

Accidental Beach (Cloverdale Beach), Edmonton, AB

Site Information and Background:

General Information:

Name: Accidental Beach (Cloverdale Beach)

Location: 9208 98 Ave NW, Edmonton, AB, T6C 2C5

Year of Identification: 2019

Responsible Authority: North Saskatchewan Riverkeeper/Swim Drink Fish Canada

Monitoring Points:

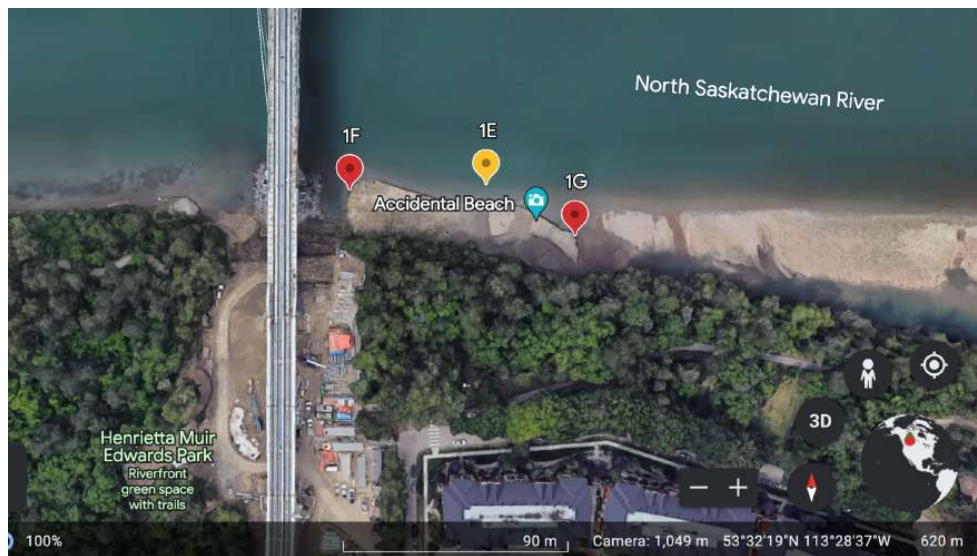


Figure 1a: Sampling points 1A-1D have been deactivated this year as the sediment forming the eastern portion of Accidental Beach has been swept away. Point 1E is still accessible and will be reused for the 2023 monitoring season. New sampling points 1F and 1G have been established on the western portion of the beach on either side of 1E, following the Alberta Safe Beach Protocol recommendations of 3 points on beaches 100m or less in length.



Figure 1b: Map of Accidental Beach sampling site including zone of local influence.

Waterbody Information:

Waterbody type: River

Watershed: Beaverhill Subwatershed of the North Saskatchewan River Watershed

Drainage Area (km²): 4405.44 km² (Beaverhill sub-watershed)

