NORTHEAST FALSE CREEK
WATERFRONT PARK BACKGROUND STUDY

Final Report
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Drafted for:

VANCOUVER BOARD OF PARKS AND RECREATION

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EXECUTIVE SUMMARY

PROJECT PURPOSE

The Northeast False Creek (NEFC) Waterfront Park Background Study is the culmination of long-range planning for the area. The study was undertaken to synthesize previous work, develop an open space and recreational needs assessment for the area, examine precedents from other countries and determine key program elements that would assist in decision making at the Vancouver Park Board and City Council for this key piece of land.

STUDY AREA

While the area of review for this study focused on the future extension of Creekside Park northwards and westwards, the greater context of Andy Livingstone Park and the surrounding neighbourhoods of False Creek North, the Downtown East Side, Strathcona, Chinatown and Citygate were taken into consideration during the review. The intent is to place this park within the context of, not only of the surrounding neighbourhoods, but the City itself.

PLANNING CONTEXT

Twenty policy and planning documents were reviewed for their relevancy to park planning and conceptual design work for the future park space. They spanned a time frame of approximately 25 years for this specific area of False Creek.

In review of previous plans, policies, and studies, the concept of a park, extending Creekside Park west along False Creek is well established.

PRELIMINARY THEMES, PRINCIPLES + PARK PROGRAM ELEMENTS

From the review of previous documents a series of themes, principles and preliminary programming elements were identified that reflect the years of foundational park planning work. The preliminary principles and programming elements reflect themes of sustainability; access to nature; play for all; access to the water; connectivity; and encouraging social and cultural interaction and events.

DEMOGRAPHIC CONTEXT

As part of the review and in order to understand the potential future needs three adjacent census areas, namely, False Creek North, the Downtown Eastside and Citygate area were assessed to develop a demographic profile.

In summation, the NEFC Waterfront Park will provide an amenity for the larger downtown area. In the immediate vicinity it will need to provide important outdoor space for a number of established, as well as, new and future neighbourhoods and attractions. While it will be important to plan for the local residential and business users it will be equally important to plan a park that will have appeal to all age groups, incomes and demographics. A clearer picture of the potential, surrounding residential users will develop as plans for the Concord Pacific Lands develop.

PARK INVENTORY, ANALYSIS + PRELIMINARY PARK PROGRAM ELEMENTS

A review of existing local and destination parks was undertaken to determine the potential gaps in uses and needs for the future waterfront park space.

While the future extension of Creekside Park will not be one of largest parks in the City when compared to others like Stanley, Queen Elizabeth or Hastings Park, this park will be unique due to a series of attributes not found in other parks within the City limits namely its:

- Central location;
- Accessibility to a number of neighbourhoods like Yaletown, Chinatown, Strathcona, False Creek Flats and Olympic Village;
- Immediate adjacency to the water at the head of False Creek;
- Larger size in relation to other parks in the downtown core;
- Proximity to the indoor venues of Roger's Arena and BC Place;
- Direct adjacency to the large sports park space at Andy Livingstone Park.

The review also underscored some of the gaps in programming of parks in the area. The potential program elements highlighted as deficient include non-motorized boat launching, seniors oriented activities, stages/amphitheatres, food services,

seasonal activities, rainwater management, accessible shorelines, and habitat enhancement. Other elements could include sports courts and integration of garden elements.

Building upon previous policy and planning context, demographic projections and the comparison of other local and destination parks, a preliminary picture of potential park program elements begins to emerge:

- Play for all age groups;
- A variety of land and water based activities;
- Connections to neighbourhoods / city through walkways and bikeways and;
- Opportunities to take advantage of a large format park for events.

Permeating all aspects of the park is the principle of sustainability including addressing sea level rise.

One aspect to be determined through detailed conceptual planning is the accommodation of contaminated soils including how much and what is appropriate for the park to accept. This will take further analysis at the design stage of the park.

PRECEDENTS, CASE STUDIES + CURRENT TRENDS

In order to develop a vibrant and contemporary park and to maximize space and uses, a series of parks in North America and Europe were reviewed as precedents for this future park area. The seven parks reviewed include:

- Brooklyn Bridge Park, Brooklyn, New York;
- Corktown Commons, Toronto, Ontario;
- Cumberland Park, Nashville, Tennessee;
- The Edge Park, Williamsburg, New York;
- Hunter's Point Park, Long Island City, New York;
- Louisville Waterfront Park, Louisville, Kentucky and;
- Dania Park, Malmo, Sweden.

All these parks share common themes of being on the water; many are on reclaimed land from former industrial uses; most incorporate an area to host events; each have developed extensive walkway/ bikeway systems and all have areas for various forms of activity.

Relevant to the future extension of Creekside Park are themes of:

- Re-naturalization and biodiversity;
- Post-industrial land reclamation including knitting post-industrial lands back into surrounding neighbourhoods;
- Sustainable water management;
- Accessing the water in inventive ways that also address flood control;
- Creation of spaces for events;
- Retention and enhancement of key views (in this case to the water and the mountains);
- Incorporation of interpretive elements, and;
- Multi-use activities for all age groups.

Future work on the programming and park design could incorporate the thinking and multifunctional elements that are making these parks highly utilized and vibrant spaces.

1.0 HISTORICAL PERSPECTIVE

BACKGROUND

For over 40 years False Creek has been transformed from a gritty, industrial waterfront into a vibrant mixed-use community. Parks and open space play a significant role in the dynamic urban fabric of False Creek and many wonderful open spaces are connected via a continuous seawall.

The culmination of this long-range open space, greenway and park planning work will be the development and implementation of the last waterfront section of False Creek North, namely, extending Creekside Park west towards Coopers Green Park. This area is currently described as Northeast False Creek (NEFC).

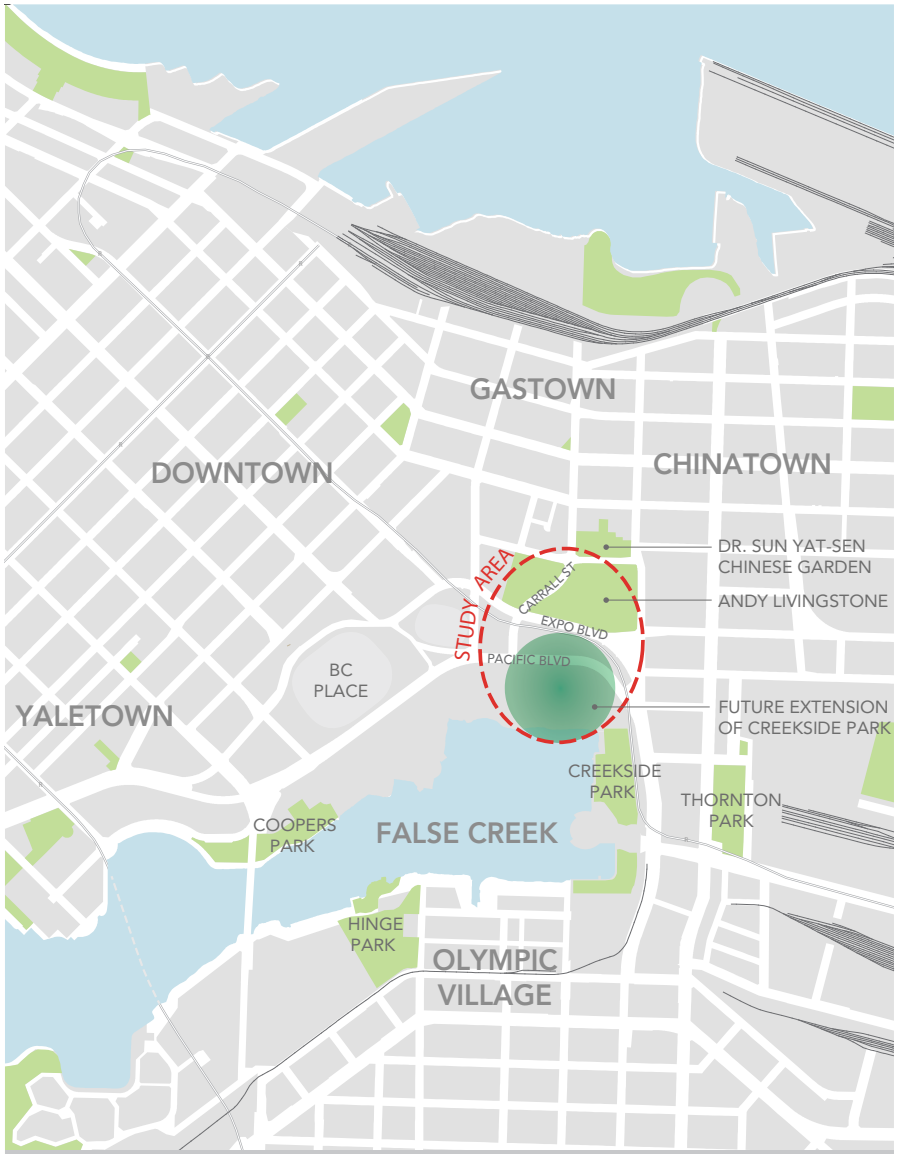

FIG. 2 I Study Area - green indicates approximate park area

STUDY AREA

While the area of review for this study focused on the NEFC area that will become the future extension of Creekside Park, the greater context of Andy Livingstone Park and the surrounding neighbourhoods of False Creek North, the Downtown East Side, Strathcona, Chinatown and the Citygate were taken into consideration during the review. The intent is to place this park within the context of, not only of the surrounding neighbourhoods, but the City itself.

POLICY + PLANNING CONTEXT

For the NEFC Waterfront Park Background Study, approximately twenty policy and planning documents were reviewed, for their relevancy to future park planning and conceptual design for the park space. They span a time frame of approximately 25 years of planning and conceptualization for this specific area of False Creek.

In review of previous plans, policies, and studies, the concept of a park, extending Creekside Park west along the northern edge of the seawall in False Creek is well established in the reports and documents over the 25 year time period.

There have been many ideas and directions explored over the years including some clearly articulated visions. The background reports and plans create a body of work and thought that lay the foundation for the future conceptual development of the park and its program uses.

A synopsis of each of the reports, studies, and documents and accompanying plans or graphics, can be found in Appendix A of this document.

REPORTS, STUDIES, + DOCUMENTS REVIEWED

1990 False Creek North Official Development Plan (ODP), City of Vancouver

2006/09 Creekside Park Extension Concept, PWL Landscape Architects

2008 Vancouver Sports Strategy, City of Vancouver

2008 NEFC: Entertainment + Transportation Noise Study, City of Vancouver

2009 NEFC: Directions for the Future, City of Vancouver

2010 Demand Analysis Study for Cultural and Event Space, John Donnelly + Associates

2010 Greenest City 2020 Action Plan, City of Vancouver

2010 Fogel Summary Review and Park Layout, Hotson, Long, Villagomez

2011 Re:CONNECT Viaduct Competition, City of Vancouver

2011 NEFC Issues Report, City of Vancouver

2012 Viaduct Study, Post Competition, Perkins + Will

2012 Transportation 2040 Plan, City of Vancouver

2013 Dunsmuir + Georgia Viaducts and Related Area Planning, City of Vancouver

2013 Integrated Stormwater Management Plan, City of Vancouver

2013 NEFC: Directions for the Future Update, City of Vancouver

2014 Urban Forest Strategy, City of Vancouver

2014 Re-wilding Vancouver, City of Vancouver

2014 Healthy City Strategy 2014-2025, City of Vancouver

2015 NEFC Viaducts Report + Concept Plan

2016 Biodiversity Strategy, City of Vancouver

2016 Renewable City Strategy, 2015-2050, City of Vancouver

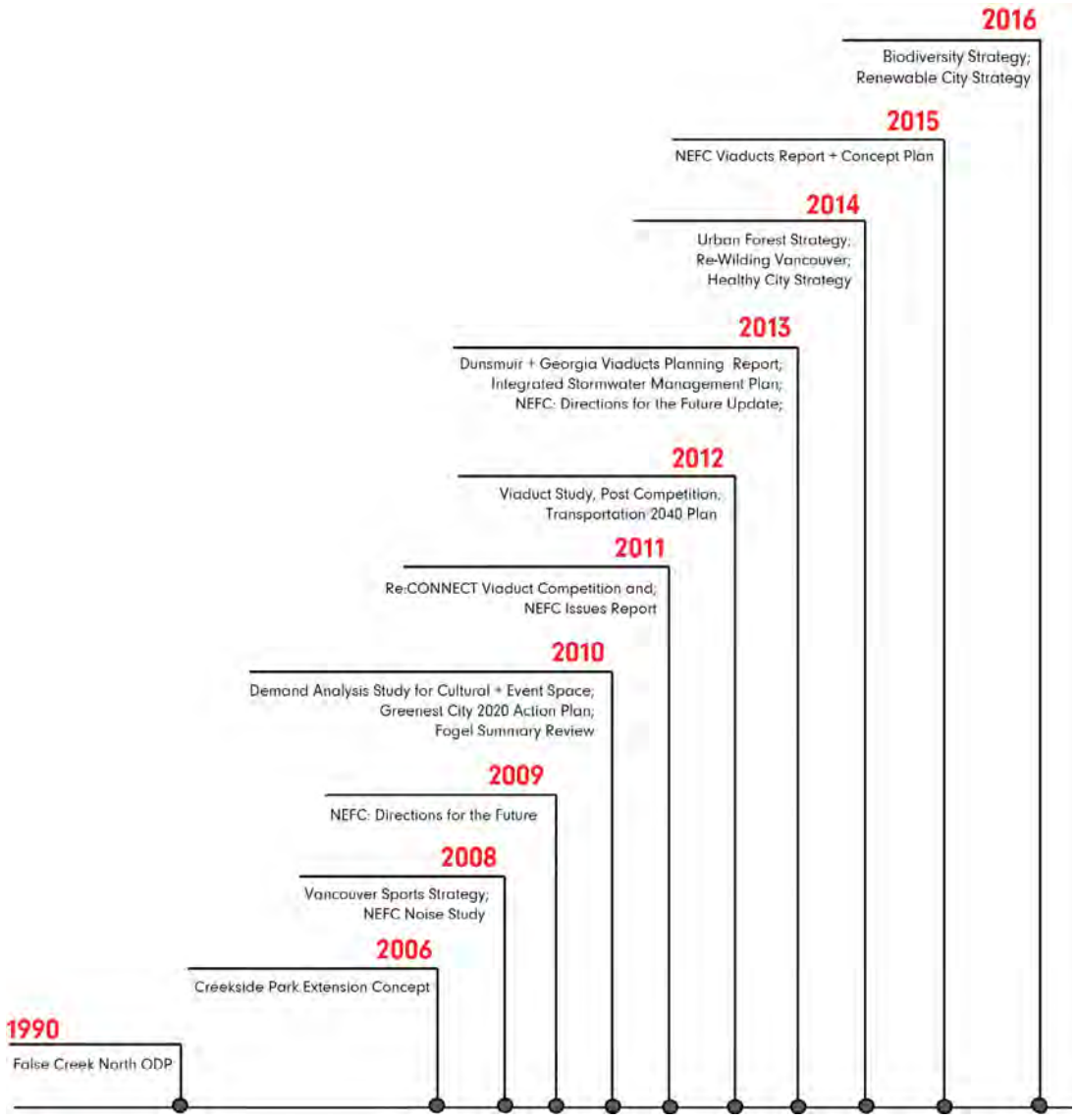

FIG. 3 I Time line of Reports, Studies, and Conceptual Work Related to the NEFC Study Area

From the review of previous documents a series of **themes**, **challenges**, **preliminary park principles** and **preliminary programming elements** have been extracted that reflect the years of park planning and conceptualization for this area.

