



November 9, 2017

TO: Park Board Chair and Commissioners
FROM: General Manager - Vancouver Board of Parks and Recreation
SUBJECT: East Fraser Lands Area 2 Parks - Concept Plan

RECOMMENDATION

THAT the Vancouver Park Board approve the design of the new parks within Area 2 of the East Fraser Lands development in southeast Vancouver as illustrated and described in this report.

BOARD AUTHORITY/PREVIOUS DECISIONS

As per the [Vancouver Charter](#), the Park Board has exclusive jurisdiction and control over park land use in the City of Vancouver, including any structures, programs and activities, fees, and improvements that occur within designated parks.

In 2004 City Council approved the [Policy Statement for East Fraser Lands](#) (EFL).

In 2006 the [EFL Official Development Plan](#) was approved by Council.

At the May 16, 2016, Committee Meeting the Vancouver Park Board [approved the award of a consulting contract](#) for the design of these parks to Space-2-Place, a local landscape architecture firm.

BACKGROUND

The East Fraser Lands (EFL) precinct is located in the southeast corner of Vancouver on the north bank of the Fraser River and includes the land between Kerr Street and Boundary Road south of Marine Way, as well as a triangle shaped site north of Marine Way at Boundary Road.

The site is located within the unceded traditional territory of the Musqueam, Squamish, and Tsleil-Waututh First Nations.

The Canadian Pacific Railway (CPR) rail corridor runs parallel to Kent Avenue and divides the 52 hectare (128 acre) site of EFL into north and south sections. Within the last century the Canadian White Pine sawmill operated on the land south of the rail corridor until the mill closed in 2001. Following the sawmill closure, a decision was made to transition this area from industrial use to residential and commercial development.

This site is now being developed by Wesgroup Properties and several residential projects have been completed in keeping with the [EFL Design Guidelines](#). These design guidelines set out the expectations for all parks throughout the precinct. In total, there are 10.2 hectares (25 acres) of parks planned for the EFL precinct.

The first of these parks (Neighbourhood Park North) was completed in 2012 and the next four of these parks are the subject of this Board Report (Figure 1). Park Board staff have been working since early 2016 to design these 3.14 hectares (7.76 acres) of parks in Area 2 of EFL as follows:

- (a) Neighbourhood Park South: 0.30 acres (0.12ha)
- (b) North Kinross Park: 0.27 acres (0.11ha)
- (c) Middle and South Kinross Parks: 1.26 acres (0.51ha)
- (d) Foreshore Park: 5.93 acres (2.4ha)

These parks create a key linkage to the Fraser River trail and West Fraser Lands to the west, and ecological connections to Everett Crowley Park and Fraserview Golf Course to the north. The delivery of these much anticipated green spaces will be welcomed by the new and future residents living in EFL and signify the Park Board and City of Vancouver's commitment to deliver amenities to this growing community, that will eventually house up to 15,000 residents. In addition, the community will host multiple services and amenities including schools, retail districts, daycares and a community centre.



Figure 1 - Parks in Area 2 of EFL with construction start target date

DISCUSSION

The park designs are informed by the EFL design guidelines and focus on embracing the ecology of the Fraser River, providing recreational opportunities, and connecting EFL to adjacent communities to the west, east and north.

Since commencing the project, the consultant has worked collaboratively with Park Board, and the City of Vancouver's Planning and Engineering staff. In addition, there has been coordination with Wesgroup Properties, as the parklands interface with several private parcels and as Wesgroup is responsible for site preparations and the foreshore works throughout EFL including parklands. There is ongoing coordination to integrate the respective designs and future construction phasing between private and public lands.

Public and Intergovernmental Engagement:

The park design process was informed by the design guidelines, site characteristics, larger Park Board and City-wide initiatives and community engagement. Two open houses were hosted by staff and both were held on Saturdays during the EFL River District Farmer's Market near the River District Experience Centre at the foot of Kerr Street. All open houses were well advertised through the following methods:

- 2,837 Canada Post Notifications sent to residents in EFL, West Fraser Lands and Killarney;
- Email Notifications sent to 25-residents and key community advocates;
- Park Board Project Webpage Notice, Social Media and Talk-Vancouver;
- Site signs, and Wesgroup Community Notifications.

Open House #1 - October 15, 2016:

The first open house was held from 10:00am - 1:00pm and was well attended despite a weather related Farmer's market cancellation. There were over 50 residents in attendance. Park Board Commissioners were also invited to attend and participate in a walk-about of the site with staff and consultants during the open house. The principles of the existing design guidelines were incorporated in two (2) alternate concepts presented for consideration.

The design team also shared precedent images of other noteworthy parks from around the world that would inspire the programming and design. Participants were asked to provide feedback through a questionnaire that was available for participants in hard-copy as well as an online questionnaire which was available for 3-weeks after the event. In total, 91 respondents participated in the questionnaire process and the responses were consistently positive.

