

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

Edmonton

A wide-angle landscape photograph showing a river flowing through a lush green park area. In the background, a city skyline with various high-rise buildings is visible under a bright blue sky with scattered white clouds.

DAWSON PARK AND KINNAIRD RAVINE MASTER PLAN

October 2019

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Executive Summary

Project Description

The Dawson Park and Kinnaird Ravine Master Plan is a 25-year vision and management plan for the park, building on existing plans, policies and initiatives while identifying public needs and priorities. The Master Plan provides direction for environmental management and includes recommendations for amenities and park programming. The Master Plan was developed using a balanced planning approach, integrating direction from public input, site analysis and City policy.

The area that now makes up the City of Edmonton and the North Saskatchewan River Valley has been occupied, utilized, and stewarded by Indigenous Peoples such as the Cree, Dene, Nakota Sioux, Sauleaux, Blackfoot, and Métis since time immemorial. The relationships formed with newcomers and traders, the signing of Treaty No. 6, and the expansion of Euro-Canadian settlement saw the River Valley become a significant resource for the growth of Edmonton and the livelihood of many people. Coal mining, sewage disposal and waste disposal have had substantial impacts on Dawson Park and Kinnaird Ravine. The park is now considered a natural gem as a result of forward-looking policy, planning and community involvement, with Frederick G. Todd's recommendations for a River Valley park system in Edmonton in 1907 as a major catalyst.

Surrounded by a mix of heritage communities and densifying downtown neighbourhoods, Dawson Park and Kinnaird Ravine offers residents of Edmonton a respite from city life. Visitors can traverse the park's many trails to enjoy natural features and views of the River Valley. Current amenities provide opportunities for picnicking, boating, trail recreation and play. The park also acts as a refuge for people rough sleeping in the park. Debris left behind from informal encampments poses a safety and maintenance challenge for the City.

Project Rationale

No comprehensive planning process for the project area has been conducted since the 1970s, when the Capital City Recreation Park (CCRP) Concept Plan was implemented. While the park is currently enjoyed by a variety of park user groups, infrastructure in the park is aging and will not meet the needs of park visitors over the next 25 years. The park also has operational and maintenance challenges that are addressed in the Master Plan.

Several external projects are currently driving the growth of higher density residential and mixed-use developments in communities surrounding Dawson Park and Kinnaird Ravine. These projects are expected to increase Edmonton's downtown population by thousands. As presented in *Breathe: Edmonton's Green Network Strategy (2017)*, increasing populations and limited access to private open space will result in higher levels of demand for access to public open space, resulting in increased pressures on the sensitive River Valley landscape. The Dawson Park and Kinnaird Ravine Master Plan, located in the central core of the City of Edmonton, presents an opportunity to improve access to a multifunctional open space corridor for a wide variety of users.

Anticipating the potential impacts of these pressures on the landscape, the River Valley Park Renewal program has identified Dawson Park and Kinnaird Ravine Master Plan as a key project that will direct investment for this River Valley Park through the 10-Year Capital Investment Outlook. The Master Plan for Dawson Park and Kinnaird Ravine defines a 25-year vision for the park that protects essential habitat and wildlife corridors while reflecting the needs and desires of today's and tomorrow's citizens.

Master Plan Process

An initial inventory and analysis of Dawson Park and Kinnaird Ravine 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 initial inventory and analysis was followed by a desktop analysis of environmental sensitivities in the park, which is summarized in an Environmental Sensitivities Report produced in February 2017. The sensitivity analysis was used throughout the Master Plan process as a foundational decision-making tool.

Additional environmental studies in support of the Master Plan included a preliminary geotechnical investigation, an Environmental Overview (EO), a limited Phase II Environmental Site Assessment (ESA) and a desktop soil assessment. An Environmental Impact Assessment and Site Location Study for the Dawson Park and Kinnaird Ravine Master Plan will be submitted to Council for approval.

The Master Plan process included four phases of public and stakeholder engagement, including consultation with internal City staff. Feedback from public and stakeholder engagement was considered in the creation of the vision and concept plan, resulting in a Master Plan that reflects a communal vision for the park. For a summary of public and stakeholder feedback, see Table 3 in the Public Consultation section of this report.

Vision and Objectives

Dawson Park and Kinnaird Ravine is an ecological corridor that balances recreational activity with habitat conservation and restoration. The park offers an escape from the city and year-round access to the North Saskatchewan River and Ravine System in a safe and inclusive environment for Edmonton's diverse and growing population.

The above vision statement provides over-arching direction for the Master Plan and represents the collective values of the public and stakeholders who participated in the Master Plan process. Complementary to the vision, the four main objectives of the Dawson Park and Kinnaird Ravine Master Plan are to:

- » protect existing habitat,
- » enhance ecological linkages,
- » maintain existing park uses and visitor experiences that are compatible with the landscape, and
- » enhance park use for a diversity of future park visitors.

These objectives were developed to address opportunities and challenges identified through the Master Plan process (see Figure 11), which were determined through a combination of public input, site analysis and City policy.

Summary of Recommendations

The Master Plan provides recommendations (summarized on the following pages) to address the identified opportunities and challenges, thereby aiming to meet the park vision and objectives listed above.

Park Use and Amenities

The following recommendations are intended to support existing park uses and ensure anticipated future park use can be supported. Recommendations include:

- » Improvements to amenities throughout the park to increase their accessibility and usability (*Recommendations 1, 17*);
- » Improvements to encourage winter use through programming and amenities (*Recommendations 20, 21*);
- » Improvements to top-of-bank parks with a focus on nature education and nature play in all seasons (*Recommendations 3, 4, 5, 7, 8*);
- » Opportunities for continued dialogue between the City of Edmonton and Indigenous communities regarding the use and management of the park (*Recommendations 11, 12*);
- » Access to the river for boating and recreation (*Recommendations 13, 14*); and
- » Adjustments to off-leash areas to mitigate conflict and reduce impacts to sensitive areas (*Recommendations 18, 19*).

Connectivity and Circulation

Recommendations in the Master Plan support continued use of the trails and help to reduce user conflict. They include:

- » Improvements to vehicle access and parking for visitors and City staff while discouraging vehicle traffic through adjacent communities (*Recommendations 22, 23*);
- » Trail improvements throughout the park to help increase accessibility and reduce user conflict (*Recommendations 24, 32, 34, 35*);
- » Strategic park entrances from the top-of-bank (*Recommendations 25, 26, 27, 28, 30*);
- » A connection in the active transportation network with the Kinnaird Ravine Crossing (*Recommendation 29*);
- » The formalization of an integrated natural trail network (*Recommendation 33*); and
- » Wayfinding improvements (*Recommendations 36, 37*).

Nature and Ecology

Recommendations in the Master Plan are intended to protect existing habitat and enhance ecological linkages in the park. They include:

- » The protection of existing natural features and environmental sensitivities in the park, such as eroding slopes, wetlands, existing vegetation communities, rare plants, and existing wildlife habitats and corridors (*Recommendations 38, 39, 40, 45, 48, 50, 54*);
- » The protection of historical resources in the park (*Recommendation 56*);
- » Ensuring the implementation of the plan has a low impact on natural features in the park (*Recommendations 43, 44, 49, 55*);
- » Restoration of the riverbank and the confluence of Rat Creek with the North Saskatchewan River (*Recommendations 42, 46*); and
- » Re-naturalization of disturbed areas to promote biodiversity and provide opportunities for nature education (*Recommendations 42, 53*).

Safety and Maintenance

The Master Plan recommends park improvements to facilitate operations and maintenance in the park with the intention of improving the feeling of safety for all visitors. Recommendations include:

- » Design elements to improve the feeling of safety in the park, including improving sight lines, signage and lighting in strategic locations (*Recommendations 57, 60, 61*);
- » Support for outreach efforts in the park by the City and partner organizations. Recommendations include a vestibule in the proposed amenity building to be used by outreach workers and staff as a meeting location; enclosed garbage bins in the parking lot; and surface improvements to trail west of the parking lot to facilitate garbage collection (*Recommendation 58*).

Identity and Experience

Recommendations are intended to strengthen visitors' connections to the park's history and identity in the River Valley through the implementation of interpretive elements and programming. Recommendations include:

- » The development of interpretive elements in the park, including public art, interpretive signs and programming. Dialogue and partnerships with Indigenous communities are encouraged. (*Recommendations 62, 63, 64*)
- » Nature education and interpretation, particularly in Kinnaird Ravine and top-of-bank parks. (*Recommendations 9, 65*)

Implementation

The implementation strategy for the Dawson Park and Kinnaird Ravine Master Plan is divided into five phases, sequenced in order of priority. The phases are not contingent on the completion of earlier phases and may be completed out of sequence if required, depending on factors such as funding availability. The cost figures presented are an opinion of probable costs, not guaranteed cost figures and will be refined as detailed designs are prepared. For details on costing assumptions and values, see the Implementation and Capital Costs section of this report.

Phase 1 includes the redevelopment of the main activity node near the existing vehicle entrance to the park. This phase includes a dedicated vehicle entry from Rowland Road, the replacement of the existing pavilion with a new amenity building, updates to the picnic area, a new playground and an accessible boat dock, among other improvements.

Estimate of probable cost: \$6,379,734

Phase 2 includes upgrades to existing trails, the addition of new trails, and amenities to support trail use (such as shade structures and benches) in order to improve pedestrian and cyclist connections in the park.

Estimate of probable cost: \$3,660,088

Phase 3 includes top-of-bank improvements, including proposed improvements along Jasper Avenue and in several distinct community parks connected to Dawson Park and Kinnaird Ravine.

Estimate of probable cost: \$5,107,347

Phase 4 involves the daylighting and associated restoration of Rat Creek where it currently flows through a culvert into the North Saskatchewan River. It also includes an adjacent gathering area for potential cultural gathering.

Estimate of probable cost: \$3,493,771

Phase 5 includes a pedestrian connection across Kinnaird Ravine, creating a link between the park and neighbourhoods to the north with a suspension bridge.

Estimate of probable cost: \$7,934,290

Partnerships and Use Agreements

Partnerships are recommended to support the implementation of Master Plan improvements including the natural surface trail network, river access, ecological restoration, public art, community programming (e.g. Indigenous partnerships, nature education, nature play, and winter events and festivals).

Introduction

Dawson Park and Kinnaird Ravine is an established River Valley park within the North Saskatchewan River Valley adjacent to Edmonton’s densifying downtown core.

Master Plan Objectives and Timeline

Dawson Park and Kinnaird Ravine offers visitors the chance to run, hike, walk their dogs and cycle through the ravine landscape — an escape from the city for urban dwellers. It also provides opportunities to meet with friends, family and neighbours and access the river for boating, fishing, ceremony and relaxation. The Dawson Park and Kinnaird Ravine Master Plan provides a 25 year vision and management plan for the park. Objectives of the plan include:

- » protecting existing habitat,
- » enhancing ecological linkages,
- » maintaining existing park uses and visitor experiences that are compatible with the landscape, and
- » enhancing park use for a diversity of future park visitors.

The development of a 25 year vision and management plan for the park builds on existing plans, policies and initiatives while identifying public needs and priorities. It provides direction for environmental management, as well as recommendations for civic, cultural and recreational uses that are appropriate to the park. The Master Plan is currently in the CONCEPT Phase of the Park and Facility Development Process.

In the CONCEPT phase, public engagement is critical to providing direction for the Master Plan. In addition to public engagement, City policy and environmental analysis inform the process and outcome of the Master Plan. At the end of the CONCEPT phase, the Site Location Study and Environmental Impact Assessment prepared for the Dawson Park and Kinnaird Ravine Master Plan will be presented to City Council to seek funding for implementation.

City of Edmonton Project Development and Delivery Model. This project is in the CONCEPT phase.



Dawson Park and Kinnaird Ravine Master Plan Timeline (within the CONCEPT phase).

Figure 1. Project Timeline

Project Background and Drivers

Dawson Park and Kinnaird Ravine is a natural gem in Edmonton. 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 and desires of citizens, the city's changing urban form and citizen demographics should be considered.

As presented in *Breathe: Edmonton's Green Network Strategy*, “[r]esidential populations will rise considerably in the future, making improvements in amount, quality and functionality of open space increasingly important. Access to private open space is also limited within higher-density areas. This, combined with the expected substantial increase in the residential population, supports the need to provide increased high-quality, multifunctional and publicly accessible open space” (p. 52). Dawson Park and Kinnaird Ravine, located in the central core of the City of Edmonton, present an opportunity to improve access to a multifunctional open space corridor for a wide variety of users.

A comprehensive planning process for the project area has not been conducted since the 1970s, when the Capital City Recreation Park (CCRP) Concept Plan was developed. As part of the CCRP Concept Plan, Dawson Park was identified as a rest area and was designed to include a 45-stall parking lot, benches, conserved natural features, hiking and biking trails, picnic sites, rest rooms and telephones. In addition to planned infrastructure, Dawson Park currently provides visitors with an off-leash area between Dawson Bridge and Capilano Bridge, picnic tables and granular trails for people who are visually impaired.

As part of the 10-Year Capital Investment Outlook, The River Valley Park Renewal program identified Dawson Park and Kinnaird Ravine Master Plan as a key project that will direct investment for the park. The River Valley Park Renewal Program identifies a long-term strategic approach to renew parks located in the River Valley. The program is initiated by key drivers such as city policies, changing demographics, demand, recreational needs and aging 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. Parks with safety concerns, decreased usability and aging infrastructure are considered “higher needs” parks. Without renewal, existing park infrastructure that is close to the end of its useful life will continue to deteriorate, decreasing park functionality, usability, safety and cost-effectiveness.

Master Plan Process

The Master Plan for Dawson Park and Kinnaird Ravine incorporates public engagement, City policy and environmental analysis into a balanced and holistic approach to planning and design. An initial inventory and analysis of Dawson Park and Kinnaird Ravine was completed in the summer of 2016. The inventory was compiled from several sources, including a general needs assessment, archival research, desktop analysis, environmental studies and site visit observations. The results of the inventory research were presented to the public and City staff for comments and additional input in Phase 1 of engagement.

The initial inventory and analysis was supplemented with a desktop analysis of environmental sensitivities in the park. The results are summarized in this report and in more detail in the *Environmental Sensitivities Report (2017)*. The sensitivity analysis is used throughout the Master Plan process as a foundational decision-making tool. The environmental sensitivity work was supplemented with an Environmental Overview, a Phase II Environmental Site Assessment (ESA) and an Environmental Impact Assessment (Basin Environmental, 2018), outlining current and historical environmental considerations for the site.

The Environmental Overview involved a desktop assessment to help determine any existing environmental concerns in the park early in the Master Plan process. The Phase II ESA involved an on-the-ground investigation and delineation of areas of potential environmental concern for contaminants through the characterization of soil and groundwater. It also included the mapping of rare vegetation and select bird, mammal and amphibian habitats. An EIA was prepared in coordination with the Master Plan to address environmental impacts at all stages of the project. The EIA report, along with a Site Location Study and the Master Plan report, provide the required information to move forward into the DESIGN Phase of the Project Development and Delivery Model.

Consultation with the public, Indigenous communities, stakeholders and various City of Edmonton departments has been an integral part of the Master Plan process. A four-stage public engagement strategy was implemented from August 2016 to November 2017 to gain insight from the public and external stakeholders at each stage of concept development. A summary of the public engagement strategy is outlined in the Public Consultation (page 47) section of this report. Internal City of Edmonton stakeholders provided technical expertise and insight into operational needs and requirements in the park as well as opportunities to leverage City priorities and initiatives in the Master Plan.

Park Evolution

Dawson Park and Kinnaird Ravine is a vital link to the city's geologic, ecological and cultural past, reminding us of our connection to natural systems within an urban environment.

Dawson Park and Kinnaird Ravine is an urban park in the River Valley. It is used for recreation and nature appreciation by the surrounding communities and the greater Edmonton region. Understanding the natural and cultural history of the area is essential to informing future use and protection of the site. A brief description of the known history of the site is included in this section of the report.

Indigenous Heritage

Indigenous knowledge systems indicate a presence and connection to these lands since time immemorial. The North Saskatchewan River began carving through the landscape approximately 11,000 years ago, and it is during this time period that the archaeological record points to Indigenous habitation within the River Valley (Pyszczyk, Wein and Noble, 2006). Climatic changes and geologic events influenced the ways in which the landscape was used and settled (Pyszczyk, Wein and Noble, 2006). The formation of the North Saskatchewan River created desirable micro-climatic conditions for a diversity of plants and animals, and large concentrations of spawning fish could be found at the mouths of creeks. The rivers and creeks also exposed rocks that could be used for tool making (Pyszczyk, Wein and Noble, 2006).

The unique ecosystem between the northern boreal forest and the great southern plains provided habitat for bison, which became an important food source for the early peoples. Hills throughout the region provided ideal locations for campsites because they could be used as lookouts for defence and hunting (Pyszczyk, Wein and Noble, 2006). Indigenous Peoples spoke distinct languages, had distinct cultural practices, and created complex governments and economic systems in the region (Government of Alberta, 2013a).

By the late 1700s, European settlers were attracted to the Edmonton region because of the abundance of animals that could be used in the fur trade (Pyszczyk, Wein and Noble, 2006) and settled in the area for the purpose of expanding the Hudson Bay Company. Indigenous Peoples 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. The signing of Treaty 6 (1876) and the adhesion at Fort Edmonton in 1877 also continued this process of developing shared lands and relationships, but with the passing of the Indian Act (1876) and the creation of the reserve system, much of the area was taken up for western settlement.

Over time, and despite these changes, Indigenous Peoples have maintained and nurtured their cultural practices, knowledge systems and ways of life. It is important to acknowledge that the lands on which Edmonton is situated are the Territory of the Treaty 6 First Nations and the Métis Nation of Alberta Zone 4. They were originally occupied by Indigenous Peoples including the Cree, Dene, Blackfoot, Nakota Sioux, Saulteaux, and Métis peoples. Dialogue with Indigenous Peoples remains an ongoing process, and through examples such as this project we have engaged with communities to help us understand some of those cultural and historical connections to place, and to share Indigenous history and traditional knowledge.

Early Settlement History: Trading Post to Farming Community

During the period of early European settlement in the Edmonton region, several families played an important role in transforming Edmonton's identity from a trading post to a farming community. One of these families was the MacDonalds who owned River Lot 20. Their land extended through the

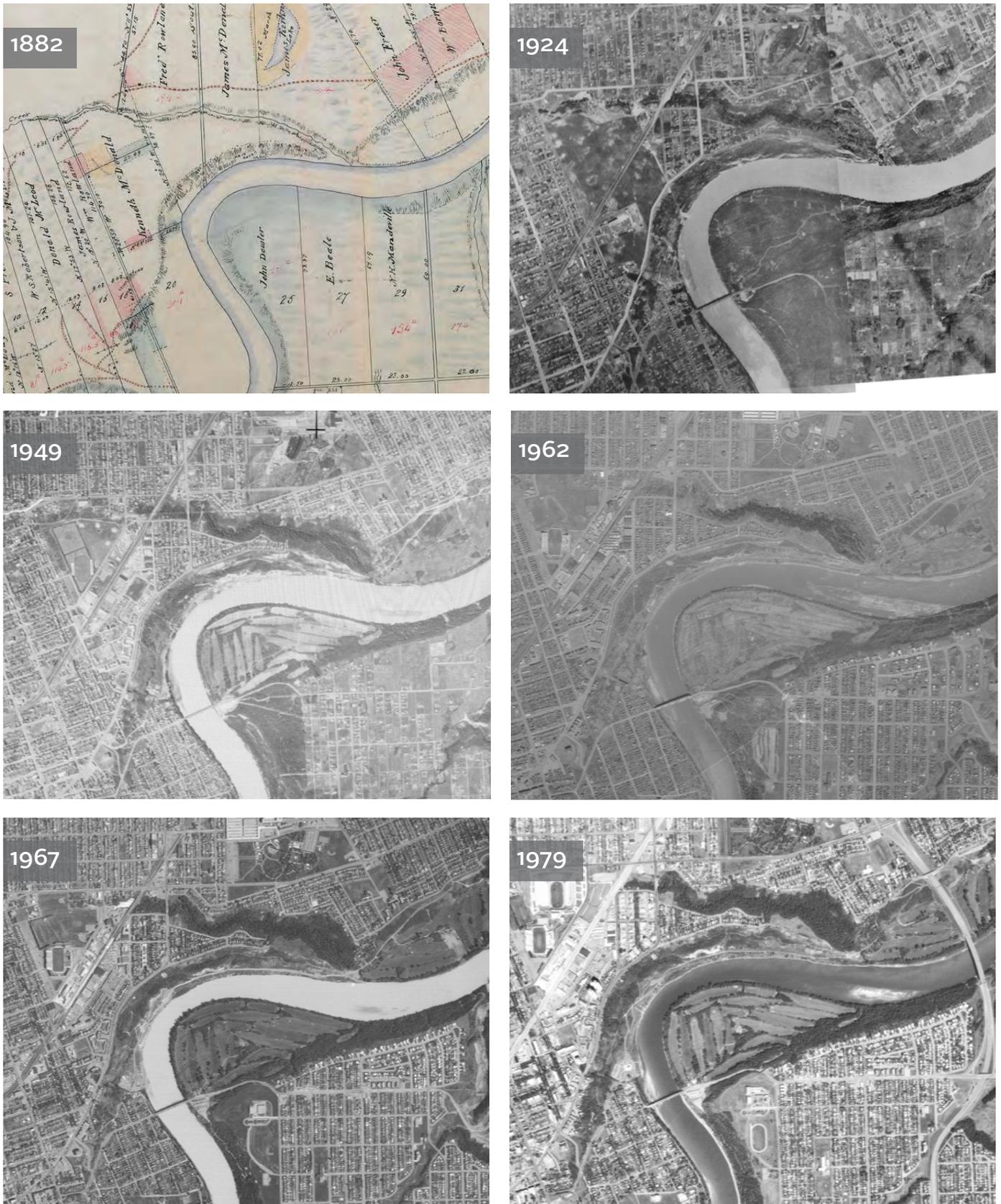


Figure 2. Historic Aerial Photographs of the Park

Source: Edmonton Archives

western portion of today's Dawson Park. Kenneth MacDonald was born in Stornoway, Isle of Lewis, Scotland in 1828. He was employed by the Hudson's Bay Company and travelled to Rupert's Land in 1847. He married Emma Rowland, a Métis woman, (daughter of William Rowland and Betsey Ballendine) in 1854. They claimed River Lot 20 after the transfer of Rupert's Land to Canada in 1870 and had seven children together (Edmonton Archives; Lemay and Fraser, 2011).

Historical Land Use and Events

In the early 1900s, Edmonton acquired land from James McDonald and James Kirkness - the area now known as Kinnaird Park. From 1905 to 1937, five underground coal mines were active in Dawson Park and Kinnaird Ravine. Mining labour at Penn Mine (Mine 632) was performed by inmates of the nearby penitentiary. The Riverdale Sewage Disposal Plant (renamed Sewage Disposal Plant No. 1) operated between 1910 and 1956. The East End Bridge (Dawson Bridge) opened in 1912 to aid in the transport of people and goods across the river. Resource extraction and waste water treatment were the major land uses in the park for over half a century. These uses left a large mark on the landscape. Although the park is now considered by many to have a natural character, unstable slopes and buried refuse endure as a legacy of the park's industrial past (Edmonton Archives).

Dawson Park and Kinnaird Ravine has a long history of inhabitation. Private residences appear to have been located in the park area. Historical aerial photographs present some evidence of a homestead and agricultural activity. Jane Salisbury, while belonging to the Order of the Eastern Star, helped to house elderly residents in the park area for almost 30 years (from approximately 1953 to 1982) (Edmonton Archives). In addition, the North West Mounted Police are believed to have camped in Kinnaird Ravine on their final stop before reaching Fort Edmonton in the 19th century (Edmonton Archives).

Flooding in the River Valley posed challenges to developing neighbourhoods near Dawson Park and Kinnaird Ravine in the early 20th century. The Flood of 1915 had a tremendous impact on Cloverdale, Riverdale, Rosedale and surrounding communities with the loss and damage of personal property. Approximately 2,000 people were displaced, 50 buildings were destroyed and over 700 homes were submerged in the flood (The City of Edmonton, 2018).

Coal mining had an adverse effect on some residents and in 1932 and 1933, remediation payments were made to homeowners whose properties were affected by their location

above abandoned mines (Edmonton Archives). Heritage homes that remain around Dawson Park and Kinnaird Ravine provide a link to the local community's history.

The long-standing passion Kinnaird/Rat Creek residents expressed for their community is evident in letters written to the City Commissioner in 1927 and 1928 complaining about the dumping of refuse in the area and remarking on the area's natural beauty (Edmonton Archives).

The effects of changing land uses within and around Dawson Park and Kinnaird Ravine are visible in the series of historic aerial photographs presented in Figure 2. In particular, the reduction of Kinnaird Ravine is evident from the years 1882 to 1962 due to urban infill. The aerial photograph from 1979 depicts the park with much of the same infrastructure that exists today.

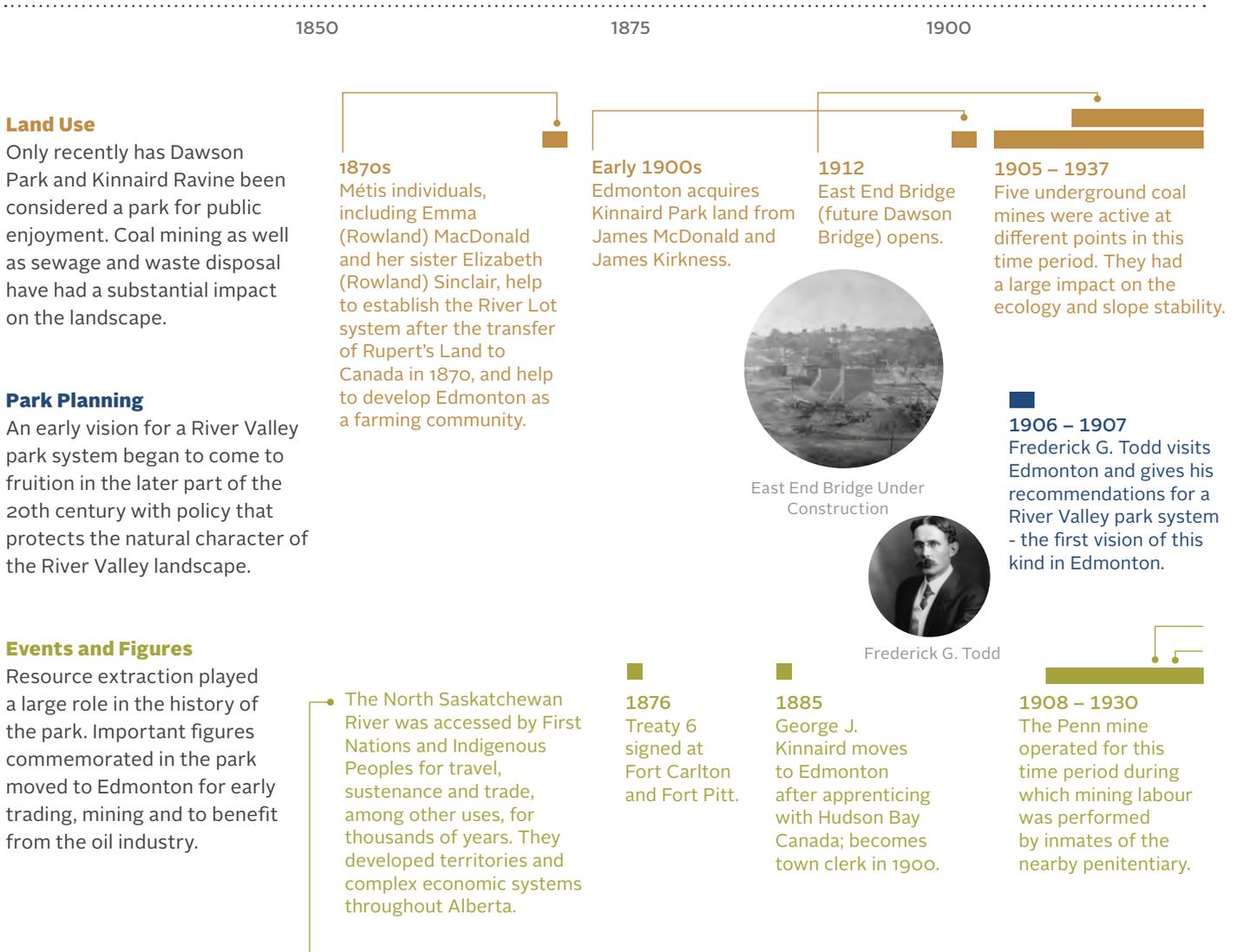
Planning History

A petition was circulated in 1912 calling for the creation of a city park in the current project area. This may have been influenced by Frederick G. Todd's vision and recommendations for a River Valley park system following his visit to Edmonton in 1906-1907. 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..." (Todd, 1907). This vision was the first of its kind in Edmonton and was not realized for many years because, at the time, many were focused on the use of the River Valley for resource extraction, waste disposal and transportation.

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 1970 Top-of-the-Bank policy provided regulations for development adjacent to the ravine system and influenced the development of the North Saskatchewan River Valley Area Redevelopment Plan in 1985 (Abma and Gibbs, 2006). Dawson Park was officially named in 1990, beginning its relatively recent history as a recreational River Valley park (Edmonton Archives).

Figure 3. Historical Timeline

Timeline



Rat Creek tunnel construction, 1911
 Edmonton Archives



East End Bridge (Dawson Bridge) construction, 1912
 Edmonton Archives

Source: Edmonton Archives

1925

1950

1975

2000

1910 – 1956

The Riverdale Sewage Disposal Plant (renamed Sewage Disposal Plant No. 1) operated at the current pavilion site in Dawson Park.



Riverdale Sewage Disposal Plant

1953 – 1982

Jane Salisbury helps to house elderly residents in the park area for almost 30 years while she is in the Order of the Eastern Star.

1985

North Saskatchewan River Valley Development Plan Bylaw 7188

1992

Ribbon of Green Master Plan

1949

Edmonton adopts the Bland-Spence report to oppose further development in the River Valley and acquire River Valley land.

1970

Top-of-the-Bank policy introduces development principles and zoning regulations for development adjacent to River Valley.

1975

The Capital City Recreation Park Development Plan directs the future of Dawson Park, including the creation of the Braille Trail. Alberta invests \$40 million.

2006

Edmonton Urban Parks Management Plan

1913

John F. Dawson fights in Europe; wounded at Vimy Ridge, France.

June 27, 1915

Cloverdale, Rossdale and surrounding areas flooded by unprecedented rainfall.



1915 Flood

Partnerships with Indigenous Peoples will help to preserve, protect and share this important history.



Flooding in Riverdale and Fraser Flats, June 1915
Edmonton Archives



Riverdale from Alex Taylor School, 1920
Edmonton Archives

Historical Figures

There are many individuals who helped to shape Dawson Park and Kinnaird Ravine or who have been commemorated in the name of the park and its components. They may be commemorated further through interpretive elements in the park.

→ **Kenneth and Emma MacDonald**

Kenneth MacDonald married Emma Rowland, a Métis woman, (daughter of William Rowland and Betsey Ballendine) in 1854. They claimed River Lot 20 after the transfer of Rupert's Land to Canada in 1870 and had seven children together (Edmonton Archives; Lemay and Fraser, 2011).

→ **H.S. Dawson**

H.S. Dawson came to Edmonton in 1892 and established the Dawson Coal Mine in the area. The Dawson Bridge (originally the East End Bridge) was named after him (Edmonton Archives).

→ **John Forsyth Dawson**

Dawson Park takes its name from John Forsyth Dawson (1892-1962), one of Alberta's early geologists and WWI veteran. Dawson worked in the Turner Valley oil fields and for the Dominion Oil Fields Supply Company in Edmonton. He is not to be confused with his father, H.S. Dawson, for whom the Dawson Bridge was named (Edmonton Archives).

→ **Captain John Hall**

Captain Hall was a First World War veteran and was a Director of the Soldier Settlement Board. He was the first Superintendent of Alberta's government liquor vending operation in the 1920s. He owned the existing property in Kinnaird Park, which was built in 1912 (Alberta Culture and Multiculturalism).

→ **George Johnstone Kinnaird**

George J. Kinnaird moved to Edmonton in 1885 after apprenticing with the Hudson Bay Canada. He became the town clerk in 1900 (Edmonton Archives).

→ **James Kirkness**

James Kirkness came to Canada from Scotland in 1864. He bought and settled on River Lot 26 (presently Edmonton Northlands) by the 1870s. Parkland was purchased from Kirkness in the early 1900s (Edmonton Archives).

→ **James McDonald**

James McDonald, a contractor and real estate agent, lived on River Lot 24 after arriving in Edmonton in 1879. Parkland was purchased from McDonald in the early 1900s (Edmonton Archives).

→ **Sheriff Walter Scott Robertson**

Walter Scott Robertson became the first sheriff of Edmonton in 1905. He moved to Edmonton from Ontario with his family in the early 1880s (Edmonton Archives).

→ **Jane Thompson Salisbury**

Jane Salisbury was born in Quebec and came to Edmonton as a child. She joined the Eastern Star in 1953 and was grand matron from 1976 to 1982. She spent nearly 30 years volunteering with elderly residents of the community around Dawson Park and Kinnaird Ravine and helped to house senior citizens in the park area that is named after her (Edmonton Archives).

Policy and Regulations

The Master Plan for Dawson Park and Kinnaird Ravine exists within a framework of environmental and social policy.

Location and Zoning

Address and Land Ownership

Dawson Park is located along the northern shore of the North Saskatchewan River in Edmonton, south of Jasper Avenue and Ada Boulevard. The park's municipal address is 10298 89 Street, Edmonton, Alberta. Kinnaird Ravine begins at the LRT Stadium Station east of the Commonwealth Stadium and extends eastward towards 75 Street where it meets Dawson Park and the North Saskatchewan River to the south. 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. It also includes the John C. Hall residence on 77 Street which is currently listed in the City of Edmonton's Historic Inventory. In total, 227 parcels are within or intersect the boundary for the Master Plan.

Zoning

Dawson Park and Kinnaird Ravine is in Zone A: Metropolitan Recreation Zone in the City of Edmonton. This zone provides the opportunity for preserving natural areas and parkland along the river, creeks, ravines and other designated areas for recreational uses and environmental protection. Some of the discretionary uses within the park's zoning include cultural

exhibits, exhibition and convention facilities, indoor/outdoor participant recreation services, natural science exhibits, natural resource extraction, public parks and urban gardens. These discretionary uses are directed by the Edmonton Urban Parks Management Plan's guidelines for River Valley and Ravine parks.

Because Dawson Park and Kinnaird Ravine is in the downtown core of Edmonton, development is denser and activity levels are higher in the surrounding area than in other parts of the city. Much of the surrounding land use is residential. Housing to the northwest of the park includes higher-density, multi-storey residential dwellings, while the south is mainly composed of single-family homes. Industrial land and transportation infrastructure (including the LRT line) run north to south on the west end of the park while commercial and institutional land uses are found to the north and east of the park. The Riverside Golf Course, Victoria Golf Course and Highlands Golf Club are all located in the River Valley near Dawson Park and Kinnaird Ravine. These golf courses contribute to the green-space network.



Figure 4. Land Use Map

Federal and Provincial Regulatory Requirements

Both Federal and Provincial policies direct the development and protection of parks, green spaces and habitats in Edmonton.

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, administered by the Canadian Environmental Assessment Agency, 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 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 Aboriginal fishery.

→ **Navigation Protection Act**

The *Navigation Protection Act* (NPA), administered by Transport Canada, provides 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 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, swans), migratory insectivorous birds (e.g. chickadees, cuckoos) and migratory non-game birds (e.g. gulls, 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*, administered by Alberta Environment and Parks, 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, drainage channels) found on a given property.

→ **Water Act**

Pursuant to Section 36 of the *Water Act*, which is administered by Alberta Environment and Parks, 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.

→ **Wetland Policy**

The Alberta *Wetland Policy*, administered by Alberta Environment and Parks, acts as a regulatory document that applies to the wetlands in Kinnaird Ravine. The policy aims to conserve, restore, protect and manage Alberta’s wetlands by preserving high value wetlands, conserving and restoring wetlands that have experienced high levels of losses, avoiding and minimizing damage to wetlands and considering wetland management in a regional context. In the *Wetland Policy*, avoidance is the preferred wetland mitigation strategy.

→ **Wildlife Act**

The *Wildlife Act* and *Wildlife Regulation*, administered by Alberta Environment and Parks, 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*, 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*, administered by Alberta Agriculture and Forestry, 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 Policies and Initiatives

In addition to the above regulatory documents, the following policies and plans govern and influence the protection and use of parks and natural areas in Edmonton. As a River Valley park, Dawson Park and Kinnaird Ravine is a crucial link in the City’s multifunctional network of green spaces.

→ **ConnectEdmonton: Strategic Plan, 2019-2028**

In April 2019, City Council approved *ConnectEdmonton: Strategic Plan 2019-2028* which replaced *The Way Ahead 2009-2018*. *The City Plan* charts out how we will get to a future city, a city that has the benefits we enjoy today with new opportunities for the future. *The City Plan* is about our spaces and places and how we move around the city. It is about our community and what we need to do together to grow, adapt and succeed. *The City Plan* will replace *The Ways* documents, including the *Municipal Development Plan* and *Transportation Master Plan*. Development of *The City Plan* started in August 2018. This is a 2-year project and it is anticipated to come to public hearing in spring 2020.

→ **10-Year Capital Investment Outlook, 2012-2021**

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

Open Space Planning

→ **Open Space Policy (C594), 2017**

Edmonton's *Open Space Policy* provides policy and administrative direction to applying the green network approach to open space planning. The policy outlines a framework based on a connected landscape, a multifunctional network, an evidence-based approach, equitable open space provision and a collaborative effort.

→ **Breathe: Edmonton's Green Network Strategy, 2017**

Implementing *Open Space Policy* (C594), *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.

Natural Area Policies, Plans and Guidelines

→ **Natural Area Systems Policy (C531), 2007**

Edmonton's *Natural Area Systems Policy* 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.

→ **Natural Connections Strategic Plan, 2007**

Based on conservation science and stakeholder input, the Strategic Plan defines a vision, goals and a strategic direction to guide conservation planning throughout the city over a span of ten years through the integration of existing policy documents and natural areas research. The Strategic Plan aims to strengthen the City's commitment to conserving, protecting and restoring landscapes within a connected system of natural areas. It also promotes the use of partnerships and engagement in conservation efforts.

→ **Corporate Tree Management Policy (C456A), 2010**

All naturally treed areas and ornamental trees on city-owned land are the responsibility of the City, including procurement, maintenance, protection and preservation, and are encompassed in Edmonton's *Corporate Tree Management Policy*. 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* applies to some non-native or invasive tree species and must be considered 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.

→ **Urban Forest Management Plan, 2012**

This is a 10-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.

→ **Integrated Pest Management Policy (C501A), 2019**

The purpose of this policy is to provide a decision-making framework for integrated pest management to protect public health and safety, to preserve ecological sustainability, to promote livability, and to comply with legislative obligations with respect to regulated pests and invasive species.

River Valley Plans, Strategies and Guidelines

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.

→ **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 CCRP Concept Plan set out a conceptual plan and development guidelines to encourage passive and active recreation throughout the park and to ensure the maintenance of the park's ecological and visual assets. The CCRP Concept Plan identified the Dawson Park area for further development of trails and facilities for people living with disabilities including vision impairments.

→ **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 Plan 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 identifies 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.

→ **Development Setbacks from River Valley/Ravine Crests – (Top of Bank Policy C542), 2010**

The *Top of Bank Policy* was updated in 2010 to ensure that private and public property is safe from slope and stability failure and that the River Valley and Ravine system is protected from development that may compromise the long-term stability of its banks. The policy also helps to ensure that the top-of-bank portions of the River Valley are accessible to the public and the ravine system remains a natural, ecological and recreational amenity for the people of Edmonton.

→ **River Access Guiding Principles (Policy C586), 2015**

Understanding that the North Saskatchewan River is important to the quality of life of Edmontonians, 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.

→ **River Access Strategy, Under development**

Implementing the *River Access Guiding Principles* (Policy C586), the *River Access Strategy* will inform the programming, operation and infrastructure improvements that support access to the river and activities associated with the river.

Ribbon of Green

- » *Concept Plan, 1990*
- » *Master Plan, 1992*
- » *Southwest and Northeast, under development*

The *Ribbon of Green Master Plan* establishes policy guidelines for the long-term development, use and care of the entire River Valley. It limits development within the River Valley to an integrated trail system, which provides river accessibility but protects the valley landscape and wildlife.

The work being completed for the Southwest and Northeast portion of the River Valley and Ravine System will update and expand on the *Ribbon of Green Concept Plan* (1990) and the *Ribbon of Green Master Plan* (1992). Dawson Park and Kinnaird Ravine is not located in the study area for the Ribbon of Green SW + NE (under development), but the Master Plan seeks to align with this plan.

Community and Park Use Documents

→ **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.

→ **Bicycle Transportation Plan, 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. A project is underway to renew the *Bicycle Transportation Plan*.

→ **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.

→ **Dogs in Open Spaces Strategy, 2016**

The *Dogs in Open Spaces Strategy* provides planning, design and management recommendations for existing and future off-leash dog areas in the City of Edmonton. It also provides a summary of requirements for Neighbourhood, District and River Valley and Ravine off-leash areas.

→ **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.

→ **Community Standards Bylaw 14600, Consolidated 2017**

The Community Standards Bylaw regulates the conduct and activities of people on private property and adjacent areas. It includes regulations on elements such as property maintenance, noise control, outdoor fires, weed and pest control and excessive idling.

Urban Growth Plans and Guidelines

The City of Edmonton is planning for a projected 200% population growth by 2050. Much of the city's densification will occur downtown and to the west of Dawson Park and Kinnaird Ravine. As development plans for neighbourhoods surrounding the park unfold, they present opportunities to balance human access into the park with ecological protection.

→ **Transit Oriented Development (TOD) Guidelines, 2012**

The *Stadium Station ARP* (1983, Ongoing) and the TOD Guidelines aim to accommodate a growing population and regulate the type of development that will take place around the LRT Stadium Station.

The Muttart Lands Development project is a mixed-use residential community that will be developed to the west of Dawson Park and Kinnaird Ravine. This project is closely linked to the Stadium Station TOD Plan. The focus of this development is to create an urban, active and connected community just outside of Edmonton's downtown.

These developments are important for the Dawson Park and Kinnaird Ravine Master Plan because the higher density development around the LRT Stadium Station provides more opportunities for residents to access trail connections to the River Valley within their neighbourhood. This will also increase pressures on Kinnaird Ravine and increase the demand for recreational opportunities in the River Valley.

→ **The Quarters Downtown ARP, 2014**

What began as a community visioning process has become a plan for the accommodation of 18,000-20,000 additional people in the neighbourhood when development is complete. The plan focuses on developing a unique character in the neighbourhood.

This ARP is important for the Dawson Park and Kinnaird Ravine Master Plan because high-density development will increase the demand for access to green space, specifically in the River Valley. This increase in demand makes the protection of environmentally sensitive areas even more necessary.

→ **Coliseum Station ARP, Under development**

The proposed boundaries of this future ARP include the Coliseum, the Northlands Park Racetrack & Casino, Edmonton Expo Centre and Borden Park. The ARP will build on first generation transit-oriented development plans in the area. The City is also exploring opportunities to redevelop the Coliseum.

This ARP is important for the Dawson Park and Kinnaird Ravine Master Plan because potential development north of the park presents an opportunity to take advantage of northward connections from the park into the city.

→ **Norwood Boulevard Corridor Study, Under development**

The City is undergoing a study and design process to recreate this corridor (111 and 112 Avenue) to help create a more vibrant destination to serve the diverse needs of the community. The study will develop a new vision for Norwood Boulevard between 109 Street and 82 Street by updating current land-use policies, improving transportation and promoting new design policies.

This study is important for the Dawson Park and Kinnaird Ravine Master Plan because it creates a connection to Kinnaird Ravine west from the Kingsway/Royal Alex LRT station and surrounding neighbourhoods. These communities will also enjoy an improved pedestrian and cyclist experience, encouraging active transit to the park.

→ **Bellevue and Virginia Park Neighbourhood Renewal, 2018-2019**

Bellevue and Virginia Park were chosen for neighbourhood renewal, which started in 2018. The neighbourhood renewal process typically involves rehabilitating roads, the replacement of streetlights, reconstruction of sidewalks, curb and gutter and connecting missing sidewalk links in mature neighbourhoods. There is also the opportunity to discuss

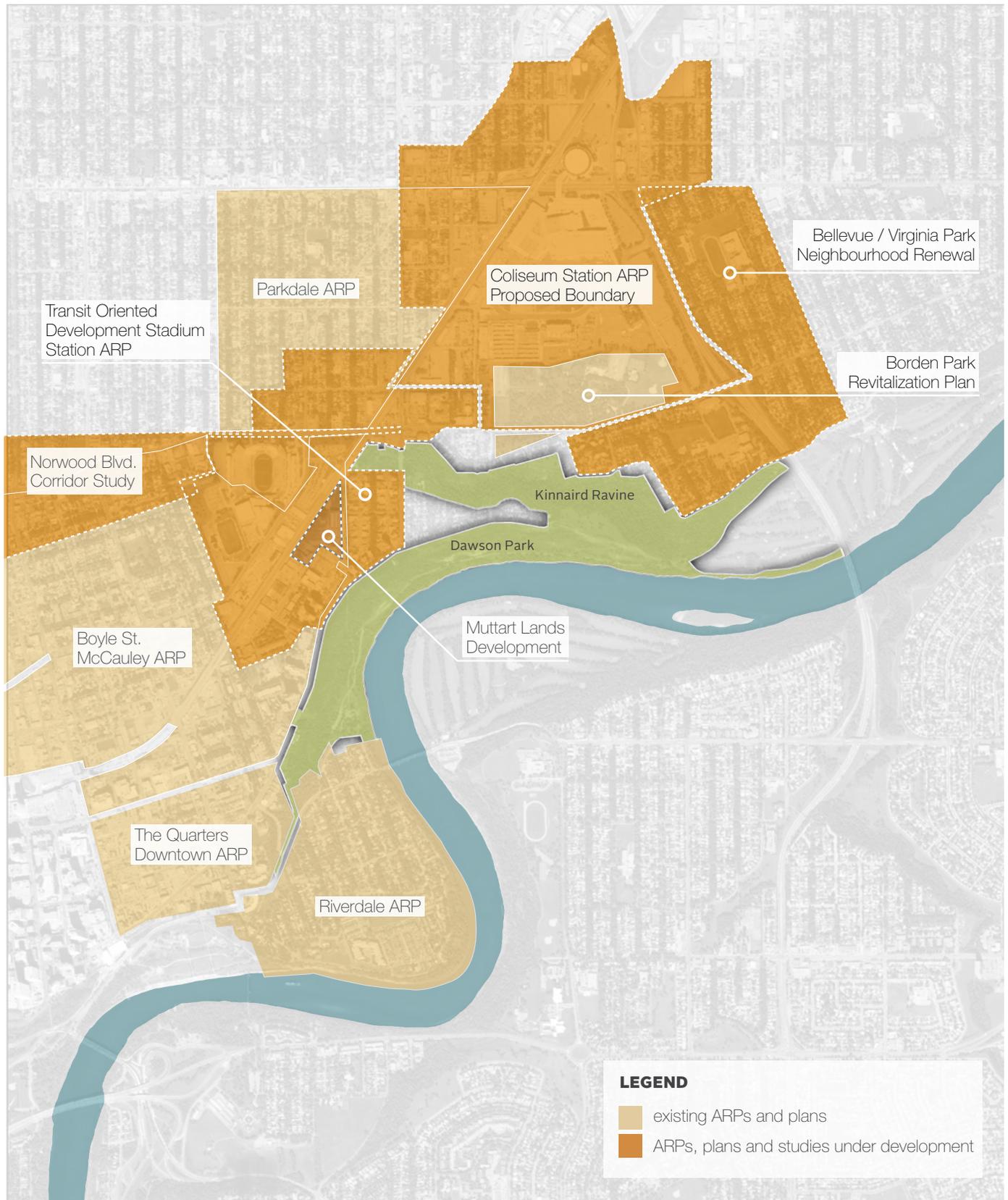


Figure 5. Community Context

improvements on City owned land that enhance neighbourhood livability and connectivity (trail improvements, trees, pathways). The program doesn't include arterial roads or alleys.