THEMES from PREVIOUS WORK

- **Sustainability**: Lead with a lighter footprint; reduce green house gases; improve rainwater management;
- **Access to Nature**: Provide biodiversity and foreshore habitat;
- **Play for All**: Provide access to open space; informal physical activity; youth oriented sport; adult play;
- **Access to the Water:** Incorporate non-motorized boat launching and dragon boating/boat house;
- **Connections**: To surrounding neighbourhoods
- **Culture:** Incorporate event spaces; opportunities for expression; and celebration of historical and environmental topics;
- **Social**: Provide places to bump into each other.

CURRENT CHALLENGES

- Developing a new park space that integrates high volume of bike traffic;
- Finalizing park area/configuration;
- Accommodating contaminated soils without compromising the functionality of the park;
- Mitigating the effect of the SkyTrain structure;
- Balancing needed festival space with other park program elements;
- Creating an engaging, naturalized and accessible waterfront edge while addressing sea level rise.

PRELIMINARY PARK PRINCIPLES

Sustainability Principles

- Layer sustainability into all aspects of park planning from rainwater management to climate leadership;
- Introduce natural systems into the park (tree planting, habitat and biodiversity).

Play Principles

- Pursue both active and passive recreation;
- Explore opportunities for rentals (bikes, kayaks, paddle boards) and provide food outlets.

Water related principles

- Create a vibrant and accessible waterfront park and open space district;
- Build on the south facing waterfront setting;
- Ensure varying water edge experiences.

Integration with Local Neighbourhoods Principles

- Extend and connect the park seamlessly with adjacent park spaces, the surrounding neighbourhoods, and the City overall;
- Provide a continuous bike/walkway connecting to other local cycling/walking routes;
- Create defined edges.

Cultural + Social Principles

- Incorporate event and gathering spaces;
- Create public settings for socializing.

RELATED PRINCIPLES

- Reinstate Georgia Street's ceremonial role and connect it visually to False Creek;
- Maintain key street end views (Abbott Street);
- Develop Pacific Boulevard with a parkway character adjacent to Andy Livingstone and the future Creekside Park extension to enhance the park experience.

PRELIMINARY PROGRAM ELEMENTS

Facilitate Play – land based

- Casual public use, open space, informal play: frisbee, pick up soccer, yoga, tai chi, bocce;
- Youth oriented recreation: basketball, BMX bike riding, roller hockey, skate park;
- Adult recreation including work out equipment;
- Formal and adventure play;
- Neighbourhood recreational and park functions/ features: playgrounds, picnic areas, fenced dog area;
- Water-play;
- Continuous walkway/bikeway/seawall.

Facilitate Play – water oriented

- Boat Facility: Non-motorized boat dock; dragon boating; kayak, paddle board, and paddle boat rental;
- Water access and viewing;
- Beach;
- Ferry dock.

Develop Cultural Programming

- Special events spaces: Festival lawn; Plaza at the foot of Georgia with permanent and moveable infrastructure to support events;
- Festivals: Music, food, dragon boats.

Enhance Social Spaces

- Café/Concessions/Food trucks;
- Park and street furnishings;
- Public art;
- Signage - interpretive and way finding;
- Washrooms;
- Floating, paddle-up coffee bar.

2.0 CONTEXT, PARK INVENTORY + ANALYSIS

INTRODUCTION

This section will provide the following:

- Provide some demographic profiling of the Northeast False Creek area identifying potential future trends (if feasible);
- Identify the current local amenities in park spaces and provide a comparison with other Vancouver destination parks;
- Provide a summary of potential park needs based on the review above.

DEMOGRAPHIC CONTEXT

This sub-section focuses on demographics and is intended to paint a picture of the downtown peninsula, how the NEFC Waterfront Park area fits within that larger contextual area and who some of the potential users might be in the coming years.

It should be noted that population and demographic forecasting is based on the analyzing past data to predict future trends. As such, it can be an imperfect science as many unforeseen factors may impact future outcomes.

What We Know Today

Three specific areas were reviewed for relevancy to the lands that are a part of and will surround the future Creekside Park extension. The information on each of areas was derived from national census data and City of Vancouver custom census data. The areas reviewed include: False Creek North, the Downtown East Side and City Gate (See Figure 4).

General Population Information for the Downtown Peninsula

The Northeast False Creek Waterfront Park Study Area is located within the Downtown Peninsula. The Downtown Peninsula extends from the eastern boundary of Stanley Park over to Main Street and from Coal Harbour to English Bay and False Creek. It is approximately 5.69 square kilometers. As of the 2011 census, the area had a population of approximately 99,000 people. From 2001 to 2011, the overall population of the City of Vancouver increased by approximately 10% from 545,000 to 603,000 people. In comparison the Downtown Peninsula, in the same

FIG. 4 I Diagram of the Census Areas

time period, increased its population from 70,000 in 2001 to 99,000 in 2011. An approximate 30% increase of people living in the downtown peninsula. This is most likely attributable to redevelopment of areas like Yaletown, False Creek North and Coal Harbour. With that increase in population, through redevelopment, also came an increase in amenities, including: expansion of the seawall, introduction of schools, day care, social housing and an increase in park space.

Anticipated Growth in Population + Businesses

With the new West End Neighbourhood Plan, modest growth over a long-term time horizon is anticipated on west side of the peninsula. Approximately 8,000 to 10,000 new residents are expected to be added to the West End over a 30 year period. It is expected that 8 - 10,000 jobs will also be created.

On the east side, the Downtown East Side (DTES) Neighbourhood Plan highlights the many vulnerable groups living in the neighbourhood with complex issues like poverty, homelessness, unemployment, health and drug use. The area is also home to many urban Aboriginals.

Due to its proximity to the downtown core, the DTES is under going change and is increasingly becoming more attractive for both commercial and residential development. Continued growth is anticipated for the area (approximately 28,000 new people by 2041). Future growth, however, will need to be mitigated by maintaining a wide range of housing, providing a diversity of businesses to serve the local population while being respectful of the existing heritage, scale and urban pattern of development.

In the short to mid–term (10-15 years) it is expected that the population may increase by approximately 20,000 people within a ten-minute walk, although this data has not been rigorously tested and remains an approximation.

There is also the potential for approximately 1,000 non-market homes to be built on two City-owned blocks to the east of the future park. Typically non-market housing has a higher percentage of children. One could expect up to 200 elementary school children and 132 secondary students.

The immediate area is also expected to see an increased in businesses and jobs. Approximately 6.4 million square feet of commercial space is being planned over a 10 year time horizon translating into approximately 32,000 new jobs within a 10 minute walk.

It should be noted that this park area sits on an urban isthmus that separates False Creek and Burrard Inlet. It is on the edge of several Downtown neighbourhoods and is at a hinge point between lower income and higher income neighbourhoods. The area to the east is also a location with potential park deficiencies.

Andy Livingstone Park currently has a high percentage of drug related issues due to its proximity to DTES and the current configuration of the park. Other parks within the area such as, Oppenheimer, Strathcona, Thornton and Trillium also face social challenges. Further demographic and social impact studies need to be undertaken in subsequent phases of project work to explore these issues further and to develop solutions.

Age Profile

A more detailed review of some of the immediately surrounding sub-areas provides a snapshot of individuals and families living within close proximity. The areas reviewed include:

- False Creek North,
- Downtown Eastside; and
- City Gate

False Creek North

In the False Creek North Area there has been a relatively steady and consistent distribution of ages over the ten years from 2001 to 2011 with a slight dip in the 15-29 year age cohort in 2006 and a slight increase in the 45-64 age group since 2006. The latter may represent people downsizing from their houses and moving into the area with young-adult children. It appears that this area replaces its age profile every five years and is relatively stable.

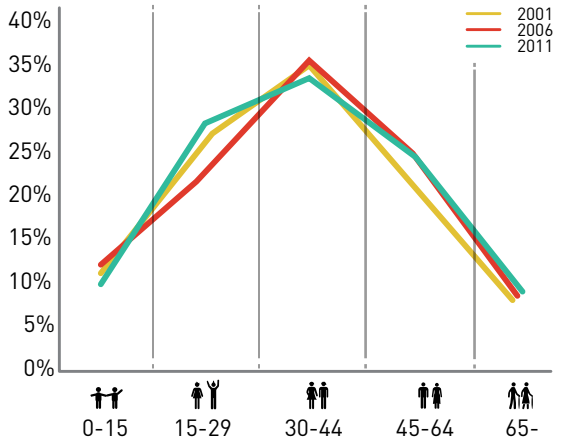

FIG. 5 I False Creek North Age Population Distribution

The Downtown Eastside

The Downtown Eastside has higher percentages of older adults (45-64) and seniors (65 and older) as well as lower percentage of children under the age of 15. It also appears from reviewing data from 2001 to 2011 that the population is ageing in place while loosing adults in the 30-44 year old age group.

City Gate

Due to it immediate adjacency to the future park, the City Gate sub-area was reviewed. In City Gate the age demographics indicates that people may be ageing in place. In 2001 the demographic indicates a higher percentage of people in the 30-44 year age range. By 2006 and 2011 the peak has shifted to the 45-64 age group. This sub-area has a slightly above the city average number of seniors and below city averages of children.

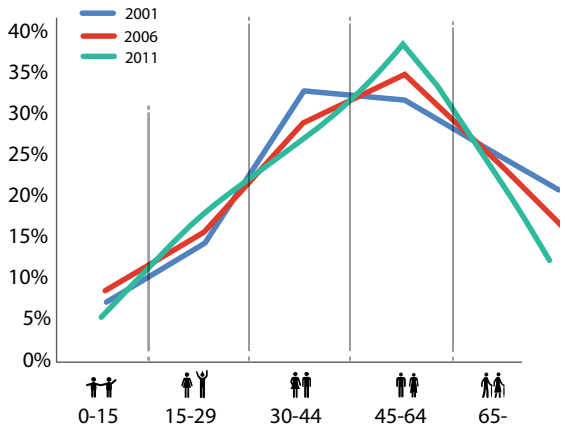

FIG. 6 I Downtown Eastside Age Population Distribution

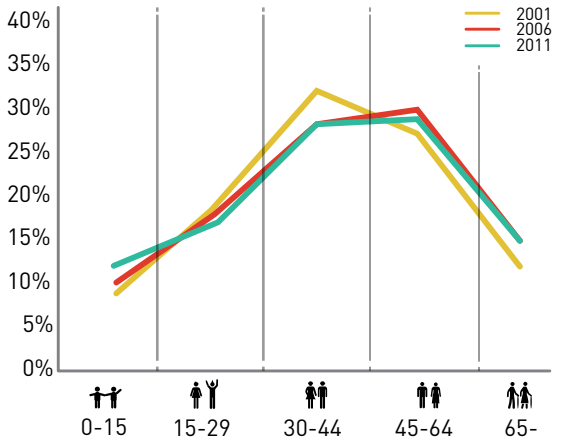

FIG. 7 I Citygate Age Population Distribution

Socio-Economic Profile

Household survey information from 2010 corroborates the disparity of incomes between the City overall, False Creek North and the Downtown Eastside.

	City Wide	False Creek North	Downtown Eastside
Median income	$56,000	$60,673	$22,036
Average income	$80,000	$75,332	$42,734

Median is the middle point, in which half the numbers are above the median and half the numbers are below. Average is achieved by totalling all the numbers and dividing by the number of items.

Housing Profile

The existing and typical housing form in False Creek North and City Gate is apartments in high rises (95%) with podium town houses (5%). The DTES, on the other hand, has a greater mix of housing forms with single detached (4%); Townhouse / Rowhouse (4%); duplex (5.5%) and apartments (86.5%) in both low rise and mid-rise forms.

Tenure was another aspect reviewed. The following table provides an overview of tenure in the area.

	FCN	DTES	City Gate
Owner	56%	19%	62%
Renter	44%	81%	38%

SUMMATION

In summation, the NEFC Waterfront Park will provide an amenity for both the larger Downtown area and local residents. In the immediate vicinity it will need to provide important neighbourhood outdoor space for both new, local commercial users and businesses as well cater to future residents. As the area immediately west of the site and future City of Vancouver non-market housing will be closest to the future park space, the demographic may be a potentially younger demographic or younger families starting out. A clearer picture of the potential, surrounding residential users will develop as plans for the Concord Pacific Lands develop.

While it will be important to plan for the mixed income residential and local business users it will be equally important to plan a park that will have appeal to all age groups, incomes and demographics given its central location to a number of established, new and future neighbourhoods and attractions.

Some elements may include playgrounds for children, youth oriented sports, adult recreation, recreation for local ethnic groups, and activities that appeal to ageing adults.

Given the adjacency to the water, incorporating water-oriented sports and water viewing seems to be a likely program element. It also one highlighted in many of the background documents. Another use could be outdoor event venue(s) to complement the indoor and quasi-indoor event venues of Rogers Arena and BC Place.

PARK INVENTORY + ANALYSIS

A review of the existing local parks was undertaken to determine the potential gaps in uses and needs for the future waterfront park space. The following relevant park definitions provide context and assist in understanding how this future park fits into the broader parks network in the City.

Relevant Park Definitions

- **Destination or Regional Parks (50 -100 acres)**
  Destination parks are the well-known parks that draw people from far and wide. Facilities may include sports fields, extensive trail systems, or large picnic areas. In addition, regional parks often include passive recreation space and unique features, such as significant natural areas or access to lakes or rivers. Because of their large size and broad service area, regional parks typically require more support facilities, such as parking and restrooms. These parks are usually designed to accommodate large numbers of people.
  Example: Stanley Park; Queen Elizabeth Park and Hastings Park

- **Community Parks (10-50 acres)**
  Community parks support recreation and social activities for multiple neighbourhoods. These parks can include recreation facilities for organized activities, such as sports fields, skate parks, and play courts. Community parks may also incorporate passive recreation space and community facilities, such as community or senior centres. Because of their service area, community parks also require more support facilities, such as parking and restrooms.
  Example: Andy Livingstone Park and Jericho Beach Park

- **Neighbourhood Parks (Less than 5 acres)**
  Neighbourhood parks are usually within walking distance of local neighbourhoods and meet local needs. They can include playgrounds, turf areas, pathways, picnic tables, sports courts, and benches.
  Example: Hinge Park and Coopers Park (both on False Creek)

- **Natural Area Parks**
  Natural area parks protect forests and creeks and provide nature experiences.
  Example: Pacific Spirit Park

- **Open Spaces and Plazas**
  Open spaces are other areas that are not "parks" in the classical sense. Some have a more urban character.
  Example: Yaletown Park and Southeast False Creek Plaza

Comparison to Other Park Destinations

In looking at Figure 8 on the following page it will be apparent that the future extension of Creekside Park will **not** be one of largest parks in the City when compared to others like Stanley, Queen Elizabeth or Hastings Park. What makes this park unique is a series of attributes not found in other parks within the City limits namely its:

- Central location;
- Accessibility to a number of neighbourhoods like Yaletown, Gastown Chinatown, Strathcona, False Creek Flats and Olympic Village;
- Immediate adjacency to the water at the head of False Creek;
- Larger size in relation to other parks in the downtown core;
- Proximity to the indoor venues of Rogers Arena and BC Place;
- Direct adjacency to another large park space at Andy Livingstone Park.

These factors make it a unique park with the potential to be a destination park, not in size, but in location, use and as a complement to other local and neighbourhood parks.

FIG. 8 I Vancouver Destination Parks - icons represent amenities at each park

Local Parks Reviewed

In review of the local parks, the first criteria was to look at parks within a ten to twenty minute walking distance of the study area and future park. Next, parks within an easy cycling distance of ten to fifteen minutes or a little further afield with a walking distance of approximately 45 minutes, were reviewed.

