

The logo for the City of Edmonton, featuring the word "Edmonton" in a white, sans-serif font on a dark blue rectangular background.

Edmonton

OLESKIW RIVER VALLEY PARK MASTER PLAN

Interim Report - Draft
Phase 3: Concept Options
November 2017

Introduction

This report outlines the steps that have been taken in the production of the Master Plan for Oleskiw River Valley Park, and the steps that are yet to come. The Master Plan process is based on a thorough understanding of the site conditions, environmental sensitivities, public values and City priorities.

Oleskiw River Valley Park is situated on a floodplain within the North Saskatchewan River Valley in the southwest quadrant of the City of Edmonton. The area offers visitors from surrounding neighbourhoods and the broader region a refuge from the city and an escape into nature. The park provides opportunities to walk, run, and bike through the slopes, fields and forest that compose the landscape, allowing visitors to connect with their neighbours or experience moments of solitude in a natural environment.

Oleskiw River Valley Park is an important link in Edmonton's River Valley park network. With the construction of a new multi-use trail and the Terwilligar Park Footbridge, the park area is expected to experience a greater intensity of use over the next few years. As a result, the City of Edmonton

has identified the need for this first formal planning process for the park: a Master Plan to guide and coordinate future development and activity.

The purpose of the Master Plan is to establish a 25-year vision and management plan for the park area. As part of the 10-Year Capital Investment Agenda, The River Valley Park Renewal program identifies the Oleskiw River Valley Park Master Plan as a key project that will direct investment for the park.

Through community consultation that reaches a broad audience using a variety of engagement tools and techniques, the City will develop a vision for Oleskiw River Valley Park and establish guiding principles to form the basis of the Master Plan.



Master Plan Process

Oleskiw River Valley Park offers visitors an escape into nature. Part of the park's success can be credited to forward-looking policy, planning and community involvement. To create a vision that protects the park while reflecting the needs of citizens, there is a need to look forward and consider the incredible growth and changing demographics that will occur in Edmonton in the coming years.

The River Valley Park Renewal Program identifies a long-term strategic approach to renew parks located in the River Valley. The program was initiated by key drivers such as City policies, changing demographics, demand, recreational needs and ageing infrastructure. Park renewal within the River Valley is based on an analysis of the physical condition and functionality of park elements as well as the ability to meet existing (and future) capacity.

The Master Plan for Oleskiw River Valley Park will build on existing plans, policies and initiatives while identifying public needs and priorities. It will provide direction for environmental management as well as recommendations for civic, cultural and recreational uses that are appropriate to the park. The Master Plan will also be guided by higher level policy, such as the Ribbon of Green plan for Edmonton's River Valley.

Timeline

The Master Plan is currently in the CONCEPT Phase of the Park and Facility Development Process. In this phase, public consultation will be critical to informing the Master Plan from now until its completion in Spring 2018. Existing policy, City Administration and public input will inform the process and outcome of the CONCEPT Phase. At the end of the Master Plan process, the first phase(s) of implementation of the Master Plan will be evaluated for funding as part of the next budget cycle for 2019-2022.

Work Completed to Date

An initial inventory and analysis of Oleskiw River Valley Park was completed in the summer of 2016. The inventory was compiled from several sources including observations from site visits, desktop analysis and archival and environmental research. The results of the inventory research were presented to the public for comments and additional input in Phase 1 of engagement.

The initial inventory and analysis supplemented with a desktop analysis of environmental sensitivities in the park. The results are summarized in this report and in more detail in an Environmental Sensitivities Report produced in February 2017. The sensitivity analysis will be used throughout the Master Plan process as a foundational decision-making tool. The environmental sensitivity work was supplemented with an Environmental Overview outlining current and historical environmental information relative to the site.

Extensive consultation with various City of Edmonton departments has been an integral part of the Master Plan. Internal stakeholders provided insight into operational needs in the park as well as opportunities to leverage other City priorities and initiatives in the Master Plan.

The Master Plan process includes four phases of public engagement, two of which have been completed to date. In the first phase of engagement, the public commented on the results of the inventory and analysis. The results of the first phase provided a greater understanding of the park functions and the public's dreams and wishes for the future of Oleskiw River Valley Park. The goal of the second phase of engagement was to give the public an opportunity to help build the vision statement for the park and to recommend park amenities and activities they wanted to see in the park. The results of the second phase contributed directly to the development of the concept plans.

Engagement with Indigenous, First Nations and Métis communities has occurred in cooperation with projects such as BREATHE: Edmonton’s Green Network Strategy and the Ribbon of Green. A more detailed description of the public engagement is presented later in this report as well as in two What We Heard reports available on the project website: edmonton.ca/oleskiwparkmasterplan.

Two concept options have been created as part of the Master Plan engagement process. In developing these concepts, the City incorporated all the above input (site analysis, City policy and public input) into a balanced and holistic approach to planning and design. Two unique concept options will be presented to the public in November of 2017 for comments and discussion. The feedback will inform the development of a final concept plan to be included in the Master Plan in Spring 2018.

- » The vision for the park and the desired user experience
- » Proposed program and park management recommendations
- » Winter use and management
- » Infrastructure requirements for the proposed program
- » Parking considerations to support the proposal
- » The retention or removal of existing park amenities
- » Maintenance and use of trails and pathways
- » Potential environmental consequences and proposed mitigation measures
- » Concept level costing of proposed elements

A secondary purpose of this report is to determine areas and elements of each concept option that require further studies or analysis to be completed as part of the Environmental Impact Assessment for the Master Plan.

Purpose of Report

The purpose of this report is to summarize the progress of the Master Plan to date and the steps required to move toward the completion of the Oleskiw River Valley Park Master Plan. This report summarizes the concept development process, including all influencing factors, and presents two unique concept options for the park. The concept options present varying approaches to the following elements:

City of Edmonton’s Park and Facility Development Process. This project is in the CONCEPT phase.

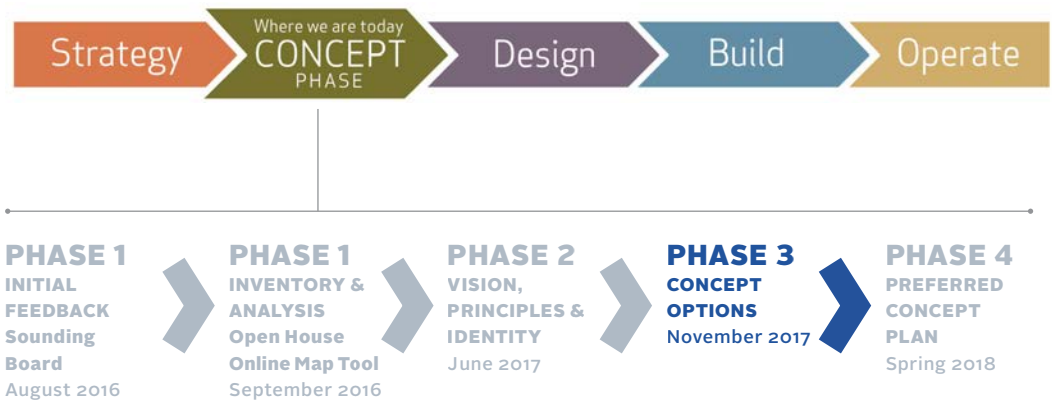


Figure 1 Project Timeline

Context

Edmonton is a City on a River. As a culturally and ecologically valuable park in the River Valley, Oleskiw River Valley Park plays multiple roles in the City of Edmonton.

Edmonton's River Valley, located in the Eastern Alberta Plains and the Parkland Natural Region (Natural Regions Committee [NRC] 2006), provides a connection to the city's cultural and natural heritage. As Edmonton becomes increasingly urban in character and the population continues to grow, the River Valley is a connection to the city's ecological past.

The North Saskatchewan River Valley and Ravine system, Canada's largest urban park, is considered a national environmentally sensitive area as it provides critical habitat, corridors and linkages for a diverse range of wildlife species. The River Valley's aspen, poplar and spruce forests contribute to Edmonton's urban tree canopy and the North Saskatchewan River provides critical habitat to aquatic species such as Lake Sturgeon. Edmontonians value the River Valley as a place to protect these ecological resources and to experience nature.

The River Valley's trail network and amenities, including picnic areas and playgrounds, create opportunities for park users to experience the health benefits of being in nature. The natural character of the River Valley is valued by many residents and communities.

Oleskiw River Valley Park is surrounded by the Oleskiw, Westridge and Patricia Heights neighbourhoods to the northwest, and Brander Gardens, Ramsay Heights and Rhatigan Ridge across the river. Neighbouring citizens enjoy the park for its passive recreation opportunities and for the chance to connect to nature. The Terwillegar Park Footbridge and the new multi-use trail constructed as part of the West End Trails project (2016) have provided more access into the park. The park is a community connection to the natural environment as well as an ecological link in the Ribbon of Green. As part of the Southwest Study Area in the Ribbon of Green, Oleskiw River Valley Park is understood as part of a River Valley system that provides ecological, social and health functions, serving all Edmontonians.

The Master Plan for this floodplain park will be rooted in Edmonton's long-term vision for the City's green network and urban growth planning. City policies and initiatives impact the Master Plan in two ways:

1. Ensuring the public preferences inform the Master Plan and align with City direction where feasible and
2. Making strategic recommendations for the Master Plan based on the City's long-term goals.



Figure 2 Neighbourhood Context

Planning History

Forward-looking policy, planning and community involvement can be traced back to the recommendations of Frederick G. Todd. Following his visit to Edmonton in 1906-1907, Frederick G. Todd shared his vision and recommendations for a River Valley park system in the city. Todd wrote that “a crowded population, if they are to live in health and happiness, must have space for the enjoyment of that peaceful beauty of nature – which because it is the opposite of all that is sordid and artificial in our city lives – is so wonderfully refreshing to the tired souls of city dweller...” Although Todd’s recommendations were not realized immediately, later in the early 20th century, public and private interests in using the River Valley for economic gain became apparent and municipal and provincial authorities, therefore, strived to protect the natural open space from urban development.

Only after the flood of 1915 was Todd’s vision adopted by the Government of Alberta “in-principle”, later to be incorporated into a zoning bylaw that protected the city’s green spaces in 1933. The City of Edmonton adopted the Bland-Spence report in 1949, which recommended the opposition of further development in the River Valley and the initialization of a long-term program to acquire River Valley land. The Top-of-the-Bank policy in 1970 provided regulations for development adjacent to the ravine system and evolved into the North Saskatchewan River Valley Area Redevelopment Plan in 1985.

The Capital City Recreation Park (CCRP), which was created in 1975 through the Alberta Heritage Savings Fund and the North Saskatchewan River Valley Area Redevelopment Plan Bylaw, established a framework for the management and use of land in Edmonton’s downtown River Valley. Edmonton Parks and Recreation began to study the entire River Valley at the same time as the CCRP, but did not begin to develop a resource management plan for the valley until the Province of Alberta announced they would provide funding for the project through a continuation of the urban parks development program in 1989.

In 1990, Council approved the preparation of a Conceptual Plan for the North Saskatchewan River Valley and Ravine System. This conceptual plan, The Ribbon of Green, was expanded into the Ribbon of Green Master Plan, approved in 1992, to include policy guidelines for the long-term development, use and care of the River Valley. The City is currently working on a consolidation of these two documents, with the inclusion of two additional study areas: the Northeast Study Area and the Southwest Study Area. Oleskiw River Valley Park is located in the Ribbon of Green Southwest Study Area. The plan for Oleskiw River Valley Park will align with recommendations from the Ribbon of Green, which are being developed concurrently to the park Master Plan.

City Policy

The Master Plan for Oleskiw River Valley Park will be integrated into the planning framework for the City’s green network and River Valley park system. Recommendations in the Master Plan must, therefore, align with the City’s planning approach to open space, ecological preservation and the River Valley. The Master Plan will fit within Edmonton’s open space planning hierarchy, beginning with The Ways plans, followed by BREATHE: Edmonton’s Open Space Strategy and the Ribbon of Green (2018).

Municipal Policy

The following policies and plans govern and influence the development, protection and use of parks and natural areas in Edmonton. As a River Valley park, Dawson Park and Kinnaird Ravine are a crucial link in the City's multifunctional network of green spaces.

THE WAYS STRATEGIC PLANS:

- » The Way Ahead, 2009-2018
- » The Way We Grow, 2010
- » The Way We Live, 2010
- » The Way We Move, 2010

These are the City of Edmonton's high-level strategic plans that outline how the City will achieve its vision. They help to focus the City's efforts to deliver services and infrastructure that are most important to Edmontonians while managing the opportunities and challenges of our ever-changing city.

10-YEAR CAPITAL INVESTMENT AGENDA 2012-2021

Understanding that investment in city infrastructure requires a long-term vision, the City of Edmonton created the 10-Year Capital Investment Agenda to steer city spending. The Agenda is aligned with the goals and priorities of the City's Strategic Plan, The Way Ahead.

CAPITAL CITY RECREATION PARK (CCRP) CONCEPT PLAN 1975

Recognizing the inherent beauty of the North Saskatchewan River Valley and its relationship to the City of Edmonton, the CCRPCP set out a conceptual plan and development guidelines for the park to encourage passive and active recreation throughout the park and to ensure the maintenance of the park's ecological and visual assets. The CCRPCP identified the Dawson Park area for further development of trails and facilities for people living with disabilities including vision impairments.

CORPORATE TREE MANAGEMENT POLICY 2010

All naturally treed areas and ornamental trees on city-owned land are the responsibility of City Operations Department Parks and Roadways Branch (including procurement, maintenance, protection and preservation) and are encompassed in Edmonton's Corporate Tree Management Policy C456A. The policy states that where loss or damage to a City tree(s) occurs, compensation for the loss will be recovered from the individual causing the damage or loss and applied to future tree replacements. The Corporate Tree Management Policy includes the replacement of some non-native or invasive tree species and must be taken into account in projects focusing on invasive species removal.

WILDLIFE PASSAGE ENGINEERING DESIGN GUIDELINES 2010

The guidelines provide recommendations to incorporate the needs of wildlife into transportation projects by restoring previously removed wildlife connectivity corridors and passages. The guidelines also assist in minimizing human-wildlife interactions such as vehicle collisions and reducing habitat fragmentation.

CITY OF EDMONTON NATURAL AREA SYSTEMS POLICY (C531) 2007

Natural Area Systems Policy C531 by the City of Edmonton underlines the city's commitment to protect natural area systems through effective urban planning and development, encouragement of public engagement in natural area issues, promotion of environmental stewardship and establishment of conservation practices using the best available science.

URBAN FOREST MANAGEMENT PLAN 2012

This is a ten year strategy for sustainably managing and enhancing Edmonton's diverse urban forest, which includes all trees within City limits. The plan has three objectives:

- » Effectively manage, monitor, sustain and ensure the health and growth of Edmonton's urban forest.
- » Inform the public, City agencies, neighbouring communities and partners of the importance and benefits of the urban forest, relevant forestry issues and best management practices.
- » Protect native forest and tree stands in conjunction with the Office of Biodiversity.

BREATHE: EDMONTON'S GREEN NETWORK STRATEGY UNDER DEVELOPMENT 2016-2017

BREATHE is a transformative strategic plan to support each neighbourhood with an accessible network of parks and open space as the city grows. The main goal of the Green Network Strategy is to plan and sustain a healthy city by encouraging the connection and integration of open space. Breathe will replace and expand on the Urban Parks Management Plan and Natural Connections Strategic Plan.

EDMONTON'S URBAN PARKS MANAGEMENT PLAN 2006

The UPMP provides strategic direction for the acquisition, design, construction, maintenance, preservation and animation of parks in the City of Edmonton. In addition to the following three goals, the Plan has a mandate to ensure the integrity of River Valley and Ravine parks is preserved.

- To provide a vision specific to Edmonton's park system;
- To develop strategic direction that will guide decision-making;
- To develop park management instructions that support the vision, service themes and policies and ensure consistency in implementation.

LIVE ACTIVE STRATEGY 2016-2026

This strategy will raise awareness and help encourage Edmontonians to become more physically active. It provides a road map for supporting the active recreational and sporting needs of all Edmontonians, including active living opportunities within the River Valley.

FOR THE LOVE OF WINTER: STRATEGY FOR TRANSFORMING EDMONTON INTO A WORLD-LEADING WINTER CITY 2012

Developed over the course of several years using a community-led approach, the Winter City Strategy aims to enhance Edmonton's culture, urban design, civic life and economy by embracing the opportunities and challenges that come along with being a Northern capital city. Accompanying the Strategy is an Implementation Plan that provides recommended actions and partners to aid in the implementation of the Strategy throughout the City of Edmonton.

BICYCLE TRANSPORTATION PLAN 1992, UPDATED IN 2009

This plan is integral to creating a bike friendly city and is an important part of the implementation of the Transportation Master Plan, The Way We Move. The plan proposes to expand city-wide bike routes, including increasing the number of marked on-street bike routes, expanding bicycle racks to all transit buses, expanding bicycle parking facilities and increasing education and awareness around city biking. The plan also proposes an improved maintenance and street sweeping/snow clearing schedule.

PARKLAND BYLAW (C2202) CONSOLIDATED 2003

The Parkland Bylaw defines the uses and activities that are appropriate for parkland in the City of Edmonton. The purpose of the Bylaw is to promote safe, enjoyable and reasonable use of parks and to protect and preserve natural ecosystems in the city.

