

# Volunteer Park 2023

## Site Information and Background:

### General Information:

**Name:** Volunteer Park

**Location:** 2855 Point Grey Rd, Vancouver, BC V6K 1A7

**Year of Identification:** May 2023

**Responsible Authority:** Vancouver board of parks and recreation

**Monitoring Points:** See figure 1 and 2 for a map of the sampling locations and the zone of influence

### Waterbody Information:

**Waterbody type:** Marine environment, mud flat

**Watershed:** See figure 3 for a map of the watershed

**Annual Precipitation for Watershed (mm):** 253mm

### Surrounding Land Use: List all that apply below

- Urban
- Residential
- Recreational
- Forest
- Parkland

Volunteer park is located on the unceded, traditional, and ancestral territories of the x<sup>w</sup>məθk<sup>w</sup>əy̓əm (Musqueam), Skwxwú7mesh (Squamish), and səliłwətaʔt̚ (Tsleil-Waututh) First Nations, in what is today known as Kitsilano. It is located between Kits beach and Jericho beach, tucked away in a largely residential area, with a few other parks nearby.

Today, Kitsilano is a very popular and wealthy neighbourhood, but it began as a logging town. With the development of the Canadian Pacific Railway, it became more connected with Vancouver and allowed for much growth.

The site is a hidden gem of the community, with many people making their way down to the shoreline for the gorgeous views of the north shore mountains and English bay. It is a popular place for people to take their dogs for a splash in the water, and for folks looking for a nice walk along the beach.

A habitat restoration project is taking place to restore a segment of a historical creek in the area. It will move through Tatlow park and Volunteer park and connect to English Bay. Currently Volunteer Park is largely under construction.

**Nearby Points of Interest:**

- Tatlow Park
- Margaret Pigott Park
- W 4th Ave

**Upstream Pollution Risks:**

There is a CSO located quite close to Volunteer Park. This could impact the waters near the beach. The CSO can be found while walking around the beach, however it extends quite far into the bay, and the end of it cannot be seen even at low tide. The city does monitor the end of the CSO to keep track of the impacts on the water quality.

As well, stormwater runoff from the nearby residential houses and urban areas could also impact the water. This could include pesticides and fertilizers from gardens, as well as animal waste.

Due to the fact that Volunteer Park is located in English Bay, it can be influenced by many sources. English Bay sees heavy boat traffic, from recreational boating to large shipping freighters. This could include chemical pollution like oil, heavy metals, gasoline, and introduction of invasive species.

The watershed for Volunteer Park would have to contain False Creek and the mouth of the Burrard Inlet. The Inlet is fed by many mountain rivers and streams, and so the watershed contains the Capilano river watershed. The watershed is large, but most of the terrestrial area is undeveloped forested regions with no risk of hazards.

Due to the twice daily changing of the tides, pollution that impacts the site is unlikely to sit for very long.

**Potential Sources of Pollution:**

**1. Microbiological Hazard Assessment**

There is a nearby CSO located just a block away that empties into English Bay (figure 4). The mouth of this CSO is monitored by the city. However, the tidal changes are unlikely to let any

pollution sit in the area for long. As well, the CSO extends quite far out into the bay, which will help keep the contamination from settling near the beach as much. There are no stormwater drains in the immediate area of the beach, however the water could still be impacted by stormwater elsewhere around the beach.

The beach is surrounded by heavy residential development. The buildings each have drains that empty onto the beach. There would be no septic systems in the area since the houses are all on the city's sewer system. There also isn't agriculture in the area.

Dogs are allowed on the beach, and there are frequent dogs swimming in the water. As well, there are many birds on the beach. Both of these can cause contamination from animal waste.

### **Overall Risk from Microbiological Hazards:**

Combined Sewer Outflows (CSOs): **HIGH**

- Due to the proximity of the CSO and the shallowness of the water around it, the risk of contamination is high, but because of how far it extends into the bay and tidal changes the risk is not extreme.

Stormwater drains/discharge: **MEDIUM**

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

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 Volunteer Park

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 does not have development on it, but runoff from the urban areas nearby could contaminate the water.

Dogs: **MEDIUM**

- There are no dog parks nearby, so many beach goers bring their dogs to his location. There are many dogs both on leash and off leash, on the beach and in the water.

Birds: **MEDIUM**

- The beach is home to many birds like crows and seagulls. There is also a heron that frequents the area.

Other wild animals: **LOW**

- There are not many other animal species that frequent the area beyond birds and a few fish, mussels, and oysters.

Discharging rivers/streams: **LOW**

- Currently, there is no stream. But the Tatlow Creek is being restored.

## 2. Chemical Hazards

Volunteer Park is not located near much industry, but it is in a very heavily developed residential area. As well, it is situated right on English Bay. This means that water quality at the site is influenced by the ship traffic coming in and out of the harbour as well all by the personal watercraft that frequent the area. The water would also be impacted by runoff from the residential housing and the few local parks.