Parks Reviewed

- Andy Livingstone Park;
- Dr. Sun Yat-Sen Classical Chinese Garden + Public Park;
- Existing Creekside Park;
- Cooper's Park;
- Charleson Park;
- David Lam Park;
- Hinge Park;
- Southeast False Creek Plaza;
- Strathcona Park;
- Thornton Park;
- Trillium Park; and
- Yaletown Park.

The following pages provide detail on the inventory of existing, local parks reviewed. Both the maps and a spreadsheet provide the information on park uses and program elements for each of the parks reviewed.

Please note, the icons represent the amenities at each park.

FIG. 9 I Local Parks Reviewed - icons represent amenities at each park

PARKS INVENTORY			Size (ha)	Size (acre)	PLAY FOR ALL																EVENT SPACES + CULTURE + SOCIAL							ACCESS TO WATER / NATURE			
																												SUSTAINABILITY			
					Sports Field	Sports Court (including tennis court)	Seawall	Internal Walking / Biking Trails	Non-motorized Boat Launching	Field House	Public Washroom	Playground (0-5 years old)	Playground (6-12 years old)	Youth oriented	Seniors oriented	Water Feature	Nature Play	Public art	Garden	Dog Park	Stage / Amphitheatre	Plaza	Open Lawn	Cultural Amenity	Food Services	Urban Agriculture	Seasonal Activites	Rainwater Management	Beach / Accessible Shoreline	Habitat	
WALKING DISTANCE	Neighbourhood Park	N/A																												
	Community Park	Existing Creekside Park	2.53	6.325							1	1 Combined Playground																		
		Andy Livingston Park	4.21	10.525	2 Field Hockey 1 Softball 1 Football 2 Soccer 1 Lighted Field 2 Ultimate Field	1 Basketball 2 Tennis					1	3 Combined Playgrounds		Skatepark Plaza		Waterfall & Cobbled Stream				1											Water
		Thornton Park	1.49	3.725																										
		Coopers Park	1.71	4.275		1 Basketball						1 Combined Playground		Skatepark						1										
		Dr. Sun Yat-Sen Classical Chinese Garden + Park	0.12	0.3												Pond														Water
	Destination Park	Southeast False Creek Plaza	0.15	0.375																				Food Tr						Water
FURTHER AFIELD	Neighbourhood Park	Yaletown Park	0.17	0.425																										
	Community Park	Hinge Park	1.1	2.75								1 Combined Playground				Rainwater Wetland				1										Water & Nature
		David Lam Park	4.34	10.85		2 Basketball 2 Tennis					1	1 Combined Playground																		Water
		Trillium Park	3.05	7.625	1 Field Hockey 1 Soccer						1	1 Combined Playground																		
		Strathcona Park	10.07	25.175	3 Softball 1 Running Track 1 Soccer	1 Basketball 4 Tennis					1	1 Combined Playground		Skatepark						1										
		Charleson Park	7.14	17.85	1 Soccer							2 Combined Playgrounds				Waterfall Pond				1										Water
CITY, REGIONAL AND DESTINATION PARKS		Queen Elizabeth Park	52	130	1 Field	4 Basketball 18 Tennis					3			2 Ball Hockey Frisbee Golf	1 Pitch & Putt 1 Lawn Bowling	Waterfall Stream Fountain				1					1					Nature
		Stanley Park	400	1000	2 Cricket Pitches, 2 Softball, 2 Rugby, 1 Golf Course, 3 Field Houses,	21 Tennis					17	6 Combined Playgrounds			2 Bowling Greens 1 Pitch & Putt	Swimming Pool, Streams, Lake, Lagoon, Water Park				1					4					Water & Nature
		Hastings Park	11	27.5	1 Baseball, 1 Field House, 1 Horserace Track	1 Basketball 2 Tennis					1	2 Combined Playgrounds 1 Amusement Park		Skatepark PNE		Spray Park														Nature

Park Inventory Highlights (Figure 10)

The above matrix identifies the park program elements in the local neighbourhood and community destination parks reviewed. You will notice some columns are not highly populated. These indicates a use or program element that is not currently found or is limited in local, nearby parks. The gaps are highlighted by the blue dashed ellipses.

The potential, program element gaps, highlighted, include non-motorized boat launching, seniors oriented activities, stages/amphitheaters, food services, urban agriculture, seasonal activities, rainwater management, accessible shorelines, and habitat enhancement. Other elements could include some sports courts and integration of garden elements.

STUDIO PARSONS

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PRELIMINARY PARK USES + PROGRAM ELEMENTS

Building upon previous policy and planning context, demographic projections and the comparison of other local and destination parks a preliminary picture of potential park program elements begins to emerge.

The adjacent illustration includes program uses, such as:

- Play for all age groups;
- A variety of land and water based activities;
- Connections to neighbourhoods and the city through walkways and bikeways; and
- Opportunities to take advantage of a large format park for events.

Permeating all aspects of the park is the principle of sustainability.

The illustration begins to provide, diagrammatically, an overview of preliminary park uses and program element.

FIG. 11 I Preliminary Park Uses + Program Elements

DETAILED PARK ELEMENTS

Event Spaces

The Need for Event Space

With the redevelopment of large properties (like the Concord Lands) larger outdoor venues in the Downtown are disappearing. Along with redevelopment also comes an increase in population with demands for amenities and park spaces.

It has been identified in the previous comparative analysis review (2010) of existing parks that there is already a short fall in event space in the area. Trends are showing significant growth in performance arts attendance, sports and leisure gatherings, and cultural and event based tourism in Vancouver. With the proximity to the indoor venues of BC Place and Rogers Arena, there is a case to be made for complementary outdoor performance space in the future extension of Creekside Park. This thinking is also consistent with previous reports on the future of the park. See Appendix B for a comparison of existing City of Vancouver event spaces.

Potential Requirements

From the Demand Analysis Study for Cultural and Event Space undertaken by the City of Vancouver in 2010, all sizes of event spaces are equally needed and utilized. However, it was demonstrated in the 2010 report that there was demand for more spaces for events of up to 10,000 - 11,000 people.

To give a sense of size, the former Plaza of Nations, designed for Expo '86, was a mid-sized event venue for up to 5,000 people. While it is is no longer suitable for many events with the roof and stage dismantled, there have been discussions to bring back a smaller venue.

A major short-coming of large and small existing outdoor venues is that they lack infrastructure. The most desired types of infrastructure include power, water, public washrooms, and site access for unloading and loading. Outdoor venues with a covered stage, a partial cover for the audience and with the ability for ticketing will be used most regularly by all groups.

Moving forward there is an opportunity to develop synergy between future event locations like the Creekside Park extension, the Georgia Plaza at the foot of Georgia Street and the Plaza of Nations.

The following outlines some of the specific considerations that need to be taken into account during the next stages of work for developing the space needs and configuration for a future outdoor, performance venue space.

Considerations for Future Events Spaces

Best Practices:

It is recommended that a best practices program document be developed, based on current knowledge from the City, experience of other jurisdictions (e.g. Millennium Park, Chicago) and with consultation from local event promoters and coordinators.

Needs:

- **Consultation:** Engage stakeholders early in the process including nearby residents; emergency service providers; and event planners that may use the space.
- **Types of Events:** Determine recurring/regular and potential one time types of events that may utilize the space. Some of the events discussed include: music, theatre or dance performances or festivals; food, wine and beer events; a farmers market; art events; children's events; sports events (runs and walks); rallies, and marches;
- **Other local spaces:** Understand the use of nearby existing spaces for outdoor events like the South East False Creek Plaza and the existing Creekside Park.
- **Size and Capacity Needs:** Develop an understanding of size and capacity needs. Some general rules of capacity are as follows for illustration purposes.

	Space allocation	1 acre of space accommodates
Standing	3-4 s.f./person	40,000 people
Seating	5-6 s.f./person	10,000 people
Picnicking	10-12 s.f./person	3,000 people
Ancillary Spaces	Equal to overall area	Approximately 1 acre

Noise Abatement:

For the NEFC area a balance needs to be struck between creating a vibrant event area and ensuring livability for area residents. Some considerations include:

- Develop an understanding of how sounds will reverberate in the short term and the long term once development has occurred. In general, noise levels decrease as the distance from the noise increases. A guide is to site the noise producing elements in a location where the noise can travel the greatest distance without interruption;
- Utilize a professional acoustical engineer to determine potential noise parameters early in the process (refer to the NEFC Entertainment and Transportation Noise Study, 2008, in the Appendices);
- Consider acoustical design for new residential towers in the area to meet deep bass levels;
- Require heating, ventilation and cooling systems with "windows closed" criteria so that residents could close their windows during events without becoming uncomfortably warm;
- Disclose that future residential units are located in proximity to an "event zone" and as a result, are subject to noise from surrounding land uses and street activities at levels permitted in an event zone; and
- Managing and monitoring event noise into the future.

Infrastructure:

- **Electricity:** As the use of generators is less preferable for events, strategically place and provide 3-phase electrical outlets at regular intervals around the event site. Ensure sufficient electrical capacity to each point of connection for the various lighting and electrical needs.
- **Water:** Strategically place water at regular intervals around the event site with sufficient water capacity and pressure at the point of connection. Ensure accessible and convenient disposal of grey water within the event area.
- **Loading:** Consider the type of trucks that need to access the event site, how they will enter and exit, and the load anticipated from all vehicle to determine the appropriate surfacing and infrastructure for all vehicles. A preference was suggested for the event area to be ringed by vehicle-accessible pathways.
- **Washrooms:** Provide sufficient and level spaces for banks of temporary washrooms in multiple locations throughout the event space.

Ancillary Spaces

The following are a series of other spaces for consideration in the layout.

- Green rooms/dressing rooms for performers (with toilets);
- Green space and hard surface space;
- Entry gates/ticketing;
- Concessions, vendors, secondary stages, liquor service and VIP Areas;
- Storage space; and
- Access to public transit and bike racks.

Other considerations

- Consider solar orientation (stage ideally facing west) and direction of noise (anticipating sound amplification);
- Define areas of emergency ingress and egress;
- Build in flexibility so the space can be utilized in multiple ways for a wide range of event sizes;
- Build in the ability to expand the space; and
- Be purposeful in the planning and design for the event space to anticipate future needs.

I Outdoor Event Spaces

DETAILED PARK ELEMENTS
Sea Level Rise

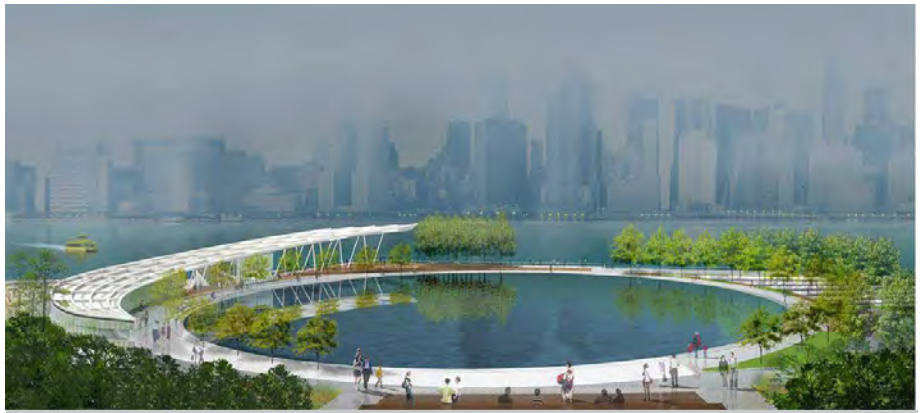
Sea level rise is a side effect of global warming which is causing a general increase in the level of the ocean in relation to the shoreline. This will have long-term impacts on coastal areas. The City of Vancouver has been studying this issue and planning for modifications in the shoreline and adjacent buildings to mitigate the potential for flooding during storm events. Planning to address sea level rise looks at mitigation from a once in 500 year storm event with associated storm surge. While a one metre rise in sea level is expected between now and 2100, depending on the rate of warning, the effects will probably not be realized for another 50 years, providing time to plan.

Potential mitigation measures currently being discussed that are relevant to the future design of the Creekside Park extension include:

- Requiring new buildings to be built to a minimum elevation (4.8m) above sea level;
- Raising the seawall up in some locations to new building elevations. The current height of the seawall in and around Northeast False Creek varies but it is approximately 3.5 metres at the future park site;
- Installing a berm along Quebec Street to act as a dyke against flooding; and
- Other innovative green infrastructure that provides resiliency to sea level rise.

The City will continue working on this issue. For the purposes of this work, we are assuming portions of the park will be at elevation 4.8m above sea level to protect the park against flooding.

In the Precedents + Case Studies (Section 3.0) of this report, and illustrated in the adjacent images, are innovative and interesting methods various jurisdictions are using to manage the future potential for flooding.



I Floodable Landscape, Hunter's Point Park, Long Island City, New York

Contaminated Soils Discussion

Contaminated Soils

This section discusses our understanding of contaminated soils, at this time.

As part of the redevelopment of the last phase of Concord Pacific land (Site 6C) adjacent to False Creek, Concord Pacific is required to provide a 9-acre minimum (3.64 hectare) park space that is referenced as the future extension of Creekside Park.

The land where future development and the future park will be located was originally used for heavy industrial uses including railroad and rail yards, sawmills and lumber yards, asphalt processing, coal loading, coke ovens and tar processing.

As part of the implementation of future redevelopment some of the contaminated material, particularly from building parkade excavations, will be accommodated in the future park space. The amount of contaminated material used in the park will be defined by the final park design. Once contaminated soils are in place, a barrier cap will be installed and the park constructed on top. This method has been utilized in other locations around False Creek including Andy Livingstone Park, Coopers Park and George Wainborn Park.

Soil Classifications

There are several levels of soils that have been identified as needing to be accommodated in the park. These include the following Provincial soil classifications and a brief description of each of the various types.

- **No Exceedance:** This is soil that is not contaminated and that does exceed any thresholds for containing contaminated soil. For lack of a better term these are regular soils based on the information available.
- **Contaminated Site Regulations** (greater than Residential level): These soils exceed limits for application in residential circumstances.
- **Contaminated Site Regulations** (greater than Commercial level): These soils exceed limits for application in commercial circumstances.
- **Hazardous Waste:** While most of the soils described above are considered contaminated materials, "Hazardous Waste" has the highest level of contamination. These soils could contain heavy metals and wood waste.

Visualizing Soil Volumes

As noted, the capacity of the park to accommodate contaminated soils is related to the final size and the design elevations (grades) of the park. Currently the existing area where the future park will be is at an elevation of approximately 3.5 metres above sea level. The future elevations around the park site are anticipated to be between 4.6 - 4.8 metres above sea level, to address sea level rise.

At this time, the quantity of soil to be accommodated, is not clear. However, to provide a visualization of soil volume, if one took approximately 1 acre of park area and created a land form, berm or amphitheater to a height of 2.5 metres, this volume could accommodate approximately 6,550 m3 of contaminated soils. This is the equivalent to 655 truck loads of soil being retained on site and diverted away from the land fill.

It should be noted that some of the contaminated soil may not be structurally sound and therefore some soils may not be appropriate for the future park.

In summation, further work to address the accommodation of contaminated soils will be required as the schematic planning for the park proceeds. In the future, soil volume estimations will need to be developed in detail and the most appropriate types of soils that have the potential to be accommodated in the park will need to be identified.

3.0 PRECEDENTS, CASE STUDIES + TRENDS

I Governor's Island, Manhattan, New York

INTRODUCTION

As previously identified, the future extension of Creekside park to the north and west, will complete the ring of parks, greenways and open spaces that surround False Creek. In order to develop a vibrant and contemporary park and to maximize space and uses, a series of parks in North America and Europe were reviewed as precedents for this future park area.

Previous sections have identified preliminary themes, needs and opportunities for this park space. In looking at potential precedents, parks were viewed through the following lenses;

- Ability to provide play for all;
- Opportunity to access the water/nature;
- Ability to incorporate land based and water play;
- Potential for event spaces; and
- Opportunities for sustainable landscapes.