COMMUNITY STANDARDS BYLAW 14600

The Community Standards Bylaw 14600 establishes construction working periods (Monday to Saturday: 07:00 to 22:00; Sunday and Holidays: 09:00 to 19:00) and acceptable noise levels (maximum 65 dBA). It is a requirement that this Bylaw be adhered to during construction. Standard protocols for exceptions may be granted with special permission by the City of Edmonton.



River Valley Policy

The following plans and policies relate specifically to parks and green spaces located in the North Saskatchewan River Valley. The River Valley provides residents of Edmonton with a unique and treasured outdoor experience in addition to essential habitat for wildlife through the city. Forward-looking environmental policy contributes to the protection and preservation of this ecological corridor while enhancing the visitor experience.

NORTH SASKATCHEWAN RIVER VALLEY AREA REDEVELOPMENT PLAN (BYLAW 7188) 1985, CONSOLIDATED 2014

The ARP provides a comprehensive River Valley and Ravine management program to protect the North Saskatchewan River Valley and Ravine System. The primary goal of this bylaw is to ensure the preservation of the natural character and environment of the North Saskatchewan River Valley and its Ravine System while integrating public recreational opportunities within the landscape. It restricts development within the River Valley and defines features that should be protected, such as rare or endangered flora or fauna or historic/archaeological resources. The Plan started a process for more effectively managing the future of the River Valley and Ravine System.

RIBBON OF GREEN

- » Concept Plan, 1990
- » Master Plan, 1992
- » Southwest and Northeast Priority 2 Areas, Under development

The Ribbon of Green Master Plan establishes policy guidelines for the long-term development, use and care of the entire valley. It limits development within the River Valley to an integrated trail system with planned activity nodes, providing river accessibility while protecting the valley landscape and wildlife. The work being completed for the Southwest Priority 2 Area will update, consolidate and expand on the Ribbon of Green Concept Plan (1990) and the Ribbon of Green Master Plan (1992). Oleskiw River Valley Park is located in the Southwest Priority 2 Area of the Ribbon of Green. The Oleskiw River Valley Park Master Plan will align with recommendations and guidelines from the Ribbon of Green for the design and management of the park.

RIVER ACCESS STRATEGY, UNDER DEVELOPMENT

The River Access Strategy is a 10-year plan in development that will inform future programming, operations and infrastructure improvements that support access to the river and activities associated with the river. It will define locations, regulations and use guidelines for development of river-based amenities.



RIVER ACCESS GUIDING PRINCIPLES POLICY C586 2015

Understanding that the North Saskatchewan River is important to Edmontonians' quality of life, the River Access Guiding Principles help to ensure that people can access the river for recreation and enjoyment. They also ensure that activities that occur in the river and the River Valley are appropriate, safe and ecologically responsible.

Neighbourhood Plans

The following list includes relatively recent development projects and neighbourhood plans that have occurred within and around Oleskiw River Valley Park. The West End Trails Project introduced a paved, multi-use trail into Oleskiw River Valley Park that connects to the regional River Valley trail system, resulting in increased park use from surrounding neighbourhoods and the greater region.

- » West End Trails Project
- » Terwillegar Park Concept Plan, 2009
- » Rhatigan Ridge Neighbourhood Structure Plan, 2006
- » West Jasper Place Outline Plan, 2006 Consolidation
- » Riverbend Area Structure Plan, 2006 Consolidation

Parallel City Projects

WILDFIRE THREAT ASSESSMENT PROJECT

The City is working to develop a grading system that would assign a hazard rating to each area of the city with regards to fire risk and wildfire fuel. Through the Wildfire Threat Assessment project in progress, the City aims to become a FireSmart community, taking a proactive approach to wildfire prevention and prioritizing hazard areas throughout the city. The Master Plan for Oleskiw River Valley Park may be used as a pilot project for initiatives related to fire prevention with Council approval and may be used to advocate for improved wildfire prevention planning in Edmonton.

FORT EDMONTON PARK ENHANCEMENT PROJECT

Fort Edmonton, an admission-based park across the Fort Edmonton Footbridge, aims to create a heritage experience and includes amenities such as food services, washrooms, shops and creative activities. Beginning in 2017, some of the park's utilities and amenities will be upgraded as part of the Fort Edmonton Park Enhancement Project. Through a partnership with the Confederacy of Treaty 6 First Nations and the Métis Nation of Alberta, the park is soon to include an Indigenous People's Experience (to be completed around 2020). It will include indoor classrooms, an outdoor amphitheatre and villages surrounding a man-made pond.

TERWILLEGAR PARK MASTER PLAN IMPLEMENTATION

Terwillegar Park, to the south of Oleskiw River Valley Park, includes recreational opportunities including walking, cycling, winter activities, off-leash dog walking and boating. The plan for the park includes an expansion of parking facilities and opportunities for nature-based play. The Terwillegar Park Concept Plan can be found online here: https://www.edmonton.ca/projects_plans/parks_recreation/terwillegar-park-concept-plan.aspx.

WOODWARD ACCESS TRAIL REHABILITATION

The trail from Woodward Crescent to the Oleskiw River Valley Park, located within the project boundaries, will be reconstructed in 2018 to address identified drainage issues.

WHITEMUD ROAD REHABILITATION

In 2016, Whitemud Road underwent utility upgrades. The road now needs rehabilitation, including the relocation of the cul-de-sac within the road right-of-way. Whitemud Road (west of 58 Avenue) is scheduled for rehabilitation beginning in 2018. The City has sought feedback from adjacent property owners and trail users on the impacts of this project.

Ribbon of Green

The Ribbon of Green provides overarching direction for the future of Edmonton's River Valley and Ravine system. The Ribbon of Green (2018) will guide more detailed, site-specific planning in the River Valley. Site-specific plans, such as the Oleskiw River Valley Park Master Plan, will finalize program and trail alignment recommendations from the Ribbon of Green. Since Ribbon of Green (2018) is being developed concurrently with the Oleskiw River Valley Park Master Plan, these two projects are informing each other. Findings that arise through the development of the Ribbon of Green (2018) will guide the decisions for the park Master Plan.

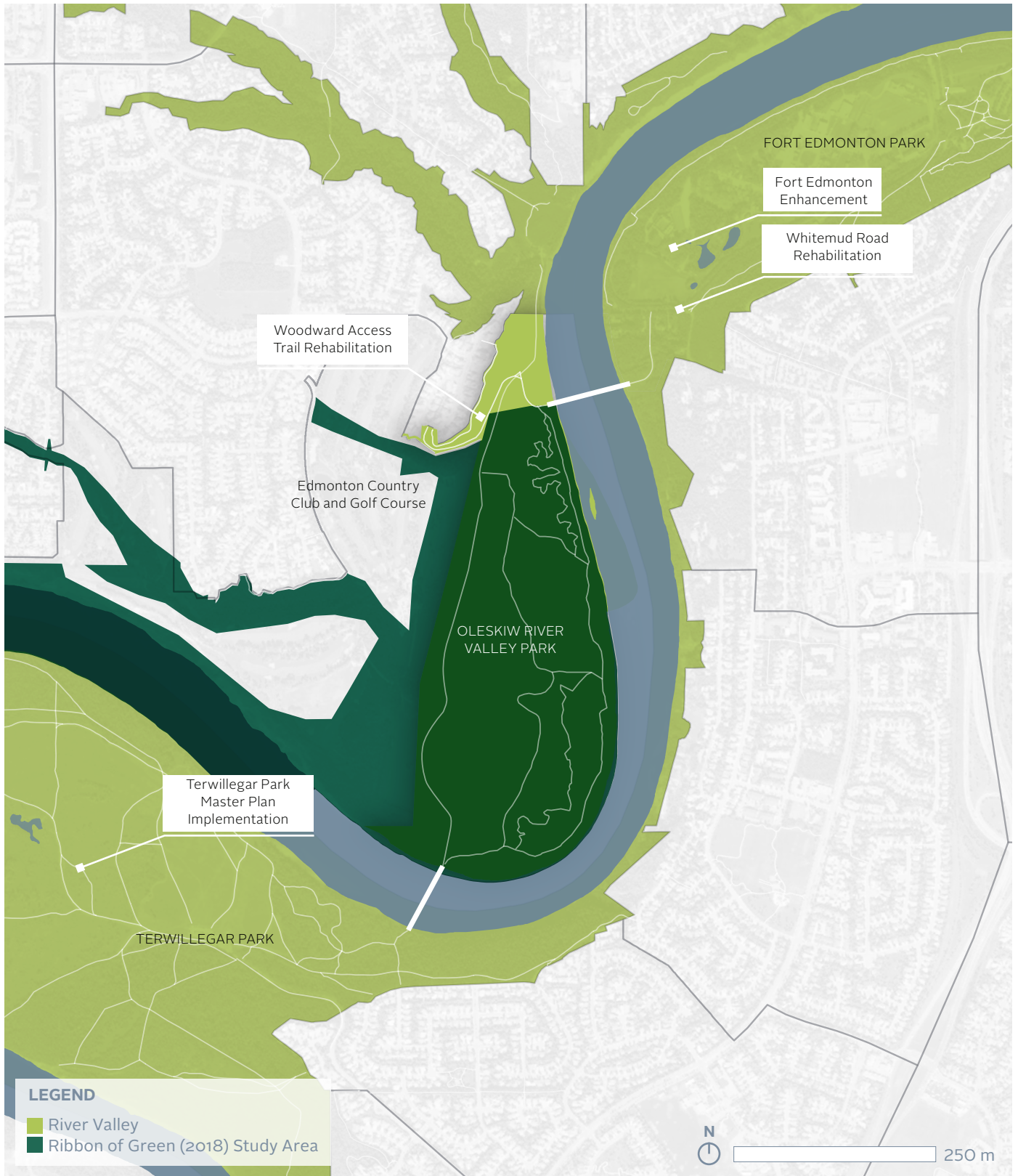


Figure 3 Planning Context

Park Evolution

Settlement in the region of present-day Edmonton began about 13,000 years ago, when the North Saskatchewan River began to carve through the landscape. The early peoples hunted bison whose habitat consisted of the unique ecosystem between the northern boreal forest and the great southern plains. The river escarpment allowed the potential to observe wildlife and other people from great heights.

The area that now makes up the City of Edmonton was originally occupied by various Indigenous Peoples including the Cree, Dene, Blackfoot and Nakota Sioux. Archaeological investigations indicate that Indigenous Peoples have inhabited the Edmonton area for thousands of years. In 1795, Europeans began to settle in the region and set up the most important Hudson Bay Company post west of Winnipeg. First Nations and Métis in the Edmonton area were essential to the success of the western fur trade, as they scouted, hunted, trapped and traded with the European newcomers. With the signing of Treaty 6 (1876), adhesion at Fort Edmonton in 1877 and Treaty 7 (1877) at Blackfoot Crossing, Indigenous Peoples were moved onto reserves and much of the area was taken up for settlement.

The post-colonial history of the park is more readily available and is relatively well-known by the local community. The neighbourhood of River Valley Oleskiw was named after Professor Joseph Oleskiw (1860-1903) who, following an 1895 visit from Ukraine to Alberta, played a key role in promoting Ukrainian immigration to the province.

In 1910, the Edmonton Country Club acquired 426 acres of land where Oleskiw River Valley Park is currently located, making it the third oldest golf course in Canada. In 1913, the lower holes were opened on the southern portion of the Oleskiw River Valley Park and remained there until 1930 when they were

moved upland. In the late 1940s, influential landscape designer Stanley Thompson made recommendations for alterations to the landscape of the golf course. The Club membership included some of Edmonton's and Alberta's most prominent citizens, including Premiers Rutherford and Sifton.

Wolf Willow Farm was developed by Curtis and Edith Munson on about 480 acres of land in the Oleskiw River Valley Park in 1930 when the golf course was moved upland. Curtis Munson was born in the United States and attended Yale University. He served in the U.S. Army during World War I. The farm produced hay on the open fields and maintained the tree stand to the east of the site. The couple operated the farm until it closed in 1970.

By 2002, the Oleskiw River Valley Park was acquired by Centennial Valley Properties, which sought to develop the area. The development plans were halted by public outcry and a City bylaw forbidding development inside the River Valley. This event led the City of Edmonton to seek acquisition of the property. Since then, the land has remained relatively un-managed. Aside from the paved, multi-use trail and natural trails that run through the forested area of the park, it does not contain any formal amenities. The poplar and aspen forest is beginning to extend west into the former hay field. The Oleskiw River Valley Park Master Plan will be the first comprehensive park plan for this area within the River Valley.

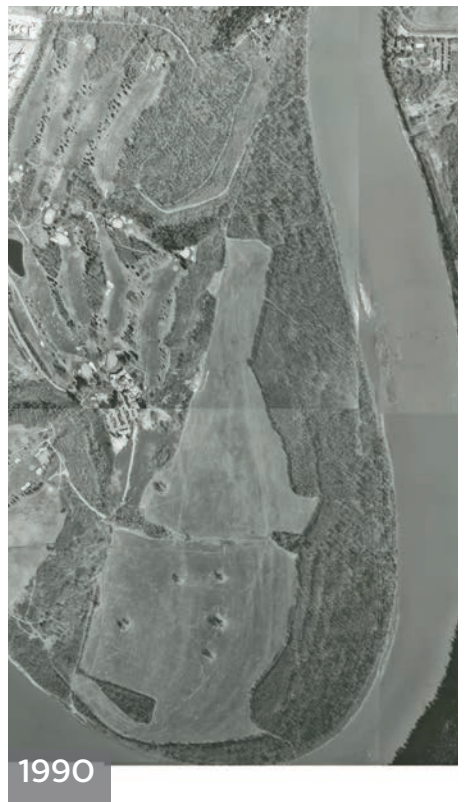


Figure 4 Park Evolution Aerial Photographs

Legal Description

LOCATION AND LAND OWNERSHIP

Oleskiw River Valley Park is located along the northern shore of the North Saskatchewan River in Edmonton, south of Wanyandi Way NW and east of the Edmonton Country Club and Golf Course. The project boundary for the Master Plan includes River Valley and top of bank land, all of which is owned by the City of Edmonton. Twelve parcels are contained in the boundary for the Master Plan, one of which does not have a Title or Assessment.

ZONING

The majority of Oleskiw River Valley Park is located within Zone A: Metropolitan Recreation Zone in the City of Edmonton. The adjacent Edmonton Country Club is also zoned as Metropolitan Recreation Zone A. This zone provides the opportunity for preserving natural areas and parkland along the river, creeks, ravines and other designated areas for recreational use and environmental protection. Some of the permitted uses within Zone A include: public park, urban gardens, exhibition and convention facilities, indoor/outdoor participant recreation services, natural resource development, natural science exhibits and cultural exhibits. These permitted uses are directed by the Urban Parks Management Plan's guidelines for River Valley parks.

A small portion of the park that connects to Woodward Cres. at the top of bank is located in Zone RF1 (Single Detached Residential Zone). The permitted uses in this zone include: garden suites, limited group homes, minor home based business, secondary suites and single detached housing.

The surrounding neighbourhoods are mostly residential, with single family homes making up most of the housing stock. Some vacant parcels are located across the river on the south shore of the river, which is east of the park. The surrounding neighbourhoods are compatible with the development of a new River Valley park. Future park amenities and activities should also be compatible with the surrounding land uses.

PARK ACCESS

Currently, there is only alternative modes of transportation or non-vehicular access into Oleskiw River Valley Park. Both the trail from Woodward Crescent and the trail from the Wolf Willow staircase to the north provide neighbourhood access into the park. Terwillegar Park, the largest off-leash dog area in the city, is located to the south and connected by the new Terwillegar Park Footbridge. Across the river and to the north

is Fort Edmonton, a managed historical park and green space. Fort Edmonton is connected to the Oleskiw River Valley Park by the regional multi-use pathway and the Fort Edmonton footbridge. Ecological connections to the Oleskiw River Valley Park are located along the river's edge at the north and west ends of the park. These connections are narrow; human and wildlife movement is somewhat restricted in these areas.

During Phase 1 in September 2016, the City received various input on how vehicle traffic might be managed in the park and surrounding neighbourhoods. Since that time, the City has reviewed various options and identified significant limitations to providing public vehicular access into the park. Due to physical constraints and feasibility concerns, vehicle access will not be pursued.

Regulatory Requirements

Both Federal and Provincial policies direct the development and protection of parks, green spaces and habitats in Edmonton. These policies are essential to the protection of Edmonton's River Valley parks.

FEDERAL

Canadian Environmental Assessment Act

The Canadian Environmental Assessment Act, 2012 (CEAA 2012) project review process pursuant to the requirements of CEAA is triggered when a federal authority proposes a project, grants money to a project, grants an interest in land to a project, and/or exercises a regulatory duty in relation to the project. CEAA only applies to projects described in the Regulations Designating Physical Activities or those designated by the Minister of the Environment.

Fisheries Act

The Fisheries Act is administered by the Department of Fisheries and Oceans Canada (DFO) and has provisions aimed at the protection of fish and fish habitat from serious harm. The Fisheries Act applies to all projects that have a potential to cause serious harm to fish and fish habitat that are part of or support a commercial, recreational or Indigenous fishery.

