

Fort Edmonton Footbridge Sandbar

Site Information and Background:

General Information:

Name: Fort Edmonton Footbridge Sandbar

Location:

Year of Identification: This site was monitored by Swim Drink Fish in 2017, however, an EHSS was not performed

Responsible Authority: Swim Drink Fish Edmonton Hub

Monitoring Points:



Figure 1: Monitoring Points and zone of local influence at the Fort Edmonton Footbridge Sandbar.

Waterbody Information:

Waterbody type: River.

Watershed: Strawberry Sub-watershed (North Saskatchewan Watershed Alliance)

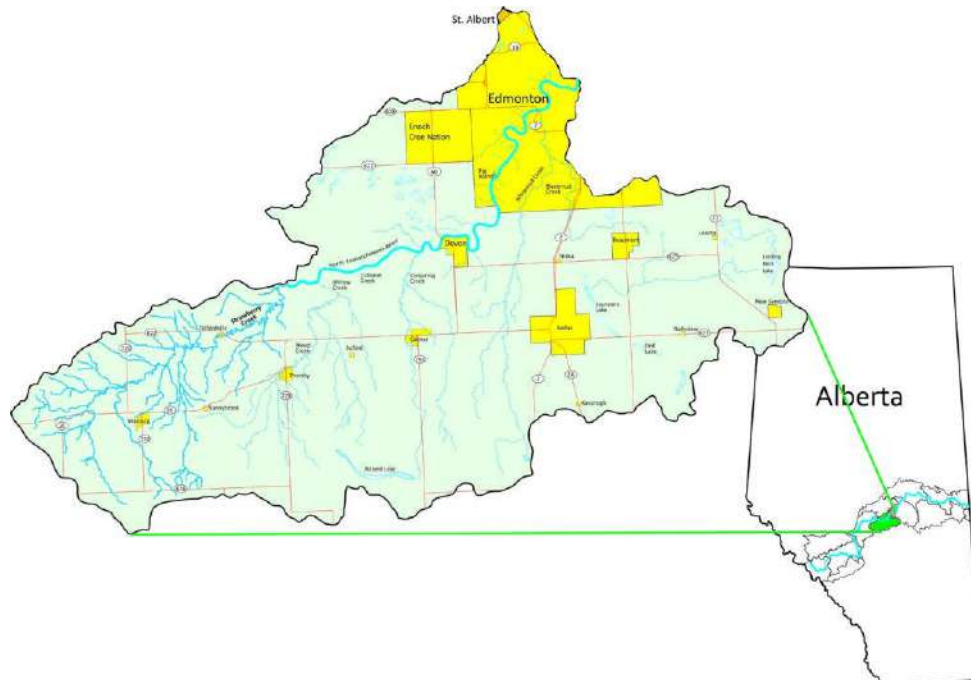


Figure 2: Fort Edmonton Footbridge Sandbar is located in the Strawberry Subwatershed of the North Saskatchewan Watershed. This Map was created by Billie Milholland and was accessed through the North Saskatchewan Watershed Alliance (<https://www.nswa.ab.ca/subwatershed/strawberry/>)

Drainage Area (km²): 299,662 ha

Annual Precipitation for Watershed (mm):

Surrounding Land Use: List all that apply below

- Residential
- Urban
- Forest
- Parkland
- Stream

The Fort Edmonton Footbridge Sandbar is located just upstream of the Fort Edmonton Park Footbridge which is connected via a paved multi use trail to the Fort Edmonton Park historical site which houses horse facilities, historical buildings, a railroad, a cafe, as well as a network of trails and park areas. This site is also only a couple kilometers downstream from Terwillegar Park. these two parks are connected on the North bank of the river by large park with forested and open field areas and a paved mixed use trail. The Edmonton Country Club golf course is also located upstream of the site on the North bank. The residential neighbourhood of Oleskiw is located above the site.

Upstream Pollution Risks:

Compared to our other Edmonton river valley sites, the density and proximity of stormwater outfalls is quite low at this site, with the closest upstream outfall being located 1 km away on the opposite bank.

