

New Brighton Beach 2023

Site Information and Background:

General Information:

Name: New Brighton Park

Location: 3201 New Brighton Rd, Vancouver, BC, V5K 0A1

Year of Identification: 2023

Responsible Authority: Vancouver board of parks and recreation

Monitoring Points: See figure 1.

Waterbody Information:

Waterbody type: Marine environment, coastal salt marsh, sheltered fjord

Watershed: See figure 2.

Annual Precipitation for Watershed (mm): 252mm

Surrounding Land Use: List all that apply below

- Industrial
- Residential
- Recreational
- Urban
- Forest
- Marshland

New Brighton park is located on the unceded, traditional, and ancestral territories of the x^wməθk^wəy^əm (Musqueam), Skwxwú7mesh (Squamish), and səliiwətaʔt (Tsleil-Waututh) First Nations. It was known as Khanahmoot, and was traditionally an important site for harvesting shellfish.

New Brighton was the site of the original settlement that would one day become Vancouver, called Hastings Townsite. It was the location of the first post office, roads, railway station, playing field, docks, and museum. From there, settlements expanded outward. Due to its history however, New Brighton was a source of major industry development.

Today, New Brighton park is located in an industrial zone, situated next to the Cascadia Terminal grain silo, several other industrial plants, and several railways. It is also located very close to Hastings Park, which includes the Hastings Racecourse and the PNE. The western edge of the park is close to the Hastings-Sunrise residential area.

Much of the original ecosystem has been removed, replaced with man-made rocky coastlines, grassy fields for recreation, and development. However, a project between the Vancouver Fraser Port Authority and the Vancouver Board of Parks and Recreation, along with Musqueam, Squamish and Tsleil-Waututh Nations sought to restore some of the salt marsh environment in the area in a re-wilding effort. This project completed in 2017, and the restored habitat provides a productive habitat for juvenile fish and wildlife, including shorebirds, songbirds, and waterfowl. The New Brighton salt marsh is located on the east side of the park.

There is no historical data for recreational water quality, although due to the surrounding industry and the nearby CSO, the community has the perception that it is unsafe to swim.

Nearby Points of Interest:

- Cascadia Terminal grain silo
- Hastings Racecourse
- New Brighton pool
- New Brighton dog park
- New Brighton salt marsh
- Creekway Park
- Hastings Park

Upstream Pollution Risks:

There is a CSO located near New Brighton park. This could impact the waters near the beach. As well, stormwater runoff from the industry sites nearby could also pose a risk. The site is also surrounded by industry, which could contaminate the nearby waters with heavy metals and other pollutants.

Due to the fact that New Brighton park is situated on the Burrard Inlet, it is influenced by many sources. The watershed is very large, since the site is located on the Burrard Inlet. The Indian Arm and the nearby mountain rivers and streams would need to be included. However, much of that space is forest, and there would be little contamination risk.

Due to the tides, any pollution that affects the site would not linger very long. It is affected by 2 low tides and 2 high tides a day, and so there is frequent circulation of water.

Potential Sources of Pollution:

1. Microbiological Hazard Assessment

There is a CSO located nearby, which could cause high levels of contamination after storms. All of the residences nearby are on the city's sewer system and so there are no individual septic systems to worry about. These sewer systems would not empty into the Inlet under normal circumstances.

The Hastings Racecourse is located up the hill from New Brighton park, which could cause contamination from runoff due to animal waste. There is not much agriculture around the area, and so there is limited risk of contamination from those sources.

The restored salt marsh at New Brighton park is a habitat for many bird species. There are many species of birds that live in the area, as well as the usual species of Canada geese, crows, and seagulls.

There are two dog parks located at the park, one is fenced in on the field and the other is a secluded off-leash beach. It is a popular spot to bring dogs, and many are seen in and around the water.

Overall Risk from Microbiological Hazards:

Combined Sewer Overflows (CSOs): **MEDIUM**

- There is a CSO located nearby, but there is such frequent exchange of water due to the currents in the area that pollution is not likely to linger.

Stormwater drains/discharges: **MEDIUM**

- No stormwater drains were found in the immediate area, but there would be some nearby that would empty into the inlet

Septic waste systems: **LOW**

- All nearby residences and industry are on the city's sewer system, so there are no individual septic systems nearby

Stormwater runoff from agricultural areas: **LOW**

- There is not much in the way of agriculture near New Brighton

Stormwater runoff from areas receiving sewage sludge: **LOW**

- There are no water waste treatment plants located nearby

Stormwater runoff from beach and surrounding area: **MEDIUM**

- The beach and surrounding area are quite populated, and so there is a risk of contamination

Birds: **HIGH**

- The site is a large habitat for birds

Pets: **HIGH**

- The park is a popular place to bring dogs, and they are frequently in and around the water.