The seven parks include:

- Brooklyn Bridge Park, Brooklyn, New York;
- Corktown Commons, Toronto, Ontario;
- Cumberland Park, Nashville, Tennessee;
- The Edge Park, Williamsburg, New York;
- Hunter's Point Park, Long Island City, New York;
- Louisville Waterfront Park, Louisville, Kentucky; and
- Dania Park, Malmo, Sweden.

All these parks share common themes of being on the water; many are on reclaimed land from former industrial uses; most incorporate an area to host events; each have developed extensive walkway/bikeway systems and all have areas for various forms of activity. We thank the firms highlighted for use of project photos.

Brooklyn Bridge Park, New York (85 acres): The Brooklyn Bridge Park operates on an urban scale, aiming to establish harmony between three different but co-dependent ecosystems – river, harbour and city. The Park extends 1.3 miles along the shore of the East River, transforming this stretch of post-industrial waterfront into a thriving landscape and a vital urban destination. It also provides a system of new and refurbished connections between adjacent neighbourhoods and the river.

The park's topography not only creates landscape rooms for a wide variety of activities and programming, but also acts as a visual barrier and effectively reduces noise from the Brooklyn-Queens Expressway bounding a segment of the linear site. The event lawn, 2.1 kilometers of scenic bikeway, expansive playgrounds, a sports pier and food services are enjoyed by thousands who wish to experience a naturalized riverfront park.

FIRM: MVVA | LOCATION: BROOKLYN, NY, USA | SIZE: 85 ACRES, EXTENDING 1.3 MILES ALONG THE SHORE | 65% COMPLETED AND OPEN

SUSTAINABLE LANDSCAPE

- Rainwater is harvested and naturally treated to water the lawns and gardens on site
- A series of functioning ecosystems are re-introduced, including coastal shrublands, freshwater wetlands, coastal forest, a wildflower meadow, a marsh and shallow water habitats
- A linear earth hill as a visual barrier and to reduce noise from the Expressway
- Raw elements and existing structures are recycled and reinvented
- Controlled lighting strategy to conserve energy
- Several Structures within the park feature green roofs
- Lawns, plant beds and trees are managed organically, and soil is treated with compost teas and organic matter

ACCESS TO WATER / NATURE

- A system of new and refurbished connections between the river and the city is mediated
- A designated scenic bikeway travels from the north to south end of the park
- An elevated pedestrian bridge to provide a unique and vital access point to the park

PLAY FOR ALL

- Three expansive playgrounds, Water Lab, Swing Valley, Sandbox Village, Slide Mountain, Swings and Marsh Garden are designed for all ages
- Sports facilities for soccer, bocce ball, soft ball, basketball, sand volleyball, boating, fishing, biking and roller skating
- Greenway Prospect, Picnic Peninsula, and the Vale Lawn offers opportunities for informal play

EVENT SPACES

- Barge Music at the Pier
- Educational Walks and Tours
- Weekly Smorgasburg (Food and Flea Market)
- Group Sports, Fitness and Dance Programs
- Movie Night
- Pier Kids Family Celebrations
- Annual Eileen C. Dugan Memorial 5K Run

Corktown Common, Toronto, Ontario (18 acres) Opened in 2013, near the mouth of Toronto's Don river, Corktown Common is a key component in the development of the West Don Lands neighbourhood. The park acts as a connecting piece between Toronto's expanding downtown, the proposed redevelopment of the "Port Lands" and the city's east end. The site is dominated by its post-industrial history; the railroad bounding the site to the east and south; the Eastern Avenue and Queen Street bridges; and three 30-meter high hydroelectric towers. The park was built on remediated industrial lands and acts as a major flood protection landform, as well as, offering recreation and enjoyment for the residents of the area.

The Flood Protection Landform (FPL) informed the main design decisions on the site. The west side, dominated by varying topography, diverse woodland planting and a marsh, offers visitors range of programmatic and recreational experiences, combining views of downtown and Lake Ontario. The eastern part, focused around the flood protection berm, is planted with prairie species. The berm with its planting responds to the changing water levels and frames the more active areas of the park. With the rich planting palette and diverse programming, Corktown Common is an inviting public space in the growing West Don Lands neighbourhood.

FIRM: MVVA | LOCATION: TORONTO, ON, CA | SIZE: 18 ACRES | COMPLETED 2014 (THE REST OF DON RIVER PARK STILL IN PROGRESS)

SUSTAINABLE LANDSCAPE

- Reclamation of former industrial site
- Almost half of the park is located on the Flood Protection Berm that has allowed for the development of the West Don Lands
- Re-established the ecology of the site

ACCESS TO WATER / NATURE

- Enjoy lush lawns, marshes and woodlands in a dense urban environment

PLAY FOR ALL

- Lawns, marshes and woodlands to provide settings for walking, cycling, sledding, sports, sunbathing, and public art, with a multi-functional pavilion at the center

EVENT SPACES

- Nature and Adventure Play areas

STUDIO PARSONS

PWL partnership

VANCOUVER BOARD OF PARKS AND RECREATION

Cumberland Park, Nashville, Tennessee, (6.5 acres) In 2010, a four phase, riverfront redevelopment plan was unveiled along the Cumberland River. Cumberland Park is no ordinary riverfront park. The "adventure landscape" provides all the fun needed for people to enjoy the water, light, stone, rolling grass, trees, ridges and valleys. "Kid's imaginations provide the rest so you don't have to rely so much on conventional playground equipment," said landscape architect Gavin McMillan.

Besides water and play, the history of the riverfront is also celebrated - through material selections, the reuse of industrial machinery and renovation of the old Bridge Building, as well as the restoration of acres of riparian habitats. This park is in close proximity to a concert and NFL stadium and has the ability to be used as an outdoor venue. Future phases include residential and a small business district to knit this area back into the fabric of the city.

FIRM: HARGREAVES ASSOCIATES | LOCATION: NASHVILLE, TN, USA | SIZE: 6.5 ACRES | COMPLETED 2012

SUSTAINABLE LANDSCAPE

- Reclamation of former riverfront wasteland
- Restoration and reuse of a gantry crane and catwalk
- Cut-and-fill strategy to minimize off-site disposal costs while introducing new topography
- Restoration of riparian habitat
- Rain water harvesting cistern to collect rain water for park irrigation

ACCESS TO WATER / NATURE

- Riverbank and Esplanade to take people down to the water while the restored gantry crane and catwalk projecting over the river offer river views
- Meandering trails going through lawns, meadows and out to the river

PLAY FOR ALL

- Elevated pedestrian bridge with play areas underneath
- Multiple adventure and nature play areas with different themes and for kids of all ages

EVENT SPACES

- Large lawn areas and amphitheater to host events of various scales

The Edge Park, Williamsburg, New York (11 acres) Adjacent to the East River, where one of New York City's newest and largest mix-used development sites meets post-industrial land, the Edge Park seeks to rebuild a long-lost public access to the waterfront, and establish a blue and green network that integrates into the fabric of the community. At the water's edge, a vehicular road is transformed into a linear lawn with "bridges", which is perfect for small informal gatherings. A large event lawn is intersected by a bold diagonal pier, which connects the local neighbourhoods to the water, and directs views across the river towards the Empire State Building. The 11 acre park is always highly active on the weekends as it is an easy commute by train or ferry to access the park. The beloved Brooklyn Flea Market, located in an adjacent lot, draws people to the area while the park provides access to the water and spectacular views.

FIRM: W ARCHITECTURE | LOCATION: WILLIAMSBURG, NY, USA | SIZE: 11 ACRES | COMPLETED 2011

SUSTAINABLE LANDSCAPE

- Reclamation of former industrial site
- Stone riverbank to provide flood protection
- Street turned into a pedestrian greenway
- Re-established habitat at the water's edge

ACCESS TO WATER / NATURE

- Providing new access to the water's edge
- Stretching the river eco-system into the fabric of the community

PLAY FOR ALL

- Flexible and diverse outdoor rooms to encourage public use

EVENT SPACES

- Large lawn area to host events

Hunter's Point, Long Island City, New York (9.5 acres): Surrounded by water on three sides, Hunter's Point Park is a new model of urban ecology and a laboratory for innovative sustainable design. Sixty-four photo-voltaic panels provide 50% of the power to the park. Rainwater is collected to nourish nearby planting beds. The infrastructural "Soft Edge" along the water, the flood-able lawn and the extensive bioswale system re-introduce the site's ecologies while protecting nearby neighborhoods from rising water levels and storm surges.

Adjacent to an emerging residential development and a future public school, the park provides vibrant open spaces for recreational, cultural and sports programs for kids and adults alike, all with a spectacular view of Manhattan. "New roads, new protected bike paths and a link to the rapidly growing ferry network are transforming Hunter's Point from a dormant (industrial) waterfront into a vibrant "city-within-a-city," said former New York Transportation Commissioner, Janette Sadik-Khan.

FIRMS: THOMAS BALSLEY ASSOCIATES + WEISS/MANFREDI | LOCATION: LONG ISLAND CITY, NY, USA | SIZE: 9.5 ACRES | COMPLETED 2013

SUSTAINABLE LANDSCAPE

- Photo-voltaic panels on the Pavilion Structure power 50% of the entire park (100% in the future)
- The panels also collect rainwater to nourish nearby swales
- Infrastructural "Soft Edge" (wetlands and pathway) along the water to withstand rising water levels during storm surges and 100-year flood conditions
- Bio-swales at the park's edge to filter rainwater from the Center Blvd and the upland smart streets

ACCESS TO WATER / NATURE

- The path system extends to the water's edge, drawing the community to the waterfront
- The 30-foot Overlook offers views of Manhattan and the East River
- Urban beach

PLAY FOR ALL

- Children's Play with lawn mound and water play channels
- The ensemble of play venues also include basketball and adult fitness
- Multi-purpose sport lawn, Natural lounging lawn and Urban Beach to provide opportunities for informal play
- Urban Dog Run / "Dogscape" with a water rill, stacked timber seats and animated shelter

EVENT SPACES

- Group Sports programs
- Family celebrations
- Potential festivals to be held at the Green Oval

Richly Planted Bio-Swales and Rain Gardens

Louisville Park, Louisville, Kentucky (72 acres) The master plan and park design reclaims 120 acres of derelict industrial waterfront, reconnecting Louisville to the Ohio River. The park's large reclamation effort on a post-industrial site at the edge of the Ohio River re-unites the urban fabric of Louisville with the water, while overcoming the barrier of an expressway. The park contains a number of open spaces appropriate for large events, as well as smaller spaces, all intended for flexible programmatic use. The project was unveiled through three phases of development, with the Great Lawn acting as the centerpiece and the park's most distinctive open space, directly connecting the downtown with the river. The landforms along the site offer more intimate and enclosed spaces, which open out into inlets planted with riparian habitat. In 2014 a bicycle bridge connecting Louisville to Southern Indiana was opened, making the Louisville Waterfront Park a large open space hub accessible to users on both sides of Ohio River.

FIRM: HARGREAVES ASSOCIATES | LOCATION: LOUISVILLE, KY, USA | SIZE: 72 ACRES | COMPLETED 1999

SUSTAINABLE LANDSCAPE

- Reclamation of land formerly used for industrial and transportation purposes
- Capacity to successfully withstand significant flood events
- Urban Edge that can survive barge collision
- Green "natural" shoreline to withstand the near constant pounding wave-action from barge wake
- Riparian Habitats to promote biodiversity
- Rehabilitation of a former railroad structure into a pedestrian and bike path

ACCESS TO WATER / NATURE

- Extending the park up under the interstate into the city grid to provide visual and physical connections
- 275m long Water Feature and the Great Lawn to draw people from downtown to the river's edge
- Trails and the Promenade to provide public access to the riverfront
- Elevated meadows and overlook to provide visual connections

PLAY FOR ALL

- Picnic areas and facilities
- Multi-Use Lawns
- Adventure Playground and other play areas
- The Swing Garden
- "Dancing Waters"
- Docking for launching riverboats
- Walking and running paths

EVENT SPACES

- "Wednesdays on the Big Four Lawn" Concert Series
- Annual Kentucky Derby Festival at the Festive Plaza and multi-used lawns
- Annual Forecastle Festival at the Festive Plaza and multi-used lawns
- Bats Baseball Friday Night Fireworks
- Flea Markets and Food Festivals
- Gathering place for walks and races

Dania Park, Malmo, Sweden (4.6 acres) Öresund Sound, which separates Sweden from Denmark forms a breathtaking background for this park located along the eastern shore of Malmö, Sweden. The park was designed for a housing expo in 1999 on a post-industrial site formerly occupied by the Saab auto factory. Its industrial past and soil contamination informed the design decisions in limiting the plant variety that can thrive on the polluted site. The terraced design offers visitors not only views of the surrounding landscape but also allows the park users to access the water. Dania Park is well connected to the park system running along Malmö's water edge, as well as to the adjacent residential community, permitting users to access the park from all sides. Platforms, balconies and terraces form a system of open spaces with a flexible programmatic use. The terraced landscape offers visitors not only views of the surrounding landscape but also allows access to the water. The overall design focuses on emphasizing the connection to Öresund Sound, the surrounding water and the seasonal changes of the local climate.

FIRM: TORBJÖRN ANDERSSON & P-G HILLIGEN, FFNS | LOCATION: MALMÖ, SWEDEN | SIZE: 4.6 ACRES | COMPLETED 1999

SUSTAINABLE LANDSCAPE

- Reclamation of land formerly used for industrial purposes as an automobile factory
- Stone bank and timber frame retaining wall to provide flood protection

ACCESS TO WATER / NATURE

- Extending the park to the water's edge in order to physically interact with the water
- The terracing landscape provides strong visual connections to the Öresund sound

PLAY FOR ALL

- Direct access to the water allows the park users to swim or enjoy the proximity of the sea

EVENT SPACES

- Various platforms and terraces allow for diverse event programming
- Music and Dance Performances

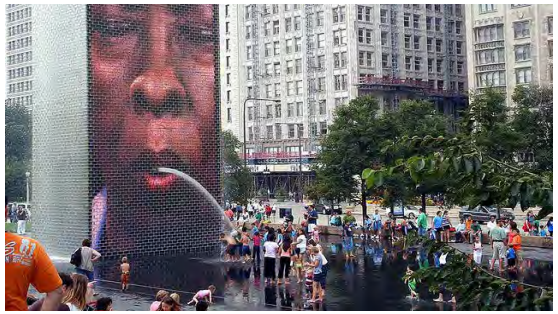
Current Trends + Insights

From the previous precedents, a series of the themes and trends in contemporary landscape architecture begin to emerge. Relevant to the future extension of Creekside Park are themes of post-industrial land reclamation; sustainable water management; nature play; urban agriculture naturalization and biodiversity.

A number of the examples also address the creation of spaces for events, knitting post-industrial lands back into the surrounding neighbourhoods and accessing the water in inventive ways that also address flood control. Future work on the programming and park design could incorporate some of the thinking and multi-functional elements that are making these parks highly utilized and vibrant spaces.

RE-NATURALISATION AND BIODIVERSITY

PLAY FOR ALL



INTERACTIVE LANDSCAPE FEATURE

ENVIRONMENTAL REMEDIATION

FESTIVE LAWN

NATURE PLAY

ACCESS AND VISUAL CONNECTION TO WATER

SUSTAINABLE WATER MANAGEMENT

HIGH QUALITY AND DURABLE MATERIALS

APPENDICES

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APPENDIX A

Appendix A provides a synopsis of each of the reports, studies, and documents and accompanying plans or graphics, reviewed. The abundant information in these policies, reports, plans, studies, documents and conceptual work have created a body of work that sets the foundation of thought related to waterfront planning in this area. The main body of the report extracts the **themes**, **issues**, **preliminary design principles** and **preliminary park programming elements** that reflect the years of park planning and conceptualization for this area as reflected in these documents.

