Gathering: Gathering, in the River Valley and Ravine System context, means providing facilities that can accommodate groups of people of different sizes. Small gathering spaces typically provide space for six people or less (the amount of people that fit around a picnic table). Facilities that accommodate gathering include: picnic shelters, event spaces, flexible fields, etc. Each of these facilities can vary in size based on the anticipated demand and capacity to limit ecological impacts.

Grade Reversals: Grade Reversals are short sections of trails that change from climbing to descending to climbing, this shortens the water flow path and enhances the user experience.

Green Buildings: Green buildings strive to balance environmental, economic, and social considerations through their design, construction, and operation. Key considerations include energy, water, and resource efficiency; occupant comfort and well-being; site development and community context; and the economics of building construction and operation. In comparison to conventional buildings, green buildings take advantage of natural processes to generate less waste, less pollution, and reduce their overall environmental footprint.

Greenhouses: Greenhouses refer to indoor structures used for the propagation, storage, and sale of plants, as well as the sale of products used for landscaping or gardening purposes.

Ground-Truth: The process of confirming the results of an analysis through direct on-site observation.

Hand Boat Launch: Facilities that allow people to walk their canoe, kayak or other vessel to the water's edge, place the water craft in the water and board without the aid of a vehicle and/or trailer.

Hazard: Condition or situation that could cause harm to people, property or the environment. Common hazards include erosion, flooding or faulty equipment.

Hydrologic Regime: Partial and temporal variations of the incoming and outgoing water from a region, including rainfall, evaporation, runoff, and seepage.

Imminent Risk: In the River Valley and Ravine System context, imminent risk refers to the potential damage of a significant ecological or archaeological site from human interference. This can be on private land where the landowner is disturbing intact natural areas through construction, vegetation removal or other disturbances. It can also be on public land where users are damaging areas by cutting trails, creating clearings, digging, etc. without the City of Edmonton's knowledge.

Indigenous Traditional Use: In this document, traditional uses mean land uses, activities, and cultural modifications that Indigenous people historically practiced and continue to practice in relation to their natural environment. Traditional uses include (but are not limited to) sacred and ceremonial sites, historic trails and other storied places, burial grounds, culturally modified landscapes or features (e.g. rocks, trees) and harvesting activities such as hunting and trapping, fishing, and gathering. It is also important to note that Traditional Use Sites, as defined in the Historical Resources Act, include historic cabins, historic cabin remains, cultural or historical community campsites, ceremonial sites/spiritual sites, gravesites, historic settlements/homesteads, historic sites, oral history sites, ceremonial plant or mineral gathering sites, historical trail features and sweat/thirst/fasting lodge sites.

Invasive Species: Species that are not native to an area and have a tendency to spread and cause damage to the environment, economy, or human health.

Land Dedication: Land dedication is a method of government land acquisition through subdivision where land is transferred to the City from the private land owner for a public purpose.

Land Management Classifications: Management Classifications, developed from the Land Management Classifications in the 1992 *Ribbon of Green Master Plan*, direct the appropriate level of development, management, and operation for the River Valley and Ravine System. They use current site conditions to describe the future desired state of an area.

Land Management Sub-Classifications: The Sub-classifications under the **Conservation** and **Active/Working Landscapes** provide more precise direction that allow these two Classifications to be tailored to existing uses and conditions. These are spatially delineated at the site-specific plan level.

Level of Acceptable Ecological Functioning: The ecological variation that is considered acceptable, determined during the site-specific planning processes.

Low-impact Development: Planning, engineering, and design approaches to manage stormwater runoff as part of green infrastructure. It emphasizes protection and use of on-site natural features to protect water quality.

Management (ecological): These are maintenance and operational behaviours that either improve or do not cause additional harm to the System. This includes environmentally friendly maintenance techniques as well as limiting programming footprints and activities.

Market Gardens and Stalls: The practice of growing a range of fresh produce, herbs, and other foods for sale to restaurants and other food markets.

Mechanized Access: Mechanized access (e.g. funiculars and inclined elevators) involve motorized solutions to improve access into the River Valley and Ravine System to make it more accessible to people of all ages and abilities.

Metropolitan Park: Large feature parks intended to provide value to residents and visitors throughout Edmonton and the greater Metro region. Metropolitan Parks may have a variety of functions and uses, but usually contain features and amenities that are not available elsewhere in the City.

Mitigation: These are design initiatives to minimize impacts to ecological health. Mitigation measures include light baffles, permeable paving, low-impact design, etc.