Annual Precipitation for Watershed (mm): 476.9mm in Edmonton on average

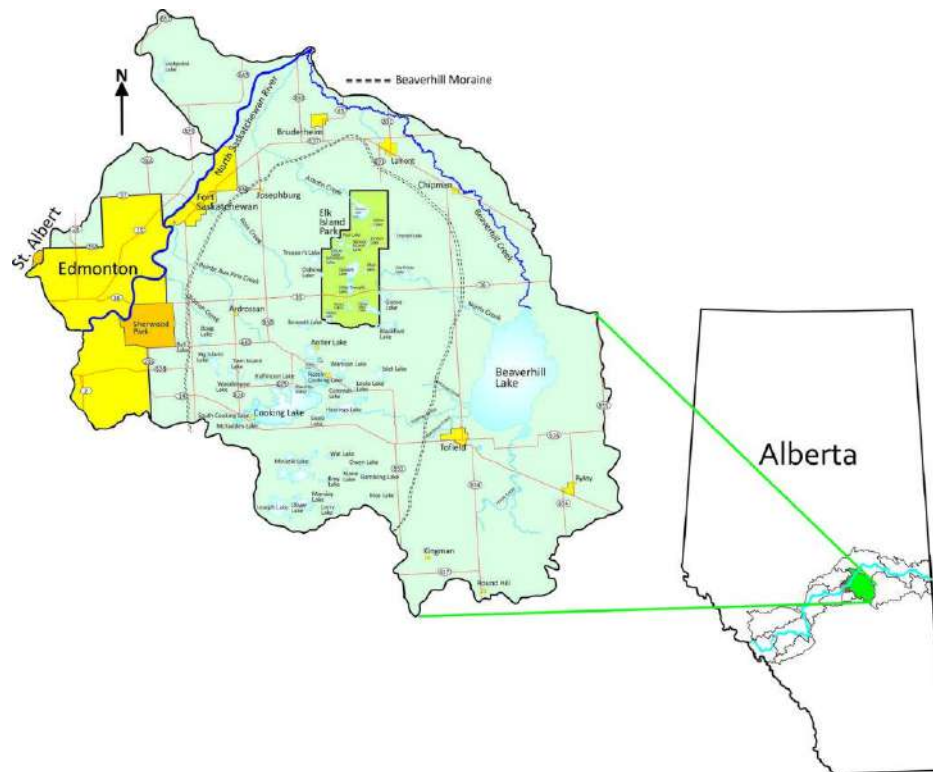


Figure 2: The Accidental Beach sampling site is located in the Beaverhill Subwatershed of the North Saskatchewan Watershed. This map was created by Billie Milholland and was accessed through the North Saskatchewan Watershed Alliance ([Beaverhill subwatershed ~ North Saskatchewan River Watershed](#)).

Surrounding Land Use:

- Urban
 - Edmonton’s downtown area is immediately upstream and across the river.
- Residential
 - Residential areas are near the site but not directly adjacent to Accidental Beach.
- Parks
 - Accidental Beach site is located in Henrietta Muir Edwards Park
- Forest
 - Forested areas surrounding the Accidental Beach Site both upstream and downstream.

Summarize the surrounding land use here including relevant information that could impact water quality (e.g. there are 5 fast food chains near the site which could increase the input of litter in the water)

Accidental Beach (also known as Cloverdale Beach) is located in the residential area Cloverdale in Edmonton. The area surrounding the beach is comprised of residential areas as well as parks and forested areas along the river valley. On the opposite side of the North Saskatchewan River

is the residential area known as Riverdale. Henrietta Muir Edwards Park surrounds Accidental Beach. The parks on the north shore of the river are Riverdale Park and Louise McKinney Riverfront Park.

List Commercial Buildings, Industrial Buildings, Institutional Buildings etc. and provide addresses if possible

Downtown Edmonton is upstream of this site. There are several hotels, high rise buildings, restaurants, and shops in the urban area to the northeast of Accidental Beach.

Upstream Pollution Risks:

There is one stormwater outfall 600m upstream and one directly across the river from Accidental Beach (Figure 3). These outfalls could be discharging faecal, chemical, or other types of contamination, which may have an effect on water quality at Accidental Beach. The Edmonton Riverboat runs boat tours of the North Saskatchewan River starting from a location .5km upstream from the beach. The Riverboat and other motorized watercraft could be a potential source of chemical pollution that could be impacting the water quality at this site. There is a buffer of forested park area along the rivers edge directly upstream from this site, however, there are a lot of paved surfaces (major roads, bridges, sidewalks etc.) upstream that could still pose a risk of contamination from runoff at this site.

