



June 28, 2017

TO: Park Board Chair and Commissioners
FROM: General Manager - Vancouver Board of Parks and Recreation
SUBJECT: China Creek North Park Upgrades and Glen Pump Station

RECOMMENDATION

- A. THAT the Vancouver Park Board approve the proposed playground replacement, stairway, and accessible pathway improvements in China Creek North Park, as described in this report;
- B. THAT the Board approve the replacement of the Glen Pump Station and building, including a public washroom facility, in China Creek Park North as described in this report; and
- C. FURTHER THAT the Board authorize the establishment of one or more right of way agreements for the development and operations of the Pump Station facility and other sewerage infrastructure in form and content satisfactory to the Park Board General Manager, City Engineer, and Director of Legal Services.

POLICY

The Vancouver Park Board approves major changes in Vancouver parks, including the design and development of parks.

BACKGROUND

China Creek North Park is located in the Mount Pleasant Neighbourhood at the corner of Great Northern Way and Glen Drive. It was named for the Chinese settlers who lived, gardened, and fished along the banks of the creek that once flowed through the site as water made its way to False Creek. Unfortunately, the deep ravine of the creek was used as a City landfill in the 1920's and 1930's, and ultimately deemed a risk and capped with soil, with the creek diverted into a pipe in the 1950's (Appendix A).

Today the park is bordered by residential neighbourhoods on the south and western edges and a mix of businesses and educational institutions on the north and eastern edges. China Creek North Park currently features: two undersized softball fields; a seasonal soccer field; a jogging loop with exercise stations; a playground; a community garden; a steep western hill well-loved by the community for recreation purposes; mature trees; and the Glen Pump Station owned and operated by the City's Engineering department (see Appendix B). The park is also heavily used for unsanctioned dog off-leash recreation.

The playground and the pump station have reached the end of their lifespan and require replacement. General circulation and accessibility are also a concern in the park, especially down the steep hill between St. Catherines Street and Great Northern Way.

Park Board staff are working with a team of consultants for the design of the new playground and accessibility improvements, and City Engineering staff are working with consultants for the design of the new pump station and building. These groups have been working collaboratively with the community, stakeholders, and other internal departments, including Real Estate and Facilities Management, on preliminary design concepts and a combined public engagement process for both the park and pump station works.

Public engagement for the proposed changes to the park began in December 2016 to inform residents and stakeholders of plans for the new playground and pump-station building, to gather feedback from the community on potential park impacts, and to determine the location and design of the new features. In May 2017, the design concepts based on this initial feedback were presented at a second public open house, which received favourable public support.

The purpose of this report is to share the findings of the public engagement and to seek approval of the proposed improvements planned for China Creek North Park so that detailed design and construction can occur.

DISCUSSION

Public Consultation Process

Public consultation for China Creek North Park sought feedback on all proposed changes in the park including: the playground replacement, the new Glen pump-station building, pedestrian connections on the west hill, and overall accessibility improvements. The process included two public open houses, two public surveys, and review with stakeholder groups.

Open House One

The first public open house was held at Mount Pleasant Community Centre on December 8, 2016. The open house was advertised through project notification signage in the park, flyers distributed throughout the neighbourhood proximate to the site (2-block radius), and advertising on the project webpage. Members of the public were asked to provide feedback on:

- Options related to the playground location and types of play;
- Options for a pedestrian connection on the west hill; and
- Layout, material and amenity options for the new pump station.

Paper copies were completed on site, and the feedback questionnaire ran from December 8, 2016 to January 6, 2017 on Talk Vancouver and through an open online invitation to the general public via the China Creek North Park Renewal project webpage. A total of 157 respondents completed the questionnaire, with the results providing guidance to the revised conceptual plans that were considered at the second open house. The [full results of the feedback questionnaire](#) can be reviewed on the project website.

Open House Two

The second public open house took place next to the playground in the park on May 25, 2017. It was advertised through the same measures as the first open house. Members of the public were asked to provide feedback on conceptual proposals for:

- The playground;

- The new pump station and washroom building;
- Pedestrian connections on the west hill; and
- Overall park accessibility improvements.

Paper copies were completed on site, and the feedback questionnaire ran from May 25, 2017, to June 9, 2017 on Talk Vancouver and through an open online invitation to the general public via the China Creek North Park Renewal project webpage. A total of 123 respondents completed the questionnaire; the [full results can be reviewed on the project website](#).

