EAST WELLINGTON PARK PLAN

February, 2023 - Draft

Photo credit: James Knight

CITY OF NANAIMO
THE HARBOUR CITY

Table of Contents

Figures

1.0 INTRODUCTION

East Wellington Park is a 12.7-hectare (29.7 acre) parcel, located at 2191 East Wellington Road. The property was acquired by the City of Nanaimo in 2014 to facilitate expansion of the Millstone Greenway, a continuous city-owned nature corridor leading from Maffeo Sutton Park to East Wellington Road l·f2yƎ ŭKŜ a ffăŭ2yŜ wØŜℕ. The East Wellington Park property has long been enjoyed as an informal place for nature appreciation, night sky viewing, dog walking, and other outdoor recreation. The purpose of the East Wellington Park Plan is to create a guide for future improvements and use of the park.

Figure 1: Park Location

1.1 Nanaimo City Plan

Under City Plan, strategic goals have been identified by the community to help focus community balance and transformational change. Together, they are intended to represent what is important for the City of Nanaimo. East Wellington Park Plan contributes to a number of these goals.

"Parks, open spaces, and park amenities are essential to a high quality of life for local residents. Strategic expansion of park spaces, alongside development and management of existing assets and park infrastructure, will support continued opportunities for people to connect with nature, with the community, and with one another." (City Plan 2022)

1.2 Park Vision

East Wellington Park offers a location for a variety of users to enjoy the natural surroundings, while recognizing the environmental sensitivity and agricultural significance of the land. The protection and conservation of this natural environment will be balanced with appropriate agricultural, recreational and educational opportunities for the community.

1.3 Park Goals

The East Wellington Park Plan includes:

1. Supporting Reconciliation with Snuneymuxw First Nation
2. Environmental Conservation and Restoration
3. Supporting Agricultural Production
4. Integrating Education and Research
5. Accommodating other Recognized Uses
6. Improving Park Access and Amenities

1: Support Reconciliation

Reconciliation involves the building of government-to-government relationships with indigenous peoples, based on recognition of rights, respect, co-operation and partnership. In coordination with Snuneymuxw First Nation, the City will seek opportunities to collaborate on environmental restoration in this park and other opportunities for shared use of the space.

2: Support Environmental Conservation and Restoration

East Wellington Park has substantial environmental value as a location that supports a wide variety of flora and fauna, including some species listed under the federal *Species at Risk Act*. It also provides an important regional habitat corridor for both fish and wildlife. Protecting and enhancing this property's natural environment is a community priority for the park.

3: Support a Return to Agricultural Production

East Wellington Park is located within the Agricultural Land Reserve (ALR), a provincial land use designation intended to preserve agricultural land and encourage farming. The park presents special opportunities to develop community partnerships and reintroduce agricultural production in this area.

4: Integrate Education and Research

East Wellington Park can support both formal and informal education, and academic research. There are also opportunities to share interpretive information throughout the site for park users.

5: Accommodate Other Recognized Uses

East Wellington Park has long been enjoyed as an informal place for nature appreciation, night sky viewing, dog walking and other outdoor recreation. There are opportunities to work with community groups to create park improvements that support a variety of park user groups.

6: Improve Park Access and Amenities

East Wellington Park experiences seasonal flooding conditions. The development of a raised trail system, improved accessible parking, and viewing platforms will allow park users, including those with mobility limitations, to access and enjoy the park on a year-round basis.

1.4 Plan Development Process

This plan was developed through a planning process involving substantial community and stakeholder consultation, as well as environmental studies and assessment reviews.

Key groups involved in developing this plan included:

- Current Park Users & Park Neighbours
- Nanaimo Astronomy Society
- Nanaimo Fly Fishers Association
- Nanaimo Model Airs Club
- Dog Walkers
- Nanaimo Community Gardens Society
- Nanaimo Foodshare Society
- Vancouver Island University

Following is a summary of the park planning process that was followed:

Stage 1 – Review Existing Conditions

- Developed base maps and surveys of the site.
- Reviewed Biophysical Assessment Report (2011) and other background material.
- Posted information signs at the park about the planning process.

Stage 2 – Community Engagement

- Met with park users and stakeholder groups to discuss park improvement ideas.
- Hired a Qualified Environmental Professional to complete an update of the biophysical inventory (Biophysical Assessment & User Group Land Review, 2018).
- Held public input session #1 on site (2018).
- An online survey conducted and ongoing communication provided to the public about the planning process.

Stage 3 – Analysis and Plan Preparation

- Assessed survey results, stakeholder input, and professional reports.
- Drafted park goals, objectives, and improvement actions based on input, site opportunities, and site constraints.
- Presented draft plan to Council for review and approval to proceed with next steps (Oct 28, 2019).

Stage 4 – Community Engagement, Further Study and ALC Application

- A draft park plan was presented to the public and stakeholders for review and input, (Jan 18, 2020 open house, online, and stakeholder meetings).
- Millstone River East Wellington Park Side Channel Conceptual Design completed (April 13, 2021).
- Agricultural Assessment completed (May 10, 2021).
- A Non-Farm Use application submitted to the Agricultural Land Commission (ALC).