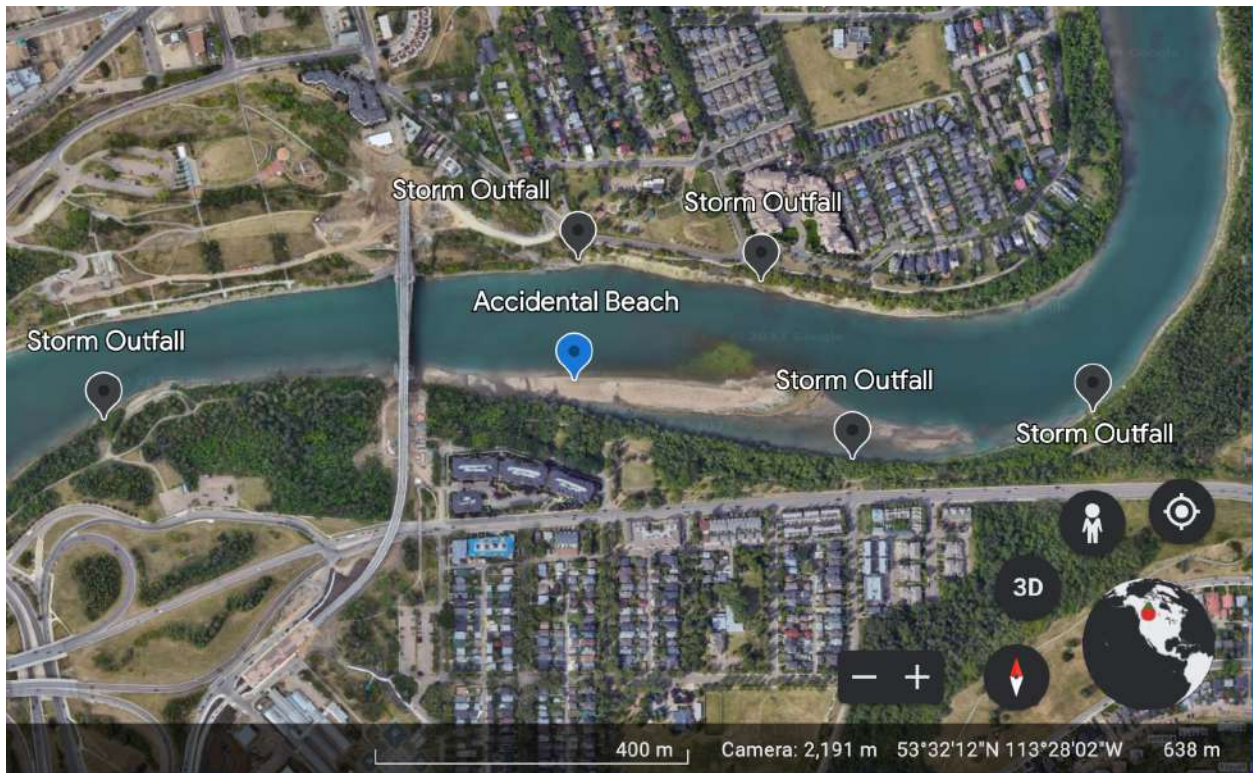


Figure 3: Map of storm outfalls surrounding the Accidental Beach site. Data obtained from City of Edmonton open datasets ([Drainage \(Map View\): Outfall | Edmonton - Open Data Portal](#)).

Potential Sources of Pollution:

1. Microbiological Hazard Assessment

Overall Risk from Microbiological Hazards:

Stormwater outfalls: **HIGH**

- There is one stormwater outfall just upstream from Accidental Beach and one across the river (Figure 3). These outfalls could be a potential source of both faecal and chemical contamination as the areas surrounding the beach are highly urbanized and residential with high amounts of impermeable surfaces. This risk will likely increase following rainfall events.

Stormwater runoff from beach and surrounding facilities (e.g. parking): **LOW**

- There is a strip of forest area that follows the river surrounding the beach that would act as a buffer for stormwater runoff from surrounding residential areas and infrastructure (roads etc.). Therefore, risk of contamination from the roads and vehicles is likely low.

Birds: **HIGH**

- There were a handful of birds directly along the beach. Faecal contamination from birds was determined to be a high risk for this site.

Pets: **MEDIUM**

- This location is a common location for pet-owners to bring their dogs to walk along the beach, however, likely not as common as some of the more established parks. There were a couple of pet owners with their dogs at this site when we were there. Therefore, the risk of faecal contamination from dogs at this site is rated as medium.

Swimmers: **MEDIUM**

- No primary water users were observed using this site for swimming activities during our sampling time. However, in the summer time this location has been used as a spot where people access the water and go swimming.

Other wild animals: **LOW**

- No wild animals (other than birds) were observed at this site. However, it can be presumed that they are present in the forested area adjacent to the beach.

