

Olympic Harbour Beach - 2023

Site Information and Background:

General Information:

Name: Olympic Harbour Beach

Location: 53 Yonge Street, Kingston, ON K7M 6G4 (44.217526, -76.518565)

Year of Identification: 2020

Responsible Authority: Swim Drink Fish Canada - Kingston Water Monitoring Hub

Monitoring Points: Figure 1 (Appendix)

Waterbody Information:

Waterbody type: Freshwater; Lake

Watershed: Cataraqui River (Figure 2 - Appendix)

Drainage Area (km²): 67.893

Annual Precipitation for Watershed (mm): 957.000

Surrounding Land Use:

- Urban
- Residential
 - Frontenac Condo Corporation - 2 Mowat Av, Kingston, ON K7M 1K1
 - Many houses surrounding the property
- Portsmouth Olympic Harbour & Boat Marina
 - Portsmouth Olympic Harbour Marina - 53 Yonge St, Kingston, ON K7M 6G4
 - Canadian Coast Guard, Search and Rescue Station - 93 Yonge St, Kingston, ON K7M 1K4
 - Sail Canada - 53 Yonge St, Kingston, ON K7K 6G4
- Parkland
 - Picnic areas
 - Benches
 - Waterfront Trail (Paved walking path)
- Commercial:
 - Historical Venue: Kingston Penitentiary - 560 King St W, Kingston, ON K7L 4V7
 - Wolfpack Solutions - 23 Yonge St, Kingston, ON K7M 8Y6
 - Neptune & Salacia Diving - 53 Yonge St, Kingston, ON K7M 6G4
 - Gem Storm Event Venue - 53 Yonge St, Kingston, ON K7M 6G4
 - Peters Drugs - 640 King St W, Kingston, ON K7M 2E5
 - The Plant Shelf Garden Centre - 662 King St W, Kingston, ON K7M 2E8
 - Restaurants:

- Portsmouth Tavern - 96 Yonge St, Kingston, ON K7M 1K4
 - Kais Delight - 680 King St W, Kingston, ON K7M 2E8
 - Eunice Sushi - 682 King St W #1, Kingston, ON K7M 2G1
 - Subway - 692 King St W, Kingston, ON K7M 2E8
 - Tim Hortons - 704 King St W, Kingston, ON K7M 2G2
- Parking Lot

Harbour/Marina Use Summary:

The Portsmouth Olympic Harbour Boat Marina is located to the East of the Olympic Harbour Beach swimming area. The Marina docks a large number of watercraft including motorized boats, sail boats, and the Canadian Coast Guard Search and Rescue boats. Due to the large quantity of watercraft in the area, there is potential for faecal waste contamination from watercraft waste tanks in the Harbour/Marina as well as other potential chemical and biological hazards from boating activity.

Commercial Use Summary:

There is a significant amount of commercial spaces on and around the Portsmouth Olympic Harbour Marina and Beach areas. Due to the five restaurants located near the site, the amount of litter input into the water may increase. The Kingston Penitentiary, located on the East side of the harbour, poses potential risks to the water quality due to the history of soil contamination on the property. The Kingston Penitentiary is located on a downward slope towards the water, creating risks for chemical and biological hazards through stormwater runoff.

Parking Lot and Parkland Use Summary:

There is a large amount of parking space on the property. The parking area of most concern for the Olympic Harbour Beach swimming area would be the parking lot located East of the swimming area due to the stormwater runoff pipes situated in the breakwall that run directly from the parking lot into the swimming area. There is a high volume of vehicles parked in this area due to the number of commercial spaces situated inside the main Marina Office building. The Waterfront Path trails along the

Upstream Pollution Risks:

Based on the watershed for the area of Olympic Harbour Beach, there is the potential for stormwater runoff from numerous locations that could pose as an upstream pollution risk. The Little Cataraqui Creek flows through the West end of Kingston with multiple businesses situated nearby including restaurants and a car dealership. Stormwater runoff contaminants from these business could include cleaning chemicals from the restaurants as well as oils, gasoline, car fluids, and car cleaning products from car services provided at the Hyundai Dealership. Lake Ontario Park is located West of the Olympic Harbour Beach, along the Waterfront Trail, which may be a potential risk from stormwater runoff pollutants from trail and park users such as litter. Lake

Ontario Park also offers a boat ramp for watercraft to enter the water which provides a risk of pollutants from wastewater tanks and cleaning chemicals from boat users. Lastly, Providence Care Hospital has a large stormwater runoff pipe that leads into Hospital Beach which is just West of Olympic Harbour Beach. The biggest concern from Providence Care is the Car Wash located in the hospital parking lot, where large amounts of chemicals could runoff from the parking lot and reach the stormwater pipes leading directly into the water.

However, Olympic Harbour Beach is located on a large open area of Lake Ontario, which reduces the risks of entrapment of fecal contamination within the swimming area. The currents flow east, further reducing these risks. Prevailing winds in the area are out of the south-west, which could lead to some entrapment of contaminants along the shore, particularly in the harbour area. Furthermore, the harbour pier could lead to the entrapment of some contaminants by partially blocking the flow of water to the east (Figure 3).

Potential Sources of Pollution:

1. Microbiological Hazard Assessment

Potential sources of fecal contamination

- Stormwater Drains/Discharges
 - Stormwater runoff from large parking lot behind beach area
- Combined Sewer Overflows (CSOs) (Figure 4)
- Waste tanks of boats at Marina (Figure 4)
- Environmental Sources

Overall Risk from Microbiological Hazards:

Stormwater Drains/Discharges: **MEDIUM**

- The parking lot located closest to the beach has multiple stormwater drain pipes in the concrete wall separating the parking lot from the swimming area. These stormwater pipes leak directly from the parking lot into the swimming area (Figure 5&6). Any contaminants from parked cars (fuel, oil, washer fluid) have a strong potential to flow directly into the swimming area during and after heavy rainfall. During site visits, significant amounts of litter have been observed in the Olympic Harbour Beach parking lot, especially along the concrete wall where the stormwater runoff pipes are located. Debris that has been recorded has mostly included cigarette butts and microplastics which can easily fit through the stormwater pipes and can easily enter the beach area during heavy rainfall.

Combined Sewer Outflows (CSOs) (Figure 4): **MEDIUM**

- The main potential source of fecal contamination at this site is overflow of the combined sewer outfall located at the north-west corner of Portsmouth Olympic Harbour, located approximately 400 m from Olympic Harbour Beach (Figure 4). See also Utilities Kingston map of CSO outfalls¹. Data from Utilities Kingston’s 2021 and 2022 sewage overflow log, as well as historical data, suggest that CSOs in the Kingston area occur largely after heavy rainfall (Table 1 and Table 2).
- Despite potential for CSOs occurring at the outfall located in Portsmouth Olympic Harbour, Utilities Kingston plans on reducing flow in the sanitary sewers in this area, and therefore the risk of CSOs. The city’s main approach to reducing sewage overflow is to implement sewage separation^{2,3}. Due to increasing development in the downtown Kingston area, Utilities Kingston plans on redirecting flow to the west end of the city (towards the Cataraqui Bay wastewater treatment plant)^{2,3}. Phase 1 (the installation of a water service and sewer forcemain to the Cataraqui Bay Waste Water Plant) of the multi-year project was completed in 2018.⁴ The second phase (Phase 2A) of the project, which entails the construction of a sanitary sewer forcemain and water main, was partially completed in 2022 but was temporarily halted due to unexpected site conditions.^{5 6} Utilities Kingston is currently working on the recommencement of Phase 2A, to be completed by 2024, with Phase 2B and Phase 3 to follow.⁷
- Data posted by Utilities Kingston indicates that heavy rainfall is the main cause of CSOs in the Kingston area. Utilities Kingston notes that the Portsmouth Pumping Station, located 90m north of the harbour’s CSO outfall, has historically been subject to abnormally high levels of inflow which has led to increased overflow events “during heavy rainfalls or rapid snowmelts”.⁸