REPORTS, STUDIES, + DOCUMENTS REVIEWED

1990 False Creek North Official Development Plan (ODP), City of Vancouver

2006/09 Creekside Park Extension Concept, PWL Landscape Architects

2008 Vancouver Sports Strategy, City of Vancouver

2008 NEFC: Entertainment + Transportation Noise Study, City of Vancouver

2009 NEFC: Directions for the Future, City of Vancouver

2010 Demand Analysis Study for Cultural and Event Space, John Donnelly + Associates

2010 Greenest City 2020 Action Plan, City of Vancouver

2010 Fogel Summary Review and Park Layout, Hotson, Long, Villagomez

2011 Re:CONNECT Viaduct Competition, City of Vancouver

2011 NEFC Issues Report, City of Vancouver

2012 Viaduct Study, Post Competition, Perkins + Will

2012 Transportation 2040 Plan, City of Vancouver

2013 Dunsmuir + Georgia Viaducts and Related Area Planning, City of Vancouver

2013 Integrated Stormwater Management Plan, City of Vancouver

2013 NEFC: Directions for the Future Update, City of Vancouver

2014 Healthy City Strategy 2014-2025, City of Vancouver

2014 Urban Forest Strategy, City of Vancouver

2014 Re-wilding Vancouver, City of Vancouver

2015 NEFC Viaducts Report + Concept Plan

2016 Biodiversity Strategy, City of Vancouver

2016 Renewable City Strategy, City of Vancouver

OVERVIEW of DOCUMENTS

False Creek North Official Development Plan (1990)

The intent with False Creek North ODP is to achieve a high standard of design and development for residential neighbourhoods, parks, and public facilities within the area boundaries. Objectives include taking advantage of the waterfront setting, the proximity to downtown and proximity to the entertainment district that includes BC Place, Rogers Arena and Science World. The ODP provides the framework for development.

Organizing Principles relevant to the NEFC Park Planning

Integrate with the City

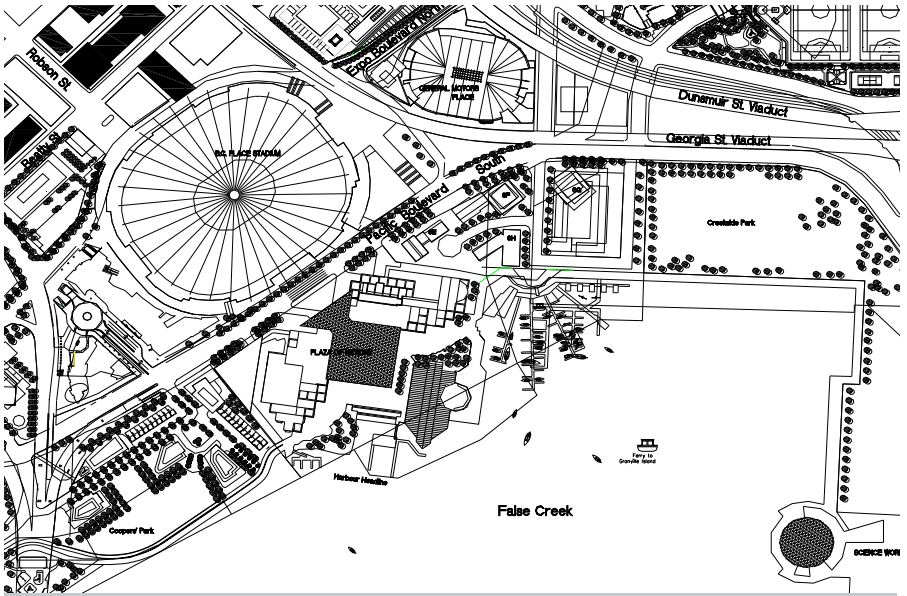
- Extend the street grid in a logical manner;
- Complete the waterfront walkway system;
- Create linkages to Pacific Boulevard and other pedestrian and cycle routes;
- Provide visual connections;
- Maintain key views (see below);
- Encourage non-resident use of park spaces.

Build On the Setting

- Take advantage of the southerly aspect;
- Incorporate water oriented land uses and activity settings;
- Provide visual, physical and functional linkages between the water and the land;
- Promote ability to walk to employment, cultural and entertainment opportunities of downtown;
- Celebrate the history of the place;
- Integrate into the character of adjacent neighbourhoods.

Maintain the Water Basin

- Ensure an appropriate scale and setback of adjacent developments;
- Enhance the configuration of the shoreline;
- Maintain views to the water.



I Concept from the North False Creek Official Development Plan

Create Lively Places + Neighbourhoods

- Provide a distinctive identity and defined edges;
- Divide large spaces and long streets into sub-areas;
- Accommodate a diversity of people;
- Create well defined public and private areas;
- Incorporate gathering and activity places;
- Provide a street scale comfortable for pedestrians to foster social contacts among neighbours with views, vistas, and focal points;
- Develop a sense of history, time, and incremental growth

Plan For All Age Groups With A Particular Emphasis on Children

- Provide public settings for socializing;
- Consider safety and security without sanitizing the environment.

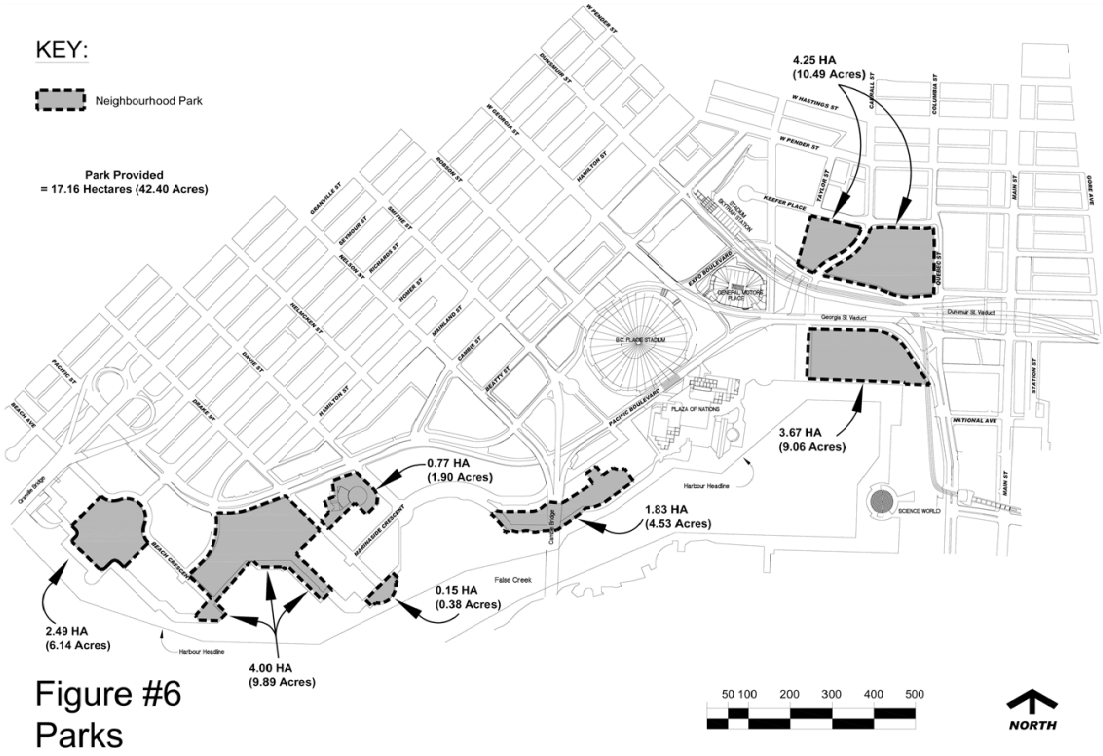


Figure #6
Parks

I Location and sizes of parks within North False Creek Official Development Plan

Other Items of Relevant to NEFC Park Planning

Park

- The park is intended to cover 9.0 acres. (See illustration). The design and uses are intended to integrate with East False Creek Park (Creekside Park), the residential amenities, and the residential area to the west;
- Slopes between development parcels and park spaces are required to meet park grades and shall generally occur on the development parcels.

Surrounding Land Uses to the Park from the ODP include:

- Office;
- Mixed Use: Residential/Amenity/Parking;
- Marina.

Views to be maintained include:

- Views to the water down Abbott and Carrall Streets;
- Views to Science World from Georgia street;
- View to site from the Cambie Street Bridge.

Building Heights shall take into consideration

- Public and private views, including views created by the development form;
- Shadowing of public and private open spaces and streets;
- Effects on the scale and character of open spaces.

Public Realm Design Concepts are needed for

- Waterfront walkway and seawall;
- Pacific Boulevard;
- Georgia Street pedestrian link (alignment approximately from the corner of Georgia and Beatty Streets to Pacific Boulevard).

I Creekside Park Extention Concept (PWL Landscape Architects)

Creekside Park Extension Concept (2006)

This adjacent illustration was developed for the Park Board to conceptualize a potential park design extending west from the existing Creekside Park. This plan was created over 3 nights of workshops. The general public was invited to participate in the process. This visual remains in many people's minds as the concept plan.

Creekside Park Extension Concept (2009)

Subsequently, in 2009, the concept plan was reviewed with the possibility of a re-configuration of the park to maximize the amount of park area immediately adjacent to the water. Additional features for the park included a major public pier; tidal basin; inter-tidal habit zones; urban plaza; children's play park; art and cultural walk and a Dragon Boathouse.

I Revised Park Concept (PWL Landscape Architects)

Vancouver Sports Strategy (2008)

Vancouverites are known to lead active and healthy lifestyles. The intent with the 2008 Sports Strategy is ensure that sport is enjoyed by all citizens throughout all stages of life. The foundational outcome identified through this study is termed "Sport for Life".

Strategic Goals relevant to NEFC Park Planning

Physical Literacy For All

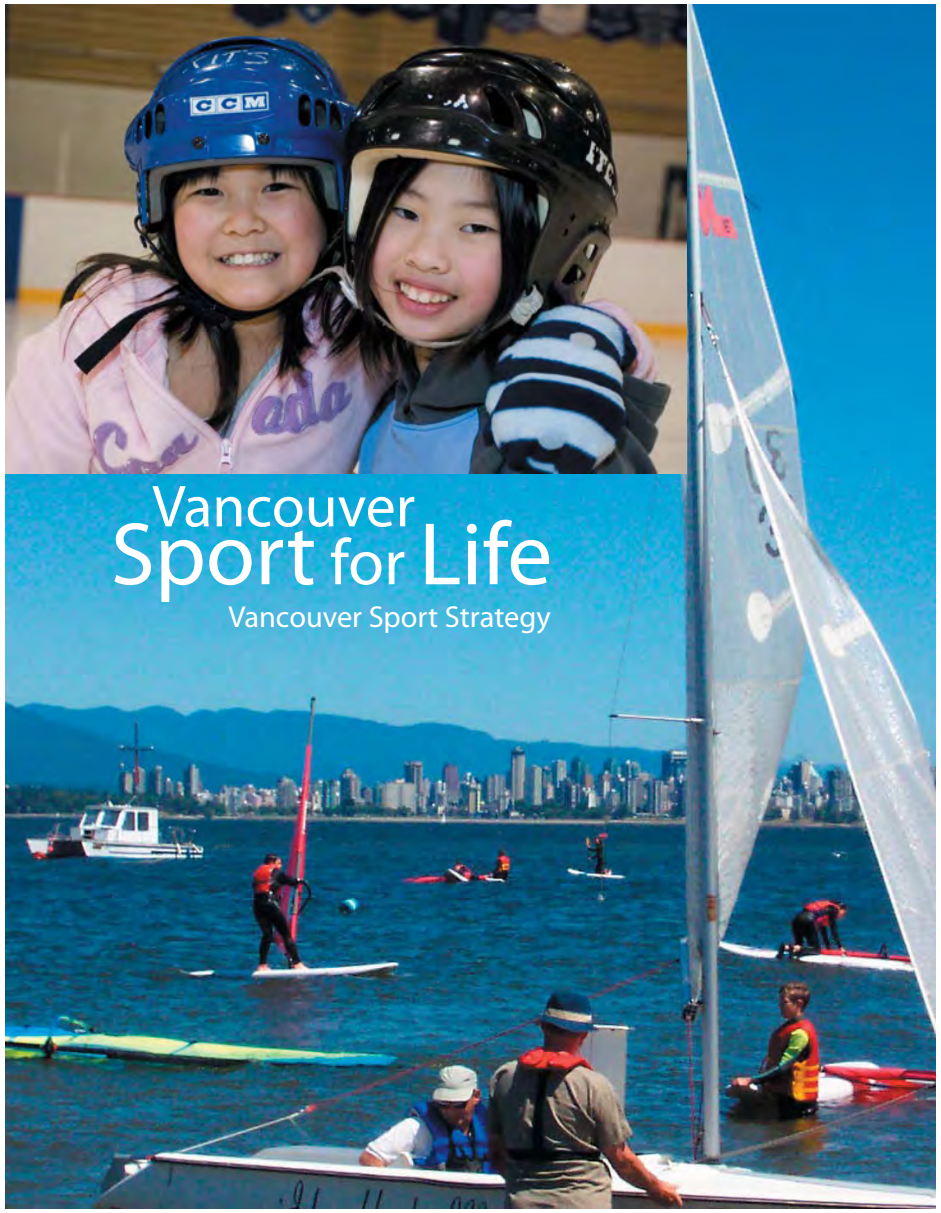
All children, from all segments of Vancouver, possess movement, sport and decision-making skills to enjoy sport and physical activity for life.

Active For Life

All Vancouver citizens, regardless of age, ability, physical capabilities, economic status, gender, culture, language and location are aware, connected and able to access the places and conditions that support structured and unstructured sport activity.

Recognition as a Premier Event Destination

Vancouver is recognized for strategically hosting events of all types which support tourism, economic and sport development, while leaving social and community legacies.



NEFC: Entertainment + Transportation Noise Study (2008)

BKL, acoustical consultants, undertook an Entertainment and Transportation Noise Study to understand how noise may impact existing and future residential land uses in northeast False Creek. Using 3D modelling they reviewed potential road, Skytrain and event noise levels from BC Place, Rogers Arena and a potential new outdoor event space on the future extension of Creekside Park. The work was evaluated against the Zoning Bylaw, Noise Control Bylaw and the World Health Organization's guidelines to assess sleep disturbance. Subsequent to the 2008 report, the City undertook further work and community consultation in 2010.

Outcomes relevant to NEFC Park Planning

- A balance needs to be struck between creating a vibrant event area in NEFC and ensuring liveability for area residents.
- Standard acoustical design for new residential towers in the area may need to be amended to meet deep bass levels (dBA) of 40-50 within the area identified as the "Event Zone";
- Buildings may be also be required to design the heating, ventilation and cooling system with "windows closed" so that residents could close their windows during events without becoming uncomfortably warm.
- It is anticipated that event noise will be managed and monitored;
- Once a development plan layout and a schematic plan for the future park are developed, detailed acoustical design work will be essential to provide an acceptable outdoor Performance Space.
- Music "noise" is expected to be subjectively interpreted as more annoying than more neutral noises, such as road traffic, of the same decibel level because of the "message" contained within the music and tones that are harder for the brain to ignore;
- For the new residential towers, a noise covenant will be warranted to ensure that residents moving into the area are aware that they are moving into not only a busy downtown area, but an event and activity zone with three to four nearby entertainment facilities.