Navigation Protection Act

The Navigation Protection Act (NPA), administered by Transport Canada, provides the protection of navigation on all public navigable waterways in Canada through the Navigation Protection Program. Regulatory approval is required in scheduled navigable waters where the works risk a substantial interference with navigability. Scheduled navigable waters are included in the List of Scheduled Waters under the NPA. For works in non-scheduled waterways, owners of the works may

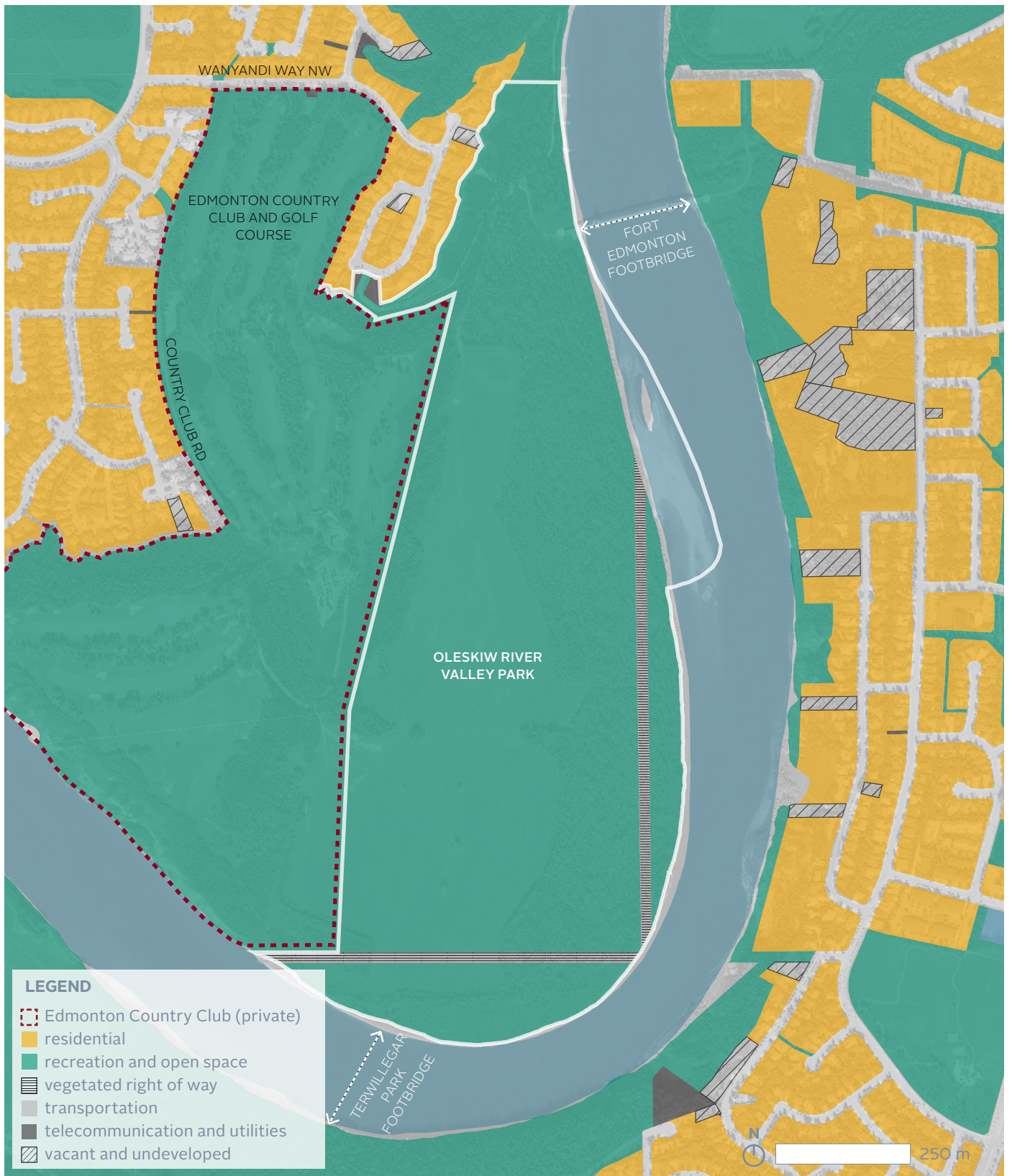


Figure 5 Land Use

opt-in for a review under the NPA. Non-scheduled waterways are still protected under the Act and could be subject to court proceedings if the works interfere with navigation.

Migratory Birds Convention Act

The Migratory Birds Convention Act (MBCA) is administered by Environment Canada and provides protection and preservation for migratory birds and migratory bird habitat through the Migratory Birds Regulations and Migratory Birds Sanctuary Regulations. The MBCA and its regulations apply to migratory game birds (e.g., ducks, geese and swan), migratory insectivorous birds (e.g., chickadees and cuckoos) and migratory non-game birds (e.g., gulls and herons). See Article I of the MBCA for the list of the families of migratory birds protected under the MBCA.

Species at Risk Act

The Species at Risk Act (SARA) is federal legislation intended to protect sensitive species. Species included under Schedule 1 are established by the Federal Cabinet and are based on recommendations by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and consultation with government, Indigenous Peoples, stakeholders and the Canadian public. SARA applies to federal lands; however, it may also apply to other lands when provincial protection is deemed inadequate by the Federal Minister of the Environment. SARA applies to all lands in Canada for Schedule 1 bird species protected by the Migratory Birds Convention Act.

SARA also has a provision to protect 'critical habitat' "...that is necessary for the survival or recovery of a listed wildlife species and is identified as the species' critical habitat in the recovery strategy or in an action plan for the species" (Section

2(1) of SARA). If an activity is expected to affect a wildlife species listed under Schedule 1 of SARA or destroy any part of its 'critical habitat', additional regulatory requirements, including notification of appropriate regulatory agencies and application for a permit under Section 73 of SARA, will need to be fulfilled.

PROVINCIAL

Environmental Protection and Enhancement Act

The purpose of the Environmental Protection and Enhancement Act (EPEA) is to ensure sustainable use of the environment through protection, enhancement and wise use of natural resources. EPEA ensures environmental protection is considered in the early stages of planning. This process helps predict potential environmental consequences of an activity and minimize any adverse impacts before they occur. Alberta Environment and Parks regulates a wide range of activities under the EPEA through conditions set out in regulations, approvals and Codes of Practice.

Public Lands Act

The Public Lands Act regulates various public land uses (e.g., land dispositions), the sale and purchase of land, and the declaration of water bodies as being owned by the Crown. The Crown may claim the bed and shore of permanent water bodies (e.g., wetlands, creeks and drainage channels) found on a given property.

Water Act

Pursuant to Section 36 of the Water Act, activities that may impact water bodies and the aquatic environment, regardless of ownership, require an approval unless otherwise authorized



by the Water Act. In the Water Act, 'activity' is broadly defined to include the following actions: placing construction works within a water body; erosion protection; draining a water body; removing or disturbing ground and/or vegetation within the bed and shore that results in altering the flow, level, direction and/or location of a water; and channel realignment.

Wildlife Act

The Wildlife Act and Wildlife Regulation provide the legislation and regulatory provisions to protect and manage wildlife on all land in Alberta. The Minister responsible for Fish and Wildlife Management has the authority under the Wildlife Act to influence and control activities that may have direct adverse effects on the populations and habitat of wildlife species (Section 103 of the Wildlife Act). If the proposed development is anticipated to disturb or destroy habitat of prescribed wildlife species listed under the Act, additional regulatory requirements may need to be met depending on jurisdiction and land ownership (Section 36(1) of the Wildlife Act). The following birds are not protected under the Migratory Birds Convention Act (MBCA), but are protected provincially under Alberta's Wildlife Act: grouse, quail, pheasants, ptarmigan, hawks, owls, eagles, falcons, cormorants, pelicans, crows, jays and kingfishers.

Weed Control Act

The Weed Control Act regulates the control of noxious weeds, and the destruction of prohibited noxious weeds in Alberta. The Weed Control Act Regulation provides a complete listing

of all designated Noxious and Prohibited Noxious weed species in the province.

The application of pesticides is controlled through the Environmental Protection and Enhancement Act and should be reviewed in the event that pesticide application is required.

Historical Resources Act

The Historical Resources Act requires clearance for any development that may impact historical resources in Alberta. Clearance is issued by the Heritage Resources Management Branch of Alberta Culture and Tourism (Alberta Culture and Tourism 2015). Historical resources include structures, archaeological sites, paleontological resources, and other works of humans or nature that are of value.

MUNICIPAL

Municipal policies described earlier in the report influence the management of natural areas and River Valley Parks in Edmonton. Specific policies that focus on natural area design and management include:

- » North Saskatchewan River Valley Area Redevelopment Plan (Bylaw 7188)
- » Community Standards Bylaw 14600
- » Corporate Tree Management Policy
- » Wildlife Passage Engineering Design Guidelines
- » Natural Area Systems Policy



Environmental Considerations

One of the main principles of the Master Plan is to preserve and enhance the valuable ecological resources within Oleskiw River Valley Park.

Understanding the existing conditions within the park is essential to preserving and enhancing sensitive ecologies while incorporating opportunities for community enjoyment of the natural landscape.

The City of Edmonton has adopted the practice of reviewing and analyzing environmental conditions at an early stage in the planning process. The intended outcome is that conflicts, limitations and environmental sensitivities will become apparent early in the Master Plan process, allowing time for mitigation strategies or alternate recommendations.

Existing Conditions

The following is a summary of Oleskiw River Valley Park's environmental context, including water, geology, soils, vegetation, wildlife and historical resources. The purpose of this section is to highlight factors that have an impact on the Master Plan and that contribute to environmental sensitivities throughout the site. An Environmental Overview was conducted to identify areas of potential environmental concerns associated with past and present activities on the site. The Environmental Overview is also used to determine if additional assessment measures are required.

As part of the Environmental Overview, aerial photographs, regulatory records, well and pipeline records, and spill and complaint records were reviewed. Interviews and a site inspection were also conducted. The findings presented here are a product of the initial inventory and analysis of the site, which are presented in environmental reports such as an Environmental Sensitivities Report.

Some of the more pressing concerns reported regarding the park's existing conditions are terrestrial and aquatic habitat, slope and bank stability, archaeological resources, invasive plant species and potential sub-surface contamination. A more detailed overview of environmental conditions and concerns will be completed in the Environmental Impact Assessment as a requirement for the Master Plan.

SURFACE WATER, GROUNDWATER AND FISH HABITAT

The North Saskatchewan River originates from the Saskatchewan glacier in the Columbia Icefields in Banff and Jasper National Park at an elevation of approximately 2,080 m above sea level and flows 1,287 km eastward towards the Alberta/Saskatchewan border (Benke and Cushing 2005).

Two small watercourses (WC) are present in the Oleskiw River Valley Park, and may be potential tributaries to the North Saskatchewan River. Based on historical hydrometric data from station 05DF009 for Whitemud Creek, it is expected that discharge in the two watercourses, if flow is present, would follow a similar bimodal trend and would fluctuate throughout the seasons (Government of Canada 2014). Both watercourses are classified as unmapped Class C water bodies with a Restricted Activity Period (RAP) of September 16 to July 31 (ASRD 2012).

WC1 is classified as an intermittent watercourse less than 0.7 m wide. It has defined banks upstream, but poor definition in the wetland-like area downstream and appears to become an undefined wet area further downstream prior to entering the groundwater, showing no apparent connection to the North Saskatchewan River. A culvert over WC1 supports a paved trail.

Lack of overland connectivity and an approximately 2-m high bank along the north side of the North Saskatchewan River present potential barriers to fish movement upstream into WC1; the watercourse is likely poor-quality habitat and has a low probability of fish presence.

WC2 is classified as an intermittent watercourse less than 0.7 m wide, with defined banks. It is suspected that no flow has occurred in the stream in the past several years. Natural drainage of WC2 into the North Saskatchewan River is prevented by high river banks. WC2 is deemed to offer poor quality/no fish habitat and the probability of fish presence is low.

A comparison of historical bank lines for the North Saskatchewan River spanning a period of 1969 to 2008 indicates that there is little lateral movement of the west bank in the Oleskiw River Valley Park area. However, the bank line along the southern extent of the meander bend has experienced localized erosion typical for a channel of this size, producing nearly vertical banks approximately 2–3 m in height. During a 1:100 year flood event, approximately 25% of the park area located along the east and northeastern extents would be inundated.

GEOLOGY AND GEOMORPHOLOGY

Oleskiw River Valley Park is situated on a relatively flat low-level terrace within the floodplain of the North Saskatchewan River. The valley slopes at the west edge of the park are generally sloped at between 21 and 34 degrees and are approximately 35 to 40 m in height. The elevation of the upland plateau is an average of 665 m. The low-level terrace lands range in elevation from about 626 m to 630 m and dip slightly towards the North Saskatchewan River.

The bedrock underlying the surficial deposits at Oleskiw River Valley Park consists of the Upper Cretaceous, Horseshoe Canyon Formation. The Horseshoe Canyon Formation consists of deltaic and fluvial deposits of interbedded and interlensed fresh and brackish water sandstone, siltstone and shale. Typical sediments consist of soft grey, greenish and white weathered bentonitic feldspathic sandstone, brown bentonitic shales, coal seams and beds of carbonaceous shale.

Seven geotechnical references were available within the study area in Oleskiw River Valley Park, in which 13 test sites with data were reported. In general, the soil conditions in the park are alluvial sand, clay and silt overlying bedrock within the floodplain area below the valley slopes and clay over clay till over bedrock within the plateau areas above the valley slopes. Available air photos from between 1978–2010 show no

significant retrogression in the Oleskiw River Valley Park; however, signs of previous landslides and existing erosion channels were noted. These slopes are considered marginally stable.

SITE SOILS

Bedrock in the park area is covered by surficial deposits composed of late Tertiary and Quaternary Period deposits. Tertiary deposits in the Edmonton area are part of the Empress Formation (also referred locally as the Saskatchewan sands and gravels) that were deposited in the pre-glacial river valleys that occupied the Edmonton area. These valleys are now referred to as buried valleys as they were infilled with glacial and lacustrine deposits during post glacial times.

The Empress Formation sands and gravels are composed primarily of quartzite with minor chert, ironstone and coal fragments. The origin of the sand and gravel material is from the Canadian Rockies to the west of Edmonton. Quaternary deposits are mostly glacial deposits covered by recent postglacial deposits. Most of the glacial deposits consist of till covered by glaciolacustrine silt and clay deposited in the glacial Edmonton lake.

Postglacial deposits consist of alluvium and colluvium deposits. Alluvium is located at the bottom of the North Saskatchewan River Valley, and was formed during the creation of the valley. Alluvium is composed of bedded gravel, sand and clay (becoming coarser with depth) and is generally a few metres thick, but can be up to 10 m thick under the low-level terraces. In places where the existing North Saskatchewan River is incised into buried valley deposits, alluvium may be overlying glacial deposits or even pre-glacial deposits. Otherwise the alluvium overlies the bedrock. Colluvium is bedrock that has been moved by gravity or surficial deposits, covering much of the River Valley slopes.

In general, runoff potential would be expected to be higher on more sloping terrain and where soils of low permeability are present at ground surface. Frost heave potential is generally greatest in fine grained soils with high silt contents, moderate in clays and low in clean gravels and clean sands. Frost heave is also generally higher in areas with high groundwater table. Swell/shrink potential is greatest in clay soils of high plasticity, moderate in medium plastic clay and low in plastic clays, sands and gravels. Infiltration capacity is greatest in pervious gravelly and sandy soils.

The terrace and the slopes in Oleskiw River Valley Park have different characteristics. On this basis, the Oleskiw River Valley Park terrace has low shrink/swell potential, low to moderate

runoff and frost heave potential and moderate infiltration capacity. The Oleskiw River Valley Park slopes have low swell/shrink potential and infiltration capacity, low to moderate frost heave potential and high runoff potential.

The City is undertaking preliminary studies to understand the impacts of a historical oil well site in the park. Results of this investigation will influence recommendations on the restoration and rehabilitation of the park.

VEGETATION

Oleskiw River Valley Park is located in the Central Parkland Subregion. Native vegetation is minimal in the Central Parkland Subregion due to intensive cultivation and urbanization (NRC 2006). Native plant species within the Subregion include, but are not limited to, trembling aspen (*Populus tremuloides*), balsam poplar (*Populus balsamifera*), white spruce (*Picea glauca*), Labrador tea (*Thermopsis rhombifolia*), feathermosses (*Hylocomium splendens*), willow (*Salix* spp.), common cattail (*Typha latifolia*), bulrush (*Typha* spp.), bunchberry (*Cornus canadensis*), wild lily-of-the-valley (*Maianthemum canadense*), wild sarsaparilla (*Aralia nudicaulis*) and beaked hazelnut (*Corylus cornuta*) (NRC 2006).

Vegetation within the North Saskatchewan River Valley is dominated by trembling aspen and balsam poplar with pockets of black and white spruce. Riparian areas that are not treed are dominated by grasses, sedges and shrubs. Approximately 487 vascular plant species (e.g. trees, shrubs, forbs/herbs, grasses, sedges, aquatics, rushes, ferns and carnivorous plants) inhabit the North Saskatchewan River Valley (Hobson et.al. 2008). Within the Oleskiw River Valley Park area, there is a large field, positioned centrally and surrounded by predominantly upland deciduous forest. The field is a former agricultural field in which an alfalfa brome hay mix was harvested.