There was much support for both options presented and support for all of the design ideas set forth. Overall, the community placed emphasis on a need for improved ecology and integration with the Fraser River, as well as improved opportunities for recreation for all ages and abilities. Anecdotal feedback at the open house focused on the need for the parks to be delivered as soon as possible. Everyone that attended the event was excited that the process of designing the new parks was commencing and that the delivery of these parks would occur in the near term. The [Open House #1 Panels](#) and the [Open House #1 Results](#) can be viewed on the project webpage.

Flood Protection and Civic Infrastructure:

EFL is adjacent to the Fraser River and this reach of the river is tidally influenced. Studies show that it will be susceptible to future flooding related to sea level rise (SLR) and as such, COV Engineering offered to assist with a scope change to the consultancy to conduct a

comprehensive flood protection study for EFL in the late fall of 2016, to help ensure the best possible approach to SLR in the neighbourhood and in the parks. Previous design work had addressed only flood protection of habitable buildings, and additional review was necessary, therefore the park design work was paused to incorporate new findings.

This work was led by Space-2-Place's sub-consultant Kerr-Wood-Leidal, a well-established engineering firm that specializes in storm-water management, marine engineering and flood protection systems. This study took place between February and August 2017. The conclusion of this study is that traditional and non-traditional flood protection measure dikes can be incorporated in the Foreshore Park and South Kinross Park to an elevation of 4.8m to account for increasing flood levels in the next century. Construction of this infrastructure work is targeted to begin in 2018 and needs to be completed prior to the construction of these two parks.

To address rain water management and flood protection, municipal storm water pump stations are required in EFL. Although locations for pump stations have not yet been confirmed, there are opportunities to combine this infrastructure with park amenities such as riverfront lookouts and public washrooms. Staff will report back to the Board in the future when more information is available about infrastructure in parks and if pump stations are proposed in parklands.

Open House #2 - October 15, 2017:

The second open house was held a year after the first open house to accommodate the flood protection study. The outcomes of that study influenced the design of the preferred park design concept as did the feedback from the first open house.

The second open house was held from 10:00am - 2:00pm during the farmer's market and hosted approximately 50 attendees.

Participants were asked to provide feedback through a questionnaire that was available for participants in hard-copy format, as well as an online questionnaire which was live for 2.5 weeks after the event. In total, 109 respondents participated in the questionnaire process and the responses were positive. 79% of respondents supported, 14% were neutral, and only 7% did not support the design. Worth mention is that WesGroup reports that approximately 1000 residents are living in EFL at the time of the Open House, and these participation numbers reflect a 10% participation rate, approximately. The [Open House #2 Panels](#) and the [Open House #2 Results](#) can be viewed on the project webpage.

A [Detailed Site Analysis and Design Process Summary](#) can be viewed on the project webpage.

First Nations Engagement:

Park Board staff have submitted a project referral sheet to the Musqueam, Squamish, and Tsleil-Waututh First Nations and are in the process of receiving feedback. Park Board will be working with the Musqueam, Squamish, and Tsleil-Waututh First Nations throughout the course of the project to better understand their needs and aspirations. There are opportunities for interpretation of cultural resources and public art here, much the same as recent Park Board and Port of Vancouver initiatives in New Brighton Park. Staff will further these opportunities with the Musqueam, Squamish, and Tsleil-Waututh First Nations on an ongoing basis for these EFL parks if there is an interest in doing so.

The Final Designs:

After a meaningful community engagement process and a design process that has solicited the input of several CoV departments, the Province of British Columbia staff and Wesgroup, the design has evolved and become enriched beyond the preliminary motifs set forth in the EFL Design Guidelines.

A public washroom, a key item requested through community engagement, has been incorporated into the final design since the open house. A washroom will be installed on the seawall adjacent to the play area in the park, a location likely to be well received. Staff are reviewing opportunities for either an Automated Public Toilet or a purpose built facility with collaborating City departments.

Additionally, other features and amenities that will be included based on community input include:

- Play elements for older kids and teens;
- Additional picnic tables near the open lawn and playground;
- More trees for shade, habitat and year round interest;
- Interpretive signs to discuss history & ecology;
- Signage directing dog owners directing them to nearby off-leash parks;
- Improved drainage;
- A vegetated buffer between residences and park paths; and
- Recommendations for an improved access to Everett Crowley Park East.