Multi-functional: Able to accommodate multiple services or uses (functions) simultaneously.

Natural Areas: Areas of land or water that is dominated by native vegetation in naturally occurring patterns, including wetlands, grasslands, woodlands, or riparian areas.

Nature Play Features: Alternative play features that use natural elements to inspire active and creative outdoor play, and connect people to nature. They are predominantly created with natural elements such as sand, water, wood, landforms, plants, and boulders.

Non-Developable Upland Area: The non-developable upland area is the land between the Urban Development Line and the River Valley and Ravine System's top-of bank or crest that cannot be used for urban development, and is protected as Environmental Reserve. This area is unstable and provides public access for circulation, amenities, and emergency response.

Non-Paved Narrow Width Trail: Non-paved narrow trails (e.g. single track) through ecologically sensitive areas or challenging terrain with limited accessibility.

Open Space: An area of outdoor land or water that is publicly owned or publicly accessible, including municipal parks, civic spaces, provincial or federal parkland, institutional campuses, and other public spaces.

Outsloped Tread: An outsloped tread is one that is lower on the outside or downhill side of the trail than it is on the inside or bankside. Outsloping lets water sheet across the trail naturally.

Park Operations Yard: Park operations yards are facilities that store maintenance equipment and provide space for parks staff to work from.

Parking Areas: In the River Valley and Ravine System, parking lots have limited impermeable material (unless needed because of high anticipated use), substantial tree cover and plant material, and direct surface runoff toward landscaped basins, thus encouraging on-site stormwater management and eliminating or reducing the need for mechanical drainage connections.

Passive Recreation: Passive recreation occurs on largely undeveloped spaces that require minimal development, with the exception of some surface treatments (e.g. trails, turf.) and support amenities (e.g. picnic tables, waste/recycling receptacles, signage). It also places an emphasis on the protection of wildlife and the environment, quiet activities for individuals and small groups, and accommodates less structured recreational activities, which require little or no specialized parkland development and management. The spaces and amenities operate on a first-come, first-serve basis with minimal visitor facilities and services available. It involves casual activities and the pursuit of hobbies with no adverse impact on the natural environment, such as walking, jogging, hiking, nature walks, wildlife viewing, bird watching, photography, cross-country skiing, rustic picnic areas, canoeing, kayaking, horseback riding, bicycling, etc.

Paved Variable Width Trail: Paved trails, either shared-use or separated, that support active transportation and regional connections with maximum accessibility for people of all abilities. Trail width may vary, as determined through site-specific planning.

Pre-Field Investigation: A desktop review of site conditions to prepare and consolidate information before conducting a site visit.

Preservation: Sustaining a space or resource. In contrast to **Conservation**, these areas are largely maintained in their present condition to prioritize ecological health over recreational use. Limited public access in the form of foot-based travel on non-paved trails is accommodated to provide people the opportunity to appreciate nature and minimize the risk of further user-created trails.

Public Park: The development of public land specifically designed or reserved for the general public for active and/or passive recreational use, includes all natural and man-made landscaping, facilities, playing fields, buildings and other structures that are consistent with the general purposes of public parkland, whether or not such recreational facilities are publicly operated or operated by other organizations pursuant to arrangements with the public authority owning the park. Typical uses include tot lots, band shells, picnic grounds, trails, landscaped buffers, play features, and water features.

Rehabilitation: The blanket process of making a site suitable for some manner of human use (including such practices as agriculture, forestry, and urbanization).

Research and Conservation Related Activities: Activities conducted by organizations, researchers, scientists and non-profit groups to study specific ecosystems in their natural state or human impacts on these systems. They may involve site visits, recordings, and equipment.

Restoration: A legally and technically specific term for returning a disturbed site to a more-or-less natural condition.

Restricted Access: This refers to areas within the River Valley and Ravine System where only specific uses and activities are permitted.

Riparian Areas: The banks or boundaries of waterbodies, including rivers, creeks, streams, and wetlands.

River Access: The provision of shoreline infrastructure that allows individuals touch the water or go into it for activities (e.g. swimming, fishing, canoe/kayak launching).

Separated-Use Trail: A trail that separates slower moving modes (e.g. walking) from faster moving modes (e.g. bicycling) to reduce user conflicts.

Significant Archaeological Sites: Locations that have known archaeological resources or are likely to contain archaeological resources.