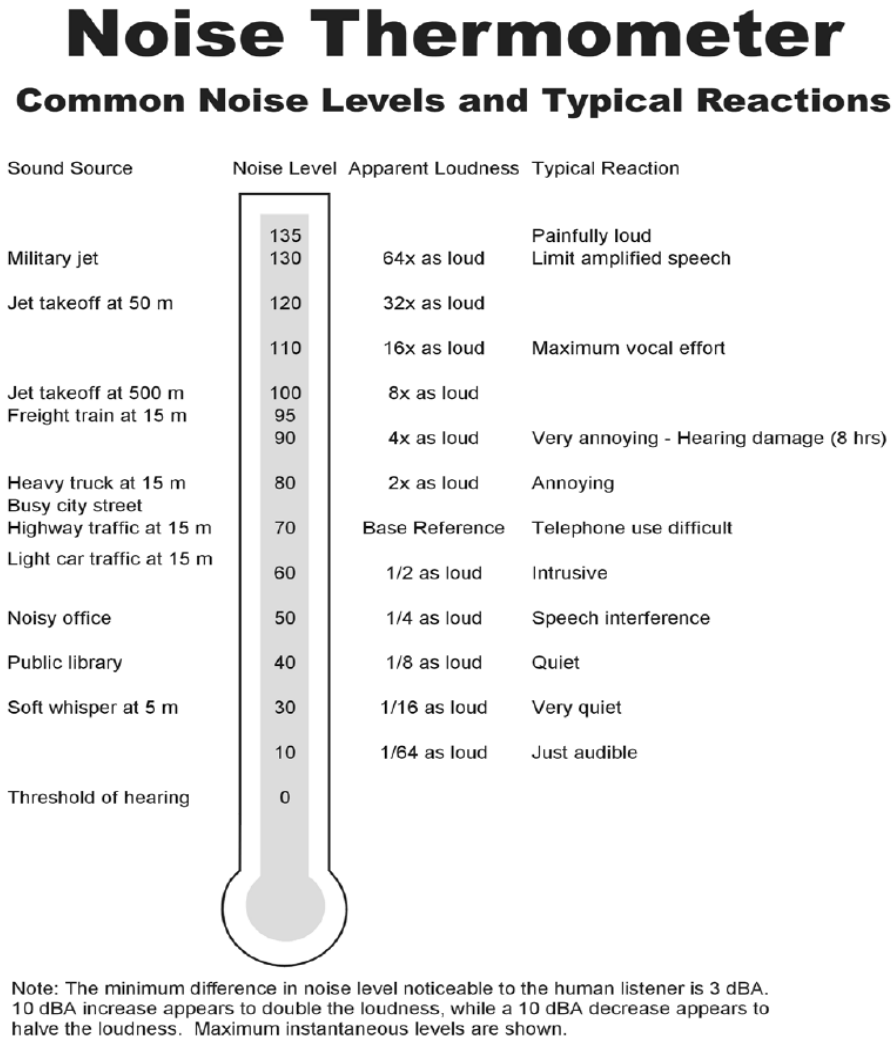


Figure 1: Noise Thermometer

NEFC: Directions for Future (2009)

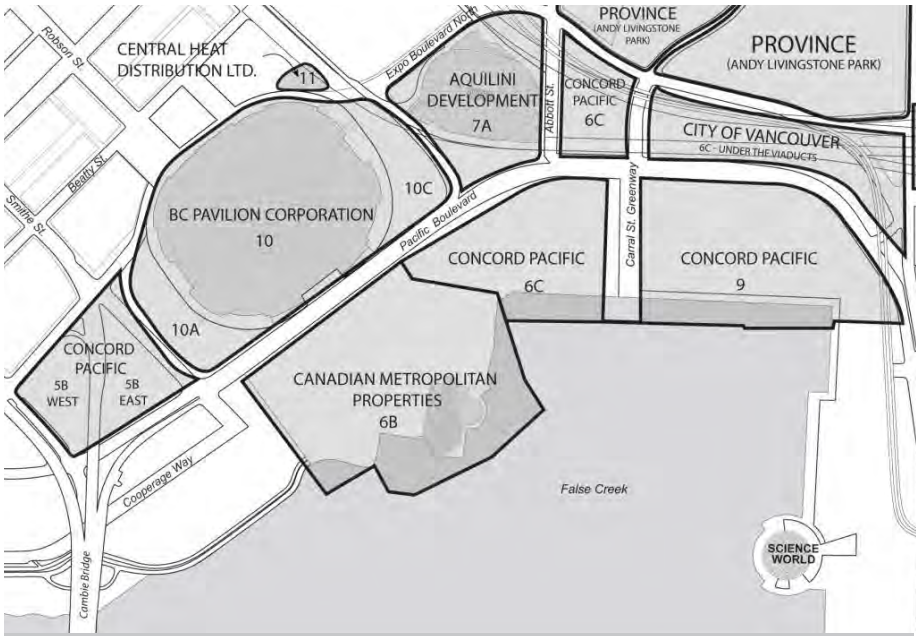
This report to Council (May 2009) and a subsequent report (October 2009) reviewed the NFC ODP to consider options related to land use and density in the area.

Vision from the Directions Report

- Create of a high energy and dynamic regional hub for culture, recreation, events and associated activities;
- Provide a mix of uses, including residential;
- Provide non-residential uses, like, office, hotel, retail, service, cultural, institutional, restaurants, office, and major event venues;
- Include water-focused amenities featuring a variety of public waterfront open spaces and plazas;
- Provide a variety of innovative building forms and unique public spaces;
- Connect to adjacent areas and neighbourhoods;
- Develop a Georgia Street pedestrian link (Beatty to the waterfront);
- Complete Smithe Street between Expo and Pacific Boulevard;
- Extend Abbott Street to the water's edge;
- Complete the southern segment of the Carrall Street Greenway (Note: Pacific Boulevard to False Creek has been temporarily completed until the final park is constructed).

Additional relevant objectives for the future park:

- Provide public open spaces on the water to expand the size, functionality and flexibility of the False Creek open space network;
- Accommodate a range of uses including casual public use, special events and active recreation;
- Develop the extension of Creekside Park (Area 9) including a waterfront walkway/bikeway (Areas 6b and 6c);
- Consider reshaping the extension of Creekside Park if it meets all criteria (see following page). The shape of the park with boundaries on Pacific Boulevard and Carrall Street was established through the original False Creek North (FCN) ODP (1990) and is related to the need for the park to accommodate contaminated soils from adjacent development sites;
- Pursue youth oriented recreation like basketball, BMX bike riding, and roller hockey;
- Provide an approximately 80,000 sq. ft. civic plaza on the waterfront in area 6b (privately owned Plaza of Nations open space is 65,000 sq. ft. with a 4500 person capacity);
- Provide a plaza at the foot of Georgia Street (20,000 s.f.) on Area 6c South;
- Design the above plaza with an urban character with permanent and moveable infrastructure to accommodate a range of activities and events (approximately 150 events/year);
- Improve Pacific Boulevard to enhance the public realm including bike lanes, street trees in sidewalks, and wider sidewalks.



I NEFC Parcel Layout and Land Ownership

NEFC: Directions for Future (2009) - continued

Evaluation Criteria for changes to the park

The following criteria were recommended in this report to evaluate future rezoning applications that propose changes to the shape of the Creekside Park extension.

Criteria

- Park area remains the same;
- Park can accommodate the required amount of contaminated soil in such a way that it does not significantly compromise park functionality;
- Part of the park can be provided prior to completion of development on Area 6c.
- Shape of the park allows for flexibility in functions and uses of the park, including special events, dragon boating, and neighbourhood oriented recreation functions;
- Consideration be given to the compatibility between new developments and recreation activities;
- The park has a minimum depth of 70 metres from the water edge to the northern boundary;
- The park is a contiguous parcel on the waterfront that connects to the existing Creekside Park;
- Street end views are preserved and shadowing impacts from the towers are respected;
- Public and private view impacts are considered;
- Public roads dedicated to the City border the park extension;
- The proposal addresses the transportation and utility requirements to service the area such as functioning of the future streetcar, access to the park and residential properties and the accommodation of utilities;
- Job space targets are met. (1.8 million s.f. of new job space).

Potential Park + Open Space Requirements

Preliminary + Approximate Open Space Needs	
Space	**Size (s.f.)**
Small Plaza at the foot of Georgia	20,000
Youth Oriented Recreation (basketball, BMX riding, roller hockey)	100,000
Total	120,000

Extension of Creekside Park - Additional Future Amenities

- Picnic Areas;
- Non-motorized boat dock;
- Dragon boat dock and boat storage;
- Viewing areas;
- Water play feature;
- Café and;
- Washrooms.

Demand Analysis Study for Cultural / Event Space (2010)

The goal of this work was to answer the basic question of what demand exists for outdoor cultural performance and event spaces in the City of Vancouver. This study:

- Inventoried existing outdoor venues in the City of Vancouver;
- Demonstrated demand for outdoor performance and event spaces;
- Provided an analysis of the current gaps found within Vancouver's inventory of venues;
- Gave an overview of comparable venues found in other regions;
- Made preliminary recommendation of facility requirements to fill the gap.

Relevancy for the Park Configuration

- With significant growth in metro and downtown (NEFC projected 7,200 new residents) there is demand for additional event space;
- Trends show a significant growth in performance arts attendance, sports & leisure, cultural and event based tourism in Vancouver;
- All sizes of event spaces are equally needed and utilized with a clearly demonstrated demand for more spaces for events of up to 7,000 people. It should be noted that the Plaza of Nations was a mid-sized event venue (up to 5,000 people) but is no longer suitable for many events with the roof and stage dismantled.
- There are few suitable outdoor venues for commercial events which attract 20,00 people or more.

Gap Analysis

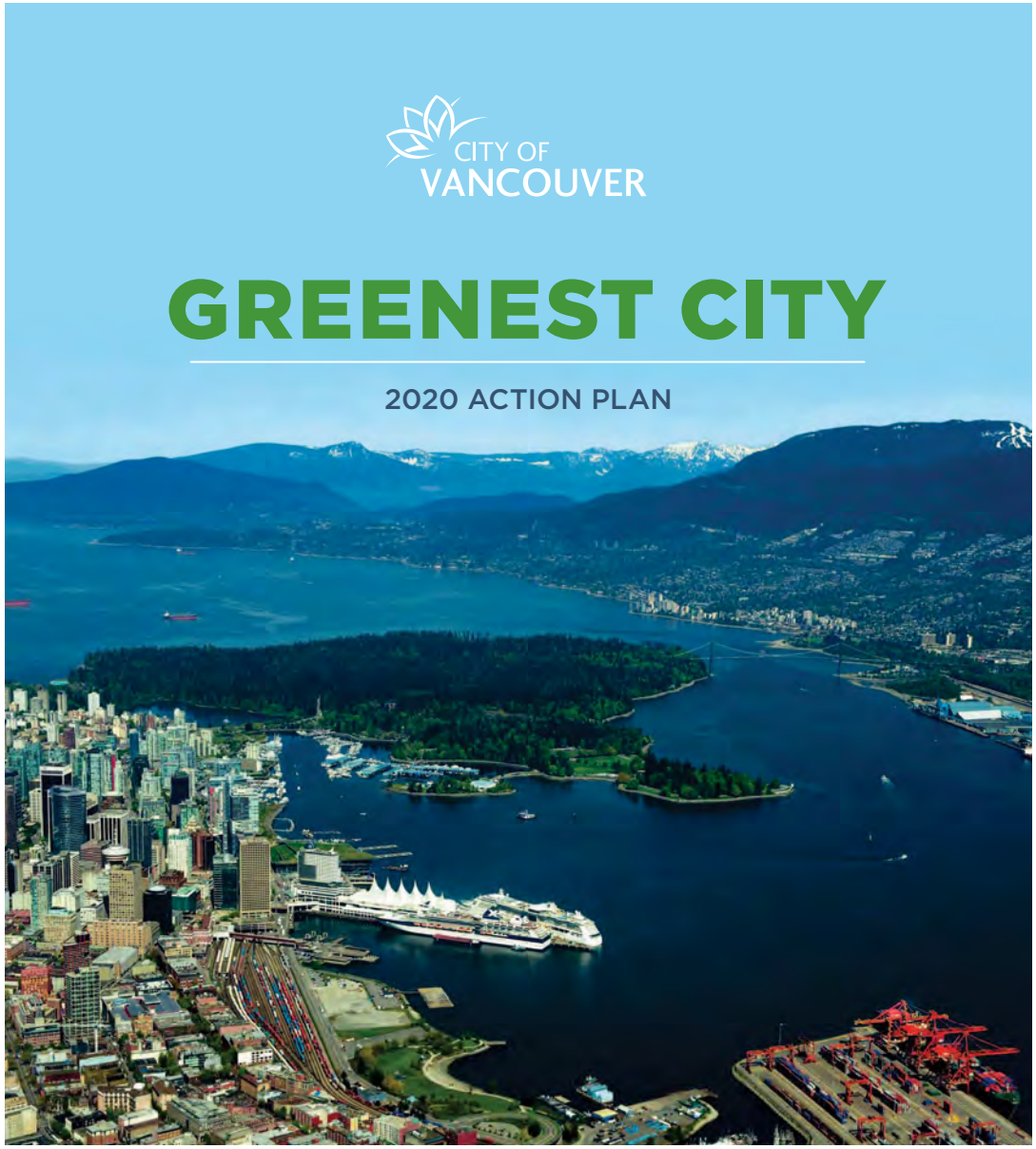
- Needs Recommendations:
  1) Venues to accommodate 1,000 to 11,000
  2) Highest priority is an outdoor venue with audience capacity of 4,000
  3) Second highest demand is 4,000 – 7,000 (in downtown this can only be accommodated through spill over on adjacent streets)
  4) Improve and upgrade existing venues
- Existing venues 1,000 - 4,000 are currently at full capacity with little or no availability.
- There is a substantial need to install infrastructure common to various events. The most desired infrastructure includes: power, water, public washrooms, and site access.
- Outdoor venues with a covered stage, which have partial cover for the audience and have the ability for scalable ticketing will be most regularly used by all groups.
- Outdoor venues that permit amplified sound and do not have associated neighbourhood concerns or noise issues are not readily available and are in high demand.
- Some requirements were identified and recommended for front and back of house attributes including:

Front of House Infrastructure:

- Proximity to public transit, bike racks, permanent public washrooms;
- Covered main stage;
- Green space and hard surface space;
- Ability and space for gate/ticketing;
- Provide space for concession, vendor, secondary stages, liquor service and VIP Areas;
- Pending Design: Provide a small audience cover.

Back of House Infrastructure:

- Provide all back of house infrastructure attributes including: electricity, space for loading, running water, amplified sound, site lighting and green rooms/dressing rooms for performers (with toilets)
- Provide storage space (limited)



Greenest City 2020 Action Plan (2010)

The City of Vancouver has a vision to become the greenest city in the world and has developed an action plan to guide and implement this vision. The Action Plan is divided into 10 goal areas, each with a specific 2020 target. Together, these address over-arching areas of focus including carbon, waste and ecosystems.

Strategic Goals relevant to NEFC Park Planning

- **Climate leadership:** Reduce community-based greenhouse gas emissions by 33% from 2007 levels;
- **Green buildings:** Require all buildings constructed from 2020 onward to be carbon neutral in operations and reduce energy use and GHG emissions in existing buildings by 20% over 2007 levels;
- **Green transportation:** Make the majority of trips (over 50%) by foot, bicycle, and public transit
- Reduce the average distance driven per resident by 20% from 2007 levels;
- **Zero waste:** Reduce total solid waste going to the landfill or incinerator by 50% from 2008 levels;
- **Access to nature:** Ensure that every person lives within a five-minute walk of a park, greenway, or other green space by 2020 and plant 150,000 additional trees in the city between 2010 and 2020;
- **Lighter footprint:** Reduce Vancouver's ecological footprint by 33% over 2006 levels;
- **Clean water:** Reduce per capita water consumption by 33% from 2006 levels;
- **Local food:** Increase city-wide and neighbourhood food assets by a minimum of 50% over 2010 levels.