A background search of the Alberta Conservation Information Management System (ACIMS) database resulted in no reported rare plant species or ecological communities within the project area (AEP 2016). Three non-sensitive plant species were previously identified within the project area; however, there is a low probability that these species have the potential to occur on site. They are:

- » creeping ancyliid (*Ferrissia rivularis*), observed in 2001
- » flat-topped white aster (*Doellingeria umbellata* var. *pubens*), observed in 1999 and 2007
- » smooth sweet cicely (*Osmorhiza longistylis*), observed in 2007

Additional background literature review determined moderate potential for presence of the following species:

- » callicladium moss (*Callicladium haldianum*)
- » leskea moss (*Leskea gracilescens*)
- » frosted rim-lichen (*Lecanora caesionubella* ssp. *saxiomtana*)
- » smooth sweet cicely (*Osmorhiza longistylis*)
- » flat-topped white aster (*Doellingeria umbellatus*)
- » wild comfrey (*Cynoglossum virginianum* var. *boreale*)
- » dark-green goosegoot (*Chenopodium atrovirens*)
- » lance-leaved loosestrife (*Lysimachia hybrida*)
- » porcupine sedge (*Carex hysterecina*)
- » river bulrush (*Bolboschoenus fluviatilis*)

During a field assessment, 49 plant species were observed in the project area. Among the observed species, 36 species (74%) were native, while 13 (26%) species were exotic, including noxious weeds (e.g. Canada thistle, perennial sow thistle, white cockle and common burdock). No vegetation Species at Risk were identified in the project area.



The Terwillegar Footbridge Environmental Site Assessment (ESA) reported two additional potentially invasive species in the open field, neither of which are regulated. They are:

- » yellow bedstraw (*Galium verum*)
- » burnet saxifrage (*Pimpinella saxifraga*)

WILDLIFE

A FWMS database search was conducted to determine the presence of wildlife within a 2 km radius of the project area. Wildlife that have the potential to occur within the project area include:

- » Canadian toad (*Bufo hemiophrys*)
- » peregrine falcon (*Falco peregrinus*)
- » short-eared owl (*Asio flammeus*)

The Canadian toad (*Bufo hemiophrys*) population has been in decline due to habitat loss and degradation, and the species has been identified as data deficient by Alberta's Endangered Species Conservation Committee. The species is listed as May be at Risk under Alberta Wildlife Act. The Canadian toad is one of the most terrestrial amphibians, usually residing in nearby rivers, lakes and wetlands. They are active from April to August, breeding in spring and entering hibernation in early fall.

The peregrine falcon (*Falco peregrinus*) population has been on a rebound since severe declines between 1950 and the 1970s. Currently, the peregrine falcon is listed as Threatened under the Alberta Wildlife Act and Special Concern under Schedule 1

of SARA. In Alberta, peregrine falcons are active from April to October until they migrate south for the winter. They usually nest on cliffs next to bodies of water and may potentially be nesting nearby the Oleskiw River Valley Park while using the open agricultural field within the project area for foraging.

The short-eared owl (*Asio flammeus*) population has been declining for the past 40 years, potentially due to habitat loss and degradation. It is listed as May be at Risk in under the Alberta Wildlife Act and Special Concern under Schedule 1 of SARA. The short-eared owl often resides in Southern Alberta, typically nesting in the ground of grasslands and foraging in open spaces. Within the project area, the short-eared owl is unlikely to nest, but may forage in the agricultural field.

Several wildlife species were observed or deemed to be present based on signs of their activity in the project area during the biological survey on July 13, 2016. Audio and/or visual observations led to the identification of 22 species of birds in the project area. Presence coyotes in the project area is likely given that three potential dens, two of which suggested presence of coyotes. Deer tracks were also noted during the visit. Two nests (one of which suggested presence of American crow) were also noted. No federally listed Species at Risk were observed during the field visit.

Audio identification confirmed the presence of a provincially listed species, least flycatcher (*Empidonax minimus*), which is considered Sensitive in Alberta (Government of Alberta 2012). The least flycatcher species has been on decline in Alberta and may be threatened by wintering habitat changes.



HISTORICAL RESOURCES

Understanding the history of Oleskiw River Valley Park is a continuous process, which includes archival and historical research as well as community story-telling. Sources for historical information that have been accessed include:

- » The Edmonton Archives
- » The Historical Resources Act
- » The Alberta Township Survey
- » Public and stakeholder input

A request for the location of historic sites within the Oleskiw River Valley Park was submitted to Alberta Culture. The City's intent is to avoid mitigation requirements where design can be used to achieve zero impact on resources. Information is currently available for historic resources within the Alberta Township Survey (ATS) system and according to Historic Resource Value (HRV) from the Historical Resources Act. Information from the Terwillegar Park Footbridge project environmental assessment (Stantec 2014) was also referenced.

The Historic Resource Value (HRV) is a number assigned to an area of land according to the classification of historic resources that lie within that area. Classifications are colour-coded on the map. Classes with a value of "0" suggest that investigation

of the site has resulted in limited returns or the site has been heavily disturbed or destroyed. Nearly the entire project site is classified as HRV 5 (high potential to contain historic resources). Below is a description of all of the HRV levels:

1. Lands that have been designated under the Act as Provincial Historic Resources, World Heritage Sites or lands owned by ACCS for historic resource protection and promotion purposes.
2. Lands designated under the Act as a Municipal or Registered Historic Resource.
3. Lands that contain a significant historic resource that will likely require avoidance.
4. Lands that contain a historic resource that may require avoidance.
5. Lands believed to contain a historic resource or lands that have a high potential to contain historic resources.

If the area is subject to an Environmental Assessment, a Historic Resources Impact Assessment will be required. A greater understanding of the cultural significance of the landscape, historically and presently, is recommended. An oral history based on contributions from Indigenous Nations, traditional knowledge keepers and Elders is essential to understand the cultural landscape of the park area. Input from organizations associated with the park's history, such as the Edmonton Country Club, will also enrich the understanding of the site's history.



Figure 7 Historic Resource Value

Environmental Sensitivity Mapping

The City requires environmental sensitivity mapping of the site as part of the Master Plan process to assess the current biophysical conditions (e.g. ecological function and state of natural health) of the park. This mapping is done early in the process to incorporate the findings into all program, infrastructure and maintenance decisions for the Master Plan. The City's aim is to create a framework in which the basis for decision-making is rooted in a respect for ecological balances. This type of planning is essential to finding a balance between human use and the preservation and enhancement of the River Valley's ecological systems.

OVERVIEW OF ANALYSIS

As a response to the City of Edmonton's requirement for environmental sensitivity mapping for the Oleskiw River Valley Park Master Plan project, a desktop analysis of ecological sensitivities within the project boundaries was performed. The environmental factors presented earlier in the report contribute directly to the sensitivity analysis. The methodology of the analysis aligns closely with the Resource Analysis Process in the Ribbon of Green Master Plan (1992). Five resource types were classified using GIS software according to their sensitivity to potential development. The five resource types include:

- » Vegetation
- » Habitat potential
- » Slope
- » Hydrology and
- » Geology / soils.

The following describes the City of Edmonton's recommended management practices for each level of sensitivity with the goal

of reducing negative ecological impacts in River Valley parks:

Higher Sensitivity Areas

Higher sensitivity areas should be restricted for the protection of natural resources. This could include areas that are very steep, areas that create habitat for sensitive species or areas with unique geological features. Suggested management practices include the restriction of development, routine maintenance, restricted wildlife control and only emergency safety and security services.

Moderate Sensitivity Areas

The interaction of natural resources and people should be managed in Moderate Sensitivity Areas to prevent unnecessary environmental impacts. Moderate Sensitivity Areas could include areas that are characterized by some human disturbance with considerable native vegetation and wildlife habitat intact. Suggested management practices include development limited to trails, routine garbage pick up and trail edge maintenance, limited wildlife control, some habitat restoration and some safety and security services.

Lower Sensitivity Areas

Lower sensitivity areas have experienced the most ecological degradation and, therefore, are the most suitable for many types of park activities if increased active use is desired. However, degraded areas also have the greatest potential for ecological restoration. Restoration efforts should be explored whenever possible.

ENVIRONMENTAL SENSITIVITIES IN THE PARK

Most of the park area is classified as lower or moderate sensitivity, with higher sensitivity in the forested areas due to high vegetation cover and habitat potential. Even though there is currently relatively little human activity in the park, historical land disturbance has reduced the habitat potential across much of the site. The lowest sensitivity areas, including the sand bar and open field, should have a focus on restoration to enhance

Site Analysis

The site analysis presented on the preceding pages was incorporated into an Environmental Sensitivities Report, produced in February 2017 for the Oleskiw River Valley Park Master Plan. This report presented the most sensitive areas within the park boundaries. It was completed in advance of concept development so that recommendations could be made with a conscious understanding of their impacts on the sensitive areas of the park. The findings from this analysis are finer scale than those of the Ribbon of Green guidelines, providing more specific direction on areas in the park that should be preserved and restored, as well as areas that are appropriate for human use.

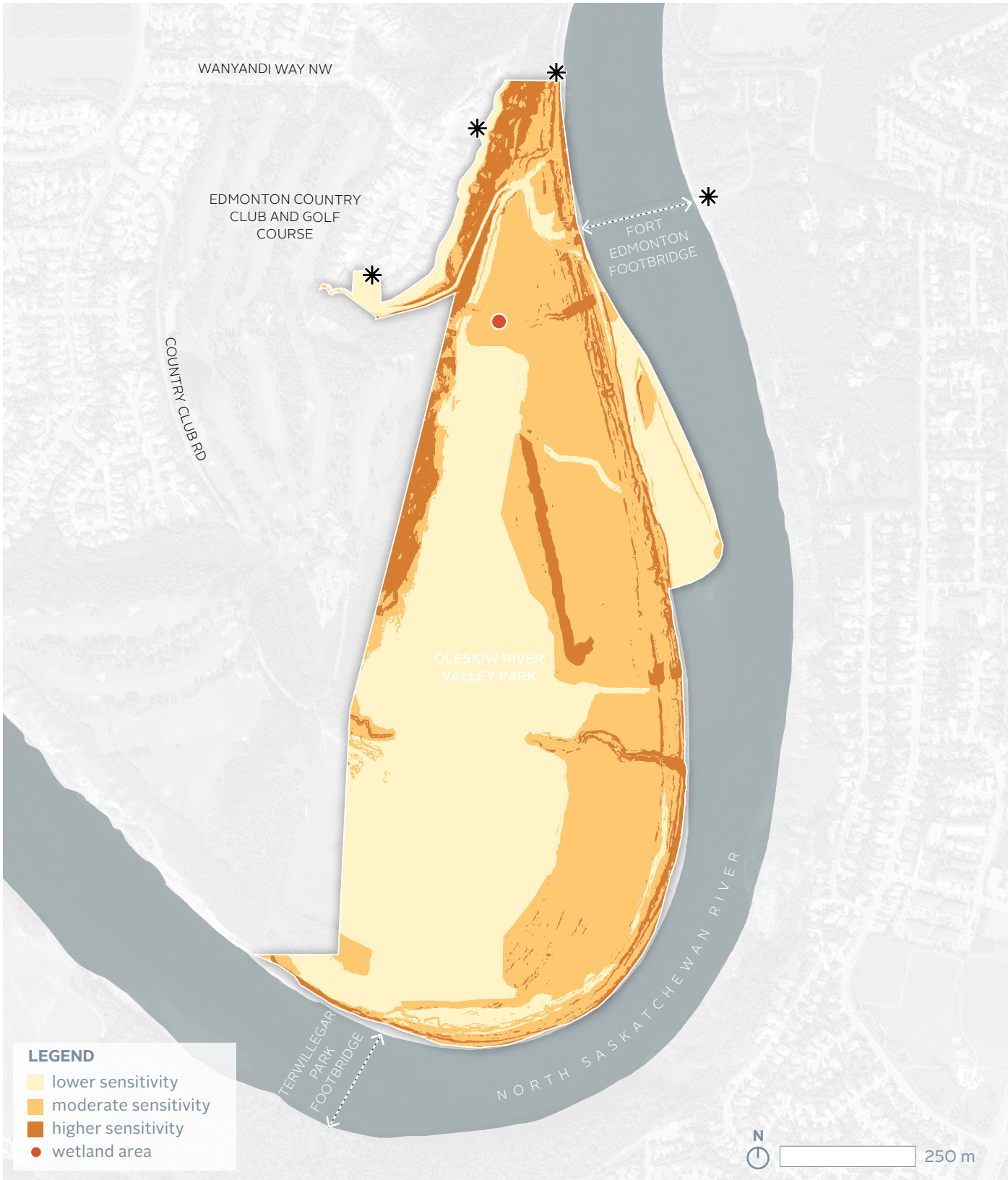


Figure 8 Environmental Sensitivities

Needs Assessment

The City performs a needs assessment for all park Master Plans, which includes a review of the existing conditions and uses of the park, current user groups, visitation information, demographics of surrounding communities and public engagement results.

The needs assessment is driven by findings from the River Valley Park Renewal Program, which analyzed the park's ability to meet existing and future capacity, identifying Oleskiw River Valley Park for park renewal.

The first phase of the Master Plan for Oleskiw River Valley Park included an inventory and analysis of the existing conditions in the park including:

- » the use and condition of existing amenities, trails and access points,
- » existing natural features and vegetation,
- » utilities and servicing to the park,
- » demographic and neighbourhood context,
- » use of the park by different user groups and organizations,

- » events (no formal events are currently registered with the City for Oleskiw River Valley Park and there are no bookable spaces in the park).

The City also considers the amenities and programs available in surrounding parks to ensure all communities in the City are well-served by park space and the proposed program for Oleskiw River Valley Park complements surrounding open space uses. The development occurring in surrounding parks has potential to complement programming that will be proposed for Oleskiw River Valley Park.

The table on the following page indicates the amenities and uses available in parks near Oleskiw River Valley Park.



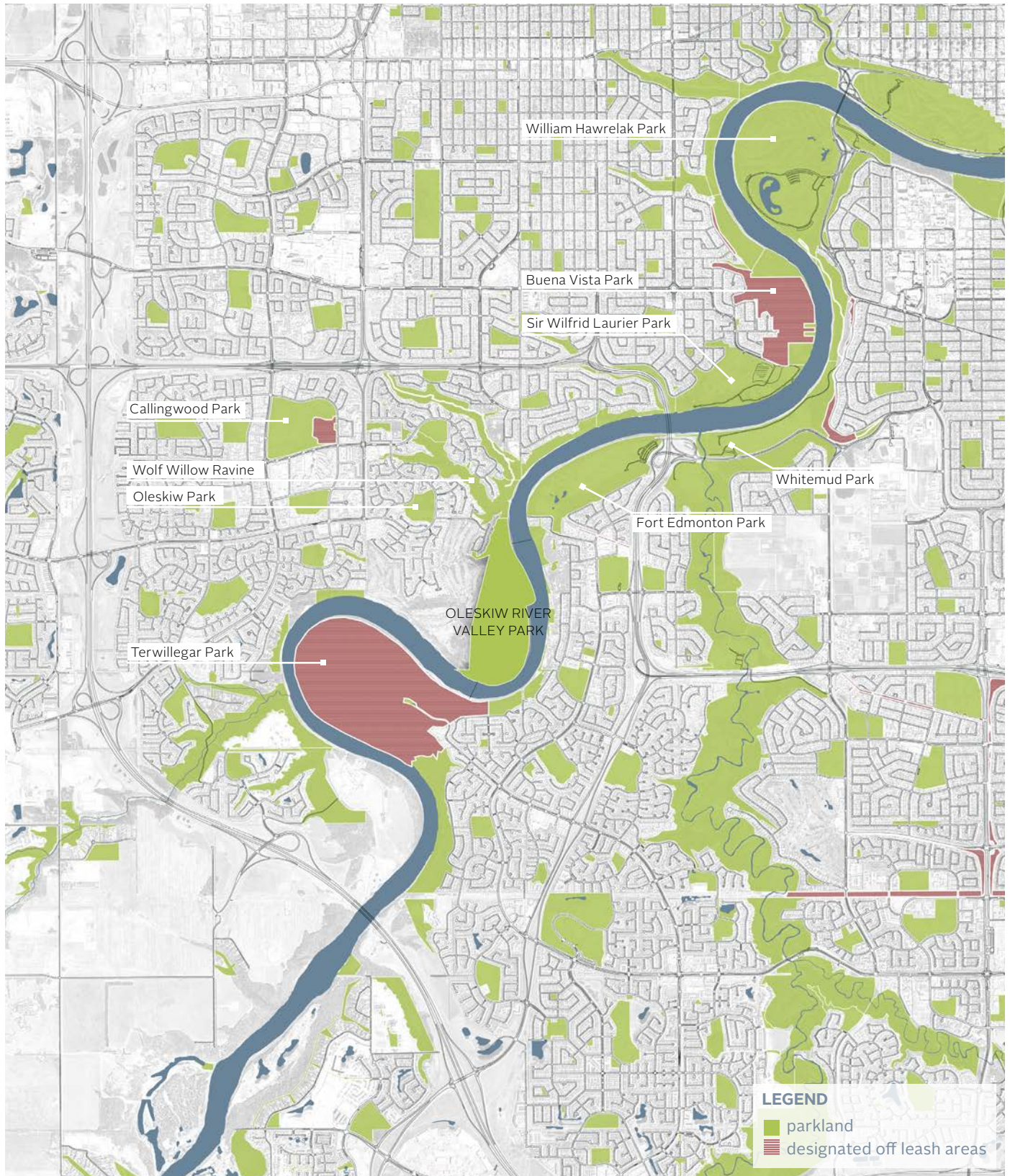


Figure 11 Inventory of Surrounding Parks

INVENTORY OF SURROUNDING PARKS

	WILLIAM HAWRELAK PARK	BUENA VISTA PARK	SIR WILFRID LAURIER PARK	WHITEMUD PARK	FORT EDMONTON PARK	WOLF WILLOW RAVINE	OLESKIW PARK	CALLINGWOOD PARK	TERWILLEGAR PARK
Multi-Use Trails	■	■	■				■	■	■
Walking				■					
Hiking / Mountain Biking						■			■
Bike Rental									
Open Space							■	■	
Playground	■						■	■	
Sports Facilities			■					■	
Swimming Pool									
Cross Country Skiing	■								■
Skating	■								
Toboggan Hill				■					
Skate Park								■	
Equine Trails				■					
Picnic Tables								■	
Bookable Picnic Sites	■		■	■					
Gardens									
Public Art									
Performance Space									
Amenity Building / Pavilion	■								
Building				■					
Washrooms	■	■	■	■					■
River Access / Boating			■						■
Paddle boat Rentals	■								
Parking	■	■	■	■				■	■
Off-leash Area / Trail		■				■		■	■
Distance to Oleskiw River Valley Park	5.9 km	4.3 km	3.2 km	2.6 km	1.6 km	180 m	840 m	2.4 km	230 m

Public Engagement

Policy C513 for Public Involvement is guided by the City of Edmonton's Public Involvement Framework which outlines the strategic approach to be used in all City hosted public involvement processes.