The final design (See Appendix A) will anchor the western half of EFL with close to 8-acres of park space connecting the Fraser River ecosystem to other large forested areas including Everett Crowley Park and Fraserview Golf Course. The series of integrated parks also serves as a key east/west pedestrian and bicycle corridor, a valuable community hub and a place of respite within the built environment. The diversity of amenities will suit the needs of the existing and growing community and include the following:

- Separated bike/pedestrian paths;
- Open lawn and non-programmed spaces;
- Terraced habitat wetland;
- Playscapes for a variety of ages;
- Promontory lookouts along the Fraser River;
- Ephemeral Art Plinth (to be programmed by Cultural Services);
- Picnic Areas and Gathering spaces;
- Native woodland and groundcover plantings; and Infiltration rain gardens.

STRATEGIC PLAN ALIGNMENTS

These parks present opportunities for connecting community and habitat along the Fraser River, in alignment with a number of Park Board plans and policies. The Park Board Strategic Plan (2012) includes five strategic directions, one of which is Greening the Park Board. The plan states that the “preservation and enhancement of the natural environment is a core responsibility of the Park Board”. Additionally, the Biodiversity Strategy calls out objectives to restore habitats and species, and to support biodiversity and enhance it during

development, amongst other important objectives. These are a priority in these parks. The Bird Strategy is also relevant and provides guidelines that will be applied in the designs for the planted areas in the parks to enhance urban bird habitats.

In addition to SLR, these parks incorporate broader City goals including the City's Transportation 2040 Plan for example. The park trail system that will have separated cycling and pedestrian pathways, contributing to the expanding all ages and abilities cycling network.

Metro Vancouver Regional District works closely with municipalities to promote a vision for foreshore connectivity in its initiative entitled "[Experience the Fraser](#)". Their goal is to connect communities, parks, natural features, historic and cultural sites and experiences along the Lower Fraser River. Foreshore Park is a prime example of how we contribute to this vision at Park Board.

Next Steps:

If the final park design is approved by the Park Board, the design team will move forward and develop construction drawings that incorporate flood protection infrastructure. Because of the phasing of the flood protection and park works, the northern parks including Kinross Park North and Kinross Park Middle, as well as Neighbourhood Park South will be able to start construction in the fall of 2018, while the Foreshore Park and Kinross Park South will not be able to begin construction until the flood protection works are complete.

In order to achieve this goal, the design team will need to rapidly advance these designs; ongoing collaboration will need to take place between Engineering, Planning, Sustainability, Cultural Services, Wesgroup and the Musqueam, Squamish, and Tsleil-Waututh First Nations.

The current estimate for the construction of these new parks is \$12M. This estimate will be refined in the next phase of the project. Presently, there is \$2.5M available in the 2015-18 Capital Plan and additional funds will be sought when the final estimates for construction are confirmed.