Waste Tanks of Watercraft in the Marina: **LOW**

- There is potential for fecal contamination from the waste tanks of the boats docked at the marina. Portsmouth Harbour Marina has a pump out station and offers pump out services to boats at the marina. This may help reduce the risk of fecal contamination that can occur from the dumping of wastewater from boat tanks into the lake. The Harbour implemented a “Clean Marine Policy”⁹ in 2018. Clients of the marina were required to sign this policy

¹ <https://utilitieskingston.com/Wastewater/SewerOverflow/Map>

² [Sanitary Overflow Event Monitoring Map, Kingston Utilities](#)

³ [The Portsmouth Pumping Station Flow Direction Environmental Assessment Kingston, ON](#)

⁴ <https://utilitieskingston.com/News/Article/water-sewer-improvements-King-Front>

⁵ <https://utilitieskingston.com/News/Article/updates-on-water-sewer-project-Front-Rd-and-King-St-West>

⁶ <https://utilitieskingston.com/News/Article/2023-updates-on-water-sewer-project-Front-Rd-and-King-St-West>

⁷ <https://utilitieskingston.com/News/Article/2023-updates-on-water-sewer-project-Front-Rd-and-King-St-West>

⁸ [Sanitary Overflow Event Monitoring Map, Kingston Utilities](#)

⁹ [Clean Marine Policy 2018, Confederation Basin and Portsmouth Olympic Harbour](#)

stating they will comply with its requirements, including the requirement to discharge wastewater only at approved pump out facilities. This policy document has since been archived. While the Clean Marine Policy is no longer a requirement, Marina users are required to sign a facility agreement that clearly states in section J that users must “*not discharge grey water into the Marina water and to use onshore Marina washroom facilities whenever practicable*” (Figure 7). This section of their policy was obtained through email from the Portsmouth Olympic Harbour staff that can be reached at PortsmouthOlympicHarbour@cityofkingston.ca

Environmental Sources of fecal contamination: **LOW**

- Environmental sources of fecal contamination at Olympic Harbour Beach during all sampling seasons (2020-2023) included waterbirds, pet dogs, and swimmers (Table 3). People were also observed scuba diving, having picnics, and engaging in other recreational activities at the beach. All of these environmental sources combined create a low risk for fecal contamination. Wildlife that have been recorded interacting with the site during site visits has generally not been large enough in numbers to significantly affect the quality of the water at this time. Waterfowl that have been recorded do not stay in the zone of influence for prolonged periods of time, likely due to the flow of people and dogs using the Waterfront Pathway that connects to the beach. Since the Olympic Harbour Beach is located along a waterfront trail, the site attracts many dogs and their owners stopping to use the water which poses a potential risk for fecal contamination from pets as water users.

2. Chemical Hazards

Potential sources of chemical contamination

- Commercial/Industrial Discharges
 - Portsmouth Marina
 - Motorized Watercraft
 - Kingston Penitentiary
- Stormwater Runoff From:
 - Urban areas
 - Parkland
 - Greenspace beside Kingston Penitentiary
 - Marina parking lot

Overall Risk from Chemical Hazards:

Marina Refuelling and Pump-Out Stations: **HIGH**

- The Portsmouth Harbour Marina poses a high risk for chemical contamination of the swimming area at Olympic Harbour Beach. The Marina is located adjacent to the beach (80m east). The main concerns for chemical contamination from the Marina come from the

refueling station (located in the harbour, 120m from the beach) as well as chemicals used by boats docked at the marina (cleaning products, etc).