Discharging rivers: **LOW**

- There is a CSO that discharges into Mill Creek Ravine which enters the river upstream of the beach. The data for this CSO showed that no effluent was released from this CSO in 2019. However, data from 2020-2023 is unknown.

2. Chemical Hazards

Overall Risk from Chemical Hazards:

Potential contamination from motorized-watercraft: **LOW**

- Potential risk of chemical contamination from motorized watercraft is low at this location. The beach is not equipped to be a boat launch for motorized boats at this location. Any chemical contamination from this would likely be from watercraft passing by the beach on the river or from the Edmonton Riverboat launch. The risk of chemical contamination from the Edmonton Riverboat launch is unknown.

Stormwater runoff from urban and residential areas: **MEDIUM**

- The stormwater outfalls upstream of the site (Figure 3) could potentially carry chemical contaminants from surrounding urban and residential areas during rainfall events. There are also urban and residential areas surrounding the site which could be a potential source of chemical contamination, however, there is a forest buffer that would help to protect the beach from this.

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

- Accidental Beach is surrounded by Henrietta Muir Edwards Park, which could be a potential source of contamination from pesticides depending on whether or not pesticides are used within the park. Gallagher Park is located behind the Muttart Conservatory and could also be a potential source of pesticide runoff. However, given that there is a strip of forest that borders the river that would act as a buffer and the amount of pesticide application in these parks is unknown, the risk is rated as medium.

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

- Victoria Golf Course is upstream from the site and fertilizer runoff from the course could be a potential source of contamination at Accidental Beach.

3. Other Biological Hazards

Overall Risk from Other Biological Hazards:

Cyanobacterial Blooms: **LOW**

- No cyanobacteria observed at this site.

Schistosomes (Swimmer's Itch): **LOW**

- The presence of Schistosomes or Swimmer's Itch is unknown at this location. However, it is most commonly found in still freshwater bodies such as lakes and ponds.

Large number of aquatic plants: **LOW**

- No aquatic plants observed at this location.

4. Physical Hazards and Aesthetic Considerations

Overall Risk from Physical Hazards:

Steep slopes: **MEDIUM**

- There is a steep set of stairs carved into the riverbank that leads from the forest down to Accidental Beach. This is the main point of access to the beach and it would be

hazardous when wet and may affect accessibility of the beach during both dry and wet conditions.

- There is a bit of a drop off when entering the water which could be a hazard for anyone going into the river.

Depths greater than 4.5 meters: **MEDIUM**

- The water along the beach that people were using for recreation was relatively shallow. However, the beach had shallow drop-offs when entering the water and it is unknown how deep the water gets further away from the beach.

Large rocks: **LOW**

- No large rocks are present at this site.

Slippery or uneven bottom: **LOW**

- The bottom was not slippery or uneven but it does drop off at certain areas when entering the water.

Strong Currents: **HIGH**

- The river currents are relatively fast and strong at this location which is why it is rated as a high risk. North Saskatchewan water levels and flows typically peak in mid-June and could present a hazard to both swimmers and water samplers
- The level of risk would vary seasonally with changing river conditions

Undertow : **MEDIUM**

- The risks of undertows are unknown at this site. Rated as medium risk until more information is available.

Litter on beach: **MEDIUM**

- There was litter scattered across the beach area at the time of sampling.

Floating Debris: **LOW**

- No floating debris was visible at the time of sampling.

Broken Glass: **LOW**

- No broken glass was present at the time of sampling.

Medical Waste: **LOW**

- No medical waste was present at the time of sampling.

Facilities and Provisions:

Facilities:

Toilets: 0

Showers: 0

Drinking Water Fountains: 0

Litter Bins: 0

Recycling Bins: 0

Access for Persons with Disabilities: This site is potentially inaccessible for Persons with Disabilities due to the steep climb down to the beach. This would be particularly hazardous in wet conditions.

Safety Provisions:

Lifeguard Station: 0

Life Saving Equipment: 0

Emergency Telephone: No

First Aid Station: No

Beach Postings/Suitability for Swimming:
No

Emergency Contact Information: No

Other Information:

Reporting Mechanisms:

- For concerns about water in your area call Environmental Public Health at 1-833-476-4743
- To report a spill release or emergency that could damage the environment, call Alberta Environmental Hotline 1-800-222-6514

Where to find the water quality results:

- Swim Guide: <https://www.theswimguide.org/beach/8422>

Contact Details for EHSS information:

Contact coordinators: Abigail Brown (778) 228-4994, Shaugn Coggins (780) 246-0703.