SUMMARY

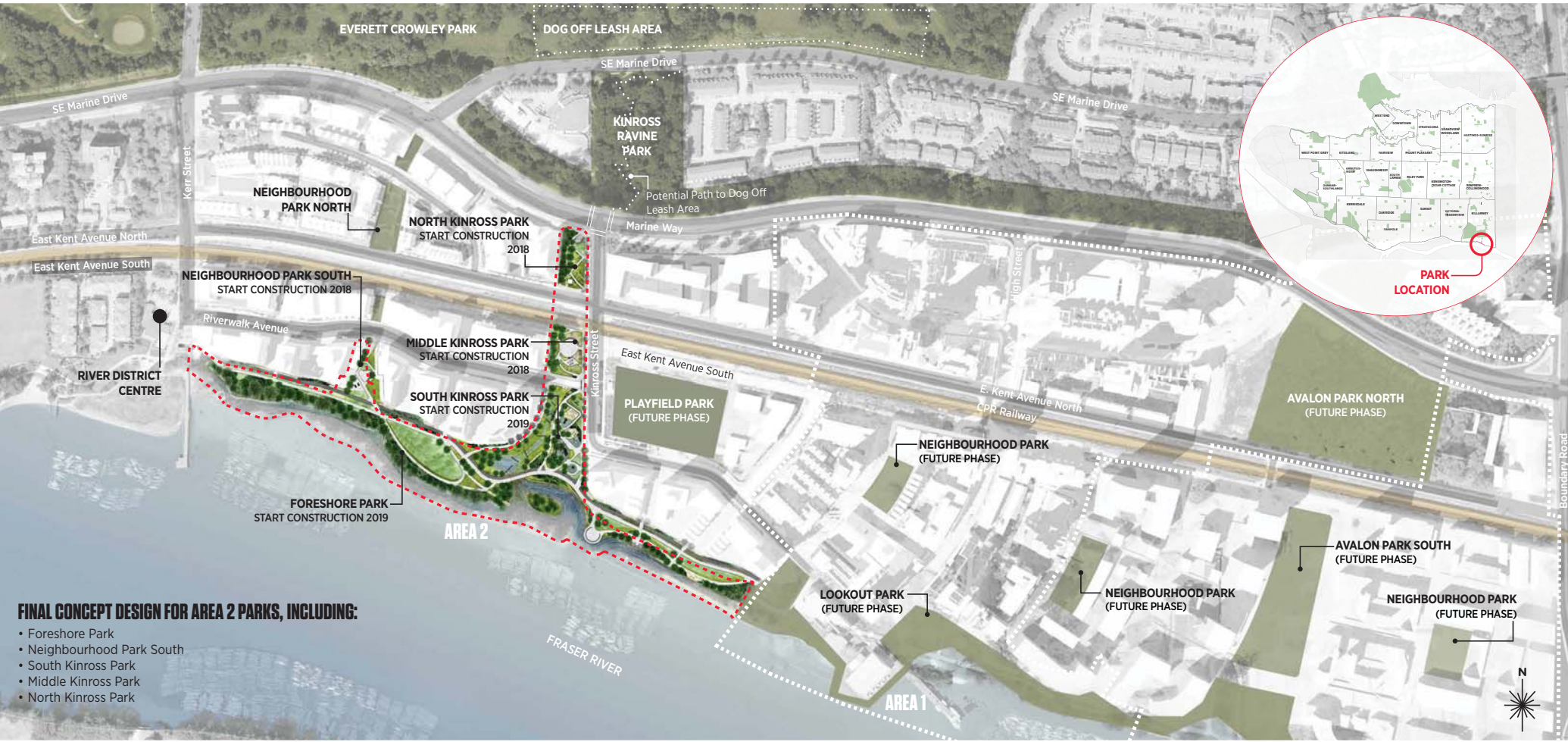
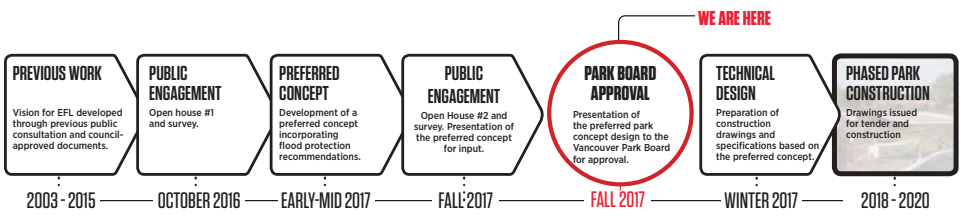
The new EFL parks presented in this report are much awaited amenities for the existing and future community that will house an eventual population of 15,000. The parks act as a green anchor in the southeast corner of the City of Vancouver and link to Park Board, City and Regional goals and aspirations. The community feedback received to date suggests that the new parks in the EFL are supported and needed, and Park Board staff are committed to delivering these as soon as possible to the expectant community.

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jm/jd/tm/jk

EAST FRASER LANDS AREA 2 PARKS



- FINAL CONCEPT DESIGN FOR AREA 2 PARKS, INCLUDING:**
- Foreshore Park
 - Neighbourhood Park South
 - South Kinross Park
 - Middle Kinross Park
 - North Kinross Park

FRASER RIVER CONTEXT

The East Fraser Lands site has a dynamic geological, ecological, and cultural history, beginning with its formation by the Fraser River about 5000 years ago.

The timeline below highlights some of the major periods in the site's history. The Area 2 parks can reveal and celebrate this history through their ecological features, cultural elements, and public art.

The Fraser River takes many different forms between its origin in the Rocky Mountains and where it empties into the Strait of Georgia south of Vancouver. (Some examples are shown on the right.) The park design recognises the significance of the river in shaping the land and shoreline seen today. The design of the Area 2 parks will provide many opportunities for visitors to see and connect with the Fraser River.

FRASER RIVER CONDITION

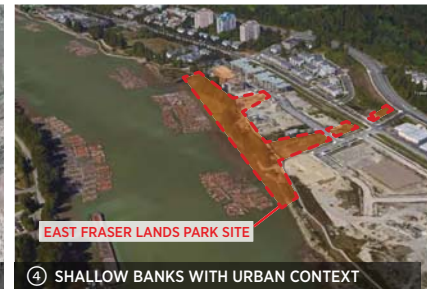


Image Source: Google Earth

FRASER RIVER CULTURAL HISTORY



'SKY-BORN PEOPLE' arrive in the river delta.

The lands making up the project site originated from sand and gravels deposited by the Fraser River around 5000 years ago, as the Fraser River delta was formed.

A diversity of vegetation communities grew on the site once it was formed, including wet coniferous and deciduous forests, and some meadow areas. The forests and rivers, and the wildlife they supported, provided sustenance for First Nations communities along the Fraser River for thousands of years. A Musqueam village was located west of the site.

Gold Rush transforms Fraser River bank. Hudson Bay Company merges with Pacific Northwest Company. Shift in consciousness: Salmon Trade replaces Fur Trade. Salmon begins to be seen as a product of commerce.