Other wild animals: **MEDIUM**

- There are a few harbour seals and river otters nearby, along with sea stars, sea cucumbers, and other marine life.

2. Chemical Hazards

New Brighton park is surrounded by a lot of nearby industry. Runoff from these sites, and wastewater, could cause oil, heavy metals, and other harmful pollutants to be present in the water at the park.

New Brighton park is also located near urban residential housing, which could contaminate the beach water with runoff. This is likely to contain oil, fertilizer, pesticides, and potentially other harmful chemicals. The park that the beach is located in is also likely subject to pesticides and fertilizer application.

Overall Risk from Chemical Hazards:

Commercial/Industrial discharges: **MEDIUM**

- Runoff from all the nearby industry would cause harmful chemicals such as oil, and heavy metals, to enter the water. However, due to the tidal current in the area, contaminants are not likely to sit in the beach area for long periods of time.

Motorized Watercraft: **MEDIUM**

- Due to all the industry in the area on the Inlet, there are frequent cargo ships in the area. Runoff from the ships could lead to oil contamination in the water.

Stormwater runoff from urban areas: **MEDIUM**

- Due to all of the urban residential housing in the area, and that New Brighton park is located at the base of a hill, runoff is likely to contaminate the water.

Stormwater runoff from areas subject to fertilizer application: **MEDIUM**

- Both the park itself and the residences nearby would likely be areas where fertilizer is applied, and runoff from these areas would contaminate the water at the beach.

Stormwater runoff from areas subject to pesticide application: **MEDIUM**

- Both the park itself and the residences nearby would likely be areas where pesticides are applied, and runoff from these areas would contaminate the water at the beach.

3. Other Biological Hazards

Occasionally Burrard Inlet can be affected by a red tide algae bloom, which can be encouraged by nutrient loading in the water body through things like fertilizer and other nutrient rich run-off. While the red tide is not directly harmful to humans, eating shellfish affected by it can lead to paralytic shellfish poisoning (PSP).

Overall Risk from Other Biological Hazards:

Seasonal Ride Tide: **LOW**

- Burrard Inlet is not affected by red tide more than once every few years

4. Physical Hazards and Aesthetic Considerations

The beaches at New Brighton park are characterized by a sandy upper beach, pebble-y shores, and steep slopes under the water. There is a very quick increase in depth as you go further out into the water. As well, there is a strong current in the area which is potentially dangerous for swimming. There is algae in the water, but not much on the beach, much of it is displaced from elsewhere. There are large rocks that can be found along the edges of the upper beach, and in the water.

Because the beaches are frequently used, it is not uncommon to find litter on the beaches. Most of this litter is food wrappers, cups and lids, napkins, etc. It likely comes from people eating on the beach, and leaving their waste behind. While there are trash cans on site, very few are conveniently close to the sandy beach area.

Overall Risk from Physical Hazards:

Strong current: **HIGH**

- There is a strong current just offshore that could drag unprepared swimmers and other recreational water users down the Inlet. While the immediate area of the beach is sheltered by a breakwater, it doesn't extend very far.

Steep inclines: **HIGH**

- The beach itself is quite steep, and gets deep very quickly. Unprepared swimmers might find themselves deeper than expected.

Large rocks: **MEDIUM**

- There are large rocks in the water, making the ground uneven. They are easy to see when the water is clear, but harder to notice when the water is cloudy.

Marine plants: **LOW**

- There are pieces of algae floating in the water, but not much washed up onshore.

Litter on beach: **MEDIUM**

- Food wrappers and other waste from consumables can be readily found tucked away on the beach.

Floating debris: **LOW**

- There are only natural materials found floating on the water's surface, such as a few feathers and algae. These are small and pose no risk.

Broken glass/sharps: **LOW**

- Some broken glass was found on the beach, but much of it was eroded away to dull sea glass.

Facilities and Provisions:

Facilities:

Toilets: There are two washrooms, one for men and one for women. There is an accessible washroom in each. No gender neutral washroom on site.

Showers: There are showers at the pool, but not for beachgoers.

Drinking Water Fountains: 1

Litter Bins: 5

Recycling Bins: 0

Access for Persons with Disabilities: There are no special accommodations, but there also aren't any limitations such as stairs.