In addition to the proposed improvements, interests in a dog off leash area and creek restoration project were expressed by participants. These features were considered and will be addressed in the future, as described below.

Stakeholder Consultation

Relevant stakeholder groups were informed about the project and invited to attend the public open houses, where they were encouraged to provide comment. These groups were identified through discussions with Park Board staff, internet searches for community organizations, and requests to stakeholders to identify other stakeholders where possible.

The community organizations that provided input on behalf of their membership were:

- Vancouver Community College
- Metro Men's Soccer
- Metro Women's Soccer
- Vancouver Recreational Softball
- VS & E Investment Softball
- Method Studios Softball

Staff also reviewed proposed changes for the park with the Persons with Disabilities Advisory Committee (PWDAC) through presentation of the project at a meeting in March 2017, and a digital review process of the proposed concepts in June 2017. The results of that process can be viewed in Appendix C.

Playground Replacement

The existing playground was identified as a priority for replacement in 2015 due to its age and condition. The playground is currently located in the southwest corner of the park at the base of the steep hill, and directly adjacent to the running track and west baseball diamond. A fence is necessary to protect the playground from fly-balls, as shown in Appendix D.

Staff proposed to change the playground location during the first round of public engagement, however public feedback showed a preference to keep the playground where it currently sits due to impacts to the sports fields and proximity to busy streets, should it be relocated.

During the first round of engagement, public feedback also showed a preference for:

- Utilizing the hillside;
- Incorporating "natural" elements; and
- Swings, seating, a zip-line, climbing elements and a slide.

Park Board staff heard strong concerns about used hypodermic needles in the park and the need to use a surfacing that would prevent hidden needles. Consultation with PWDAC also highlighted the need to design a playground with surfacing that allowed for ease of use for both children and caregivers with mobility issues, and to ensure the playground equipment used was inclusive.

A concept for the playground was developed based on initial feedback (Appendix D). The proposed playground is built into the hillside and shows rubberized surfacing throughout, which is universally accessible, prevents hidden needles, and will remain stable on the steep slope. A double width slide is featured, which allows for a care-giver and child to slide together or for multiple children to play on at once. The concept also shows climbing elements built into the hillside, a multi-play structure for 2-5 year olds, a climbing boulder, seating, a disc swing, new shade trees, garden beds with nature paths, and a picnic area.

Following the second round of public engagement, the playground concept received a 79% approval rating. Two elements of the playground will be adjusted based on public feedback during detailed design. The disc swing will be replaced with four regular swings, including one accessible harness seat, and the colour palette of the rubberized surfacing will be adjusted to a more subdued “natural” theme. With Board approval, detail design for the playground would occur over the remainder of 2017, and construction of the new playground would commence in 2018 when weather is favourable for construction on a slope.

Pedestrian Connection & Accessibility Improvements

China Creek North Park is characterized by a steep hill on the west side of the park which extends up to St. Catherine’s Street at the park’s westernmost boundary. The hill is well loved by residents for both passive and active recreation purposes, such as sledding, however lacks a proper pedestrian connection to Great Northern Way, especially during the wet winter months when the hill becomes very slippery. A well-worn path exists on the steepest section of hill, between the northwest corner of the park at St. Catherines Street and Great Northern Way, and this path has become more worn since the VCC-Clark SkyTrain station opened.

During the first public engagement process, feedback was sought on the preference between a staircase in place of the worn path, a winding accessible path traversing the hill, or a combination of the two. Public feedback showed preference for just a stair, largely due to the loss of recreational space indicated by the accessible path. However, consultation with PWDAC indicated that a fully accessible connection was necessary to provide access between St. Catherines Street to the playground, and to the proposed washroom. Staff incorporated the feedback received and proposed a staircase on the north side of the hill and a separate accessible path at the southwest corner of the park where the slope on the hill is gentler; relocating the path allows for accessible access to the playground, while maintaining the middle section of the hill for continued recreational opportunities.

Results from the second round of public engagement indicated 91% of respondents approved of the new staircase, and 87% approved of the new path. Concerns still remain over the loss of green space from creating both connections, and so staff will work to minimize these impacts during the detail design.