2.0 PARK FEATURES

Historical and agricultural uses of this 12.7-hectare (29.7 acre) parcel of land and its unique topographical, environmental and biological features have guided the development of this park plan.

2.1 Site Context and Topography

The park is surrounded by rural residential and agricultural properties. The property lies within the Moist Maritime Douglas Fir Subzone (CDFmm) which is restricted to low elevations along southeast Vancouver Island. This property lies in an area that is in the rain shadow of the Vancouver Island and Olympic Mountains resulting in warm, dry summers and mild, wet winters. Growing seasons are very long and feature pronounced water deficits on zonal and drier sites in the summer and flooding during the winter months (Aquaparian Environmental Consulting Ltd. 2018).

The property is characterized as an agricultural field consisting of alluvial soils deposited by the Millstone River. It has been used to grow hay for a number of years. This grass field covers the majority of this parcel of land, bordered by stands of deciduous and coniferous trees with a dense shrub understory. The park has an irregular shape averaging approximately 250m wide by 580m in length, oriented northwest to southeast. A rocky escarpment runs along the northeast property boundary and the Millstone River forms the southwest border of the property, providing important regional habitat for both fish and wildlife use. The Millstone River forms the main influencing resource feature within the property (Aquaparian Environmental Consulting Ltd. 2018).

There are existing sanitary sewer lines running parallel with the northeast property line, which are scheduled to be upgraded in 2024 as part of the Millstone Sewer Trunk upgrade project. In addition, Right-of-ways exist to allow for trail construction between Westwood Road and East Wellington Road as part of the sewer upgrade project.

2.2 Historical Background

East Wellington Park is located on the Traditional Territory of the Snuneymuxw First Nation (SFN), who have many significant ancestral village sites throughout the city and cultural ties to the rivers and waterways of this territory, including the Millstone River. While there are no known archaeological sites on the property, the property is identified as having high archaeological potential and has similar characteristics to areas in which archaeological artifacts have previously been recorded. (Archaeological Branch of the Ministry of Forests, Lands and Natural Resource Operations)

In 1864, the Westwood family arrived in Nanaimo and developed 650 acres between Nanaimo and Wellington in the Mountain District, which included the property, now know as East Wellington Park, and the location of the East Wellington Colliery. This mine site was located near the intersection of East Wellington Road and Maxey Road. William Westwood died in 1872, and the family eventually sold the coal rights for the property in 1883 to Richard D. Chandler who outbid Robert Dunsmuir and purchased the coal rights for $100,000 to Dunsmuir's offer for $25,000. Chandler was a San Francisco entrepreneur who formed the East Wellington Coal Company and owned the South Wellington Collieries (https://www.nanaimoarchives.ca).

Mining operations at the East Wellington Colliery commenced in 1882, and despite limited success, the site was continually developed in the hopes of finding good coal. In 1893, the East Wellington Mines were closed and flooded, and in 1894, in what must have felt like a repeat of the past, Chandler's mines were taken over by Robert Dunsmuir and became part of the Wellington Colliery.

Today, located between the City of Nanaimo and part of the Regional District of Nanaimo's Area C, the land around the former colliery is now primarily residential, with a definite rural feel. Although the coal days are long over, small reminders of Vancouver Island's mining history can still be found in the street names in the area (https://vanislehistoryexplorer.ca).

2.3 Site Hydrology

The property is located within the floodplain of the Millstone River. A drainage ditch, likely influenced by groundwater seepage near the toe of the escarpment, is located along the northeastern edge of the field, flowing southeast and forming ponded areas in the field during the rainy season. A ponded area in the centre of the field appears to be wetted during seasonal periods of high precipitation and related to seasonal water levels in the Millstone River and from underlying groundwater levels. (Aquaparian Environmental Consulting Ltd. 2018)

Groundwater levels within the site are expected to be high throughout the year due to the topography of the area and the proximity of the Millstone River. Seasonal perched groundwater during wet winter months form a series of shallow wetlands within the northern half of the field. The shallow wetlands can be dry but still support an abundance of tall grasses and sedges. (Aquaparian Environmental Consulting Ltd. 2018) The property is also identified as an Environmentally Sensitive Area (ESA) - seasonally flooded agricultural field. During the rainy season, the park floods, which limits park access but provides an important ecological function. (Haddow, 2021)

Figure 2: Seasonal Flooded Area

2.4 Flora and Fauna

Fieldwork completed by Chatwin Engineering Ltd. (April 2011) along with additional surveys within the spring and summer growing season by Aquaparian Environmental Consulting Ltd (Sept 2018), provided information on the natural features of this property and restoration opportunities.

Flora (Vegetation)

A total of 57 plant species were identified, six being types of trees, 17 shrub species, and 34 non-woody plant species. None of the plants identified on the site appear on regional lists of rare or endangered plants. The majority of the property is a grass field used to grow hay for many years. The northeast side of the property between the field and the base of the rock bluffs is vegetated with a mixed canopy of deciduous and coniferous trees and dense shrub cover. A drainage ditch is located within the vegetated buffer and runs parallel to a City sanitary sewer line.