Safety Provisions:

Lifeguard Station: No

Life Saving Equipment: None

Emergency Telephone: No

First Aid Station: No

Beach Postings/Suitability for Swimming:
Yes (see figure 4), currently not suitable

Emergency Contact Information: No

Other Information:

Reporting Mechanisms:

- Vancouver board of Parks and Recreation: (604) 873-7000

Where to find the water quality results:

- On Swim Guide: <https://www.theswimguide.org/beach/10987>

Contact Details for EHSS information:

- Madison Scott: 1 (902) 818-2329

Recommendations:

New Brighton park could be a lovely place to swim, however it does need some attention to make it safe due to the current in the area. The current is not immediately onshore, and so setting a line of buoys in the water to designate space safe from the current could be one solution. Another could be digging in the beach, or extending the breakwaters in the area.

Appendix:



Figure 1: Map displaying the sampling locations at New Brighton Park.

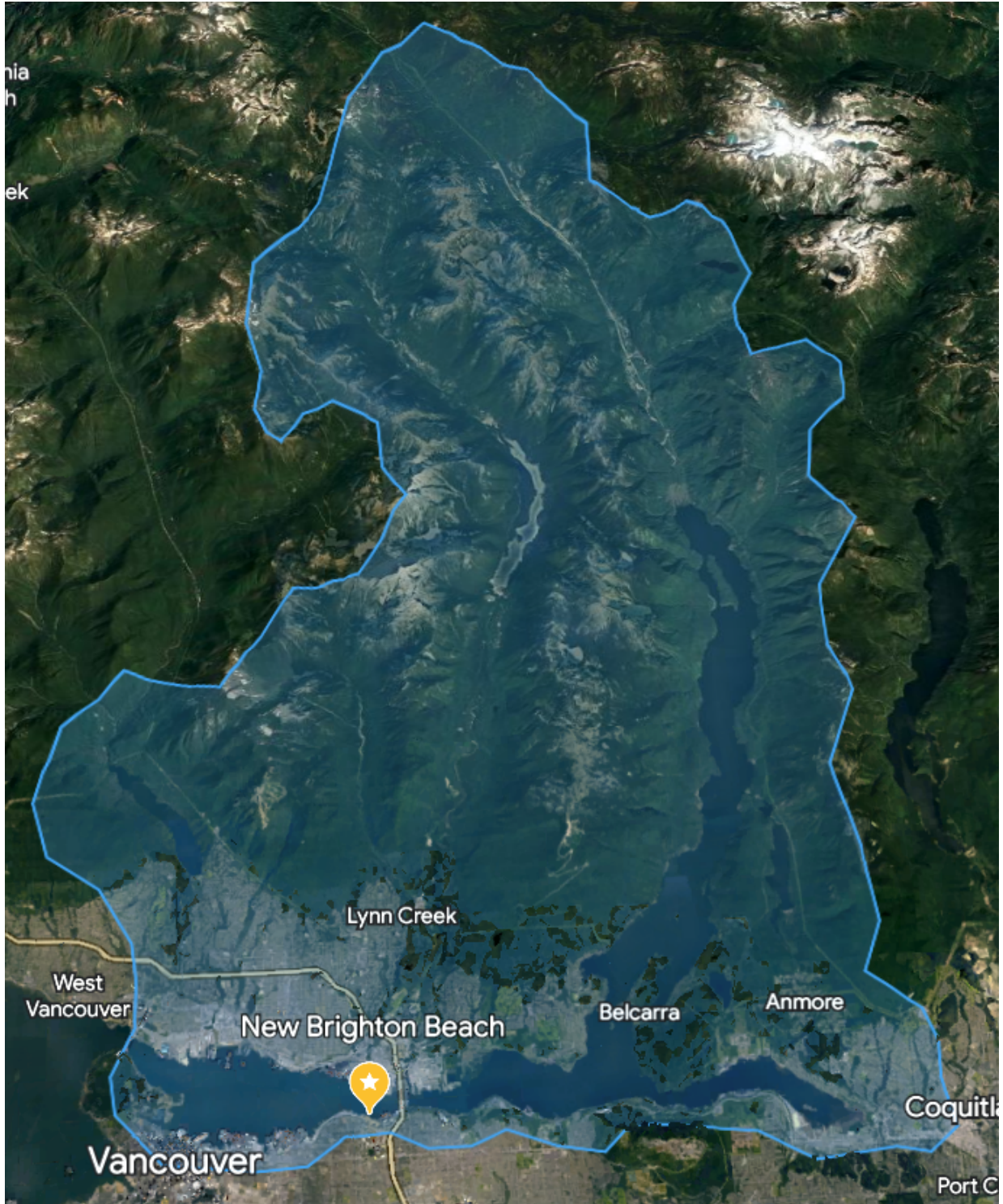


Figure 2: Map of the watershed for New Brighton Park.



Figure 3: The Zone of Influence for New Brighton park.



Figure 4: A sign posted near the pier, warning of strong currents in the area.