The work occurring in Bellevue / Virginia Park will complement the top-of-bank recommendations for the Dawson Park and Kinnaird Ravine Master Plan.

Existing Area Redevelopment Plans

The Boyle Street McCauley and Riverdale ARPs are long-standing community planning documents that have shaped the neighbourhoods to the south and west of Dawson Park and Kinnaird Ravine for over 20 years. These neighbourhoods have a rich history within the City's development. They help to serve marginalized populations through various community services and supports.

→ Boyle Street McCauley ARP, 1994

The *Boyle Street McCauley ARP* focuses on promoting cooperation within the community and resolving issues such as crowded housing, vacant lots and high-traffic volumes. Higher density development and pedestrian improvements are recommended along Jasper Avenue.

→ Riverdale ARP Office Consolidation, 2010

The *Riverdale ARP* uses the neighbourhood's historical background as a catalyst for development. Improving pedestrian pathways and controlling the rate of development in the historic parts of the neighbourhood are major recommendations.

→ Parkdale ARP Office Consolidation, 2010

The *Parkdale ARP* identifies issues facing the community at the time when the plan was first published (1983), including redevelopment pressure, presence of arterial roads, general community appearance and condition and community instability. The plan aims to maximize the use of the LRT and minimize the impact of arterial roadways by providing direction on residential and commercial development and managing circulation in the community.

→ Borden Park Revitalization Plan, 2010

The City completed a revitalization plan that will see Borden Park's 100-year legacy continue for many years. Since the development of the Plan in 2010, major upgrades to the park have been completed. The latest piece of the plan saw the redevelopment of the Borden Outdoor Pool into the Borden Natural Swimming Experience, which will open to the public in the summer of 2018.

Parallel City Projects

→ Homeless on Public Lands

The City and its partners are working together to connect people experiencing homelessness to supports and housing using the Housing First principle. They aim to make a positive difference in the lives of individuals experiencing homelessness, reduce the number of encampments, clean up debris left behind in public spaces and increase the enjoyment and safety of all park users.

→ River for Life

The purpose of the City of Edmonton's River for Life initiative is to improve the quality of water in the river. The ultimate goal of the program is to achieve a net-zero impact from human activities on the North Saskatchewan River. River for Life builds on the objectives of "The Way We Green" and incorporates initiatives including "Store It, Don't Pour It" and "Treat It Right". Partnership opportunities include the implementation of low-impact development techniques in the park, advocating for stormwater quality improvement facilities and public education.

→ River Valley Alliance Boat Docks & Launches

The Boat Docks & Launches initiative increases options for water access, allowing travel along the river through the introduction of formal water access points. The initiative involves building or refurbishing seven docks, three hand launches and one vehicle launch. One of the new docks is planned for Dawson Park.

→ 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. Dawson Park and Kinnaird Ravine 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.

Environmental Considerations

One of the main objectives of the Master Plan is to preserve and enhance the valuable ecological resources within Dawson Park and Kinnaird Ravine.

Understanding the existing conditions within the park is essential to preserving sensitive ecologies and mitigating the effects of human use on natural features in the park. The City of Edmonton has adopted the practice of reviewing and analyzing environmental conditions at a very early stage in the planning process. The intended outcome is that conflicts, limitations and environmental sensitivities become apparent early in the Master Plan process, allowing time for mitigation strategies or alternative recommendations.

The following is a summary of Dawson Park and Kinnaird Ravine'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.

The findings presented here are a product of the site inventory and analysis as well as the following:

- » An Environmental Overview: a desktop assessment to help determine any existing environmental concerns in the park early in the process
- » A Phase II Environmental Site Assessment: an on-the-ground investigation and delineation of areas of potential environmental concern for contaminants, rare plants and bird, mammal and amphibian habitats
- » An Environmental Impact Assessment: a report to address environmental impacts at all stages of the project

Slope and bank erosion, terrestrial and aquatic habitat and invasive and rare plant species are some of the more pressing concerns reported regarding the park's existing conditions.



View of the river edge facing east from the shoreline of Dawson Park

Surface Water, Groundwater and Fish Habitat

Dawson Park and Kinnaird Ravine are located on the north bank of the North Saskatchewan River which originates 1,800 m above sea level in the Columbia Icefields and flows eastward across Alberta and Saskatchewan into Lake Winnipeg, then into the Nelson River before emptying into Hudson's Bay (City of Edmonton, 2016).

Dawson Park and Kinnaird Ravine is mostly situated above the 1:100 year flood level, with the exception of two small areas located immediately downstream of Dawson Bridge and upstream of the Highlands Golf Club. A comparison of historical bank lines for the North Saskatchewan River spanning a period of 1969 to 2008 indicates minor lateral bank movement along the north bank in the area immediately downstream of Dawson Bridge. This movement is not considered significant (Thurber Engineering Ltd, 2017).

Bank erosion is evident throughout the reach of the Dawson Park shoreline. The steep banks, approximately 2-3 m in height, are well vegetated, which aids in bank stabilization. The over bank rises gently from the top-of-bank and continues to the top of the River Valley at a steep slope.

The closest hydrometric water quality station (05DF001) on the North Saskatchewan River in Edmonton is operated by Environment and Climate Change Canada and is located downstream of Dawson Park at the Low Level Bridge. Flow data has been collected at this station most months from 1911 to 2014. Typically, flow at this station is highest in June and July, dipping dramatically within the fall months, and lowest during winter months (December and January) (Government of Canada, 2017).

GROUNDWATER

Several reference test hole locations were available throughout Dawson Park and Kinnaird Ravine. Where encountered, groundwater depths were recorded. Groundwater information collected during geotechnical investigations are presented in Table 1; in general, groundwater depths varied based on location, ranging from 2.0 - 47.2 m.

Table 1. Groundwater Depths in Test Hole Locations

Location Reference	Test Hole	Groundwater Depth below Surface (m)	Approximate Groundwater Elevation (m)
Dawson Boat Launch (south end of Dawson Park)	TH15-1	2.9	613
Canadian Legion - Norwood Branch (west end of Kinnaird Ravine)	TH-1	6.6	Not available
	TH-2	8.1	Not available
10890-75 Street slope investigation (plateau above east end of Kinnaird Ravine)	BH1	16.7	645
10860-75 Street (plateau above east end of Kinnaird Ravine)	20109-01	10.4	651
WESS Stage W12 Tunnel (central portion of Dawson Park)	TH03-2	47.2	616
	TH03-3	2.0	622.5
	TH03-4	18.3	624



'Hoodoos' in Dawson Park caused by natural erosion processes exposing sandstone formations along the slope

RAT CREEK

Rat Creek, a tributary of the North Saskatchewan River, forms Kinnaird Ravine. The watercourse traverses the study area in the northern section, paralleling the north bank of the NSR, eventually draining into the river via a culvert within the park crossed by a pedestrian pathway. Rat Creek was significantly impacted by industrial, urban and agricultural development in the City of Edmonton starting in 1920s. Prior to the impacts, Rat Creek was a larger watercourse with marshy areas and higher water levels that allowed for recreational use by locals (Alberta Avenue, Eastwood and Parkdale-Cromdale Community Leagues, 2016).

Historically, the creek was primarily fed by marshes upstream that were located in the present Kingsway Mall area. Overtime, those marshy areas were drained for agricultural purposes, and some of the sections of the creek were partially filled to accommodate urban development. Urban and industrial development west of Dawson Park and Kinnaird Ravine, including the construction of 111 Avenue, have shortened the original Rat Creek, creating a less pronounced water course. Rat Creek runs from 82 Street towards the North Saskatchewan River through Kinnaird Ravine.

FISH AND FISH HABITAT

Within the park, Rat Creek is classified as an unmapped Class C water body with a Restricted Activity Period (RAP) of September 16 to July 31, as determined from the Code of Practice for the St. Paul Management Area (Alberta Environment and Sustainable Resource Development 2012). The sections of the North Saskatchewan River to the south and the east of Dawson Park are classified as Mapped Class A water bodies with important fish habitat. In 2005, approximately 950 square metres of lake sturgeon spawning habitat was created in the substrate along the bottom of this section of the river (Hobson, et al, 2008).

A watercourse assessment of Rat Creek, including an assessment of fish habitat potential, was conducted on 12 July and 6 August 2016. Upstream, near 82 Street, Rat Creek has limited channelization and definition. For the rest of its course it is an intermittent watercourse with a width less than 0.7 m. Near its confluence with the NSR, it drains into the culvert that supports a park trail. Through a review of Fisheries and Wildlife Management Information System (FWMIS) records (Alberta Environment and Parks, 2017), only one non-sportfish species has been previously documented within Rat Creek

(Brook Stickleback [*Culaea inconstans*]). However, given the low flow conditions, Rat Creek is unlikely to support most fish species present within the NSR. In addition, the culvert outlet connecting to the NSR is likely a barrier to fish passage (Basin Environmental, 2018).

In the North Saskatchewan River within the City of Edmonton, 11 sportfish species and 19 non-sportfish species have been documented (AEP 2017).

The sanitary sewer in Dawson Park is part of a combined sewer system. A combined sewer means that both stormwater and sanitary sewage flows via one pipe. The sewer outfall in line with 86 Street is not within the scope of the Master Plan, but has an effect on the quality of fish habitat in the river.

WETLANDS

A wetland is an ecosite dominated by hydrophytic vegetation where soils are water-saturated for a sufficient length of time. As a result, excess water and resulting low soil oxygen levels are principal determinants of vegetation and soil development (McKenzie and Moran, 2004). Three wetlands were identified in Kinnaird Ravine and are associated with riparian components adjacent to Rat Creek.

One of the wetlands was delineated and classified in accordance with the Alberta Wetland Identification and Delineation Directive (AEP 2015) and the Alberta Wetland Classification System (AWCS) (AEP 2015) in order to determine any potential impacts resulting from the Master Plan. This wetland is located east of the 82 Street Bridge in the northwest portion of Kinnaird Ravine and has historic human disturbance. It has been bermed at its eastern extent preventing flow to wetlands and the watercourse downstream. This may be the reason for water pooling.

Vegetation in the wetland is dominated by sedge species including green sedge (*Carex viridula*), water sedge (*Carex aquatilis*) and awned sedge (*Carex utriculata*). Noxious species including creeping thistle (*Cirsium arvense*) and perennial sow thistle (*Sonchus arvensis*) were also observed.

The other two wetlands were not delineated or studied because no impacts from the Master Plan could be foreseen. Subsequent to field work, it was determined that no impacts to any wetlands would be proposed as part of the Master Plan (Basin Environmental, 2018).



Existing Rat Creek Culvert



Existing Combined Sewer Outfall



Existing Wetland in Rat Creek

Geology and Geomorphology

The park is located in the Central Parkland Natural Subregion within the Parkland Natural Region. The dominant landform is undulating glacial till plains with hummocky, rolling and undulating uplands. Medium to moderately fine textured surficial materials dominate the Subregion with moderately calcareous glacial till blanketed over bedrock in some of the low-relief plains (Natural Resources Committee, 2006).

The bedrock underlying the surficial deposits at Dawson Park and Kinnaird Ravine consists of the Upper Cretaceous, Horseshoe Canyon Formation. The Horseshoe Canyon Formation consists of deltaic and fluvial deposits of 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. The Horseshoe Canyon Formation sandstone is exposed on the north slopes of the North Saskatchewan River Valley in Dawson Park, creating the park's iconic hoodoo formations (Thurber Engineering Ltd, 2017).

HISTORICAL LAND USE

Coal mining was prevalent in the early 1900's throughout the North Saskatchewan River Valley, including Dawson Park and Kinnaird Ravine. Historical coal mining in the park used underground room and pillar mining techniques. Ground subsidence resulting from former abandoned underground mines generally occurs within a period of several years following abandonment. On this basis, the presence of former coal-mine workings are not expected to have significant impact on future park surface developments. However, further evaluation will be required for buildings and structures proposed within the park (Thurber Engineering Ltd, 2017).

- » The Standard Mine operated from 1905 to 1923 from two coal seams. The Clover Bar seam was located between about 12 m and 56 m below ground and the Lower Clover Bar seam was located between about 21 m and 33 m below ground.
- » The Premier Mine operated from 1920 to 1937 from one coal seam, which was located between about 12 m and 56 m below ground.
- » The Chinook Mine operated from 1907 to 1911 and from 1918 to 1930 from one coal seam, located between about 18 m and 70 m below ground surface.
- » The Penitentiary Mine consisted of two coal seams (the Pen Mine and the Penn Mine). The upper coal seam (Pen Mine) operated from 1908 to 1920 and the lower coal seam (Penn Mine), operated from 1920 to 1930. The upper coal seam was up to about 27 m below ground and the lower coal seam was located between about 18 m to 76 m below ground.

Site Soils

The soils within the Central Parkland Natural Subregion are rich and dominated by Black Chernozems in the grasslands and open woodland areas, Solonchic soils and humus layers, Orthic Dark Grey Chernozemic and Dark Grey Luvisolic soils dominate forested areas, and Humic and Orthic Gleysols dominated wetland soils (Alberta Environment and Parks, 2017).

The bedrock is covered by surficial deposits composed of late Tertiary and Quaternary Period deposits. Tertiary deposits around Edmonton are part of the Empress Formation (also referred to locally as the Saskatchewan sands and gravels) that were deposited in the pre-glacial river valleys that occupied the Edmonton area. The origin of the sand and gravel material is from the Canadian Rockies to the west of Edmonton. These valleys are now referred to as buried valleys because they were infilled with glacial and lacustrine deposits during post glacial times (Thurber Engineering Ltd, 2017).

Quaternary deposits are mostly glacial deposits covered by recent postglacial deposits. Most of the glacial deposits on the site consist of till covered by glaciolacustrine silt and clay deposited in the glacial Lake Edmonton. 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. It 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 preglacial 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 and creek slopes (Thurber Engineering Ltd, 2017).

Existing geotechnical references in the park (boreholes from previous environmental studies) indicate that soil conditions consist of alluvial sand, silt and clay overlying bedrock within the floodplain area below the valley slopes and clay overlying clay till over bedrock within the plateau areas above the valley slopes (Thurber 2017).

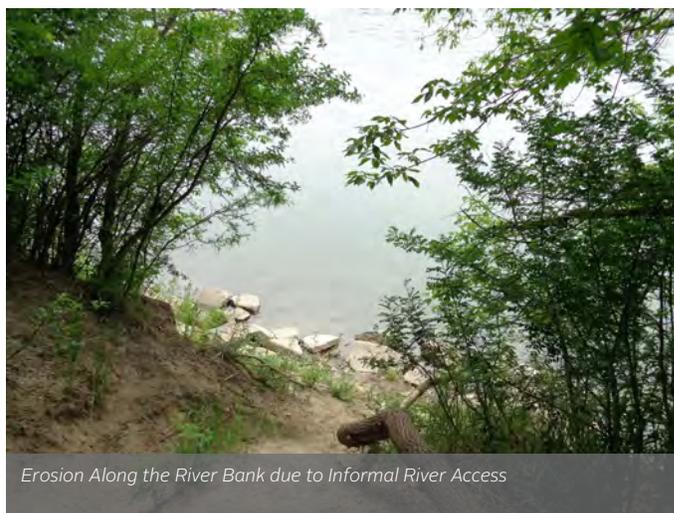
As part of a Limited Phase II Environmental Site Assessment (ESA), soil samples were collected based on field observations in the park and the scope of potential disturbance based on the proposed concept plan for Dawson Park and Kinnaird Ravine. Results of the Limited Phase II ESA indicate potential contaminants, including trace metal and salinity impacts as well as the presence of hydrocarbon contamination below the surface. These findings will be taken into account in the implementation of the Master Plan.

SLOPE STABILITY, FROST HEAVE AND RUNOFF POTENTIAL

The valley slopes within Dawson Park are generally sloped at 15 to 35 degrees and are approximately 35 to 40 m in height. The elevation of the upland plateau is an average of 662 m and the lower terrace ranges from about 625 m to 630 m, dipping slightly towards the North Saskatchewan River. No significant slope recession has occurred in Dawson Park and Kinnaird Ravine in the time available from aerial photography (1978-2010); however, signs of previous landslides were noted along the valley slopes along with several erosion channels. These slopes are considered marginally stable (Thurber Engineering Ltd, 2017).



Exposed Sandstone Forming the Hoodoos



Erosion Along the River Bank due to Informal River Access

During site reconnaissance, significant erosion along valley slopes was observed. Numerous rills and gullies (small and large channels of erosion in the soil) with evidence of sloughing was noted throughout poorly vegetated slopes in Dawson Park (see the two photos below). Some of this erosion appeared exasperated by the development of informal trails (Basin Environmental, 2017).

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. On this basis, Dawson Park and Kinnaird Ravine have high runoff potential and low to moderate frost heave potential, swell/shrink potential and infiltration capacity (Thurber Engineering Ltd, 2017).

Vegetation

Native vegetation is minimal in the Central Parkland Subregion due to intensive cultivation and urbanization (Natural Regions Committee, 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*), feathermoss (*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*) (Natural Regions Committee, 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, carnivorous plants) inhabit the North Saskatchewan River Valley (Hobson et. al, 2008).

LOCAL VEGETATION

Dawson Park and Kinnaird Ravine is a grassland area, primarily consisting of ruderal (growing on disturbed land), non-native grasses, herbs and forbs; aspen forest with a canopy of trembling aspen and subcanopy of rose, chokecherry and buckbrush; and, riparian areas along the bank of the North Saskatchewan River. During field studies conducted in 2016 and 2017, 176 plant species were observed in the park.

Among the observed species, 107 species (61%) were native, while 69 species (39%) were exotic, including 14 noxious weed species. Among the observed trees, 10 species appeared to have been planted as part of the Capital City Recreation Park Concept Plan development in the 1970s.

Five main vegetation communities were identified in the park: mixedwood forest, shrub, riparian, manicured and sparsely vegetated areas. These vegetation communities provide a general understanding of they types of plant species in the



Informal Trail Use Leading to Increased Erosion on Slopes



Rills and Gullies (Small and Large Channels of Erosion) are Evident on the Slopes in Dawson Park

park and where they occur and align with the vegetation mapping completed for the Dawson Park and Kinnaird Ravine *Environmental Sensitivities Report (2017)*.

The **mixedwood forest community** is the largest community in Dawson Park and Kinnaird Ravine. This community is found throughout the ravine and along much of the valley slopes along Dawson Park. Vegetation within the mixedwood forest community is almost entirely dominated by a deciduous tree stands. Trembling aspen forms the dominant canopy species with white spruce and Manitoba maple interspersed throughout. The understory is composed of typical parkland species such as Saskatoon (*Amelanchier alnifolia*), wild sarsaparilla (*Aralia nudicaulis*) and lady fern (*Athyrium filix-femina*). Three wetland areas were identified in Kinnaird Ravine (Basin Environmental, 2018).

The **shrub community** is situated along the top-of-bank slopes in Dawson Park, immediately south of Jasper Avenue and extending to Kinnaird Park. Vegetation in this community includes a mix of non-native caragana (*Caragana arborescens*) with various agronomic grasses with deciduous trees dominated by trembling aspen interspersed throughout (Basin Environmental, 2018). Two areas of native grasses exist in Dawson Park down slope from the Latta Bridge and south of 78 Street.

The **riparian vegetation community** is comprised of a narrow band of vegetation adjacent to the North Saskatchewan River. This habitat is dominated by willows, with some occurrences of sedges and rushes.

Manicured areas throughout Dawson Park and Kinnaird Ravine are mostly situated on lands surrounding the pavilion, Kinnaird Park, Sheriff Robertson Park and Jane Salisbury Park with linear strips of manicured vegetation paralleling the paved multi-use trail through Dawson Park. These areas consist primarily of manicured grasses and planted trees such as balsam poplar, cottonwood (*Populus deltoids*) Manitoba maple (*Acer negundo*), white spruce and lodgepole pine (*Pinus contorta*). (Basin Environmental, 2018)

Along the steepest slopes in Dawson Park there are patches of **sparsely vegetated ground**, with significant erosion and evidence of slumping. The presence of these areas have likely been exasperated by informal trail access. Some vegetation remains in these areas; however, it is largely comprised of non-native caragana with minor patches of agronomic grasses scattered throughout (Basin Environmental, 2018).

RARE PLANTS

A background search of Alberta Conservation Information Management System (ACIMS) database resulted in no reported ecological communities, and two rare plant species (i.e., non-sensitive elemental occurrences) identified within Dawson Park and Kinnaird Ravine (Alberta Parks, 2017). These included creeping ancyliid (*Ferrissia rivularis*), observed in 2001 and smooth sweet cicely (*Osmorhiza longistylis*), observed in 2002, 2003 and 2013.

An additional background literature review was also conducted to identify rare vascular plant species with the potential to occur within the park. A total of seven rare plants were identified as having potential to occur within the park (Basin Environmental, 2018).



View of vegetation communities in Dawson Park



Mixedwood Forest Community



Manicured Community



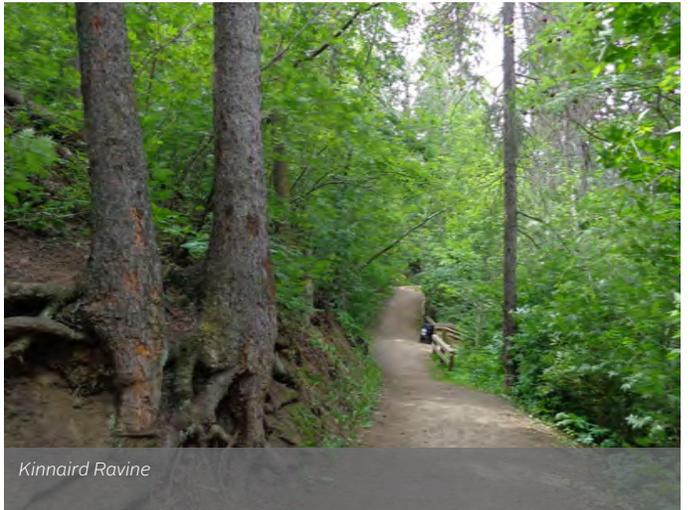
Shrub Community



Sparsely Vegetated Community



Riparian Vegetation Community



Kinnaird Ravine

The presence of smooth sweet cicely in the park boundary was confirmed during the late season rare plant inventory surveys in 2017. The total population of smooth sweet cicely in Dawson Park and Kinnaird Ravine is conservatively estimated to be 300 individuals, with communities sighted across the park, particularly in moist, shaded areas and adjacent to existing trails. Poison ivy (*Toxicodendron radicans*) occurs in a few dense but discrete patches at the northern extent of the park area by Ada Boulevard with an estimated population of approximately 50-100 individuals. No other rare plants were identified during rare plant inventory surveys (Basin Environmental, 2018).

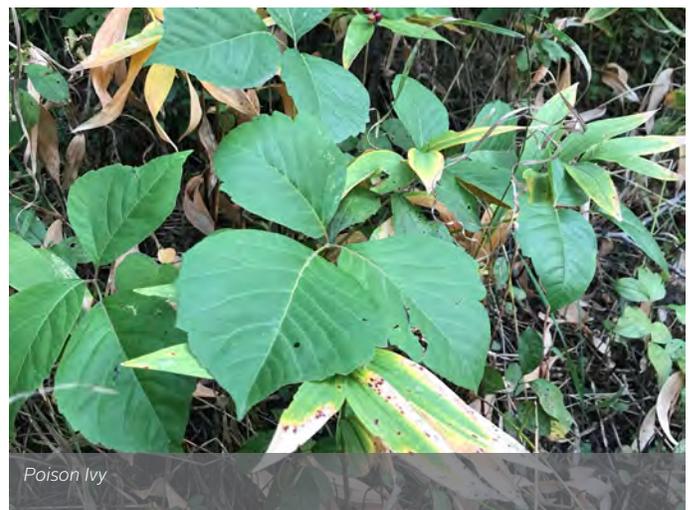
INVASIVE PLANTS, NOXIOUS OR PROHIBITED NOXIOUS WEEDS

During the field surveys in 2016 and 2017, a total of 14 Noxious weeds, as defined by the Alberta Weed Control Act, were identified in Dawson Park and Kinnaird Ravine. Species identified include: greater burdock (*Arctium lappa*), woolly burdock (*Arctium tomentosum*), creeping bellflower (*Campanula rapunculoides*), creeping thistle (*Cirsium arvense*), hound's tongue (*Cynoglossum officinale*), white cockle (*Silene latifolia*), perennial sow thistle (*Sonchus arvensis*), and common tansy (*Tanacetum vulgare*) throughout the park. In some areas the infestations were large and were a significant proportion of the ground cover. Patches of leafy spurge (*Euphorbia esula*) and common toadflax (*Linaria vulgaris*) were less widespread throughout the park and ravine. Overall, Kinnaird Ravine is considered the most intact with the lowest levels of exotic and Noxious plant species relative to the rest of the park area (Basin Environmental, 2018).

Wildlife

The City of Edmonton is a highly developed urban landscape with components of native vegetation and low-level developments associated with the North Saskatchewan River Valley corridor. Three general wildlife habitat types exist within the City of Edmonton: forests; wetlands; and riverine/riparian habitats (Hobson et al, 2008).

Dawson Park and Kinnaird Ravine is located in the North Saskatchewan River Valley, which is considered a national environmentally sensitive area, as it provides critical habitat, corridors and linkages for a diverse range of wildlife species (Hobson et al, 2008). The majority of the North Saskatchewan River Valley is considered a Key Wildlife and Biodiversity Zone, including sections within Dawson Park and Kinnaird Ravine (Alberta Environment and Parks, 2017). Key Wildlife and Biodiversity Zones provide key ungulate wintering areas and high habitat potential (e.g., important riparian habitat) for biodiversity (Alberta Environment and Sustainable Resource Development, 2015).



Field reconnaissance and wildlife surveys were conducted in the study area on 12 July and 06 August 2016 and 08 August 2017, in addition to a desktop review of existing and available information within the park, highlighting species at risk.

AMPHIBIANS AND REPTILES

One locally-known garter snake hibernaculum is situated within the study area, and a common garter snake was observed entering a second potential hibernaculum during the wildlife surveys. Snakes overwinter in crevasses, animal burrows, slumps, rock piles, under building foundations, and other subterranean spaces that extend below the frost line. These hibernacula are protected throughout the year under Alberta's Wildlife Act. Two garter snakes were observed during the 2017 surveys, on separate days.

No amphibians were observed during the field surveys, as they were conducted after the breeding season, but northern leopard frogs and Canadian toads have been previously recorded in the area (Alberta Environment and Parks, 2017). Northern leopard frogs have been extirpated from the Edmonton area (Kendell, 2002), but Rat Creek and several wetlands within the study area could provide breeding and foraging habitat for the Canadian toad, and other common species like wood frogs and boreal chorus frogs. Western toads also occur within Edmonton, but no records were found near the study area (Basin Environmental, 2018).

BIRDS

Sixteen bird species, totaling 103 individuals, were identified during the point counts surveys. Apart from gulls flocking in the area (32), the most abundant species recorded were black-capped chickadee (30) and American crow (12). Incidental observations during other wildlife surveys captured an

additional 6 species, bringing the total to 22 species. All of the species detected within the study area are resilient to human disturbances. A sharp-shinned hawk – and associated nest – were observed in the southern end of Kinnaird Ravine. No special status species were observed during the surveys (Basin Environmental, 2018).

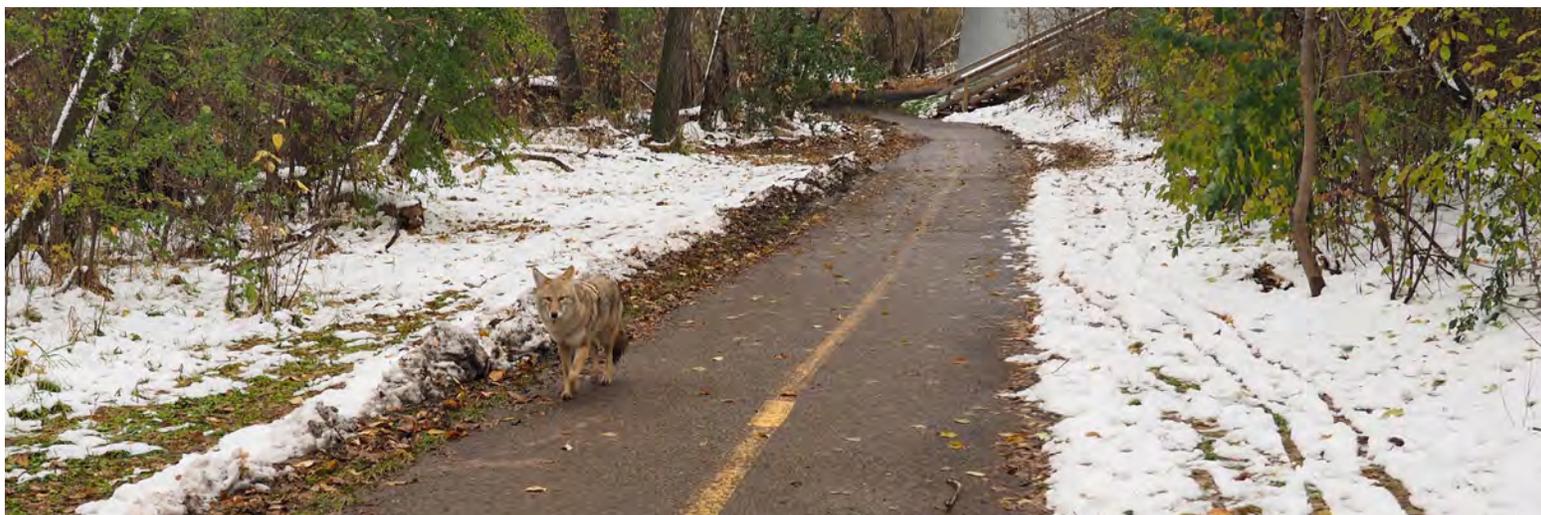
MAMMALS

A wide variety of mammals are common within the North Saskatchewan River Valley, ranging from rodents (e.g., voles, mice and squirrels) to ungulates (white-tailed deer and mule deer) (Hobson et al, 2008). Coyotes are common within the river valley and ravine system, and large carnivores such as black bears and cougars are also known to travel through the River Valley. Red squirrels were the only mammals observed during the field surveys, but deer tracks and signs of beaver activity were also recorded. Bat species may use the study area for breeding and foraging, although no bat roosts were identified (Basin Environmental, 2018).

WILDLIFE SPECIES AND SPECIES OF CONSERVATION CONCERN

A total of 80 wildlife species (i.e., 2 amphibians, 71 birds, 6 mammals and 1 reptile) were identified to occur in or near the study area through field surveys and desktop review. These species are listed in the accompanying EIA for the Dawson Park and Kinnaird Ravine Master Plan.

In addition to those wildlife species documented within the study area, a desktop analysis of wildlife species of conservation concern known to occur within the city of Edmonton, including likelihood of occurrence and potential habitat use within the study area, was conducted. The



Coyote observed in Dawson Park near the Dawson Bridge

following species of conservation concern have previously been documented in Dawson Park and Kinnaird Ravine (Basin Environmental, 2018).

→ **Amphibians**

- » Canadian Toad (*Anaxyrus hemiophrys*)
- » Northern Leopard Frog (*Lithobates pipiens*)

→ **Birds**

- » Baltimore Oriole (*Icterus galbula*)
- » Bank Swallow (*Riparia riparia*)
- » Barred Owl (*Strix varia*)
- » Bald Eagle (*Haliaeetus leucocephalus*)
- » Black-backed Woodpecker (*Picoides arcticus*)
- » Brown Creeper (*Certhia americana*)
- » Evening Grosbeak (*Coccothraustes vespertinus*)
- » Great Gray Owl (*Strix nebulosa*)
- » Least Flycatcher (*Empidonax minimus*)
- » Northern Goshawk (*Accipiter gentilis*)
- » Pileated Woodpecker (*Dryocopus pileatus*)
- » Prairie Falcon (*Falco mexicanus*)
- » Purple Martin (*Progne subis*)
- » Short-eared Owl (*Asio flammeus*)
- » Western Tanager (*Piranga ludoviciana*)

→ **Mammals**

- » Little Brown Bat (*Myotis lucifugus*)
- » Northern Long-eared Bat (*Myotis septentrionalis*)

→ **Reptiles**

- » Common Garter Snake (*Thamnophis sirtalis parietalis*)

The common garter snake is provincially-listed as Sensitive, and was observed in one hibernaculum within the study area, with a second locally-known location also within the study area (Basin 2018). The little brown bat and northern long-eared bat are provincially-listed as May be At Risk, and the little brown bat is federally-listed as Endangered. Both have been previously recorded in or near the study area (Basin Environmental, 2018).

Most of the bird species of conservation concern also rely on cavities, crevasses or stick nests in mature trees and snags, including barred owls, black-backed woodpeckers, brown creepers, great gray owls, northern goshawks, pileated woodpeckers and purple martins. Of the remaining species, bank swallows, evening grosbeaks, prairie falcons and short-eared owls are unlikely to nest within the study area, but may use it for foraging. The last two species, Baltimore orioles and least flycatchers, both nest in deciduous trees of various sizes (Basin Environmental, 2018).

Historical Resources

Preliminary investigations regarding historic resources in Dawson Park and Kinnaird Ravine resulted in an understanding of areas of potential historic value. The Historic Resource Value (from the Alberta Township Survey system) is a number assigned to an area of land according to the classification of historic resources that lie within that area. Areas with a class of “o” have undergone investigation that have resulted in limited returns or show that the site has been heavily disturbed or destroyed.

There are no areas with a class of “o” in the project site. Most of the park site is unclassified pending further investigation. Two areas of the park are classified as class 5, which includes lands that are believed to or have a high potential to contain a historic resource. Areas with a class of 1 or 2 are outside the boundaries of the project area. These are lands that are designated with heritage significance. See the map on the following page for more detail.

There are five known historical resources located within the study area, two archaeological, two archaeological/paleontological and one historical period. The listing does not identify lands that could potentially have historic resources. One City of Edmonton designated Historic Tree, the Latta Tree, is located in Dawson Park, adjacent to the Latta Bridge along Jasper Avenue at 91 Street. The Historic Tree, originally planted in 1906, is a Manitoba Maple with a commemorative plaque installed on the west end of the Latta Bridge (Jenkins, 2017).

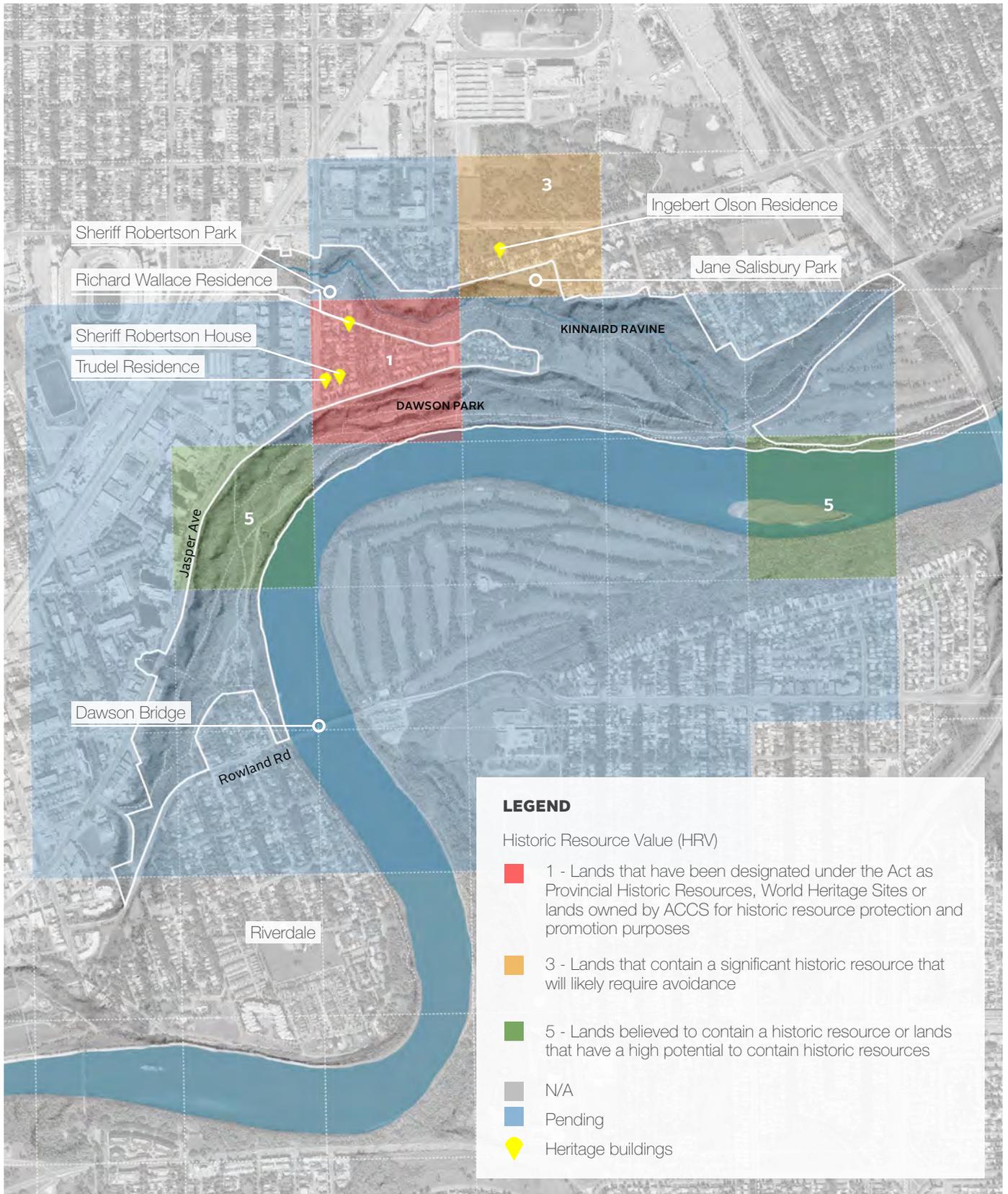


Figure 6. Historic Resources Map



Environmental Sensitivities Summary

As part of the Master Plan process, the City requires environmental sensitivity mapping of the site 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 so that the findings are incorporated 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 respect for the park's ecological functions. This type of planning is essential to finding a balance between human use and the preservation or enhancement of the River Valley's ecological systems.

Overview of Analysis

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 Geographic Information Systems (GIS) software according to their sensitivity to future development. The five resource types are:

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

The *Environmental Sensitivities Report* produced in February 2017 identified the most sensitive areas within the Dawson Park and Kinnaird Ravine boundaries based on the above criteria. This report was completed in advance of concept development so that recommendations could be made with an explicit understanding of their impacts on the sensitive areas of the park.

Throughout concept development for the Dawson Park and Kinnaird Ravine Master Plan, proposed programs and activities have generally avoided sensitive areas of the park, while less sensitive areas have been explored for either increased activity or ecological restoration. The findings of the *Environmental Sensitivities Report* guided the development of the concept plan to ensure sensitivities are respected in the Master Plan.

Environmental Sensitivity Recommendations

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, that create habitat for sensitive species or that contain 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.

The Environmental Sensitivities mapping analysis, along with other ecological, recreation and cultural analyses, was completed to ensure that environmentally significant areas in the park are identified, respected and managed appropriately.

Many areas in the park, including Kinnaird Ravine, the steep River Valley slopes and the river edge, are classified as highly sensitive. The steep slopes, dense vegetation and relatively high habitat potential throughout the park contribute to a higher ecological sensitivity. This means that ecological impacts from development are expected to be greater than in other, less sensitive park areas like the Mobility Corridor. Proposed park use in the Master Plan is considered with a thorough understanding of existing environmental sensitivities and potential ecological impacts of future development and restoration efforts.



Figure 7. Environmental Sensitivities Map

200 m 

Existing Conditions

As part of the region's green space network, Dawson Park and Kinnaird Ravine are essential outdoor places for Edmontonians to relax, learn, explore and reconnect to the North Saskatchewan River Valley.

Park Access and Transit

Regional Connections

Dawson Park and Kinnaird Ravine is located east of the downtown core in Edmonton, with Jasper Avenue and 112 Avenue providing major east-west connections to the park.

The park is accessible by the City's light-rail transit (LRT) system on the Capital Line, which runs from Clareview in the north to Century Park in the southwest. The LRT Stadium Station is located at the intersection of 84 Street and 111 Avenue, at the western tip of Kinnaird Ravine. The LRT station is fully accessible and accommodates Park & Ride parking across the tracks.

Dawson Park's multi-use trail is part of the River Valley's regional trail system, providing a pedestrian connection into Riverdale to the south, along the River Valley Highlands shore to the east and beyond to other River Valley parks and trails.

Local Connections

Vehicle access into the park is only available from Rowland Road, through the northern portion of the Riverdale community. Vehicle access and parking are located near most of the major amenities in Dawson Park, including the pavilion and the River Valley Alliance (RVA) boat dock and launch. The entrance off Rowland Road is the only fully accessible entrance into the park.

Local bus lines that service the park area include several lines providing direct connections to Riverdale, Boyle Street, Forest Heights, Queen Mary Park, Edmonton Northlands, Bellevue, Virginia Park and other surrounding neighbourhoods.

Many visitors to Dawson Park and Kinnaird Ravine access the park from the top of bank. Smaller neighbourhood parks, such as Sheriff Robertson Park, Jane Salisbury Park and Kinnaird Park, provide formal connections into the River Valley and Ravine system. Existing park entrances along Jasper Avenue, including the entrances at 82 Street, 84 Street and 92 Street are well used by visitors from adjacent neighbourhoods and the broader community. The staircase into Kinnaird Ravine at 78 Street also provides a connection to northern parks and communities from Dawson Park and the Cromdale neighbourhood.

Vehicle Access and Parking Lot

The existing vehicle access into Dawson Park is on 102A Avenue, north of Rowland Road at the south end of Dawson Park. The entry road runs adjacent to a residential community in Riverdale. The park may also be accessed directly through this neighbourhood on 90 Street and 89 Street.

The existing parking lot has a capacity of 45 vehicles and is approximately 3,200 square metres including a vegetated island. The parking lot is used by all types of park users and tends to fill up on evenings when there is a boating practice or event. Overflow parking extends onto the entry road and neighbourhood streets. Some groups bring buses or large trailers into the parking lot to carry program participants and boating equipment. The turnaround radius in the parking lot has been identified as insufficient for larger vehicles, including buses, trailers and maintenance vehicles.

Gateways, Slopes and Trails

Trails and Circulation

Trails in Dawson Park and Kinnaird Ravine support both informal and formal uses in the park during all months. A map of existing circulation, including trails, is provided on the following pages. Paved, granular and natural surface trails provide opportunities for a variety of uses for pedestrians, cyclists, skiers and snowshoers. There are over 10 km of trails in the park, with a continuous 2.4 km stretch of the paved, multi-use trail extending from the parking lot to Ada Boulevard.

PAVED TRAILS

The multi-use trail is used by many park users, including commuters. The trail runs the extent of the park, from the parking lot in the west to Ada Boulevard at Concordia University in the east. The multi-use trail is cleared in the winter. Other paved trails and sidewalks exist in Sheriff Robertson Park and along Jasper Avenue at the top-of-bank.

GRANULAR TRAILS

A granular trail runs parallel to the multi-use trail for a large portion of the park, extending from the parking lot to Wayne Gretzky Drive. This trail, also called the “Braille Trail”, was planned as part of the Capital City Recreation Park in the 1970s. The trail and associated features (i.e. picnic tables) provide a nature experience for people with visual impairments. Plinths with braille plaques are located along the trail and provide information on the natural features of the park.

A single granular trail runs nearly the full extent of Kinnaird Ravine, from Sheriff Robertson Park to the Dawson Park multi-use trail near the river. Kinnaird Ravine was defined in the Capital City Recreation Park Concept Plan as “the best single interpretive site within the major park” because of its dense vegetation and quality bird and animal habitat. There are opportunities for nature interpretation along the granular trail.

NATURAL SURFACE TRAILS

Natural surface trails in Dawson Park and Kinnaird Ravine are defined as “unimproved trails” in the Parkland Bylaw (C2202). They include trails with a natural surface that have a surface width equal to or greater than half a metre. Most of the natural surface trails in the park run through the River Valley slopes in Dawson Park. These weaving trails are valued by pedestrians and mountain bikers for their natural character and minimal footprint. Many of the natural surface trails are in good condition and follow best practices for trail design. This does not include the informal natural paths through forested areas that are used as short-cuts into the park from the top of bank. These types of informal trails cause erosion on steep slopes and disturb vegetation and should be discouraged.



