

Sir Wilfred Laurier 2023

Site Information and Background:

General Information:

Name: Sir Wilfred Laurier Park

Location: 3221 Buena Vista Rd NW, Edmonton, AB T5J 2R7

Year of Identification: 2022

Responsible Authority: Swim Drink Fish

Monitoring Points:



Figure 1: Map of monitoring points at Sir Wilfred Laurier Park. Three samples will be taken at the beach area near the Wilfred Laurier boat launch: one on the boat launch (3A), one at the base of the stairway to the waterfront (3D), and one in the center of the beach connecting these points (3E). An additional sample will be taken at the Edmonton rowing club dock downstream from these sites. Previous sampling point 3B was deactivated as bank erosion has made it inaccessible.

Waterbody Information:

Waterbody type: River.

Watershed: Beaverhill Subwatershed of the North Saskatchewan River Watershed

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

Site Area: 1.36 ha / 13,595 m²

Annual Precipitation for Watershed (mm): 388.5mm of rainfall in 2022



Figure 2: Sir Wilfred Laurier Park 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
- Residential
- Parks
- Rowing club
- Animal
 - Edmonton Valley Zoo
 - Whitemud equestrian park

Upstream from the city of Edmonton is Sir Wilfrid Laurier Park, a multi-use park and recreation site. The beach area has a boat launch commonly used by recreational water users such as kayakers, canoers, stand up paddleboarders, motor boats, and anglers. 500m downstream of the boat launch is the Edmonton Rowing club who have their own private launch who use the river regularly throughout the summer. Connecting these two launches is a biking and walking path that connects with the rest of the river valley network. About 1km downstream is Hawrelak Park, a popular spot for picnics, fishing, dogs, horses, bikers, and walkers. The park is mostly surrounded by residential areas (single detached homes) with small pockets of commercial areas. The Edmonton Valley zoo is less than a km away and directly across the river is the Whitemud equestrian park. Whitemud creek, which flows through South Edmonton, discharges into the North Saskatchewan River approximately 1km upstream of the boat launch.

Upstream Pollution Risks:

- Storm outfalls
 - Whitemud bridge outfall
 - Outfall 21
 - 3 outfalls across the river
- Whitemud Creek
- Edmonton River Valley Zoo
- Whitemud Equestrian Centre

1 km upstream of Sir Wilfrid Laurier Park there is a stormwater outfall, there is an additional outfall within the park and three outfalls along the opposite bank of the river across the length of the park. These outfalls carry stormwater into the river during heavy rain events and present a potential source of both fecal and chemical contamination from surrounding areas. The Edmonton Valley Zoo is immediately adjacent to the Park, and the Whitemud equestrian center is across the river. Both of these facilities where animals are housed could potentially be a source of fecal contamination. Whitemud creek discharges into the river about 1 km upstream on the opposite bank from Sir Wilfrid Laurier Park, pollution into this creek could affect water quality downstream at this site.

Potential Sources of Pollution:

1. Microbiological Hazard Assessment

Overall Risk from Microbiological Hazards: MEDIUM

Storm outfalls: **HIGH**

- There are four storm outfalls in the immediate vicinity of the park: 3 on the South side of the river (opposite bank from the site), 1 outfall located between our sampling points at the boat launch and the rowing club dock, and 1 outfall ~1 km upstream from the boat launch
- These storm outfalls could be carrying fecal contamination from residential and urban areas as well as from animal facilities (Zoo, equestrian centre) .

Stormwater runoff from beach and surrounding facilities: **LOW**

- The parking area, picnic, and park areas at Wilfred Laurier are not immediately adjacent to the water access and there is a ~10m strip of forest between the upper park area and road and the waterfront.
- There is potential for water to runoff down the highly compacted boat launch ramp.

Birds **MEDIUM**

- Historically geese, mallards, crows, and other bird species have been seen using this area and near the beach
- Both geese and ducks were observed in the immediate vicinity of the water access points during our initial site visit

Pets (Dogs and horses): **HIGH**

- the park is a popular area to bring dogs and there are several off leash areas near/in the water which could be a source of dog faecal contamination
- The Whitemud equestrian park is directly across the river from the beach, horses are frequently using trails near the river and could be a source of faecal contamination

2. Chemical Hazards

Discuss the sources of pollution here and summarize important information about them

Overall Risk from Chemical Hazards: LOW

Stormwater runoff from Urban and Residential areas: **MEDIUM**

- There are several stormwater outfalls in and around the site, these could potentially carry chemical contaminants from surrounding urban and residential areas during rainfall events

Motorized Watercrafts: **LOW**

- No motorized watercraft were observed during the EHSS although this is one of the primary entrance points for motorized watercraft along the river so their presence could increase throughout the summer.

Equestrian Park : **LOW**

- The Whitemud equestrian park could be using chemicals, fertilizers, pesticides, and herbicides which could be contributing to chemical contamination of the water

Sir Wilfrid Laurier Park **LOW**:

- could be using chemicals, fertilizers, pesticides, and herbicides which could be contributing to chemical contamination of the water.

Stormwater discharge: **MEDIUM**

- could be carrying chemicals, fertilizers, pesticides, and herbicides from nearby houses
- This risk is likely dependent on weather conditions (heavy rainfall events)

Whitemud Creek: **LOW**

- could be carrying chemicals, fertilizers, pesticides, and herbicides from the farming land, industrial areas, and nearby houses it meanders through

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**

All three of these hazards were listed as low in 2022 due to the constant flow of the North Saskatchewan limiting growing conditions for these hazards. No cyanobacterial blooms, reports of swimmers itch, or large numbers of aquatic plants have been observed in 2023.