### Overall Risk from Chemical Hazards:

Commercial/Industrial discharges: **LOW**

- There isn't much industry located around Volunteer park, so the risk of contamination would be low

Motorized Watercraft: **MEDIUM**

- Due to being close to the harbour, 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 Volunteer 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 English Bay 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:**

Red Tide: **LOW**

- English Bay is not affected by red tide more than once every few years.

Swimmer's Itch: **LOW**

- English Bay does not have much of a history of swimmer's itch so the risk is low.

#### **4. Physical Hazards and Aesthetic Considerations**

The few physical hazards at the site are large rocks that cover the beach, and uneven ground. This can make traversing the beach difficult. At low tide, some of the exposed algae is quite slippery, and visitors must be careful where they are walking. Because the area is historically a mud flat, the beach is very shallow. This means that there is little worry about great depths, steep slopes, or strong currents.

#### **Overall Risk from Physical Hazards:**

Depths greater than 4.5m: **LOW**

- Volunteer Park is very shallow, there is very little risk of deep depths.

Steep slopes: **LOW**

- Volunteer Park is very shallow, the gradient is not steep.

Strong currents: **LOW**

- There are no strong currents offshore or onshore at Volunteer Park.

Slippery/uneven bottom: **MEDIUM**

- The beach floor is covered in uneven rocks. It would be potentially hazardous to navigate.
- As well, some algae on the beach does make the ground quite slippery.

Aquatic plants: **LOW**

- There are few aquatic plants in the area or on the beach.

Large rocks: **MEDIUM**

- There are quite a few larger rocks covered in barnacles and mussels which could be a hazard for people visiting the site.

Litter on beach: **LOW**

- There is very little litter found on the beach.

## Facilities and Provisions:

### Facilities:

**Toilets:** None

**Showers:** None

**Drinking Water Fountains:** None

**Litter Bins:** None

**Recycling Bins:** None

**Access for Persons with Disabilities:** Due to construction, the beach is currently only accessible by a steep set of stairs or by walking along the beach from other access points.

### Safety Provisions:

**Lifeguard Station:** None

**Life Saving Equipment:** None

**Emergency Telephone:** No

**First Aid Station:** No

**Beach Postings/Suitability for Swimming:** No

**Emergency Contact Information:** No

## Other Information:

### Reporting Mechanisms:

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

### Where to find the water quality results:

- Water quality results can be found in the Swim Guide:  
<https://www.theswimguide.org/beach/10988>

Contact Details for EHSS information: Madison Scott, 1-902-818-2329

**Recommendations:** The main recommendation for improving conditions at Volunteer Park is to mitigate the impact of the nearby CSO. Ideally this would be done via sewer separation in the area. The restoration of Tatlow creek may also improve water conditions by restoring some of the local ecosystem.

**Appendix:**



Figure 1: Map displaying the sampling points at Volunteer Park.



Figure 2: Map displaying the Zone of Influence for Volunteer Park, including the sampling points.



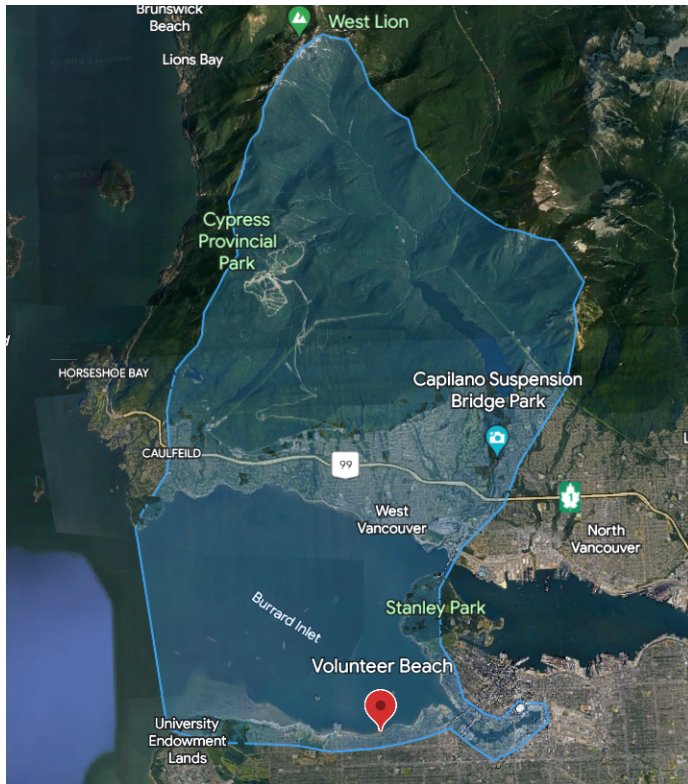


Figure 3: A map displaying the watershed for Volunteer Beach.





Figure 4: An image of the CSO at Volunteer Park



Figure 5: An image of a drainage pipe from the residential homes that run along the length of the beach.