Paved Multi-use Trail and Granular Braille Trail

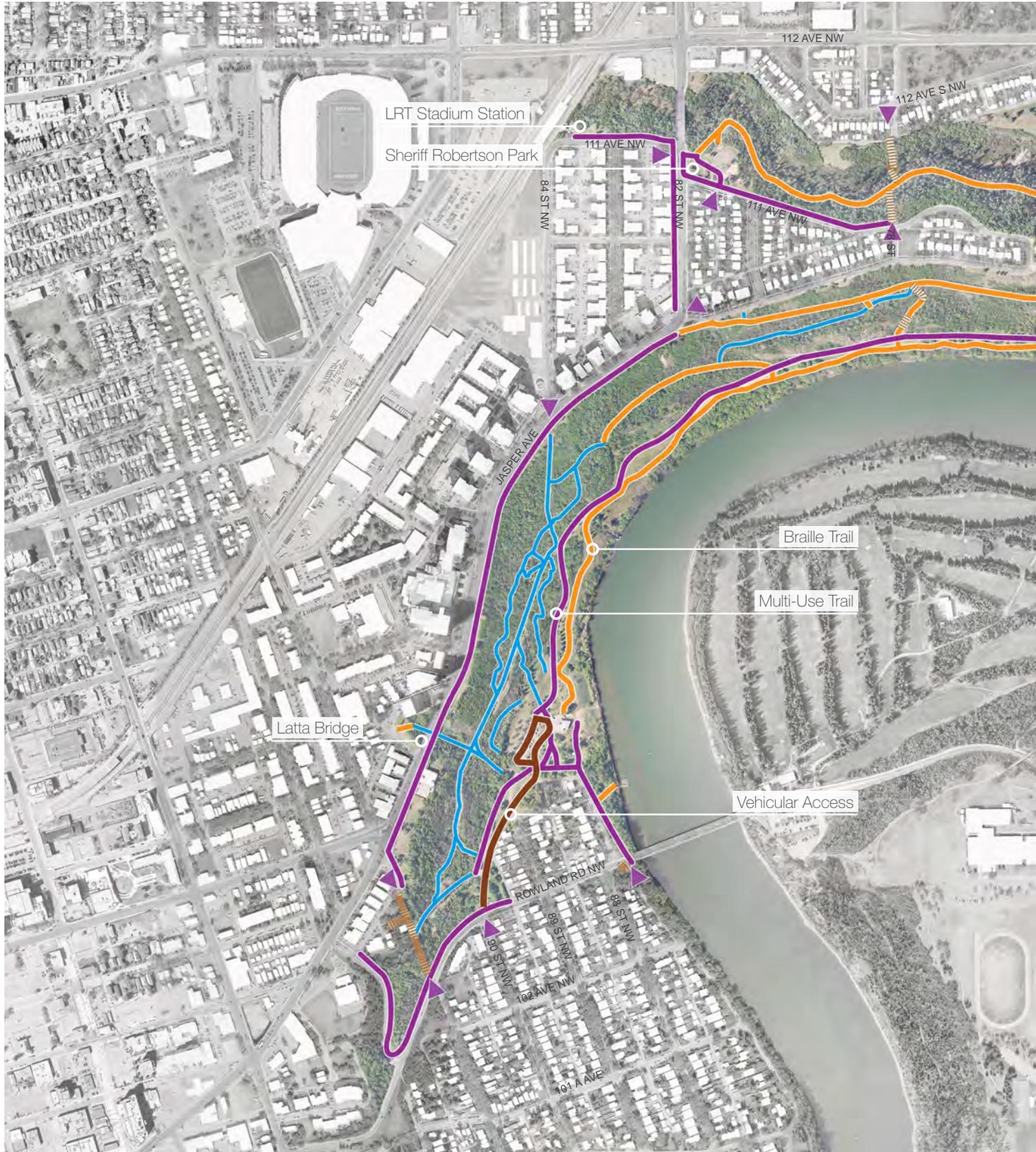


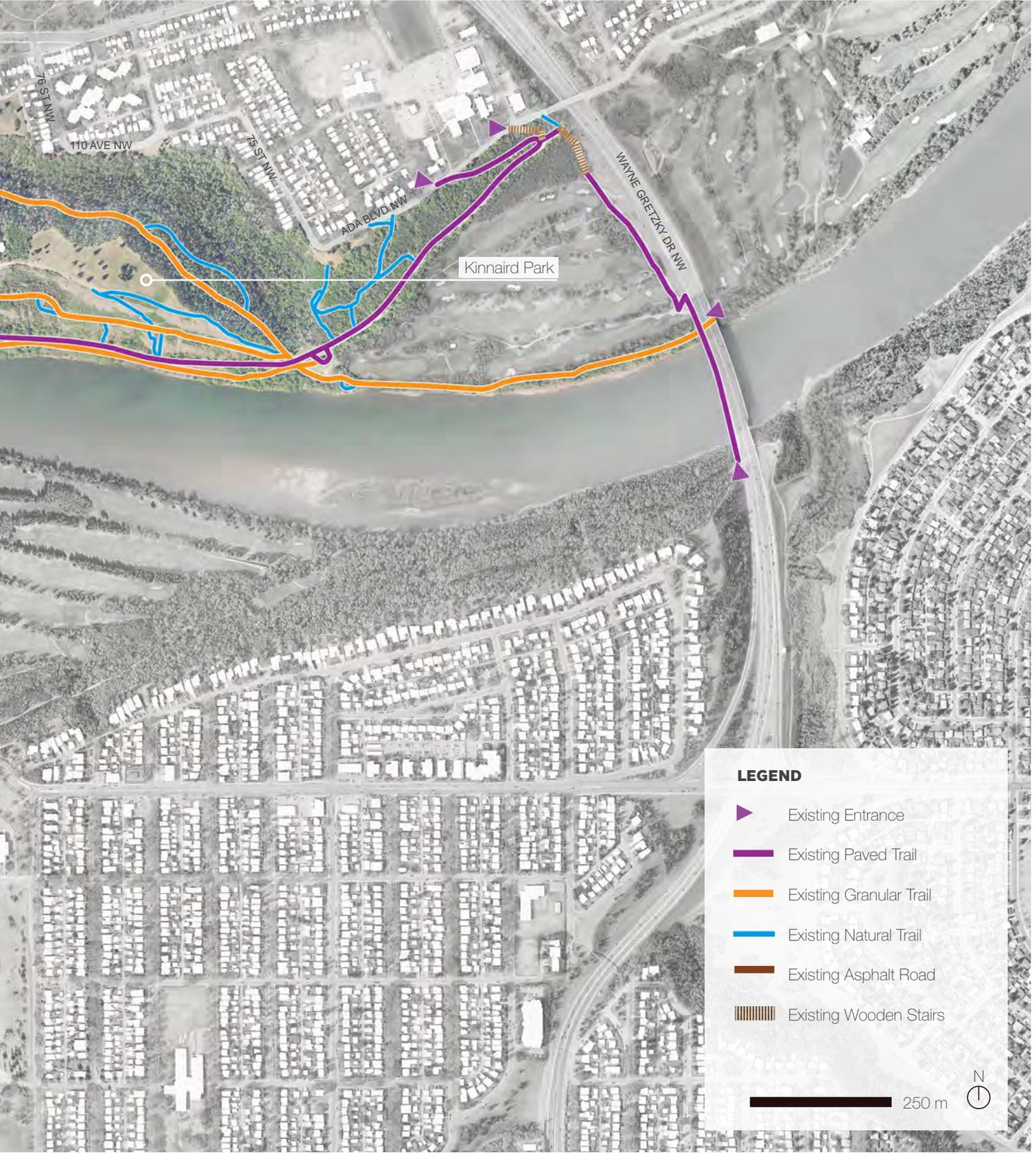
Granular Trail in Kinnaird Ravine



Example of a Natural Surface Trail

Figure 8. Existing Park Access and Trails





The Dawson Park and Kinnaird Ravine Master Plan was identified as an opportunity for administration to explore options for a new natural trail alignment within the park boundaries. This resulted from community interest after the upgrade of a natural surface trail to a granular trail in Dawson Park. Recommendations for the natural trail network are included in the Master Plan section of this report.

Trails in the park vary in their accessibility. The most accessible trails are those that are paved or granular and accessed from the parking lot; however, the current paving conditions on some of these trails may pose challenges for people with different disabilities or mobility limitations.

Pedestrian Entrances

Much of the top-of-bank experience of the park currently occurs along Jasper Avenue, with southwestern views into the River Valley. West of 82 Street, Jasper Avenue is a busy vehicular thoroughfare. The pedestrian walkway at the top of bank does not provide a buffer between the sidewalk and the busy street, creating an uncomfortable pedestrian experience at times. The top-of-bank sidewalk ends east of 82 Street, where an informal trail has started to develop.

There are three formal viewpoints along Jasper Avenue. The viewpoints are of wooden construction with railings and support beams. Many informal viewpoints exist along Jasper Avenue.

There are several entrances into the park from the top of bank, which are mapped on the previous page. They include:

- » A wooden staircase off 92 Street provides a connection to Rowland Road. This staircase is in good condition and is used by people for park access and exercise.
- » An informal, natural surface trail has developed from frequent use under the Latta Bridge. The trail surface is poor quality, with buried debris presenting tripping hazards.
- » A formal gravel trail with timber frame stairs near the intersection of 84 Street and Jasper Avenue. The trail and stairs need repair/upgrading.
- » A formal trail east of the intersection of 82 Street and Jasper Avenue. This trail was recently improved from a natural surface trail and is experiencing some erosion issues.
- » A formal trail into Kinnaird Park at the end of Jasper Avenue where it meets 77 Street. This trail does not continue into the park, but dead-ends after about 25 metres.
- » A pair of wooden staircases off 78 Street provide a connection through Kinnaird Ravine. These staircases are generally in good condition.
- » Sheriff Robertson Park provides a neighbourhood trail connection into Kinnaird Ravine.
- » A paved, multi-use trail connects to the Virginia Park neighbourhood on Ada Boulevard.
- » Stairs connect down to the multi-use trail from Ada Boulevard east of Wayne Gretzky Drive.
- » Many informal access points (natural paths) along the top-of-bank leading into the forested slopes.



Existing Informal Entrance Under the Latta Bridge - Current Safety Concerns from Debris and Slope



Existing Timber Frame Stairs from Jasper Avenue at 84 Street - Stairs Need Repair and Erosion Needs to be Addressed

Top-of-Bank Parks

Top-of-bank parks are relatively flat areas of parkland tucked into the urban fabric, located above the steep slopes that lead down to the river edge.

Sheriff Robertson Park

Sheriff Robertson Park is a neighbourhood park. It contains an open turf area with trees for shade, seating, picnic tables and a community playground. The playground consists of standard fixtures with sand and rubberized surfacing materials. A playground upgrade took place in 2000, which was funded by the Cromdale community.



Sheriff Robertson Park

Kinnaird Park

Because it has one of the best River Valley views in the city, Kinnaird Park was defined as a viewpoint park by the Capital City Recreation Park Concept Plan. The park is composed of a large turf area with several trees that dot the landscape. The turf is maintained and regularly mowed, which makes the park ideal for informal sports and outdoor recreation in the warmer months. There is lighting in the western portion of the park. Four benches are located along the bank, which is minimally vegetated and experiencing some erosion. The park is disconnected from the rest of Dawson Park and Kinnaird Ravine, except for two informal natural surface trails. One trail connects to a granular trail south of Kinnaird Park and the other extends down slope from the eastern tip of the park towards the river edge.



Kinnaird Park

Built around 1915, the historical residence of Captain John Hall is situated on the western edge of Kinnaird Park. The building is owned by the City and is currently a rental property. It is listed as a resource that merits conservation and therefore is on the inventory of Historic Resources in Edmonton.

Jane Salisbury Park

Jane Salisbury Park is located on a triangular lot tucked behind single family homes on 112 Avenue and 76 Street with access from the residential service roads. The park is mainly composed of open turf area, with several shade trees and a couple of benches. The park is used by neighbourhood residents as an informal gathering area and a place to enjoy views of the Rat Creek ravine.



Jane Salisbury Park

Cromdale Dog Park

A relatively small, cleared area of land south of 112 Avenue South on the north bank of Kinnaird Ravine is currently used as an off-leash dog area.

Main Activity Node

The existing pavilion is a focal point of the park. It was constructed in 1974 as part of the Capital City Recreation Park Concept Plan. Located east of the parking lot, it marks the beginning of the Dawson Park multi-use trail and the Braille Trail. The building is approximately 1,000 square feet and is composed of two components: an amenity building and a canopy. The amenity building contains a foyer with a masonry fireplace, vestibule, drinking fountain, washrooms and mechanical room. The canopy covers an outdoor barbecue / fireplace, picnic tables and a gathering space. Just north of the pavilion are four metal flagpoles. Stairs on the east side of the building lead visitors toward the river edge.

The building structure, mechanical and electrical systems were most recently inspected between 2009 and 2015. In a 2012 building condition assessment, the pavilion was given a Building Condition Rating of B (Good), which indicates a remaining service life of 8-10 years. Park visitors and City maintenance staff have identified safety issues related to the pavilion structure and visibility into and around the building. One of the goals of the Master Plan is to address safety concerns around the pavilion.

The main picnic area in the park is located north of the pavilion, in between the multi-use trail and the Braille Trail. This area was planned as part of Capital City Recreation Park Concept Plan to include four barbecue structures and nine wooden picnic tables, six of which are adjacent to small wooden supporting walls. The picnic area supports individual users, small community gatherings and school groups.

Kinnaird Ravine

Kinnaird Ravine cuts through the surrounding urban fabric, an essential ecological corridor in the River Valley. Vegetation in the ravine consists of a moist coniferous forest on the east-facing slopes and includes communities of dry aspen and brushland on the west-facing slopes.

Although the Capital City Recreation Park Concept Plan recommended that interpretation opportunities in the ravine be explored, the only programmatic elements that have been implemented include the granular trail and a community mural through the KinnArt program near the west end of the ravine.



Existing Dawson Park Pavilion



Existing Dawson Park Picnic Area



Existing Staircase into Kinnaird Ravine from 78 Street

River Edge

Fluvial processes, including erosion and deposition of sediment in the river bed, have been, and still are, instrumental in shaping the landscape in Dawson Park and Kinnaird Ravine. The park's topography was sculpted over thousands of years by the flow of water. The North Saskatchewan River and Rat Creek are integral to the existing character and ecological processes throughout the park. The river edge has been disturbed through the past industrial uses of the park, but currently provides essential habitat to plants, animals, birds, fish and insects. As an asset that provides habitat value in the River Valley, this sensitive landscape should be protected and restored where possible.

Rat Creek Gathering Area / Culvert

The Rat Creek Gathering Area is a confluence where six different trails from throughout the park connect. This location in the park has become an informal gathering space and the termination of the Braille Trail. It contains picnic areas (designed for individuals with visual impairment) and open turf with several large trees that provide shade to visitors. This resting point covers the culvert that drains water flowing from Rat Creek into the river. This location provides views into the ravine, down the pathways in Dawson Park and to the river. It has unique character that makes it special and an area loved by those who visit the park.



Existing Lookout Off Jasper Avenue Overlooking Dawson Park

Park and Facility Use

Indigenous Communities

Wildlife habitat, the ecological integrity of the park and the North Saskatchewan River are important to Indigenous communities. There is a desire to see these protected and enhanced. Plant, tree and shrub species located within the park also have cultural significance to Indigenous communities.

General Park and Trail Use

Dawson Park and Kinnaird Ravine is used daily by visitors taking part in informal activities such as walking, jogging, hiking, biking and enjoying river views. The park is also a meeting place for neighbours and friends. Visitors appreciate nature and enjoy identifying the park's various plant and animal species. Open spaces in the park, including the grassy areas near the pavilion, in Kinnaird Park, and near the confluence of Rat Creek, are used as gathering spaces and places for informal sports and activities. The natural trails that weave through Dawson Park are a feature for many park visitors. Visitors use the trails for hiking and mountain biking through the forested slopes.

The park is also used by many for shelter. The densely vegetated slopes provide privacy, shade and shelter for individuals looking for respite. Outreach workers reported reaching out to hundreds of individuals sleeping rough in the park to connect them to housing supports. City staff have reported removing thousands of pounds of garbage every year from abandoned camps in the park. Garbage removal and informal access into densely forested areas creates disturbances to vegetation and may increase erosion on slopes. Park visitors, nearby residents and people rough sleeping in the park have voiced that they feel unsafe in the park due to limited sight lines along trails and hazardous refuse left in the park.



Off-Leash Dog Walking in Dawson Park

Table 2. Inventory of Surrounding Parks

	Borden Park	Forest Heights Park	Riverdale Park	Henrietta Muir Edwards Park	Louise McKinney Riverfront Park	Capilano Park	Gold Bar Park	Queen Elizabeth Park	Kinsmen Park	Emily Murphy Park	Strathcona Science Park	Rundle Park
Multi-Use Trails	■	■	■	■	■	■	■	■	■	■	■	■
Hiking		■		■	■	■	■	■	■	■		■
Bike Rental					■							
Open Space	■	■	■		■	■	■	■	■			■
Playground	■		■					■	■	■		■
Sports Facilities	■	■				■			■			■
Swimming Pool	■								■			■
Winter Activities			■			■	■		■	■	■	■
Picnic Tables	■		■			■	■	■	■	■		■
Bookable Picnic Sites	■					■	■	■		■		■
Gardens	■		■		■							
Public Art	■				■			■				
Performance Space	■				■							
Amenity Building/ Pavilion	■				■	■	■	■	■	■		■
Washrooms	■				■	■	■	■	■	■		■
Cafe					■				■			
Vending Machines	■								■			■
River Access/Boating				■	■	■				■		
Parking	■		■		■	■	■	■	■	■	■	■
Off-Leash						■	■					
Distance to Dawson	200 m	800 m	1.9 km	2.3 km	2.5 km	3.6 km	3.9 km	4.7 km	5.6 km	7.1km	8.2 km	8.3 km

Festivals and Events

Formal events and festivals registered with the City of Edmonton in Dawson Park and Kinnaird Ravine have included cross-country running races, orienteering events, Dragon Boat races, charity walks and arts events.

Surrounding Park Use

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 parks and green spaces surrounding Dawson Park and Kinnaird Ravine offer a variety of trail experiences, picnic areas, flexible open spaces and several amenities (see Table 2).

Dogs Off Leash

One of the most popular uses in Dawson Park is dog walking. Two off-leash areas are located at the top of bank: one along Jasper Avenue and another in a small clearing north of Kinnaird Ravine and west of 78 Street. Off-leash trails run throughout Dawson Park and are used in all seasons. Dogs must remain on-leash through Kinnaird Ravine.

Community Groups

Most of the park use in Dawson Park and Kinnaird Ravine is informal, however there are examples of organized community activity in the park:

- » Community and park clean ups by community members and Friends of Kinnaird Ravine

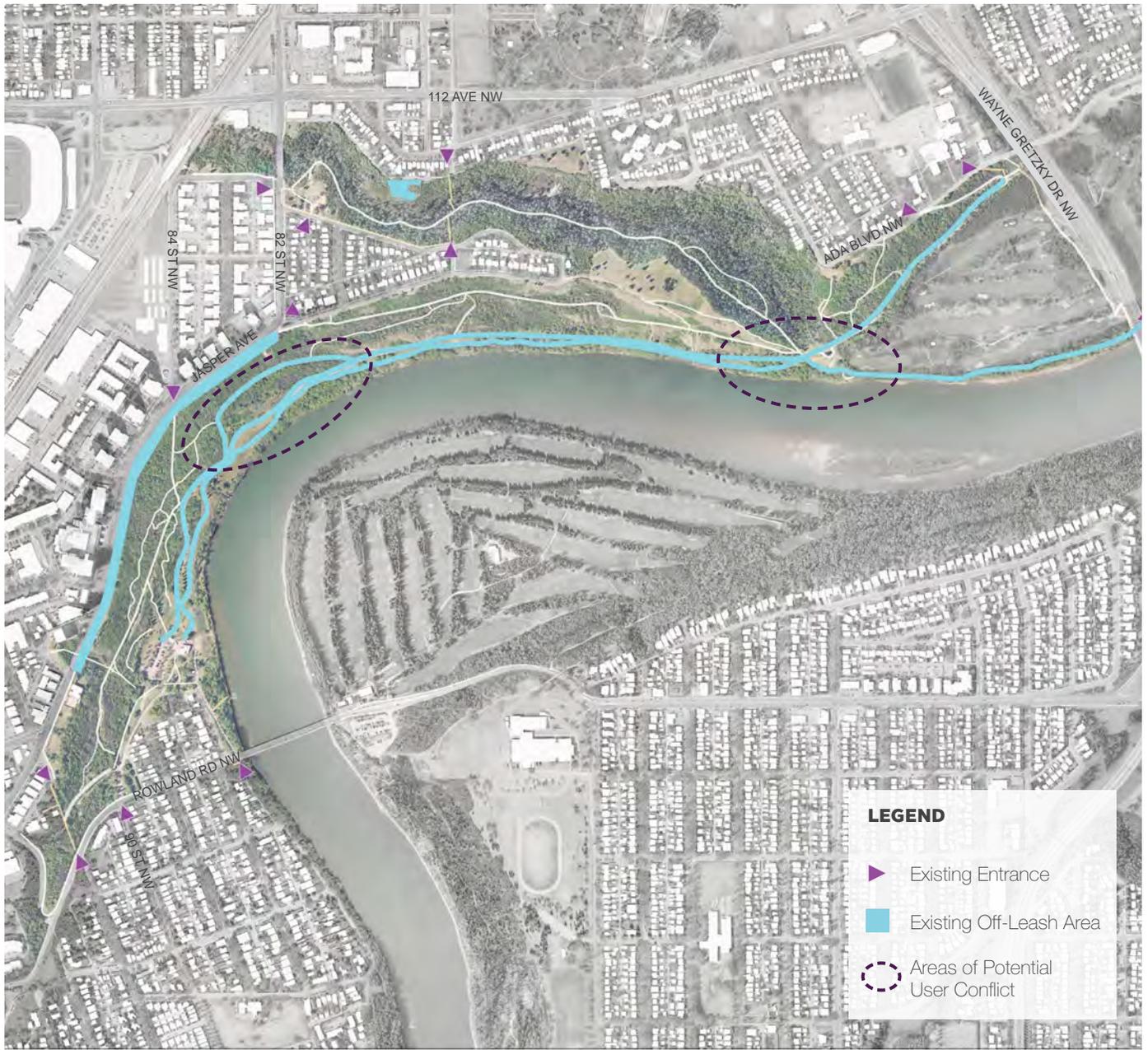


Figure 9. Dogs Off-Leash Areas

250 m N

- » A community mural project in Kinnaird Ravine produced by local youth with support from the KinnArt organization and the Parkdale Cromdale Community League

Play and Outdoor Recreation

Aside from the activities listed above, including running, orienteering and boating, formal opportunities for organized outdoor recreation are limited in the park. As a River Valley park with severe topographic features and limited flat open space, the park is not a suitable location for field sports or activities that require high levels of infrastructure. Top-of-bank parks provide accessible green spaces for the surrounding neighbourhoods, but they are not suitable for larger events due to their proximity to residential areas. The only formal playground in the project boundaries is in Sheriff Robertson Park near the west end of Kinnaird Ravine. Informal play may occur among natural features in Dawson Park and Kinnaird Ravine.

Winter Use

Current winter uses of the park include informal cross-country skiing, fat biking, walking / dog walking and snowshoeing. Dawson Park's slopes are south-facing, which receive more sun in colder months and create conditions for warmer winter micro-climates. These conditions may make winter activity more comfortable for park visitors.

River Access

Public boating and river access in the park occurs east of the pavilion on an informal, wide natural surface trail down to the river. There are boat launches from the park almost every day from June to September. Organized boating user groups include, but are not limited to:

- » Edmonton Dragon Boat Racing Club (EDBRC): Since 2010 the EDBRC has been operating from a club house south of the Dawson Park boundary, as well as managing a dock which is located inside the park boundary.
- » RiverWatch: RiverWatch is an organization dedicated to educating youth on the ecology of the North Saskatchewan River. The group frequently uses the river access point in Dawson Park to launch large rafts at the start of RiverWatch day tours.
- » Ceyana Canoe Club: The Ceyana Canoe Club has been operating since 1978. This club offers courses, trips, social events and drop-in paddling and has used Dawson Park as a canoe launch site.

The addition of a River Valley Alliance (RVA) boat dock and launch will help to formalize river access in the park. The floating dock will be situated at the end of a regraded granular trail which will have a slope of 20%. The trail will be two metres wide and will be supported by timber retaining walls. While the RVA boat launch project will improve access to the river for many boaters, it is not fully accessible to some with disabilities and/or mobility limitations.

River access is available in nearby parks, including Louise McKinney and Capilano Park. Accessible boat launches are suggested for development in Emily Murphy Park (1.5 hours from Dawson Park by boat) and Capilano Park (0.8 hours from Dawson Park by boat). (See Figure 10 for the locations of nearby boat docks and launches). The physical site conditions and existing use of Dawson Park make it a strategic location for an additional accessible boat launch.



View of the river edge facing east in Dawson Park

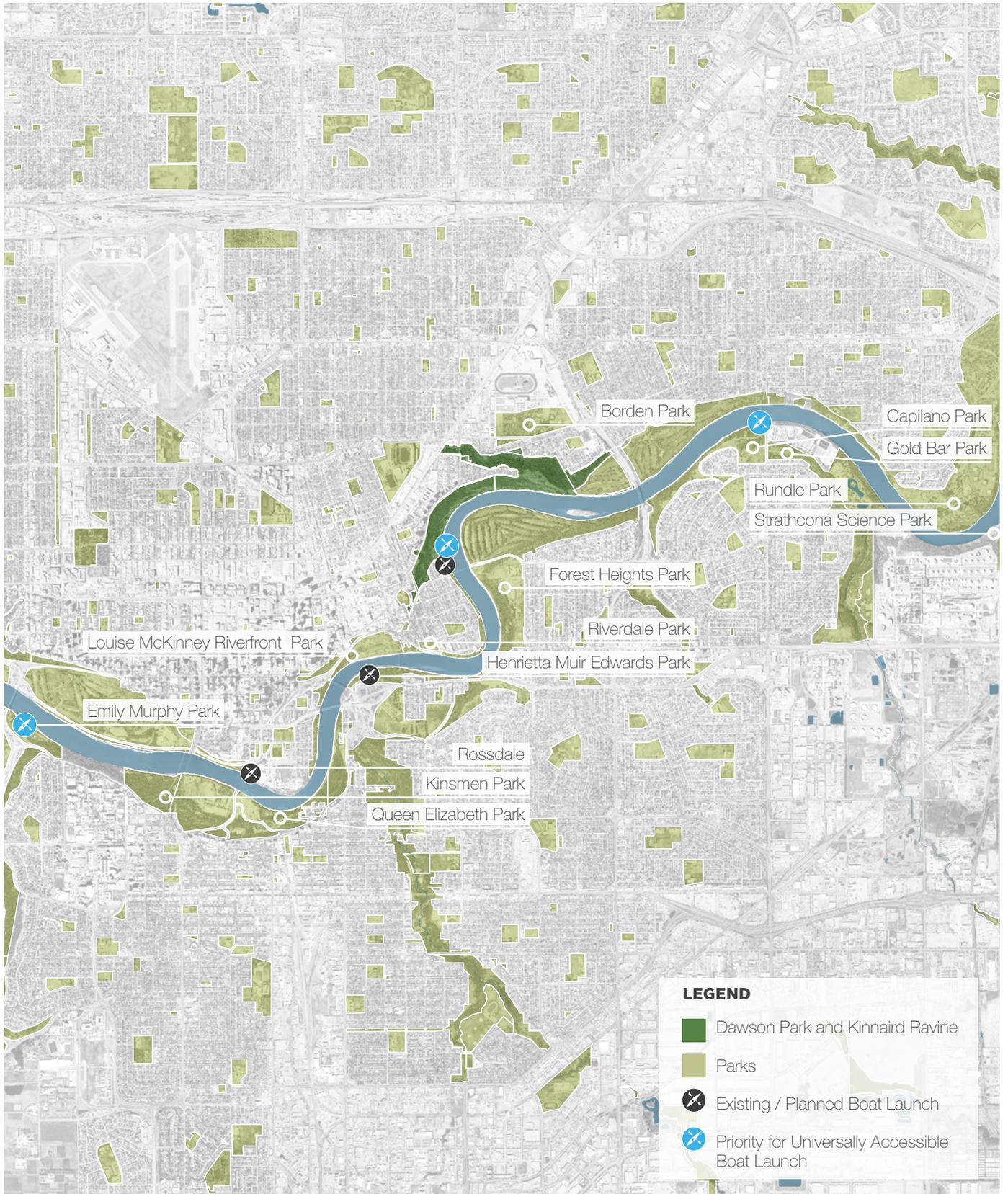


Figure 10. Inventory of Surrounding Parks

Opportunities and Challenges

Site-specific opportunities and challenges are informed by existing conditions in the park identified through site analysis and public engagement. They also take into account directives and guidelines from City policy.

OPPORTUNITIES:

1. Dawson Park has been identified as a strategic location for an accessible boat launch in the River Access Strategy based on its proximity to other accessible boat launches in the city. There are also opportunities to increase the accessibility of the trail system and gathering spaces in the park.
2. Public interest in natural play in combination with the park's existing natural features have created the opportunity to explore natural play as a program in the park.
3. Because the park is not suited to many formal activities, such as field sports and large events, the Master Plan has the opportunity to explore creative informal uses and activities in the park.
4. The park's south facing slopes are exposed to more sun in the winter. This condition helps to create slightly warmer, and potentially more comfortable, winter microclimates for park visitors as well as plants and animals. There are opportunities to incorporate more winter activities, winter gathering spaces and early blooming plants into the Master Plan.
5. Feedback from engagement indicates an opportunity to expand Indigenous use and Indigenous heritage appreciation in the park.
6. Natural trail connections can be promoted based on feedback from public engagement.
7. Through river and creek restoration initiatives, the Master Plan has the opportunity to develop more gathering spaces along the river edge. The Master Plan can also influence future development and policy to help improve the quality of water entering the river (i.e. the Rat Creek sewer outfall).
8. Kinnaird Ravine has the potential to provide interpretive and educational elements to park visitors.
9. Existing conditions along Jasper Avenue can be altered to improve pedestrian comfort and safety at the top of bank. With increased population density along Jasper Avenue and an expected increase in park use, the City has an opportunity to improve the street's pedestrian and vehicular realms.

CHALLENGES:

- A. User conflict concerns have been identified by various user groups.
- B. Environmentally sensitive areas in the park may be impacted by various park uses, creating a constraint for potential park development.
- C. The park's existing topography poses challenges for providing physically accessible park entrances from the top of bank. The steep slopes are challenging for people of all abilities to access and will be impacted (e.g. slope failure, excessive erosion) by development.
- D. Pedestrian and cyclist circulation in the park is currently complex with many existing paved, granular and natural surface trails. A need for improved wayfinding and entrance identification has been identified. In addition, the surface of some trails needs to be repaired.
- E. The existing parking lot faces several challenges:
 - » Vehicle access into the park on neighbourhood roads increases traffic in the Riverdale community.
 - » Park visitors have noted that the parking lot fills up many nights of the week when there is an event or boat launch.
 - » City staff have noted that the parking lot does not have the proper turnaround radius for larger operations and maintenance vehicles.
- F. The public, stakeholders and City staff have expressed concerns around the safety of the existing pavilion in Dawson Park. Concerns include the lack of visibility into and around the building as well as unwanted activity occurring in the vicinity of the pavilion. The City considered options to renovate the existing building. The cost of renovations and limitations of the existing structure are major challenges. The Master Plan has the opportunity to explore other options to address safety concerns with the pavilion.



Figure 11. Locations of Opportunities and Challenges



Public Consultation

The Dawson Park and Kinnaird Ravine Master Plan project is an opportunity for Edmontonians to work with the City of Edmonton to develop a 25-year vision and guiding principles for the park.

Public Engagement Plan Overview

The City of Edmonton's *Public Engagement Policy C513* (2017), aims to achieve a consistent, coordinated and outcomes-driven approach to public engagement; facilitate public input to decision making through effective and efficient consultation, involvement, collaboration and empowerment processes; and adhere to the public engagement requirements within the *Municipal Government Act* and other applicable legislation.

As outlined in Policy C513, the City of Edmonton values public engagement processes and activities that contribute to policy, program, service and project decisions by providing City Council and Administration with the best possible information to support decision making. During the engagement, Edmontonians were asked to identify key uses, needs and strategies for the park and participate in an ongoing dialogue

about what Dawson Park and Kinnaird Ravine might look like in the future. Discussions included ecological and infrastructure needs, as well as how this space can support the surrounding neighbourhoods and the larger Edmonton community.

The public was engaged in four phases to help shape the Master Plan for Dawson Park and Kinnaird Ravine. Each phase included internal and external stakeholder sessions, online engagement and public engagement sessions. Online engagement, in the form of surveys, interactive mapping and activities gave the public an opportunity to provide input at their convenience. This option was offered to facilitate input from those who were unable to attend in-person sessions and for those who wanted to provide additional comments. Material shared at public events as well as a What We Heard Report for each phase is available online at edmonton.ca/dawsonparkmasterplan



Participants of the Phase 1 public engagement session

Phase 1: Project Introduction, Inventory & Analysis

August – September 2016

In Phase 1, the City received feedback on the existing conditions of the park. We wanted to know what the public likes about the park, why it is important to them and what they want to see in the future. Presented information included the project scope and boundaries, key existing features, systems and functions of the park and the relationship of the Dawson Park and Kinnaird Ravine Master Plan with parallel projects such as *Breathe: Edmonton's Green Network Strategy (2017)*.

The public and stakeholder input that was captured identified key dreams, desires, issues and themes that informed the development of a vision, identity and program for the park.

Phase 2: Vision, Principles & Identity

January 2017

In Phase 2, the City asked the public to help improve our understanding of the opportunities and challenges in the park to help inform the vision. In addition, the themes and concerns that emerged from Phase 1 were available to the public in a What We Heard Report and helped us choose which park elements would be included in the Phase 2 engagement activities.

The public and stakeholders provided input on the material presented, prioritizing words and phrases for the vision statement and choosing park elements that they wanted to see in the concept options.

Phase 3: Concept Options

May 2017

The City sought feedback on two concept options for the park in Phase 3. The refined themes and concerns that emerged during Phase 2 were integrated into the presentation of two distinct concept options for the park.

Variations on proposed activities, features and elements for the park were included in the two concept plans. The City asked the public and stakeholders to choose which vision they preferred and to prioritize the various elements proposed in each.

Phase 4: Preferred Concept Plan

November 2017

In Phase 4, the City presented a refined concept plan for the park that integrated the priorities and feedback received in Phase 3.

The public and stakeholders were provided with the opportunity to give feedback on the preferred concept plan to help fine-tune the program and concept plan. This feedback supported the development of a preferred concept plan that responds to the needs of the community and park users. The public was also provided with information about next steps and how to stay involved in the future park development.



Phase 3 public engagement activity



Participants of the Phase 3 public engagement session

Stakeholder Engagement

Engaging with small groups of internal and external stakeholders allowed the City to participate in constructive dialogues focused on specific issues and opportunities in Dawson Park and Kinnaird Ravine. External stakeholders included interest groups, neighbourhood groups and other organizations who expressed an interest in being more deeply involved in the Master Plan process. Internal stakeholders were City of Edmonton employees who provided input or advice on specific aspects of the park.

External Stakeholder Groups Engaged

- » Catholic Social Services
- » Centre for Spiritual Living Edmonton
- » Cromdale Community League
- » Dawson Dog Walkers
- » Dogs Off Leash Ambassador
- » E4C
- » Edmonton & Area Land Trust
- » Edmonton Dragon Boat Festival Association
- » Edmonton Dragon Boat Racing Club
- » Edmonton Mountain Bike Alliance (EMBA)
- » Edmonton River Valley Coalition
- » Friends of Kinnaird Ravine
- » North Saskatchewan River Valley Conservation Society
- » Northwest Voyageurs Canoe & Kayak Club
- » Parkdale Cromdale Community League
- » Protect Edmonton's Parks
- » River Valley Alliance
- » River Valley Parks
- » Riverdale Community League
- » RiverWatch
- » Sierra Club Canada Foundation (Edmonton Group)

Indigenous Engagement

The City of Edmonton acknowledges the traditional land on which we reside today, which is the Territory of the Treaty 6 First Nations and the Métis Nation of Alberta Zone 4. The City of Edmonton recognizes the importance of engaging Indigenous Nations in the development of Master plans. The North Saskatchewan River and River Valley has been identified as an important historical and cultural location for Indigenous communities. As a result of this recognition, Indigenous communities have expressed an interest in being engaged in the Dawson Park and Kinnaird Ravine Master Planning process as part of the future development and protection of the river and river valley.

Since fall 2016, the City has reached out to Indigenous communities for initial engagement and to share information on various city projects such as *The Ribbon of Green* and *Breathe*. As part of the Dawson Park and Kinnaird Ravine Master Plan, Nations were invited to attend in person meetings to share information and get input on the site and the planning process.

The Dawson Park and Kinnaird Ravine Master Plan was informed by input from Indigenous communities and organizations in attendance of workshops and site visits to the park. This input helped the City make decisions around land use, preservation and programming.



Phase 2 public engagement activity

User Groups

→ Accessibility / Braille Trail Engagement

The City reached out to community partners through an online survey to gauge the level of use and interest in the Braille Trail and other park features in Dawson Park. The results from the survey indicate that those who use the trail appreciate the access to nature it provides. Some indicated that they find accessing and using the trail to be a challenge because of physical accessibility challenges and distance to the trail, while others are not familiar with Dawson Park or the Braille Trail. This feedback points to a need to provide easier access around park entrances and destination points. This also signals a need to promote accessible features with the public and key stakeholders.

→ Dogs Off Leash

The Dogs Off Leash Ambassador or members of the community representing dog-walkers in Dawson Park were consulted in each round of engagement as external stakeholders. They provided input on proposed changes to the off-leash trails in Dawson Park.

→ Homeless on Public Lands

Recognizing that rough sleeping occurs in the park and that work is currently being done to address homelessness in Edmonton by the City and partner organizations, the Homeless on Public Lands Working Committee has been an integral part of the Master Plan engagement strategy. The Committee consists of City staff, representatives from Boyle Street Outreach, Edmonton Police Service (EPS) and Park Rangers.

Discussions with this group have helped to develop an understanding of how to support city staff and front line workers in continuing to provide support and connect those rough sleeping in the park with necessary services. The engagement with this committee has also provided strategies for how to improve safety in the park, including proposed changes to the pavilion and parking lot described in later sections of the report.

→ Mount Royal School Grade 3 Classes

The City of Edmonton engaged two grade-three classes at Mount Royal School in the development of the vision and program for Dawson Park and Kinnaird Ravine. This school was chosen through the City Hall School program and their proximity to the park. The session started with an introduction about what landscape architects do in their career and how the class could help design the future of the park. A brainstorm of ideas followed and the children took turns suggesting ideas for the design of the park. Suggestions from the students included tree houses or shelter structures, many with connecting bridges. They also suggested climbing walls, refreshment stands, play equipment and lots of trees and wildlife.

→ Multicultural Engagement

Multicultural communities were consulted through workshops aided by the Multicultural Health Brokers Co-op. These communities provided input on how they would like to use and access open space in the city, particularly Dawson Park and Kinnaird Ravine as a River Valley park.



Participants from the Mount Royal School Grade 3 class

Potential Partners

→ River Users

The River Access Strategy defines Dawson Park as an existing river access site with potential for expansion. It is also designated as a priority site for universal accessibility. Accessible boat launches should be a maximum of two hours from each other by non-motorized water craft. Through the River Access Strategy, the City reached out to existing river user groups to determine user needs and potential partnership opportunities for the Dawson Park and Kinnaird Ravine Master Plan that would influence the development of the park's facilities.

→ Edmonton Mountain Bike Alliance (EMBA)

As an active trail-user group in the park and City partner, the Edmonton Mountain Bike Alliance (EMBA) was approached to provide input on the Master Plan throughout the engagement process. In addition to EMBA's feedback, input from the general public and internal stakeholders in Phase 3 of engagement was influential in determining the location and extent of the proposed natural trail network.

Summary of Findings

Public and stakeholder feedback in all four phases of engagement informed the development of the final concept plan. The table on the following page summarizes feedback from the public, external stakeholders (listed above) and internal city staff. This feedback was considered and balanced with input from site analysis and City policy to inform the Master Plan. The following pages describe the engagement methods carried out by the City and the input received in each of the four phases of engagement.

Table 3. Summary of Engagement Findings

	Public & Stakeholder Feedback	Internal Stakeholder Feedback
PARK USE & AMENITIES	<ul style="list-style-type: none"> » Appreciate the mix of existing uses » Would like to see greater use in some areas including boating, play and cross-country skiing » Off-leash dog-walking is a very important component of the park; participants do not want to see major impacts to this use » Recognize the need to balance recreational use with the conservation of natural features 	<ul style="list-style-type: none"> » Desire for a mix of uses in the park » Support existing uses » Desire to maintain the off-leash area while minimizing impacts to natural features
SAFETY & MAINTENANCE	<ul style="list-style-type: none"> » Important to reduce maintenance costs » Management of waste and garbage removal is paramount to park users' enjoyment of the site » Desire for maintenance of existing trails » Would like to see solutions for decreasing user conflict on trails » Concerns for the safety and well-being of all people who visit the park were raised by park visitors, City staff as well as people rough-sleeping in the park 	<ul style="list-style-type: none"> » Continued inter-departmental cooperation and partnerships with outreach organizations are integral to address informal encampments and the associated garbage removal in the park » Need for improved access for maintenance vehicles and emergency services
CONNECTIVITY & CIRCULATION	<ul style="list-style-type: none"> » Want improved and visible connections into surrounding neighbourhoods » Do not want improved access to cause safety concerns or impact natural features » Want less user conflict on trails » Support an integrated natural surface trail network 	<ul style="list-style-type: none"> » Support for a natural trail network with potential future maintenance guidelines » Support for the inclusion of a new natural surface trail in the park » Support for more top-of-bank connections
NATURE & ECOLOGY	<ul style="list-style-type: none"> » Desire to restore disturbed areas » Want to see limited clearing and disturbance to existing vegetation » Want to see limited disturbance to existing habitat 	<ul style="list-style-type: none"> » Support for the re-naturalization of disturbed areas » Support for efforts to reduce fire hazards in the park » Support for minimal clearing and pruning
IDENTITY & EXPERIENCE	<ul style="list-style-type: none"> » Like opportunities for historical interpretation » Like opportunities for public art with community involvement » Like a mix of manicured and natural features 	<ul style="list-style-type: none"> » Desire to maintain park as a connector park instead of a major destination » Desire to support a greater winter experience in the park » Opportunities to support river access

Phase 1: Inventory & Analysis

What We Did

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

Purpose and Methods of Engagement

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

- » What is your favourite thing to do in this park?
- » What would you like in the future?

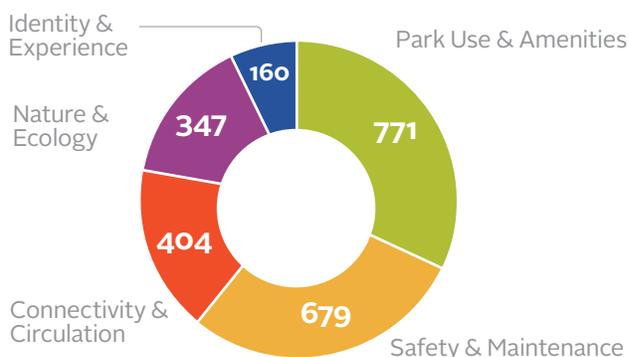
The following engagement methods were used in Phase 1: Inventory and Analysis:

- » Sounding Board
- » Public Engagement Session
- » External Stakeholder Workshop
- » External Stakeholder Toolkits
- » Internal Stakeholder Session
- » Online Map Tool

We received 1170 comments during Phase 1 engagement. Feedback provided insight into the history of the park and activities that occur within Dawson Park and Kinnaird Ravine. 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 the various past land uses of the park in shaping the landscape.

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

People requested improvements to facilities to enhance the park-user experience for existing activities, such as bike racks / locks, safer washrooms and better drinking fountains. There is a desire for several other activities within the park, including boating, playgrounds, natural play and cross-country skiing, among others. People also reported enjoying the time spent with family and friends in the park, and the opportunities to meet new people.

Top 5 Future Wishes:

- » Improve access to the river
- » Reduce conflict in trail use
- » Create a playground / natural play opportunities
- » Develop winter activities in the park (e.g. cross-country skiing)
- » Dog-walking and off-leash areas

THEME 2: SAFETY & MAINTENANCE

Overall, people would like to see more regular maintenance and repair of trails and park amenities, such as the pavilion, washrooms and benches. There is interest from community groups to partner with the City to help keep the park safe and maintained. Signage improvements are desired for emergency use and wayfinding. Many people wanted to see the occurrence of informal encampments in the park addressed.

Top 5 Future Wishes:

- » Increase trail maintenance and upkeep
- » Clean up garbage in the park
- » Address and reduce occurrence of encampments
- » Increase signage on natural trails
- » Reduce crime

THEME 3: CONNECTIVITY & CIRCULATION

Respondents expressed that the park is both a community destination and thoroughfare for commuters. People want improved and barrier-free connections into the neighbouring communities and adjacent parks, resulting in more opportunities to experience Dawson Park and Kinnaird Ravine. People often suggested locations for new or improved access points along Jasper Avenue, including under the Latta Bridge. While people use all types of trails in Dawson Park and Kinnaird Ravine, the natural trails seem to be especially valued by many types of users, including mountain bikers, hikers and dog-walkers.