During the engagement process other circulation and accessibility concerns were brought to light. The existing track circles the park and is a well-used feature. Currently the surfacing is a mixture of gravel and mulch, which ponds in the rainy winter season. The proposed plans would use the track for an accessible connection along West 7th Avenue between the playground and new washrooms. Due to budgetary constraints, only a partial track improvement was proposed during the second public engagement; however staff now intend to resurface the entire track based on public feedback received. Research into best material choice is needed, as the track must be suitable for jogging, function as an accessible connection, and further be maintainable for Park Board staff.

Other concerns brought up by PWDAC covered poor park access on the southeast corner where there is currently no formal connection and old wood bollards block access from the street. This corner also serves as the main access for the Vancouver Community College, which has designated China Creek North Park as a muster station during emergencies. Accessibility improvements on the southeast corner are being developed as part of the proposed new Glen Pump Station building. Overall public feedback was supportive of the site improvements for accessibility, with an approval response of 80%.

Dog Off-leash Issues

During the public engagement process Park Board staff received a large volume of feedback related to dog off-leash use in the park; both regarding the need for a designated off-leash area, and concerns regarding conflicts with other park users. Through the People, Parks and Dogs Strategy currently underway, staff have identified Mount Pleasant as an underserved neighbourhood for dog off-leash areas and are aware of the growing demand and pressures on existing park spaces in this area. The feedback regarding China Creek North Park has been directed to appropriate internal staff and will be considered during implementation of the People, Parks and Dogs Strategy. Site specific planning to address service gaps will follow guidance set out in the strategy such as requiring large set-backs or secure boundaries between dog off-leash areas and sports fields, playgrounds and busy roads.

Creek Daylighting and Green Infrastructure Opportunities

The “False Creek Flats Area Plan” ([Appendix A - False Creek Flats Plan](#), May 2017) indicates China Creek North Park as a possible link in part of an ecological corridor connecting existing green spaces together through “long term opportunities for linear storm water connections and biofiltration wetlands” that are compatible with public use.

Park Board and Engineering staff gave early consideration to the potential for daylighting China Creek in the park. A daylighting project based on current sewer pipe alignments and depths would require removing all sports fields and dedicating the majority of the park to a restored creek. Furthermore, historic contamination is an issue in China Creek North Park, and this poses a risk of leaching into any restored open watercourse, which can be a safety concern.

In addition, the storm water main that bisects China Creek North Park can contain combined sewage during wet weather. Separation of the China Creek sewer catchment will continue in future capital plans identified through asset management principles, project coordination opportunities, and through the redevelopment of aging properties.

Despite the barriers for creek daylighting, the Engineering Department's Green Infrastructure Branch has identified an opportunity for a biodiversity project in the park in collaboration with Park Board staff. Toward the high point of the park along East 7th Avenue there is existing infrastructure that could be embraced as a source of rainwater to achieve a number of objectives. Flows from along East 7th Avenue could be diverted into the Park to create a wetland for habitat creation, water quality treatment, or stored for non-potable uses like drip irrigation. The scope and scale of this opportunity can be tailored to fit within the existing park uses; this will be further explored in the detailed design phase.

Glen Pump Station Replacement

The existing Glen Pump Station is located in the southeast corner of China Creek Park North, as shown in Appendix E, Figure 3. The existing station consists of two underground chambers, one for the sewage wet well and one for the mechanical equipment and pumps, an above ground electrical kiosk, and an above ground hatch and manhole accesses.

Glen Pump Station is part of the system that transports sewage to the Iona Island Wastewater Treatment Plant in Richmond. As shown in Appendix E, this station services a tributary area roughly triangular in shape and bounded by Grandview Highway to the northeast, Broadway to the South, and Fraser Street to the west. This station pumps sewage from its collection well at the southeast corner of the park up Glen Drive through a dedicated forcemain pipe to the Metro Vancouver 8th Avenue Interceptor trunk sewer on 8th Avenue.

The existing station was built in 1972 and needs to be replaced as it is reaching the end of its service life. A failure of this station would result in sewage overflowing into an adjacent storm sewer that would spill into False Creek. The pump station is a necessary part of the sewage system because it sends sewage to the treatment plant. Pump stations are an important infrastructure that:

- send sewage to the treatment plant for treatment;
- protect water quality around Vancouver;
- protect human health; and
- enable recreational use of water bodies.