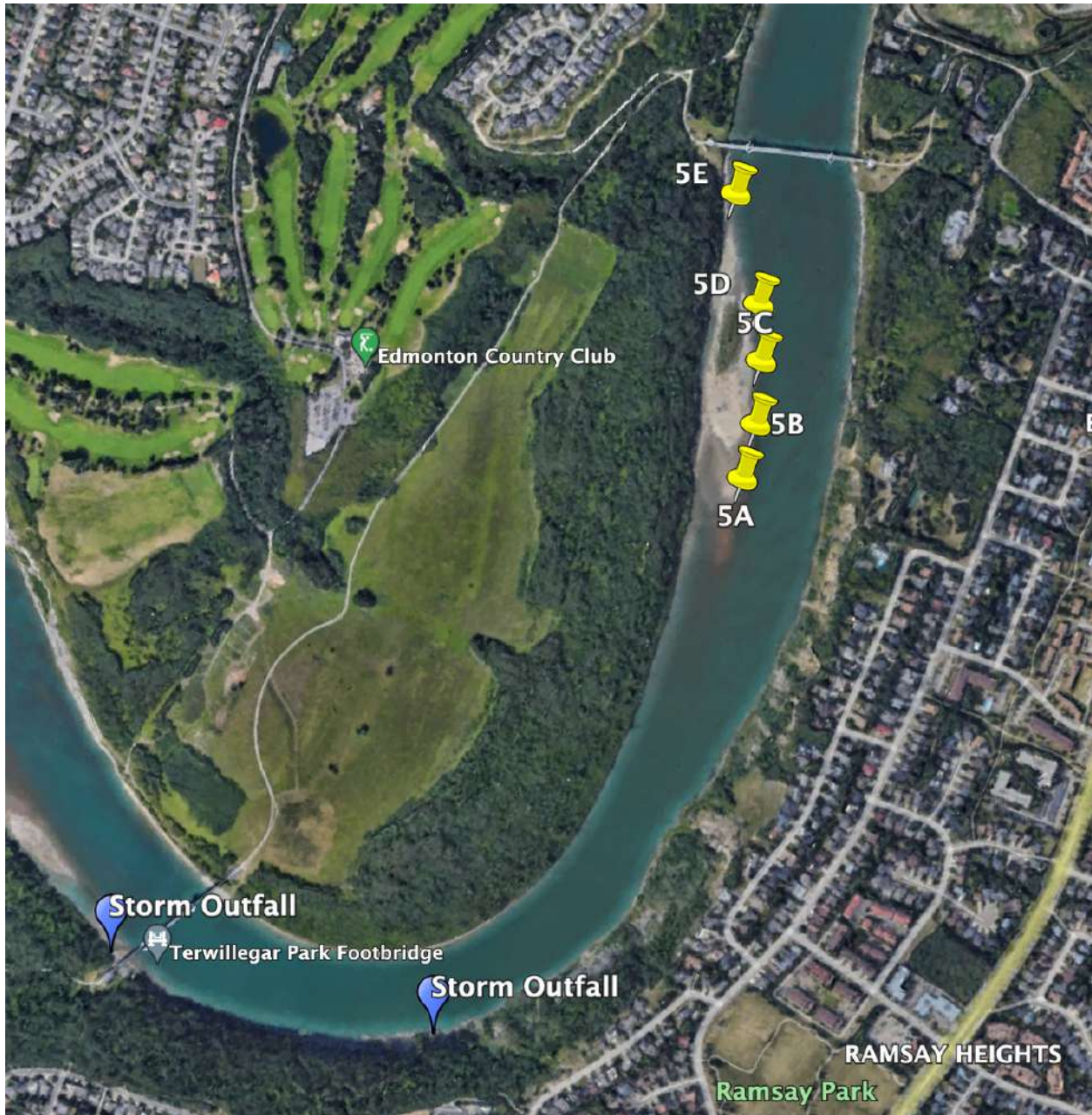


Figure 3: Map of Storm outfalls upstream of Fort Edmonton Park Footbridge Sandbar. Data obtained from City of Edmonton Open Data Portal: [Drainage \(Map View\): Outfall | Edmonton - Open Data Portal](#).

Potential Sources of Pollution:

1. Microbiological Hazard Assessment

Overall Risk from Microbiological Hazards: **MEDIUM**

Stormwater outfalls: **LOW**

- The nearest stormwater outfall is on the opposite bank of the river, 1 km upstream from the far upstream end of the beach.
- The low density of stormwater outfalls upstream of the site, and the distance between the nearest outfall and the beach allow for diffusion of potential contaminants from stormwater by river flows and decrease risk of faecal contamination at this site.

Birds: **HIGH**

- High numbers of birds (Gulls) were observed at the south end of the beach during the survey. Their presence on the beach in high densities could present a potential risk of faecal contamination.

Pets: **MEDIUM**

- Dogs can frequently be observed both on the beach and in the water. While this area is not an off leash area so dog numbers are lower than at other river valley sites, the risk of dog faecal contamination is still present.

Swimmers: **MEDIUM**

- Large numbers of swimmers were observed at the site during site visits including small children. The lack of washroom facilities at the beach increases the risk of faecal contamination from swimmers themselves.