Top 5 Future Wishes:

- » Keep the natural trails
- » Improve connections to adjacent communities and parks
- » Signage and wayfinding improvements
- » Signage and education on trail rules
- » Increase access along Jasper Avenue

THEME 4: NATURE & ECOLOGY

We heard that it is very important to participants that Dawson Park and Kinnaird Ravine remains natural. Participants said that they value the natural state of the park. Some participants feel that the historical and present-day use of the park has disturbed the landscape to the point that it is no longer in its original ecological state. Participants recognized the high number of invasive plant species in the park and some expressed a desire to see them removed and a more stringent maintenance schedule put in place. People also value the more heavily vegetated areas of the park because they provide the sense of being in nature and away from the city. For this reason and others, large infrastructure, commercial or development projects are not desired for the park.

Top 5 Future Wishes:

- » Keep Kinnaird Ravine natural
- » Avoid large or damaging development
- » Keep it the same
- » Control the invasive species
- » Control vehicle access into the River Valley

THEME 5: IDENTITY & EXPERIENCE

The park has many valued features, including hoodoos, varied topography, nature, public art and rich history, all of which help create a unique sense of place and identity. Some of the most popular activities mentioned include enjoying the views and experiencing nature. Public art projects, such as the mural project in Kinnaird Ravine, help the community connect with the landscape. Respondents expressed that they want more art projects like this, as well as historical and ecological interpretations of the park.

Top Future Wishes:

- » Historical interpretation
- » Public art
- » Ecological interpretation
- » Mix of manicured and natural features

Phase 2: Vision, Principles & Identity

What We Did

In January and February 2017, we engaged Edmontonians on the vision and desired program for Dawson Park and Kinnaird Ravine.

The following engagement methods were used in Phase 2: Vision, Principles & Identity:

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

Purpose and Methods of Engagement

Four 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.

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 engagement session, external stakeholder workshop and the online survey. This feedback was used to draft two vision statements for the concept options, as well as to 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. This activity revealed more detail about 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 areas of increased activity and insight into consistencies and inconsistencies with desired locations and activities.

3. PARK ELEMENTS

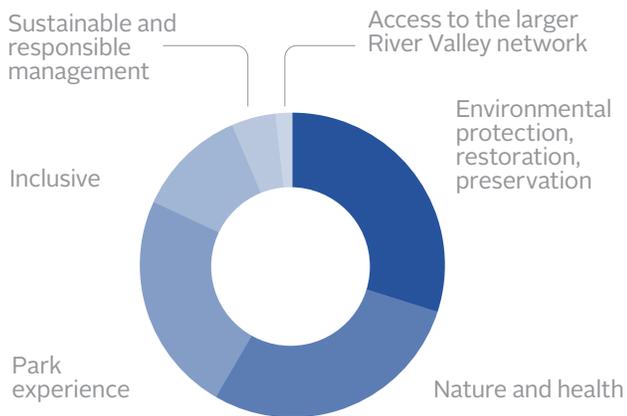
Participants were shown a selection of 72 activities, programs and physical elements such as signage, park furniture and equipment, then asked to show us their preferences by placing dots on the various park elements. This helped the City of Edmonton understand the public's activity, program, design 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 indicate preference levels for desired types of activities and elements.

4. HOW DID YOU GET HERE?

Participants were asked to provide feedback on where they travelled to the park from, what entry points they used and what modes of transportation. This helped the City understand the Dawson Park and Kinnaird Ravine experience from various standpoints: accessibility, park identity and signage. The activity prompted conversations on the need to accommodate many types of transportation to the park, including by foot, car, public transit, bike, mobility device, stroller and boat.

What We Heard

The activities in Phase 2 worked together to inform the vision for the park, gain a deeper understanding of shared values and hear the public's desires for specific programs, elements and activities impacting the look and feel of the park. Themes and underlying values emerged from the analysis of over 2,800 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. All collected vision statements fell into one or more of the following thematic groups, listed in order of comment frequency:



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 likely to have a relatively low ecological impact and related to recreating in or preserving nature.

The top 10 placed Create your own park! elements and activities were:

- » Conservation Area
- » Garbage Can
- » Water Access
- » Walk + Bike
- » Walking
- » Off-Leash Dog Walking
- » Picnic Area
- » Mountain Biking
- » Boating Hand Launch
- » Biking

The top 10 Park Elements chosen were:

- » Mixed Use Trail
- » Conserve Natural Areas and Wildlife
- » Preserve Sensitive Areas
- » Cycling Trail
- » Restore Disturbed Areas
- » Drinking Fountains
- » Standard Garbage Receptacle
- » Running Trail
- » Sewer Connected Washroom
- » Cross Country Skiing

Focused conversations with participants and thorough analysis of online comments gave insight into the motivations behind people's responses to the activities, which are also reflected in the vision statements and concept options.

Phase 3: Concept Options

What We Did

In May and June 2017, two draft vision statements and concept options for Dawson Park and Kinnaird Ravine were presented to Edmontonians for their feedback. The following engagement methods were used in Phase 3: Concept Options.

- » Public engagement session
- » Online survey
- » Online mapping tool
- » External stakeholder workshop
- » Internal stakeholder workshop

Nearly 400 people participated in Phase 3 engagement in person and online. The concept options and vision statements presented in Phase 3 are presented in Dawson Park and Kinnaird Ravine Interim Report, which is available on the project website at edmonton.ca/dawsonparkmasterplan

Purpose and Methods of Engagement

Four activities were available to participants to determine their level of support for each concept plan in varying levels of detail.

1. WHAT DO YOU THINK OF THE VISION STATEMENTS?

To develop a refined vision statement, participants were presented with two vision statements and experience narratives with easy-to-understand conceptual renderings. Feedback from this question helped to refine the vision into one cohesive vision statement that guides planning for the park over the next 25 years.

2. WHAT DO YOU THINK ABOUT THE CONCEPT OPTIONS?

To obtain feedback on the two options, strategic decisions for each concept were highlighted, and details of each concept were presented through the lens of the five themes (Connectivity and Circulation, Park Use and Amenities, Nature and Ecology, Safety and Maintenance, and Winter Use). Spatial feedback and comments were used to inform the development of the preferred concept plan.

3. WHAT PARK ELEMENTS DO YOU PREFER?

To understand what people thought about the features in the concept options, participants were asked to compare the differences between the two options presented and select their preferred option. Feedback helped to inform specific features that are proposed as part of the final concept of the Master Plan.

4. COMPARE THE TWO CONCEPT OPTIONS

The five themes that emerged from engagement in Phase 1 highlight Edmontonians' priorities for Dawson Park. Participants were asked to vote for which concept responded better to each theme by placing dots on their preferred concept and commenting on their selection. Tallying the dots received for each concept captured general trends and preferences for Concept 1 and 2. These preferences and comments were used to refine the preferred concept.

What We Heard

The following is a high level summary of the feedback received in Phase 3. The public and stakeholders provided detailed feedback that was used to make key decisions leading to the final vision statement and concept plan for the park. A more detailed summary is presented in the Phase 3 What We Heard Report, available on the project website at edmonton.ca/dawsonparkmasterplan

VISION STATEMENT FEEDBACK

Overall, both vision statements presented received relatively good support. The aspects of the vision statements that received the highest level of support were their strong ecological and environmental priorities, an emphasis on nature and carefully considered recreational uses. Participants did not support statements that seemed to be too intrusive on the natural environment.

CONCEPT OPTION FEEDBACK: THEMES

Participants posted spatial feedback on the theme layers on the online map tool and on the public engagement session boards. The chart on the following page provides a summary of the most popular topics for feedback. (Many of the comments were focused on changes to the trails and off-leash area in the park.)

TOP PARK ELEMENTS CHOSEN

In general, participants tended to prefer park elements presented as part of Concept 1 as opposed to Concept 2. The top park elements selected are presented on the following page.

COMPARE THE TWO CONCEPT OPTIONS

Typically, comments expressed a desire to keep the park natural where possible, enable a low level of park maintenance and to maintain existing infrastructure. Participants prioritized ecological values. The overall preference between the concept options was for Concept 1, which seemed to satisfy those values slightly more than Concept 2.

Summary of Concept Option Spatial Feedback

	CONCEPT 1	CONCEPT 2
I LIKE...	Existing trail network	Connection to LRT Stadium Station (presented in both concept options)
	Proposed natural trail in River Valley slopes	Some support for the proposed natural trail in Kinnaird Ravine
	Smaller footprint of the proposed amenity building	Restoration around Rat Creek (presented in both concept options)
NEEDS IMPROVEMENT...	Do not reduce the off-leash area	Proposed off-leash trail loop is too short
	Expand the off-leash area	Do not clear vegetation for sight lines
	Keep existing trails and focus on maintaining existing rather than creating new trails	Access to LRT Stadium Station might be too intrusive

Most Preferred Elements



restore native grasses + shrubs



improvements to existing overlooks



trail access under Latta Bridge



naturalized river access points



retain existing off-leash dog area on multi-use trail



select entrances enhanced with signage and trails

Phase 4: Preferred Concept Plan

What We Did

In November 2017, the City presented a consolidated vision and concept plan for Dawson Park and Kinnaird Ravine for public and stakeholder input. The City wanted to understand the level of public and stakeholder support for the concept plan and its various components. The following engagement methods were used in Phase 4: Preferred Concept Plan:

- » Public engagement session
- » Online survey
- » External stakeholder workshop
- » Internal stakeholder workshop

The City engaged 350 citizens in Phase 4 in-person and online. The presentation material from Phase 4 is available on the project website at edmonton.ca/dawsonparkmasterplan

Purpose and Methods of Engagement

Four main questions were presented to encourage and direct feedback.

1. THINKING ABOUT PARK USE AND AMENITIES, DO YOU AGREE THAT THE PLAN ACHIEVES THE GOALS OF THE GUIDING PRINCIPLES?

Participants were presented with a map of the park use and amenities in the concept plan. They were asked to comment on their level of agreement with the proposed amenities and programs and if they thought the goals and objectives of the guiding principles were met.

2. THINKING ABOUT CONNECTIVITY AND CIRCULATION, DO YOU AGREE THAT THE PLAN ACHIEVES THE GUIDING PRINCIPLES?

Participants were presented with a map of the proposed trail network, entrances and circulation features (i.e. stairs and bridges). The open-house boards also included a signage plan. Participants were asked to comment on their level of agreement with the proposed park access and circulation features and if they thought the goals and objectives of the guiding principles were met.

3. THINKING ABOUT NATURE AND ECOLOGY, DO YOU AGREE THAT THE PLAN ACHIEVES THE GUIDING PRINCIPLES?

Participants were presented with a map of the proposed vegetation cover and natural feature management in each area of the concept plan. They were asked to comment on their level

of agreement with the proposed natural feature management for Dawson Park and Kinnaird Ravine and if they thought the goals and objectives of the guiding principles were met.

4. DO YOU SUPPORT THE MASTER PLAN?

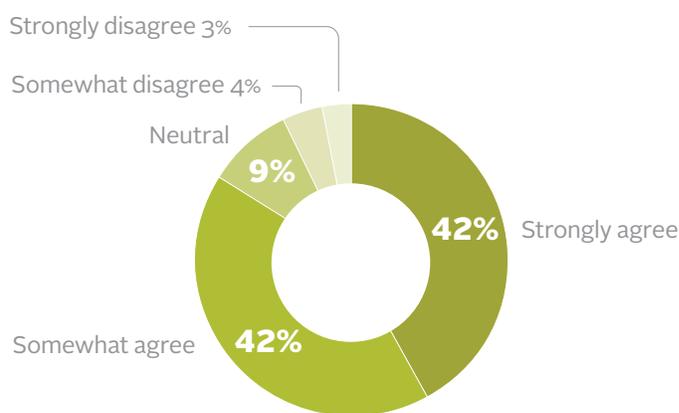
After reviewing all the presentation material, participants were asked if they supported the Master Plan in its entirety. Participants were provided with opportunities to share a rationale for their decision during in-person events as well as online.

What We Heard

The following is a high level summary of the feedback received in Phase 4. A more detailed summary is presented in the Phase 4 What We Heard Report, available on the project website at edmonton.ca/dawsonparkmasterplan

PARK USE & AMENITIES

Do you think the plan achieves the goals of the guiding principles?



Participants feel the plan achieves the goals of the guiding principles because:

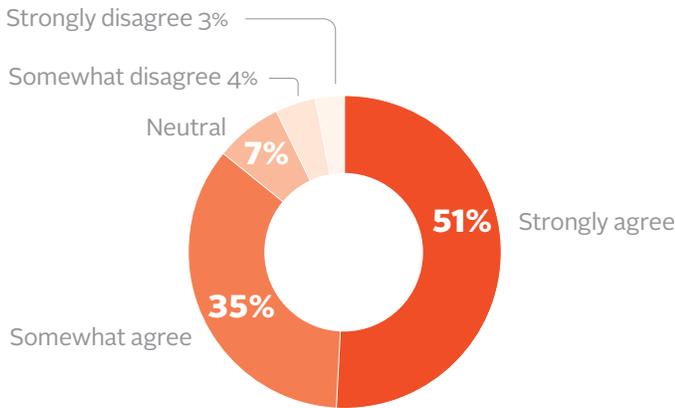
- » it provides a variety of amenities and recreational opportunities for different users.
- » it balances ecological and recreational needs in the park.

Those who do not feel the plan achieves the goals of the guiding principles provided these responses:

- » it appears to have too many amenities.
- » they perceive conflicts from proposed amenities.

CONNECTIVITY & CIRCULATION

Do you think the plan achieves the goals of the guiding principles?



Participants feel the plan achieves the goals of the guiding principles because:

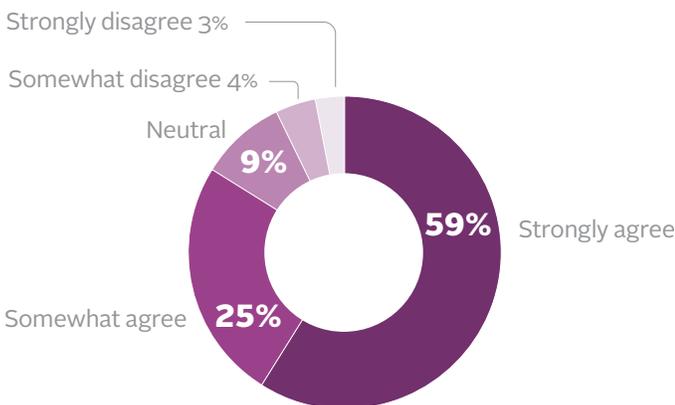
- » it increases accessibility to the park.
- » it introduces new connections and new routes in the park.
- » it brings more users into the park.

Those who do not feel the plan achieves the goals of the guiding principles provided these responses:

- » it is too complex.
- » they feel it does not address safety concerns.
- » they feel it will impact surrounding communities.

NATURE & ECOLOGY

Do you think the plan achieves the goals of the guiding principles?



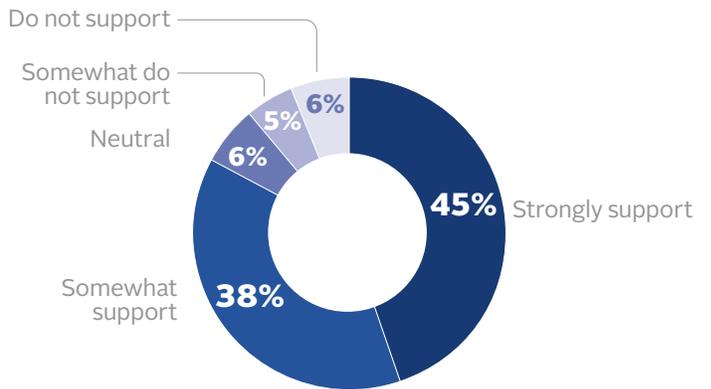
Participants feel the plan achieves the goals of the guiding principles because:

- » it incorporates restoration work throughout the park.
- » it maintains the natural character of the park.

Those who do not feel the plan achieves the goals of the guiding principles provided these responses:

- » it is not explicit in how park use will be enforced in sensitive areas.
- » it does not address the clean up of garbage and debris.
- » it seems labour and cost intensive.

DO YOU SUPPORT THE MASTER PLAN?



These are the most supported areas of the Master Plan:

- » Ecological restoration and protection
- » Greater connectivity
- » Encouraging greater use of the park
- » Increasing the feeling of safety
- » Lower impact amenities
- » Natural trails
- » Off-leash area

These areas would increase support for the Master Plan:

- » Less impact to surrounding communities
- » Address conflict between park users on trails
- » Make the plan less intrusive
- » Decrease the cost and simplify the plan
- » Include a plan to remove garbage from the park
- » Decrease the off-leash area
- » Include amenities for greater use and comfort (i.e. more washrooms)

Master Plan

The Master Plan for Dawson Park and Kinnaird Ravine, which includes a vision statement, guiding principles, capital recommendations and management guidelines, provides direction for the next 25 years.

The Master Plan is presented as an overall concept plan and a series of capital improvement recommendations, which are captured under the five themes used throughout the engagement process (Park Use & Amenities, Connectivity & Circulation, Nature & Ecology, Safety & Maintenance and Identity & Experience). The recommendations address needs identified through the Master Plan process resulting from public engagement, site analysis and City policy. This section outlines these considerations and provides an overview of the rationale for decisions made throughout the Master Plan process.

Master Plan Development

The development of the Dawson Park and Kinnaird Ravine Master Plan was an iterative process that integrated public preferences, balancing them with priorities from site analysis and City policy to address the identified opportunities and challenges in the park. Below is a description of how these inputs influenced the development of the Master Plan.

→ City Policy

The Master Plan falls within Edmonton's open space planning hierarchy, beginning with The Ways plans, followed by *Breathe: Edmonton's Open Space Strategy (2017)* and the North Saskatchewan River Valley Area Redevelopment Plan Bylaw 7188. Other influencing policies are described in the City Policy section of this report.

At each phase, Master Plan recommendations were compared against existing policies and plans ensure alignment and to support City initiatives. City staff also provided technical expertise and recommendations.

→ Site Analysis

Site analysis includes the study of the environmental, historical, geographical, legal and cultural context of the park. An initial inventory and analysis of existing conditions in the park was completed in the first phase of the project. This consisted of information from city data, consultant reports and site visits and was presented at the first public engagement session in September 2016.

This site analysis contributed to the *Environmental Sensitivities Report*, produced in February 2017. The report presented an overview of environmentally sensitive areas in the park and was completed before concept development, ensuring recommendations could be made with an understanding of their impacts on lower, moderate and higher sensitivity areas.

→ Public Engagement

Public engagement throughout the Master Plan process contributed to common values and to the development of the vision and concept plan for the park. A summary of the findings from engagement can be found in the Public Consultation section of this report, as well as the What We Heard Reports for each phase of engagement.

This process has resulted in the development of a concept plan that aligns with direction from public engagement, existing site conditions and City policy. The concept plan for Dawson Park and Kinnaird Ravine incorporates ecological protection and restoration, while integrating recreational and educational amenities for a diversity of users. Proposed design interventions and management techniques aim to address the opportunities and challenges identified in the park.

Vision & Principles

The vision statement for Dawson Park and Kinnaird Ravine provides over-arching direction for the Master Plan. Each decision and recommendation in the Master Plan aligns with the vision, which reflects the public and stakeholders' collective vision for the park and the City's strategic planning approach for Edmonton's green network.

Vision Statement

Dawson Park and Kinnaird Ravine is an ecological corridor that balances recreational activity with habitat conservation and restoration. The park offers an escape from the city and year-round access to the North Saskatchewan River and Ravine System in a safe and inclusive environment for Edmonton's diverse and growing population.

Guiding Principles

The Guiding Principles represent the collective values for Dawson Park and Kinnaird Ravine from public engagement, site analysis and City policies. They will provide direction for future decisions relating to the implementation of project components. The concept plan, capital recommendations and management guidelines presented on the following pages are guided by the principles below.

PROMOTE ECOLOGICAL PROTECTION AND RESTORATION

- » The natural character of Dawson Park and Kinnaird Ravine should be maintained.
- » Sensitive species and habitats in the park should be protected.
- » Rehabilitation and restoration of natural systems throughout the park should be promoted.
- » Improvements to the park should be sustainable, maintainable and low impact.

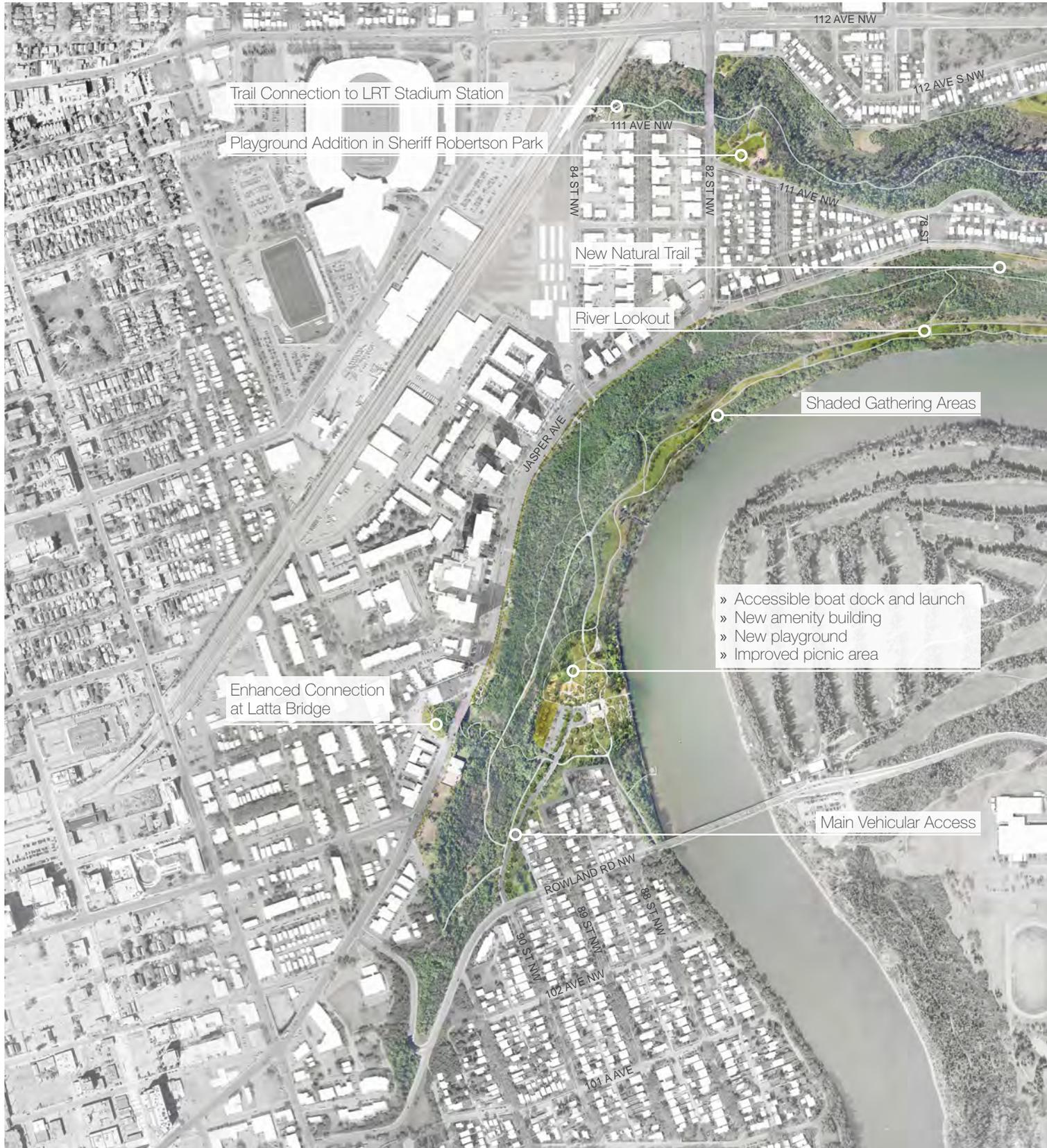
PROVIDE AMENITIES AND PROGRAMS COMPLEMENTARY TO A RIVER VALLEY PARK

- » The park should be a place to experience rejuvenation and health benefits associated with being in nature.
- » The park should be active in winter months and should incorporate winter experiences.
- » The cultural and natural heritage of the site should be celebrated and should reflect the layered history of the site.
- » Amenities and programs in the park should be appropriate to the site's environmental sensitivities while meeting the recreational needs of a growing population.
- » Community partnerships and community stewardship of the park should be promoted.
- » User conflict should be mitigated.

IMPROVE ACCESS AND CIRCULATION FOR ALL VISITORS

- » Dawson Park and Kinnaird Ravine should be a safe and secure space for all who occupy the park.
- » The park should be accessible and welcoming to all people and should support a diversity of park users.
- » The park should serve neighbouring citizens and Edmonton's broader community.
- » The park should provide Edmontonians a connection to the North Saskatchewan River and the River Valley and Ravine system.
- » Active transportation to the park should be encouraged through the maintenance and creation of connections to the larger urban transportation and trail network

Figure 12. Dawson Park and Kinnaird Ravine Concept Plan





Kinnaird Ravine Crossing

Prairie Garden in Kinnaird Park

Restored Rat Creek

NORTH SASKATCHEWAN RIVER

Park Use & Amenities

This section provides direction on the recommended uses and activities proposed for Dawson Park & Kinnaird Ravine as well as the required infrastructure and amenities to support those activities. The recommendations for Park Use & Amenities are presented under the following categories: Amenities; Play and Recreation; Indigenous Use; River Access; Accessibility; Off-Leash; and Winter Use.

Feedback received from the public and stakeholders related to Park Use & Amenities is summarized below:

→ Public & Stakeholder Feedback

- » Appreciate the mix of existing uses
- » Would like to see greater use in some areas including boating, play and cross-country skiing
- » Off-leash dog-walking is a very important component of the park; participants do not want to see major impacts to this use
- » Recognize the need to balance recreational use with the conservation of natural features

→ Internal Stakeholder Feedback

- » Desire for a mix of uses in the park
- » Support existing uses
- » Desire to maintain the off-leash area while minimizing impacts to natural features

The location of proposed activities was guided by public engagement and direction from the *Environmental Sensitivities Report (2017)*. Higher intensity activities are not recommended in higher sensitivity areas. In cases where impacts from human use affect higher sensitivity areas in the park, mitigation measures are recommended to reduce potential impacts.

Amenities

Included in this section are elements that support trail-based activities (e.g. jogging, snowshoeing, etc.), viewing areas, on-leash dog-walking, fishing, individual exercising, picnicking and other activities that do not require much organization or specialized infrastructure. Amenity improvements are recommended to update aging infrastructure and increase the feeling of safety in the park. Recommended amenities are illustrated in the Park Use & Amenities map on page 72.

1. Improve existing infrastructure in picnic areas, viewpoints, rest stops and gathering areas.

Park infrastructure (including seating, benches, tables, signs, waste receptacles and lookout points) should be repaired and replaced as it reaches the end of its useful life. New infrastructure should incorporate natural materials whenever possible, be easily maintainable and securely fastened to the ground to prevent theft. Infrastructure should be universally accessible and connected to accessible trails as much as possible.

The concept plan includes an upgrade to the picnic area near the parking lot and amenity building, maintaining the area as an informal (non-bookable) picnic location. The proposed picnic area includes:

- » Picnic tables with connecting pathways to the granular trail (Braille Trail) and wheelchair seating for accessible picnic options.
- » New picnic tables with gravel pads (12 tables to the north of the amenity building and 7 to the south).
- » Four new barbecues.
- » Grouped picnic tables and larger (harvest) tables for larger group or family gatherings.
- » Native trees to provide shade.

Rationale:

Ensuring park infrastructure is in good repair and meets current design standards is essential for the safe enjoyment of the park. Proposed improvements will also increase accessibility in the park for various users. Current infrastructure is dated and degrading, which does not afford the feeling of comfort and safety for park visitors.

Public Engagement:

- » Participants in Phase 1 of engagement requested improvements to existing park infrastructure (including picnic tables and benches). Picnic table was one of the highest ranked park elements in Phase 2.
- » Some participants shared their concern over the cost of improvements to infrastructure. The City should ensure capital expenditures on park infrastructure are made in a fiscally responsible manner.



Figure 13. Picnic Area - Perspective View

Figure 14. Proposed Park Use & Amenities Plan





LEGEND

- | | | | |
|---|----------------------|---|---------------------------|
|  | Existing Entrance |  | Play Features |
|  | Proposed Entrance |  | Washroom |
|  | Off Leash Dog Trail |  | Water Bottle Fill Station |
|  | Off Leash Dog Area |  | Bike Rack |
|  | Dog Bag Dispenser |  | Parking |
|  | Lookout |  | River Access |
|  | Gathering Space |  | Boat Dock and Launch |
|  | Potential Public Art |  | Fishing Area |
|  | Picnic Table |  | All Season Feature |



2. Create a new amenity building in place of the existing pavilion to support use of the park and River Valley trails.

The concept plan includes a new, universally accessible amenity building in the location of the existing Dawson Park pavilion. The building will include an accessible, gender neutral washroom, a maintenance and storage room, a flexible vestibule and an office space. The separate utility building south of the amenity building location will be maintained.

The facade of the building will have a level of transparency to increase visibility into the common area and washroom. The building will be oriented so that the washroom is facing the parking lot and will be lit at night, allowing city staff to monitor activity in the building more easily.

A paved gathering area surrounding the amenity building will provide flexible seating and a gathering space. Paving design and material will be chosen to reflect the identity of the park.

A trellis (shade structure) connected to the building will provide a shaded gathering space, emphasizing the indoor-outdoor connection and flow. An indoor water bottle fill station, seasonal drinking fountain for dogs and bike racks will be included with the new amenity building.

Rationale:

Throughout the Master Plan process, the public, stakeholders and internal City staff recognized a need to address safety concerns related to the existing pavilion. The new amenity building will increase visibility, user comfort and safety for all who use the facilities. It will also provide a touch down location in the vestibule and office space for operational staff, Park Rangers, EPS and homeless outreach workers, allowing them to coordinate their efforts and increase the effectiveness of their work in the park.

The new amenity building will support the general use of the park and River Valley trail system. Washrooms and related infrastructure (shelter, potable water/drinking fountains, bike racks, etc.) support the safe enjoyment of the park and trails. These amenities also create a meeting place and landmark, providing the infrastructure required for a variety of group events.

Public Engagement:

- » In Phase 1, participants requested improvements to park facilities (e.g. washrooms, bike racks and drinking fountains). In particular, there was a desire from the public to increase the safety and maintenance of the pavilion and washrooms.
- » In Phase 2, drinking fountains and washrooms were in the top ten park amenities chosen for the park.
- » Participants were also asked to choose between minor improvements to the existing pavilion or an entirely new facility. Although there was an equal split between the two options (100 vs. 97 votes, respectively), further investigation into the condition of the existing pavilion indicated that minor renovations to address safety concerns are not feasible. The best option moving forward was determined to be the construction of a new amenity building.
- » In Phase 3, two concept options were presented to the public. 56% of participants preferred the option with the smaller building footprint for its low cost and minimal look. Those who preferred the option with the larger footprint (37%) liked its versatility and the potential to draw more people to the park. Stakeholder feedback recognized a need for potential building expansion to support boating in the park.

Additional Recommendations:

- » The design of the amenity building should incorporate natural materials and reference the natural environment.
- » Artwork may be incorporated in the design of the facade or as a mural on the inner walls of the building to reflect the natural character of the River Valley and the heritage of the North Saskatchewan River.
- » The building design should align with Edmonton's Sustainable Building Policy and integrate safety features such as CCTV and building monitoring.
- » The building may be used for small events and gatherings and may be expanded for partner use if future desire exists. Partner involvement will be targeted to boating groups. (See Recommendation 14)
- » Lighting around the amenity building should follow dark sky guidelines.
- » Stormwater should be managed locally through the integration of low-impact development (LID) features.



Figure 15. Picnic Area - Perspective View



Figure 16. Main Activity Node - Plan View

25 m N

3. Formalize amenities, circulation and re-naturalization efforts in Kinnaird Park.

The improvements recommended for Kinnaird Park are intended to create an interpretive experience for visitors in all seasons through educational programming focused on the native plants in the park.

Trails and formalized lookout points define the circulation in the park. Existing benches are upgraded to formal lookout points with trail connections and native tree planting for shade.

A prairie garden is proposed on the eastern portion of the park, bordered by a looping granular trail, while turf is maintained on the western portion to be used informally for outdoor activities. In the prairie garden, plants are distributed in strategic groupings to represent different native vegetation communities and to provide varying visual and sensory experiences. A smaller area of native planting composes a learning landscape for teaching about native plants in the River Valley (see Recommendation 9).

A relatively small portion of the garden will be managed as a horticultural prairie, planted with flowering perennials and native grasses. The majority of the garden will compose a native prairie. Different vegetation communities will be separated and organized by a series of natural or mown trails, providing form to the gardens. The prairie gardens will require different levels of maintenance, as outlined in the maintenance guidelines in this report. Early blooming plant species should be chosen when possible to take advantage of the park's sun exposure and to introduce colour into the park in the early spring.

Rationale:

Kinnaird Park has been visualized as a viewpoint park since the Capital City Recreation Park Concept Plan and continues to be supported by the public for this use. Environmental Sensitivity mapping indicates that Kinnaird Park is an area of lower sensitivity due to human disturbance and low-density vegetation. An opportunity was identified to re-naturalize a portion of the park to increase the ecological value of the area while maintaining some areas of the park for trails, informal recreation and viewpoints.

Public Engagement:

- » Participants in the first phase of engagement said they enjoy views into the River Valley, and they would like to see ecological interpretation and public art in the park.
- » The second phase of engagement showed support for restoring disturbed areas in the park.
- » In the third phase of engagement, two concept options for Kinnaird Park were presented to the public: a re-naturalized park or an off-leash dog area. Restoring native grasses and shrubs in the park received large amounts of support. Some participants shared concerns about the cost of re-naturalization.

Additional Recommendations:

- » The City should seek partnerships with environmental, community and naturalist groups for re-naturalization efforts.
- » Art installations should complement native planting in the park, create seasonal interest, and incorporate natural materials.
- » A learning landscape is proposed for nature education programming on the western edge of the site. Further information is presented in Recommendation 9.
- » The park could include interpretive signs on the site history or native plants and wildlife in the park.



Figure 17. Kinnaird Park - Summer Perspective



Figure 18. Kinnaird Park - Plan View



4. Define the John C. Hall building as an essential asset for nature programming in the park.

The John C. Hall building is located on the western edge of Kinnaird Park within the project boundaries at 7696 Jasper Avenue. At the time of this report, the building is uninhabited. It is recommended that the City pursue Municipal Designation of the property as a historic resource.

The John C. Hall building provides a good opportunity to explore a nature education focus to complement programming in Kinnaird Park. Programming of the John C. Hall building could occur through an external partnership (see Partnership and Use Agreements for more detail). Potential uses within the current zoning allowance include community, non-profit or exhibit space. If the building is designated as a heritage property, the property will need to be subdivided and re-zoned to DC1 to control use of the land. Use of the building will depend on partner interest, funding, and a conditions assessment, among other considerations, and will be aligned with proposed Master Plan activities.

Rationale:

The John C. Hall building is an essential historic asset for the City of Edmonton. The City would like to maintain and use the structure, if feasible, to support and complement programming in Kinnaird Park through external partnerships.

Public Engagement:

- » In Phase 3, participants were asked to provide input on the future use of the John C. Hall building. Responses for potential uses included: a coffee house, bike rentals, concession, a historic centre, a restaurant and park information.
- » At this time, the City is not pursuing commercial use of the building.



Figure 19. Jane Salisbury Park - Plan View

5. Formalize amenities and circulation in Jane Salisbury Park.

The concept plan recommends minor improvements in Jane Salisbury Park, including new benches at viewpoints, natural trails connecting viewpoints and a non-bookable picnic area (1-3 tables) to promote community use of the park.

Some re-naturalization of the mixedwood forest and shrubs along the edge of the ravine is recommended to enhance wildlife habitat.

Rationale:

Existing infrastructure in the park is reaching the end of its useful life. Benches and picnic tables can be installed with other park improvements in Dawson Park. The location of the park provides a good opportunity for local community use.

Public Engagement:

- » *Participants in Phase 1 of engagement requested improvements to existing park infrastructure (including picnic tables and benches). Picnic table was one of the highest ranked park elements in Phase 2.*

Additional Recommendations:

- » *Interpretive sign(s) could include information on Jane Salisbury as a historical figure or inform visitors of the ravine landscape.*

Play and Recreation

Dawson Park and Kinnaird Ravine will offer visitors a variety of play opportunities, including natural play elements for children of various ages and abilities. The proposed play features are intended to provide accessible opportunities for families and community groups to play and learn in nature. Informal play and discovery throughout the park should also be encouraged through City and partner programming.

6. Create an all-season play area in Dawson Park.

The concept plan includes a large natural playground in Dawson Park near the parking lot and amenity building. The playground will introduce formalized play structures into the park to activate the space, using topography to enhance the play experience. The playground will also provide play opportunities for people with a range of needs and abilities and will include play features that can be used in the winter.

The proposed playground will include natural play features on wood chip surfacing. Play features could include stepping stones or logs; climbing features; swinging or spinning features; small slides; loose parts play; raised bed gardens/water features; and small shelters or shade structures with open visibility. The playground will also include a re-graded hill with slides and opportunities to climb. A granular path network will connect the various play features.

Trees and native planting will be integrated into the playground design, as will seating areas for parents and guardians. The area of turf to the north of the playground will be maintained as open space for informal play and events.

Rationale:

The Dawson Park playground is included in the concept plan as a result of public and stakeholder feedback. Natural play is a desired use in the park and will serve future communities as the area surrounding the park develops. Winter play elements will promote the use of the park in the winter.

Public Engagement:

- » The desire for a playground and natural play opportunities in the park were some of the most popular comments in the first and second phases of engagement.
- » In Phase 3, the public was asked to share their preference between two winter play options (informal winter play or a large natural playground with winter activities near the pavilion). 40% of participants chose the informal winter play, while 49% chose the large natural playground. Participants saw the opportunity for the larger playground to host local events and to attract users to the park. 11% of participants chose neither, hoping to limit development in the park.

Additional Recommendations:

- » Ensure elements included in the Dawson Park playground will serve a wide variety of age groups and abilities, integrating several sensory experiences and levels of stimulation.
- » Include accessible play features and accessible seating and resting points with clear sight-lines into the playground for parents and guardians.
- » The playground design may be informed by the programming needs of potential partner organizations and user groups (e.g. education, Indigenous or naturalist groups). These groups should be included as stakeholders during future design phases.



Existing View from the Pavilion Area Facing West



Figure 20. Dawson Park Playground - Perspective View

7. Improve amenities and play structures in the Sheriff Robertson Park playground.

Proposed improvements to the Sheriff Robertson playground include a tree house addition to the existing playground; trail and signage improvements; new picnic tables and benches; and native planting beds. A new gateway into the park is recommended at the corner of 82 Street and 111 Avenue. A butterfly garden is also recommended to encourage interaction between children and the natural environment.

Rationale:

Improvements in Sheriff Robertson Park are intended to help park visitors feel a greater connection to the ravine with the integration of native planting and an addition to the playground. The addition, inspired by a tree house, will allow children to climb an open structure and safely look into the ravine from a higher viewpoint.

Public Engagement:

- » The desire for a playground and natural play opportunities in the park were some of the most popular comments in the first and second phases of engagement.
- » Engagement with students from Mount Royal School identified support for a tree house play structure in the park.



Existing Sheriff Robertson Playground Looking Toward Kinnaird Ravine



TREE HOUSE ADDITION
Allows children to view into the ravine

BUTTERFLY GARDEN
Native wildflowers attract butterflies and insects

Figure 21. Sheriff Robertson Park with Playground Additions - Perspective View from 82 Street



Figure 22. Sheriff Robertson Park - Plan View



8. Formalize amenities and circulation in the 82 Street park north of Sheriff Robertson Park.

Improvements proposed for the park area along 82 Street north of Sheriff Robertson Park are modest and include a defined park entrance, formalized pathways, picnic tables and benches. Improvements in this location are intended to increase use of the park by visitors from the nearby residential and commercial areas.

Rationale:

The location of the 82 Street park is ideal to welcome visitors to Dawson Park and Kinnaird Ravine. The park is already used by the businesses and residences along 112 Avenue. Increasing formal use of the park may increase the natural surveillance of activity in Kinnaird Ravine and potentially dissuade unwanted activity.

Public Engagement:

- » The 82 Street park was prioritized for improvements by stakeholders who live nearby and use the park. Stakeholders shared anecdotes of frequently cleaning garbage from camps out of Kinnaird Ravine in this location.

9. Provide opportunities for nature education programming and unstructured play.

In addition to the play features described thus far, the Master Plan recommends incorporating nature education with play opportunities whenever possible. This can be accomplished, in part, through the development of external partnerships with community groups and/or educational organizations (see the Partnerships and Use Agreements section for more detail). The Master Plan also recommends physical improvements to aid in nature education throughout the park.

A learning landscape is proposed in the northwestern corner of Kinnaird Park. The learning landscape is composed mainly of native grasses, flowers and shrubs, identified through interpretive signs and labels. Through partnership with naturalist or educational groups, the learning landscape could include built components for nature play, wildlife viewing structures and/or an outdoor learning circle.

In Sheriff Robertson Park, enhanced planting is recommended with native grasses, shrubs and flowers to create a butterfly garden. The garden will complement the other uses in the park and increase the learning potential in the landscape. Interpretive signage in the park may include information on native plants, animals, birds and insects in the butterfly garden and in Kinnaird Ravine.

Rationale:

In general, Canadians are spending less time outside and becoming less familiar with the natural environment. This is especially true in many cases for children and new Canadians (Canadian Parks Council, 2014). The proposed amenity improvements and programming build on the existing natural character of the park, introducing opportunities to interact with and learn about nature that are more accessible for children and visitors who may not feel comfortable exploring the more 'wild' parts of the River Valley. Partnerships will also build programming opportunities for people to explore natural areas throughout the park.

Public Engagement:

- » The desire for natural play opportunities in the park were some of the most popular comments in the first and second phases of engagement.
- » Stakeholder input indicated support for nature education programming in the park leveraged by external partnerships.

10. Continue to host community events appropriate to the site.

The park will continue to accommodate events such as cross country running meets, orienteering, training for Dragon Boat races, charity walks and art events. The enhanced picnic and play area in Dawson Park may be used as a gathering space for school outings or as a staging area for summer and winter community events and festivals. If there is partner interest, the park may accommodate larger or increased boating and river recreation events.

Rationale:

While Dawson Park and Kinnaird Ravine are not appropriate locations for large sporting events or city-wide festivals, smaller events and gatherings are appropriate, having a limited impact on surrounding neighbourhoods and ecological features.

Public Engagement:

- » Existing uses in the park were supported in all phases of engagement, particularly those that were seen to be low-impact (e.g. picnicking, trail running, walking, etc.)
- » Engagement with multi-cultural organizations indicated a desire to use the park for family and cultural gatherings (including picnics).

Indigenous Use

11. Facilitate opportunities for partnerships and continued dialogue.

As a result of engagement with Indigenous communities, it is recommended that the City explore opportunities to introduce Indigenous cultural activities into the park. The engagement process identified a desire for ceremonial, gathering and educational uses by Indigenous communities with protection of the natural features in the park.

Dawson Park and Kinnaird Ravine can accommodate programming such as smaller ceremonies, river access and culture camps. Gathering spaces, such as those located north of the Dawson Park picnic area, adjacent to the Rat Creek daylighting, and in Kinnaird Park may accommodate potential use by these communities. Identified uses may require access to the river, which is accommodated near the proposed river locations.

12. Integrate feedback from Indigenous engagement into detailed design, implementation and management practices for the park.

Engagement also identified a desire for improved wayfinding, rest areas along the trails and the integration of Indigenous heritage interpretation and appreciation into planned infrastructure. There is an opportunity to incorporate traditional knowledge into interpretive elements and the on-going management of the park.

River Access

Based on the City's strategic planning regarding river access in Edmonton, Dawson Park has the potential to become a river access hub for a variety of river users.

13. Support access to the river for boating and river recreation.

The Master Plan recommends boat dock and launch improvements and the creation of a gathering space centred around river access, boating and the celebration of the river.

A new granular trail with an accessible grade will lead visitors to the existing River Valley Alliance (RVA) boat dock and launch. The ramp will incorporate elements of terracing, with rocks and natural features for seating as well as planting with native trees and shrubs. This area may be used for gathering and viewing boating events, and may include interpretive signs presenting information on river habitats or the historic use of the river. The existing, straight granular river access to the north of the boat dock and launch will be maintained as a staging area for larger boat launches (e.g. RiverWatch boats).

The RVA boat dock and launch will be retrofitted to include universally accessible docking system, allowing a river user to transfer into their watercraft from a wheelchair independently. The retrofitted docking system should make boarding, launching and recovery safe and manageable for boaters of varying abilities.



Figure 23. Potential Space for Cultural and Educational Gathering near the Restoration at Rat Creek

Rationale:

Boating is an existing park use in Dawson Park by individual boaters and organized boating groups. Public feedback indicates that these users would like boating to continue in the park, and improving the physical accessibility of boating at this location is important.

There are currently no accessible boat docks in Edmonton. The City of Edmonton identified Dawson Park as a strategic location for an accessible boat dock due to its physical site conditions and existing park uses. Dawson Park is also located strategically between Capilano Park and Emily Murphy Park, both of which have been identified as priority locations for accessible boat docks (see Figure 10).

Public Engagement:

- » In the first two phases of engagement, participants said that they want improved access to the river.
- » Two options for access to the boat dock and launch were presented in Phase 3 of engagement. Concept Option 1 included a granular trail and ramping system with native planting while Concept Option 2 included a paved, hardscape approach to the river edge. 60% of participants preferred Concept Option 1 for its natural appearance and lower cost.

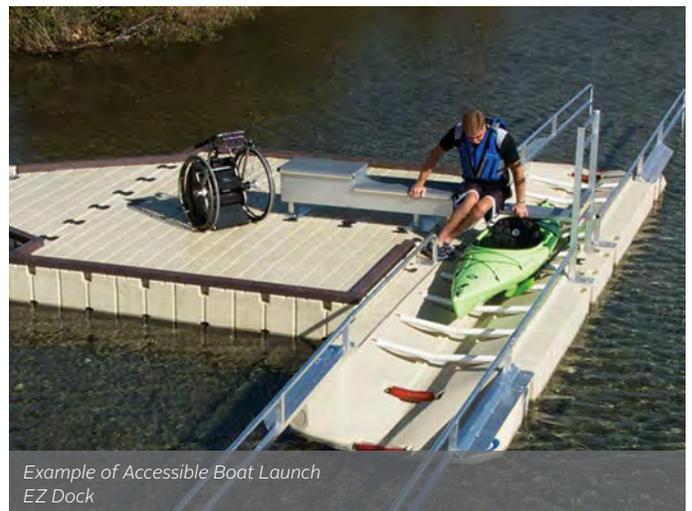
14. Expansion of boating facilities in the park through a funding partnership with river users.