During the first round of public engagement respondents had the opportunity to comment on building materials, layout, and added amenities. Based on the public feedback received, the proposed building concept shown at the second public engagement took into account the need to:

- Minimize impacts to the ball diamond and reduce the physical footprint of the facility by placing as much as possible underground below the building superstructure;
- Integrate the pump station into the park by including the following public amenities as part of the project:
 - Public Washrooms;
 - Improvements to the southeast corner of the park including improved accessibility, opportunities for seating, and a new water fountain;
 - An opportunity to include an interpretive graphic display on the west pump station wall that can tell a narrative of the history of the area and park.

The new station will be built in accordance with current WorkSafeBC and building code requirements, and would be outfitted with modern electrical equipment, station monitoring devices, odour control equipment, and emergency operating provisions including an external back-up generator. The station would also be sized to handle future area growth and designed to be operational post-disaster.

A conceptual drawing and conceptual site layout of the station are shown in Appendix E, Figure 5. Although the exact sizing will be determined during detailed design, the station will have an approximate footprint of 90 square meters. The above grade building will house universally accessible public washrooms, as well as the station's electrical and control equipment, and will provide access to the station's basement. The pumps, odour control equipment, and other mechanical equipment will be located in the basement of the station to reduce its footprint and to contain most maintenance activities within the facility and away from park users.

Public Washroom

The pump station facility provides an opportunity to locate a universal public washroom for field users within the park. There is a need for a washroom in China Creek Park North because it is a destination for sports groups from outside the neighbourhood. Engineering is committed to providing washroom facilities within the facility at their cost. After construction, the Vancouver Park Board will be responsible for controlling access to the washrooms and for washroom maintenance.

Engineering and Park Board staff are working together to determine the design and layout of the washrooms. Park Board staff identified the need for safe washroom design through appropriate orientation, lighting and landscaping that follows Crime Prevention through Environmental Design (CPTED) principles. The public washroom will be further designed for wheelchair accessibility.

In addition to funding and constructing new washrooms as part of the Glen Pump Station replacement, the Engineering department will also be responsible for providing other park amenities as part of this project including:

- A new frost free drinking fountain and new seating;
- New pathway connections around the building and improvements at the south east corner of the park; and
- An interpretive panel on one of the building walls highlighting the unique natural, and more recent history of this area.

Public feedback indicated 93% of respondents are supportive of the proposed building and washrooms, while 90% are supportive of the proposed interpretive panel. Concerns have been raised regarding the washrooms attracting illegal use and becoming unsafe, which will be further considered during detail design and maintenance management planning.

With Board approval for the new Glen Pump Station and park amenities, Engineering will begin detailed design of the facility. Additional input from Vancouver Park Board staff will be included throughout the design process. Detailed design will take a minimum of six months, including the development and building permit process, and should be completed in spring of

2018, with construction to begin shortly after. The aim is to have the facility constructed and commissioned for the spring of 2019.

Utility Rights of Way

Further to approval for replacement of the Glen Pump Station, the Engineering Department seeks the establishment of one or more utility rights of way for the development and operation of the pump station and other sewerage infrastructure in the park. The establishment of utility right of way agreements are standard practice for this type of infrastructure and are required to ensure that utility owners have necessary rights to use the lands for the utility infrastructure, and to enter the lands to perform maintenance on the utility infrastructure and so that owners can outline terms and conditions for facility access. The utility right of way agreement(s) will be in form and content satisfactory to the Park Board General Manager, the City Engineer and Director of Legal Services and will be consistent with other utility right of way agreements in parks, which require repair of above ground features to existing or better conditions. A map of the underground utilities in the park can be found in Appendix E.

Schedule

With Board approval, detail design for all the proposed park improvements will commence. The playground, staircase, accessible path and track resurfacing would be tendered in 2018, and construction would be targeted to commence in 2018 when weather is favourable for constructing on a slope. Construction of these features would take approximately four to five months to complete.

Construction of the new pump station building would operate on an independent schedule and be contingent on the permitting approval process; the target for construction to begin coincides with the playground for a 2018 start. The new station will be under construction for approximately one year from start to finish and staff have emphasized the importance of construction planning to minimize impacts to the park during this period.

Finance

The playground, track re-surfacing, and pedestrian connections on the west hill will be funded through the Park Board's capital playground, pathway, and accessibility programs for parks. The preliminary estimated cost of the park upgrades is \$800K, which will be refined at the detailed design stage. Funding is to be addressed in the 2018 budget.