Fawn lilies on rocky bluffs

Fauna (Wildlife)

The Millstone River watershed supports a diversity of wildlife including large and small mammals, bats, songbirds, and amphibians. The interspersion of open field, seasonal wetland, mixed riparian, and hedgerow habitats has resulted in a relatively diverse bird assemblage for this site. Seasonal inundated wetlands may also support the breeding of several native amphibians.

Northern Red Legged Frog, a Species-At-Risk found at East Wellington Park

Fish and other Aquatic Life

The provincial Fisheries Inventory – FISS Fish Distributions Report identified the following species in the Millstone River: cutthroat trout (Oncorhyncus clarkii), sculpin, chum salmon (Oncorhyncus keta), coho salmon (Oncorhyncus kisutch), pumpkinseed (Lepornis gibbosus), steelhead salmon (Oncorhyncus mykis) and threespine stickleback (Gasterosteus aculeatus).

Species-at-Risk

The *Species-at-Risk Act* (SARA) is designed to create species awareness and prevent or reduce the likelihood of wildlife species from becoming extinct or extirpated due to habitat disturbance or destruction. A search of the BC CDC database for species occurrence records for the subject property was completed and no known rare element occurrences were identified within the property, however, 31 species were identified as red-listed species and 54 identified as blue-listed species. Red-listed species are deemed extirpated, endangered or threatened, while Blue-listed species are deemed to be of special concern (Aquaparian Environmental Consulting Ltd. 2018).

2.5 Agriculture

The entire East Wellington Park property falls within the boundaries of the Agriculture Land Reserve (ALR), a Provincial land use zone administered by the Agricultural Land Commission (ALC), in which agriculture is recognized as the priority land use.The purposes of the Agriculture Land Commission (ALC), as set out in Section 6 of the ***Agricultural Land Commission Act*** are:

- to preserve agricultural land;
- to encourage farming in collaboration with other communities of interest; and
- to encourage local governments, First Nations, the government, and its agents to enable and accommodate farm use of agricultural land and uses compatible with agriculture in their plans, bylaws, and policies (*Agriculture Land Commission Act, Chapter 36, March 24, 2021*).

The dominant soils in the East Wellington fields are of the Chemainus[1] soil series, which are loam to silt loam and are moderately well to imperfectly drained. The internal soil drainage and excellent nutrient and moisture storage capabilities of the Chemainus soils make them some of the most productive agricultural soils on Vancouver Island. They can support a wide diversity of crops and with water for irrigation are very productive. However, at East Wellington Park, the lowest laying soils are subject to periodic flooding in the late fall and winter season, while the mid elevation soils (in relation to the Millstone river elevation) are subject to flooding during and following major storm events. The highest elevation field areas are subject to flooding during periods of 1 in 20 storm events or larger.

The single early summer forage crop harvest optimizes soil organic matter, minimizes soil compaction and is ecologically friendly. The perennial crop cover provides nesting and foraging habitat for ground nesting bird species such as the Savanah Sparrows and Killdeer. It also provides habitat for reptiles, voles, and mice. Small mammals are a food source

for birds of prey. Fall regrowth of the forage crop helps protect the soil from erosion during winter and early spring flood events. The hay field is generally hayed in mid to late July. Pasture productivity of up to 3.5 tons of dry matter per acre (7-8 tonne/ha) is possible (Gunner A, 1994). With fertilization, drainage, and irrigation this number can be increased to 10-14 tonnes/ha (S Bittman et al, 1999). These quantities represent fair to good productivity for single cut, dryland hay farming on Vancouver Island (Haddow, 2021).

Forage Crop at East Wellington Park

3.0 THE PARK PLAN

The following section outlines the goals with objectives and actions for East Wellington Park.

3.1 Park Goals, Objectives and Actions

1: Support Reconciliation

Reconciliation involves the building of government-to-government relationships with indigenous peoples, based on recognition of rights, respect, co-operation and partnership.

Objectives:	**Actions:**
East Wellington Park provides an opportunity to build on this foundation with Snuneymuxw First Nation (SFN) through the restoration and co-management of key environmental features within the Park.	i. In coordination with Snuneymuxw First Nations, the City will seek opportunities to collaborate on environmental restoration opportunities in the Park and work together to design, establish, and manage these features in a sustainable and respectful manner. The City will obtain an archaeology assessment prior to any excavation work.