Industrial revolution. Timber industry. CNR railroad opens BC. After European settlement, the meadow areas were used for grazing cattle, and "North Arm" developed along the Fraser River.

The shoreline of the Fraser River was dramatically changed for the development of the Dominion Mills sawmill starting in the 1920s. Kinross Creek was lost from the site after the Kerr Road landfill was constructed to the north in the 1940s.

Sawmill activity on the site, by White Pines Mill, continued on the site until 2001.

East Fraser Lands Area 2 Park Design and Public Engagement



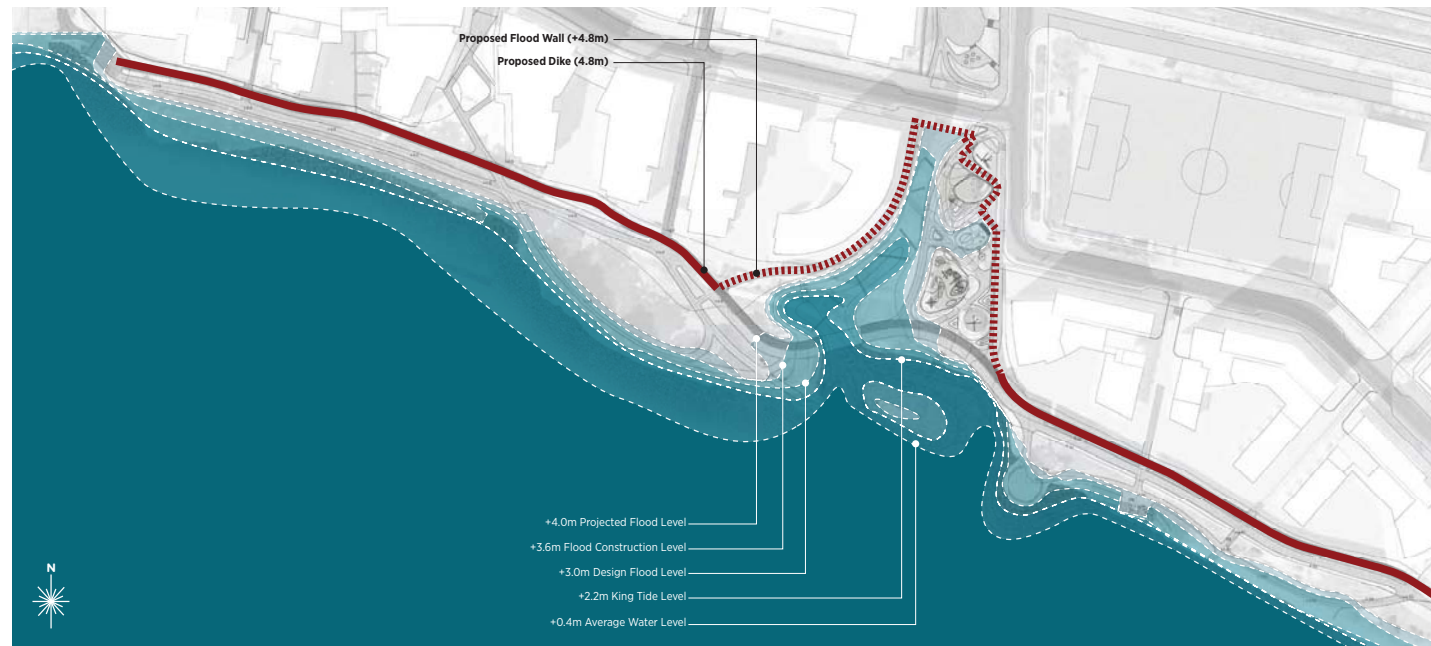
FLOOD PROTECTION

The City is planning for an anticipated 1 meter of sea level rise by 2100, in accordance with Provincial guidelines. The park design will play an important role in providing the resiliency for flood protection of the community as water levels change. The diagrams on this page identify the current standards for flood protection set by the City of Vancouver.