Significant Cultural Sites: Locations that hold a historic and/or current significance for Indigenous people.

Significant Historic Sites: Specific, post-contact historic sites and locations.

Stormwater Management Features: Specific features of stormwater management, which is a comprehensive approach to the planning, design, implementation and operation of stormwater drainage infrastructure.

Tablelands: The tablelands are all areas within Edmonton that are outside the River Valley and Ravine System, beginning at the Urban Development Line.

Top-of-Bank: Where the slope of the river valley or ravine meets the tablelands. This is not to be confused with the urban development line, which demarcate the boundary between developable upland area (urban development) and non-developable upland area or Environmental Reserve.

Traditional Ecological Knowledge (TEK): A cumulative body of knowledge, know-how, practices, and representations maintained and developed by Indigenous people over a long period of time. TEK includes spiritual relationships, historical and present relationships with the natural environment and the use of natural resources. TEK is generally expressed in oral form and passed on from generation to generation through story telling and practical teaching.

Trails: Refers to paved or non-paved routes for recreational or active transportation.

Trail Density: Refers the amount of kilometres of trails within each square kilometre.

Trail Destinations (stacked loops, hiking routes, interpretive trails): Routes that guide the user through a circuit or loop through or to a place of interest, opposed to trails that are intended as connections.

Trail-Based Recreation: The variety of activities that can take place within the confines of a trail, often involving traveling through a space instead of stationary pursuits. Examples include hiking, bicycling, cross-country skiing, etc.

Trailheads: Locations with amenities such as benches, signage and potentially washrooms, shelters and other facilities that allow users to prepare and orient themselves before embarking on a trail.

Trailhead (local): A local trailhead provide System access to the neighbouring community and has few amenities (likely just a sign, waste receptacle and/or bench). It may or may not have parking.

Trailhead (primary): A primary trailhead provides district, city-wide and/or regional access to the System and includes multiple amenities and parking. It may or may not include interpretation materials, washrooms and other features.

Turfed Areas: Fields with native or non-native ground cover that facilitate informal activities such as pick-up sports, sun bathing, picnicking, events, etc.

Turn Around: Components of the road infrastructure that allow a vehicle to turn around without reversing. They should be designed to accommodate anticipated activities, especially where trailers are required.

U-Picks: Farms that allow members of the public to harvest their own produce for a fee.

Universally Accessible: Ideas and design that create environments and facilities that are accessible to older people, people without disabilities and people with disabilities.

Urban Development Line: The Urban Development Line (UDL) is a scientifically-derived line marking the boundary between developable upland area (urban development) and the River Valley and Ravine System.

Unstructured Play: Unstructured play provides children with opportunities to direct their own activities. They are often self-motivated and spontaneous and do not require specific equipment.

Urban Agriculture: The practice of cultivating, processing and distributing food in and around towns and cities. It involves applying intensive production methods, and (re)using natural resources and urban wastes to yield a diversity of crops and livestock. Urban agriculture could be undertaken in backyard gardens, rooftop gardens, community gardens and urban farms.

Urban Services: Uses, buildings and facilities that provide municipal services such as waste management, electricity generation, stormwater treatment, etc.

User-Created Trails: Trails created by individuals that are not formally planned for, maintained or acknowledged by the City.

Vehicular Access: Opportunities for people to drive within the river valley or ravine; these opportunities may offer drop-off opportunities or include parking.

Viewpoints and Platforms: Structures created to facilitate the appreciation of significant views. They can include a cantilevered deck, tower or other structure, and should be maintained over time.

Warming Huts: Structures that gather and retain heat from the sun using passive solar principles for heating without the need for electricity. The hut's windows are oriented south so that they capture the heat and retain it in the thermal mass of concrete floors while insulation prevents the heat from escaping.

Wayfinding: Signage, cartographic materials, and design techniques that provide information about the location, orientation and surroundings in order to support navigation around the city.

Wildlife Compatible Fencing: Fences designed to facilitate wildlife movement and not hurt or injure wildlife.

Working Landscapes: Uses dependent on the landscape to fulfill their function in terms of extracting material or treating material. For example, a quarry extracts rock and a waste centre stores and treats waste on-site.

Wildlife Passages: Structures that are constructed to facilitate wildlife movement between significant natural areas of known present and future ecological value. These structures include culverts, bridges, and overpasses, whose size and configuration are designed to accommodate specific types of wildlife most likely to be found in the area in question.

Xeriscaping: Landscaping that requires little or no irrigation.