2: Support Environmental Conservation and Restoration

East Wellington Park has substantial environmental value. Protecting and enhancing this property's natural environment is the community's top priority for the park. The park supports a wide variety of flora and fauna, including some species listed under the federal *Species at Risk Act*. The Millstone River provides an important regional habitat corridor for both fish and wildlife while the hay field provides important habitat for migratory waterfowl, amphibians, and many other species. (Northwest Hydraulic Consultants Ltd. 2021)

Objectives:	**Actions:**
a. Enhance the Millstone River and its Riparian Area	i. Increase the Millstone River Riparian buffer to 30m where feasible, and delineate with fencing; ii. Remove and manage invasive plants and restore with appropriate plantings; iii. Explore opportunities to partner with Snuneymuxw First Nation, Vancouver Island University, volunteers and community groups to complete invasive species removal and restoration work; iv. Consult with a Qualified Environmental Professional to determine any in-stream work that may improve the health and habitat value of the Millstone River such as constructing riffles and spawning gravel pads and adding instream complexing features such as large woody debris.
b. Create new habitat areas for fish, amphibians, birds, and other wildlife	i. Explore opportunities to develop fish spawning and rearing habitat within and adjacent to the Millstone River; ii. Explore opportunities to develop and enhance amphibian habitat, separated from fish habitat, and designed to prevent American Bullfrog colonization, in consultation with a qualified professional;

	iii. If feasible, design enhancements to the existing back channel and wetland system; iv. Plant native trees and shrubs with the goal of out-competing the farm grass and naturalizing specific areas; v. Explore opportunities to partner with Snuneymuxw First Nation, Vancouver Island University, volunteers and community groups, to complete the habitat enhancement works.

3: Support a Return to Agricultural Production

East Wellington Park is located within the Agricultural Land Reserve (ALR), a provincial land use designation intended to preserve agricultural land and encourage farming. While being in the ALR limits certain park uses, it also presents special opportunities to develop partnerships to support local agricultural production.

Objectives:	**Actions:**
a. Facilitate ecologically sensitive agriculture and horticulture opportunities within the park	i. Focus on agriculture and horticulture practices that respect and enhance the park's biodiversity and wildlife habitat, and enhance rather than reduce the park's ability to store flood water; ii. Utilize the Agricultural Assessment results to guide any agricultural use and management of the property (Agriculture Assessment of East Wellington Park 2021); iii. Restore biodiversity and pollinator populations with careful selection of native flowers and plants; iv. Improve soil biodiversity with the addition of organic matter and building raised beds.
b. Collaborate with other agencies and community groups	i. Encourage use and research agreements with Vancouver Island University, Nanaimo Foodshare Society, and/or other community groups focused on agriculture and horticulture; ii. Explore recommendations of the Agricultural Assessment Report of East Wellington Park (2021), to establishing a farm allotment program with community user groups or individuals, looking at local crop development to provide food for local consumption; iii. Maintain ongoing communication with the Agricultural Land Commission (ALC) regarding park uses in relation to their mandate to preserve agricultural land and encourage farming.

4: Integrate Education and Research

There are a number of opportunities for East Wellington Park to support both formal and informal education, and academic research with community partners and academic institutions. With guidance and approval from the ALC, there are also opportunities to share interpretive information throughout the site.

Objectives:	Actions:
a. Celebrate agriculture, horticulture, astronomy, and the environment through appropriately scaled educational and research activities (where approved by the ALC.)	i. Encourage use agreements with VIU, Nanaimo Foodshare Society, Nanaimo Community Gardens Society, School District 68, City of Nanaimo Parks, Recreation and Culture Department, and other community groups focused on agriculture/ horticulture education and programming; ii. Consider interpretive signage related to environmental enhancement, astronomy, agriculture, horticulture, and park history at key locations throughout the park; iii. Explore programming special events open to the general public; iv. Explore innovative research opportunities integrating agricultural practice with environmental restoration techniques and other environmentally sensitive research projects.

5: Accommodate Other Recognized Uses

East Wellington Park is a popular location for a number of informal activities from nature appreciation to dog walking to star gazing. There are opportunities at this location to collaborate with community groups and individuals to make park improvements that will support a variety of uses.

East Wellington Park is a popular astronomy location due to its open views to the south and minimal light pollution in the area. Specific park improvements have been identified to help support astronomy activities.

Objectives:	Actions:
a. Encourage use of the park for astronomy	i. Collaborate with the Nanaimo Astronomy Society on development of the park for astronomy purposes; ii. Develop an accessible viewing area with potential features including: • a decorative structure or strategic landscaping to block light intrusion from street lights; • a concrete pad to support telescopes; • seating & interpretive signage; • artistic and landscape features; iii. Encourage astronomy education and research in alignment with ALC regulations.
b. Preserve dark skies in the area	i. Collaborate with the Nanaimo Astronomy Society to apply for an "Urban Star Park" designation for East Wellington Park through the Royal Astronomical Society of Canada; ii. Maintain ongoing communication with BC Hydro, the City of Nanaimo's Engineering and Public Works Department, and the Regional District of Nanaimo regarding street lights and dark sky goals.

East Wellington Park is also a popular location for dog owners to visit. Dog activity and trail development requires specific approval by the ALC through the non-farm use application process to provide guidelines and maintain agriculture uses.