2. Chemical Hazards

Overall Risk from Chemical Hazards: **LOW**

Motorised watercraft: **LOW**

- A few motorised boats were observed during the survey, however there is no motorised boat launch at the site and numbers of boats on the river tend to be low. Boats also do not usually stop at this site so the risk of fuel or other chemical contaminant leaks is low.

Stormwater runoff from urban areas: **LOW**

- There are residential areas on the upper banks of the river on either side of our site, although these areas are not directly adjacent to the river and are buffered by parks/forested strips which likely mitigate the risk of pollution runoff into the river from residences.

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

- Upstream and uphill from the site is the Edmonton Country Club golf course which is very likely subject to pesticide application on its golf lawns.
- Stormwater from this area drains into the North Saskatchewan river during heavy rain events and thus could present a risk of contamination downstream at this site.
- This risk is mitigated by the forested/park area which separates the Country Club from the banks of the river

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

- The Edmonton Country Club golf course lawns are also very likely to be subject to fertiliser application and runoff from this area during rainfall events would drain into the North Saskatchewan River upstream of our site.
- This risk is mitigated by the forested/park area which separates the Country Club from the banks of the river

3. Other Biological Hazards

Overall Risk from Other Biological Hazards: LOW

Cyanobacterial Blooms: **LOW**

Schistosomes (swimmer's itch): **LOW**

Large numbers of aquatic plants: **LOW**

No other biological hazards have historically been observed at this site. The North Saskatchewan river is a large and relatively cold water body which is constantly flowing. These conditions greatly reduce the risk for cyanobacterial blooms, swimmer's itch, and large numbers of aquatic plants.

4. Physical Hazards and Aesthetic Considerations

Overall Risk from Physical Hazards: LOW

Slippery or uneven bottom: **MEDIUM**

- The beach substrate is very silty and can be slippery when wet. There are several areas along the beach which are frequently wetted and can present a slip or fall risk.

Large Rocks: **LOW**

- No large rock observed on the beach at time of survey

Litter on beach: **LOW**

- There was very little litter scattered across the beach area that was visible at the time of sampling.

Floating Debris: **LOW**

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

Broken Glass: **LOW**

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

Medical Waste: **LOW**

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

Facilities and Provisions:

Facilities:

Toilets: none

Showers: none

Drinking Water Fountains: none

Litter Bins: none

Recycling Bins: none

Access for Persons with Disabilities: non accessible. The pathway down to the site is unpaved, narrow and very steep.

Safety Provisions:

Lifeguard Station: none

Life Saving Equipment: none

Emergency Telephone: Yes

First Aid Station: none

Beach Postings/Suitability for Swimming: None

Emergency Contact Information: None posted

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:

- Water quality results available on Swim Guide <https://www.theswimguide.org/beach/8405>

Contact Abi Brown: abigail@swimdrinkfish.ca for additional information about the EHSS

Appendix:



Figure 1: Monitoring Points and Zone of Local Influence at the Fort Edmonton Footbridge Sandbar.