Appendix:

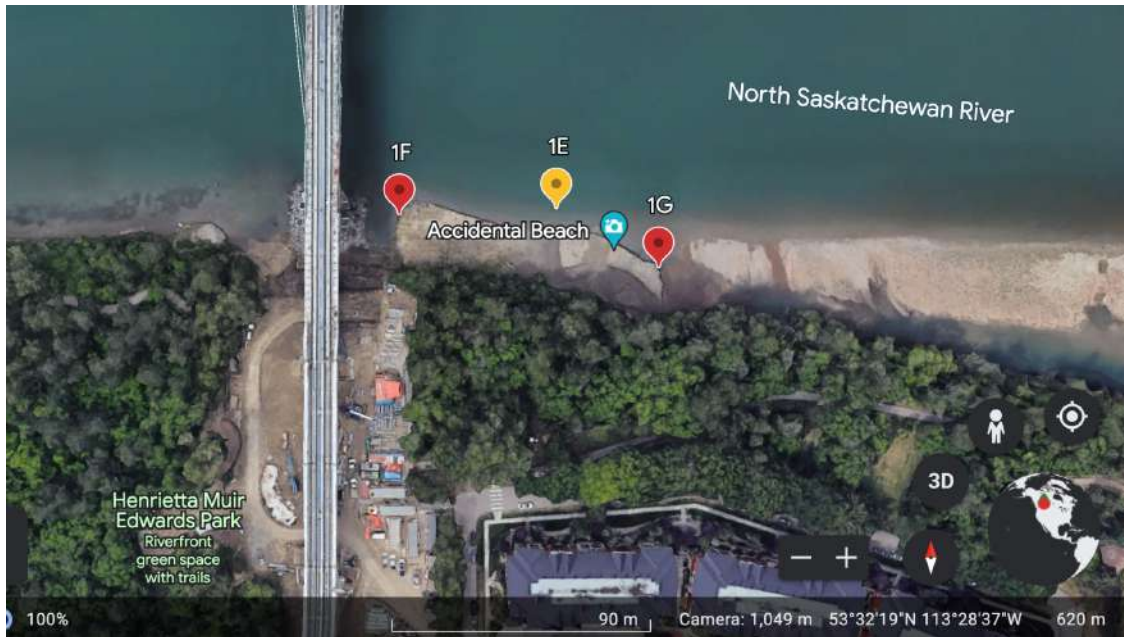


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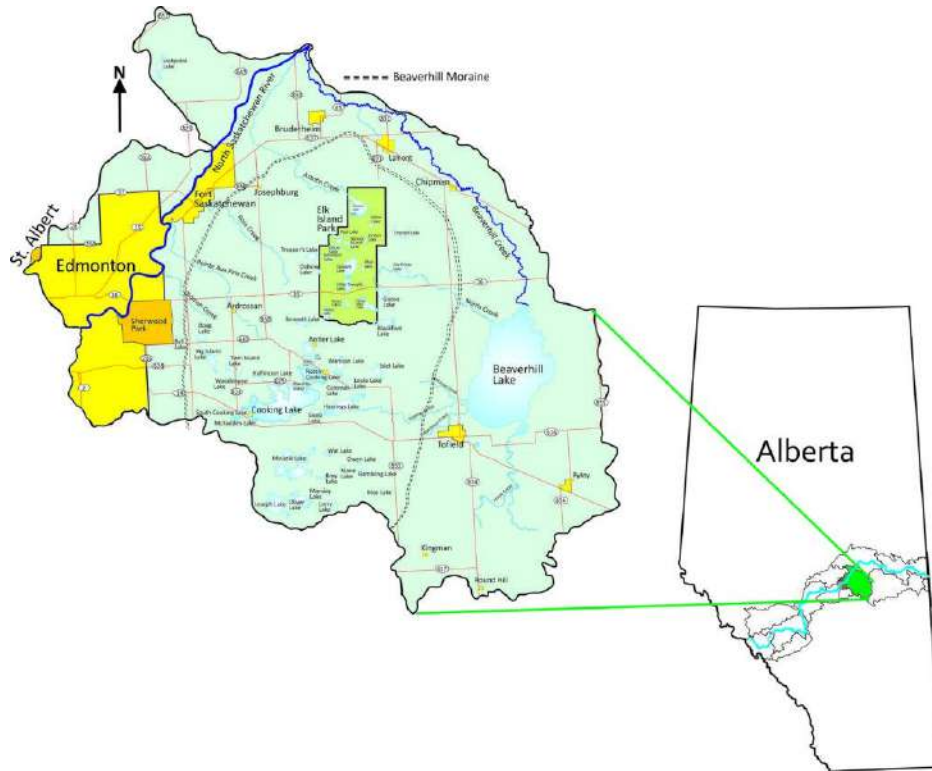