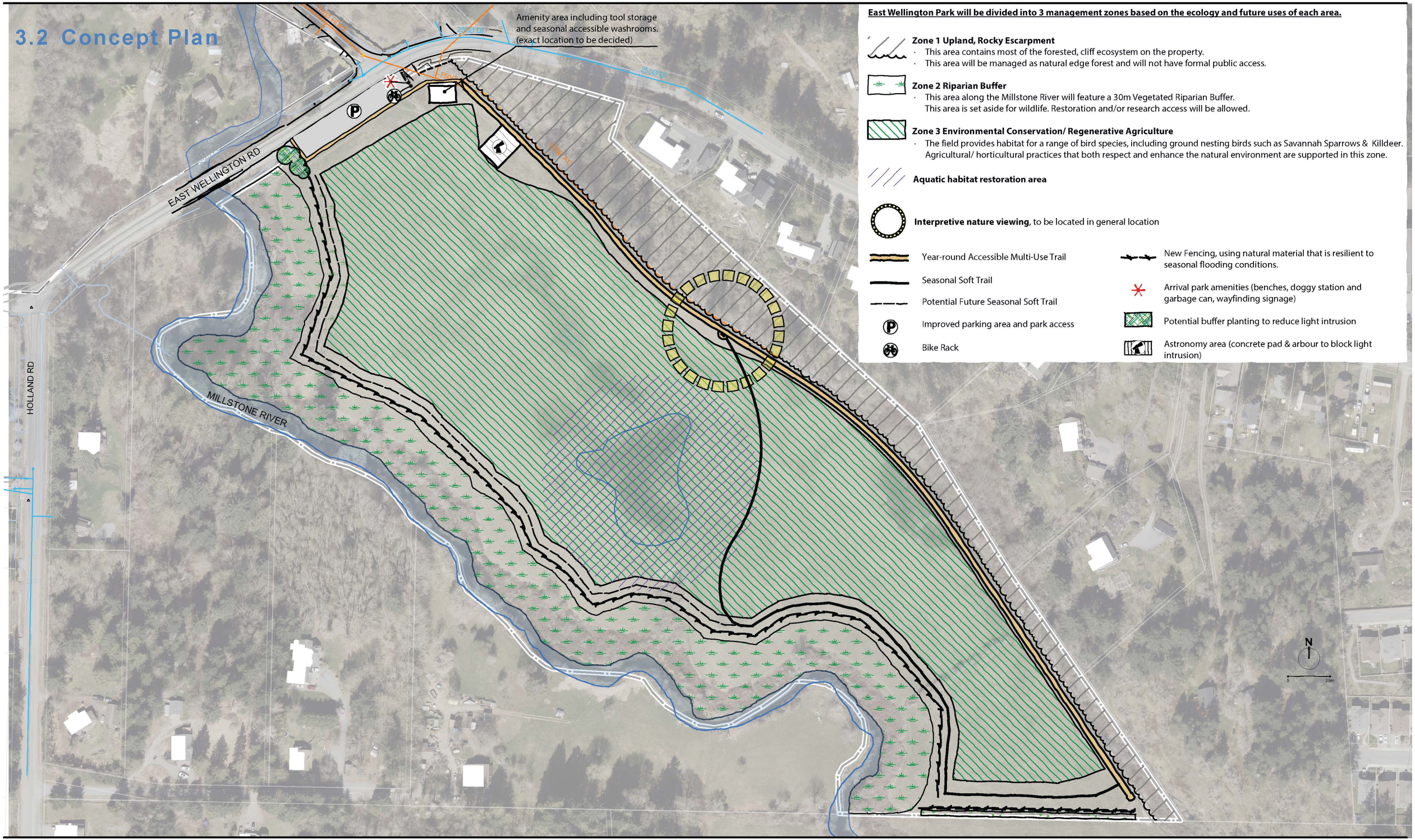
Objectives:	Actions:
a. Support dog activity which does not interfere with the environmental integrity or agricultural potential of the park and surrounding properties and as approved by the ALC non-farm use application decision.	i. Clear signage should be used to indicate dog owner responsibilities, and how to prevent conflicts between dogs, other park users and wildlife; ii. Increase education and enforcement as needed to manage dog activity in the park in accordance to the City of Nanaimo's Animal Responsibility Bylaw; iii. Provide pet waste disposal bags and garbage cans at key locations throughout the park; iv. Install fencing where appropriate.

6: Improve Park Access and Amenities

There are opportunities to improve access for park users with mobility limitations, to facilitate year-round park access, and to introduce new park amenities, subject to ALC approval.

Objectives:	Actions:
a. Facilitate year-round park access	i. Develop a multi-use trail that is accessible year round where possible, ii. Install Swallow boxes to help control mosquito populations during the summer.
b. Improve accessibility	i. Create accessible trailways from the parking lot; ii. Enlarge and improve the parking area and connection to East Wellington Road; ii. Consider accessibility when selecting trail materials; iii. Install rest areas and viewing platforms along the trail and in locations with field and wetland viewing opportunities; iv. Install wayfinding signage.
c. Include amenities for specific park uses	i. Construct a storage building for farm tools in a convenient location that will not be impacted by seasonal flooding; ii. Provide a seasonal and accessible washroom facilities during the growing season; iii. Install a City water connection for irrigation and drinking water needs; iv. Install interpretive signage; v. Install a covered picnic shelter; vi. Consider an opportunity for public art installation.