Depending on partner interest and funding availability, the Master Plan provides flexibility for potential expansion of boating activity in Dawson Park. The following recommendations support potential increased boating use in the park:

- » An expansion of the proposed amenity building. This expansion would potentially include meeting space, administration space and boat storage facilities for use by partner organizations. Building expansion is recommended to use a modular building system, maintaining flexibility in use and storage capacity. A funding partnership with a partner boating organization would be required for building expansion to occur.
- » An expanded gathering area surrounding the amenity building. This expansion would formalize a gathering space for all park visitors on a paved surface. This improvement would occur at the same time as building expansion.
- » An expansion to the existing boat dock and launch to accommodate an increased number of users. Partner interest would trigger the expansion of the boat dock and launch, which could occur alone or in combination with building expansion.



Existing Conditions at the Location of the Proposed Location of Boat Dock and Launch and Granular Trail



Example of Accessible Boat Launch EZ Dock

Rationale:

Boating is an existing use in Dawson Park. Public and stakeholder feedback as well as direction from planning initiatives (Edmonton's River Access Strategy and the River Valley Alliance Boat Docks and Launches program) identified Dawson Park as a river access hub with potential for increased boating use. Dawson Park includes facilities that could support increased boating, such as a nearby parking lot and amenity building.

Maintaining flexibility in the Master Plan for potential future expansion responds to stakeholder feedback and planning direction, helping to ensure that the City can accommodate increased boating activity if funding and interest is available, while avoiding unnecessary spending and construction should a funding partnership not be realized.

Public Engagement:

- » A smaller footprint for the amenity building was favoured during public engagement.
- » Interest for increased boating opportunities in the park were identified during stakeholder engagement. Expansion will occur only through the development of a funding partnership. (For more detail on potential boating partnerships, see the Partnerships and Use Agreements section.)

15. Develop formal gathering areas, lookouts and river access points.

The Master Plan recommends the following improvements to organize activity near the river edge, reducing impacts to vegetation through informal river access and providing resting/gathering spaces for a variety of uses.

→ **A river overlook:**

- » A constructed river overlook in alignment with the 78 Street staircase will include a pergola and seating with potential to be used for informal gathering, ceremony or performance. There is also potential for public art to be incorporated into the overlook area.

→ **Two resting points along the trails:**

- » Two resting points are proposed along the multi-use trail east of the river overlook. These resting points are sheltered by pergolas and include seating. One resting point (closer to the amenity building) also includes picnic tables positioned to enjoy river views.



Figure 24. Amenity Building Expansion Footprint





GRANULAR PATHWAY
Improves access and provides natural seating

AMENITY BUILDING
Washrooms, flexible indoor space and water fountain (for people and dogs)

ACCESSIBLE BOAT DOCK AND LAUNCH
An addition to the existing boat dock provides greater opportunities for people of all abilities

Pathway for larger boats is maintained

Figure 25. Main Activity Node - Summer Perspective



PICNIC AREA AND SEATING
Supports boating use for individuals and groups

Riparian vegetation is restored

→ **Two formal gathering areas:**

- » A formal gathering area north of the amenity building and picnic area in Dawson Park, including seating, may be used by community or Indigenous groups for informal gathering, ceremony or performance. It will be located near the parking lot to provide better access for visitors with low mobility.
- » A gathering area east of Rat Creek will include picnic tables, a river overlook with benches, a gathering structure and native vegetation. The gathering area should maintain elements (e.g. seating, wayfinding) for people with visual impairments as it is located at the termination of the Braille Trail. The gathering structure may act as a meeting place with potential to be used by community and Indigenous groups. Partner opportunities to build the structure may be explored.

→ **Two formal river access points:**

- » Two proposed river access points are located along the river edge. These access points will include pathway improvements and stepping stones to allow visitors to make their way down to the river more easily.



Figure 26. Example of a Resting Point near the Hoodoos



Figure 27. Gathering Area and River Lookout - Plan View



Figure 28. Gathering Area along the Multi-Use Trail - Plan View



Rationale:

The distance from the parking lot to the east end of the park (under the Capilano Bridge) is approximately 2.5 km. This distance would be difficult for many park visitors to travel without taking opportunities to stop and rest. The proposed resting points and gathering areas create destinations closer to the parking lot, allowing visitors to travel shorter distances if desired. Resting points also help visitors to travel longer distances by giving them opportunities to take a break if needed. Creating opportunities to rest in public settings is supported by the City of Edmonton Access Design Guide.

Informal access to the river occurs in many locations along the river edge, causing erosion of the bank and vegetation disturbance. The proposed river access points are intended to replace the many informal river access points that currently exist along the river edge, which will be closed and restored.

Public Engagement:

- » Participants in Phase 1 of engagement requested improvements to existing park infrastructure (including picnic tables and benches). They also wanted an increased connection to the river.
- » The City engaged with their internal Accessibility department and one of the resulting recommendations was to include resting spots, giving visitors the opportunity to choose the distance they would like to travel.

16. Provide a formalized access point to the Sandy Shoreline.

The concept plan includes one formalized pathway to the shoreline, integrating stairs with natural materials if necessary. The implementation of this pathway should include signs indicating the leash-up zone near the restoration at Rat Creek and potential safety hazards for people and animals in the area. Use of the sandy shoreline area should be adaptively managed to prevent degradation from continued informal use.

Rationale:

A single, formalized trail to the sandy shoreline is intended to reduce disturbance to vegetation due to informal access.

Public Engagement:

- » During all phases of engagement, the public and stakeholders shared that improved access to the river from the sandy shoreline area was important. They also shared that it is a popular location for dogs to swim.

Accessibility

The Master Plan aims to improve accessibility in the park for visitors of varying abilities.

17. Improve accessibility in the park, providing opportunities for people of all abilities to enjoy the natural character of the River Valley.

The Master Plan recommends the inclusion of the following accessible features:

- » The amenity building, washrooms and associated features (such as drinking fountains, water bottle fill stations, seating and signage) should be universally accessible. (Recommendation 2)
- » The parking lot should include accessible parking stalls according to City of Edmonton design standards. The parking lot should also have pathway connections to all major features in the Main Amenity Node, as well as connections to the multi-use paved trail and the Braille trail, providing access to the larger park area. (Recommendation 23)
- » Features in the Dawson Park playground should serve a wide variety of age groups and abilities, integrating several sensory experiences and levels of stimulation. Physically accessible play features should be included in the recommendations as well as accessible seating and resting points with clear sight-lines into the playground for parents and guardians. (Recommendations 6, 7 and 9)
- » New picnic tables with inclusive wheelchair seating. Granular pathways should connect some picnic pads to the main trails, increasing their accessibility. (Recommendation 1)
- » The Braille Trail, which includes interpretation elements for people with visual impairments, should be maintained. (Recommendation 34)
- » The addition of a fully accessible boat dock and launch (retrofitted from the River Valley Alliance boat dock and launch in Dawson Park). (Recommendation 13)
- » Signage should indicate the accessibility of features in the park as well as distances between features and park entrances. Providing information on amenities, physical supports, distances and grades will help visitors plan their route through the park according to their own comfort level. (Recommendation 36)

The plan provides accessible connections throughout the park on paved or granular surface trails. Pathways in the Main Amenity Node provide barrier-free access from the parking lot to the amenity building as well as picnic, play and boating features. Granular surface trails provide access to educational and natural elements proposed in Kinnaird Park and Kinnaird Ravine.

Rationale:

Previous park planning provided elements for people with physical disabilities in Dawson Park. The Master Plan aims to expand on the park amenities offered for people with varying needs and abilities through the provision of accessible park features for existing and future park visitors.

Public Engagement:

- » Accessible park features were supported in public and stakeholder engagement.

Additional Recommendations:

- » During detailed design phases, all publicly accessible features should incorporate recommendations from the City of Edmonton's Access Design Guide.

Off-Leash

Off-leash dog walking will remain a major use of the park, contained mainly in the lower mobility corridor in Dawson Park to avoid conflicts on upper trails and threats to environmentally sensitive areas.

18. Mitigate conflicts associated with off-leash dog walking.

Overall, the proposed off-leash area in the park is approximately 60% of the existing off-leash area. The proposed off-leash area will extend along the multi-use trail and Braille Trail beginning near the parking lot to Wayne Gretzky Drive in Dawson Park, with a leash-up zone around Rat Creek. (See Recommendation 19 for more detail on the leash-up zone.) The off-leash trails are connected to the parking lot by an additional trail proposed east of the playground, which will be fenced to separate off-leash use from the play area. The dog park at the top-of-bank north of Kinnaird Ravine will be retained.

The off-leash area along Jasper Avenue south of 84 Street will be removed. The trail leading up to Ada Boulevard and Concordia University will be converted to an on-leash trail. Off-leash use in these areas have been removed due to safety concerns for dogs and other users in the park resulting from traffic or conflicts in park use. The off-leash loop in the slopes of Dawson Park will be converted to an on-leash trail to protect this area of high environmental sensitivity. Kinnaird Ravine and the slopes of Dawson Park will remain on-leash areas.

Rationale:

Field evaluations for the Off-Leash Dogs in Open Spaces Strategy were conducted in 2015 and 2016. Two areas of potential conflict were identified near the confluence of Rat Creek and the trail loop in the slopes of Dawson Park (see Figure 9 in the Existing Conditions section of this report.)

Off-leash use will be removed in areas that experience a high level of trail user conflict and in areas of higher environmental sensitivity (see Figure 29). Off-leash use on the trail to the west of the Dawson Park playground (including a proposed fence) was included to adhere to the Parkland Bylaw, creating a separation between dogs and other park amenities.

Public Engagement:

- » Off-leash trail use was one of the most popular park elements chosen in first two phases of engagement.
- » Throughout the public engagement process, participants voiced concerns around conflict on trails – especially between cyclists, pedestrians and dogs.
- » Two off-leash options were presented in Phase 3 of engagement. Concept Option 1 retained much of the existing off-leash area. Concept Option 2 presented an alternative off-leash loop through the river valley slopes and an off-leash area in Kinnaird Park at the top-of-bank. This alternative option aimed to reduce user conflict by limiting off-leash use to the western portion of the park. Out of those who participated, 63% preferred to retain the existing off-leash trail, while 25% preferred the proposed alternative.

Additional Recommendations:

- » Dog waste bag dispensers and waste receptacles should be located at strategic points along the off-leash trails.
- » The City should monitor off-leash dog walking in the park periodically and communicate with local stakeholders and park users to ensure compliance related to appropriate behaviour and dog waste clean up.
- » Regulatory signs should provide direction on appropriate off-leash use in the park and dog waste clean up.

19. Create a leash-up zone near Rat Creek to protect sensitive riparian habitats.

A leash-up zone is proposed around the restoration at Rat Creek (see Recommendation 46) to reduce the impact of dogs on the establishment of riparian habitat at the mouth of Rat Creek. Fencing may be used to protect the restored area, at least until vegetation establishes. The trail east of Rat Creek is proposed to remain an off-leash trail, connecting to the off-leash trail network east of the park. However, the environmental impacts of off-leash dog use on vegetation and wildlife habitat along the sandy shoreline are not yet clear.

In order to meet the requirements of the River Valley Bylaw Environmental Impact Assessment approval for the Dawson Park and Kinnaird Ravine Master Plan, the City must carry out a Monitoring and Adaptive Management Plan to effectively understand the impacts of off-leash dog usage within Dawson Park and Kinnaird Ravine. The Plan will employ an adaptive management approach to off-leash dog-walking in the park, and will monitor potential impacts to natural features in the park. For example, loss of vegetation, decreased species richness and increased erosion may be monitored. Findings from the Monitoring and Adaptive Management Plan, which will be carried out in the first phase of Master Plan implementation, will be used to inform potential changes to future management of off-leash use in the park.

Rationale:

The leash-up zone is recommended to mitigate potential impacts of off-leash dogs on the restoration at Rat Creek (see Recommendation 46). This is also an area where many trails converge, and where potential conflicts between off-leash dogs and other park users are more likely to occur. Keeping dogs on-leash in this area has the potential to reduce user conflict.

Public Engagement:

- » *Off-leash dog use was a popular activity throughout the engagement process.*
- » *Participants voiced the desire to ensure park use does not negatively impact natural features in the park. Changes to off-leash use were made to mitigate negative environmental impacts of dogs on environmentally sensitive areas.*

Additional Recommendations:

- » *Dog waste bag dispensers and waste receptacles should be located near the restoration area at Rat Creek to reduce impacts of dog waste.*
- » *The City should monitor the leash-up zone periodically and communicate with local stakeholders and park users to ensure compliance related to appropriate behaviour and dog waste clean up.*
- » *Regulatory signs should provide direction on the use of the leash-up zone. Interpretive signage should also be used to inform park visitors of environmental sensitivities and restoration work around Rat Creek to encourage compliance in the leash-up zone.*

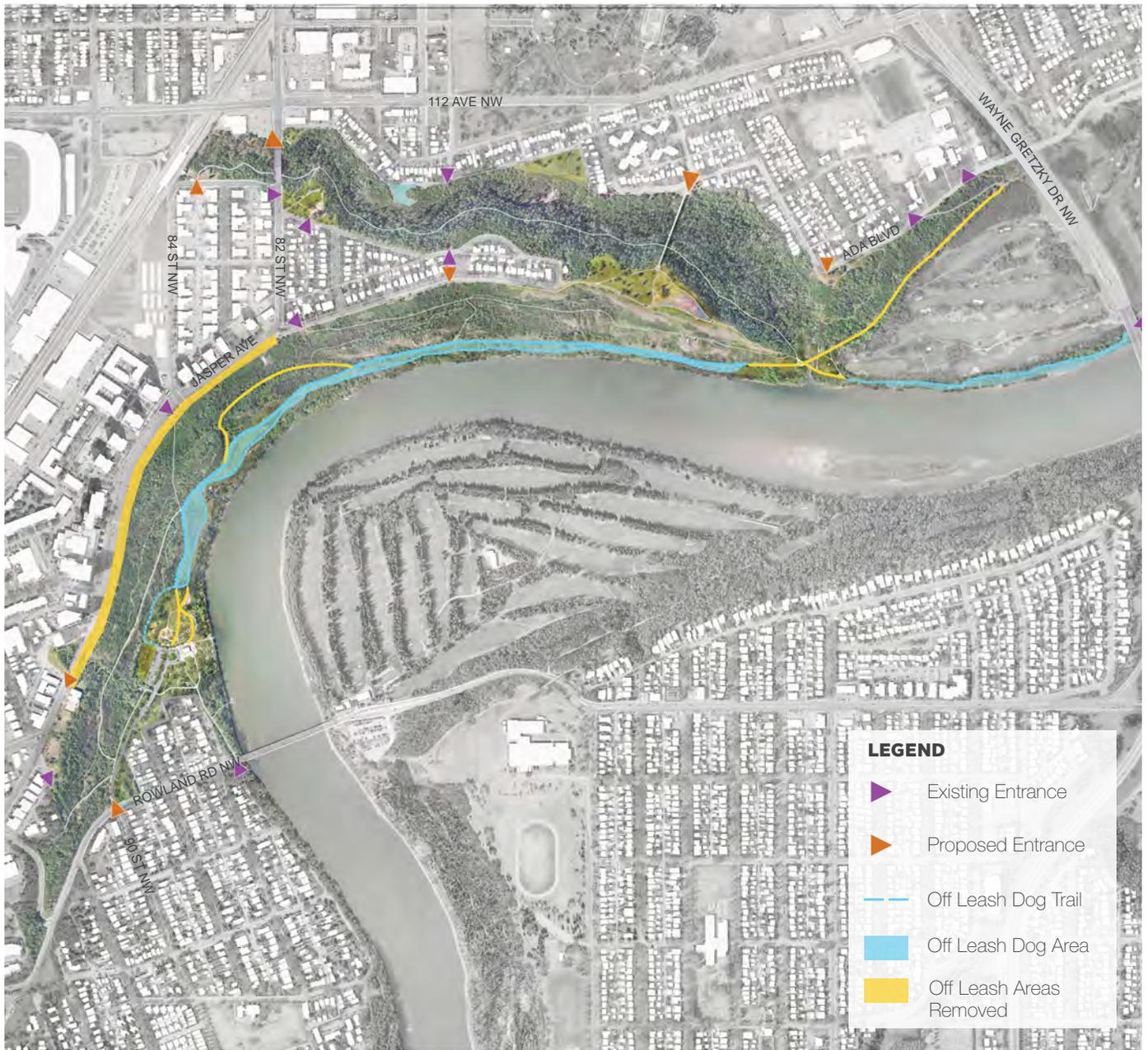


Figure 29. Proposed Off-leash Areas

250 m N

Winter Use

20. Support low-impact trail-based winter activities in the park.

Dawson Park and Kinnaird Ravine offer year-round access to the North Saskatchewan River and Ravine System. Low impact trail-based activities are encouraged in the winter and will be supported through continued trail maintenance.

Winter activities promoted in Dawson Park and Kinnaird Ravine include: walking/hiking, dog walking, fat biking, educational programming, snowshoeing and cross-country skiing.

In the winter, the multi-use trail (which will be cleared) may be used for off-leash dog walking. Other winter activities, such as snowshoeing and cross-country skiing, can occur on uncleared trails when there is snow on the ground. Cross-country skiing will not be track set in Dawson Park and Kinnaird Ravine.

Regulatory signage and public education will provide direction to visitors on how to share the trails in the winter. Signs will also inform visitors of areas where they may not venture from the trails into areas of higher sensitivity.

Rationale:

Edmontonians enjoy being out in nature during all months of the year. Dawson Park and Kinnaird Ravine's infrastructure and recommended maintenance regime for snow clearing can support low-impact, trail-based activities during winter months. These types of activities give park visitors the opportunity to experience nature in the winter.

Public Engagement:

- » Winter uses including cross-country skiing, off-leash dog walking, snowshoeing and fat biking were supported during all phases of public engagement.
- » Conflicts between off-leash dogs and other park users were also noted during engagement. Off-leash and trail use should be monitored in the winter as well. (See Recommendation ___ for more recommendations on monitoring.)



Figure 30. Kinnaird Park - Winter Perspective

21. Ensure proposed amenities and park management support winter use.

The Master Plan is in alignment with the Winter City Strategy and the desired outcomes of the Winter Design Policy, including:

- » Parks and open spaces are used and enjoyed year-round.
- » Public spaces support outdoor winter programming, recreation and everyday winter life.

To ensure that these outcomes are achieved, infrastructure in the park should adhere to the Winter Design Policy and Winter Design Guidelines to increase comfort and usability in the park in colder months.

- » Features in the Main Activity Node will support educational programming, nature play and small events in winter months.
- » The multi-use trail will be cleared from Rowland Road to Ada Boulevard.
- » Proposed locations for gathering spaces along the multi-use trail and Braille Trail will provide wind breaks using vegetation or small shade structures.
- » Proposed locations for public art may add visual interest and colour in winter months. (See the Identity & Experience section for more detail on proposed public art locations.)
- » The prairie garden in Kinnaird Park will provide visual interest and enhance the ecological and educational value of the area in winter months through plant selection and interpretive features.

Rationale:

Outdoor activity in the winter months requires the provision of certain elements for the comfort and safety of park visitors. Snow clearing and wind breaks help increase the usability of the park trails in the winter. Other opportunities, such as public art, are in line with the goals of the Winter City Strategy and add an additional layer of visual interest and interpretation potential.

Public Engagement:

- » *Public feedback indicated a strong desire to participate in winter activities in the park.*

Connectivity & Circulation

Visitors to Dawson Park and Kinnaird Ravine value the park's connection to the larger River Valley trail network and its accessibility from downtown communities.

Feedback received from the public and stakeholders during all phases of engagement is summarized below:

→ Public & Stakeholder Feedback

- » Want improved connections into surrounding neighbourhoods
- » Do not want improved access to cause safety concerns or impact natural features
- » Want less user conflict on trails
- » Support an integrated natural surface trail network

→ Internal Stakeholder Feedback

- » Support for a natural trail network with potential future maintenance guidelines
- » Support for the inclusion of a new natural surface trail in the park
- » Support for more top-of-bank connections

This section describes proposed improvements to the circulation network in the park. Based on public feedback and City policy, the Master Plan addresses connectivity and circulation in Dawson Park and Kinnaird Ravine with the following three priorities:

→ Improve Access

Connectivity into the park will be improved both from neighbouring communities and from the larger region. By integrating new entrances and improving gateways, the park will become a clear and identifiable connection into the River Valley. The accessibility of trails and entrances will be improved wherever possible and entrances will follow directives from the Active Transportation Policy (C544) 2009.

→ Trail Rationalization

The trail network is rationalized to create safe and identifiable trail loops with clearly identified entrance and exit points for various park users. Trails will be maintained according City standards and designed to minimize safety risks and ecological impacts. The City will integrate a natural surface trail system into Dawson Park and will re-route, repair or close natural trails that are showing signs of erosion or misuse in consultation with park users and partner groups.

→ A Clear Wayfinding Strategy

Dawson Park and Kinnaird Ravine will use a signage and wayfinding strategy to improve the feeling of safety, reduce user conflict, enhance site interpretation and increase visibility of entrances into the park.

The Connectivity & Circulation map on the following page illustrates the proposed park entrances and circulation network.

Vehicular Access

22. Create a designated main vehicular access into the park.

Vehicular park access into the park from 89 Street at 103A Avenue and from 87 Street at 103A Avenue will be closed with the proposed re-alignment of the main vehicular access road into Dawson Park from Rowland Road. The new access road will provide parallel parking for up to 20 vehicles. To improve the safety of the entrance, a new dedicated left turn lane for Rowland Road eastbound to the main vehicular access is proposed. The intersection will be signalized with an advance left turn phase.

Sections of the existing access road (currently 102A Avenue, 90 Street and 103A Avenue) will be re-naturalized, creating a vegetated buffer between the road and existing residences. The resulting open space east of the proposed vehicular access road will include minor park amenities, including benches and tables. The main vehicular access and associated open space will incorporate park signage consistent with the River Valley Wayfinding Strategy, visible from Rowland Road.

Although vehicular access through the Riverdale neighbourhood will be closed, pedestrian connections from the residential community into the park will be maintained.

Rationale:

The proposed vehicular access road will direct vehicle circulation to a main entry point, eliminating park traffic through the Riverdale community. This will create a separation between neighbourhood traffic and park traffic. The alignment of the proposed access road and the proposed signalized intersection will also increase the safety of the entrance, calming traffic and improving visibility.

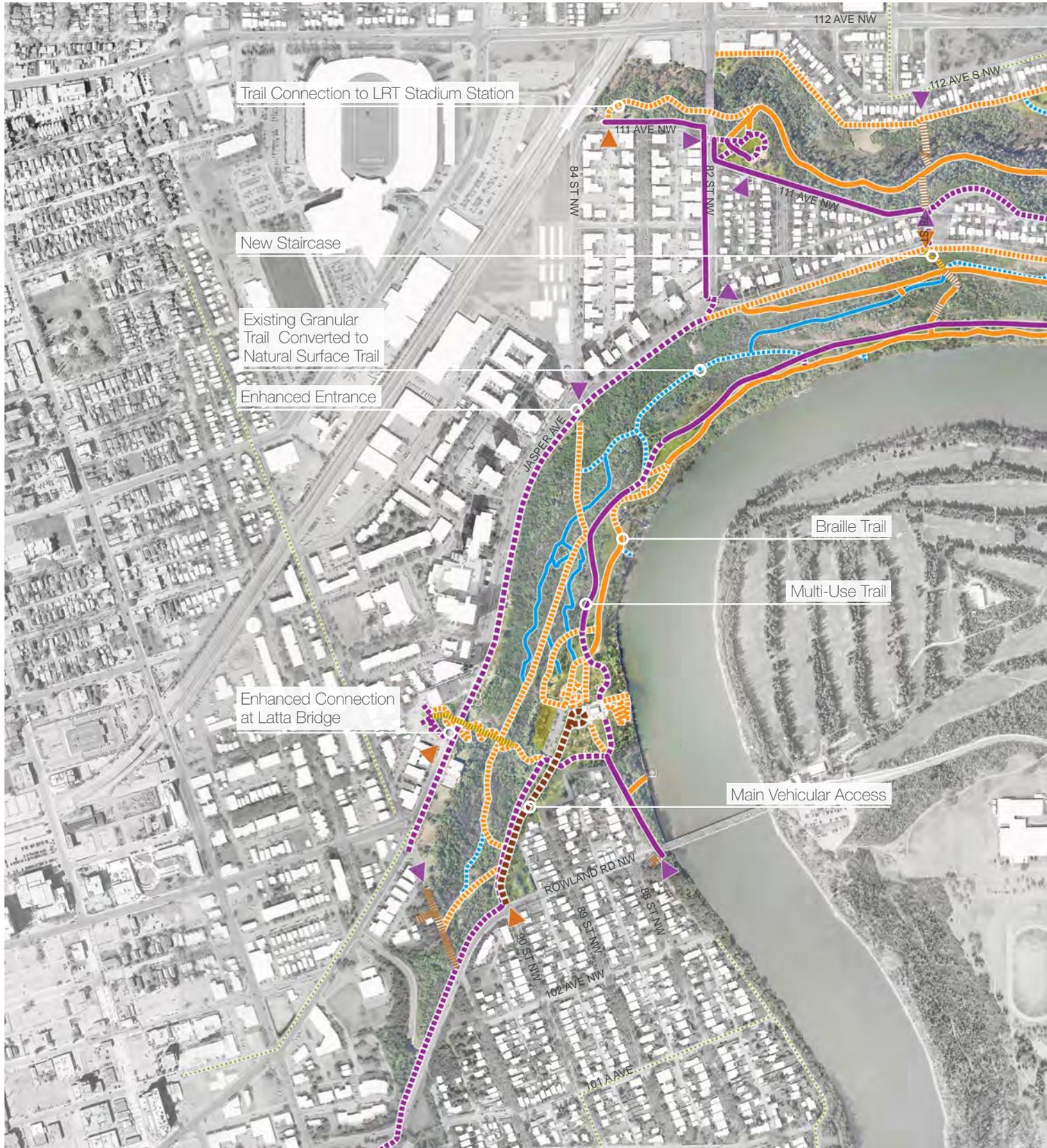
Public Engagement:

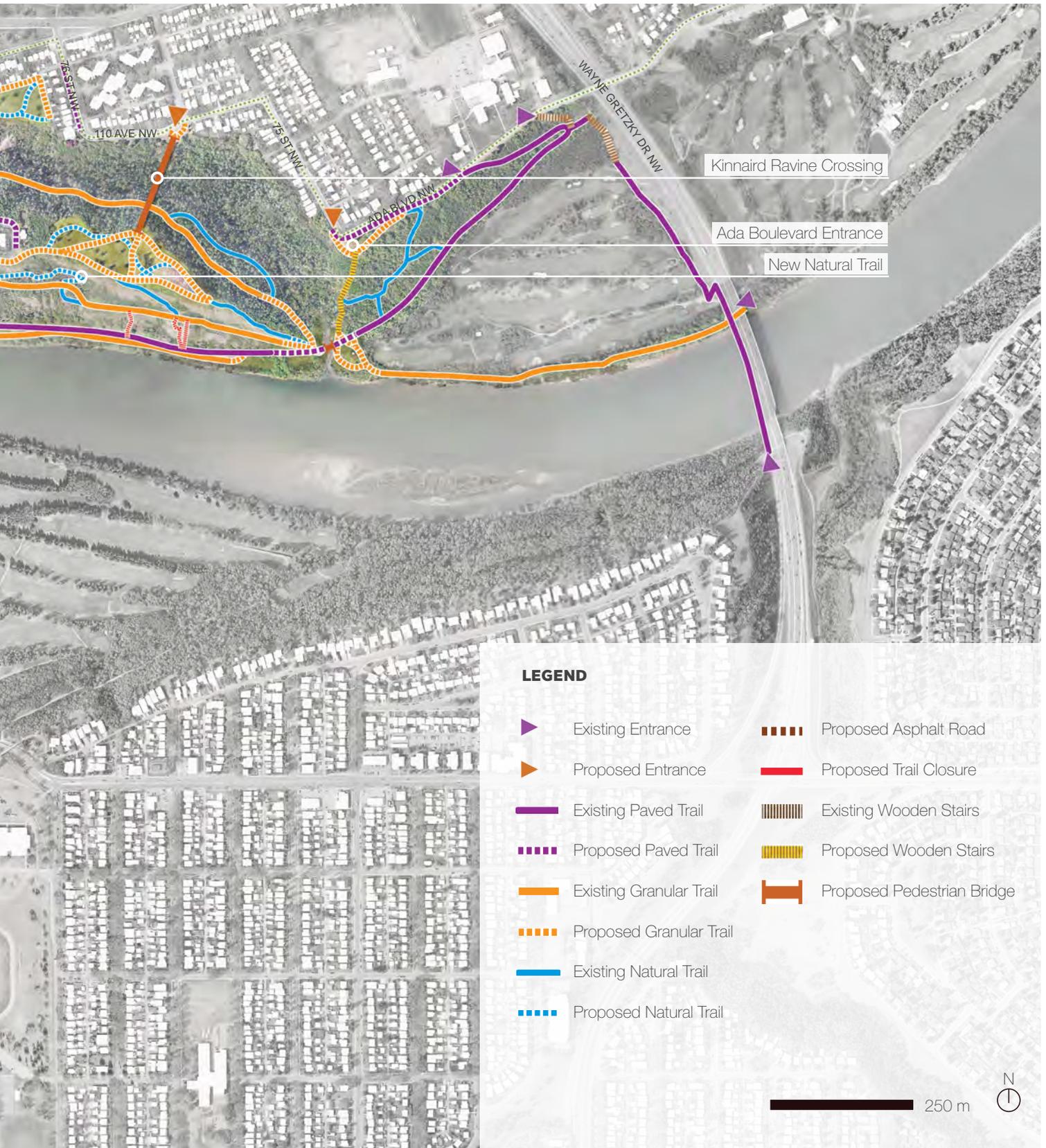
- » *During the first two phases of engagement, the City heard from residents in the Riverdale community that park access through their neighbourhood streets contributes to traffic congestion, limits on-street parking and causes safety concerns for the neighbourhood.*
- » *In Phase 3, two concept options were presented to the public. Concept Option 1 maintained park entry through Riverdale neighbourhood streets and Concept Option 2 provided a new option for a dedicated park entry off Rowland Road. 50% of participants preferred Concept Option 2 with a dedicated vehicle entry and 44% preferred to keep vehicular access through residential streets. Concept Option 2 was seen to address the security, traffic and parking issues faced by the local community.*

Additional Recommendations:

- » *Signage along the main vehicular access road should include information on park amenities and vehicular parking.*
- » *The adjacent open space should incorporate architectural and natural features in the adjacent green space that reflect the character of the rest of the park.*
- » *Stormwater should be managed locally through the integration of low-impact development (LID) features in addition to tie-ins to existing stormwater sewers.*
- » *Because the main vehicular access road is also a park entrance accessible by bus and active modes of transportation, elements near the park entrance should be at a pedestrian scale, providing shade, easy pedestrian access from public transit and a buffer from vehicular traffic.*

Figure 31. Proposed Circulation Plan





23. Improve vehicular parking for visitors and maintenance staff.

The concept plan includes a retrofitted parking lot with 51 stalls, utilizing the footprint of the existing lot. Proposed improvements include an improved vegetated island, an expanded drop-off area near the amenity building, improved lighting and a dedicated location at the south-west corner for at least one large, enclosed garbage bin to be used during park clean-up. The parking lot will include accessible parking spaces and drop off locations with pathway connections into the park. It will accommodate personal vehicles, boat trailers, school buses and DATS buses as well as municipal waste collection and maintenance vehicles and bins. The turning radius on all corners will accommodate a school bus with a boat trailer and all required maintenance vehicles.

Use of the parking lot should be monitored one year after the installation of the RVA boat dock and launch, and again after five years. Parking lot expansion may occur if monitoring indicates that the lot is consistently over capacity most

weeknights and weekends. The turf area to the west of the parking lot is to be reserved for potential future parking expansion, which would add 25-50 parking stalls.

If amenity building and/or boating expansion occurs in Dawson Park, parking requirements should be re-visited through additional parking studies. Amenity building or boating expansion, however, are not necessarily pre-requisites to parking lot expansion.



Figure 32. Main Vehicular Access - Perspective View from Rowland Road

Rationale:

Parking lot improvements are recommended to improve functionality for park visitors, river access groups and city maintenance staff. With potential increases in use and the addition of new park amenities, it is expected that the parking lot will require expansion in the future.

Public Engagement:

- » During the first two phases of engagement, some park user groups indicated that the existing parking lot is not meeting the demand for the current level of use.
- » In the third phase of engagement, two Concept Options were presented with different parking lots. Concept Option 1 presented the existing parking lot footprint while Concept Option 2 presented an expanded parking lot. Over half of the participants (56%) preferred the smaller parking lot footprint. 38% preferred the expanded parking lot. Those who preferred the smaller footprint wanted to see less hardscape development and wanted to encourage alternative modes of transportation to the park.

Additional Recommendations:

- » Parking to access the park from northern communities should occur in the existing Borden Park parking lots.
- » Stormwater should be managed locally through the integration of low-impact development (LID) features, such as infiltration ponds and swales surrounding paved areas.
- » The parking lot should be able to accommodate food trucks during events.
- » Lighting around the parking lot should follow dark sky guidelines.

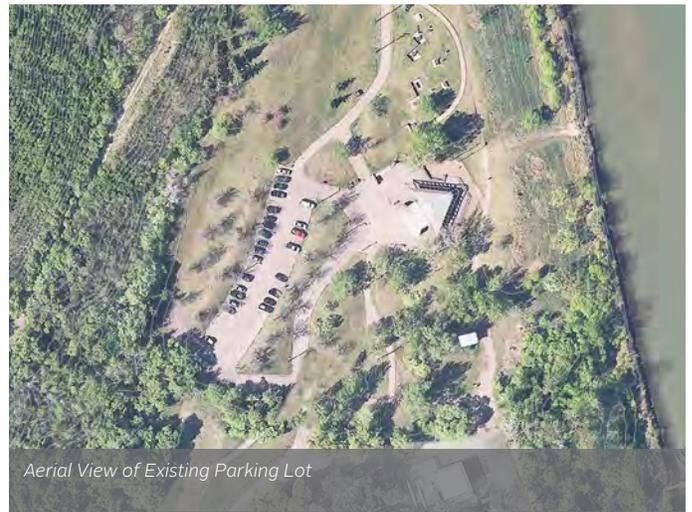


Figure 33. Proposed Parking Lot and Potential Expansion Area





Figure 34. Main Vehicular Access - Plan View



24. Improve access throughout the park for emergency and maintenance staff.

While public vehicular access is restricted to the southern portion of the park (including the proposed vehicular access and parking lot), emergency and maintenance vehicles require greater access into the park.

Operations, maintenance and emergency personnel will access paved, granular or natural trails by foot or small motorized vehicles. Larger vehicles will be restricted to paved or granular trails. An existing natural trail west of the amenity building will be upgraded to better accommodate maintenance vehicles in the River Valley slopes during park clean-ups. Fire services will access the slopes from the top of bank, along the multi-use trail or from the river in a river rescue boat.

Rationale:

To facilitate the clean up of informal camps in the park, maintenance vehicles require the use of park trails to remove waste. In order to facilitate the clean up of informal camps in the park, maintenance vehicles require the use of park trails. Internal engagement with city maintenance staff resulted in recommendations for upgrading the trail west of the amenity building to a granular trail.

Access by emergency personnel, maintenance staff and outreach workers is required to maintain a higher level of security in the park.

Public Engagement:

- » *Throughout all phases of engagement, the public has supported the continued efforts to clean garbage and refuse from the park.*
- » *Participants also expressed the need to increase the feeling of safety in the park, which would benefit from improved access for emergency and maintenance staff.*

Additional Recommendations:

- » *Trail intersections should be constructed with a turn radius to accommodate emergency and maintenance vehicles.*
- » *Paved and aggregate surface trails may be constructed to accommodate potential use by maintenance and emergency vehicles as appropriate.*
- » *The City could develop and implement a trail marker system that would help emergency personnel, outreach workers and maintenance staff navigate the park.*

Pedestrian Entrances

25. Improve the visibility and maintenance of existing and proposed park entrances.

The following existing entrances to the park will be maintained, with required surface maintenance and improvements as well as signage as recommended in the signage plan:

- » Trail entrances near Capilano Bridge and Dawson Bridge
- » Staircase at 92 Street and Jasper Avenue
- » Timber frame stairs at 84 Street
- » Trail entrance at 82 Street and Jasper Avenue
- » Staircases into Kinnaird Ravine in line with 78 Street
- » Trail and stair entrances off Ada Boulevard near Concordia University

Recommended improvements to existing and proposed entrances include signage improvements, planting, seating and lighting. These should be implemented according to the phasing plan presented in this report. Regular trail surface and stairway maintenance should follow the maintenance guidelines presented in this report. However, the timber frame stairs at the 84 Street entrance to the park should be prioritized for repair to prevent further erosion.

Rationale:

Recommended improvements to existing and proposed entrances will increase their visibility, helping to orient park visitors, connect people into the River Valley and contribute to the identity of the park. Maintenance of trails and staircases will help to ensure the safety of park entrances.



Example of Dawson Park & Kinnaird Ravine Main Park Identification Using Edmonton River Valley Wayfinding Standards

Public Engagement:

- » Participants wanted to increase the visibility of park entrances and increase access into the park from the top-of-bank.

Additional Recommendations:

- » All park entrances should include signage as per Edmonton's River Valley Wayfinding strategy and the Pedestrian Wayfinding Design Standard. (See Recommendation 36 for more detail on signage.)
- » Architectural elements and planting at park entrances should have a distinctive style that is appropriate for a natural environment in an urban context, should complement the existing features and identity of the park and should be in keeping with the City of Edmonton design standards.
- » Direction from the Active Transportation Policy (C544) 2009 should be followed to encourage active transit to the park.

26. Create a formalized park entrance and staircase from 78 Street.

The concept plan includes a new park entrance and staircase from Jasper Avenue and 78 Street, which will connect into an existing trail that continues down-slope. The staircase will include bike rails to transport bicycles up and down the slope. Additional improvements include wayfinding signs and a park entrance sign.

Rationale:

The proposed staircase adds a well-aligned connection into the existing trail system in Dawson Park and the adjacent community, connecting into 78 Street in Cromdale and northward toward the Kinnaird Ravine staircases.

Public Engagement:

- » Results of the first two phases of engagement indicate that participants want improved connections to adjacent communities and parks, and improved connections to the top-of-bank.
- » Some participants shared concerns that staircases may encourage informal camping in the park. The Master Plan promotes the continued efforts of the City and partner organizations to reduce informal camps in the park.

27. Create a formalized park entrance and staircase from Ada Boulevard.

An improved park entrance and lookout is proposed off Ada Boulevard, connecting into the gathering area near Rat Creek. The proposed features include River Valley wayfinding signs, benches, trails and native planting to enhance the existing lookout and gathering area off Ada Boulevard as well as a new wooden staircase connecting into Dawson Park.

Rationale:

The staircase at Ada Boulevard is intended to provide a connection into the park from neighbourhoods in the north, including the Virginia Park and Bellevue Community. Proposed improvements, such as seating and signage, will help to create a more defined entrance and enhance the existing viewpoint at Ada Boulevard.

Although the staircase is proposed in an area of higher sensitivity due to dense vegetation and steep slopes, the proposed alignment follows an existing informal natural surface trail to reduce impacts to existing vegetation. The staircase will help limit further erosion caused from informal access down the slope.

Public Engagement:

- » Results of the first two phases of engagement indicate that participants want improved connections to adjacent communities and parks.
- » In Phase 3, two options were presented for improved pedestrian connections to the north side of the park: a staircase off Ada Boulevard and a pedestrian bridge across Kinnaird Ravine. Out of these options, 46% preferred the staircase off Ada Boulevard, while 43% preferred the bridge. Those who preferred the Ada Boulevard staircase appreciated its lower costs and its perceived lower environmental impact.



Figure 35. Ada Boulevard Entrance - Perspective View from Ada Boulevard



Figure 36. Ada Boulevard Entrance - Plan View



28. Formalize and improve access under the Latta Bridge.

The proposed improvements to the existing informal Latta Bridge entrance will increase the safety and comfort of park visitors. The proposed entrance includes a new granular trail to improve the relative accessibility of the entrance under the Latta Bridge in combination with several small staircases that provide more direct access down the slope. The entrance will also include wayfinding signs, native tree planting, improved pathway connections into adjacent developments and potential enhancements to the bridge, such as lighting or public art, to create a more inviting space.

Elements of the proposed Latta Bridge entrance were designed to minimize the ecological impact to the sensitive slopes while preventing further erosion from informal use. Restoration with native trees and shrubs to stabilize soil and create additional native habitat should be completed as an integral component of the Latta Bridge entrance improvements.



Existing Informal Entrance Under Latta Bridge

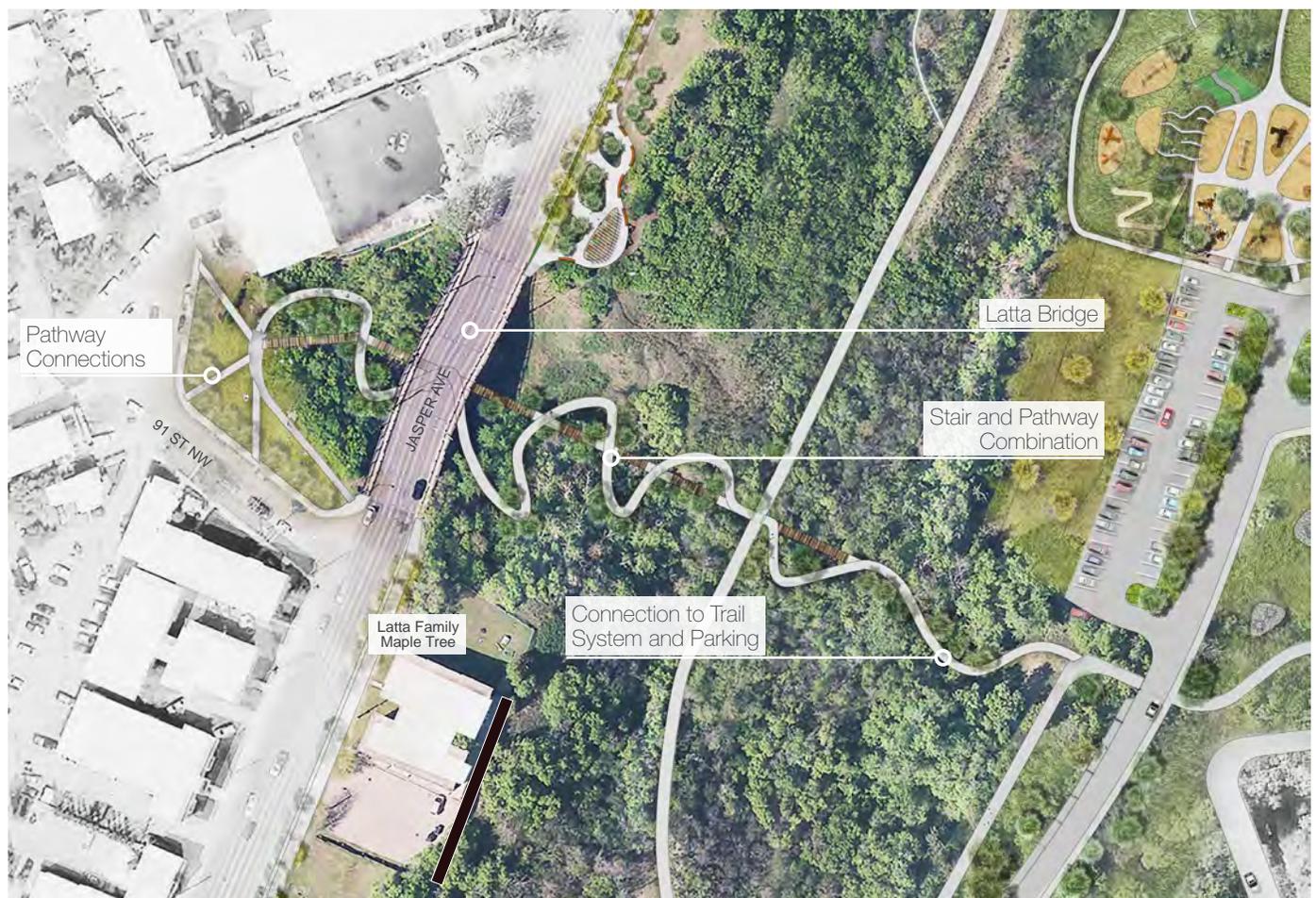


Figure 37. Latta Bridge Entrance - Plan View



Rationale:

The Latta Bridge entrance will create a new formal entrance to the park, connecting into the Boyle Street McCauley neighbourhood to support increased park use and access projected with future population growth.

Currently, the entrance under the Latta Bridge is a wide, informal natural trail. This trail is causing erosion and vegetation disturbance along the slope, uncovering buried debris and causing a safety hazard for visitors. Recommendations will increase the safety and sustainability of the park entrance in this location, repairing and restoring the degraded informal trail that currently exists.

The area under the Latta Bridge is an area of higher sensitivity. Intervention would prevent the continued deterioration of the slope from informal pedestrian access.

Public Engagement:

- » Public engagement indicated a desire to increase access into the park from Jasper Avenue.
- » In Phase 3, the public was presented with two options for improvement of the Latta Bridge park entrance. In Concept Option 1, the entrance was presented as a meandering natural surface trail. Concept Option 2 presented a staircase entrance. 70% of participants preferred the meandering trail option compared to 23% who preferred the staircase. The trail was perceived as more accessible and a lower cost option.
- » The decision to include a staircase at this entrance was made to accommodate the anticipated increase in use of the entrance point with future development in the Boyle Street McCauley neighbourhood, requiring the use of more durable surfaces and infrastructure.

29. Improve the park's connection to the larger active transportation network with a crossing over Kinnaird Ravine.

The improvements to pedestrian entrances described above help to integrate the park into the larger active transportation network. In addition to park entrance improvements, the concept plan includes a pedestrian crossing over Kinnaird Ravine, connecting existing and future residents of northern communities into the park.