As outlined in Policy C513, the City of Edmonton is committed to involving stakeholders and the public in the Master Planning process. During the engagement, Edmontonians will be asked to identify key uses, needs and strategies for the park and participate in an ongoing dialogue about what the Oleskiw River Valley Park might look like in the future. Ecological and infrastructure needs, as well as how this space can support the surrounding neighbourhoods and the larger Edmonton community will be discussed.

Engagement Plan Overview

The public is invited to participate in four phases of engagement to help develop the Master Plan for Oleskiw River Valley Park. Each phase includes internal and external stakeholder sessions, online engagement and public open houses. External stakeholders include interest groups, neighbourhood groups and other organizations who have expressed an interest in being more deeply involved in the Master Plan process. Internal stakeholders are City of Edmonton employees who can provide input or advice on specific aspects of the park.

Online engagement, in the form of surveys, interactive mapping and activities, gives the public an opportunity to provide their input at their convenience. This option is offered to facilitate input from those who are unable to attend in-person sessions and for those who want to provide additional comments. Material shared at public events and What We Heard Reports are also available online: edmonton.ca/oleskiwparkmasterplan.

Phase 1: Project Introduction, Inventory & Analysis August – September 2016

In Phase 1, the City sought initial feedback on the existing conditions of the project area. We asked the public: what do you like about the park space, why it is important to you and what you want to see in the future?

Information presented to the public and stakeholders included the project scope and boundaries; key existing features, systems and functions of the park; and the relationship of the Oleskiw River Valley Park Master Plan with parallel projects such as the Southwest Priority 2 Area Ribbon of Green Master Plan and BREATHE: Edmonton's Green Network Strategy. Public and stakeholder input identified key dreams, desires, issues and themes. This input informed the development of a park vision, identity and program, as well as the concept options presented in this report.

Phase 2: Vision, Principles & Identity June 2017

In Phase 2, the City looked for the public to help improve their understanding of the opportunities and constraints in the park, which helped to inform the vision. The public and stakeholders provided input on the material presented and were asked to prioritize elements of the vision statement and concept options as well as contribute to the inspiration for an official park name.



Phase 3: Concept Options
November 2017

The City will be looking for feedback on more developed concepts for the park in Phase 3. The City will present two variations on proposed activities, features and elements for the park within two concept plans. The public and stakeholders will be asked to choose which option they prefer, and to prioritize the various proposed elements in each.

Feedback from this phase of engagement will be used to develop a preferred concept plan for the Master Plan, which will be presented in Spring 2018.

Phase 4: Preferred Concept Plan
Spring 2018

In Phase 4, the City will present a refined concept for the park that integrates the priorities and feedback received in Phase 3. The public and stakeholders will be provided with the opportunity to give feedback on the preferred concept to help fine-tune the program and its features. This will support the development of a preferred concept that responds to the needs of the community and park users.

Additional Engagement

Feedback from Phase 1 and Phase 2 of engagement has been integral to the City's understanding of programmatic and operational needs for the park. The City is also reaching out to the following communities to gain a more holistic understanding of public needs for the Master Plan:

- » Indigenous Nations through outreach efforts associated with multiple City projects including BREATHE: Edmonton's Green Network Strategy, the River Access Strategy and the Ribbon of Green Master Plan
- » Multi-cultural communities through workshops aided by the Multicultural Health Brokers Co-op
- » Potential partners to activate the park, focusing on nature education and ecological learning

As data from these outreach methods becomes available, the City will incorporate the findings into the Master Plan.

Phase 1: Inventory & Analysis

WHAT WE DID

In August and September 2016, the City of Edmonton asked citizens to share their thoughts about Oleskiw River Valley Park. A variety of engagement tools were used to provide citizens with convenient opportunities for providing feedback and insight.

Public engagement is critical to the success of the Master Plan. During the first phase of engagement, each activity asked the following questions, in addition to questions specific to Inventory and Analysis topics:

1. What is your favourite thing to do in this park?
2. What would you like in the future?

The following engagement methods were used in Phase 1: Inventory and Analysis:

- » Intercept Surveys
- » Open House
- » External Stakeholder Workshop
- » External Stakeholder Toolkits
- » Internal Stakeholder Session
- » Online Map Tool

We received 1130 comments during Phase 1 engagement. Feedback provided insight into the history of the park and activities that occur within Oleskiw River Valley Park. Speaking with and engaging the public helped us develop a clearer and more accurate understanding of the identity and functions of the area, especially regarding the role of past land uses of the park in shaping the landscape to be what it is today.

WHAT WE HEARD

Responses were analyzed with the goal of uncovering emerging themes, outlying ideas and points of contention. To start the analysis, responses were individually analyzed for sentiments and actionable recommendations. As this analysis progressed, similar ideas, points of contention, themes and outliers emerged. These were grouped, then further grouped, resulting in five main themes. These themes will remain as planning and communication tools for the remainder of the Master Plan and public engagement process.

Theme 1: Park Use & Amenities

Amenities are physical features in the park that provide a service to park users. The largest proportion of comments received during the first round of engagement related to park use and amenities because the main questions were centered around this theme. We heard that most people would like to see minimal development in the park and activities such as cycling, walking and jogging. There is a desire from some to see more opportunities for mountain biking, picnicking and cross-country skiing, among other activities. Benches, picnic tables and washrooms were also recommended by the public.

Top 5 Future Wishes:

- » No off-leash dog use
- » Cycling
- » Winter activities (e.g. cross-country skiing)
- » Limit development in the park
- » Walking, jogging and hiking

Theme 2: Access & Circulation

The discussion regarding access and circulation in the park was largely related to vehicular parking, and whether parking would be made available in the park. Neighbours voiced concerns over traffic and parking congestion in their communities. Participants also requested that the City explore options for universal accessibility, more trail connections into the park and greater accessibility to the river.

Top 5 Future Wishes:

- » Increase trail connectivity
- » Keep and develop natural trails
- » Create parking inside or adjacent to the park
- » Use the footbridges as the main access points
- » Do not make vehicular parking inside or near the park

Theme 3: Natural Asset Management

Natural asset management refers to the maintenance and management of vegetation, drainage systems, steep slopes and wildlife within the park area. The main sentiment we heard from participants was that they want to keep the park natural. Some would like to see the City develop a plan for ecological restoration and/or invasive species removal in the park. Others recommended a focus on nature and wildlife conservation. Participants also wanted to see the responsible management of slope erosion and storm water in the park.

Top 5 Future Wishes:

- » Keep the park natural
- » Preserve natural features
- » Do nothing
- » Restore ecology
- » Create wildlife programming (i.e. bird sanctuary)

Theme 4: Maintenance, Safety & Enforcement

We heard that participants want to see increased enforcement of unwanted behaviour within the park and increased maintenance of features that could pose safety hazards, such as trails that are in disrepair. Preventing fires, keeping the park clean and managing park user conflict were also topics of discussion. Some participants commented that they currently feel very safe in the park as it is.

Top 5 Future Wishes:

- » Trail maintenance to improve safety
- » Wayfinding improvements
- » Signage and emergency phone for safety
- » Increase enforcement of unwanted activity
- » Clean up after dogs

Theme 5: Atmosphere & Identity

Many participants wanted to share their experiences in the park and what it feels like to visit Oleskiw River Valley Park. People talked about feeling like they were escaping the city when visiting the park and the enjoyment of experiencing wildlife and nature. Participants want to maintain certain intangible aspects of the park, such as the quiet, the feeling of solitude, the seasonality and the history of the site.

Top Future Wishes:

- » Experiencing and viewing wildlife
- » Ecological interpretation
- » Feeling of refuge from the city
- » Historical interpretation

SUMMARY OF PARTICIPANT VALUES

The underlying values that became apparent in Phase 1 were summarized in the What We Heard Report and were considered in the following phases, including concept development. Common values are found where participant values, such as maintaining the natural character of the River Valley and increasing safety for all in the park, align with the findings from environmental sensitivities and City policy. These common values will inform the vision and guiding principles for the Master Plan.

Values expressed by the public include:

- » Low impact on existing natural systems
- » Stewardship and responsibility for the park
- » Preserve and responsibly manage ecological features
- » Access into the park should be for all people
- » Access should not place a large burden on one neighbourhood
- » Greater level of connectivity in the River Valley
- » Reduce unwanted activity in the park
- » Reduce user conflict and increase safety
- » Share and celebrate the history of the park
- » Maintain existing identity and character of the park

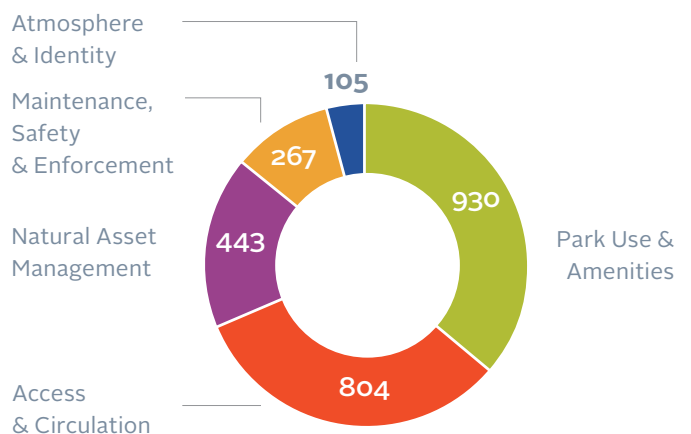


Figure 12 Phase 1 Comments by Theme

Phase 2: Vision, Principles & Identity

WHAT WE DID

In June 2017, we engaged Edmontonians through an open house, an online survey, and a series of focused workshops on the vision and desired program for Oleskiw River Valley Park.

Three activities were available to participants, which included thick and thin engagement strategies. Thick engagement enables large numbers of people to work together while thin engagement encourages people to provide input as individuals. We tried to reach a diverse group of participants using the following engagement tools:

- » Public open house
- » Online survey and map tool
- » External engagement workshop
- » Internal engagement workshops
- » Focused citizen engagement

1. Write your own vision

Participants were presented with phrases and words to piece together their desired vision statement for the park. They were also offered an opportunity to write a free form vision statement of their own. Trends and common themes emerged as we read and categorized all proposed vision statements from the open house, external stakeholder workshop and the online survey. This feedback was used to draft two vision statements for the concept options, as well as identify strategic, high-level issues and opportunities.

2. Create your own park!

This activity allowed participants to think about where activities would be placed on the park map. All Create your own park! maps were layered on top of each other using the online map tool to provide consolidated feedback. From this, we could understand in more detail the programs and activities that were prioritized and generally where participants wanted to do these activities. The results of this analysis provided us with insight into where areas of increased activity emerged, and where there were consistencies and inconsistencies with desired locations and activities.

3. Park Elements

Participants were shown a selection of 72 activities, programs and physical elements such as signage, park furniture, and equipment, then asked to show us their preferences by placing dots on the various park elements. This helped the City of Edmonton understand the public's activity, program, design and stylistic preferences for the park. The preferences for park elements from the online survey and the Park Elements activity were tallied and summarized to give us an idea of the public's level of preference for the types of activities and elements that are desired.

WHAT WE HEARD

The activities in Phase 2 worked together to inform the vision for the park, to gain a deeper understanding of our shared values and to hear the public's desires for specific programs, elements and activities impacting the look and feel of the park.

The results of the Create your own park! and Park Elements activities were in line with the values and sentiments expressed in the vision statements. Most preferred elements that were selected are likely to have a relatively low ecological impact and relate to enjoying and preserving nature. The top 10 placed Create your own park! elements and activities were:

- » Waste receptacle
- » Seating
- » Preservation area
- » Walking
- » Washroom
- » Winter activities
- » Map kiosk
- » Cycling
- » Restoration area
- » Hiking

The top 10 Park Elements chosen were:

- » Natural seating
- » Waste receptacle
- » Informal river access
- » Habitat preservation
- » Directional signage
- » Natural trail
- » Shared use trails
- » Informal play
- » Trail running
- » Pit washroom

Themes and underlying values emerged from the analysis of over 2,000 visions. While some variation in the desired activity level in the park was evident, most statements reflected the importance of maintaining the natural state of the park. The themes that were included in the most vision statements included:

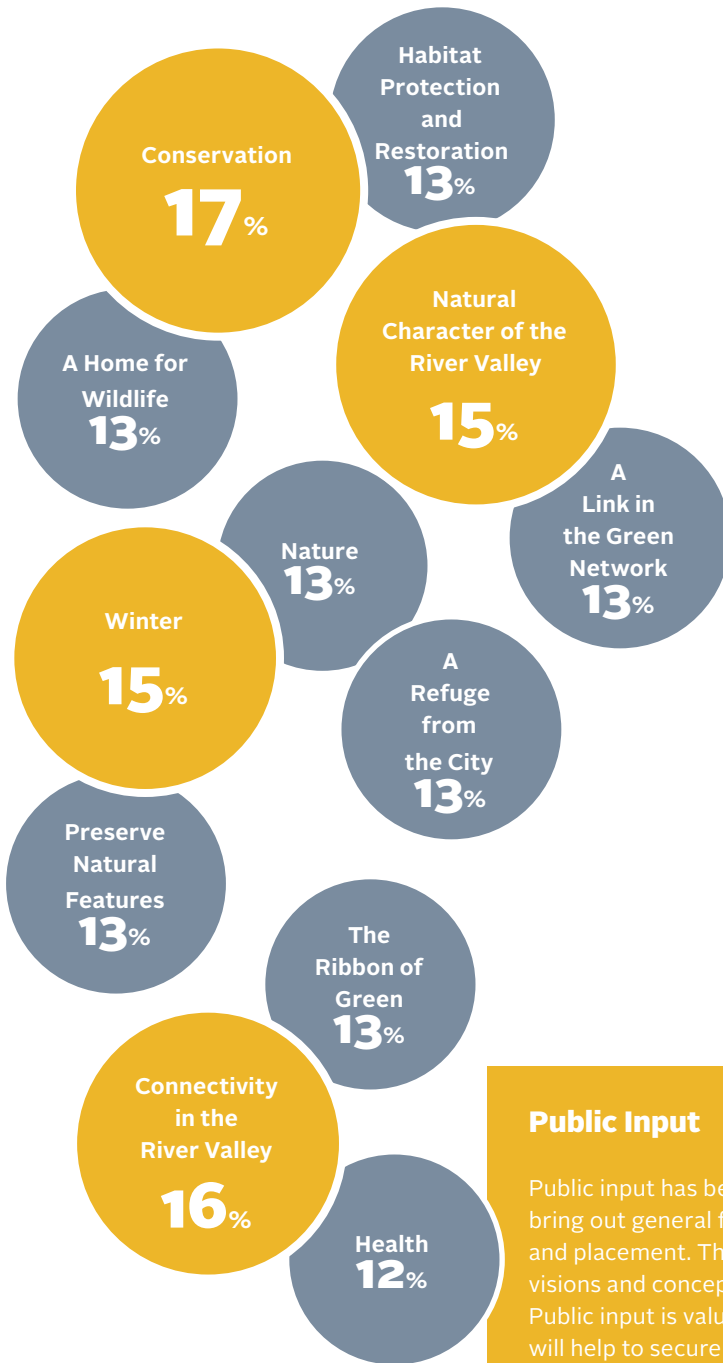


Figure 13 Top Vision Themes

HELP NAME THIS PARK

The Oleskiw River Valley Park does not currently have an official name. Participants were presented with four factors that could influence naming of the park (natural heritage, history, indigenous heritage, political figures), and asked to prioritize which factors should be considered when creating a new name for the park. A nearby park in the community is already referred to as “Oleskiw Park” and a new name for this River Valley park will complement its identity as a unique space in Edmonton. Feedback from this question will be used to put forward a recommendation to the City of Edmonton’s Naming Committee for the park.

The tallied preferences resulted in the following order of preference:

1. Natural Heritage
2. Historical
3. Indigenous Heritage
4. Political Figures

The Master Plan for the Oleskiw River Valley Park will bring forward a recommended name to Edmonton’s Naming Committee, taking into account input from the public engagement process. The Naming Committee will review the request in consultation with the Project Team for the Master Plan, Civic Departments and Community League and/or developers if necessary. The Naming Committee will make the final decision for the park’s official name.

Public Input

Public input has been obtained through in-person and online exercises meant to bring out general feedback on the park vision and specific feedback on park program and placement. The results of these exercises have directly contributed to the park visions and concept options presented later in this report.