3.2 Concept Plan



East Wellington Park will be divided into 3 management zones based on the ecology and future uses of each area.

Zone 1 Upland, Rocky Escarpment
- This area contains most of the forested, cliff ecosystem on the property.
- This area will be managed as natural edge forest and will not have formal public access.

Zone 2 Riparian Buffer
- This area along the Millstone River will feature a 30m Vegetated Riparian Buffer. This area is set aside for wildlife. Restoration and/or research access will be allowed.

Zone 3 Environmental Conservation/ Regenerative Agriculture
- The field provides habitat for a range of bird species, including ground nesting birds such as Savannah Sparrows & Killdeer. Agricultural/ horticultural practices that both respect and enhance the natural environment are supported in this zone.

Aquatic habitat restoration area

Interpretive nature viewing, to be located in general location

Year-round Accessible Multi-Use Trail

Seasonal Soft Trail

Potential Future Seasonal Soft Trail

Improved parking area and park access

Bike Rack

New Fencing, using natural material that is resilient to seasonal flooding conditions.

Arrival park amenities (benches, doggy station and garbage can, wayfinding signage)

Potential buffer planting to reduce light intrusion

Astronomy area (concrete pad & arbour to block light intrusion)

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EXPLORE OUR PARKS & TRAILS
DEPARTMENT OF PARKS, RECREATION & CULTURE

Scale: 1:2000m
Drawn: JET
Date: Nov. 22th, 2022

Project:
East Wellington Park Plan

4.0 PARK PLAN RECOMMENDATIONS

Park Plan recommendations are provided for visitors and user groups, accessibility, riparian enhancement and restoration, and reintroduction of agriculture activity.

4.1 Visitors and User Groups

East Wellington Park offers many opportunities to accommodate a variety of recreational and agricultural activities for visitors and community user groups. A careful selection and integration of acceptable recreational and agricultural activities is necessary to provide a balance between visitor usage, minimizing potential environmental impact and allowing for agriculture uses.

The following user groups are supported in the park:

- Bird Watchers
- Nanaimo Astronomy Club
- Dog Owners
- Mid Island Fly Fishers
- Vancouver Island University (VIU) Agricultural Group
- Nanaimo Foodshare/Nanaimo Community Gardens Society

Suggestions for accommodating potential users was extracted from supporting documents put together by the Qualified Environmental Professionals and Consultants.

Bird Watchers

- East Wellington Park is an ideal location for bird watchers because of the park's open field, seasonal wetland, mixed riparian and hedgerow habitats including mature and dead standing wildlife trees and dense shrub cover, ideal for nesting habit. Bird species that might be attracted to this area include song birds, hummingbirds, raptors, owls, woodpeckers and waterfowl (Aquaparian Environmental Consulting Ltd. 2018).

Nanaimo Astronomy Club

- This site is considered attractive for stargazing due to the low residential density in the surrounding area and the low levels of light pollution. The City will work with astronomy enthusiasts to set up an appropriate viewing area taking into consideration location and ways to further reduce background lighting and the potential for disturbance of nocturnal wildlife (e.g. bats and owls)

Milky Way Rising over East Wellington Park.
Photo credit: Chris Boar, Nanaimo Astronomy Society

Dog Owners

- A number of local dog owners have expressed interest in using a part of the East Wellington Park for off-leash use. However, the Millstone River riparian area acts as a year-round movement corridor for larger wildlife, ground- nesting birds and wintering waterfowl. With the park vision and the environmental sensitivity of this area, the City will continue to enforce on-leash dog activity in this park.

Mid-Island Fly Fishers

- The Mid-Island fly fishers, a stream stewardship group, have expressed interest in improving the Millstone water flow which has been affected by bank sloughing and accumulation of in-stream course woody debris. A plan for potential instream work will be reviewed by a qualified biologist and hydrogeologist first and conducted during the fisheries window. (Aquaparian Environmental Consulting Ltd. 2018)

Vancouver Island University

- Vancouver Island University has indicated an interest in using part of the park to establish a modest research farm at the site. The location of this research farm will be sited near the parking lot, in an area which is already heavily disturbed and somewhat distant from intact riparian habitats. Care will be taken to prevent the unintended spread of trial plants to remnant natural areas within and immediately adjacent to the park boundaries.

Nanaimo Foodshare/Nanaimo Community Gardens Society

- Both community groups expressed interest in agricultural production and potential garden plots at this location which is supported by Agricultural Land Commission. This will foster community engagement and education around local farming and food production.

Example of Community Garden Beds (Park Avenue Park)

4.2 Visitor Accessibility

With a potential for increased recreational and agricultural activity happening at East Wellington Park, there is a need to expand and improve the parking, seasonal and accessible washroom facilities, and user access to the property and trail system. There is an area of approximately 0.38 hectare (.94 acres) at the field entrance in the northeast corner that could be dedicated to expanding the parking lot, providing public washroom facilities, building a covered shelter for a picnic and teaching site, and developing a secure building for storage of equipment associated with farming.