Fogel Summary Review (2010)

After the Directions for the Future Report (2009) was adopted by Council, a public process was embarked upon to re-envision the open spaces and the location of land uses in the area with a goal towards earlier delivery of the park.

Over a six month period, the City, along with a facilitator, Michael Fogel, undertook a series of meetings with City Gate residents, community representatives, Concord Pacific representatives and City staff. The intent of the work was to jointly develop ideas and an option that the group felt benefitted all parties.

The outcome of this work was a series of objectives that were used to translate important aspects of the project into a design illustration (see illustration on next page). The concept was prepared collaboratively by PWL Landscape Architects, Hotson Bakker Architects, and Metis Design - Build.

Key objectives relevant to NEFC Park Planning include:

- Ensure the green space addresses both the current short fall in green space in the area and needs of the future population;
- Create an "intensely public" park;
- Provide a diverse set of park activities and uses including active public realms for walking and biking, access to the water and water activities, home for Dragon Boating, off-leash dog areas, playgrounds and other everyday uses;
- Connect Burrard Inlet to False Creek;
- Acknowledge the park as a key, pivotal location within the city;
- Minimizing grade changes within and at the edge of the park to maximize both visual and physical connections to adjacent neighbourhoods;
- Connect local and landlocked neighbourhoods to the water;
- Develop a series of welcoming entrances (Yaletown, Georgia Street, East-side via the Carrall Street Greenway, Chinatown, Strathcona, Citygate);

Key objectives relevant to NEFC Park Planning (continued):

- Ensure no net loss of park space or development potential in the re-configuration of park and land uses;
- Deliver some park sooner than later;
- Develop best practices for sustainability and health standards (noise, density);
- Address soils remediation in a cost effective and appropriate manner, to Provincial standards; and
- Continue with meaningful models for consultation and communication.

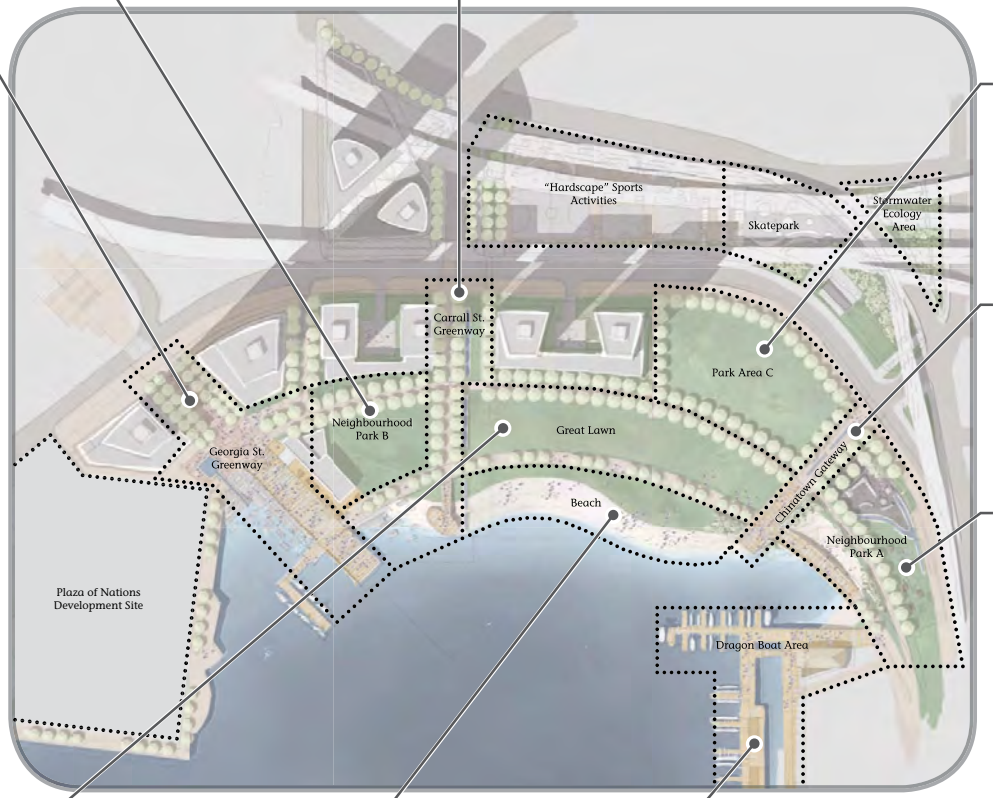
Some distinct elements can be identified in this plan.

- The introduction of an east and a west neighbourhood parks to meet the day to day needs of the adjacent communities. These neighbourhood parks flank a large, central open space;
- Pulling the waterfront walkway/bikeway away from the edge of the water to provide access to and from the water;
- Developing a series of gateways into the park to maximize access to the overall park space;
- Concentrating the 'hard' surface sport courts to the north between this waterfront park and Andy Livingstone Park and underneath the viaducts and the SkyTrain guideway; and
- Stretching out the overall length of the park along the waterfront.

Neighbourhood Park B
- Children's Play Area
- Picnic Area / BB Que Area
- Covered Seating Area
- Picnic Area
- Outdoor Tables with plugs for computers
- Berry Picking

Carrall Street Greenway
- Water Play
- Seating Areas
- Covered Viewing Deck to Creek
- Natural Foreshore Restoration and Habitat Area
- Informal Play

Georgia Street Greenway
- Urban Park Gateway
- Water Play
- Seating Areas
- Viewing Deck to Creek
- Art Walk Area
- Seasonal Kiosks Area
- Cafe / Restrooms
- Informal Play
- Docks for temporary moorage
- Water Taxi
- Terraced steps to creek
- Natural Foreshore Restoration and Habitat Area



Park Area C
- Fenced Dog Park
- Garden Area with Orchard and Berry Patch
- Tai Chi Lawn / court
- Covered Seating Area
- Picnic Area

China Town Greenway
- Park Gateway / Parks Maintenance Building with restrooms
- Water Play
- Seating Areas
- Viewing Deck to Creek

Neighbourhood Park A
- Children's Play Area
- Beach
- Water Play
- Covered Seating Area
- Picnic Area / BB Que Area
- Outdoor Tables with plugs for computers
- Bridge Element / Seawall
- Natural Foreshore Restoration and Habitat Area

Great Lawn
- Lying in the sun
- Informal Play / Frisbee / Soccer / ball toss
- Events Lawn
- Seawall

Beach
- Viewing area to water activities
- Lying in the sun
- Stepping to water
- Kyack and canoe launch
- Natural Foreshore Restoration and Habitat Area

Dragon Boat Area
- Dragon Boat House
- Elevator to docks
- Docks and Boat Sheds
- Water Taxi Stop
- Viewing Deck to Creek
- Restrooms
- Cafe

I Illustration from the Fogel Summary Review

Viaduct Competition (2011)

An open public Ideas Competition, entitled "re:CONNECT" was undertaken with the purpose of soliciting new ideas for the future of the Georgia Street and Dunsmuir viaducts and the broader eastern core. Over a hundred unique submissions were received from thirteen countries around the world with 75% of the submissions generated locally. The competition focused on three categories with winners determined via a jury process.

1. Connecting the Core;
2. Visualizing the Viaducts; and
3. Wildcard (for relevant ideas that did not fit into either category)

I Winning submission of Re:CONNECT Competition (Dialog; PWL; Beasley + Green)

NEFC Issues Report, Staff Report to Council (2011)

The False Creek North ODP (1990) identifies the Creekside Park Extension as a 9 acre future park site with boundaries defined by False Creek (south), Pacific Boulevard (north), Carrall Street (west) and Creekside Park (east). While the NEFC Directions (2009) provided area vision and land use advice, it did not include a conceptual plan for the physical integration and connections needed to unify the development sites and public spaces. To communicate this important physical planning objective, staff produced a report and diagrams to flush out the vision. A public realm framework diagram and revised park concept plan are part of the conceptual work undertaken.

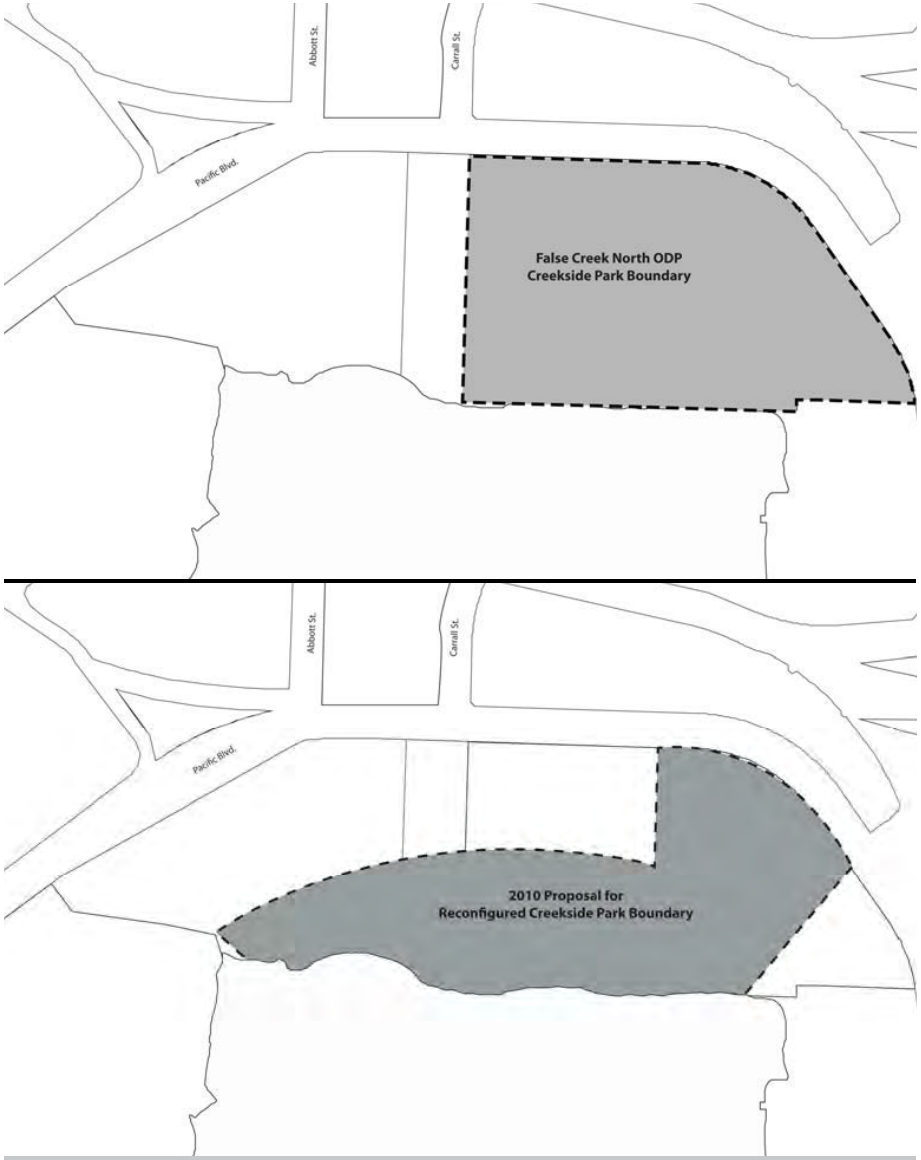
Relevancy for the Park Configuration

- **Contaminated Soils** - Legal agreements in 2009 stipulated that the Creekside Park Extension is to be delivered with the development of Area 6c or 6a which ever is developed last. Contaminated soils from the development of Area 6c (which has some of the worst soils in the entire FCN area) must be moved into the park for permanent storage and capped with a membrane. The park would then be constructed on top of the membrane.

  The report highlights that the original park design would require significant disruption of the contaminated soils area involving greater environmental risk, time and costs. A reconfigured park would allow for a significant portion of the most highly contaminated soil to be capped in place rather than being moved. This would be safer and would expedite the delivery of the park while meeting the needs of the residents.

- **Boat Facility** - The report also discusses finding a workable solution for locating a permanent non-motorized boat facility in NEFC. Although this facility was not included in the original public benefits strategy for NEFC, the paddling, rowing and long boat community is a large user group in the Eastern False Creek basin and there was a strong Council desire to find a location for these activities.

- **Public Benefits** - The report lastly covers issues related to the Plaza of Nations and the Rogers Arena Sites and discussion of non-market housing. It gives an update on costing of various public benefits.



I Diagrams showing variations in park layout and configuration

Viaduct Study (2012)

Building on the Ideas Competition undertaken by the City in 2011, Perkins + Will undertook further work to flush out the emerging directions and conceptual planning related to the removal of the viaducts. Guiding Principles were developed and concept plan was developed with considerations from the Ideas Competition taken into account. This information was taken out to the public in June, 2012.

Most Relevant Goals Related to Park Planning

- Realign Carrall Street to go straight to the Creek as an organizing element for the park;
- Reintroduce water and natural systems to the open spaces;
- Animate park spaces through small pavilions or retail opportunities;
- Provide a range of park programs including youth oriented activities, relocation of the Andy Livingstone field house, reintroduction of water; inclusion of a Dragon Boat facility.

Other Related Goals include:

- Create a vibrant district including entertainment, recreation and culture;
- Reconnect communities to the creek and each other;
- Celebrate the sites many histories;
- Reinstate Georgia Street's ceremonial role;
- Retain a Dunsmuir elevated public space for pedestrians and cyclists;
- Rebalance movement modes;
- Build on the Pacific Boulevard "Great Street" design;
- Enhance bicycle & pedestrian connections;
- Explore opportunities to animate the pedestrian and cyclist spine 'Straight to the Creek'.
- Enhance urban vistas to the mountains;
- Include an urban edge to Creekside Park to animate the ground level;
- Explore opportunities for civic uses along the park.

I Conceptual Planning for Removal of the Viaducts (Perkins + Will)

Transportation 2040 (2012)

Transportation 2040 is a long-term strategic vision for the city that will help guide transportation, land use and public investments decisions for the next twenty years. It provides a blueprint for the City to move forward and meet new and emerging challenges. The plan sets long-term targets, high-level policies and specific actions to achieve this vision. Many of the goals, targets, and policies are shared by the Greenest City 2020 Action Plan.

Strategic Directions relevant to NEFC Park Planning

- **Land Use** – Develop land use programs to support shorter trips and sustainable transportation choices.
- **Walking** – Make walking safe, convenient, comfortable, and delightful. Ensure streets and sidewalks support a vibrant public life and encourage a walking culture, healthy lifestyles, and social connectedness.
- **Cycling** – Make cycling safe, convenient, comfortable, and fun for people of all ages and abilities.
- **Motor Vehicles** – Manage the road network efficiently to improve safety and support a gradual reduction in car dependence. Make it easier to drive less. Accelerate the shift to low-carbon vehicles.
- **Goods, Services, and Emergency Response** – Support a thriving economy and Vancouver's role as a major port and Asia-Pacific gateway while managing related environmental and neighbourhood impacts. Maintain effective emergency response times for police, fire, and ambulance.
- **Education, Encouragement, and Enforcement** – Encourage sustainable transportation choices and educate all road users to promote safe and respectful behavior. Support legislation and enforcement practices that target dangerous conduct.

Dunsmuir + Georgia Viaducts and Related Area Planning (2013)

The staff report outlines the opportunity presented by the removal of the viaducts including:

- Increased waterfront parkland potentially by 13%;
- Opportunities for affordable and subsidized housing on city land;
- Connections between Vancouver's historic neighbourhoods to False Creek;
- Restoration of the gap created by the viaducts on Main Street;
- Improve street connectivity to offer a new balance between mode shares that supports the City of Vancouver Transportation 2040 goals and will integrate the development of Northeast False Creek into the fabric of the downtown.