Portsmouth Harbour Parking Lot: **MEDIUM**

- Another potential source of contamination is the notable amount of grey space in proximity to the harbour. Specifically, the Portsmouth Harbour parking lot is located on the west side of the harbour (directly behind the beach). Surface runoff from the parking lot drains directly into the harbour. Any potential chemical contaminants that are deposited onto and remain on the nearby parking lot and marina would be transported into the water at the beach during rainfall events. Contaminants of concern include gasoline and oil spills, washer fluids and antifreeze, and any cleaning chemicals that may have been used on vehicles parked in the area.

Kingston Penitentiary/Site 00026073: **HIGH**

- The Kingston Penitentiary is located on the east side of the harbour, and may pose risks for contamination of the surrounding water. The penitentiary is located on slope, so that the majority of surface runoff from the area drains into the harbour. The penitentiary no longer functions as a correctional facility, and is now a historical site. Upon decommissioning of the penitentiary in 2013, an Environmental Site Assessment (ESA) was conducted by the Correctional Services of Canada (CSC) due to historical use and storage of coal at the site¹⁰.
- While the original ESA is not publicly available, some of the results are published on the CSC website. Preliminary testing of the site revealed soil contaminants, including polycyclic aromatic hydrocarbons (PAHs) and heavy metals, that surpassed federal and provincial guidelines¹¹. After completion of the ESA it was determined that remediation was required and the contaminated soil was removed/contained (Figure 8). During the ESA, water in the Portsmouth harbour was tested and it was determined that the site's contaminated soil and groundwater did not pose "unacceptable risks" to freshwater species. There is no mention on the CSC webpage about the impact of the contamination on recreational water quality. Assessment of the area continues, as part of the site's remediation plan.
- As of May 2022, there are six sites listed under the Federal Contaminated Sites Inventory within a 1 km radius of Portsmouth Olympic Harbour. However, only one of these sites (site 00026073) located at the Kingston Penitentiary is listed as active. This site is located at the north-west corner of the property, near the gas pumps, and at the northeast portion of the property (Figure 9).¹² See Table 4 (appendix) for a summary of the status of management and list of contaminated materials at this location.

¹⁰ <https://www.csc-scc.gc.ca/environment/004005-0002-eng.shtml>

¹¹ <https://www.tbs-sct.gc.ca/fcsi-rscf/fsi-isf/00026074-eng.aspx>

¹² [Contaminated sites inventory. TBS. 00026073](#)

Nearby Green Spaces: **MEDIUM**

- There are also multiple green spaces in proximity to the beach that serve as potential sources of chemical contamination. Notably, there is a small park located next to the harbour as well as a front lawn to an apartment building. It is not currently known whether either of these spaces use fertilizer but if they do, this could be a contributing factor to contamination of the water through surface runoff. Furthermore, there is a large amount of parkland along the waterfront to the west of the beach (upstream) which could also contribute to contamination of the waters surrounding the beach.

3. Other Biological Hazards

Overall Risk from Other Biological Hazards:

Cyanobacterial Blooms: **LOW**

- No reports of cyanobacterial blooms in the Kingston area exist from recent years. However, the Kingston Frontenac Lennox & Addington Public Health Unit released a statement in August 2018 cautioning community members to look out for blue-green algae in regional waterways¹³. There are no reports of cyanobacterial blooms at Olympic Harbour Beach.

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

- Similarly, there are no recent reports of schistosomes or cases of swimmer's itch in the Kingston area. The public health unit provides information about swimmer's itch on their webpage, but has not released any reports of cases in the region¹⁴.

¹³<https://www.kflaph.ca/Modules/News/index.aspx?FeedId=f2a4adbc-2838-4b5d-a47c-bd9c8ef4e2e&newsId=0313a3b1-6ef4-4771-934b-3575e9fa9cdf>

¹⁴ https://www.kflaph.ca/en/resource-catalogue/Swimmer_s-Itch.aspx

4. Physical Hazards and Aesthetic Considerations

Sources of Subsurface Hazards

- Large Rocks
- Slippery or Uneven Bottom

Other Sources of Physical Hazards

- Litter on Beach
- Floating Debris
- Watercraft near the swimming area

Overall Risk from Physical Hazards:

Large Rocks: **LOW**

- There are large rock walls on either side of the water entrance. This could pose a physical risk if the beach is particularly wavy on a given day which could be a risk for injury if swimmers are pushed into the rock wall. Other concerns would be if beach goers decide to use the rock wall for jumping, which is strongly discouraged. There is a large entry point into the water, and rock walls should be avoided when using the swimming area.