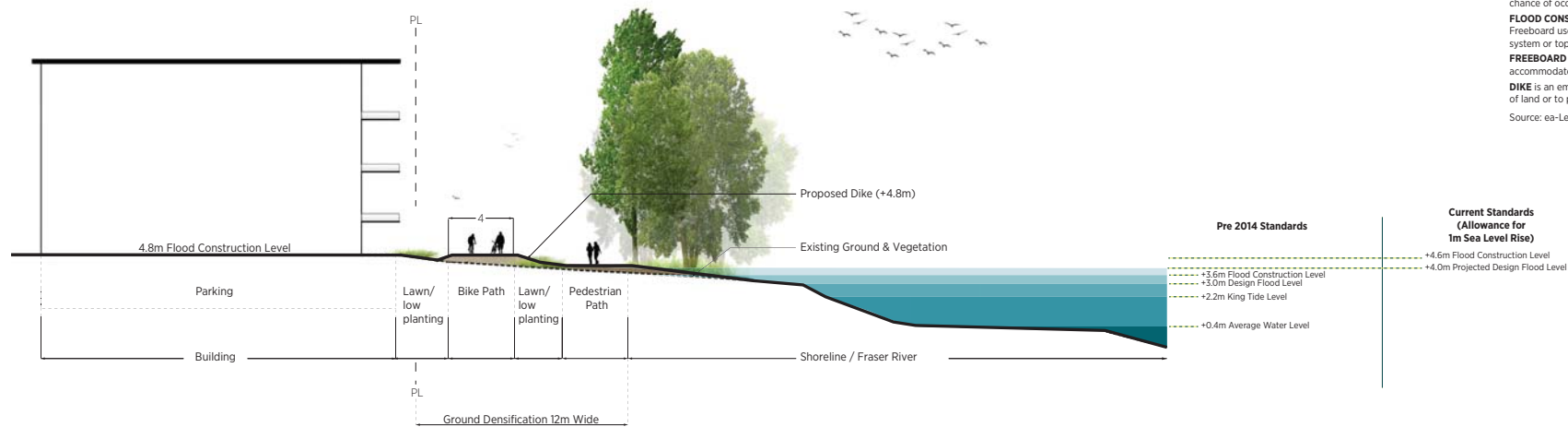
Flood Construction Level (pre 2014): 3.6m
Current Flood Construction Level: 4.6m (plus 0.2 m allowance for subsidence)

What are neighbouring municipalities doing?
 Municipalities across the Lower Mainland, including Burnaby and Richmond, are preparing for sea level rise by raising dikes and, where needed, building new flood protection measures. The design of dikes is subject to approval by the Province, to ensure general consistency from one municipality to another.

What is the City of Vancouver doing?
 The City of Vancouver has completed detailed flood modelling to identify the potential impacts of sea level rise. Planning work is being initiated in priority areas, including along the Fraser River, later this fall. For more detailed information about the City's sea level rise work, check out:
www.vancouver.ca/green-vancouver/sea-level-rise



Definitions:
DESIGN FLOOD is a flood with a probability of occurring once in 200 years, or a 0.5% chance of occurring on any given year.
FLOOD CONSTRUCTION LEVEL (FCL) is the Design Flood Level plus the allowance for Freeboard used to establish the minimum elevation of the underside of a wooden floor system or top of a concrete slab for habitable buildings.
FREEBOARD is the vertical distance (typically 0.6 m) added to the Design Flood level to accommodate uncertainties such as waves, storm surges and other natural phenomena.
DIKE is an embankment, berm, wall, or raised land area constructed to prevent the flooding of land or to provide protection from a high tide plus a storm surge.
 Source: ea-Level Rise Adaptation Primer BC Ministry of Environment 2013



ECOLOGY AND BIODIVERSITY

The Biodiversity Strategy aims to restore or enhance 25 ha of natural areas in Vancouver parks by 2020. The East Fraser Lands provide a good opportunity to help achieve this goal.

This strategy also indicates that the restoration of shoreline and shallow sub-tidal habitats along the Fraser River is a priority as is the restoration of salmon in urban areas.

Songbirds

Songbirds make use of a wide variety of habitat types: deciduous forest, mixed forest, riparian, old field, meadow and park.

Islands of mixed forest will be incorporated within mowed lawn areas. The inclusion of nest boxes will introduce more options for birds to overwinter.

For waterfowl and shorebirds in particular, the riparian vegetation along the shoreline will be protected and expanded. With the construction of the tidal island the mudflat and intertidal marsh along the shoreline will be enhanced. Near the shore a mix of open water and emergent vegetation will provide optimal habitat.

Juvenile Salmon

The introduction of new rearing habitats off the tidal channel is an important enhancement for juvenile salmon as is the inclusion of foraging habitat in the intertidal wetlands. The intertidal wetlands may take the form of a sedge bench.

The opportunity to create more shelter for the juvenile salmon in 'off channel' conditions using complex woody structures or rock berms will be considered.

Amphibians

Amphibians require permanent, still water. The wetlands inland from the river will be designed to provide habitat for amphibians. This water will likely be supplied by stormwater from the north of the site.