The Glen Pump Station and associated works, including: universal washroom facility, interpretive panel, drinking fountain, seating, and accessibility improvements on the southeast corner, will be funded by Engineering's Pump Station Capital Program.

Strategic Plan

The proposed improvements for China Creek North Park align with the four directions and nine goals as identified in the Vancouver Park Board’s Strategic Framework. These are summarized in Table 1 below.

Direction	Goal	Actions
Parks and Recreation for All	1) Great Experience 2) Relevant Programs & Services	<ul style="list-style-type: none"> - Improve overall accessibility of park - Improve play experience - Provide washroom facilities
Leader in Greening	3) Green Operations 4) Healthy Ecosystems	<ul style="list-style-type: none"> - New garden beds and trees by playground - Prevent sewer overflow to false creek - Protect water quality - Possible wetland project
Engaging People	5) Partners 6) Employees 7) Community	<ul style="list-style-type: none"> - Collaboration internally between Engineering and Park Board on design and public consultation - Consultation on park changes with stakeholder groups and wider community - Interpretive panel for ongoing education of site history
Excellence in Resource Management	8) Fiscally Resourceful 9) Well Managed Infrastructure	<ul style="list-style-type: none"> - Dual purpose building with pump station and washrooms - Sustainable design with low flush toilets, natural lighting, and easily accessible amenities for maintenance - Building designed for post-disaster and future growth - Fun and durable playground

Table 1: Linkages - China Creek North Park Improvements and Park Board Strategic Framework

SUMMARY

Many of the existing features in China Creek North Park have reached the end of their lifespan and require replacement and new amenities are needed. The playground is outdated and does not meet current playground standards. The track is well-used and in need of repair, and general pedestrian circulation and accessibility requirements need addressing. The pump station in China Creek North Park is critical infrastructure required to protect the environment and public health. Engineering will give the Park Board and community added value with this initiative through the provision of public washrooms in the facility, a frost-free drinking fountain, and improvements to the southeast corner of the park.

Public feedback indicates strong support for the proposed improvements outlined in this report, the works link to the Park Board's four strategic directions and nine goals, and staff recommend proceeding to the detail design phase so that the new amenities can be delivered on schedule.

General Manager's Office
Vancouver Board of Parks and Recreation
Vancouver, BC

Prepared by:
Lehran Hache, Landscape Designer, Vancouver Park Board

lh/wk/tm/ms/clc

Original Extents of China Creek

Original Extent of False Creek Flats



Historically, the creek entered what is now “China Creek North Park” almost exactly where the Glen Pump Station sits today. The majority of the park would have originally been tidal flats, making the water table in this area very high. The proposed interpretive panel on the west facing wall of the new building would highlight this unique history and the importance to First Nations in this area.

China Creek Park North

China Creek North Park - Existing Conditions



China Creek North Park - Proposed Conditions



Stakeholder Feedback



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China Creek North Park – Persons with Disabilities Advisory Committee

Meeting Notes

Date March 30, 2017
Topic Working Session

Pathway

- Generally shortest distance is most preferred;
- Grades can be up to 8% with rest stops – VPB to determine appropriate spacing for benches (30m may be appropriate);
- Multiple switchback option occupies a large portion of the hillside – it is better to find a solution where the hillside can still be used for tobogganing & passive recreation;
- Path width should accommodate a wheelchair and pedestrian side by side. 1.5 - 2m width minimum;
- Must consider the various needs for different people – what works for one person may not work for another;
- The long, gradual path and the switchback option w/ stairs were the preferred options; however there was some concern over collisions on stairs, primarily with skateboarders.
- Hill is a rare commodity in Vancouver – try to preserve as much as possible.
- Need to ensure path is accessible once you get to the bottom of the hill

Playground

- Need to make playground accessible so parents with disabilities are able to bring and supervise their children;
- The accessible portion of the playground should have good sightlines to all areas of the playground – want to have all areas of the playground visible from a chair.
- Refer to disabilities report for playground design.