The proposed crossing will consist of a new simple suspension bridge supported by anchors at 110 Avenue and Kinnaird Park. The bridge will have handrail and protective side barrier while allowing visitors to enjoy views into the ravine. Additional stabilizing cables may be required pending further studies. New wayfinding signs will direct visitors and create a visible gateway at both ends of the crossing.

Rationale:

The Kinnaird Ravine Pedestrian Crossing will provide a functional pedestrian connection into the park, serving as an important connector to the larger pedestrian and cyclist network, while minimizing impact to the ravine through the use of a suspension structure. It will improve pedestrian connections to Ada Boulevard, Concordia College, Borden Park, the future Exhibition Lands redevelopment and the downtown area, supporting existing and new residents by providing access to green space from established and developing communities to the north.

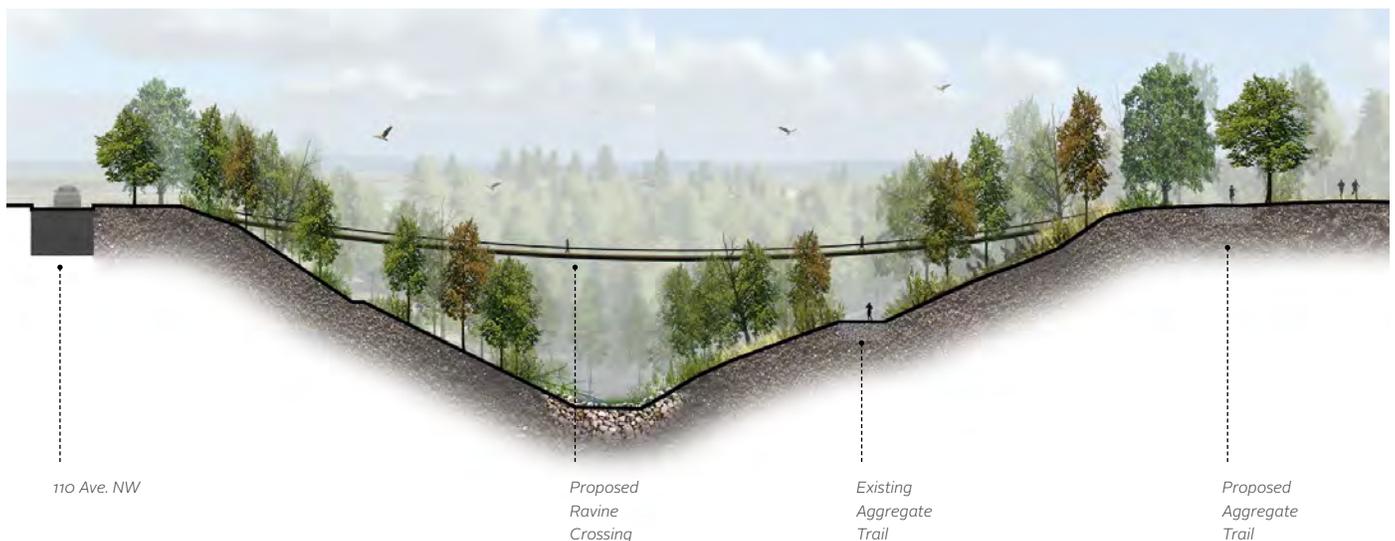


Figure 38. Illustrative Section of the Kinnaird Ravine Crossing

Public Engagement:

- » Options for improving access into the park from surrounding neighbourhoods were explored as a response to findings from public engagement.
- » The Kinnaird Ravine Pedestrian Crossing was presented in the third phase of engagement. Participants were asked which connection from northern communities they preferred: the Kinnaird Ravine Pedestrian Crossing or the staircase from Ada Boulevard. 46% of participants preferred the staircase off Ada Boulevard, while 43% who preferred the Kinnaird Ravine Pedestrian Crossing. Of those who preferred the staircase, some said that they were also interested in the potential of the Kinnaird Ravine Pedestrian Crossing.
- » In the final phase of engagement, the Kinnaird Ravine Pedestrian Crossing was presented in the preferred concept plan. Comments were received in favour and in opposition to the pedestrian crossing.
- » Those in support of the pedestrian crossing appreciated the connectivity into the park, increased access into the park and a new way to experience the ravine. Those in opposition were concerned about the cost of the project and impacts to adjacent neighbourhoods.

Additional Recommendations:

- » Parking access north of the park should be directed to the existing parking lots in Borden Park.
- » Due to the conceptual nature of the Kinnaird Ravine Crossing in the Master Plan, an additional Environmental Review (e.g. Environmental Impact Assessment) is recommended during future design phases.



Figure 39. Kinnaird Ravine Crossing - Plan View



30. Create a new trail connecting Kinnaird Ravine to LRT Stadium Station.

A trail connection to the LRT Stadium Station is proposed through Kinnaird Ravine to improve the pedestrian connection into Kinnaird Ravine for commuters and visitors from the larger region.

The proposed granular trail will be 3 metres wide and will be constructed to accommodate pedestrian, cyclist and vehicle traffic (up to and including a standard pick-up truck) to allow for use by city maintenance staff during park clean-ups.

The proposed trail alignment was chosen to minimize its impact to vegetation and the existing wetlands.

Rationale:

The proposed pathway will improve the pedestrian connection into Kinnaird Ravine for commuters and visitors from the larger region. By increasing pedestrian use of the area, there will be more eyes on activity in the ravine, helping to increase the feeling of safety in the area. The pathway will also help facilitate park clean-ups and maintenance in the western portion of the ravine.

Public Engagement:

- » The public and engaged stakeholders identified a need for a better connection through Kinnaird Ravine to the LRT Stadium Station to improve the regional accessibility of the park and to address safety concerns related to unwanted activity.
- » The trail was presented in both Concept Options in Phase 3 and received moderate support. Some participants expressed that they felt the trail would require too much hardscape.
- » The proposed trail was also presented internally to city staff and outreach workers. The trail was supported to better access this area for maintenance and outreach activities.



Existing View of the 82 Street Bridge from Kinnaird Ravine South of the Legion Facing East

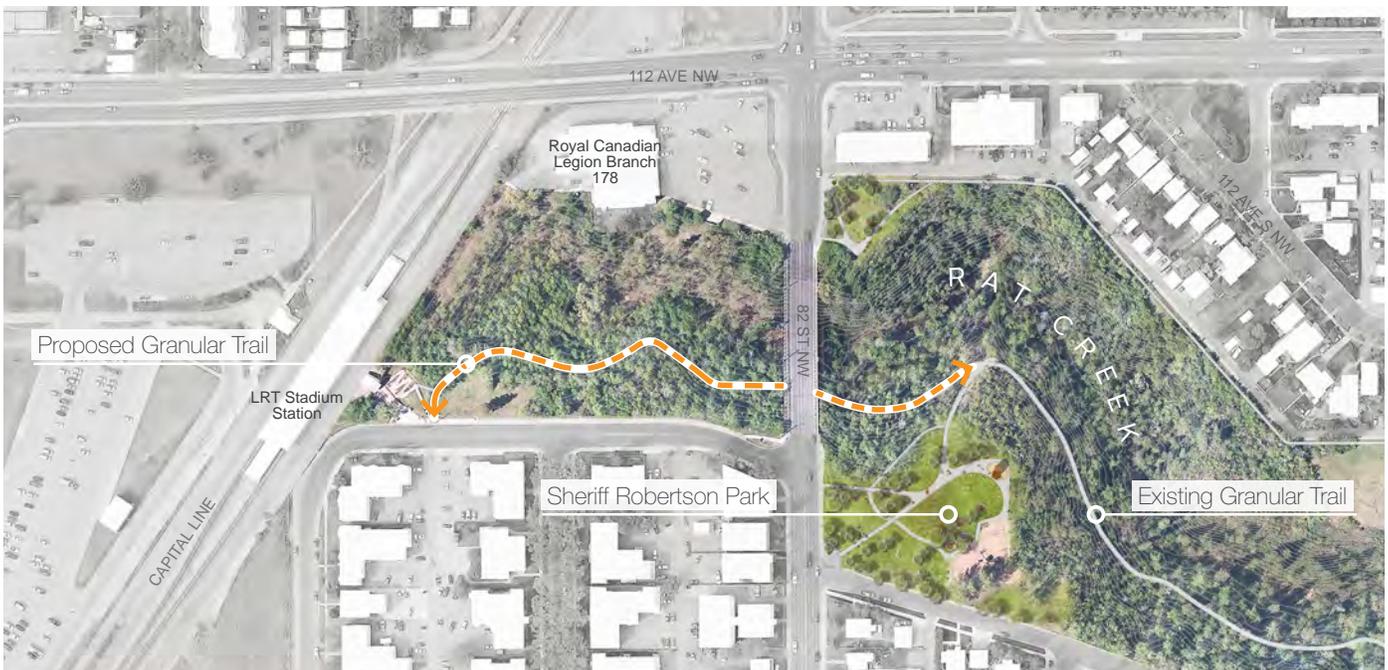


Figure 40. Trail Connection to LRT Stadium Station - Plan View



31. Improve the pedestrian experience along Jasper Avenue.

Although outside of the plan boundary, the Dawson Park and Kinnaird Ravine Master Plan recommends the City explore funding for streetscape improvements along the south edge of Jasper Avenue from 92 Street to Kinnaird Park.

These improvements will include the installation of three formalized lookouts between 84 Street and 91 Street, a top-of-bank gathering area near 82 Street, and a pedestrian crosswalk at 84 Street with a formalized gateway entrance to the park. The sidewalk will be widened with the introduction of a vegetated buffer between the road and the pedestrian space. The top-of-bank improvements will also include the installation of a trail connecting to the Jasper Avenue sidewalk at 82 Street, where the sidewalk currently terminates. This trail will lead to Kinnaird Park to the east.

Recommendations for improvements include River Valley wayfinding signs at each existing and proposed park entrance, complemented by native planting and site furniture to reflect the natural character of the park. The decommissioning of the existing off-leash area along Jasper Avenue between 91 Street and 82 Street will be required to facilitate these improvements (see Recommendation 18 for more detail on off-leash dog use).

Gathering areas, lookouts, crosswalks and trail connections proposed as part of the Master Plan will integrate with future streetscape improvements to create a comfortable and enjoyable pedestrian experience along Jasper Avenue.

Rationale:

Locations for gathering spaces and lookouts along Jasper Avenue were chosen to take advantage of existing pedestrian connections in the urban street network and existing views into the River Valley. Through the Master Plan, the City aims to influence potential future development along Jasper Avenue to provide connections and gateways into the park at locations that limit disturbance to native vegetation, discourage the use of informal natural paths and avoid environmentally sensitive areas. Promoting pedestrian traffic along Jasper Avenue also increases eyes on the park, potentially contributing to an increased feeling of safety.

Public Engagement:

- » In the first two phases of engagement, the public expressed a desire for connections into the park from Jasper Avenue.
- » Two options for potential park entrance improvements were presented in Phase 3. Concept Option 1 included select entrances enhanced with signage and trails. Concept Option 2 included larger and more defined entrances. The majority (64%) of participants preferred the more minimal option presented in Concept 1.
- » Most entrance improvements recommended in the Master Plan include modest improvements, such as signage and seating. However, to ensure park entrances along Jasper Avenue remain visible and connected into the urban pedestrian and vehicular network at the top-of-bank, their scale and design should be consistent with future streetscape improvements.

Additional Recommendations:

- » The Latta Bridge (named in honour of David Gilliland Latta, 1897-1948) and the Latta Family Maple Tree (a Heritage Tree planted by Latta on his property in 1906) should be protected. (Jenkins, 2017)
- » The City should explore opportunities to integrate heritage interpretation into the design of the gathering spaces, streetscape improvements or interpretive signage along Jasper Avenue.



Example of a Primary Pedestrian Trail Head along Jasper Avenue



Figure 41. Proposed Improvements along Jasper Avenue - Plan View



Trails

Trails in Dawson Park and Kinnaird Ravine are shared by all park users. Each trail type (paved, granular and natural) provides varying levels of difficulty and different opportunities for active transportation and recreation.

32. Mitigate conflicts between trail users.

The Master Plan recommends several approaches to mitigating trail user conflict in Dawson Park and Kinnaird Ravine:

- » The City should support public education efforts and the promotion of safe cycling practices through community partner groups.
- » Interactions between cyclists, dogs and pedestrians should be monitored periodically, at least during the initial phases of Master Plan implementation (see Recommendation 59).
- » Physical improvements should be implemented through the Master Plan to support the safe use of the trails. The following improvements are recommended:
 - » Multi-use trails should be paved with centre lines to separate users travelling in opposite directions.
 - » White stop bars should be placed adjacent to any stop signs.
 - » Cyclists should be signalled to slow down near intersections of more than two trails. Coloured paving and/or rumble strips will help to emphasize the need to slow down.

Rationale:

The recommendations provided above are intended to help direct and slow traffic on trails, especially in potentially high-conflict areas such as complex trail intersections.

Public Engagement:

- » Throughout the public engagement process, participants voiced concerns around conflict on trails – especially between cyclists, pedestrians and dogs.

33. Create an integrated natural trail network in the park.

The natural trail network in Dawson Park and Kinnaird Ravine is a valued park amenity, allowing visitors to get closer to nature in the River Valley slopes. Natural surface trails may be used for walking, hiking, and cycling in all seasons and snowshoeing in the winter. The Master Plan includes recommendations for the maintenance of the natural trail network in anticipation of a future City of Edmonton natural trail management strategy to aid in the planning, design and management of natural surface trails.

The concept plan includes several changes to the existing natural trail network in the park, including:

- » A new natural trail alignment south of Kinnaird Park and the Cromdale neighbourhood. This new trail is intended to provide a missing link in the existing network. The trail alignment was informed by existing site conditions, environmental sensitivities, park use patterns and public feedback.
- » The transition of select granular trails to natural surface trails in the River Valley slopes to create a more integrated natural trail system.
- » Trail closures on natural surface trails deemed to be unsustainable due to poor design or improper use. Many of the trails recommended for closure are causing excessive erosion on sparsely vegetated slopes and the hoodoos.

Rationale:

The proposed concept plan incorporates a natural trail in the River Valley slopes of Dawson Park. It is a shorter trail segment than the one presented during public engagement in an effort to limit disturbance to the sensitive slopes. Instead of creating a new trail alignment west of 78 Street, an existing worn granular trail will be converted to a natural surface trail. The location for the new natural trail section was selected after a thorough review of the existing topographical and natural features in the park.

Public Engagement:

- » In Phases 1 and 2, natural trails were one of most popular existing elements in the park. Participants noted that the natural trail network is appreciated and well-used.
- » In Phase 3, two new natural trail alignments were proposed as part of two separate Concept Options for the park. In Concept Option 1, a new trail was proposed in the River Valley slopes. In Concept Option 2, a new natural trail was proposed in Kinnaird Ravine. Of those who participated, 48% preferred the trail in the River Valley slopes, while only 33% preferred the trail in Kinnaird Ravine. Other participants preferred neither option as they want to limit development in the park.

Additional Recommendations:

- » The City should use partnerships, public education and wayfinding signage as tools to prevent the creation of new natural trails in the sensitive River Valley slopes.
- » The City may monitor existing and future natural trails in the park for damage and erosion. Figure 43 outlines points on existing natural surface trails that the City may wish to assess (and repair, if necessary) for erosion or trail failure based on a desktop slope assessment.
- » Detailed design of the new natural trail will occur in later phases. The City may seek partnerships for the creation and maintenance of the trail.

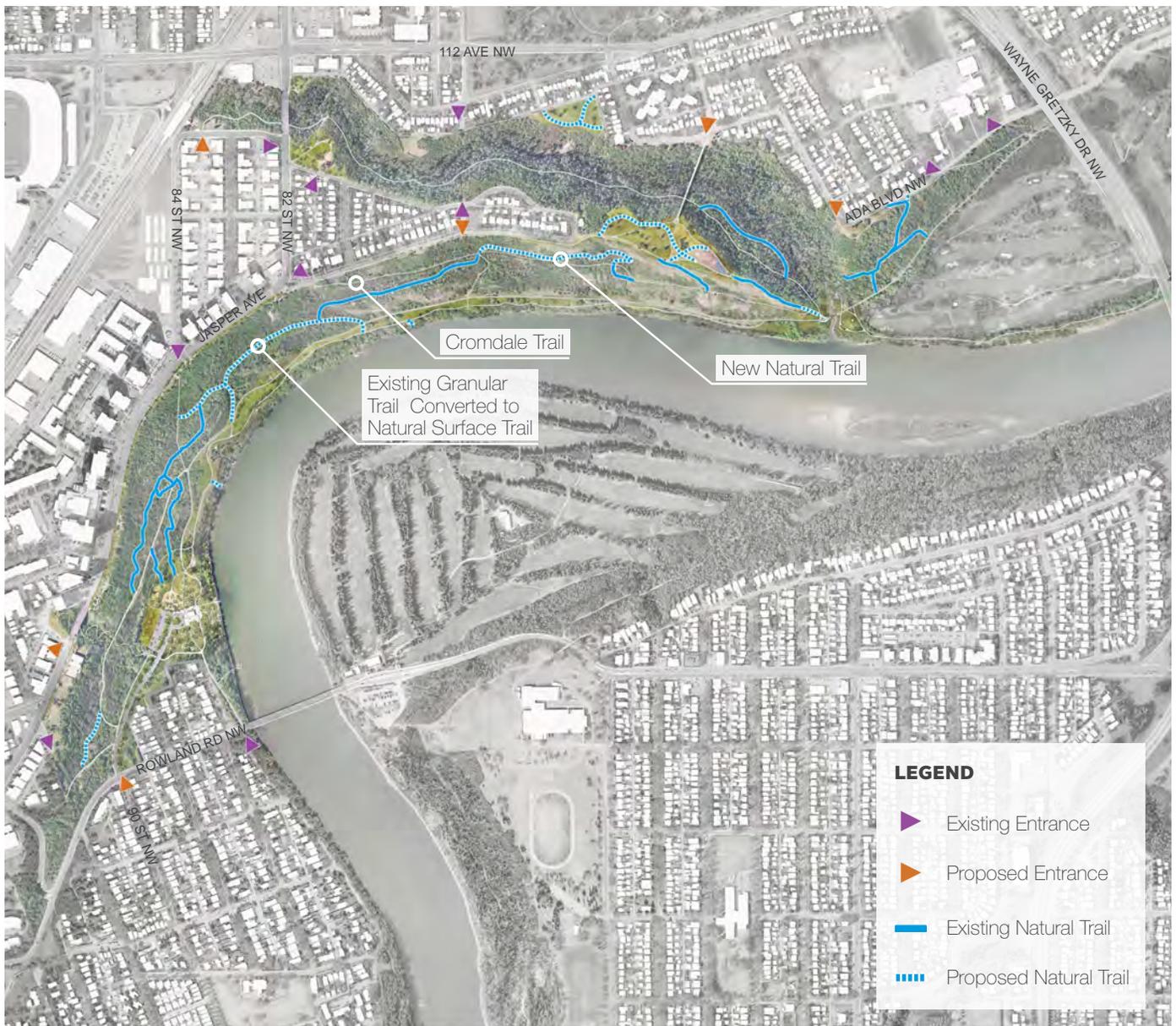


Figure 42. Proposed Natural Trail Network



34. Maintain and promote the interpretive use of the Braille Trail.

The Braille Trail is maintained in the concept plan, realigned in select locations north of the Main Activity Node and terminating near Rat Creek. The interpretive braille plinths will be maintained along the trail. If construction activity is necessary where the plinths are located, they should be protected or relocated. It is anticipated that one of the plinths will likely need to be relocated due to construction activity around the daylighting of Rat Creek. See Figure 49.

The City should promote the use of the Braille Trail and interpretive features in Dawson Park to the public and specific user groups through their Accessibility network.

Rationale:

The Braille Trail and associated braille plinths represent a part of the legacy of the Capital City Recreation Park (CCRP) Concept Plan (1975). The Braille Trail will continue to serve as a reminder to prioritize opportunities for all people to access and appreciate nature. The trail is a unique feature in Edmonton's River Valley and connects with other accessibility improvements recommended in the Master Plan, including amenity building, wayfinding and trail improvements.

Public Engagement:

- » Participants in the engagement process stated that the trails in the park (particularly the Braille Trail and the paved multi-use trail) are well used for walking, dog walking and cycling.
- » The City engaged community partners through an online survey to gauge the level of use and interest in the Braille Trail and other park features. The results from the survey indicate that those who use the trail appreciate the access to nature it provides. Some indicated that they find accessing and using the trail to be a challenge because of physical accessibility challenges and the distance to the trail, while others were not familiar with Dawson Park or the Braille Trail. This feedback indicates easier access to park amenities is required, and accessible features should be promoted to key stakeholders.



The Braille Trail (right) provides a different trail experience and some separation from the paved multi-use trail

35. Increase the accessibility of trails and wayfinding in the park.

Trails in Dawson Park and Kinnaird Ravine provide a connection to nature for all visitors to enjoy with their friends, families and animal companions. The accessibility of trails throughout the park was considered throughout the design process, each trail providing a different experience with varying degrees of difficulty.

Many trails and pathways in the park have an incline of less than 10%, making them relatively accessible with lower levels of difficulty. For those visitors seeking an experience with the lowest level of difficulty, the multi-use trail and Braille Trail (both connected to the parking lot) provide several options for loops of varying distances.

Portions of existing trails have slopes greater than 5%, 10% or 15% over longer stretches, increasing their relative difficulty. Landings are recommended on steeper portions of the multi-use and Braille Trails to increase the accessibility north of the main amenity node.

At trail intersections, indications of trail length and slope should be indicated to help visitors choose trails providing their desired level of difficulty. Figure 43 outlines the proposed trail network in the park, including the varying levels of difficulty of each trail and recommendations for rest areas.

Later design phases and implementation should ensure that trails and open spaces adhere to recommendations and guidelines in the City of Edmonton's Access Design Guide (2017).

Rationale:

Recommendations are intended to follow direction from previous park planning in the area (e.g. the CCRP Concept Plan), integrate current best practices and encourage access to the River Valley for visitors with varying needs and abilities.

Public Engagement:

- » Increasing the accessibility of park entrances and trails was heard throughout engagement.

Wayfinding & Signage

The signage plan (Figure 44) for Dawson Park and Kinnaird Ravine helps to regulate park use, improves wayfinding throughout the park and integrates site interpretation elements.

36. Improve wayfinding and signage to help users move through the park comfortably and confidently.

The proposed signage aligns with the River Valley wayfinding guidelines and incorporates recommendations from the Pedestrian Wayfinding Design Standard along the top of bank. The Master Plan recommends the following sign types:

→ **Wayfinding Signs**

Signage should indicate the accessibility of features in the park as well as distances between features and park entrances. Providing information on amenities, resting points, park exits, trail distances and inclines will help visitors plan their route through the park according to their own comfort level. The introduction of trail markers along all trails, including the natural trail network, improves visitors' ability to locate themselves in the park. Trail markers are recommended at intervals of 250 metres and at trail intersections.

→ **Regulatory Signs**

Regulatory signs provide usage and safety guidelines for park amenities, including:

- » River access
- » Playgrounds
- » Picnic area
- » Parking lot
- » Off-leash trails and areas
- » Trail use (off-leash use, cycling speed, trail closures)
- » Natural features and restoration areas to be protected

More recommendations on regulatory signs are presented in the Safety & Maintenance section of the report.

Rationale:

Clear wayfinding and regulatory signs help to improve accessibility, mitigate user conflict and increase the feeling of safety in the park.

Public Engagement:

- » Throughout the public engagement process, participants voiced concerns around conflict on trails and the desire for improved wayfinding in the park.

37. Install a series of historical and ecological interpretive signs to tell a story through the park.

Interpretive signs contribute to the visitor experience in the park by providing information on the park's history and ecological features. With a greater knowledge of the park and its ecological systems, visitors may have a greater appreciation for the park's natural features, contributing to greater stewardship and enjoyment in the park. Specific opportunities for interpretive features are listed in the Identity & Experience section later in the report.

Rationale:

Interpretive signs inform park visitors about the natural processes and cultural heritage of the site. Educating visitors on the ecological and cultural significance of the park may increase visitor stewardship and a sense of ownership.

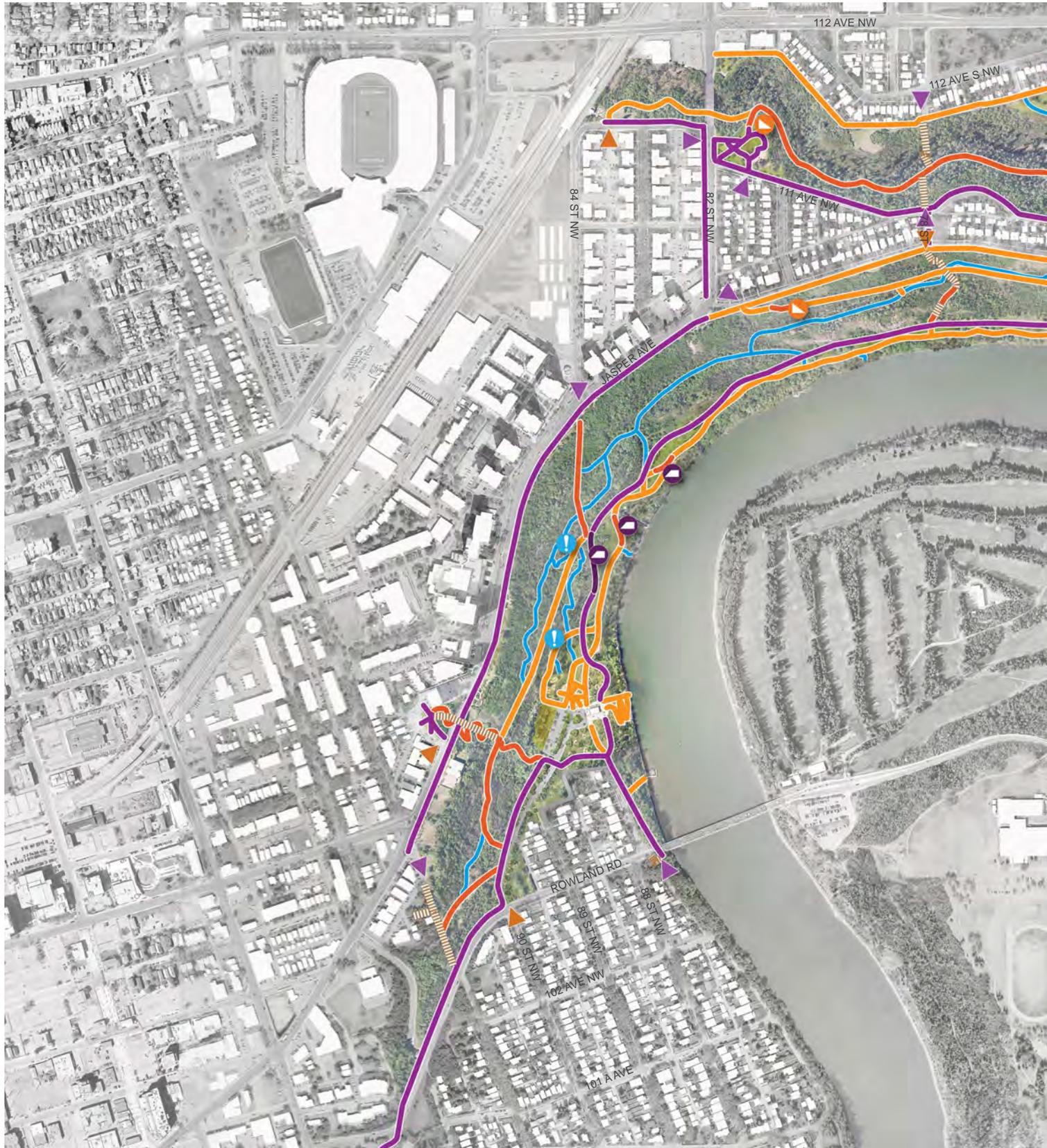
Public Engagement:

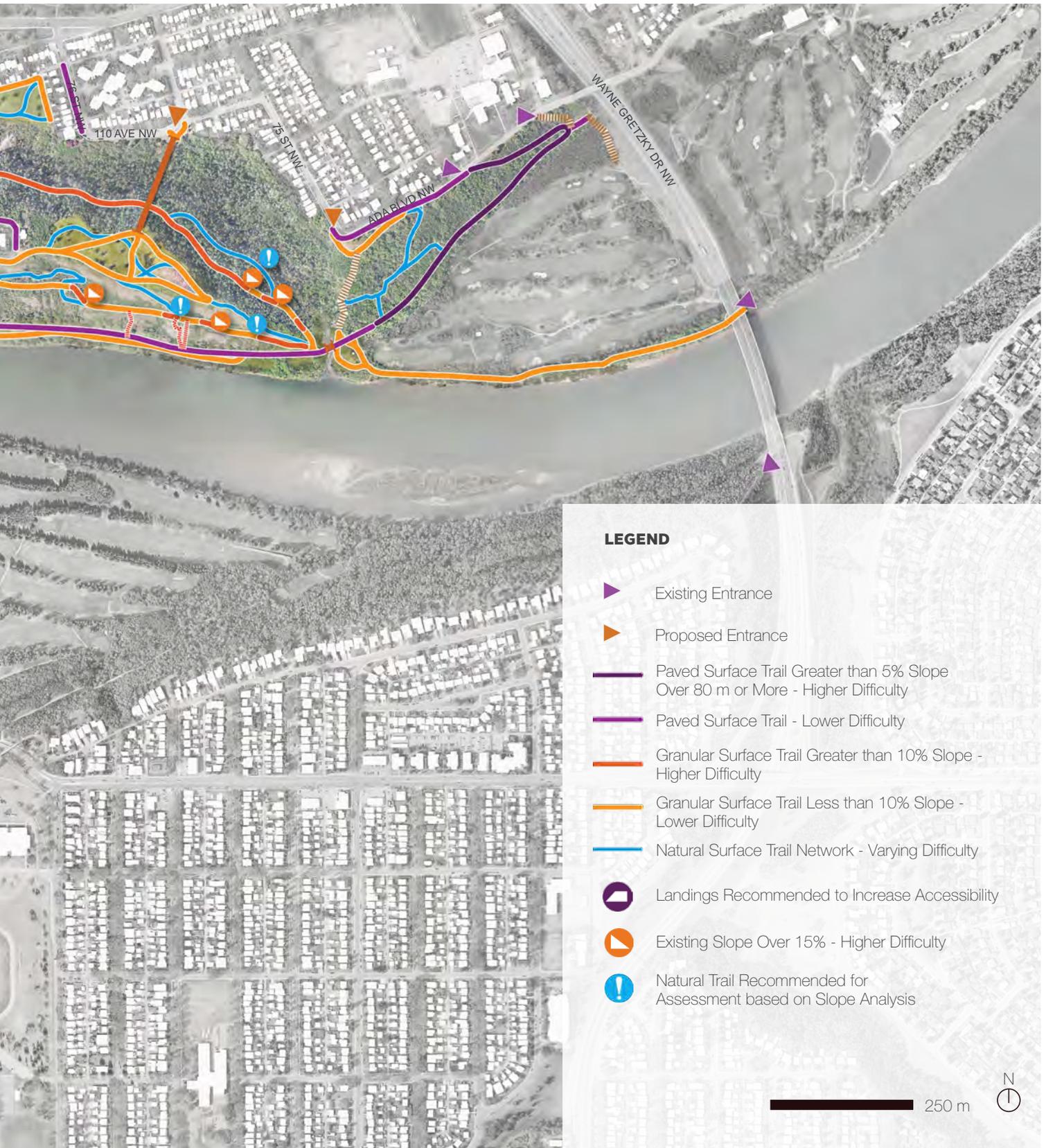
- » During the first phase of engagement, participants stated that they would like to see historical and ecological interpretation in the park.
- » Throughout the engagement process, stakeholders shared historical maps and anecdotes about the history of the park.

Additional Recommendations:

- » The City may wish to involve interested community members and stakeholders in the development of the interpretive signs. See Recommendation 63.

Figure 43. Trail Assessment and Difficulty for Proposed Trail Network





LEGEND

-  Existing Entrance
-  Proposed Entrance
-  Paved Surface Trail Greater than 5% Slope Over 80 m or More - Higher Difficulty
-  Paved Surface Trail - Lower Difficulty
-  Granular Surface Trail Greater than 10% Slope - Higher Difficulty
-  Granular Surface Trail Less than 10% Slope - Lower Difficulty
-  Natural Surface Trail Network - Varying Difficulty
-  Landings Recommended to Increase Accessibility
-  Existing Slope Over 15% - Higher Difficulty
-  Natural Trail Recommended for Assessment based on Slope Analysis



Figure 44. Proposed Wayfinding and Signage Plan





LEGEND

-  Existing Entrance
-  Proposed Entrance
-  Main Park Identification
-  Primary Pedestrian Trail Head - Top of Bank
-  Secondary Pedestrian Trail Head - Top of Bank
-  Secondary Pedestrian Trail Head - River Valley
-  Wayfinding (System Components - Pathways + Trails)
-  Information and Regulatory Sign
-  Interpretive Signs
-  Trail Markers for Aggregate/Paved Surface Trails
-  Trail Markers for Natural Surface Trails



Nature & Ecology

The concept plan for Dawson Park and Kinnaird Ravine balances the protection of environmentally sensitive areas with recreational use. The findings from the *Environmental Sensitivities Report (2017)* played a large role in the approach to the protection of natural features, opportunities for restoration and limits on park use.

Feedback received from the public and stakeholders on the management of natural features in the park is summarized below:

→ Public & Stakeholder Feedback

- » Desire to restore disturbed areas
- » Want to see limited clearing and disturbance to existing vegetation
- » Want to see limited disturbance to existing habitat

→ Internal Stakeholder Feedback

- » Support the re-naturalization of disturbed areas
- » Support efforts to reduce fire hazards in the park
- » Support minimal clearing and pruning

The following recommendations adhere to the policy framework (federal, provincial and municipal) for the management of natural areas. They are based on an understanding of environmental sensitivities in the park, and respond to public feedback and City priorities. Additional rationale and public engagement feedback is provided for select recommendations (e.g. those requiring capital expenditures, changes to park programming or coordination with other projects).

Geology, Geomorphology and Soils

38. Mitigate erosion on steep River Valley slopes.

The steep slopes in Dawson Park and Kinnaird Ravine show evidence of previous landslides, tilting trees, erosion channels and four abandoned coal mines within the park boundaries. There is also evidence of significant slope erosion and sluffing throughout the park.

Sparsely vegetated slopes, informal natural paths and informal trails designated to be restored should be planted with native vegetation to improve soil stability. Soil bioengineering solutions may also be implemented to help achieve revegetation over the long term. Appropriate signage and physical barriers (fencing or brush) should be installed on all decommissioned informal trails until vegetation is well established.

Construction of specific elements, including top-of-bank entrances, the Kinnaird Ravine crossing and proposed new staircases may require construction equipment access and foundation works, potentially causing surface disturbance on the slopes. Further geotechnical assessment for features potentially impacting slope stability in the park will be required in future stages of design and implementation.

39. Protect the hoodoos.

The hoodoos showcase the Horseshoe Canyon Formation sandstone, an important geologic feature in the park. The hoodoos should be preserved with limited human intervention, allowing natural erosional processes to occur. Human access to the hoodoos should be dissuaded through the use of natural or constructed barriers, signage and public education. Additional wooden fencing at the base of the hoodoos should be installed if required to prevent erosional material from washing onto the trails.

40. Monitor erosion throughout the park.

During all construction related to the implementation of the Master Plan, sediment and erosion control and monitoring measures should be implemented, particularly around environmentally sensitive areas such as steep slopes, riverbanks, watercourses, wetlands and rare plants.

The City should monitor erosion in the park over the long-term to recognize hazardous trail conditions and to monitor for the exposure of buried items with traditional or archaeological significance.

41. Remediate soil or groundwater contamination from previous land uses.

Any known or potential contamination should be addressed as and mediated where required.

Surface Water and Groundwater

42. Restore river bank vegetation and discourage informal access to the river.

The river edge is densely vegetated, predominantly with poplar trees and a variety of shrub species. This vegetation aids in slope stabilization, but bank erosion is still evident along the shoreline of the park. Areas along the river edge showing signs of erosion due to low vegetation cover or human disturbance should be planted with native tree and shrub species to prevent further erosion and improve riparian habitat, providing shade, cover, spawning and feeding habitat (Fitch and Abrose 2003). Informal access to the river should be discouraged to minimize bank erosion. The two proposed river access points will help to direct traffic down to the river and minimize vegetation disturbance in other areas.

43. Use Low Impact Development (LID) techniques for surface drainage.

Some elements proposed in the Master Plan have the potential to result in changes to surface drainage patterns, particularly around the parking lot and amenity building. Low impact development (LID) techniques are recommended in combination with sub-surface stormwater piping to manage stormwater near the Main Activity Node. The quality of water entering the North Saskatchewan River through Rat Creek, overland flow or infiltration should be monitored regularly by the City.

44. Ensure proposed amenities are designed for flooding.

Further geotechnical analysis is required for elements of the Master Plan to be constructed within the 1:100 year flood line. These elements include the boat dock and launch, the granular pathway leading to the boat launch, formalized river access points in Dawson Park, the river lookout, pathways and seating adjacent to the restoration at Rat Creek and the granular trail along the sandy shoreline east of Rat Creek. Construction, implementation and maintenance of these features should take into account the potential for flooding.

Wetlands

Three wetlands were identified in Kinnaird Ravine and are associated with riparian components adjacent to Rat Creek. No disturbance to wetland habitat is proposed as part of the Master Plan.

45. Protect existing wetlands in Kinnaird Ravine.

Public education efforts and interpretive signs will inform the public of the importance of the wetland habitats, dissuading unwanted access into these sensitive areas.

Fish and Fish Habitat

Although Rat Creek, in its current state, is unlikely to provide suitable habitat for most fish species, the creek does support forage species that in turn support fish populations in the North Saskatchewan River. In addition, the creek is hydrologically connected to three wetland areas with high habitat value.

46. Restore and daylight the mouth of Rat Creek.

Restoration of Rat Creek will involve the removal of the existing culvert, daylighting (or uncovering) the creek where it meets the North Saskatchewan River. Daylighting Rat Creek will involve re-grading and restoring riparian vegetation at the mouth of the creek. The restored area will create a back flow of water from the river and a shallow stream bed with rocks and riparian planting. Planting and landscaping should be appropriate for an intermittent stream and will be determined during a detailed design phase.

A pedestrian footbridge will cross the shallow stream bed, connecting the multi-use trail on either side of the creek. The bridge will be constructed of natural materials where possible and will blend with the natural character of the restored area. The bridge will also be wide enough to allow users to pass each other and to pause to view the creek without conflict.

New trails and pathway connections will help to define gathering and viewing areas near Rat Creek. Because many trails converge in this location, they will require clear, informative wayfinding signs.

Additional elements proposed as part of the restoration project include:

- » Restoration of fish spawning habitat in the river near Rat Creek where deeper water levels will provide the necessary conditions for spawning.
- » A leash-up zone that is well-signed on all trails entering the restored area. See Recommendation 19.
- » Interpretive signs, located near the restored area, provide information on riparian habitat and the restoration process. This information helps inform visitors of why they should leash-up their dogs as they approach Rat Creek.

Rationale:

Currently, the manicured park area near the Rat Creek culvert is an area of low environmental sensitivity - meaning that this area, which has a history of human disturbance, can experience a great benefit from restoration. The daylighting of Rat Creek will enhance aquatic and terrestrial habitat and increase environmental education opportunities. Restoration activity in Rat Creek will have two objectives: improving spawning habitat in the deeper river water near the river edge with strategic river rock placement and improving wildlife connectivity in a constructed back flow further upstream in the creek.

Public Engagement:

- » In the first two phases of engagement, participants voiced that keeping the park natural was very important. Participants valued the natural character of the park and saw opportunities for ecological restoration. Participants also said they want to have an increased connection to the river.
- » Two options for daylighting Rat Creek were presented in the third phase of engagement. In Concept Option 1, daylighting took a naturalized approach with limited hardscaping. In Concept Option 2, a more formalized, terraced option was presented. The engagement revealed a somewhat equal split – 48% preferred the naturalized approach while 42% preferred the more terraced option.
- » The more naturalized approach was included in the proposed concept plan to provide greater opportunities for nature education and observation.

Additional Recommendations:

- » The bed and shore of Rat Creek are owned by the Crown; additional consultation and approvals may be required from provincial and federal authorities including Alberta Environment and Parks and the Department of Fisheries and Oceans Canada.
- » The existing Lake Sturgeon spawning habitat (constructed in 2005) should be delineated and maintained as much as possible during any restoration or construction activity.
- » Any known or potential contamination or buried garbage should be managed or removed as required. This may be informed by future environmental assessments.
- » Effects of the restoration on the creek and river habitats should be monitored after completion.
- » The proposed gathering area and structure should maintain open sight lines, ensuring there are no closed off spaces.



Figure 45. Rat Creek Restoration - Plan View

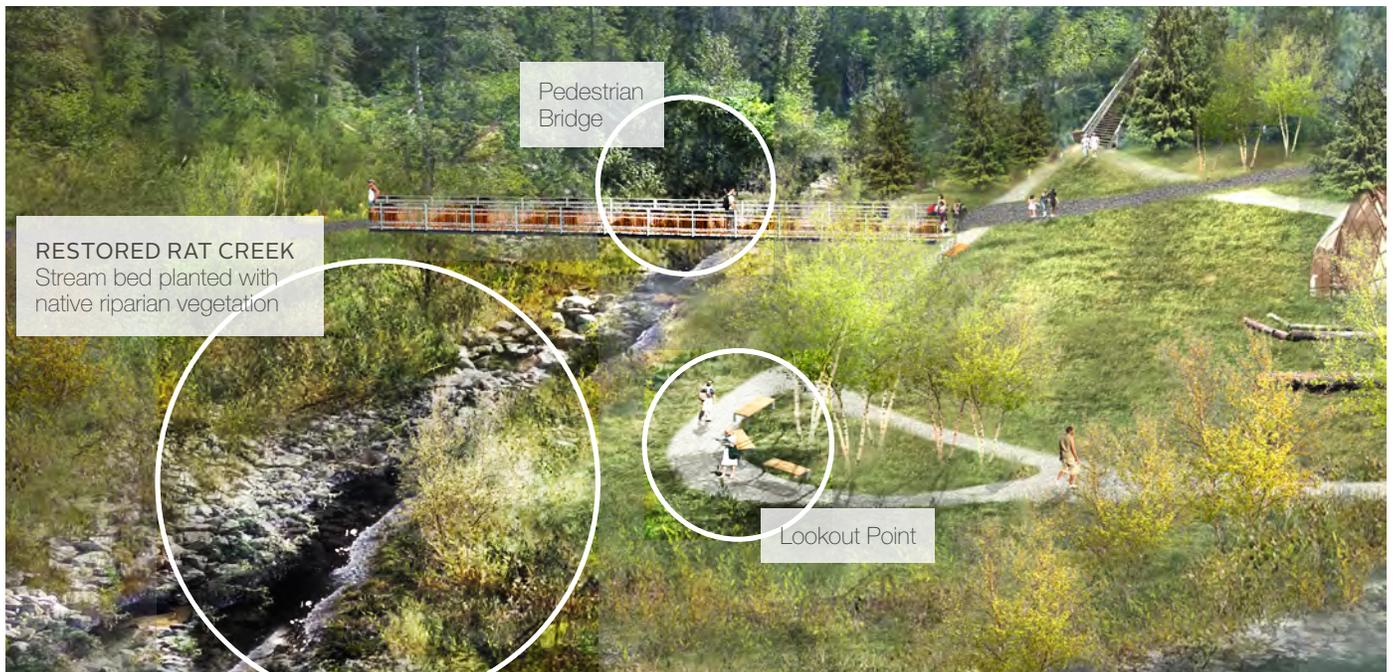


Figure 46. Rat Creek Restoration - Perspective View

47. Explore opportunities to increase creek flow in Rat Creek.

The Master Plan recommends that the City explore opportunities, particularly as part of future re-development to the areas adjacent to Kinnaird Ravine, to direct stormwater into Rat Creek in order to restore creek flow. Increased creek flow could increase habitat potential for fish and other aquatic species, which would complement the daylighting of Rat Creek.

Stormwater entering Rat Creek should be treated using low-impact development (LID) techniques, such as bioswales and infiltration ponds in surrounding communities. In the long term, this process may help to increase the quantity and improve the quality of water entering the North Saskatchewan River from Rat Creek and the surrounding communities. If stormwater re-direction is explored, the City should consider factors that may require mitigation measures, including stream bank erosion, flooding and water quality, among others.

Rationale:

Restoration of the natural connection between the creek and the river, as well as increasing water levels in the creek through careful management of runoff and other water inputs from surrounding areas, has the potential to create additional habitat that may support additional fish species in the creek. The restoration of a healthy creek ecosystem is beneficial to fish species that use the creek to carry out their life cycles, as well as to other fish and wildlife species in the larger North Saskatchewan River ecosystem as a whole. Fish and wildlife species inhabiting the river, including lake Sturgeon, benefit from increased nutrient inputs and forage species provided to the North Saskatchewan River through the creation of additional creek habitat.

Public Engagement:

- » Public feedback was not requested on the above recommendations.

Additional Recommendations:

- » Should the City pursue changes to stormwater management in adjacent and nearby developing communities, it is recommended that the public and appropriate stakeholders be consulted.

Vegetation

48. Maintain existing vegetation communities.

Management recommendations are made for each existing vegetation community in Dawson Park and Kinnaird Ravine.

Within the mixedwood forest community, vegetation cover should be maintained and enhanced with additional planting in areas with a thinned canopy cover as well as on informal, eroding trails. Dead wood should be cleared along trails and in areas of the mixedwood forest community with higher activity, including informal camping, to help reduce fire risk. Regular pruning should occur adjacent to staircases to maintain sight lines, at formal lookout points and along the proposed granular trail east of the Main Amenity Node (see Figure 47). Rare plants located in this vegetation community should be mapped and protected from disturbance.

Kinnaird Ravine should be maintained as a natural ecological corridor with activity and access limited to the existing granular trail. The ravine will become a resource for nature interpretation. The wetlands (described earlier) will be protected from disturbance.