Slippery or Uneven Bottom: **LOW**

- Olympic Harbour Beach is made up of a cobblestone bottom, which provides a risk of falling when entering the water. Beach users should take caution when entering the water, but the water is generally clear and users are able to see the bottom surface under the water which can be helpful for finding your footing when first entering.

Litter on Beach & Floating Debris: **LOW**

- Due to the stormwater runoff pipes situated in a cement wall separating the parking lot from the swimming area, there is a chance for small floating debris to be seen in the swimming area. While this is uncommon, it may be more likely to see litter in the water after heavy rainfall, as the stormwater pipes flow directly into the beach, extremely close to where users would enter the water.

Watercraft near the swimming area: **LOW**

- There are no swimming barriers indicating the dimensions of the swimming area. This means that watercraft can get as close to the swimming area as they would like because there are no set boundaries of where boats cannot go.

Facilities and Provisions:

Facilities:

Toilets: There are accessible public washrooms located in the Portsmouth Olympic Harbour building.

Showers: 0 Public; Private showers at Marina

Drinking Water Fountains: 1 (inside Harbour Centre)

Litter Bins: None on beach; 2 within 100m radius

Recycling Bins: 1

Access for Persons with Disabilities:

Proximity of beach to parking lot makes the beach accessible. However, due to the nature of the beach itself (stone beach), access to the shore and water is dependent on mobility.

Safety Provisions:

Lifeguard Station: None

Life Saving Equipment: None at the beach. One life ring located on the Harbour Pier within 200m of the beach

Emergency Telephone: No. Could request to use phone at the Marina Office/Information Centre.

First Aid Station: No

Beach Postings/Suitability for Swimming:

No sign directly on the beach. Signage along the pier read "No Swimming." Other signs located within 200m of the beach, and throughout the Harbour, read "Swimming not recommended - use at own risk"

Emergency Contact Information: Yes. 911 is listed on the sign is located along the pier within 200m of the beach area. Signage is not readable from the beach.

Other Information:

Reporting Mechanisms:

Municipal or Industrial Spills/Discharges/Treatment Bypasses

- MOECC - Spills Action Centre
 - To report a spill or a spill that is about to occur, call 1-800-268-6060. Available 24/7.
- City of Kingston: Spills and Environmental Incidents Reporting
 - 613-546-0000 (During normal operating hours). After hours, you may contact the Spills Action Centre number listed above.
- For marine search and rescue, nautical hazards, and marine pollution, contact the Coast Guard: 1-800-267-7270
- To report immediate environmental violations, call 1-866-663-8477
- Swim Drink Fish - (416) 861-1237

Waterborne Disease Outbreaks

- Call Kingston Public Health: (613) 549-1232
- Swim Drink Fish - (416)-861-1237

Swimmer Injuries

- Call 911

Where to find the water quality results:

- Swim Drink Fish: Swim Guide
 - <https://www.theswimguide.org/>
- Kingston Public Health
 - <https://www.kflaph.ca/en/health-topics/beach-water-listings.aspx>

Contact Details for EHSS information:

- Olivia Rideout - Kingston Community Based Water Monitoring Coordinator
olivia@swimdrinkfish.ca

Appendix:

Figures:

Swim Drink Fish Kingston Monitoring Hub - Olympic Harbour Beach sampling site

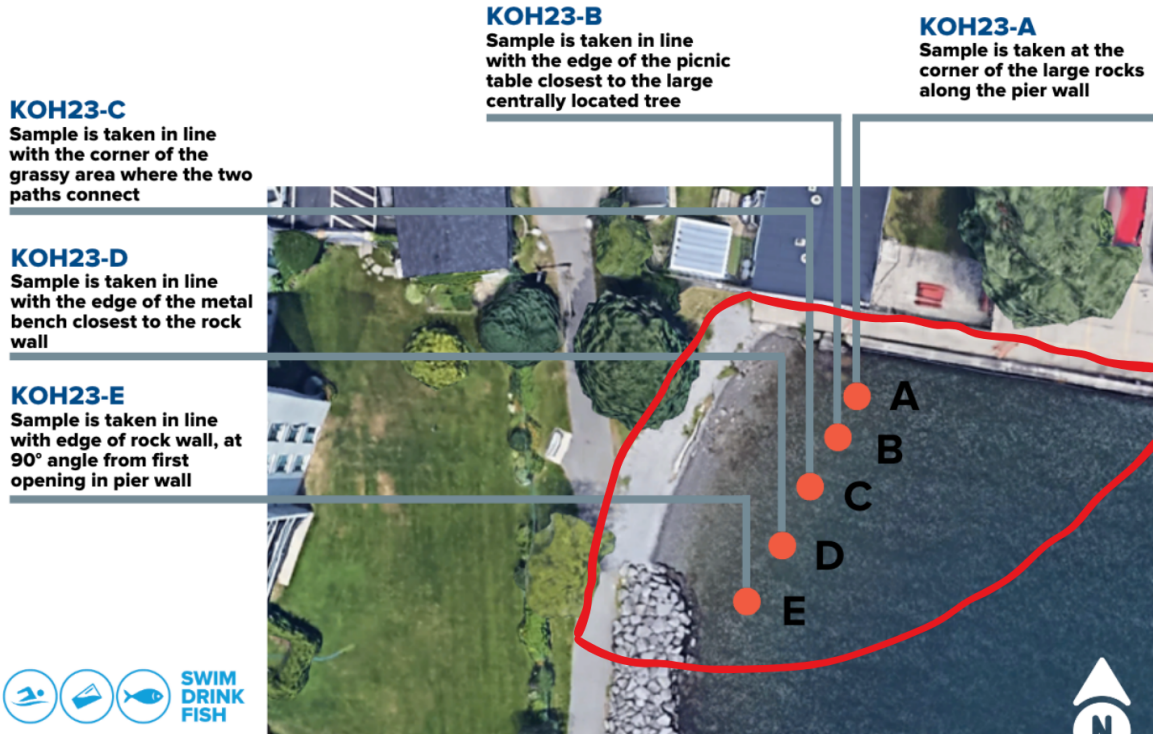


Figure 1. Olympic Harbour Beach sites A to E with descriptions of site locations. The red outlines indicate the local zone of influence.