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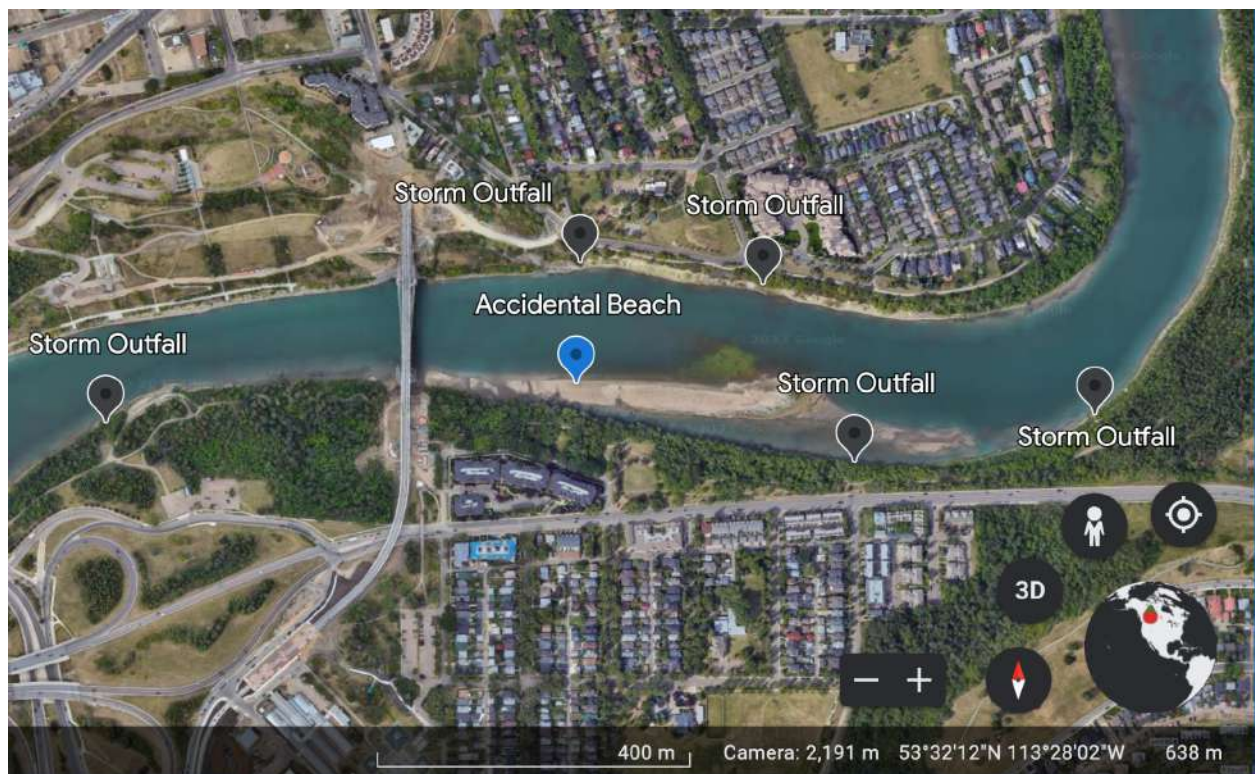


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