Washrooms

- Washrooms are located far away from the playground – ensure path from other areas of the park to the washroom is accessible (ie. Running track has accessible surfacing);
- Large, single use washroom is preferred over stalls;
- Washroom should have automatic door;

VCC Evacuation Stations

- VCC Broadway campus has many students with various disabilities;

Stakeholder Feedback



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RECREATION

- The SE corner of the park is the designated muster point for VCC and is not adequately accessible for people with disabilities (low wood posts, marshy sections, inaccessible path from sidewalk, low boulders, etc.)

General

- Human rights mean you must make it accessible if park is new;
- Park is divided into two sections:
 - bottom section dedicated to sports, dogs, playground and track. Ample parking along Glen Dr. & 7th Ave. Destination Park
 - Hillside/top section more passive and primarily used by residents in the adjacent neighbourhood.
 - People typically don't park at the top of the hill to use the park.
- Talk to Shira Stanfield

Stakeholder Feedback



Niul Bird
#2105-1200 Alberni Street
Vancouver, BC V6E1A6
June 19, 2017

Lehran Hache
Landscape Designer
Vancouver Parks Board

Dear Lehran Hache:

I'm writing to you on behalf of Bombastic FC which is a local soccer club here in the Vancouver area since 1992. We have a membership of approximately a 100 adult soccer players (mens and womens) playing in various leagues in Vancouver. We actively use China Creek as a home pitch for our teams during the Winter season from Sept to March.

Having reviewed the proposed plans by the Parks Board for the renewal of China Creek Park North, we wholeheartedly agree with the proposals to improve the park:

- New Playground (many of our players bring their young children along and use the existing playground)
- Washroom Facilities (currently there is only temporary facilities)
- Staircase and Accessibility Path

We'd like to ensure that as part of the proposal, we continue to retain the existing soccer playing field and in doing so, continue to provide a vital recreational facility for not only our club members, but also for the local residents.

Please feel free to reach out if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Niul Bird'.

Niul Bird
President, Bombastic FC

Stakeholder Feedback



Vancouver Metro Soccer League

Est 1973

Vancouver Metro Soccer League
6501 Sprott Street, Burnaby
V5B 3B8

Jun 16, 2017

Lehran Hache
Landscape Designer
Vancouver Park Board

Re: China Creek North Soccer Playing Field

Dear Lehran,

Further to our conversations, please take this letter as an expression of strong interest on behalf of the VMSL and its 4000 players, coaches and managers across the lower mainland to keep the China Creek North soccer pitch active and well maintained for the purposes of Fall / Winter mens league soccer. This field is the home of the Bombastic Football Club and their member teams and these Bombastic FC teams hosts teams from across the lower mainland during the Fall / Winter season.

Please do not hesitate to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Geoff Catliff", is written over a large, stylized scribble.