Pollinators

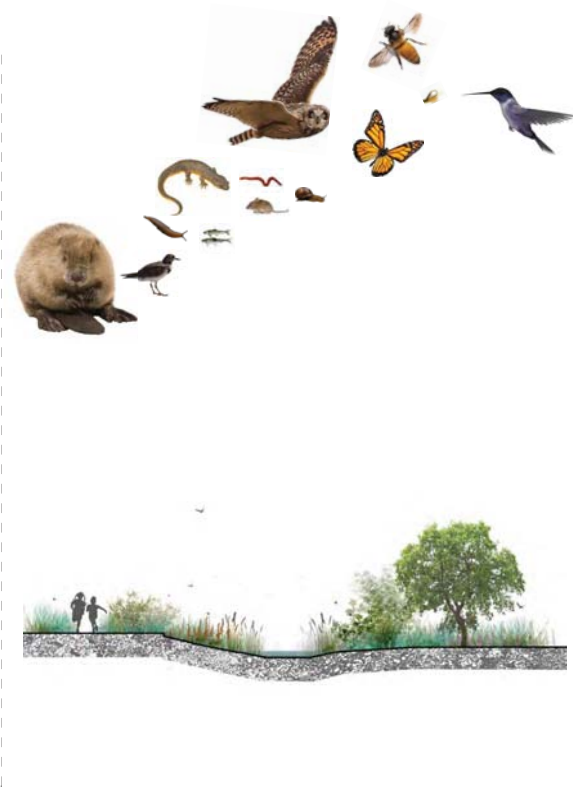
To improve support of pollinators, a variety of herbaceous, flowering plants and larval food source plants will be provided. Care must be taken to ensure there is a diversity of bloom times. Meadow and old field habitat should be left undisturbed over winter to allow for the pollinators to overwinter or hibernate. Nesting habitat is required for these species as well.



Existing Mature Shoreline



Restored Shoreline



Wetlands

DESIGN DIRECTIONS

The results from the online survey and public open house (October 2016) for the East Fraser Lands Area 2 parks are unusual in that there was a high level of support for both concepts presented. Both concepts presented were based on common park design principles:

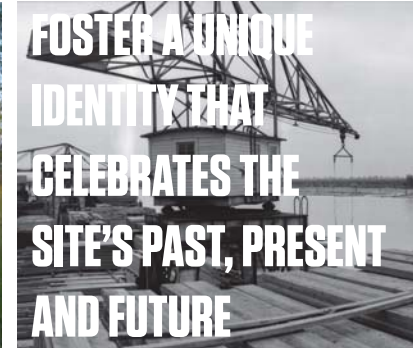
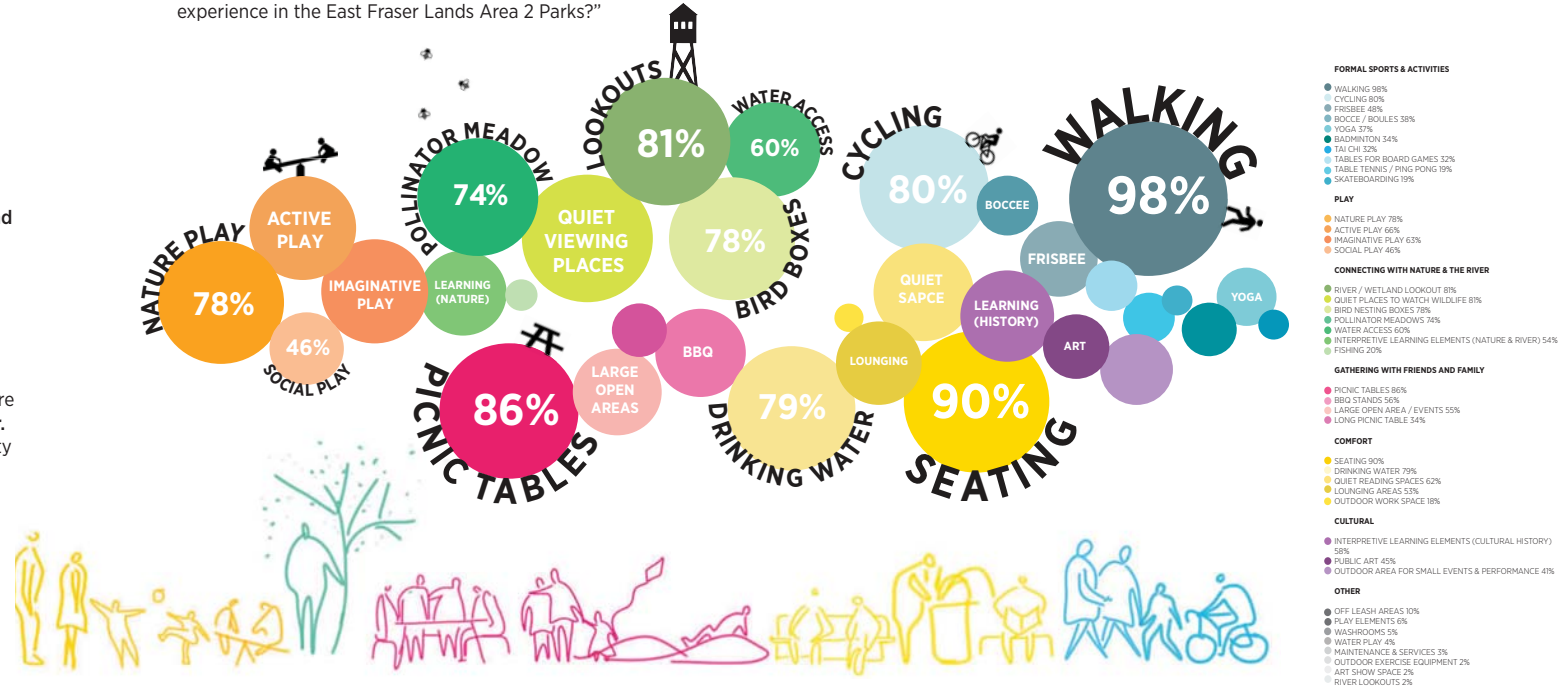
- Create resilient Natural Systems.
- Foster a unique identity that celebrates the site's past, present and future.
- Cultivate community interactions and recreational opportunities.
- Establish connections to the adjacent neighbourhoods and parks.