Report goes into extensive traffic and transportation analysis. The report identifies refinement of the Guiding Principles for removal of the Viaducts including:

- Reconnect the historic communities and the False Creek waterfront;
- Expand parks and open space;
- Repair the urban fabric;
- Explore housing development & place-making opportunities on the City Blocks;
- Create a vibrant waterfront district;
- Increase efficiency of the street network;
- Improve connectivity between Downtown, NEFC and the waterfront;
- Enhanced pedestrian and cyclist movement;
- Develop a fiscally responsible approach;
- Engage residents and stakeholders in a meaningful way.

Relevancy for the Park Configuration

- Removal of the viaducts is intended to provide more park space that maximizes programming and integration.
- New roads will impact Concord properties producing new development parcels which will need to consider tower placement and density, park configuration and programming and soils contamination.
- Park parcel configuration will require changes to the developer and provincial agreements.

I Potential Road Layout

VANCOUVER CITYWIDE
Integrated Stormwater Management Plan

Joint Workshop Backgrounder

Daylighted Stream Creekway Park
Nick Page, 2013

VANCOUVER CITYWIDE ISMP

Integrated Stormwater Management Plan (2013)

The City of Vancouver is in the process of developing an integrated stormwater management plan to recognize Vancouver's abundant rainwater as a resource, to reduce the demand on potable water by encouraging water reuse and to improve and restore urban watersheds to support ecosystems and provide clean water. This document from workshop in 2013 identifies some of the preliminary background information.

Key Principles relevant to NEFC Park Planning (drafted 2014)

- Balance the responsibility to implement rainwater management solutions between the public and private sector, and between streets, parks, land uses and city departments;
- Pursue rainwater management solutions that have multiple benefits;
- Recognize that there may be different rainwater management solutions among different land use typologies e.g. park versus comprehensive development;
- Natural conditions or hazards in some areas, such as poor draining sub-soils, contaminated or flood-prone areas may not be suitable for rainwater infiltration;
- Redevelopment of streets, parks or private lands provides opportunities to incorporate rainwater;
- Continue to show leadership by example, with the City showcasing projects that demonstrate success in rainwater management;
- Solutions must balance capital, operations and maintenance considerations;
- Support the long-term program of transitioning the combined sewer system into a separated system to reduce stormwater discharge, Combined Sewer Overflows (CSO's) and resulting marine water quality issues;
- Reduce reliance on drinking water for non-potable use by implementing water reuse technologies.

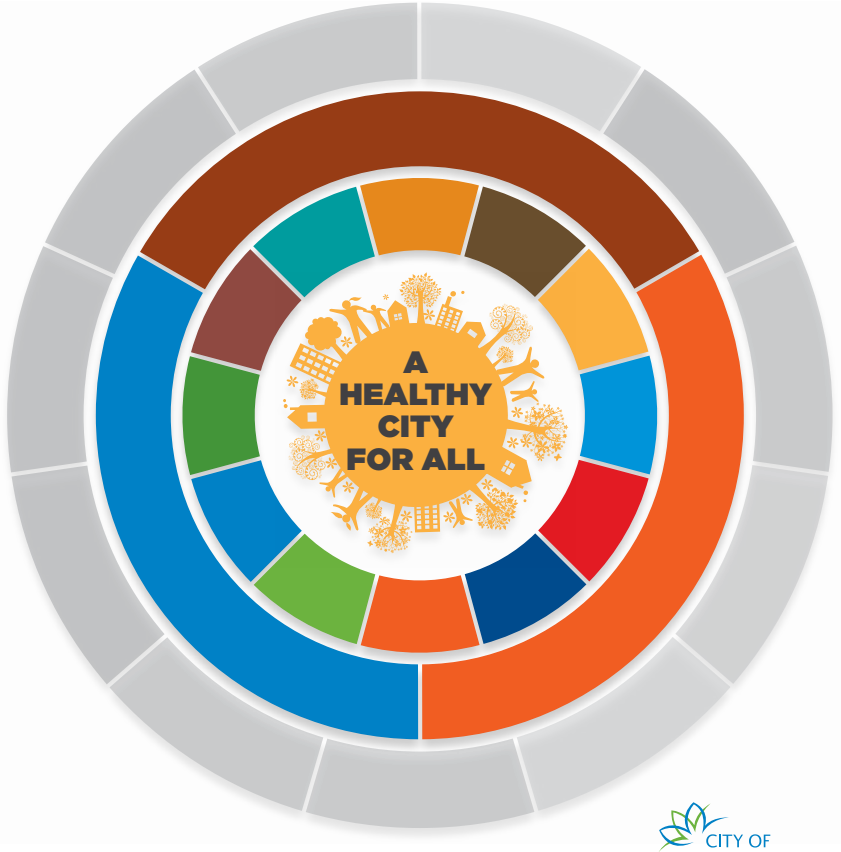
STUDIO PARSONS

PWL partnership

VANCOUVER BOARD OF PARKS AND RECREATION

A HEALTHY CITY FOR ALL

VANCOUVER'S HEALTHY CITY STRATEGY
2014-2025 | PHASE 1



CITY OF VANCOUVER
Healthy City Strategy

Healthy City Strategy (2014 – 2025)

The vision for the Healthy City Strategy is to implement a long-term plan that focuses on developing Vancouver as a place with healthier people and healthier places towards a healthier planet. The objective is to create and continually improve the city environment to achieve the highest level of health for all citizens.

Strategic Goals relevant to NEFC Park Planning

- **A good start:** Vancouver's children have the best chance of enjoying a healthy childhood;
- **Feeding ourselves well:** Vancouver has a healthy, just, and sustainable food system;
- **Being and feeling safe and included:** Vancouver is a safe city in which residents feel secure;
- **Cultivating connections:** Vancouverites are connected and engaged in the places and spaces that matter to us;
- **Active living and getting outside:** All Vancouverites are engaged in active living and have incomparable access to nature;
- **Expressing ourselves:** Vancouver has a diverse and thriving cultural ecology that enriches the lives of residents and visitors;
- **Getting around:** Vancouverites enjoy safe, active, and accessible ways of getting around the city.

Goals relevant to NEFC Park Planning

- Initiate and enhance city-wide partnerships on a variety of nature-focused topics;
- Establish parks (and community centres) as neighbourhood-based sources of information, inspiration and celebration of environmental topics;
- Build stronger cross-sector collaboration and partnerships amongst people and organizations with experience and expertise to share about environmental education and stewardship.

"Vancouver can do more than offer access to nature it can also give nature more access to the city".

- Quote by JB McKinnon from the Forward of the Re-Wilding Report, July, 2014

Urban Forest Strategy (2014)

An urban forest includes all trees, coniferous and deciduous on city streets, parks, public spaces and private properties. Development is underway on an urban forest strategy to develop implementation tools for planting, maintaining and protecting Vancouver's urban forest for future generations. The intent is improving the urban environment both environmentally – clean air, rainwater absorption, bird habitat and socially – health and well-being. Currently the City has approximately 440,000 trees in its parks and on its streets covering 18% of the city area. 38% of the overall tree canopy is provided on streets (11%) and parks (28%). The remaining 62% is on private property. Over the past two decades there has been 20% reduction in overall tree canopy representing a reduction of approximately 24,000 trees.

Strategic Goals relevant to NEFC Park Planning

- Plant 150,000 additional trees in the city between 2010 and 2020
- Create Park Succession Plans
- Plant the right tree in the right place
- Ensure resiliency to disease and climate change
- Integrate with storm water management and utility planning

Re-wilding Vancouver (2014)

With the above spirit in mind, the Re-wilding Action Plan has priorities to enhance the special wild places in the city, to bring nature into everyday life and to provide meaningful leadership at the Park Board level. At its foundation is the desire to improve and enhance natural experiences for all Vancouverite's and to raise awareness of the role of nature in the city.

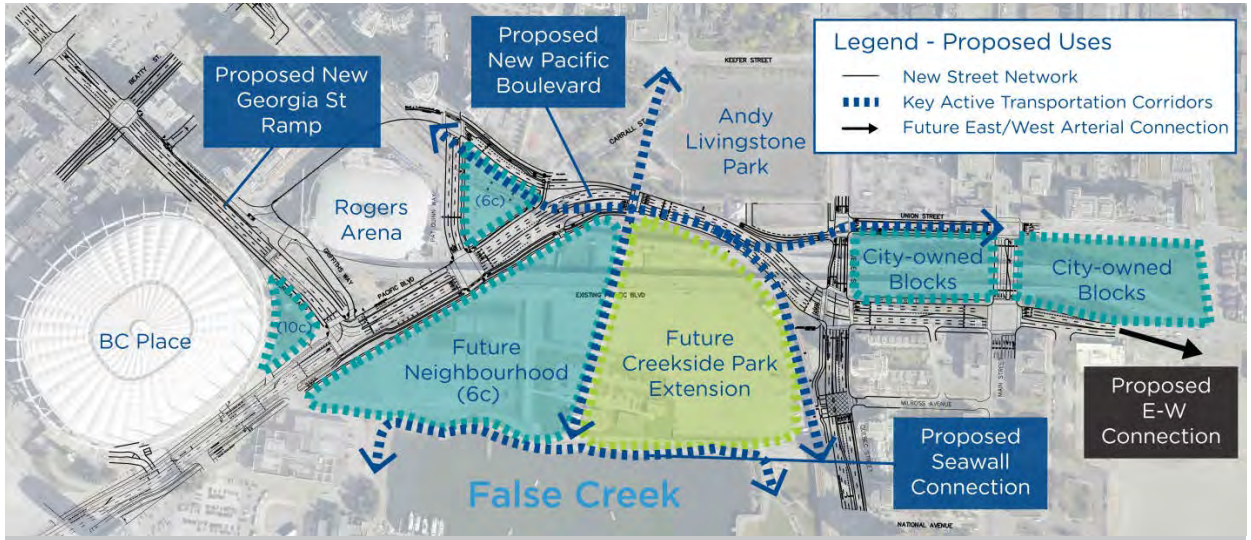
NEFC Viaduct Report + Concept Plan (2015)

In June of 2013, City of Vancouver staff were directed by Council to undertake planning, analysis and community consultation to further explore the potential benefits of removing the Georgia and Dunsmuir Street Viaducts.

The following details are excerpted from the report:

- Respond to City Council's June 2013 approval of the eleven Guiding Principles and associated recommendations on the potential for the viaducts removal.
- Detail the benefits associated with the viaducts removal.
- Demonstrate how the new street system will provide adequate vehicular capacity for goods movements to and from the downtown, with improved connectivity.
- Summarize the financial implications associated with the proposal.
- Detail the future work programs for the viaducts removal.
- Obtain Council approval to proceed with detailed planning for the neighbourhood, parks and open spaces, and replacement of the viaducts generally as described in the Northeast False Creek Conceptual Plan.

Through the work it was found the key benefits of removing the viaducts include the potential to increase green space; meet the capacity of traffic from the viaducts on a new at grade street network; improve active transportation; provide needed green space to neighbourhoods low in green space; accelerate the delivery of the Creekside Park extension and free up City-owned land that could be used for affordable housing.



I Proposed street network, active transportation connections, and parcel configuration

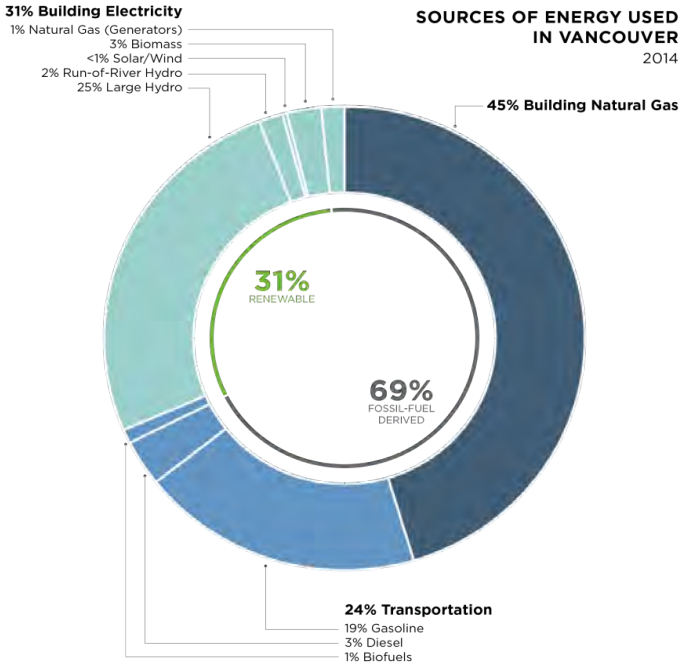


Figure 1 **- Vancouver Community Wide 2014 Energy Use (directly recorded and modelled)**

Biodiversity Strategy (2016)

The Biodiversity Strategy explores the addition of biodiversity-focused goals, targets, objectives and action to be added to the Greenest City Action Plan. It identifies biodiversity hot-spots in the city, and discusses opportunities and strategies to protect and enhance them. In conjunction with the Urban Forestry Strategy, the Re-Wilding Action Plan and the Bird Strategy, these documents provide a foundation to improved access to nature on public and private land throughout Vancouver.

It includes strategies for supporting biodiversity within City parks and streets, restoring ecosystems, like forests and wetlands, building a city-wide ecological network, changing City's operations to better support biodiversity in parks and streets, and celebrating biodiversity as an important part of city life.

Renewable City Strategy, (2016)

While Vancouver's energy use is currently approximately 30% renewable, the majority of our green house gas emissions are derived from either buildings or transportation.

The strategic approach to the City of Vancouver's Renewable City Strategy (2015-2050) is to reduce energy use; increase the use of renewable energy and increase the supply of renewable energy. A series of priorities and goals are intended to move the City forward toward relying solely on renewable resources by 2050.

Zero emission building priorities related to the NEFC Park Planning include:

- Ensure new buildings or existing buildings adopt and demonstrate zero emission standards established for City of Vancouver buildings and;
- Provide for the opportunity to tie into renewable energy systems for the downtown area in the future.
- Renewably powered transportation priorities related to the NEFC Park Planning include:
  - Accelerate the development of complete streets and green infrastructure;
  - Enhance pedestrian network consistent with the Transportation 2040 Plan;
  - Enhance cycling infrastructure to generate more trips by bicycle; and
  - Support car sharing and renewably powered vehicles by developing infrastructure to support these modes.

APPENDIX B:
PRIMARY EVENT SPACES

The following appendix provides, in both spreadsheet and aerial form, an overview of the primary existing event spaces within the City of Vancouver.

Primary Event Space Comparison*

Updated: 30 April 2015

	Location	Size (SF)	Size (Acres)	Capacity	SF/ Person	Amenities
1	Lumbermen's Arch – Stanley Park	90,088	2.07	7,500	12.0	No power, no water, daytime washrooms
2	Ceperley Meadow – Stanley Park	69,719	1.60	7,500	9.3	No power, no water, daytime washrooms
3	Vanier Park – 1100 Chestnut Street and White Avenue	85,230	1.96	10,000	8.5	No power, no water, washrooms
4	David Lam Park – Pacific Boulevard and Drake Street	107,107	2.46	7,500	14.3	No power, water, daytime washrooms
5	Jericho Beach Park – 3900 Point Grey Road	339,743	7.80	20,000	17.0	No power, no water, daytime washrooms
6	Creekside Park – Pacific Boulevard & Quebec Street (Parks Board area)	56,066	1.29	7,500	7.5	No power, water, no washrooms
7	SEFC Plaza	7,908	0.18	Not available		Electrical outlets, programable lighting; 120volt, 15 amps at each tree

* **Note 1:** Information verified with Park Board information


Lumbermen's Arch


Ceperley Meadow


Vanier Park


David Lam Park


Jericho Beach Park

Creekside Park


SEFC
Plaza
North
SEFC
Plaza
South