A multi-use and year-round accessible public greenway could be developed after completion of the Millstone Sewer Trunk upgrade planned for 2024. The gravel path will be constructed of permeable surface material and to City standards, and would be a welcome feature for park users especially during flooding season. This trail would connect to proposed future trails in the area.

4.3 Riparian Area Enhancement and Restoration

Land use activities in riparian area are regulated under the *Zoning Bylaw* (Bylaw 4500) and *City Plan* (Bylaw 6600). The Millstone River and its riparian areas, also regulated by the provincial government under the *Riparian Areas Protection Regulation (RAPR)*, is considered an important wildlife corridor, and identified as Environmentally Sensitive Areas. No disturbance or site clearing is permitted within 30 meters from the top of bank.

The current hayfield within the Park is approximately 9.39ha (23.2acres) in size. While a 30 metre buffer could take away potential farmland from production, creative use of the riparian setback could also allow for limited food and natural material harvest that could negate any potential loss and reduce the impact from shadow casting of the typical Coastal Douglas fir trees.

A healthy riparian ecosystem offers many important values, including creating leaf litter habitat for insects and a food source for fish. Overhanging woody debris provides cover for fish from predators. The removal of invasive plants and re-establishing a healthy and ecologically diverse 30m riparian ecosystem along the Millstone River is supported in coordination with SFN Lands and Resources staff including developing a planting list that includes significant trees, shrubs, and plants for the Snuneymuxw people to harvest for food and traditional uses. (Historical Indigenous Land-Use Explains Plant Functional Trait Diversity, 2021).

The City of Nanaimo retained Northwest Hydraulic Consultants Ltd. (NHC) to determine side-channel restoration feasibility on the Millstone River within East Wellington Park, to restore and enhance the Millstone River's salmonid habitat, provide rearing and overwintering habitat and provide enhancement of other native wildlife habitats.

The East Wellington Park preliminary side channels concepts were developed looking at three design options

1. Side Channel – Groundwater Input
2. Side Channel – Surface Flow Intake Pipe
3. Off Channel Pond

After field investigations, the Off-Channel Pond design showed promise as a suitable restoration option to provide important off-winter refuge habitats. This project could include restoration of the off channel pond with native grasses, shrubs and trees and a public education component that could explain fish usage in the area and inform the need for additional restoration enhancement along the River.

Other habitat enhancement of the property could include adding instream complexing features such as large woody debris and construction of riffles and spawning gravel pads. Potentially, any material removed during this project, could also be used for agricultural purposes, including creating elevated farm fields and community garden beds. Recommended measures for environmental protection during restoration work and trail development can be found in the Millstone Flats Biophysical Assessment Report, 2018.

4.4 Reintroduction of Agricultural Activity

Being located within the Agricultural Land Reserve, it is desirable to reintroduce agricultural activity on the East Wellington Park property, guided by the following recommendations made by the Agriculture Assessment (Haddow, 2021).

Crop Development Areas:

- **Community Garden -** The compact gravelly area in the Northeast corner of the field would be the best location for a community garden with raised garden beds, and potentially a washroom facilities and equipment storage building. This site provides close access to the parking lot and potentially field crops. To optimize yields and make gardening viable, installation of irrigation would be required.
- **Area 1 -** is recommended for initial development, as it is the highest, driest portion of the property. It also has some of the best internal soil drainage on the property. This area is well suited for a wide range of perennials as well as annuals early in the spring and late into the fall, taking in to consideration appropriate selection of plants to minimize impact of shade on crop productivity.

Figure 3: Crop Development Areas

- **Area 2 -** is suited to late spring and summer annual vegetable production. Installation of sub surface drainage would dramatically improve the range of crops that could be planted in this area such as flood tolerant perennials on raised mounds or earlier spring to later fall crops of annuals. Frost tolerant species like fall rye, winter wheat, vetch or Austrian winter peas could be grown. As there may be some high water, and overland flow in this area, a cover crop must be grown in the late summer or fall to maintain cover during winter months to protect the soil from erosion and to provide organic matter in the spring when tilled.
- **Area 3 -** is subject to significant overland flow during high water levels. There is a depression area here that stays wet longer. The current perennial forage crop planted here is well suited to this site and helps reduce erosion risks. Alternatively, if annual crops are grown, manage this site with improved drainage, crop mounding, and plant suitable cover crops in the late summer, but before September.

- **Area 4** - is slightly less at risk of overland flow and prolonged flooding. It can be treated similarly to Area 2 for soil management requirements.
- **Area 5 -** has a digressional area in the middle that stays wet longer into the growing season. This area is suited to forage production (e.g. hay).