Geoff Catliff
President, VMSL

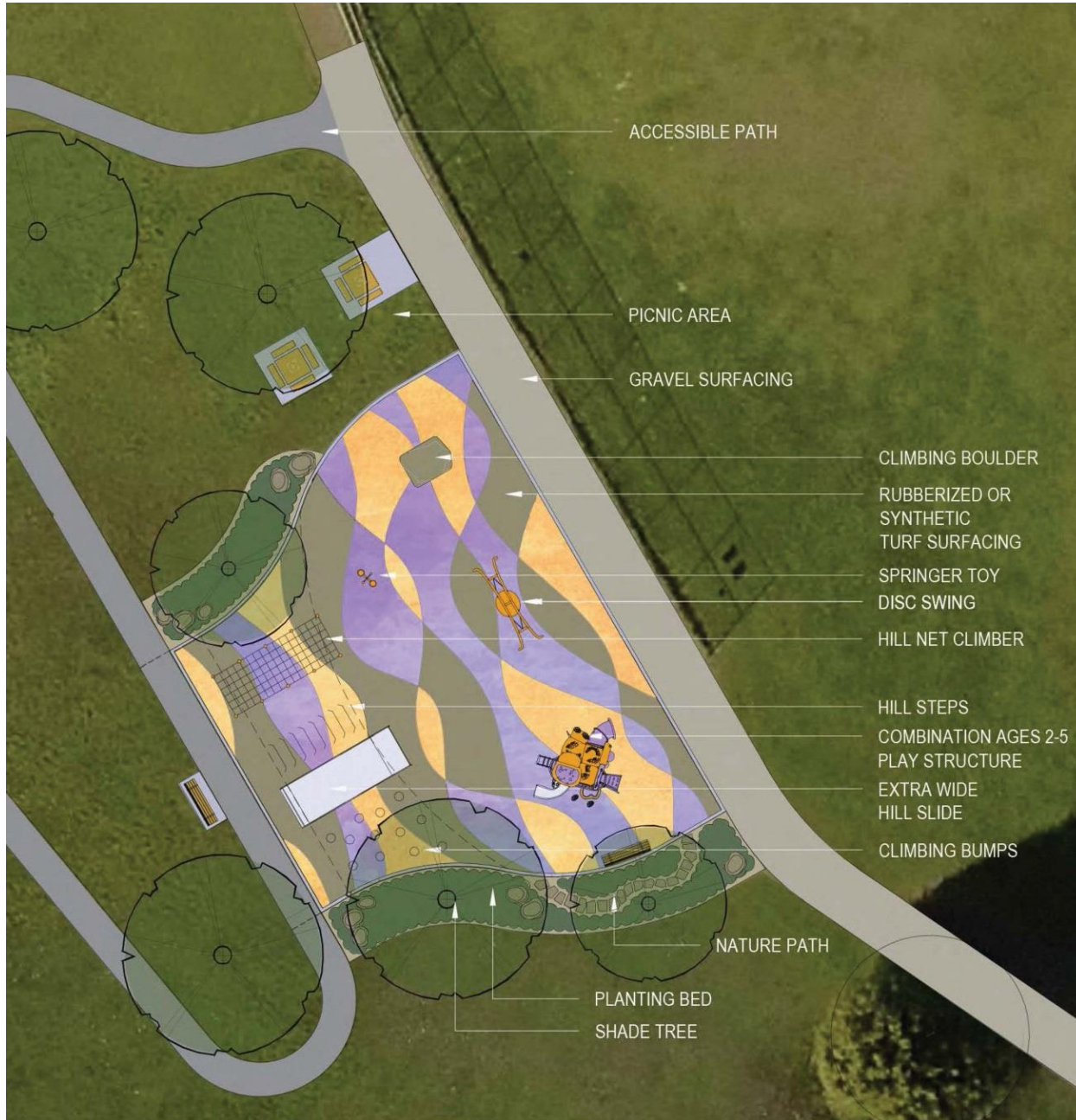
Playground

Existing Playground



Playground

Proposed Playground



Glen Pump Station

Pump Stations

Pump Stations are a critical part of the sewer system. Pump Stations are necessary to convey sewage in Vancouver to sewage treatment plants. Without pump stations, sewage would discharge into the waterbodies and the environment around Vancouver. These facilities pump sewage from collection points in the low areas of the sewer system uphill to connect to larger sewer piping that conveys the sewage to a treatment plant (see Figure 1).

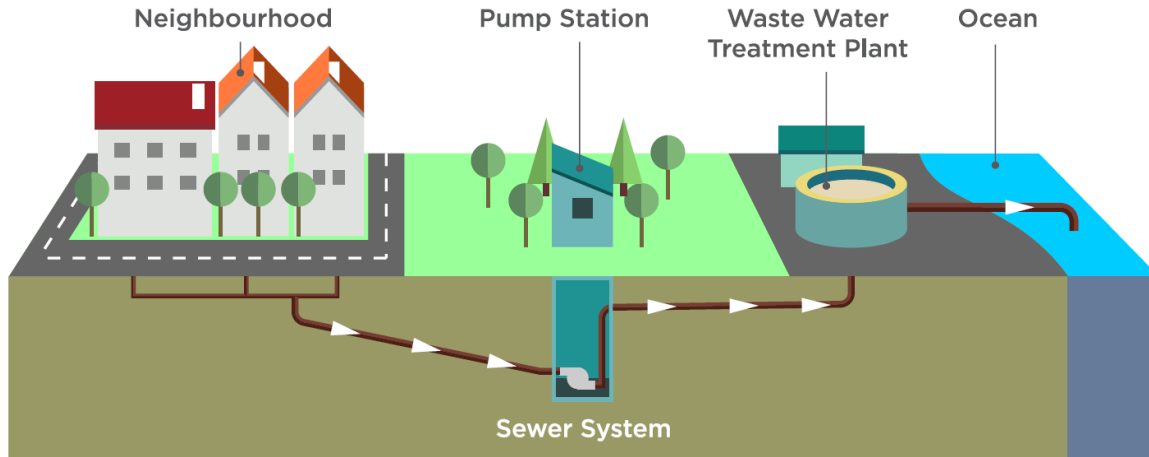


Figure 1 - Sewer System Illustration

Glen Pump Station is one of 13 pump stations that are located in or adjacent to parks in Vancouver as shown in Figure 2. These pump stations includes Vancouver sewage pump stations, Metro Vancouver sewage pump stations, and a dedicated fire protection station.