4. Physical Hazards and Aesthetic Considerations

Overall Risk from Physical Hazards: **MEDIUM**

Steep Slopes or Drop-Offs: **HIGH**

- Several access points are located on eroding banks that have created sharp drop offs down to the water access area.
- Erodability of banks also means that slopes and drop offs are likely to change frequently year-to-year and potentially within a sampling season if there are significant rainfall events.

High water level and strong flows: **MEDIUM**

- could present a physical hazard to swimmers and to samplers when entering the water. Flows historically have peaked in mid-June.
- The severity of this hazard will be variable through the season as river flows change

Large Rocks: **MEDIUM**

- there are many large rocks surrounding the small sandy stretch of beach at the stairway access and the compressed gravel boat launch

Accessibility: **LOW**

- Boat launch is uneven and could be difficult to navigate for someone with limited mobility. There are large rocks, narrow unpaved paths and stairs at other access points along the waterfront

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 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: 2, There are two washroom facilities, one of which is gender neutral and wheelchair accessible

Showers: none

Drinking Water Fountains: 1

Litter Bins: 4

Recycling Bins: 1

Access for Persons with Disabilities:

Safety Provisions:

Lifeguard Station: none

Life Saving Equipment: none

Emergency Telephone: Yes

First Aid Station: no

Beach Postings/Suitability for Swimming:
No

- Boating safety sign

Emergency Contact Information: No

Other Information:

Edmonton Rowing Club operates nearby the sampling site and could have more regular information on sources of pollution or observed health effects

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/8363>

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

Appendix:

Examples of Maps to Create

Figure 1: Map displaying the sampling points the site (this map should also include the Zone of Local Influence



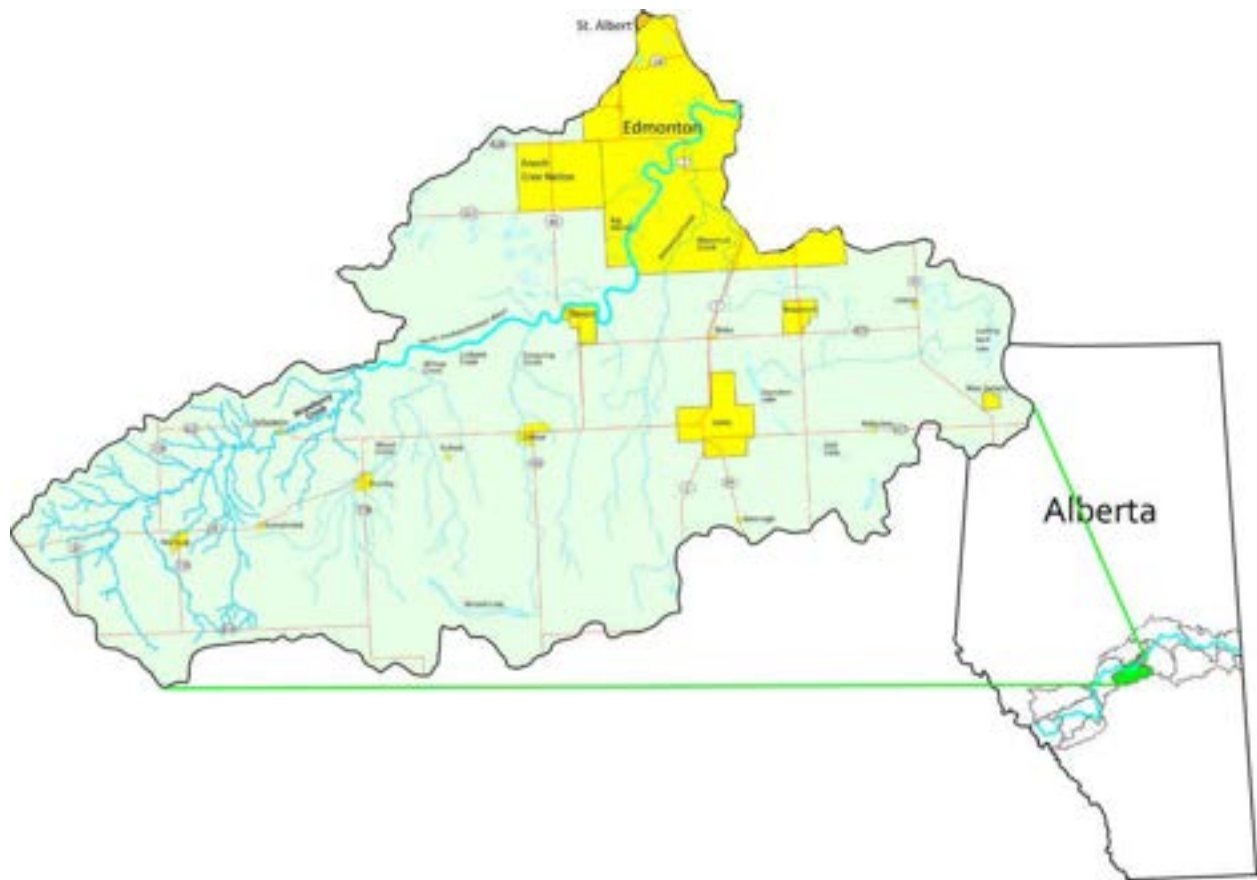


Figure 2: Map of Strawberry sub-watershed

References:

North Saskatchewan Watershed Alliance. State of the Watershed Report (Strawberry)
https://www.nswa.ab.ca/wp-content/uploads/2005/05/22-SOWstrawberry_subwatershed.pdf