Public input is valuable to the Master Plan process. Public support of the Master Plan will help to secure funding for the park’s long-term development. It also informs the development of a concept plan for a park that Edmontonians will use and value well into the future.

Concept Development

Two concepts were created as part of the Master Plan in the fall of 2017. In developing these concepts, the City incorporated all the above input (site analysis, City policy and public input) into a balanced and holistic approach to planning and design.

The two options consist of two distinct vision statements and concept plans, addressing opportunities and constraints in the park using different methods. Opportunities and constraints were developed through findings from the needs assessment, public input, site analysis and direction from City policy. The opportunities and constraints addressed in each concept option include:

OPPORTUNITIES

1. Existing multi-use trail increases access through the park
2. Existing vegetation provides high habitat value
3. Potential to enhance views from the top of bank and the river edge
4. Potential to restore or increase amenities in already disturbed areas (from past land use and bridge construction)
5. Opportunities for wayfinding and gateways at park entrances
6. Potential to re-naturalize field with native plant species and provide east-west ecological connections
7. Potential for ecological and cultural interpretation throughout the site

CONSTRAINTS

8. Limited access into park from top of bank
9. Constraints on the type of programming that can occur in the park due to access and maintenance limitations
10. Erosion along the slopes
11. Invasive plant species along slopes
12. Long distances between park entry and exit points
13. Potential user conflict on trails
14. Limited seating and shade along the multi-use trail
15. Limited opportunities to access the river

The map on the opposite page illustrates the location of each opportunity and constraint listed above. These were key considerations in the concept development process.



Figure 14 Opportunities and Constraints

Concept Development Decisions

Concept development is an iterative process, weighing the pros and cons of public preferences and balancing them with priorities from site analysis and City policy. As recommendations for the Master Plan are refined, they are continually measured against three check points. The City developed these check points to provide direction for recommendations in the Master Plan.

How do the concept options align with the common values and vision for the park? What are the conflicting preferences?

Public vision and values were developed through the analysis of public input from the first two phases of engagement. The City aims to ensure all recommendations are in line with the public's collective vision for the park and our common values.

Are there conflicts with the environmental sensitivities in the park? Can they be mitigated?

Environmental sensitivities were determined through the analysis of existing conditions in the park. The City aims to respect the environmental sensitivities in the park and minimize development impacts in more sensitive areas.

How are the concept options supported and directed by City policies and priorities?

City direction and priorities are determined by City policy and current planning initiatives. Recommendations for the Master Plan should align with the City's policies and vision for the open space network.

With three inputs influencing the direction of the Master Plan, including public input, site analysis and City policy, conflicting influences are inevitable. The City aims to reduce these conflicts where possible. The following pages summarize some key questions and decisions that were made in response to conflicts that arose during concept development.

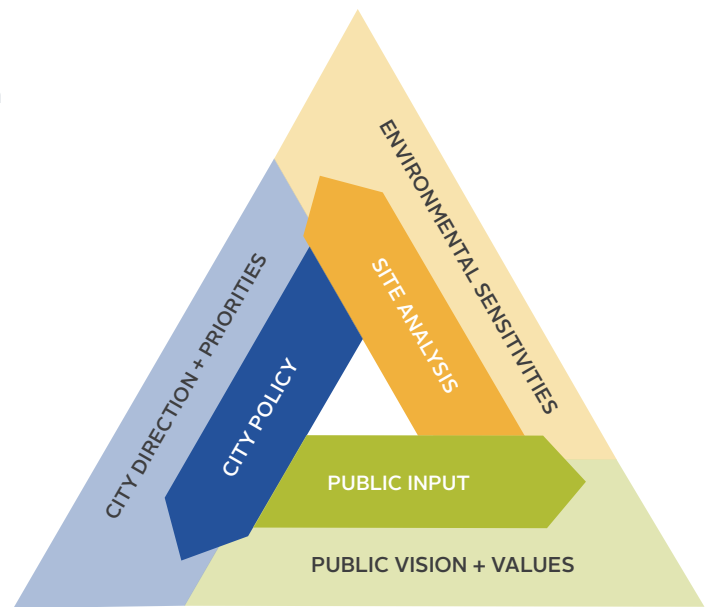


Figure 15 City's Decision-Making Inputs

KEY DECISIONS MATRIX

TOPIC	CHECKPOINT	POTENTIAL CONFLICT	DECISION
Is off-leash dog walking an appropriate use in the park?	City Policy	The City has decided not to include off-leash use as a program in the park. Off-leash dog-walking may occur across the river in Terwillegar Park.	An off-leash area will not be included as a use in the Master Plan.
	Site Analysis	The park contains large areas of moderate to high sensitivity. Areas of low sensitivity in the park have opportunities for restoration, which would not be complementary to an off-leash area.	
	Public Input	The majority of public participants did not want to see an off-leash area in Oleskiw River Valley Park.	
Should there be vehicular access into the park?	City Policy	The City has identified significant limitations to providing public vehicular access into the park, including private land ownership and steep slopes surrounding the west edge of the park.	A review of vehicle access was completed and due to physical constraints and feasibility concerns, vehicle access will not be pursued.
	Site Analysis	Only a small portion of the park's boundary is adjacent to city-owned land. From these access points, the creation of a roadway into the park would cause significant environmental disturbance on the River Valley slopes and would require extensive slope stability measures.	
	Public Input	While some participants noted that a parking lot in the park boundaries would relieve traffic and parking pressures in surrounding communities, others were concerned about the environmental impact of construction and the impact a parking lot would have on the park's natural character.	

TOPIC	CHECKPOINT	POTENTIAL CONFLICT	DECISION
<p>Should the park have a formal river access point?</p> <p><i>Some public participants saw an opportunity for increased river access.</i></p>	City Policy	Edmonton’s River Access Strategy identifies more strategic and accessible river access points in the River Valley.	The Master Plan will not include a formal river access point and no access to the sand bar will be proposed.
	Site Analysis	Site conditions do not allow appropriate access to the river’s edge for public access or infrastructure maintenance.	
<p>Should there be increased servicing in the park?</p> <p><i>Some public participants voiced a desire to see increased servicing in the park, including lighting and drinking fountains.</i></p>	City Policy	Due to access limitations in the park, the City is unable to provide appropriate maintenance and utility servicing for amenities such as lighting and access to potable water downslope.	The Master Plan will not recommend elements requiring utility servicing.
<p>Are higher maintenance amenities appropriate for the park?</p> <p><i>Some public participants wanted to see increased amenities and activities in the park.</i></p>	City Policy	Due to access limitations in the park, the City is unable to provide the appropriate level of maintenance for certain amenities (including sports fields, playgrounds and sewer connected washrooms) and activities (including track-set cross-country skiing).	The Master Plan will recommend amenities and activities requiring lower levels of maintenance, including informal cross-country skiing which does not require track set trails.
<p>Should the park have accessible entrances?</p> <p><i>Many public participants wanted to see increased physical accessibility into the park.</i></p>	Site Analysis	The slopes on the west side of the park are highly sensitive. To provide a fully accessible entrance on the west side of the park is not currently feasible due to environmental and physical constraints.	Opportunities to increase accessibility into the park will be explored including improved maintenance of trail surfaces for ease of movement, the introduction of more resting points at regular intervals and promoting entry across the footbridges.

TOPIC	CHECKPOINT	POTENTIAL CONFLICT	DECISION
<p>Should the Master Plan leave the park as it is?</p> <p><i>Some public participants do not want to see changes in the park.</i></p>	City Policy	<p>As part of the 10-Year Capital Investment Agenda, The River Valley Park Renewal program has identified Oleskiw River Valley Park Master Plan as a key project that will direct investment for the park. This decision was driven in part by the opening of pedestrian bridges into the park and the new multi-use trail.</p> <p>With increased use, the park needs a vision and management plan for the next 25-years.</p>	<p>While the Master Plan will make recommendations for the park (which currently does not have a plan), it will aim to ensure the character and ecological significance of the park is maintained.</p>
	Public Input	<p>Many do not want to see major changes in the park, while others would like increased activity.</p>	
<p>Should invasive species be removed?</p> <p><i>Invasive plant species are currently prevalent along the River Valley slopes and in the former hay field in the park.</i></p>	City Policy	<p>The Corporate Tree Management Policy requires that any tree that is removed must be replaced.</p>	<p>The Master Plan will explore opportunities to introduce native plant species into the park through long-term management strategies.</p>
	Site Analysis	<p>A large-scale removal of invasive species would require the implementation of intensive slope stabilization, replacement with native grasses, trees and shrubs and a long-term management plan for re-naturalization.</p>	
<p>What can the Master Plan do to improve emergency response in the park?</p> <p><i>Some public participants requested emergency call boxes.</i></p>	City Policy	<p>The City is reviewing the provision of emergency phones in open spaces to provide better, safer, reliable and more cost-efficient service to those requiring emergency services.</p>	<p>The Master Plan will include recommendations from the results of the City's review. Improved wayfinding signs in the park will also provide users a means to give their location to EMS in case of emergency.</p>

Concept Options

The concept options presented in this report respond to all that we have learned about Oleskiw River Valley Park through the Master Plan process – from the public, site analysis and the City’s priorities for the park.

Vision Statements

Feedback from Phase 2 of public engagement built on what we heard from Phase 1 and helped contribute to common values for the park. We asked participants to prioritize words and phrases that resonated with their values to contribute to two vision statements for the concept options.

The public’s input resulted in a vision for the park that protects the natural character of the park and its ecological linkages while providing opportunities to experience the health benefits of being in nature. Public feedback on the vision for the park was unified in its desire to protect and restore the park to, providing habitat for wildlife and a safe, enjoyable visitor experience. Two vision statements were created to reflect this unified desire while providing for varied levels of activity and development in the park. The vision statements also reflect two different approaches to programming and restoration.

CONCEPT 1

The Oleskiw River Valley Park provides essential habitat to a diversity of plants and animals and enhances ecological connectivity in the River Valley. As a refuge from the city for Edmontonians, the park provides a setting where visitors can experience how the landscape changes over time and the restoration of ecological systems, enhanced through educational programs and nature interpretation.

CONCEPT 2

The Oleskiw River Valley Park provides an immersive experience into the natural landscape while educating visitors on the natural and cultural heritage of the site with nature interpretation and ecological learning. The layered history of the park is celebrated through educational elements and passive recreational opportunities. Surrounded by habitat for plants and animals, visitors can learn about the landscape while creating new narratives for Edmonton’s future generations.

CONCEPT 1



“essential habitat to a diversity of plants and animals”



CONCEPT 2

“educating visitors on the natural and cultural heritage of the site”



Concept 1 Overview

The main objectives in Concept 1 are to restore native habitat in the park while integrating opportunities for visitors to appreciate and enjoy nature. Concept 1 integrates a staged restoration plan to expand the riparian forest, mimicking natural forms in the landscape. A learning circle at the north end of the park and a picnic, play and gathering area at the south end of the park contain the main amenity improvements proposed in this concept. New natural trails create connections across the park and rest stops are provided throughout to give visitors the opportunity to stop and enjoy nature views.

DESIGN STRATEGIES

- » Circulation and form are inspired by existing ephemeral streams and topographical patterns.
- » Key trail connections are created and trail experiences change through time with the evolution of re-naturalized habitat zones. Natural materials are used on new trails.
- » Wayfinding elements are integrated into the plan to improve safety and comfort.
- » Rest stops and seating are provided at regular intervals along trails.
- » Gateways and view points are enhanced with planting, signage and park amenities where appropriate.
- » Activities in the park are compatible with existing ecological sensitivities, habitat potential, surrounding land uses and the Ribbon of Green (2018).
- » Portions of the brome field are restored in stages to imitate natural succession patterns of a native riparian forest and meadow.
- » Formal viewpoints along the river increase a sense of connection to the river.
- » Interpretive elements and seasonal artwork showcase the changing landscape.
- » Opportunities are provided for educational programming, including day camps, culture camps, community groups and school groups. Programming could be provided in partnership with an environmental, Indigenous or educational group through a partnership with the City.
- » Winter activities, such as informal cross-country skiing and snow shoeing are encouraged.

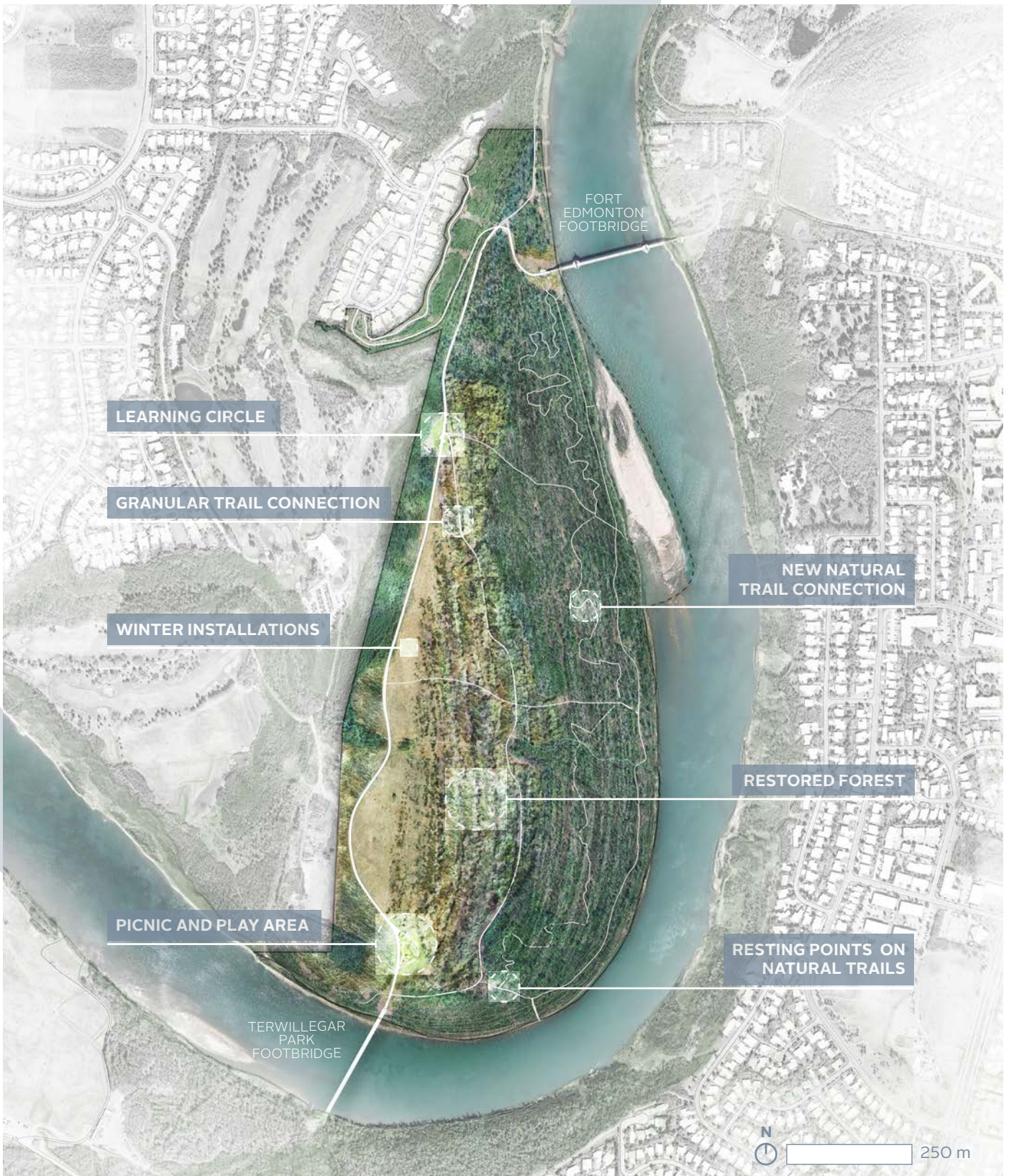


Figure 16 Concept 1 Plan

Concept 2 Overview

In Concept 2, restoration efforts maintain open spaces in the park which, exposing traces of past uses. Educational elements and programming focus historical land uses and their effect on the landscape, as well as the restoration of native plant communities in the park. Restoration techniques, which are integrated with passive recreational and educational programming elements, enhance habitat in the park. New trails and rest stops improve accessibility throughout the park. An outdoor classroom and play area in the north and a picnic and gathering area in the south contain the main amenity improvements proposed in Concept 2.

DESIGN STRATEGIES

- » Circulation and form are defined by traces of past uses and ecological patterns, which are marked through the renewal of native vegetation and natural systems.
- » Key trail connections are created and trail materials are chosen to enhance the interpretive experience and accessibility where possible.
- » Wayfinding elements are integrated into the plan to improve safety and comfort.
- » Rest stops and seating are provided at regular intervals along trails.
- » Gateways and view points are enhanced with planting, signage and park amenities where appropriate.
- » Activities in the park are compatible with ecological sensitivities, habitat potential, surrounding land uses and the Ribbon of Green (2018).
- » Vegetation communities are restored to outline historic / ephemeral water bodies and create east-west connections in the park.
- » Much of the brome field is maintained. Some areas are restored with native prairie and forest vegetation.
- » Passive recreation takes place in pockets of the park, which also contain interpretive elements.
- » Formal viewpoints along the river increase a sense of connection to the river.
- » Opportunities are provided for educational programming, including day camps, culture camps, community groups and school groups. Programming could be provided in partnership with an environmental, Indigenous or educational group through a partnership with the City.
- » Winter activities, such as informal cross-country skiing and snow shoeing are encouraged.