Each of these principles was strongly supported. The park design concept integrates the preferred elements from each concept into a new overall park design. The park has an emphasis on large, flexible park areas that could be used for informal sports, community events, or cultural celebrations.

Along the river are a network of smaller nodes of activity where people can connect with and learn about nature and the river. A large play area in South Kinross Park has a strong community presence with a variety of activities for a wide range of children. This concept emphasizes establishing generous ecological corridors through the site, including a north-south connection to the natural areas to the north, and an east-west connection to the Fraser River foreshore.

Since the first public open house, new flood protection guidelines have been established by the City of Vancouver. As a result, the park has been designed to integrate flood protection strategies to the protect the community against future flood events.

Responses to survey question: "Which of the following things would you like to see, do, or experience in the East Fraser Lands Area 2 Parks?"



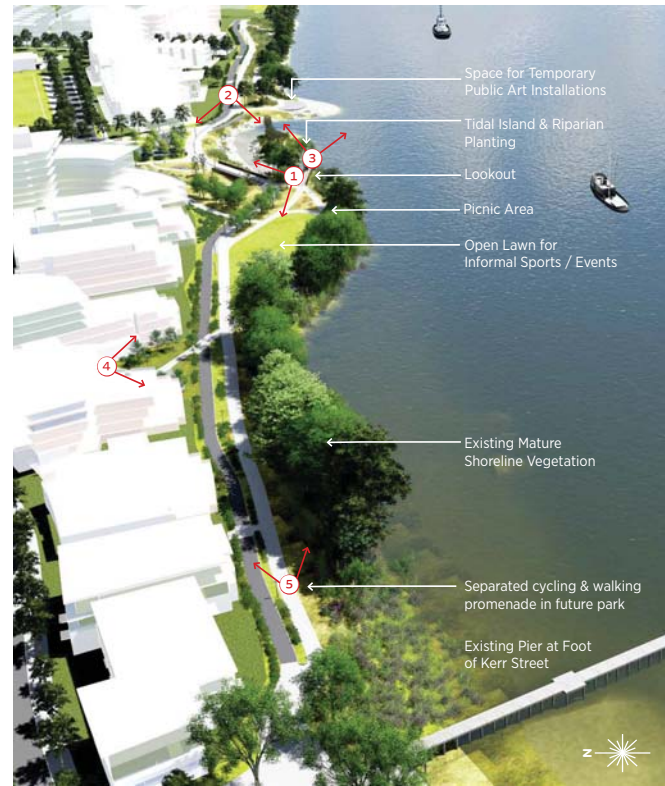
OVERALL CONCEPT PLAN



PARK OVERVIEW



FORESHORE PARK AND NEIGHBOURHOOD PARK SOUTH



SOUTH KINROSS PARK



1 View from Riverwalk Avenue into South Kinross Park and Terraced Wetland Habitat



2 Tidal Island adds Habitat Diversity Throughout Site



3 Central Playscape Encourages Outdoor Exploration & Discovery



4 Playscape Provides Focal Point & Welcomes the Community into the Site

NORTH AND MIDDLE KINROSS PARKS



WASHROOM LOCATION STUDY



1 View of Washroom within South Kinross Playscape



2 View of Washroom from Foreshore Park Promenade / Stepping off the Bridge



3 View of Washroom looking West within South Kinross Playscape



4 View of Washroom from Kinross Street

Accessible for Maintenance and Operation

PLANTING TYPOLOGIES WITHIN EAST FRASER LANDS



Low Maintenance Native Planting Along Promenade



Shaded Woodland



Woodland Understory



Wetland & Rain Garden



Existing Mature Vegetation along Shoreline Infilled with Additional Riparian Planting



Riparian Planting Along Shoreline & Tidal Island



Playscape