Native shrubs and grasses should be maintained within the park. The shrub community contains non-native species, such as caragana, which may be removed in stages using a species conversion program if the City prioritizes the removal of invasive species in the River Valley in the future. Pruning should occur along staircases to maintain sight lines and at formal lookout points.

Native vegetation in the riparian community should be maintained. Informal access points along the river edge that contribute to bank erosion should be closed and restored with native trees and shrubs. Planting should contribute to shade and fish habitat along the river edge. Invasive species along the river edge may be removed through a species conversion program or as part of restoration efforts.

While the Master Plan recommends restoration in many areas (outlined in Recommendation 53), manicured vegetation communities still serve an important purpose in the park. Manicured areas occur mostly around the larger park facilities and amenities. Manicured areas will be maintained to include more native plants where possible. Plant species should be chosen to reflect the natural character of the park. No trees

should be planted within 10 metres of park structures and shrub planting should be minimized in this zone to minimize the risk of fire.

Sparsely vegetated communities on the River Valley slopes should be revegetated where there are signs of slumping and erosion, with the exception of the hoodoo formations. Soil bioengineering solutions may also be used where appropriate.

49. Limit vegetation disturbance during design and implementation.

Disturbance to existing vegetation should be avoided when possible. The majority of physical infrastructure improvements contained in the Dawson Park and Kinnaird Ravine Master Plan will be largely situated within the footprint of existing infrastructure in areas dominated by manicured turf or other soft landscaping.

The realignment of the main vehicular access road presents the potential to disturb some naturally vegetated areas of the mixedwood forest community and some removal of vegetation is anticipated to occur in support of top-of-bank entrances (Jasper Avenue and Latta Bridge), the Stadium Station LRT trail connection and the Ada Boulevard trail and staircase.

Impacts to existing vegetation should be minimized or avoided. Any temporary disturbance to manicured, planted vegetation and naturally vegetated areas should be reclaimed through re-vegetation with native seed mixes and plantings approved by the City of Edmonton. All damaged and removed trees will be replaced pursuant to the Corporate Tree Management Policy.

50. Protect rare plants.

Two rare plant species - smooth sweet cicely and poison ivy - were found in scattered populations throughout Dawson Park and Kinnaird Ravine. While major components of the Master Plan remain outside of these known population concentrations, they should be mapped and included in an inventory of rare plants to be maintained by the City of Edmonton. The Master Plan recommends that detailed information be collected on invasive species, weeds and sensitive plant species in the park, utilizing resources from community groups and potentially partnering with university research teams to maintain the inventory.

The disturbance of rare plants should be avoided as much as possible. Rare plants should be transplanted to a suitable location in the River Valley only if their disturbance can not be avoided by construction activity.

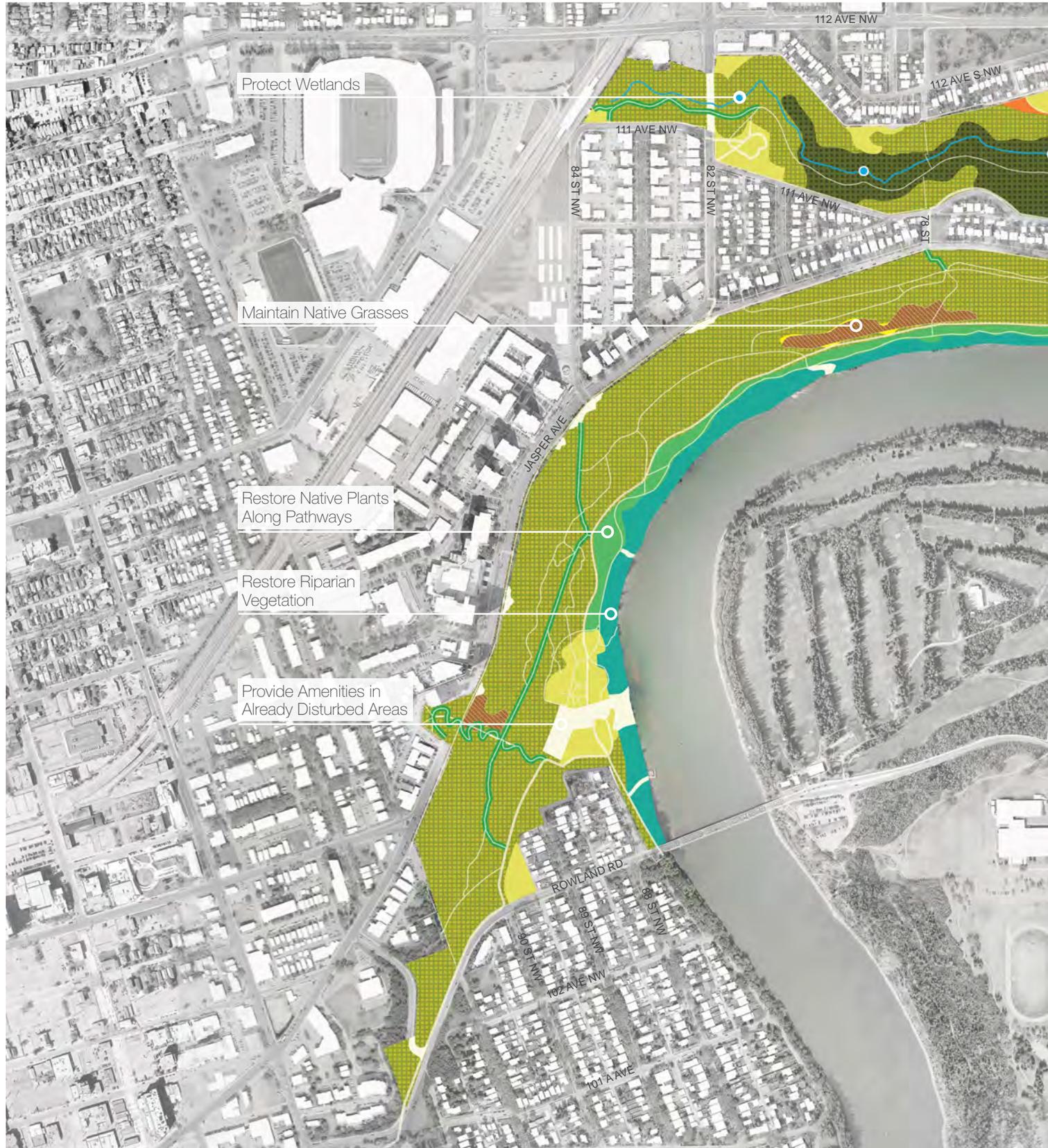
51. Manage invasive plants and noxious or prohibited weeds.

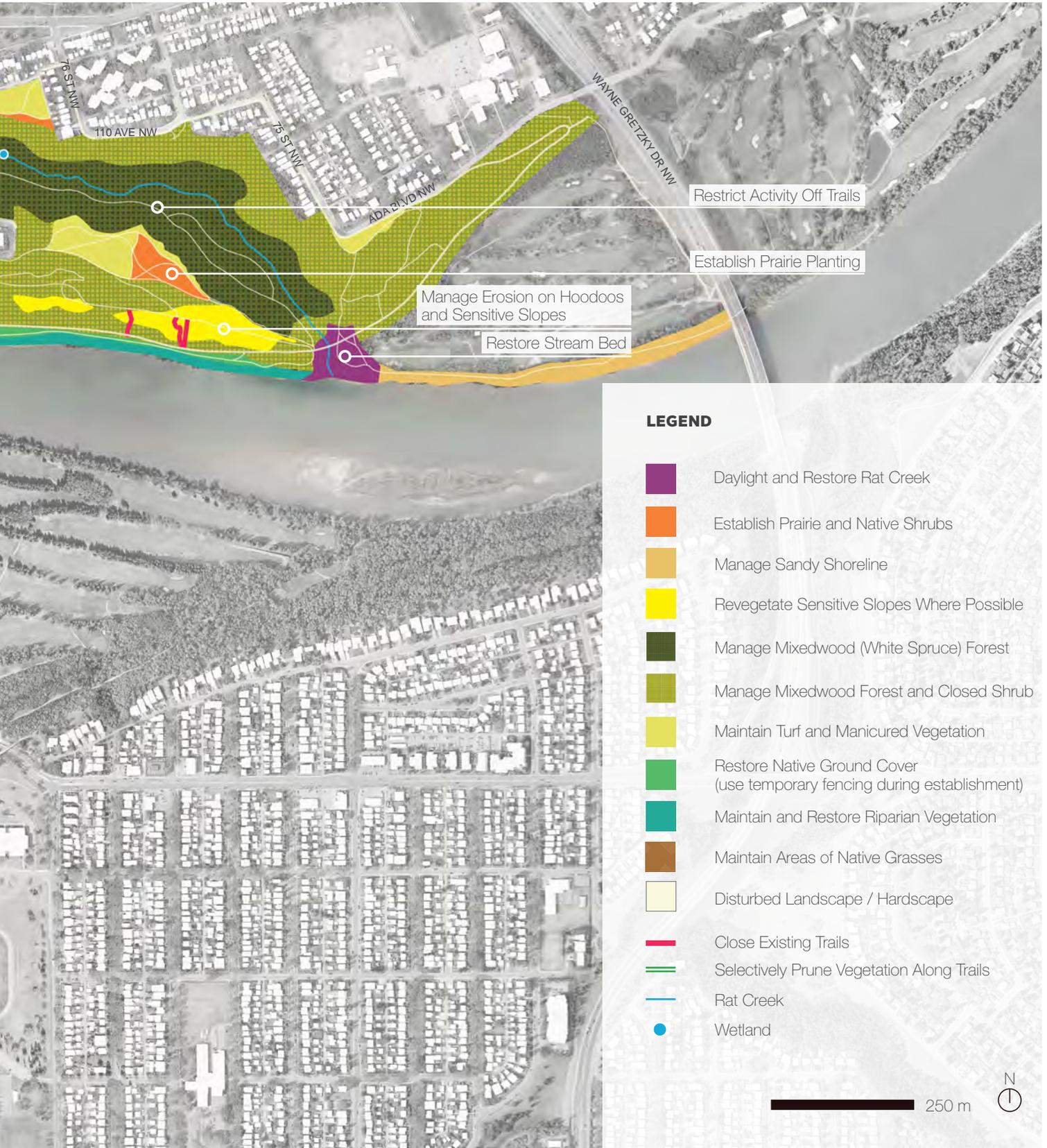
Significant populations of non-native species, including Noxious weeds as defined under the Alberta Weed Control Act, have been documented throughout Dawson Park and Kinnaird Ravine. Noxious weeds should be removed as directed by the Alberta Weed Control Act and precautions should be taken to prevent the spread of seeds, rhizomes and plants during construction. Weed control may also be required in areas recommended for restoration in the Master Plan during the establishment period of desired native vegetation.



View of vegetation communities in Dawson Park

Figure 47. Proposed Nature & Ecology Plan





Restrict Activity Off Trails

Establish Prairie Planting

Manage Erosion on Hoodoos and Sensitive Slopes

Restore Stream Bed

LEGEND

- Daylight and Restore Rat Creek
- Establish Prairie and Native Shrubs
- Manage Sandy Shoreline
- Revegetate Sensitive Slopes Where Possible
- Manage Mixedwood (White Spruce) Forest
- Manage Mixedwood Forest and Closed Shrub
- Maintain Turf and Manicured Vegetation
- Restore Native Ground Cover (use temporary fencing during establishment)
- Maintain and Restore Riparian Vegetation
- Maintain Areas of Native Grasses
- Disturbed Landscape / Hardscape
- Close Existing Trails
- Selectively Prune Vegetation Along Trails
- Rat Creek
- Wetland

250 m N
⊙

52. Take a proactive approach to wildfire prevention.

Wildfire prevention and mitigation in Dawson Park and Kinnaird Ravine should be directed by findings from the City of Edmonton's work on modelling wildfire risk in the River Valley, as well as any resulting policies and strategies. Below are specific recommendations of the Dawson park and Kinnaird Ravine Master Plan:

- » Public education and enforcement of visitor behaviour are recommended fire prevention techniques for Dawson Park and Kinnaird Ravine.
- » Species conversion is not recommended as a fire prevention technique due to the high habitat value and slope stabilizing qualities of the existing vegetation in the park.
- » Structures in the park should be constructed with non-flammable materials when possible.
- » Vegetation thinning is recommended within 10 m of park structures.
- » Vegetation thinning or underbrush pruning are recommended in areas with a higher risk of fire due to human use.
- » Infrastructure for water pumps should be provided along the River Edge.
- » Paved or granular buffers should be maintained between forested and residential areas, providing at least a 10 m buffer between vegetation and built structures wherever possible.

53. Re-naturalize disturbed areas of the park to promote biodiversity and provide opportunities for nature education.

The concept plan includes re-naturalization efforts in disturbed areas of the park, including along the multi-use trail and in top-of-bank parks. These areas are heavily disturbed and would see the most benefit to wildlife habitat through re-naturalization efforts with native vegetation.

The eastern portion of Kinnaird Park will be re-naturalized through the creation of a prairie garden with grasses, wildflowers and shrubs. Planting in this area should include early blooming plants to enhance the winter garden experience. The learning landscape and nature play space in Kinnaird Park will also include a wide variety of native flowers and shrubs

with interpretive signs to enhance the educational component of the park. These gardens will include flowering plants with a variety of blooming periods to improve habitat for small mammals, birds and insects.

The concept plan also includes restoration of native grasses and vegetation along the multi-use trail. This vegetation increases biodiversity in the park and creates varying experiences for those using the trails. Restoration should be prioritized near the resting points and gathering spaces; additional restoration may occur after the construction of park amenities to minimize disturbance to newly planted areas.

Patches of native vegetation are also recommended in smaller top of bank parks, including a butterfly garden in Sheriff Robertson Park and re-naturalization of some of the mixedwood forest and shrub communities in Jane Salisbury Park. Park entrances and gathering spaces with enhanced planting should also include native tree and shrub species.

Rationale:

Re-naturalization is recommended to occur in the most heavily disturbed areas of the park with low environmental sensitivity. The goal of re-naturalization is to increase biodiversity in the park.

Public Engagement:

- » Participants supported the restoration of disturbed areas in the park, including the removal and management of invasive plant species. However, some participants shared concerns over the costs and effort required to pursue large re-naturalization and invasive species removal projects.

Additional Recommendations:

- » The City should review partnership opportunities for the implementation and maintenance of re-naturalized and restored areas.

Wildlife and Connectivity

54. Protect existing wildlife habitats and corridors.

The Master Plan aims to ensure sensitive species and habitats in the park are protected. The plan prioritizes the restoration of natural systems for the benefit of both park visitors and wildlife communities in the area. Proposed infrastructure improvements in the Master Plan do not present any additional significant barriers to wildlife movement in the park. The long-term enhancement and expansion of native vegetation throughout the park, refinement of the off-leash area and decommissioning of informal trails are anticipated to complement the park's role as a major wildlife movement corridor in the River Valley. The Master Plan maintains and improves habitat for amphibians, reptiles, birds, mammals, insects and other wildlife in the park.

55. Minimize disturbance to wildlife habitats and corridors during project implementation.

Construction activity related to the implementation of the Master Plan may temporarily reduce the amount of habitat and impede the movement of medium- to large-sized animals through the park. Contractors should minimize impacts to wildlife in the park during construction. The implementation strategy of the Master Plan has been phased to minimize overall impacts to wildlife habitat and movement through the park.

Negative impacts to bird, bat and snake species and their habitats should be avoided during the implementation of the Master Plan. Identified snake hibernacula should be protected according to Alberta's Wildlife Act, which recommends that any low to medium disturbances must occur outside of a 200 m buffer around a snake hibernaculum.

Although direct impacts to the wetland areas are not anticipated, negative impacts to amphibian habitat in the park should be avoided.

Historical Resources

56. Apply for Historical Resource Act clearance for all development plans associated with the Master Plan.

Through the inventory and analysis work associated with the Dawson Park and Kinnaird Ravine Master Plan, archeological sites in the park have been identified and located. The Master Plan was informed by a historical resources overview and the EIA, which includes Historic Resource Act clearance, to avoid potential impacts to known archaeological resources.

Approval with Conditions was provided by Alberta Culture and Tourism in 2018 in support of the Dawson Park and Kinnaird Ravine Master Plan. Final development plans, accompanied by GIS shapefiles, must be submitted to Alberta Culture and Tourism along with a Historical Resources Act application before unconditional approval is granted.

The Identity & Experience section of this report outlines potential historical people, events and features that could be commemorated or interpreted in the park.

Safety & Maintenance

A priority of the Dawson Park and Kinnaird Ravine Master Plan is to increase safety in the park and improve the well-being of all park users. Improving access into the park has two main benefits: increasing eyes on the park, which improves the feeling of safety, and providing the opportunity for more people to experience the health benefits of being in nature.

Feedback received from the public and stakeholders is summarized below:

→ Public & Stakeholder Feedback

- » Important to reduce maintenance costs
- » Management of waste and garbage removal is paramount to park users' enjoyment of the site
- » Desire for maintenance of existing trails
- » Would like to see solutions for decreasing user conflict on trails

→ Internal Stakeholder Feedback

- » Continued inter-departmental cooperation and partnerships with outreach organizations are integral to address informal encampments and the associated garbage removal in the park
- » Need for improved access for maintenance vehicles and emergency services

The following recommendations respond to feedback from engagement and are intended to both reduce safety hazards and increase the feeling of safety in the park.

57. Design for safety.

The concept plan for Dawson Park and Kinnaird Ravine integrates several strategies to increase safety in the park.

By improving the amenities and increasing access points in Dawson Park and Kinnaird Ravine, the Master Plan aims to increase the number of visitors who can provide natural surveillance of activity in the park. Increasing the number of access points also provides visitors with more opportunities to exit the park should they feel unsafe for any reason. Formal and identifiable entrances create definitive access points to the park, reducing the need for visitors to use informal pathways down the steep slopes.

The proposed maintenance schedule in the Dawson Park and Kinnaird Ravine Master Plan may also increase the feeling of safety in the park. If features are clean and well-maintained, they may help to dissuade vandalism and unwanted activity in the park. Improvements to the visibility and functionality of the amenity building will also help to increase the feeling of safety for visitors and staff. (See Recommendation 2 for more detail on amenity building improvements.)

The maintenance plan recommends that vegetation along the granular trail in the River Valley slopes, along stairways and at lookout points be assessed yearly to ensure clear sight lines in these locations. If required, vegetation should be pruned. (Highly sensitive areas that should not be pruned include vegetation in Kinnaird Ravine and vegetation on steep River Valley slopes. Pruning should also generally be avoided along the river edge.)

Rationale:

The strategies presented are supported by feedback received from the public and City staff throughout the engagement process as well as the three concepts underlying Crime Prevention Through Environmental Design (CPTED) guidelines:

- » *Natural Surveillance: Bringing more people into the park to observe the space around them and increasing visibility.*
- » *Natural Access Control: Directing people into observable areas and discouraging access to unobservable areas.*
- » *Territorial Reinforcement: Delineating the space as public and maintaining features to a high standard to help communicate activity that is appropriate in the park (CPTED Ontario).*

Public Engagement:

- » *Throughout the engagement process, increasing the feeling of safety in the park has been a priority among participants.*

58. Support outreach efforts in the park.

Recommendations in the Master Plan complement ongoing efforts to address homelessness and rough sleeping in the park, including outreach efforts organized by the Homeless on Public Lands Committee and Boyle Street Outreach. The Master Plan supports a housing first and compassionate approach to reducing homelessness in Edmonton.

The Master Plan not only supports the reduction of informal encampments in the park, it also aims to support City staff and outreach workers while encampment numbers are high. A vestibule providing flexible space in the proposed amenity building will be used by City staff, outreach services, Park Rangers and emergency service personnel to help perform and coordinate their tasks related to outreach and park clean-up when necessary. Enclosed garbage bin(s) located in the parking lot and surface improvements on the trail west of the Main Activity Node will aid in the collection of refuse in the slopes.

The implementation of a needle box program is out of scope but supported by the Master Plan, with the potential for drop off locations in Dawson Park and Kinnaird Ravine.

Rationale:

The long-term goal for Dawson Park and Kinnaird Ravine is to considerably reduce the number of informal encampments located in the park. This goal can only be attained through continued cooperation between the City of Edmonton and partner organizations.

Public Engagement:

- » Throughout the engagement process, the public and stakeholders have shared concerns around the occurrence of informal camps in the park.
- » The Master Plan process involved an in-depth engagement with internal stakeholders (including park maintenance staff), the Homeless on Public Lands working group, emergency personnel, Bylaw officers, Park Rangers and outreach staff. Recommendations in the Master Plan stem directly from the results of this engagement, with the goal of helping these groups carry out their work in the park.

59. Increase monitoring and enforcement of park use.

The Master Plan recommends that the City monitor the park periodically, enforcing the appropriate use of trails, park amenities and natural features. Specific elements recommended for monitoring and enforcement include:

- » Off-leash dog walking, including compliance with off-leash boundaries, the leash-up zone around Rat Creek and dog waste clean-up.
- » Appropriate trail use, including cycling and pedestrian conflicts, cycling speeds and compliance with trail closures.
- » Unwanted activity, including vandalism and unsafe behaviour.

In order to ensure compliance with recommended uses of the park, the City may need to increase their presence in the park and their level of monitoring, at least during the initial phases of Master Plan implementation.

Rationale:

Monitoring and enforcement are integral elements for increasing the feeling of safety in the park.

Public Engagement:

- » Throughout the engagement process, increasing the feeling safety in the park has been a priority among participants.

60. Use signage to improve the feeling of safety in the park.

Wayfinding signs in the park will indicate trail intersections, trail inclines and distances to park amenities and exits. Trail markers, which are not currently part of the River Valley Wayfinding strategy but may be developed by the City, may include location information to aid in navigation by park users, maintenance staff, outreach workers and emergency response crews.

Signs dictating appropriate use of the off-leash trails and off-leash areas will be located at all off-leash entrances, including the parking lot, main amenity node, Rat Creek daylighting and the sandy shoreline.

Regulatory signs will provide information to park users on appropriate activities and restrictions in environmentally sensitive areas, including the River Valley slopes and Kinnaird Ravine. Signs will encourage visitors to stay on designated trails in order to limit their impact on the surrounding vegetation and habitat.

Signs indicating areas for cyclists to slow down will be located approaching trail intersections, near bends in the trail with limited visibility, on steep slopes and near park infrastructure. Signs should be used in conjunction with paving indications, such as rumble strips, to promote slower cycling speeds at busy intersections.

Rationale:

Clear and identifiable wayfinding signs help visitors understand their location within the park and inform visitors of trail length and difficulty, allowing them to navigate the park at their comfort level. Permanent regulatory signs provide user guidelines as well as safety and maintenance information for park amenities. Temporary regulatory signs are recommended in instances where detours, trail closures, safety hazards and restored areas are present.

Public Engagement:

- » Improvements to wayfinding and regulatory signs in the park were supported throughout engagement.

Additional Recommendations:

- » The City may develop a trail marker and speed signage plan to incorporate into the River Valley Wayfinding guidelines.

61. Use lighting to improve the feeling of safety in the park.

Although the City does not light natural areas, select areas of the park will be lit using dark sky principles and following recommendations from the Wildlife Passage Engineering Design Guidelines (2010). The use of light fixtures that minimize spill and glare in higher use areas is recommended. Select areas to be lit include:

- » Major gateways at entrance points.
- » The proposed vehicle access, parking lot and amenity building.
- » Existing light fixtures in Kinnaird Park and Sheriff Robertson Park will be maintained. Fixtures should be retrofitted to adhere to dark sky principles.

Rationale:

Lighting improves visibility around park amenities, increasing the comfort level for many visitors in the evening and during winter months.

Public Engagement:

- » Participants supported minimal lighting in the park in order to extend the hours of use and increase the feeling of safety in the park, especially in the winter.



Figure 48. Proposed Lighting Plan

250 m N

Identity & Experience

Dawson Park's identity is defined by individual and communal connections to the landscape. These connections are personal, intangible and developed through experiences. Some visitors connect to the park through activity and recreation, some connect to stories they have heard about the park's history while others connect to the park's natural character and its cultural heritage.

Below is a summary of public and stakeholder feedback relating to the identity and experience of the park:

→ Public & Stakeholder Feedback

- » Like opportunities for historical interpretation
- » Like opportunities for public art with community involvement
- » Like a mix of manicured and natural areas

→ Internal Stakeholder Feedback

- » Desire to maintain park as a connector park instead of a major destination
- » Desire to support a greater winter experience in the park
- » Opportunities to support river access

Dawson Park and Kinnaird Ravine should reflect a communal connection to the River Valley landscape for all Edmontonians.

Indigenous Heritage

62. Ensure results from Indigenous engagement are incorporated in park elements and management.

Results from Indigenous engagement associated with the Dawson Park and Kinnaird Ravine Master Plan should provide guidance for Indigenous heritage appreciation in the park. Conversations with Indigenous groups should be ongoing and concurrent with any future development in the park to ensure this objective is met.

Public Art and Interpretive Elements

63. Install interpretive elements that are non-intrusive and that help to inform users about the natural and cultural history of the park.

Interpretive signs, educational programming, public art and park design may be used to interpret the layered natural and cultural history of the park. The Master Plan recommends that the City explore interpretation of the following items:

- (1) Geologic history
- (2) Historical appreciation of the river and River Valley landscape
- (3) History of River Lot 20
 - » Emma and Kenneth MacDonald lived on River Lot 20, which extended through the western portion of Dawson Park, in the late 1800s. The MacDonalds played an important role in transforming Edmonton's identity from a trading post to a farming community.

- (4) History and ecology of Rat Creek
 - » Historically, the creek was primarily fed by marshes upstream that were located in the present Kingsway Mall area. Overtime, those marshy areas were drained for agricultural purposes, and some of the sections of the creek were partially filled to accommodate urban development.
- (5) History of coal mining in the park (e.g. the five underground coal mines operated between 1905 and 1937)
- (6) History of water treatment in the park
 - » The Riverdale Sewage Disposal Plant (renamed Sewage Disposal Plant No. 1) operated between 1910 and 1956 in the location of the existing pavilion.
- (7) Baker's Folly
 - » The existing Cromdale granular trail (extending from Jasper Avenue at 82 Street into Dawson Park) existed as a historical roadway into the River Valley.
- (8) History of the John C. Hall building
- (9) History of the park as a dump
 - » The River Valley was historically used as a garbage dump for many years. Evidence of this exists in Dawson Park and Kinnaird Ravine. Interpretation of this history should focus on how the use of the River Valley has changed over time and the current commitment to environmental protection in the River Valley.

The park may also include interpretation related to specific historical figures. More detail on historical figures is presented in the Park Evolution section of this report. Relevant examples of historical figures include:

- » H.S. Dawson
- » John Forsyth Dawson
- » Captain John Hall
- » George Johnstone Kinnaird
- » James Kirkness
- » James McDonald
- » Sheriff Walter Scott Robertson
- » Jane Salisbury
- » Sir Samuel Steele

Rationale:

Interpretive features help to inform park visitors about the natural processes and cultural heritage of the site. Educating visitors on the ecological and cultural significance of the park may increase stewardship and a sense of ownership.

Public Engagement:

- » *During the first phase of engagement, participants stated that they would like to see historical and ecological interpretation in the park.*

Additional Recommendations:

- » *Interpretation of the geologic and natural history of the site and the Indigenous and Métis heritage of the area should be prioritized. (Specific interpretive elements related to Indigenous heritage should be determined in consultation with Indigenous communities. See Recommendation 62.)*
- » *The City should also consult and collaborate with the local community and historical societies.*
- » *Interpretive elements should enhance the user experience and educational potential in the park.*
- » *Park features should integrate materials, architectural elements and planting that relate to the site and increase the interpretive value of all park elements.*
- » *Interpretive signs should adhere to the River Valley Wayfinding strategy.*



Figure 49. Potential locations for interpretive signs/elements and public art

250 m N

64. Encourage public art installations that support nature interpretation and community collaboration.

The Master Plan process included an exploration of potential locations for public art in Dawson Park and Kinnaird Ravine. Public art will be directed by the Edmonton Arts Council and will depend on funding availability. The Master Plan recommends public art that supports nature interpretation and community collaboration. The Master Plan also supports independent, community-based installations.

If the City pursues the installation of public art in Dawson Park and Kinnaird Ravine, the Master Plan recommends the following locations:

→ Rat Creek daylighting

There is an opportunity to incorporate a structure or sculptural element near the restoration area with seating for gatherings by various community groups.

→ River lookout near the hoodoos

There is an opportunity for artwork to be integrated into lookouts.

→ Main Activity Node

There is an opportunity for a mural, sculptural element, or artwork to be integrated into the building structure, facade or nearby play structures.

→ Kinnaird Park

There is an opportunity for a permanent or ephemeral sculptural element in the turf area relating to native plants and ecological systems.

→ Existing KinnArt mural in Kinnaird Ravine

The Master Plan supports community art projects, such as the KinnArt murals currently in Kinnaird Ravine which will be maintained. Future community art projects that do not disturb natural features in the ravine are also encouraged.

Rationale:

Public art installations provide opportunities to celebrate communal outdoor spaces, encourage visitor interaction and add visual interest in winter months.

Public Engagement:

» *Public art was supported in the first round of engagement; however, some participants shared concerns over cost and the intrusive nature of large/unsuitable public art installations in natural areas.*

65. Develop a nature interpretation program in Kinnaird Ravine.

Recommendations within Kinnaird Ravine are limited to trail and staircase maintenance with the addition of interpretive signage. Further trail development should be discouraged, preserving the ravine's natural features.

Interpretive signs may provide information on plants, animals, birds and insects in the ravine. They may also interpret the wetlands or the restoration that is proposed further downstream (see Recommendation 46).

Rationale:

Kinnaird Ravine is an ecological resource in the city for wildlife and ecological processes. Educating visitors on the ecological value of the area may increase their awareness and responsibility to the environment.

Public Engagement:

- » Public and stakeholder engagement indicated that ecological interpretation was desired in the park.

Additional Recommendations:

- » The City should consult and collaborate with environmental organizations, naturalist societies and/or community groups who are already active in the area (such as Friends of Kinnaird Ravine) for the implementation of interpretive signs in Kinnaird Ravine.



Figure 50. Kinnaird Ravine Pathway - Perspective View

Partnerships and Use Agreements

The Master Plan encourages partnerships between the City and community organizations that can offer skills, resources and enthusiasm to enliven the park and program park elements. The City will facilitate partnerships in the categories expanded upon here, but will consider other partnerships if they are consistent with the vision and principles for the park.

Natural Surface Trails

A future trail strategy is expected to help with the planning and management of natural trails in the park. Currently, the City is pursuing partnerships with the mountain biking community and other user groups to partner in the activation and maintenance of natural surface trails.

River Access

Dawson Park is poised to become a river access hub within the City of Edmonton. The Master Plan includes recommendations to enhance river access within the park. As such, community recreation groups with a river access or boating focus may have an interest in increasing their presence in the park. The City should explore partnerships with river access groups who want to run programs, host events or operate in Dawson Park. The Master Plan provides an expansion option for the Main Activity Node should a funding partnership develop.

Ecological Restoration

As one of the guiding principles of the Master Plan, restoration of native ecologies in the park is central to the development of Dawson Park and Kinnaird Ravine. Partnerships with naturalist clubs and societies with an interest in vegetation restoration should be pursued.

Public Art

The Master Plan recommends several locations in the park for public art. When possible, the City and the Edmonton Arts Council should encourage local and community-led art projects, such as the KinnArt mural project in Kinnaird Ravine, because they provide many benefits to the park and surrounding community.

Community Programming

Improved amenities in the park open opportunities for community programming and events. The Master Plan recommends that the City pursue partnerships to aid in community programming of the park.

INDIGENOUS PARTNERSHIPS

Dawson Park and Kinnaird Ravine may be a site for programming by Indigenous partner groups or organizations. Through city-wide engagement efforts, the City has heard that there is desire for certain types of activities, such as culture camps or ceremonies, to occur within River Valley parks. The Master Plan provides amenities and protects natural features that may be used for these purposes if the desire from partner groups exists.

NATURE EDUCATION AND NATURE PLAY

Multiple areas of the park, including Kinnaird Park (potentially including the John C. Hall Residence), Sheriff Robertson Park and the Dawson Park playground, incorporate elements of nature play and nature education. These areas would benefit from a partnership with an external organization with a focus on nature play or a mission to facilitate nature education for children.

WINTER EVENTS AND FESTIVALS

The Master Plan integrates opportunities for winter recreation and the celebration of winter ecologies in Dawson Park and Kinnaird Ravine. Following recommendations from the Winter City Strategy, the Master Plan also includes features that can be programmed in winter months - particularly the Main Activity Node and playground in Dawson Park. The City should pursue partnerships with organizations or community groups who can activate this space in winter months with small winter festivals and events.

Operations and Maintenance

The Master Plan includes elements and features to support operations and maintenance of the park. Constructed elements in the plan requiring regular maintenance are concentrated in locations that are easily accessible by maintenance vehicles. The main parking lot in the activity node will be upgraded to accommodate larger maintenance and operations vehicles with the appropriate turnaround radius. An area of the parking lot will be designated for enclosed garbage bins to aid maintenance staff in collecting refuse throughout the park. The vestibule in the amenity building may also be used for operations and maintenance staff to meet, for example, before park clean ups.

Site Servicing and Utilities

A map of the existing utility services in the park is located on page 149.

WATER SERVICE

The most suitable tie-in location for the future amenity building is located on 103A Avenue where there is an existing 150 mm PVC water main as shown in Figure 51. A 200 mm PVC water main should be placed from the stubbed end of the 150 mm water main up to the entrance of the amenity building and a hydrant should be installed adjacent to the building for fire protection. Water service for the pavilion should be provided with a 50 mm Water Service connection from the distribution main. EPCOR's design and construction standards dictate that the minimum diameter of a distribution main shall be 200 mm to provide fire protection. The placement, depth and water service requirements must follow all design and construction standards set forth by EPCOR.

SANITARY SEWER SERVICE

The sanitary sewer in Dawson Park is part of a combined sewer system. To service the new amenity building, it is recommended to install a 150 mm PVC Sanitary Sewer Service from the amenity building to a proposed 1200 mm manhole

and a 200 mm PVC sanitary sewer from the proposed manhole to an existing manhole on 103A Avenue, shown in Figure 51. The location, depth of service and manhole requirements must follow all design and construction standards set forth by EPCOR.

STORMWATER SERVICE

The stormwater servicing for the proposed expansion option must satisfy a capacity requirement for runoff due to a 1 in 5 year rainfall event, according to EPCOR's design and construction standards. To meet this requirement, a combination of catch basin leads, manholes, piping and low-impact development (LID) elements are recommended.

Improvements to the parking lot include the addition of three stormwater manholes connected to a 300mm storm sewer main. A stormceptor manhole at the discharge end of the proposed stormwater pipes is recommended and will include an oil grit separator designed to remove stormwater pollutants such as oils, metals and sediment. Discharge from the stormceptor will enter a swale and infiltration pond. In case of overflow, the swale would also tie into the existing 600 mm storm sewer pipe that discharges into the river, as shown in Figure 51.

Two catch basins are recommended along the main vehicular access no further than 150 metres from each other. Low-impact development (LID) options that should be explored include vegetated swales along the extent of the access road where feasible to lessen the impacts to the storm sewer system and improve the quality of water entering the river from the park.

Operational and Maintenance Guidelines

The following pages outline the recommended maintenance and operations of park facilities and programming for Dawson Park and Kinnaird Ravine, including immediate maintenance requirements, standard amenities and specialty amenities.

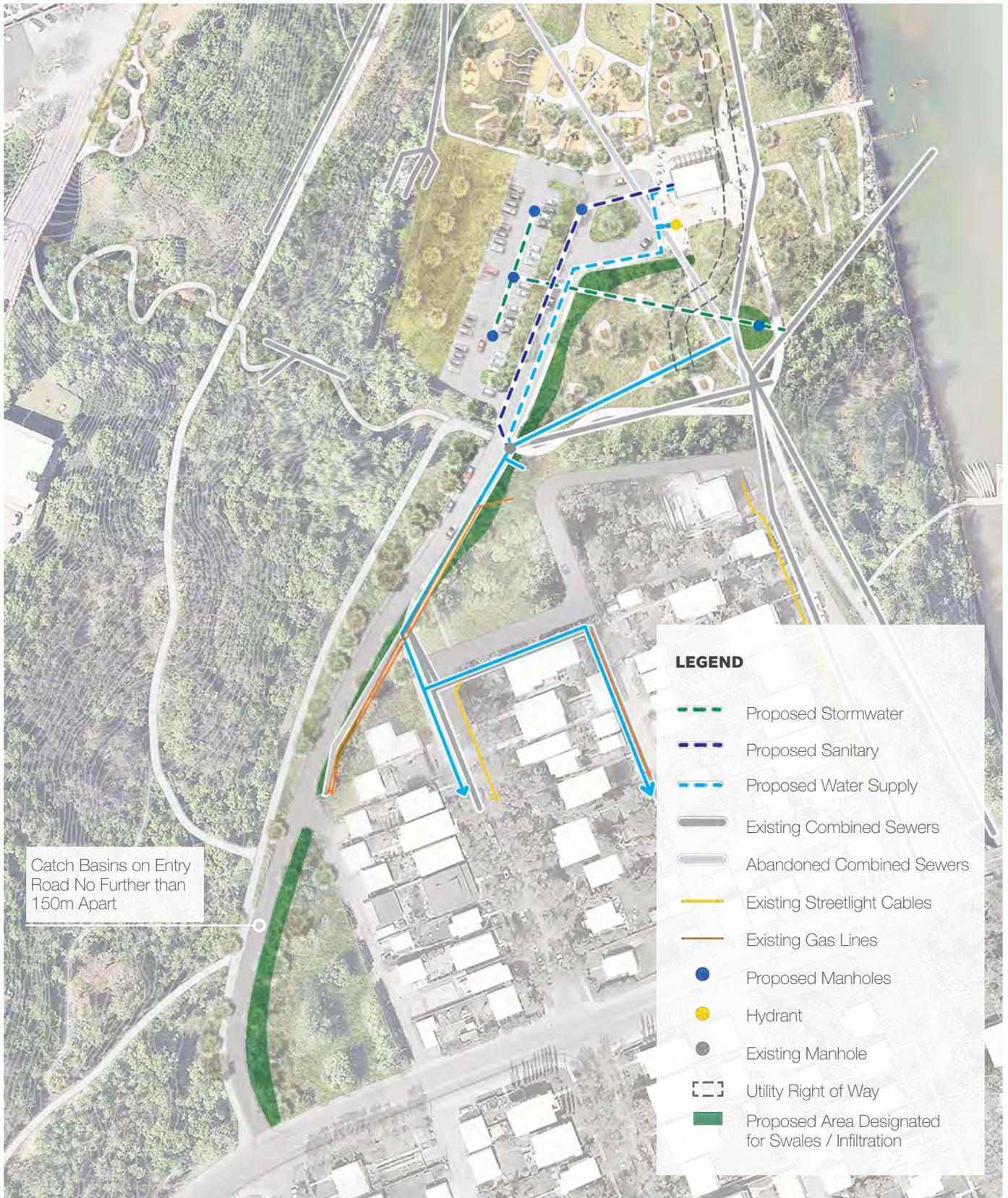
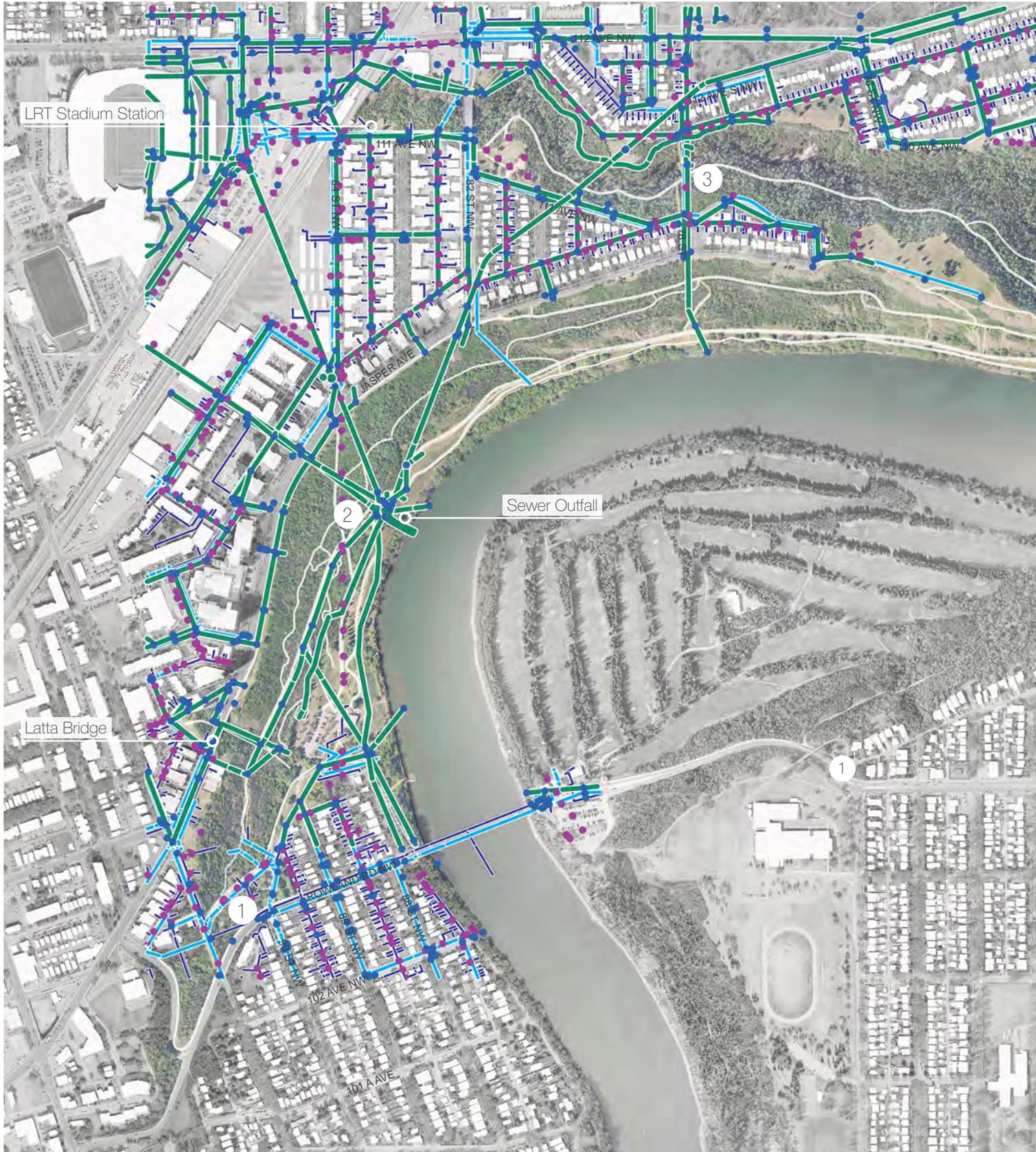


Figure 51. Proposed Site Servicing

50 m N

Figure 52. Existing Utility Servicing Map





Immediate Maintenance Requirements

	Maintenance Requirements
Garbage and recycling collection (standard)	<ul style="list-style-type: none"> » Remove garbage from around stairways and along pathways. » Provide additional garbage cans.
Garbage and recycling collection (associated with informal encampments)	<ul style="list-style-type: none"> » Remove garbage from forested slopes in Dawson Park and Kinnaird Ravine. » Prune and remove vegetation at key locations along the slopes for easier pedestrian access from top of bank (see diagram). » Prune and remove vegetation along pathways to increase sight lines and reduce encroachment. » Work with community groups to educate the public regarding clean up activities to avoid community initiated clean up without proper equipment and procedures.
Forest management	<ul style="list-style-type: none"> » Prune vegetation at lookouts to restore views. » Prune vegetation along paths and stairways to increase sight lines. » Manage and regenerate forested areas over the long term.
Stairways	<ul style="list-style-type: none"> » Remove graffiti on stairways. » Maintain stairways in good condition, including gravel and timber-frame stairs. » Replace boards that are rotting or have been vandalized.
Water bottle fill station	<ul style="list-style-type: none"> » Maintain adequate water pressure at water bottle fill station. » Ensure station is clean and sanitary.
Park Patrol / safety	<ul style="list-style-type: none"> » Increase park patrols to discourage undesirable activity, vandalism and camping. » Improve sight lines through vegetation management on paved and granular pathways. » Remove graffiti and repair damage promptly.

Standard Amenities

Park Element	Quantity	Maintenance Requirements	Recommended Servicing Schedule
New washrooms	» One proposed washroom building with toilets, urinals and sinks	Maintain new washrooms to city standards on a year-round basis. Inspect daily. Washrooms may require higher levels of maintenance and surveillance if unwanted activity is identified.	Summer/Winter: Service twice per day, plus additional service if needed.
New and existing lookout platforms and sight lines	» 11 lookout areas/ platforms	Prune vegetation at designated lookout points along Jasper Avenue and at new lookouts along the riverbank.	Summer/Winter: Lookouts inspected weekly for damage or vandalism, which is repaired as soon as possible. Litter under lookouts removed daily. Vegetation inspected annually and pruned as necessary.
New and existing stairs	» Three stairways (one existing and two new) into park from Jasper Avenue » One new stairway from Ada Boulevard to Rat Creek confluence » Two existing stairways into Kinnaird Ravine	Schedule for regular vegetation pruning along staircases to ensure safe sight lines. Inspect stairway and lookout structures regularly. Discourage informal camping under structures. Remove litter under staircases and lookouts. Promptly repair damaged boards and incidents of vandalism.	Stairways inspected weekly for damage or vandalism, which is repaired as soon as possible. Litter under staircases removed daily.
Picnic sites	» 15 new picnic sites without BBQ » 4 new picnic sites with BBQ	Year-round maintenance and servicing. Clean BBQs of ash and empty garbage receptacles as required.	Summer/Winter: Inspect sites daily for garbage and vandalism. Empty ashes and garbage receptacles as required. Suggested frequency in summer is weekly, at minimum. Replace damaged tables as soon as possible.
Benches	» Multiple throughout the park	Remove graffiti.	As required. Repair damaged slats as soon as possible.
Garbage and recycling collection	» Approximately 30 bins throughout the park	Maintain and empty bins for garbage (and recycling) regularly in accordance with City of Edmonton procedures.	Summer: Check three to four times weekly and empty as needed. Winter: Check high-use areas three to four times weekly. Check low-use areas weekly. Empty as needed.
Drinking fountains/ water bottle fill stations	» One water bottle fill station in the amenity building and a seasonal drinking fountain/dog fountain outside the building	Maintain drinking water fountains to City of Edmonton standards and inspect on a regular basis to ensure adequate water pressure is maintained.	Inspect daily/weekly as part of general site servicing. Repair as required.