Figure 17 Concept 2 Plan

Program & Park Management

Five themes developed from public engagement feedback help to describe the approach to program and park management in each concept option.

The following five themes, along with a Winter Overlay, are used to summarize the proposed changes and highlight key differences between the concept options.

- » Access & Circulation
- » Park Use & Amenities
- » Natural Asset Management
- » Maintenance, Safety & Enforcement
- » Atmosphere & Identity
- » Winter Overlay

Access & Circulation

Park entrances, trails and directional signs are key components of the access and circulation in the park. Both concept options aim to make improvements to accessibility and connectivity in the park. Amenities in the park become more accessible for people of all abilities. They will be placed near the north and south bridge entrances. Resting points will also be added at regular intervals along pathways.

Connections across the park will be improved through the introduction of new trails. Within the existing forest, only natural trails are introduced. Trail loops give visitors different options for distances and use. Trail activities encouraged in both concepts include:

- » Walking/hiking/jogging
- » Mountain biking
- » Cycling
- » Informal cross-country skiing
- » Snowshoeing
- » Fat biking

A comprehensive signage plan will improve wayfinding in the park. The signage plan will be completed in the final Master Plan document. The plan will introduce the use of trail markers along natural trails to improve safety and wayfinding in natural areas. The plans on the following pages indicate locations where directional and wayfinding signage would be proposed in each scheme.

CONCEPT 1

In Concept 1, the paved multi-use trail and existing natural trails are maintained and enhanced with natural and granular trail connections that provide east-west connections in the park. Most amenities in the park are located near the paved multi-use trail, maintaining the relative accessibility of these features. Within the forest area, a new natural trail connection is introduced to help reduce conflicts between trail users, including pedestrians and cyclists.

CONCEPT 2

The circulation patterns in Concept 2 emphasize east-west connections in the park. This concept introduces more improved surface (aggregate and paved) trails. The trail alignments reference past land uses in the park, allowing visitors to wander through the interpretive trail loops. No new trails are proposed within the existing forest.

CONCEPT 1

A new granular trail is proposed to provide a north-south connection in the park. The trail weaves through the bands of restored forest vegetation.



CONCEPT 2

A new granular trail loop outlines the boundary of a historic golf hole from when the Edmonton Country Club and Golf Course was located on the site. The trail connects visitors to a small wildlife lookout structure.

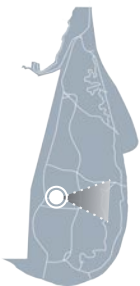




Figure 18 Connectivity & Circulation Concept 1



Figure 19 Connectivity & Circulation Concept 2

Park Use & Amenities

Concept 1 and Concept 2 both expand on the existing amenities in Oleskiw River Valley Park. However, the types of features as well as their placement and scale differ between the concepts. The suggested activities for both concepts are compatible with the access and maintenance limitations in the park. The following activities are recommended in both concept options:

- » Walking/hiking/jogging
- » Mountain biking
- » Cycling
- » Day camp
- » Educational programming and story-telling
- » Indigenous use
- » Wildlife viewing
- » Picnicking
- » On-leash dog-walking
- » Nature play
- » Informal cross-country skiing
- » Snowshoeing
- » Fat biking

Amenities required to support the suggested program in the park include: a shelter, a pit washroom, seating, resting areas and picnic areas. The concept options suggest different locations for these elements in the park.

CONCEPT 1

The activities that occur in Concept 1 are planned to complement the restoration of the riparian forest. The learning circle in the north end of the park integrates interpretive elements to teach visitors about the native landscape and the restoration taking place. This node is a connection point for trails that extend into the interior of the park.

Resting points are located at key locations along trails. Concept 1 introduces resting points with interpretive signs along natural trails that may be used by individuals and groups. The previously disturbed area near the Terwillegar Park Footbridge contains a picnic area with a pit washroom and natural play structures. Nature play is encouraged in this zone, while educational programming (through day camps and school groups) can occur throughout the park.

CONCEPT 2

An outdoor classroom and shelter with a small open amphitheatre and pit washroom create an educational node at the north end of the park that can be used by community and school groups. This area connects into a small nature play area.

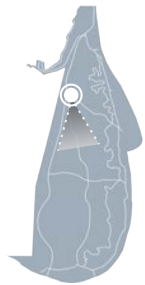
The picnic area to the south includes a small shelter, picnic tables and a small flexible lawn. A granular trail traces the outline of a historic golf hole and leads visitors to a wildlife viewing structure within a restored forest area. Resting points and seating are located at regular intervals along existing and proposed improved surface trails.

KEY DIFFERENCES: PARK USE & AMENITIES

	CONCEPT 1	CONCEPT 2
NORTH END OF THE PARK	A small, open learning circle with interpretive elements provides an area to teach visitors about forest restoration at the north end of the park.	A sheltered outdoor classroom, small open amphitheatre, small nature play features and pit washroom create an educational area at the north end of the park.
SOUTH END OF THE PARK	A picnic area, pit washroom and natural play area are located in the south end of the park.	A small sheltered picnic area with picnic tables and a flexible lawn in the south end of the park.
NATURE PLAY	The nature play landscape is located near the Terwillegar Park Footbridge in the Oleskiw River Valley Park. Elements of the play landscape are constructed out of natural materials and have forms that reference native plants and wildlife. Partnership with nature education groups could provide guidance on nature play that is sensitive to the landscape throughout the park.	The nature play area in Concept 2 is made up of natural elements for climbing and seating. It is located next to the outdoor classroom in the north end of the park. Programming through community partners could provide guidance on nature play that is sensitive to the landscape throughout the park.
RESTING POINTS	Concept 1 introduces resting points complemented by interpretive signs along natural trails that may be used by individuals or groups.	

CONCEPT 1

Constructed of natural materials and located near the north entrance of the park, a learning circle becomes a trailhead location and a place for groups to gather and learn.



CONCEPT 1

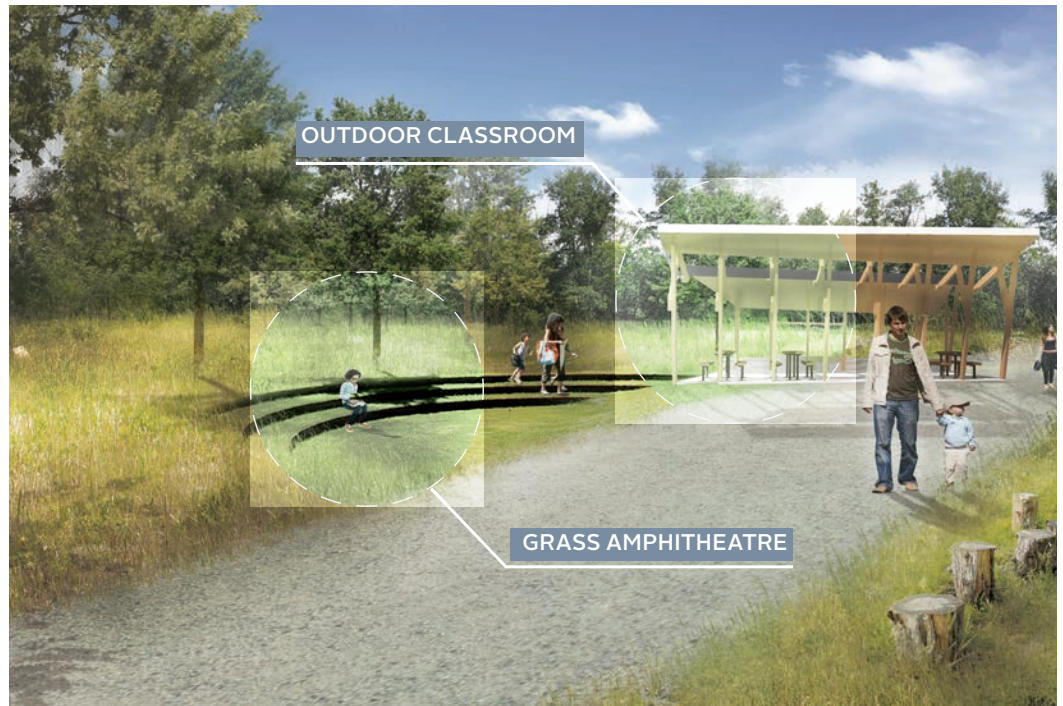
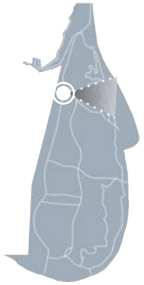
A picnic and play area in the south end of the park includes a picnic shelter, picnic tables, small natural play elements and a pit washroom.

Play elements relate to the restoration of the landscape and enhance the educational experience.



CONCEPT 2

The educational area in Concept 2 includes an outdoor classroom and amphitheatre which could be used by community groups for educational programming if there is partner interest.



CONCEPT 2

Concept 2 includes a smaller picnic area in the south end of the park. It is made up of a picnic shelter, picnic tables and a flexible lawn.





Figure 20 Park Use & Amenities Concept 1



Figure 21 Park Use & Amenities Concept 2

Natural Asset Management

Natural asset management describes the ways the natural areas in the park are maintained or restored. Both concepts aim to protect and enhance existing wildlife habitat in the park. The Master Plan will also explore options for addressing invasive species in the park. The riparian forest is preserved and forest vegetation is restored in the former hay field. The riparian forest buffer along the river edge is restored, particularly near the southern shore of the park where possible. The area west of the multi-use trail is enhanced with forest planting. No activity or formal access to the sand bar is proposed.

CONCEPT 1

Concept 1 proposes a unique restoration method to re-forest large areas of the park's brome field. The method is influenced by the natural regeneration and forest growth that is already occurring in the park. Succession occurs when grasses, shrubs and trees grow and spread across the landscape after a forest disturbance, such as forest clearing for farming. Successional landscapes are dynamic because they contain plant communities in several stages of growth that are constantly

changing, from pioneer plant communities to old growth forests. Each stage of plant growth supports different wildlife communities. Concept 1 aims to mimic naturally occurring seral (intermediate) plant communities through a long-term planting and management strategy. Forest growth is accelerated by disturbing the soil adjacent to existing tree stands, encouraging their roots to spread into the field. This process would be repeated in stages over many years. Native whips (very small trees) may also be planted in some areas.

CONCEPT 2

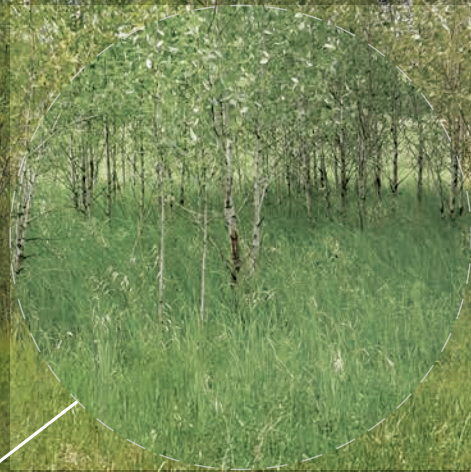
Restoration in Concept 2 is influenced by the site's natural and cultural heritage. Educational and interpretive elements are integrated into the natural asset management plan for the park. While some methods (similar to Concept 1) will be used to encourage forest growth into the field, stronger east-west ecological connections are created with tree planting to buffer an ephemeral stream. Larger areas of the brome field are retained as open space. An area at the north end of the park is re-naturalized to a native prairie. The open space in Concept 2 maintains habitat for foraging animals and birds, and is the location of a wildlife viewing structure.

KEY DIFFERENCES: NATURAL ASSET MANAGEMENT

	CONCEPT 1	CONCEPT 2
PRESERVATION AND RESTORATION TECHNIQUES	A long-term strategy is implemented to encourage forest growth in stages in the open field.	A long-term strategy is implemented to encourage some forest growth while maintaining large portions of the open field.
HABITAT AND WILDLIFE	The forest is maintained and increased forest habitat is promoted in stages to provide habitat for a variety of plants and animals.	Various habitats are encouraged throughout the park, including native forest and prairie.
NATIVE PRAIRIE	There is no restored prairie in Concept 1.	A small area in the north of the park is restored to native prairie.



WILDLIFE HABITAT PROTECTED + RESTORED



STAGED RESTORATION PLAN FOR VARIOUS PLANT COMMUNITIES



Figure 22 Natural Asset Management Concept 1



Figure 23 Natural Asset Management Concept 2

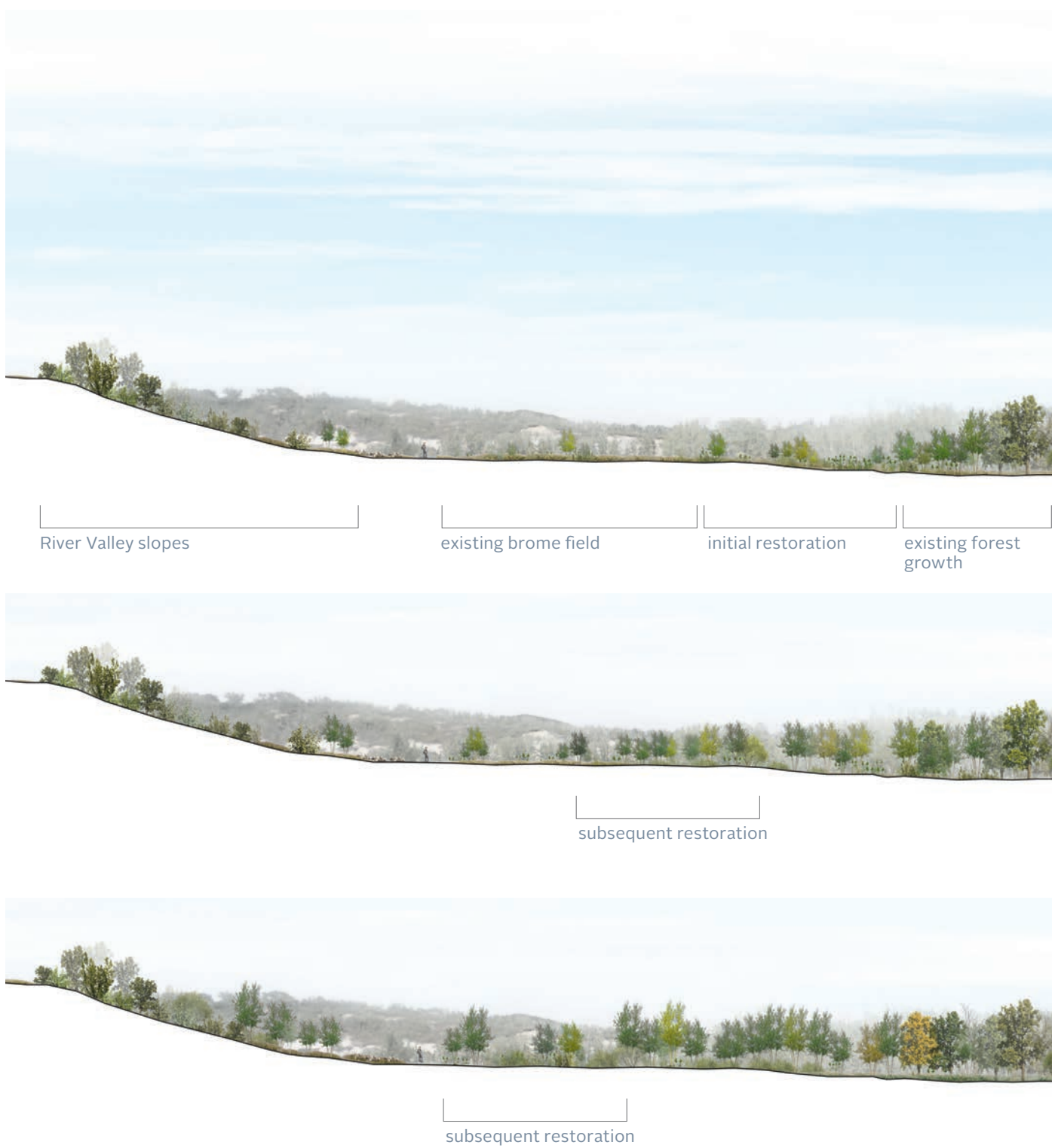


Figure 24 Restoration Sections Concept 1



CONCEPT 1

The restoration methods in Concept 1 are focused on extending the forest into the open field. The brome grass field would compose the understory for the first years of restoration. Over time, and with continued management, a native understory would develop, creating habitat for a variety of birds and animals.

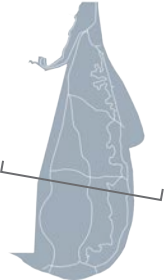


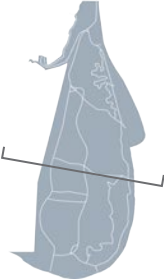


Figure 25 Restoration Sections Concept 2



CONCEPT 2

In Concept 2, various restoration methods are implemented in different areas of the park. These sections visualize the restoration of vegetation along the ephemeral stream in the centre of the park. Native trees, shrubs and grasses are planted to provide an east-west ecological connection across the park, and increase habitat potential around the ephemeral stream.



Maintenance, Safety & Enforcement

Elements to improve the maintenance and feeling of safety in the park are included in both concept options. The Master Plan will outline details on the implementation and maintenance requirements for all proposed elements in the park.

Some recommendations for improving safety in the park include:

- » **Well-maintained park features:** Park features that are well maintained and well used tend to discourage vandalism and other unwanted activity.
- » **A comprehensive signage plan:** Signs at entrance and exit points in the park indicate distances to other entrances, trail difficulty/slopes, appropriate trail and amenity uses and park hours. Locational information on signs improve wayfinding and allow users to give their location by phone in case of emergencies.
- » **Washroom:** The proposed washroom provides a basic amenity to increase visitors' comfort in the park. It will be locked nightly to help avoid unwanted after-hours use.
- » **Waste receptacles:** Waste receptacles are distributed along trails to help keep the park free of litter.