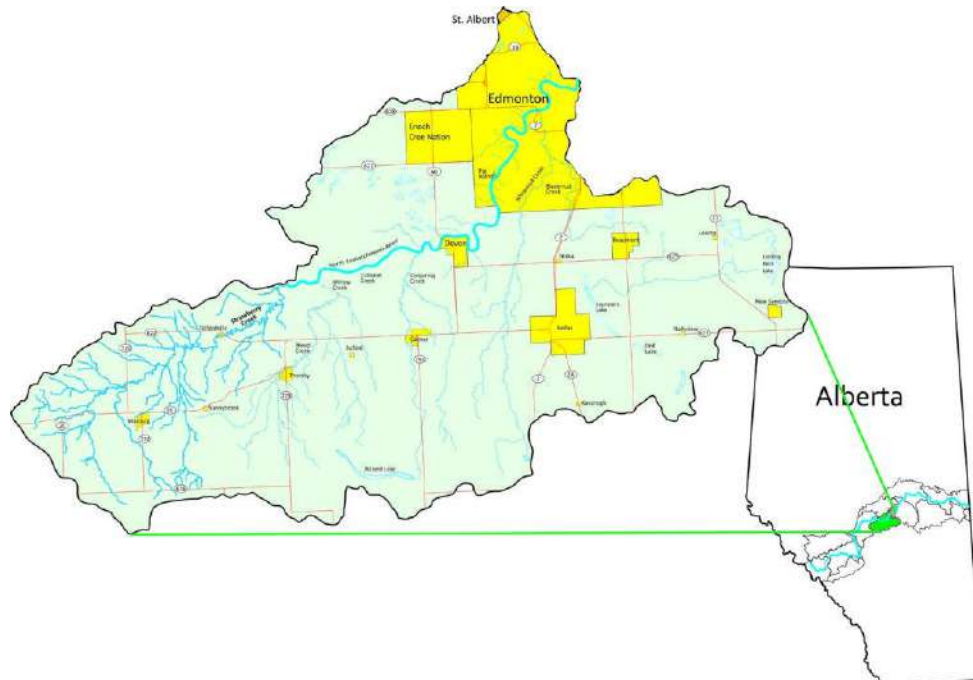


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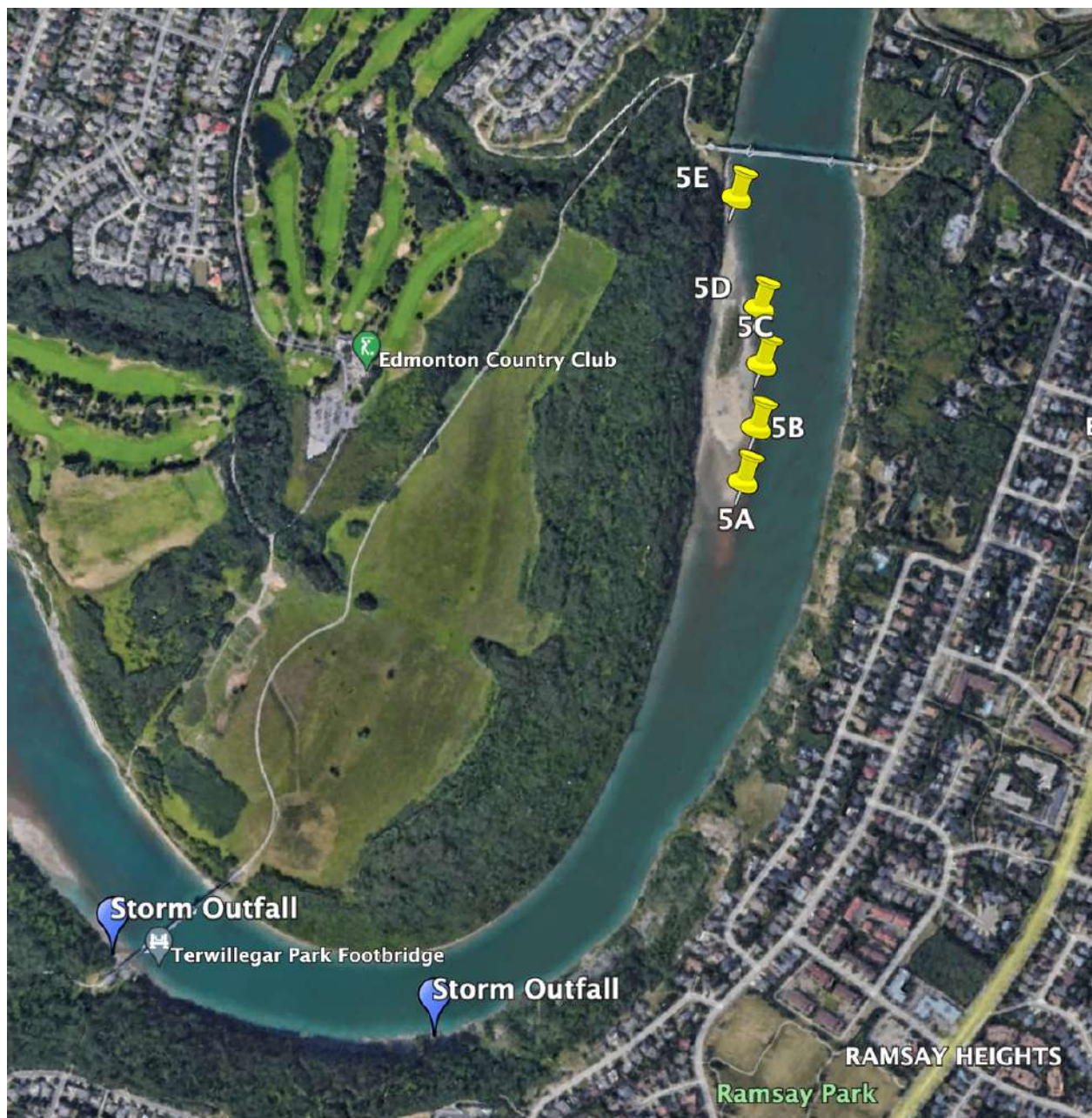


Figure 3: Map of Storm outfalls upstream of Fort Edmonton Park Footbridge Sandbar. Data obtained from City of Edmonton Open Data Portal: [Drainage \(Map View\): Outfall | Edmonton - Open Data Portal](#).



Figure 4: Map displaying sampling points at Fort Edmonton Footbridge Sandbar and the zone of local influence.