Potential impacts of other park uses and amenities on agriculture:

- **Proposed multi-use trail** - The multi-use trail will be located along the northeast border of the property and have minimal impact on the farmable areas.
- **Hikers and dogs on trails** – Dogs will continue to be required to be on leash.
- **Proposed riverside walking trail** - The proposed park riverside trail would remove another 3-5m of farmland for the length of the property on the west side. Minimize the width of the walking trail to avoid excess overlap with the crop areas or consider locating the trail within the riparian buffer area where feasible.
- **Proposed fence -** Fencing may be required at different points along the trail and around the agricultural land to limit access, and potential human and wildlife impact to crops depending on the selection of crop.
- **Proposed riparian buffer -** A 30m riparian buffer is recommended for the Millstone River based on the classification of the River. However, buffers can be designed to provide a mix of native riparian species closer to the river and specific perennial crop species further away. In this way, farmable areas can be maintained while still achieving some of the functions of a riparian buffer.
- **Proposed side channel and off channel ponds -** There is the potential for shading from side channel riparian area vegetation to occur and affect crops and use of farm land. It is recommended only one pond be created and that it be located within the wettest portion of the field. Restoration planting will be done, selecting native plants that will have a minimal shading effect of the field crops.

4.5 Community Partners in Agriculture

Community Partner Opportunities:

The City of Nanaimo has identified opportunities to partner with different community groups and academic institutions to support research, education and agriculture production on this property. Benefits of these partnerships could include sharing knowledge, information, equipment, water, field access, farm workers, funding and more.

Potential Community Partners:

- Snuneymuxw First Nation (SFN)
- Vancouver Island University, Horticulture and Environmental Education studies
- School District #68 Outdoor learning classes
- Farm Share
- Nanaimo Foodshare Society
- Nanaimo Community Gardens Society

5.0 PLAN IMPLEMENTATION

The following table includes a timeframe to guide implementation actions which support the goals of this plan. The implementation actions are broken down into the six park goals with reference to ongoing park maintenance implications.

Implementation Action	Timing
1. Support Reconciliation	
Initial archaeological assessment of the site. Use CoN contractor on retainer	Prior to any excavation works/ final design
2. Support Environmental Conservation and Restoration	
Maintain communication with the Agricultural Land Commission regarding park uses	Ongoing
Contract a Qualified Environmental Professional (QEP) to identify areas for invasive plant control, and to supervise invasive plant removal	Prior to restoration work being done
Develop and install interpretive signage regarding restoration works	Prior to restoration work
Assemble volunteers to carry out riparian area restoration works	After consultation with QEP
Within the Millstone River's 30m riparian area: remove invasive plants; Restore the area with appropriate plantings; construct a fence along the outer edge of the riparian area where feasible	After consultation with QEP
Contract a QEP to provide recommendations on fish and amphibian habitat enhancements	2023
File notice of intent to place fill and/or remove soil with Agricultural Land Commission (for habitat enhancement works); make application	Min. 60 days prior to excavation
Construct habitat enhancement areas in accordance with QEP recommendations	2023- 2025
3. Support Return to Agricultural Production	
Develop the site for agricultural production; Designate farm allotments	2024
Install interpretive signage related to the agricultural uses	Following development of agricultural use

4. Integrate Education and Research

Form partnership: reaffirm use and develop research agreement(s) with Vancouver Island University, Nanaimo Food Share, and/or other community groups involved in local agricultural production	Annually

5. Accommodate Other Recognized Uses

Star Gazers

Provide documentation and information as needed to Support Nanaimo Astronomy Society's efforts to have the park designated as an "Urban Star Park" through the Royal Astronomical Society of Canada	Ongoing
Install viewing platform for astronomy use	2024/25 concurrently with multi-use trail development
Install a decorative light screen and other amenities at astronomy area	Concurrently with viewing platform installation
Install astronomy-related interpretive signage	Following development of astronomy area

Dog Walkers

Install signage regarding dog owner responsibilities, and how to manage conflicts between dogs and wildlife	2023
Provide pet waste disposal bags and garbage cans at key locations	2023
Education and enforcement as needed to manage unauthorized off-leash dog use	Ongoing

6. Improve Park Access and Amenities

File notice of intent to place fill and remove soil with Agricultural Land Commission (for trail development); make application	Min. 60 days prior to trail / sewer line construction
Develop a multi-use trail; ensure wheelchair accessibility; create bump out for astronomy viewing area; create bump out for wetland and field viewing area; assess impacts on site drainage; develop in accordance with the 2018 Aquaparian Environmental Report, (Appendix B)	2024/25-after completion of the Millstone Sewer Trunk upgrade
Install a rest area with bench at scenic locations along the trail	Concurrently with trail development

Install swallow boxes	2023
Contract an engineer to assess options for improving and expanding the parking area, including a wheelchair accessible access to the trail	2023-2024
Install wayfinding signage	Following completion of the trail

Construct a storage building for farm tools	Prior to agricultural development
Install a seasonal, accessible public toilet	Annually, from beginning of restoration project
Secure a water connection to the park	Prior to restoration planting
Install Picnic Shelter and interpretive signage	Following completion of trail
Explore opportunity for Public Art installation	Following completion of trail

6.0 REFERENCES

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