The City is reviewing the provision of emergency phones in open spaces to provide better, safer, reliable and more cost-efficient service to those requiring emergency services.



TRAIL USE EXAMPLE:
TRANS CANADA TRAIL



TRAIL SIGN EXAMPLE:
EDMONTON RIVER VALLEY
WAYFINDING SIGN



WASTE RECEPTACLES AT
KEY LOCATIONS

Credit: Wishbone Site Furnishings

Figure 26 Safety & Maintenance Examples

Atmosphere & Identity

Both concept options include elements for natural and cultural heritage interpretation. The park's natural features and rich cultural history provide a wealth of information for visitors to discover. Both concept options provide opportunities for educational programming, including day camps, culture camps, community groups and school groups. Programming could be provided in partnership with an existing environmental, Indigenous or educational community group. If historic resources in the park are found, they will be protected according to the Historical Resources Act and may be included in the interpretation of the park's history.

CONCEPT 1

Specific elements in Concept 1 help to enhance the natural, restored atmosphere of the park. Winding trails through the restored forest invite visitors to explore the park and to feel connected to nature. Interpretive signs are located along trails to educate visitors on native plant and animal species in the park. The outdoor learning circle at the north end of the

park creates an opportunity to gather and learn about the landscape. Seasonal art installations may provide warming features and create new ways to experience winter ecologies and microclimates in colder months. Cooperation between the Edmonton Arts Council and local Edmonton artists is encouraged for implementation.

CONCEPT 2

Cultural traces in the landscape emerge through the design and placement of park elements and vegetation. Open space near the north end of the park will focus on native plant restoration, with possible programming and teaching opportunities developed in partnership with community or partner organizations. Natural and cultural interpretation occurs throughout the site with interpretive signage. Physical elements in the plan can be enhanced through educational programming and culture camps. The educational node, including an outdoor classroom, amphitheatre, washroom and natural play elements, includes amenities to make Oleskiw River Valley Park an outdoor educational site for the community.

KEY DIFFERENCES: ATMOSPHERE & IDENTITY

	CONCEPT 1	CONCEPT 2
TRAILS	Winding trails through the restored forest invite visitors to explore the park and feel connected to nature.	Trails lead visitors through various plant communities in the park, including restored areas and the existing open field.
HERITAGE INTERPRETATION	Interpretive signs along the trails educate visitors on native plants and animals.	Interpretive signs along the trails and near the river can teach about the importance of nature and use of the landscape over time, informed by community partnerships.
EDUCATION SUPPORTS	Small gathering spaces along natural trails provide places for individuals and educational groups to stop and rest.	Educational programming by community partners is encouraged throughout the park.
UNIQUE EXPERIENCE	Winter installations like warming shelters or temporary art create new ways to experience winter ecologies.	Open space near the north end of the park will focus on native plant restoration, with possible programming and teaching opportunities developed in partnership with a community or partner organization.

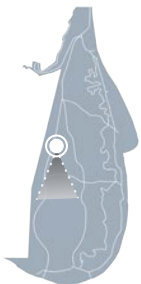
CONCEPT 1

Resting points along natural trails give individuals and groups opportunities to pause and have teaching moments. Relatively small, these resting points would cause minimal disturbance and would be complemented by interpretive signs.



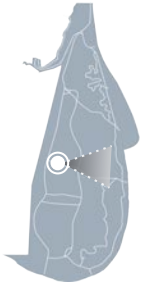
CONCEPT 1

Winter installations, like warming huts or temporary art installations, create new ways to experience winter ecologies. Examples of these types of installations have been implemented in Hawrelak Park in Edmonton and in other Canadian cities such as Toronto and Winnipeg.



CONCEPT 2

The field is maintained at different scales in both concepts. In Concept 2, the open field proposed is larger than in Concept 1. The field would continue to be mown.



CONCEPT 2

Open space near the north end of the park will focus on native plant restoration, with opportunities for community and educational programming developed in partnership with community or partner organizations.



Winter Overlay

Oleskiw River Valley Park is unique in Edmonton. The winter experience in the park is one of open expanses and quiet enjoyment of nature. The Master Plan aims to keep the treasured winter experience in the park that visitors already enjoy. Both concept options support the following winter activities:

- » Informal cross-country skiing
- » Hiking
- » Snow-shoeing
- » Fat biking
- » Wildlife viewing
- » River viewing
- » Education

The south-east facing slopes and river edge on the southern edge of the park will experience more sun and an early snow and ice melt in the spring months compared to the open field and forest area in the park. These areas may provide more comfortable resting and viewing areas in colder months. River viewing locations take advantage of the south-facing slopes along the river edge.

Visitors who venture into the interior of the park are exposed to wind and adverse weather conditions with limited vegetation and shelter near the multi-use trail. The concept options presented in this report provide vegetation and shelter enhancements to improve winter comfort in the park.

Winter activities requiring snow cover (informal cross-country skiing, hiking, snow-shoeing and fat biking) can occur on natural trails throughout the park. Only the multi-use trail and trails connecting to park entrances will be cleared of snow.



Figure 27 Winter Use Examples

KEY DIFFERENCES: WINTER OVERLAY

	CONCEPT 1	CONCEPT 2
MICRO-CLIMATES	Enhanced forest vegetation throughout the park provide more wind breaks and winter shelter for people and wildlife in the park.	East-west forest connections provide some wind breaks, while large open spaces remain unsheltered from wind.
WINTER WARMING	Aside from the shelter provided by trees and vegetation, the picnic shelter in the south of the park provides a warming element for visitors to the park in the winter. Winter installations could include warming elements, such as the warming huts installed in Hawrelak Park (Make Something Edmonton and WinterCity Strategy).	The outdoor classroom in the educational node and the picnic shelter to the south provide winter warming elements for park visitors.

Parking Considerations

A parking management plan will evaluate existing and potential parking locations around the park (including the Terwillegar Park parking lot and Fort Edmonton Footbridge parking on Wanyandi Way). The plan will include strategies to mitigate impacts to surrounding communities and monitor levels of park use. The City will also pursue a public education strategy with improved signage to direct vehicles to the most appropriate access points.

Infrastructure Requirements

Although there are few built elements in both concept options, the desired programming and experience requires some supporting infrastructure. The required infrastructure for both concept options is summarized in the table below.

Retention and Removal of Park Amenities

Both concepts follow a similar approach to the retention and removal of park amenities.

REMOVED IN BOTH CONCEPTS

- » Invasive or non-native plant species related to re-naturalization plans

RETAINED IN BOTH CONCEPTS

- » Multi-use trail
- » Natural trails
- » Formal landscaping along the top of bank trail east of Woodward Cres.
- » Existing trees

INFRASTRUCTURE REQUIREMENTS

THEME	ELEMENT	CONCEPT 1 REQUIREMENTS	CONCEPT 2 REQUIREMENTS
ACCESS & CIRCULATION	Trails	Natural surface trails Granular surface trails	Natural surface trails Granular surface trails
	Signage	Trail markers Directional signs Gateway signs	Trail markers Directional signs Gateway signs
PARK USE & AMENITIES	Seating	Seating from natural materials (logs, rocks, benches)	Seating from natural materials (logs, rocks, benches)
	Picnic Area	Shelter (approx. 50 square metres) Picnic tables	Shelter (approx. 50 square metres) Picnic tables
	Nature Play	Custom natural play elements designed for education relating to restoration	Natural play elements constructed from logs, rocks and berms
	Washroom	Pit washroom in the southern node	Pit washroom in the northern node

THEME	ELEMENT	CONCEPT 1 REQUIREMENTS	CONCEPT 2 REQUIREMENTS
ATMOSPHERE & IDENTITY	Outdoor Learning	Learning circle with natural seating	Grass amphitheatre and outdoor classroom structure (75 square metres)
	Interpretive Signs	Interpretive signs along pathways and at northern and southern nodes	Interpretive signs along pathways, at northern and southern nodes, in restored areas, near the river and at cultural heritage sites
	Winter Installation	Winter installations located along the multi-use trail	None
WINTER OVERLAY	Warming Elements	Winter installations and picnic shelter could incorporate some warming features	Shelters in northern and southern node provide some winter shelter from the elements
MAINTENANCE, SAFETY & ENFORCEMENT	Waste Receptacles	Waste receptacles at appropriate intervals along trails and in gathering areas	Waste receptacles at appropriate intervals along trails and in gathering areas
	Signage	Regulatory signs	Regulatory signs

Environmental Mitigation Measures

The environmental sensitivity analysis of Oleskiw River Valley Park, which was completed for the Master Plan, was used as a check point for the concept option recommendations. The sensitivity levels in the park directly informed the location and intensity of proposed amenities and activities. General management and programming techniques for sensitive park zones are described in the Environmental Sensitivities Report for Oleskiw River Valley Park, published in February 2017. The report is available on edmonton.ca/oleskiwparkmasterplan.

Public preferences and City priorities have provided direction for the program and management recommendations. The City is working to ensure that recommendations align with direction from the Ribbon of Green (2018) and earlier work from the Oleskiw River Valley Park Environmental Sensitivities Report. This section of the report outlines potential environmental impacts of the proposed activities and features in both concept options, as well as mitigation measures that would be implemented as part of the Master Plan.

POTENTIAL CONSEQUENCES FROM HUMAN ACTIVITY

The concept options propose amenities and activities that are generally compatible with moderate to highly sensitive natural areas. However, human use of park spaces will always have an ecological impact of some degree. The uses described here are foreseen to need some form of mitigation to decrease their ecological impact.

The amenities proposed in both concepts may lead to higher numbers of park visitors. Consequences of higher park use include: larger volumes of garbage, increased noise levels and increased vegetation and wildlife disturbance. The introduction of educational programming will increase the number of visitors travelling through sensitive natural areas.

The trails in both concepts invite park users into areas of higher sensitivity in the riparian forest, including the 1:100 year flood zone. Visitors that do not stay on designated trails have the potential to increase erosion on the slopes and disturb wildlife in the park.

The sand bar is a transformative landscape that may change based on the flow of the river, showcasing the geomorphological effects of the North Saskatchewan River. Un-managed or high impact activities on the sand bar have the potential to alter the landform and its ecologies, and could potentially result in damages or injury.

PROPOSED MITIGATION STRATEGIES FOR HUMAN ACTIVITY

Public education and cooperation with program partners will help to address potential environmental consequences from human use. Park signage will indicate highly sensitive areas and will regulate park and trail use to protect sensitive areas. Stormwater from adjacent communities will be monitored if it enters the park.

Higher intensity activities and amenities will be located in areas of the lowest sensitivity. Proposed developments will either be situated sufficiently outside of the 1:100 year flood zone or appropriate flood proofing measures will be implemented.

Throughout the park, supporting amenities will be used to reduce ecological impact, including waste receptacles.

POTENTIAL CONSEQUENCES FROM INFRASTRUCTURE & CONSTRUCTION

Consequences from the construction of elements may include impacting already unstable slopes as well as causing disturbances to vegetation and wildlife habitat. Slopes that are particularly sensitive include the slopes east of Woodward Crescent and along the river edge. Neither concept option proposes development near these sensitive slopes.

The park has the potential to contain several sensitive plant and animal species, as well as an identified “wetland-like” area. Construction activities are not expected to occur in the existing forest apart from potential new trail alignments. The removal of vegetation during construction may cause habitat loss and/or fragmentation in the park.

Based on geotechnical recommendations, higher intensity development is less appropriate in areas where ground water levels could interfere with the construction and maintenance of potential facilities. Areas with a shallower ground water table require more effort during excavation and have a greater risk of ground water contamination from human activity.

PROPOSED MITIGATION STRATEGIES FOR INFRASTRUCTURE & CONSTRUCTION

The potential impacts of construction throughout the park can be reduced through responsible practices and preventative techniques.

Any grading that is proposed on or near a slope should be carefully assessed by a geotechnical engineer to determine the feasibility and any potential remedial measures that are required to maintain the Factor of Safety at a reasonable level. In general, it is not recommended to develop on slopes over 15%. However, further geotechnical analysis would be required to confirm the feasibility and risk. Should near bank development be undertaken in erosional zones, either appropriate setbacks or bank stabilization measures would be required. Areas with a shallow ground water table should be avoided if excavation is necessary.

Prior to ground disturbance associated with park improvements within the suitable habitat on site for sensitive plant species, a targeted species survey should be conducted by a qualified biologist to determine if these species are present within the areas of proposed ground disturbance. If they are present, then a Rare Native Plant and Lichen Survey Form should be completed and submitted to the Conservation Data Centre to document the occurrence of the sensitive species.

Sensitive species habitats should be protected and linkages maintained. Existing trees and natural areas should be protected with fencing during construction. If it is necessary to remove trees for construction, they will be transplanted where possible or replaced. Slopes will be appropriately stabilized during and after construction.

Due to the number of bird species observed during the field visit, it is recommended that potentially damaging construction activities occur outside of the migratory bird breeding season. Should the construction activities occur during the breeding bird season, then a nest sweep will be required no more than 7 days prior to clearing and construction. If an active nest is found, then the appropriate buffer will be required.

POTENTIAL CONSEQUENCES FROM MAINTENANCE & OPERATIONS

Consequences from maintenance and operations will be minimal throughout the park. Smaller vehicles, which will enter the park from the Woodward Crescent trail or one of the footbridges, will operate mainly on the multi-use and potential future improved surface trails. These vehicles may impact wildlife and vegetation through noise and physical disturbances. Vehicles that access the park along the Woodward Crescent trail may have an impact on the identified landslide areas.

MITIGATION STRATEGIES FOR MAINTENANCE & OPERATIONS

A natural area management plan should be developed that balances operational needs with habitat protection.

The Master Plan will consider the requirements and budget allowance to mitigate invasive species and noxious weeds in the project area. If invasive tree species are removed they would need to be replaced according to the Corporate Tree Management Policy. There is potential to re-forest parts of the open field or maintain it as a grass land.

Although the 'wetland-like area' associated with WC1 is not a true wetland, there may be potential to enhance this feature for habitat or recreational value in the park. The wetland area should be delineated and, prior to development, guidelines from the Water Act should be considered to protect and enhance the potential habitat provided by this landscape feature.

Any vehicles entering the park should be appropriate to the size and weight capacities of trails and bridges. Preventative measures should be taken to avoid unnecessary impacts to slopes and wildlife.

Future Environmental Considerations

Throughout the development of the two concept options, which included public engagement and site analysis, several potential environmental concerns arose that may require further investigation. Environmental reporting and community knowledge of the site contributed to our understanding of these concerns, which may have an impact on the development of the final concept plan. Investigation of the impacts of the former well site are underway. Results from this investigation will inform decisions on the restoration and rehabilitation of the site.

The open field in Oleskiw River Valley Park has become a habitat and foraging ground for sensitive bird species. Restoration of the field should be carried out with

consideration of these species. Changes in habitat type, including the integration of more native species into the park, will impact the wildlife who live and hunt in Oleskiw River Valley Park.

Climate change will impact the development of the park over the next 25 years and beyond. Edmonton will experience less predictable weather in the future and will have potential for more intense rain events. Restoration plans should incorporate such considerations, including flexibility in vegetation species selection to ensure necessary ecosystem functions are carried out in a changing climate. As a floodplain park, Oleskiw River Valley Park may also be integrated into a broader flood mitigation strategy for the city.

Concept Level Costing

Costs for the Oleskiw River Valley Park concept options are estimated based on recent park projects of similar size and scope. Larger project elements and custom features have been assigned an allowance or budget that incorporates all associated costs. Measurable items are priced by product unit or unit measurement (such as square metre). The following chart provides a high-level summary estimate of the costs for each concept option.

The figures presented are an opinion of probably costs, not guaranteed cost figures and will be refined as detailed designs are prepared. Due to the conceptual nature and large scale of the Oleskiw River Valley Park Master Plan, these figures may not reflect actual costs. Each total cost estimate includes a 50% contingency and 15% design and project management fee.

CONCEPT LEVEL COSTING

		CONCEPT 1	CONCEPT 2
GREATER PARK AREA	Hardscape Trails and Pathways	\$237,895	\$302,054
	Site Furnishings Amenities, Lighting and Infrastructure	\$31,000	\$34,000
	Site Furnishings Wayfinding and Signage	\$190,000	\$212,000
	Softscape (Restoration)	\$2,370,711	\$1,824,691
MAJOR NODES	Picnic and Educational Areas	\$959,100	\$1,459,100
TOTAL COST	Includes 50% contingency and 20% design and management fee (including additional studies, as necessary)	\$6,440,799	\$6,514,137

Next Steps

The City is asking for the public's feedback on the two concept options presented in this report. Public and stakeholder feedback will be used to develop a refined concept plan for the Oleskiw River Valley Park Master Plan.

The City would like feedback on the vision statements, specific park elements and overall approaches to both concept options presented in this report. A public open house will be held on November 7, 2017 at the Westridge Wolf Willow Country Club Community League to receive public input on the two concept options. For those unable to attend the open house, an online survey will be available at edmonton.ca/oleskiwparkmasterplan.

Input from the open house, online survey and stakeholder workshops will inform the development of the preferred concept plan. A summary of feedback from all Phase 3 engagements will be available in the winter of 2017. The preferred concept plan will be presented during Phase 4 engagements for final feedback during spring 2018.

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