Park Element	Quantity	Maintenance Requirements	Recommended Servicing Schedule
Trails/roads/parking areas – asphalt	<ul style="list-style-type: none"> » One parking lot » Regional pathway 	Maintain areas to City of Edmonton parks standards. Immediately repair areas of degradation that will impact public safety.	Inspect surfaces biannually and record degradation. Repair major cracks, heaves, depressions and washouts promptly. Repair asphalt as required.
Trails – granular	<ul style="list-style-type: none"> » Existing granular trails 	Maintain granular trails to City of Edmonton parks standards. Immediately repair eroded areas that impact public safety immediately.	Inspect surfaces biannually and record degradation. Repair areas of erosion, depressions, wash-outs and channels promptly. Remove debris from drainage dips.
Snow removal	<ul style="list-style-type: none"> » Regional Pathway » New dedicated entry, parking lot and amenity building area » New Latta bridge pathway 	Keep a network of trails and shared roads and parking areas clear in winter. Clear regional pathway for running, walking, and cycling.	Clear per City of Edmonton standards.
Turf management	<ul style="list-style-type: none"> » Turf areas 	Manicure turf around picnic areas, pavilion, playground and along the regional pathway. Manicure turf areas within Kinnaird Park, Sheriff Robertson Park, Jane Salisbury Park and other small plateau parks.	Cut manicured turf areas – service level A1 – weekly from May to September.
Tree / forest management	<ul style="list-style-type: none"> » 615 000 square m of forest 	Inspect trees for hazards and prune as needed.	Trees inspected for hazards and pruned as needed.
Utilities	<ul style="list-style-type: none"> » Pavilion » Rat Creek Outfall 	Regularly inspect and maintain servicing connection points for the pavilion. Control odors from the outfall.	Inspect weekly. Complete repairs promptly.

Speciality Amenities

Park Element	Quantity	Maintenance Requirements	Recommended Servicing Schedule	Implementation Requirements
New amenity building and terrace	One new pavilion and terrace/plaza	Ongoing maintenance and operation considerations. Utility monitoring.	Inspect weekly. Complete repairs promptly.	Develop specific maintenance requirements based on detailed design.
Potential new boat storage	One expanded pavilion	Ongoing maintenance and operation considerations. Utility monitoring.	Inspect weekly. Complete repairs promptly.	Specific maintenance requirements to be developed based on detailed design.
River Valley and interpretive signage	Quantity and type of sign to be determined in detailed design	Signage should be inspected periodically and vandalism and damage fixed promptly.	Inspect monthly. Complete repairs promptly.	Specific maintenance requirements to be developed based on detailed design.
Boat launch and river access	Floating launch and dock and access pathway. Large boat chute	Pathway to boat launch: maintain to City of Edmonton parks standards. Dock: Damaged boards and incidents of vandalism are to be repaired promptly.	Inspect weekly. Complete repairs promptly.	
Informal river access points	Multiple sites along the river edge	Surface material to be inspected per granular pathway standards. Boulders used for access to be set level and subbase sound to prevent erosion.	Inspect monthly for signs of damage and erosion. Repair promptly to avoid further degradation.	
Natural surface trails	Multiple trails throughout the park	Maintain to City of Edmonton parks standards. Damage from erosion and rutting to be repaired to maintain smooth surface. Vegetation pruned if encroaching.	Inspect bimonthly for degradation and vegetation encroachment. Prune and repair promptly.	The City will develop design, construction and maintenance guidelines as part of a future natural trail strategy.
Boat Dock and Launch	Floating launch and dock and access pathway. Large boat chute	Pathway to boat launch: maintain to City of Edmonton parks standards. Dock: Repair damaged boards and incidents of vandalism promptly.	Inspect weekly. Complete repairs promptly.	

Park Element	Quantity	Maintenance Requirements	Recommended Servicing Schedule	Implementation Requirements
Jasper Avenue Promenade	Wide linear sidewalk at the top of bank along Jasper Avenue	Maintain to City of Edmonton standards for sidewalks.	Inspect weekly for damage and vandalism to site elements and paving. Repair promptly. Empty waste receptacles daily. Winter: remove snow per City of Edmonton standards.	
Latta Bridge stairway and pathway	One stair and one asphalt pathway	Inspect stairway regularly. Discourage informal camping under structures. Remove litter under staircase. Repair damaged boards and incidents of vandalism promptly.	Undertake inspection of surfaces biannually and record degradation. Repair promptly major cracks, heaves, depressions, and washouts. Repair asphalt as required. Stairway inspected weekly for damage or vandalism. Repair promptly. Litter under staircases and lookouts to be removed daily.	
Prairie garden in Kinnaird Park	Large garden area (25% horticultural prairie species, 75% native prairie species)	Weeding, pest control, cutback, soil cultivation and amendment as required.	Spring cleanup (pruning, debris removal, mulching, cultivation of soil, fertilization) yearly for horticultural prairie garden. Spring cleanup (debris removal, cultivation of soil, fertilization) for native prairie during establishment.	Specific maintenance requirements to be determined at detailed design based on plant requirements.
Learning landscape and play elements in Kinnaird Park	Small and large natural play elements	These natural play elements are to be built from natural materials that may require unique maintenance considerations.	Summer: inspect for damage/vandalism weekly. Winter: inspect for damage/vandalism biweekly. Repair promptly.	Specific maintenance requirements to be determined based on detailed design

Park Element	Quantity	Maintenance Requirements	Recommended Servicing Schedule	Implementation Requirements
Restored native vegetation along pathways	Numerous areas of planting along regional pathway	Weeding, pest control, cutback, soil cultivation and amendment as required.	Spring cleanup to include: debris removal, mulching, cultivation of soil, fertilization. Summer: weekly weeding, removal of debris, soil moisture monitoring, watering, pest management. Fall: deep water trees and shrubs, protect plants from animal and snow damage.	Specific maintenance requirements to be determined at detailed design based on plant requirements
Public art installations	2 to 3 potential locations throughout the park	Public art installations are to be determined through separate process.	Inspect installation weekly for damages and vandalism. Repair promptly.	Specific maintenance requirements to be determined based on detailed design
Playgrounds	Small and large natural play elements around pavilion and in Sheriff Robertson Park	New natural play elements are to be built from natural materials that may require unique maintenance considerations. New and existing traditional play elements will require site-specific maintenance.	Summer: inspect for damage/vandalism weekly. Winter: inspect for damage/vandalism biweekly. Repair promptly.	Specific maintenance requirements to be determined based on detailed design
Kinnaird suspension bridge	New bridge across Kinnaird Ravine at Kinnaird Park	New suspension bridge maintenance requirements to be determined during detailed design.	To be determined based on detailed design.	Specific maintenance requirements to be determined based on detailed design
Gathering structures and pergolas	Three to four structures along regional pathway	Structures determined through detailed design will require inspection for damages, structural consideration, vandalism.	Summer: Inspect for damage/vandalism weekly. Winter: inspect for damage/vandalism biweekly. Repair promptly.	Specific maintenance requirements to be determined based on detailed design
Natural seating	Large boulders positioned throughout the park	Review for damage and vandalism, settlement.	Inspected as part of weekly/biweekly reviews during summer and winter. Repair promptly.	

Park Element	Quantity	Maintenance Requirements	Recommended Servicing Schedule	Implementation Requirements
Restored Rat Creek	Large area of steep slopes and riparian vegetation	Weeding, pest control, cutback, soil cultivation and amendment as required. Slope stabilization and erosion control. Monitoring program during and after restoration should be implemented.	Protect using snow fence or other means as required during establishment. Spring cleanup to include: debris removal, mulching, cultivation of soil, fertilization. Summer: weekly weeding, removal of debris, soil moisture monitoring, watering, pest management. Fall: deep water trees and shrubs, protect plants from animal and snow damage.	Specific maintenance requirements to be determined based on detailed design
Braille Trail plinths	Braille trail specific wayfinding and interpretive signs along trail	Inspect signage periodically and fix vandalism and damage promptly.	Inspect monthly. Repair promptly.	
Sandy shoreline	Lower beach area along pathway south of Highlands Golf Club	Access to the beach is informal and not constructed. As such, specific maintenance should focus on removal of features or conditions that may impact public safety within reasonable means.	Summer: inspect the area on a biweekly basis. Winter: monthly. Repair promptly.	
Hoodoos and erosion control structures	Natural features within the river valley slopes along regional pathway	These natural features are character defining features. Monitor for evidence of erosion, human abuse/vandalism.	Inspect biweekly for signs of erosion, damage and vandalism. Report concerns and develop remediation/mitigation strategies.	
Sewer outfall	Existing Rat Creek outfall structure	Monitor for excessive odor.	Inspect weekly and implement odor control measures as required.	Specific requirements may be based on odour control measures implemented. Requirements may be maintenance on these measures or specific temporary measures as required

Park Element	Quantity	Maintenance Requirements	Recommended Servicing Schedule	Implementation Requirements
Off leash dog areas and trails	Linear pathway along bottom of slope	Monitor natural areas for signs of erosion and abuse from dog traffic and digging. Turf areas may require additional care.	Inspect weekly. Implement measures as necessary to control damage to establishing and sensitive natural areas, such as snow fence. See above for turf management.	Specific control measures will be required during establishment of natural vegetation areas based on location and context within the park. Measures to be determined at detailed design

Implementation and Capital Costs

Implementation of the Dawson Park Master Plan will occur over a period of 25 years. The completion of the Master Plan improvements is divided into five phases.

Overall Project Implementation Strategy

The five phases set out in the Master Plan are approximate and contingent on several factors including budget, infrastructure life-cycling, and City priorities. The phases are sequenced in a logical order for implementation but some phases are not contingent on the completion of earlier phases.

At the time of implementation, budget may not be available for all elements within a phase. The City will determine at the time of implementation how to prioritize elements to provide the best value based on priorities and life-cycling requirements.

Phase 1: Main Activity Node and Main Vehicular Access

Phase 1 involves the most concentrated use area and gateway to the park: The main activity node at the location of the current park pavilion and picnic area. It also includes the new main vehicular access to the park which would create a distinct entry experience and identity for the park from Rowland Road.

Phase 2: River Valley Slopes, River Edge, Kinnaird Ravine, Access, Gateways, Amenities and Planting

Phase 2 involves upgrades to existing trails and the addition of new trails through the River Valley slopes and bottom lands areas of Dawson Park and Kinnaird Ravine. The remaining portion of the phase is largely comprised of new amenities throughout the park ranging from pergolas to park benches and trash receptacles.

Phase 3: Top-of-Bank Upgrades and Amenities

Phase 3 involves improvements at the top-of-bank. It comprises the long linear border of Jasper Avenue where a more prominent boulevard is envisioned and several distinct community parks.

Phase 4: Rat Creek Restoration

Phase 4 involves the daylighting and associated restoration of Rat Creek where it currently flows through a culvert into the North Saskatchewan River.

Phase 5: Kinnaird Ravine Crossing

Phase 5 involves the realization of a pedestrian connection across Kinnaird Ravine to improve the link between the park and neighbourhoods to the north through a simple suspension bridge.

Overall Project Budget

Costs for the Dawson Park and Kinnaird Ravine Master Plan 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. These estimates are based on costing information from previous projects of similar size. Measurable items are priced by product unit or unit measurement (such as square metre). Table 4 provides a high-level summary cost estimate of each phase of the concept plan.

The figures presented are an opinion of probable costs, not guaranteed cost figures and will be refined as detailed designs are prepared. Due to the conceptual nature and large scale of the Dawson Park and Kinnaird Ravine Master Plan, these figures may not reflect actual costs. The cost estimates have

an expected cost accuracy range of -30% to +50% (consistent with a Class 4 cost estimate). Each total cost estimate per phase includes a design and project management fee and a contingency value based on the estimated level of risk related to the proposed project components. The costs are presented in 2018 Canadian dollars with no escalation. When projects are implemented in the future, cost estimates should be increased to account for inflation.

Project components are divided into the categories of Renewal and Growth based on whether the elements are replacing or upgrading existing amenities (Renewal) or whether elements are newly introduced to the park (Growth).

Project Opportunities

Partnership opportunities may be explored to assist with implementation of components of the Master Plan.

Table 4. Summary of Probable Capital Costs

SUMMARY	RENEWAL		GROWTH		TOTAL PROJECT
	Probable Cost	%	Probable Cost	%	
Phase 1 - Main Node	\$3,848,833	60%	\$2,577,152	40%	\$6,425,984
Phase 2 - Trails, Amenities, Planting	\$1,271,641	35%	\$2,388,447	65%	\$3,660,088
Phase 3 - Top-of-Bank	\$1,610,692	32%	\$3,496,655	68%	\$5,107,347
Phase 4 - Rat Creek	\$383,274	11%	\$3,110,498	89%	\$3,493,771
Phase 5 - Kinnaird Ravine Crossing	\$30,625	<1%	\$7,903,665	>99%	\$7,934,290
Total Cost	\$7,145,064	27%	\$19,476,416	73%	\$26,621,481

Phase 1: Main Activity Node and Main Vehicular Access

Intent

- » Upgrade and add significant amenity value to the most concentrated area of activity in the park, the main activity node.
- » Improve and upgrade access to the main activity node.
- » Create a distinct entry experience from Rowland Road and contribute to the unique identity of the park.
- » Address current management and safety issues associated with the existing pavilion by improving access to and increasing visibility in the area.

Phase 1 Elements

1. Main Vehicular Access
2. Drop off and Turnaround
3. Parking Lot
4. Multi-Use Trail
5. Gateway Element and Signage
6. Pedestrian Sidewalks connecting neighbourhood
7. Vehicular and Pedestrian Lighting
8. Plantings (Trees, Shrubs, Groundcovers, Turf)
9. Amenity Building and Plaza
10. Picnic Area Improvements (benches and BBQ grills)
11. Dawson Park Playground and Turf Area
12. Fenced Off-Leash Trail
13. Formal Gathering Area
14. Accessible Path to Dock
15. Accessible Boat Launch Element
16. Monitoring and Adaptive Management Plan for Off-Leash Use in the Park

Phase 1 Implementation Strategy

The Phase 1 area improvements and additions will have great social, financial, environmental, functional and visual impact when completed. This area has the highest concentration of uses in the park and serves as the main gateway into the park for many users.

The current pavilion requires replacement to improve functionality and safety of the area. The proposed accessible boat dock and launch introduces a need for improved vehicular access for loading and unloading boats and equipment at the main activity node. Comprehensively upgrading this area by developing all the proposed elements at once limits the period of construction disturbance, benefiting users of the park and residents of the adjoining portion of the community of Riverdale. It would be most beneficial to seek funding for Phase 1 Growth elements in conjunction with the Renewal elements in this phase.

The proposed alignment for the new main vehicular access road will serve as the construction road for projects within the main activity node, reducing impacts to Riverdale residents.

The demolition of the existing pavilion and construction of the new amenity building should occur after the alignment of the main vehicular access road. To minimize construction disturbance in the area, the design of the new amenity building could incorporate a prefabricated construction method.

Earthworks and grading associated with the proposed boat dock and launch access pathway and the Dawson Park playground should occur during the construction period for the new amenity building. During this time, parking lot and trail re-configuration can also occur.

The renewal of the picnic area and the construction of the Dawson Park playground and formal gathering area should happen in a staggered fashion to enable passage through to the larger park area and to provide a functioning user area.

Completion of the proposed main vehicular access road will wrap up the construction efforts for the phase.

Phase 1 also includes a Monitoring and Adaptive Management Plan for off-leash use in the park. The estimated cost associated with the Monitoring and Adaptive Management Plan is intended to include program development (e.g. identification of indicators, thresholds and responses); baseline data collection and analysis; and a two-year monitoring program, analysis and reporting (assuming one monitoring event per year).

STUDIES / PREREQUISITES

- » A traffic signalization study and roadway re-configuration requirements at the intersection of Rowland Road and the proposed main vehicular access alignment. (A left turn lane in the eastbound direction on Rowland Road is recommended.)
- » A study to determine the of the feasibility and requirements for closing vehicular access into the park from the Riverdale community. (It is recommended to internally connect 89 Street, 103A Avenue and 87 Street.)
- » A study to determine the feasibility of replacing the existing pavilion as opposed to renovating the existing structure.
- » Neighbourhood engagement on proposed traffic and access changes.
- » Required building and development permits
- » Topographical surveys
- » Geotechnical reports

- » Contact Alberta One Call to locate utilities
- » Tree assessment prior to formalizing roads and trail alignments.
- » Historical Resources Act Clearance
- » Detailed utility assessment associated with pavilion replacement

SCOPE REDUCTION OPTIONS

Retaining the existing access from Rowland Road can reduce the scope of the project. The desirability of this option should be gauged through engagement with City Operations and the Riverdale community.

The current picnic site can be retained if the picnic elements are deemed not to be at the end of their life cycle.

The formal gathering area design can be simplified and the cost of realization reduced.

The proposed Dawson Park playground size and extent can be reduced.

CONTINGENCY AND SOFT COSTS

A contingency of 50% has been assigned to Phase 1 due to the risk of potential subsurface contamination in the vicinity of the proposed amenity building and the potential need for restoration and reclamation along the riverbank resulting from the area's historic use as a landfill.

The design and management fee of 35% is intended to include project management costs and costs for implementing recommended studies and prerequisites. This value does not include costs associated with further phasing of Phase 1 project components.

Table 5. Phase 1 Cost Summary

ELEMENTS	RENEWAL		GROWTH		TOTAL PROJECT
	Probable Cost	%	Probable Cost	%	
Amenity Building	\$1,225,000				
Vehicle Drop Off and Turnaround	\$87,600				
Lighting	\$252,000				
Picnic Area	\$133,250				
Trails and Sidewalks	\$45,000		\$50,275		
Site Servicing	\$200,000				
Planting - Turf and Native Grasses	\$26,600				
Wayfinding and Signs	\$42,000				
Main Vehicular Access			\$284,880		
Playground			\$587,300		
Formal Gathering Area			\$195,000		
Site Furniture	\$69,000				
Planting - Trees			\$162,000		
Planting - Shrubs			\$21,125		
Accessible Boat Dock			\$30,000		
River Access Path to Boat Dock			\$32,475		
Monitoring and Adaptive Management Plan for Off-Leash Use			\$30,000		
Sub Total	\$2,080,450	60%	\$1,393,055	40%	\$3,473,505
Contingency (50%)	\$1,040,225		\$696,528		\$1,736,753
Design and Project Management (35%)	\$728,158		\$487,569		\$1,215,727
Total Cost	\$3,848,833	60%	\$2,577,152	40%	\$6,425,984

Implementation Phase 1



Figure 53. Phase 1 - Main Activity Node and Main Vehicular Access

250 m

- | | | | | | |
|--|---------------------------------|--|----------------------|--|---------------------------|
| | Main Park Identification | | Dog Bag Dispenser | | Water Bottle Fill Station |
| | Secondary Pedestrian Trail Head | | Parking | | Washroom |
| | Wayfinding | | Gathering Space | | Bike Rack |
| | Interpretive Sign | | Picnic Table | | Play Features |
| | Regulatory Sign | | Boat Dock and Launch | | All Season Feature |
| | Trail Markers | | Potential Public Art | | |

Phase 2: River Valley Slopes, River Edge, Kinnaird Ravine, Access, Gateways, Amenities and Planting

Intent

- » Emphasize the park's identity at existing and newly proposed entrances and gateways.
- » Improve access throughout the park.
- » Direct informal access to designated gateways, trails, sidewalks and stairs.
- » Improve wayfinding throughout the park.
- » Increase interpretation of the natural and cultural dimensions of the park.
- » Create a series of nodes along the length of the park to formalize places to gather.

Phase 2 Elements

1. Main Multi-Use Asphalt Trail Upgrade
2. Granular Braille Trail Upgrades
3. New Granular Trails
4. Natural Surface Trail Upgrades
5. New Natural Surface Trail
6. Informal Trail Closures
7. New Wooden Stairs and Granular Trail at Latta Bridge
8. New Wooden Stairs at 78 Street
9. New Wooden Stairs at Ada Boulevard
10. Enhanced Park Entrances and Gateways
11. Park Wayfinding and Signage
12. Interpretive Signage
13. Shaded Resting Points and Gathering Areas
14. River Lookout
15. Seating Benches
16. Picnic Tables
17. New Planting (Trees, Shrubs)
18. Native Vegetation Restoration

Phase 2 Implementation Strategy

Phase 2 improvements are distributed throughout the park, focusing on trails and gateways. Funding for renewal projects may be more readily available, so upgrades to existing trails and pathways should be strategically implemented to address the highest priority safety and maintenance concerns.

Co-funding and/or partnerships for the creation and maintenance of natural surface trails may be explored with community groups and organized trail users.

Funding for select Growth elements, including new staircases, should be a focus where they support increased safety in the park and/or where they uniquely complement the Renewal trails by completing critical connections.

Gathering areas along the trails should be constructed prior to trail improvements along the main mobility corridor. Gathering areas include elements such as seating and picnic benches as well as wayfinding and interpretive signage along the multi-use trail. The multi-use trail may be used for construction access and staging.

Upgrades to the paved multi-use trail and the granular Braille Trail should occur next. Upgrades include new trees and shrubs and the restoration of select turf areas to native vegetation.

STUDIES/PREREQUISITES

- » Required development permits
- » Topographical surveys
- » Geotechnical reports
- » Contact Alberta One Call to locate utilities
- » Tree assessment prior to formalizing trail alignments
- » Historical Resources Act Clearance

SCOPE REDUCTION OPTIONS

The Master Plan proposes several Growth elements to enhance the user experience of the park. Various elements have been suggested by the public through the engagement process. However, these elements are not critical to the use of the trails in the park. Seating, gathering areas and the river overlook may be reduced, omitted or deferred to a later phase.

CONTINGENCY AND SOFT COSTS

A contingency of 20% has been assigned to Phase 2. The level of risk for completing Phase 2 work is lower than other phases because of the limited excavation required to complete the proposed work. However, there is potential for contamination or riverbank instability to affect development due to the area's historic land use as a landfill.

The design and management fee of 25% is intended to include project management costs and costs for implementing recommended studies and prerequisites. This value does not include costs associated with further phasing of Phase 2 project components.

Table 6. Phase 2 Cost Summary

ELEMENTS	RENEWAL		GROWTH		TOTAL PROJECT
	Probable Cost	%	Probable Cost	%	
Trail Upgrades and Closures	\$354,469				
Restoration	\$115,800				
New Trails and Stairs			\$927,205		
Planting			\$105,000		
Wayfinding and Signs	\$234,000				
Site Furnishings and Small Structures	\$172,725		\$450,000		
River Lookout and Access Points			\$165,000		
Sub Total	\$876,994	35%	\$1,647,205	65%	\$2,524,199
Contingency (20%)	\$175,399		\$329,441		\$504,840
Design and Project Management (25%)	\$219,248		\$411,801		\$631,050
Total Cost	\$1,271,641	35%	\$2,388,447	65%	\$3,660,088

Implementation Phase 2

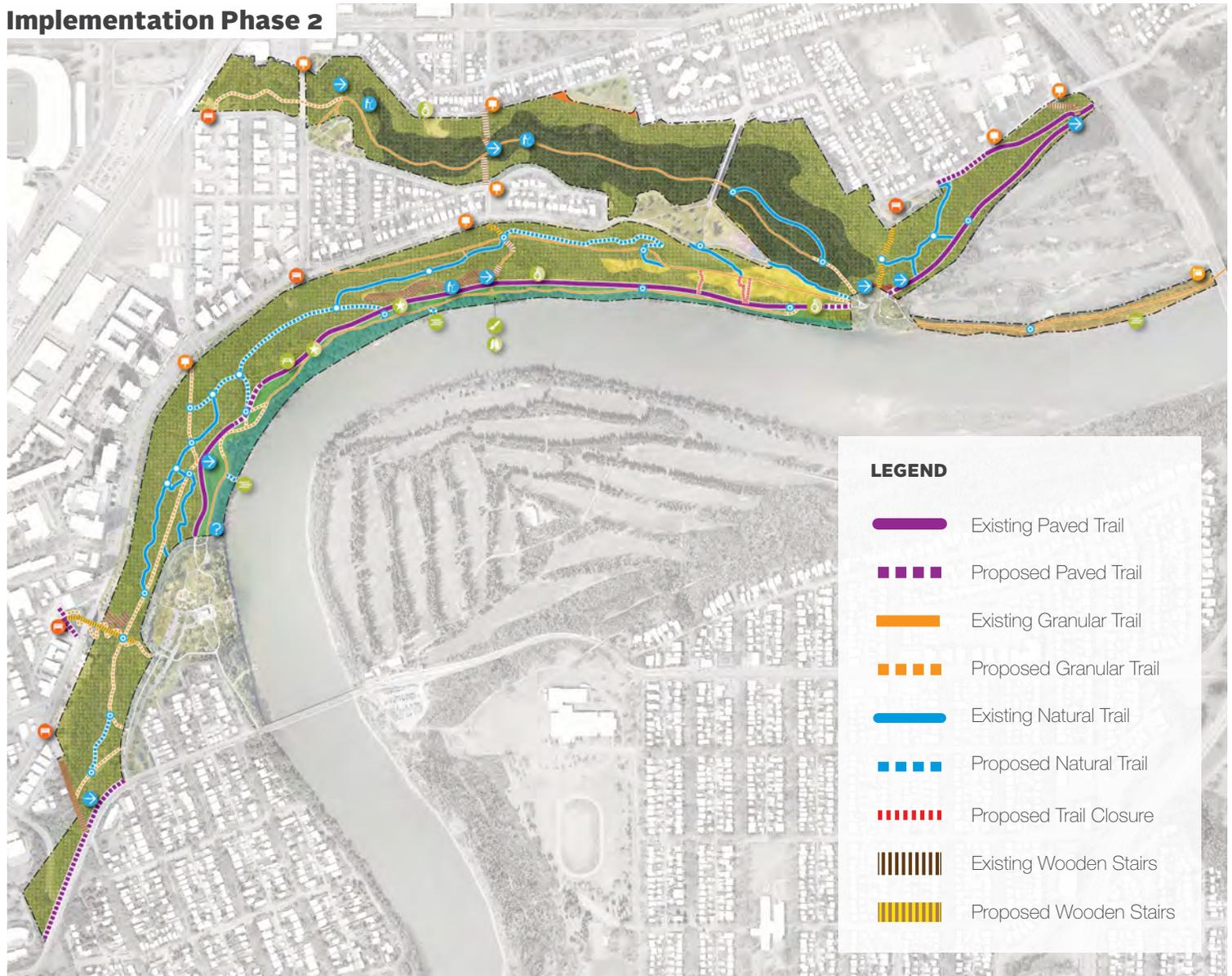
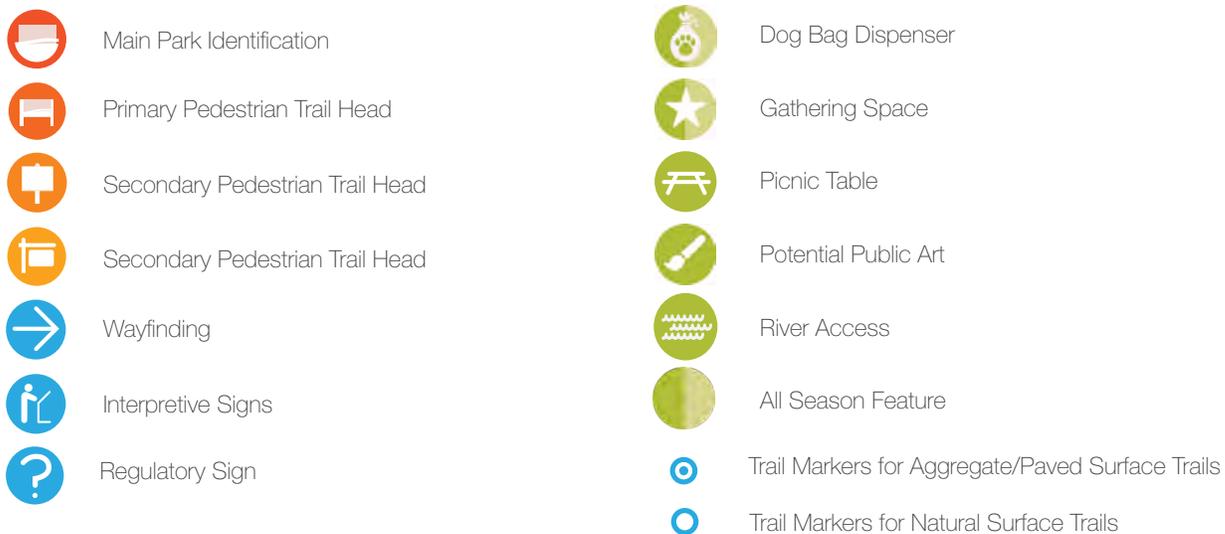


Figure 54. Phase 2 - River Valley Slopes, River Edge, Kinnaird Ravine, Access, Gateways, Amenities and Planting 250 m 



Phase 3: Top-of-Bank Upgrades and Amenities

Intent

- » Improve the safety and pedestrian experience along the Jasper Avenue between Alex Taylor Road and 84 Street.
- » Create visible and identifiable access points into the park from the top-of-bank.
- » Enhance existing and create new learning, interpretation and play opportunities in community top-of-bank parks.

Phase 3 Elements

1. Jasper Avenue Promenade
 - » Jasper Avenue Promenade Gathering Areas
 - » Jasper Avenue Lookout Upgrades
 - » Jasper Avenue Pedestrian Lighting
 - » Jasper Avenue Plantings (Street Trees, Shrubs)
 - » Jasper Avenue Guardrail
2. Kinnaird Park Improvements
 - » New Natural Trails
 - » New Granular Trails
 - » Prairie Garden
 - » Learning Landscape
 - » Lookout Points
 - » Interpretive Signs
 - » Public Art
3. Sheriff Robertson Park Improvements
 - » Paved Trails
 - » Playground Addition
 - » Butterfly Garden
4. Jane Salisbury Park Improvements
 - » Natural Surface Trails
 - » Benches and Picnic Area
 - » Naturalization
 - » Interpretive Sign
5. John C. Hall Building Re-purposing

Phase 3 Implementation Strategy

Phase 3 improvements are comprised of several distinct areas that could be implemented as separate projects.

The largest component of Phase 3 is the proposed promenade along Jasper Avenue between Alex Taylor Road and 84 Street. These improvements would be best realized in conjunction with any future streetscape or neighbourhood renewal improvements to this section of Jasper Avenue, which would be the main source of funding for the proposed improvements.

The existing playground in Sheriff Robertson Park is scheduled for renewal through the Neighbourhood Association. The proposed upgrades through the Master Plan should be realized concurrently with the scheduled renewal to minimize construction disruption to the neighbourhood.

STUDIES/PREREQUISITES

- » Required development and building permits
- » Condition assessment for the John C. Hall building
- » Topographical surveys
- » Geotechnical reports
- » Contact Alberta One Call to locate utilities
- » Tree assessment prior to formalizing road and trail alignments
- » Historical Resources Act Clearance

CONTINGENCY AND SOFT COSTS

A contingency of 30% has been assigned to Phase 3 due to the risk of potential subsurface contamination from adjacent land parcels at the top-of-bank. Re-naturalization efforts (particularly in Kinnaird Park) may also require some trial and error to determine the most appropriate methodology. The costs of these exercises are intended to be covered by the contingency.

The design and management fee of 25% is intended to include project management costs and costs for implementing recommended studies and prerequisites, including the condition assessment for the John C. Hall building. (Improvements and renovations to the John C. Hall building have not been included in the cost estimate for the Master Plan.) This value does not include costs associated with further phasing of Phase 3 project components.

Table 7. Phase 3 Cost Summary

ELEMENTS	RENEWAL		GROWTH		TOTAL PROJECT
	Probable Cost	%	Probable Cost	%	
Jasper Ave. Improvements - Lighting	\$714,000				
Jasper Ave. Improvements - Paving and Guardrail			\$592,500		
Restoration	\$90,000				
Site Furnishings and Small Structures	\$163,500		\$59,400		
Planting			\$253,700		
Trails and Sidewalks	\$656		\$1,061,607		
Wayfinding and Signs	\$71,000				
Kinnaird Park Improvements (Does not include pathways)			\$75,000		
Sheriff Robertson Park Improvements (Does not include pathways)			\$213,700		
Sub Total	\$1,039,156	32%	\$2,255,906	68%	\$3,295,063
Contingency (30%)	\$311,747		\$676,772		\$988,519
Design and Project Management (25%)	\$259,789		\$563,977		\$823,766
Total Cost	\$1,610,692	32%	\$3,496,655	68%	\$5,107,347

Implementation Phase 3

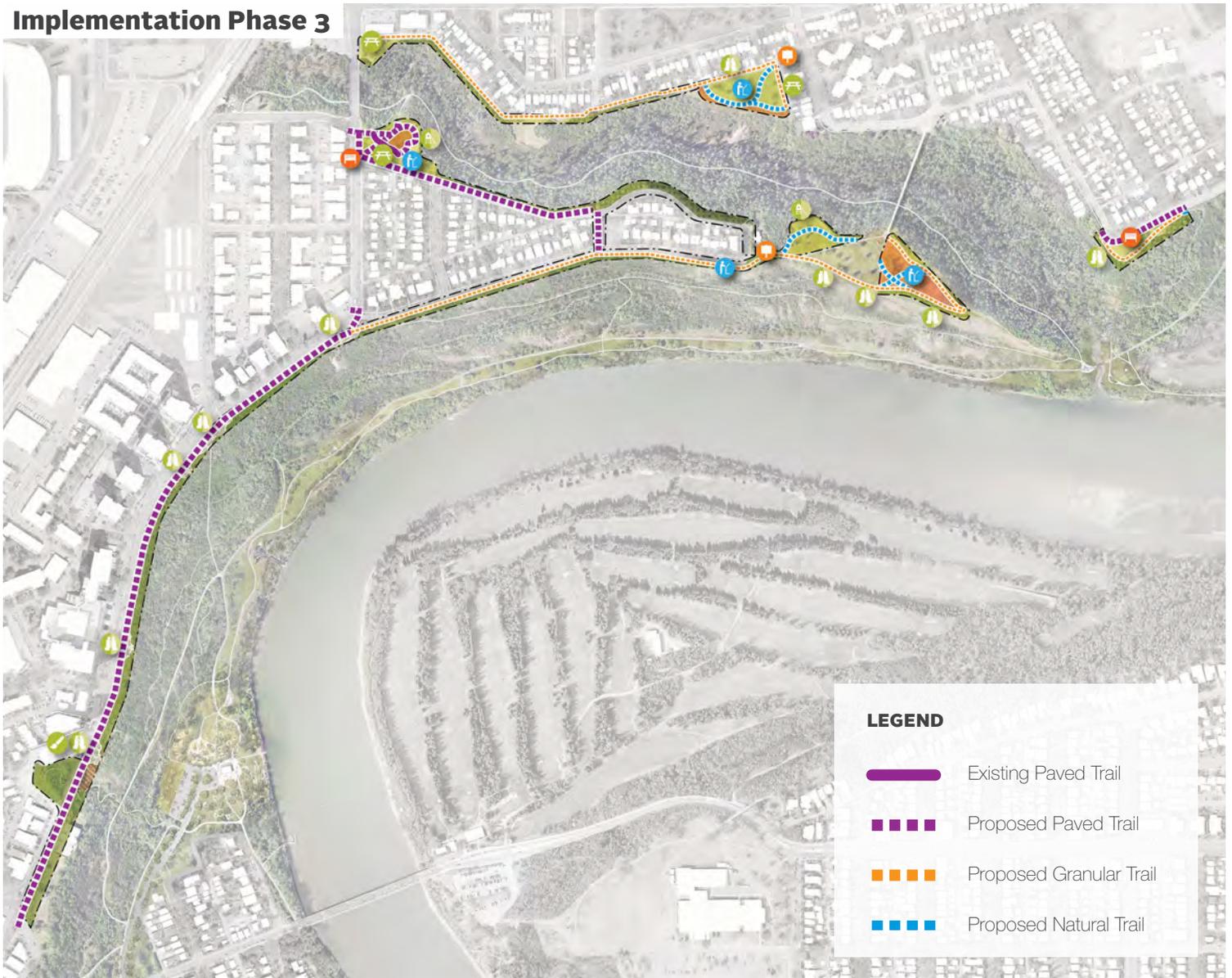


Figure 55. Phase 3 - Top-of-Bank Upgrades

- | | | | |
|--|---------------------------------|---|----------------------|
|  | Primary Pedestrian Trail Head |  | Dog Bag Dispenser |
|  | Secondary Pedestrian Trail Head |  | Picnic Table |
|  | Wayfinding |  | Potential Public Art |
|  | Interpretive Signs |  | Lookout |
| | |  | All Season Feature |

Phase 4: Rat Creek Restoration

Intent

- » Daylight Rat Creek, restoring the buried hydrological connection to the North Saskatchewan River.
- » Enhance the aquatic and terrestrial habitat value as well as the experiential and visual interest of the area.
- » Increase the educational and interpretive potential of the area.
- » Create fish spawning habitat along the edge of the North Saskatchewan River.

Phase 4 Elements

1. Restored Rat Creek Stream Bed with Back Flow Area
2. Deep Water Fish Habitat Area
3. New Paved Trail section
4. New Granular Trail section
5. Pedestrian Bridge across Restored Stream Bed
6. Gathering Area and Structure
7. Seating
8. River Lookout

Phase 4 Implementation Strategy

Phase 4 should be completed as a single, distinct project including the components listed above. The phase will create a significant amount of disturbance to the immediate area and will require access by heavy machinery.

Construction equipment can access the site using the multi-use trail from the main activity node or from Ada Boulevard near Concordia University, which is a closer access point.

Federal and Provincial funding for creating fish habitat may be available to support this phase.

The gathering area east of the proposed restoration of Rat Creek may be used for gathering for Indigenous Peoples. Funding support could be sought to support this use in the park.

STUDIES/PREREQUISITES

- » Consultation with Federal and Provincial Regulators (DFO, NPA, Environment Canada, Alberta Environment and Parks, Alberta Culture and Tourism
- » ECO Plan
- » Required development permits
- » Topographical surveys
- » Geotechnical reports
- » Stream Engineering
- » Tree assessment prior to formalizing trail alignments
- » Historical Resources Act Clearance

SCOPE REDUCTION OPTIONS

The gathering area and associated structures and seating may be omitted without compromising the restoration intents of the project.

The proposed pedestrian bridge is an important feature that maintains the daylighting of Rat Creek as an open and visible stream bed. A less desirable, but less costly, option would be to replace the proposed bridge with a short culvert to support the connection of the multi-use trail across the creek. This would compromise the daylighting project but would present an alternative to reduce the capital cost of the phase.

CONTINGENCY AND SOFT COSTS

A contingency of 50% has been assigned to Phase 4 due to the risk of potential subsurface contamination and/or instability near the mouth of Rat Creek. Because this phase will include consultation with Federal and Provincial regulators, the contingency is also intended to cover potential additional requirements imposed by these regulators.

The design and management fee of 35% is intended to include project management costs and costs for implementing recommended studies and prerequisites. This value does not include costs associated with further phasing of Phase 4 project components.

Table 8. Phase 4 Cost Summary

ELEMENTS	RENEWAL		GROWTH		TOTAL PROJECT
	Probable Cost	%	Probable Cost	%	
Rat Creek - Restoration	\$155,675		\$1,348,000		
Planting	\$9,000		\$9,000		
Trails			\$14,350		
Wayfinding and Signs	\$18,000				
Site Furniture and Structures	\$24,500		\$310,000		
Sub Total	\$207,175	11%	\$1,681,350	89%	\$1,888,525
Contingency (50%)	\$103,588		\$840,675		\$944,263
Design and Project Management (35%)	\$72,511		\$588,473		\$600,984
Total Cost	\$383,274	11%	\$3,110,498	89%	\$3,493,771

Implementation Phase 4

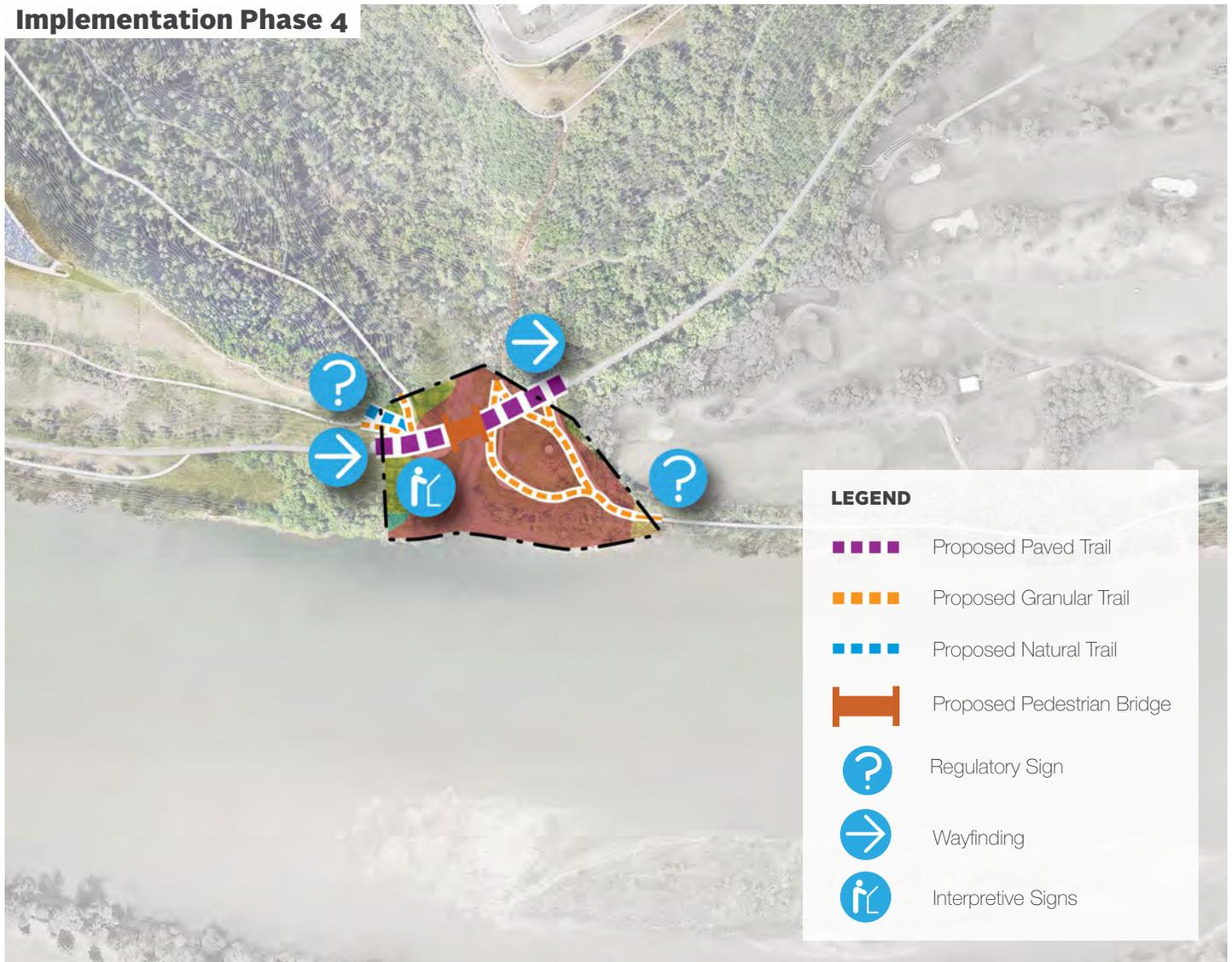


Figure 56. Phase 4 - Rat Creek Restoration

250 m

Phase 5: Kinnaird Ravine Crossing

Intent

- » Improve connections into the park and the River Valley from green spaces and neighbourhoods to the north.
- » Introduce a new, one of a kind experience for park user by providing a view over the ravine and through the top of the tree canopy.

Phase 5 Elements

1. Kinnaird Ravine Crossing (simple suspension steel structure bridge)
2. Concrete Landing Areas / Plazas at both ends of the bridge
3. Associated planting, trails and signs

Phase 5 Implementation Strategy

The Kinnaird Ravine crossing may only be completed in one phase, as it is composed of a single structural element. The timing of Phase 5 is independent of other phases. Because of the high cost of the bridge and the potential impact to the community during construction, it is proposed as the final phase of the Master Plan implementation strategy. At the time

of implementation for Phase 5, projects to the north, including the Coliseum Station ARP, may be underway and can help direct the pedestrian connection to the bridge.

STUDIES / PREREQUISITES

- » Geotechnical and structural feasibility reports
- » Neighbourhood engagement
- » Required building and development permits
- » Topographical surveys
- » Contact Alberta One Call to locate utilities
- » ECO Plan
- » Tree assessment prior to formalizing bridge alignment
- » Historical Resources Act Clearance

SCOPE REDUCTION OPTIONS

There are no viable scope reduction options for this phase other than the full omission of the Kinnaird Ravine crossing.

CONTINGENCY AND SOFT COSTS

A contingency of 50% has been assigned to Phase 5 due to the conceptual nature of the suspension bridge design. The design and management fee of 25% is intended to include project management costs and costs for implementing recommended studies and prerequisites. This value does not include costs associated with further phasing of Phase 5 project components.

Table 9. Phase 5 Cost Summary

ELEMENTS	RENEWAL		GROWTH		TOTAL PROJECT
	Probable Cost	%	Probable Cost	%	
Planting (Turf)	\$7,500				
Trails			\$16,380		
Wayfinding and Signs	\$10,000				
Kinnaird Ravine Crossing			\$4,500,000		
Sub Total	\$17,500	<1%	\$4,516,380	>99%	\$4,533,880
Contingency (50%)	\$8,750		\$2,258,190		\$2,266,940
Design and Project Management (25%)	\$4,375		\$1,129,095		\$1,133,470
Total Cost	\$30,625	<1%	\$7,903,665	>99%	\$7,934,290

Implementation Phase 5



Figure 57. Phase 5 - Kinnaird Ravine Crossing

250 m N

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