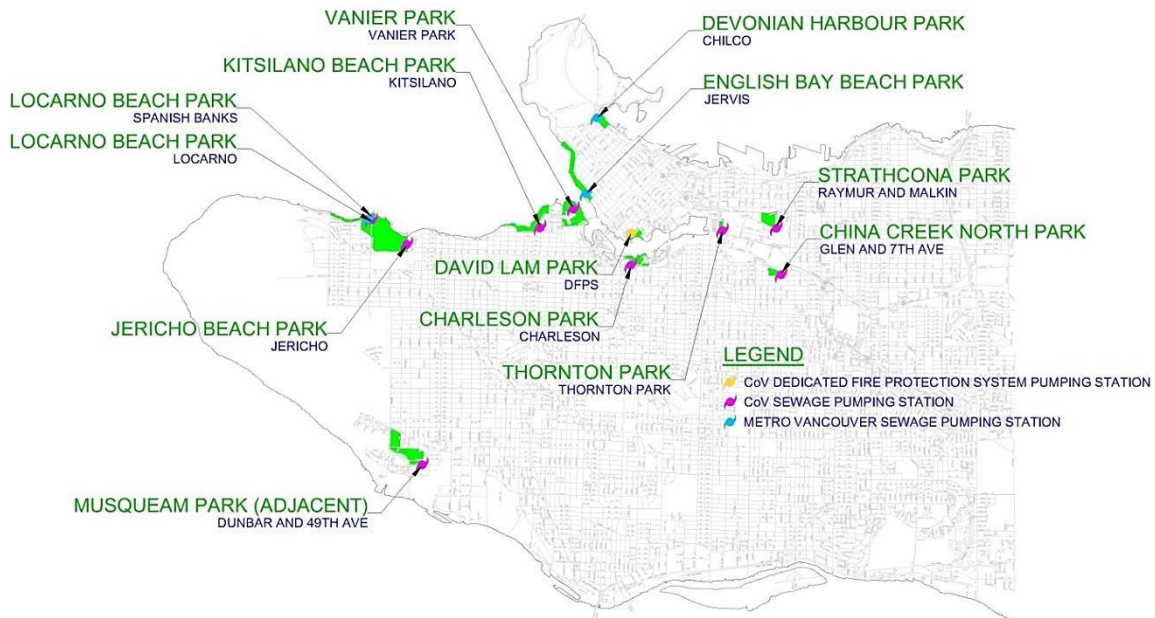


Figure 2 - Pump Stations in or Adjacent to Vancouver Parks

Glen Pump Station

The Glen Pump Station is located in the southeast corner of China Creek Park North as shown in Figure 3. The existing station consists of two underground chambers, one for the sewage wet well and one for the mechanical equipment and pumps, an above ground electrical kiosk, and an above ground hatch and manhole accesses.



Figure 3 - Existing Glen Pump Station

Glen Pump Station is part of the system that transports sewage to the Iona Island Wastewater Treatment Plant in Richmond. As shown in Figure 4, this station services a tributary area roughly triangular in shape and bounded by Grandview Highway to the northeast, Broadway to the South, and Fraser Street to the west.



Figure 4 - Glen Pump Station Tributary Area

Glen Pump Station

The proposed new station will have an approximate footprint of 90 square meters, with an above-grade building that will house universally accessible washrooms (see Figure 5).



Figure 5 - Conceptual Pump Station Rendering

Utility Statutory Right of Way

In addition to the pump station and related sewerage utilities, there is a number of other storm and sanitary sewers in the Park that service the area, including the original creek which now flows through a storm sewer that runs through the Park.

The location of the utilities and approximate boundaries of the proposed right of ways are shown in Figure 6. Some modifications to the existing utility locations will be required to accommodate the new pump station, and the required right of way boundaries will be finalized during the detailed design.