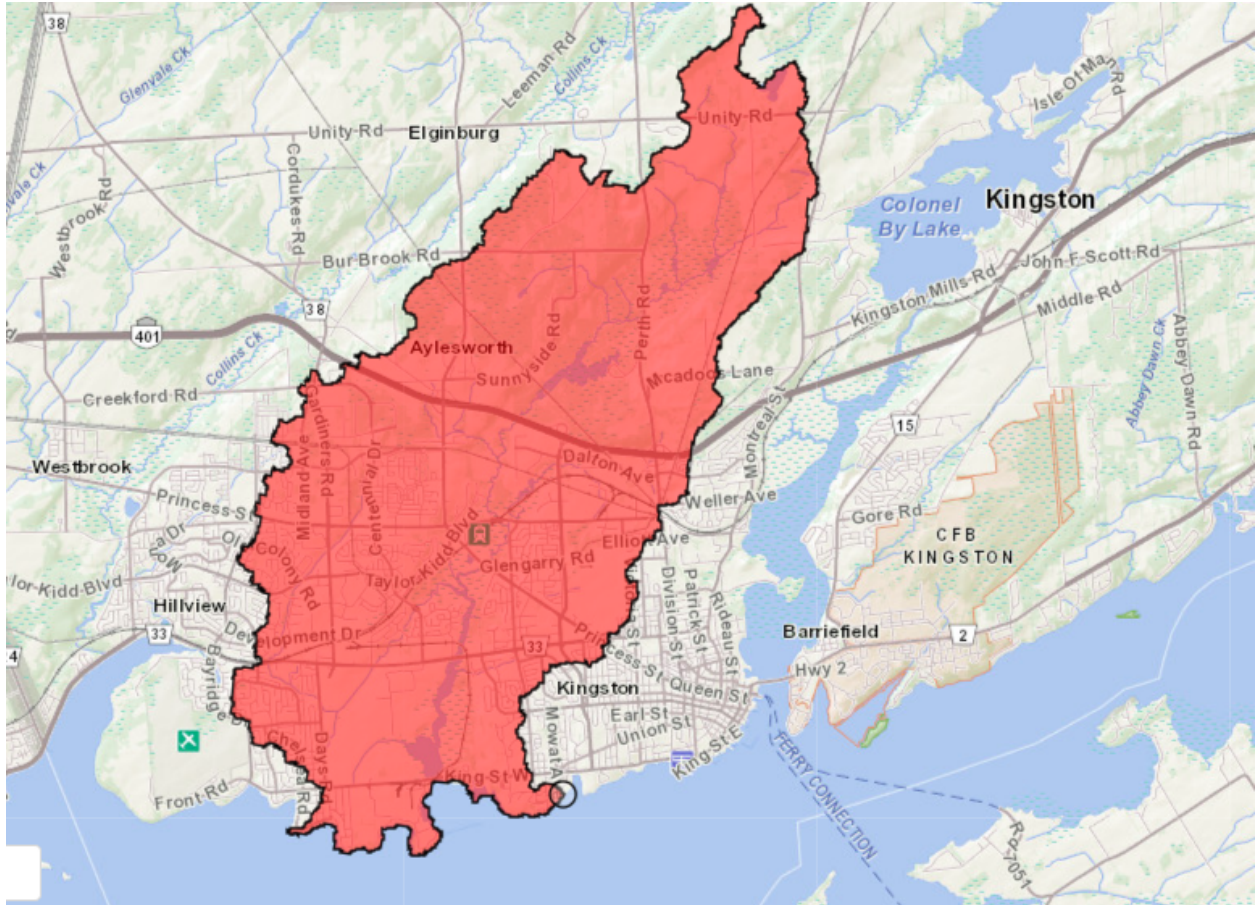


Figure 2. Map of Watershed for Olympic Harbour Beach.



Figure 3. Map of Kingston Waterfront between Lake Ontario Park and Kingston Penitentiary, featuring Portsmouth Olympic Harbour and Olympic Harbour Beach. Prevailing currents and wind directions are marked.



Figure 4. Olympic Harbour Beach (blue) and the combined sewer outfall (red) in the NW corner of Portsmouth Olympic Harbour.



Figure 5 & 6. The stormwater runoff pipes are situated through the cement breakwall between the parking lot and swimming area that leads directly into Olympic Harbour Beach.

15. The Applicant shall ensure that it and all Related Persons attending the Marina during the Applicant's use of the Marina conduct themselves in a respectful, orderly manner and comply with all Requirements of Law and the Rules, including but not limited to ensuring that the Applicant and all Related Persons:

- a. do not smoke or vape any substance in or near the Marina;
- b. do not consume or serve alcohol in or near the Marina unless the Applicant has obtained in advance all required permits and licenses in accordance with the City's Municipal Alcohol Policy;
- c. do not litter any rubbish or refuse in or near the Marina;
- d. do not throw any rubbish or refuse into the water in the Marina;
- e. keep all rubbish and refuse on the Vessel until there are waste containers available for such rubbish and refuse at the Marina;
- f. to separate Contaminants from other rubbish and refuse and dispose of such Contaminants in accordance with the *Environmental Protection Act* and the Rules;
- g. do not discharge into the water any Contaminant;
- h. do not carry out repairs or maintenance to the Vessel except in areas of the Marina specifically designated by the City for such, and in any event only carry out such repairs or maintenance in a way which does not permit the discharge of any debris, rubbish, refuse, paint scrapings, paint dust or other Contaminants into the water, air, or any other part of the Marina or natural environment;
- i. use environmentally friendly products whenever and wherever practicable;
- j. do not discharge grey water into the Marina water and to use onshore Marina washroom facilities whenever practicable;
- k. to at all times show respect for the natural environment and treat animals humanely;
- l. do not feed wild animals and do otherwise comply with the City's By-law No. 2009-76;
- m. do not place or use barbecues or other cooking appliances anywhere in or near the Marina, except the safe and prudent use of marine-designed cooking appliances securely affixed to the Vessel;
- n. do not transport, load or unload petroleum in any form, including fuel and oil, in or near the Marina, except while the Vessel is safely moored in a designated fuel dock, and in any event only in accordance with the Requirements of Law, including but not limited to all regulations, Minister's orders and alternate rules made under the *Technical Standards and Safety Act*;
- o. do not use a generator in or near the Marina;

- p. do not discharge the Vessel's heads, toilets, portable toilets, holding tanks, or contaminated bilge water into the Marina;
- q. do not make excessive noise, create a nuisance for other Marina users, interfere with Marina programs or events, or breach any provision of the City's Noise By-law No. 2004-52, and in any event do not make any noise between 11:00 pm and 8:00 am;
- r. do not use or permit the use of the Vessel or the Marina for any form of commercial activity, including but not limited to short-term rental as a dwelling unit, overnight accommodation, Vessel rentals, tours, excursions, water sports, cruises, water taxi service;
- s. do not swim, dive, paddle board, fish, operate a remotely piloted aircraft system in or near the Marina;
- t. do not permit pets to be unleashed in or near the Marina and do not permit pets to create a nuisance or threat to other users of the Marina;
- u. do not use profane or abusive language in or near the Marina;
- v. do not permit young persons to be on the Vessel without personal floatation devices and adult supervision at all times; and
- w. take all reasonable measures to conserve water use, including but not limited to using an automatic shutoff nozzle whenever filling or washing the Vessel.

Figure 7. The Marina Rental Agreement provided by the City of Kingston that is a requirement for any boat user who wishes to use the Portsmouth Olympic Harbour Marina. Sections 15-J and 15-P relate to the proper disposal of wastewater from all watercraft in the Harbour.



Figure 8. Satellite footage of Portsmouth Harbour and the former Kingston Penitentiary grounds. The shaded red area indicates the areas potentially affected by historical coal storage, according to CSC. After an ESA of the area was conducted in 2013-2014, soil in the shaded areas was excavated and large portions were paved over.



Figure 9. Map of Kingston waterfront from Federal Contaminated Sites Inventory. The location of the one active case near Portsmouth Harbour (site 00026073) is marked with a red dot.

Retrieved from: <https://www.tbs-sct.gc.ca/fcsi-rscf/numbers-numeros-eng.aspx?qid=767349>

Tables:

Table 1. Collection system sewage overflow events that occurred between June and December of 2021, February and December of 2022, and January and June of 2023 in the Kingston collection system and corresponding amounts of precipitation. Last updated: 2023-06-05 10:05:44 AM [Sewer Overflow Log](#).

Date	Cause	Volume (m³)	Precipitation (mm)
June 03, 2023	Power Failure	25.5	0.0
April 30 - May 1, 2023	Heavy Rain	2750.0	36.1
April 10, 2023	Power Failure	547.0	0.0
April 01, 2023	Heavy Rain on Snowmelt	621.0	28.6
February 22, 2023	Equipment Malfunction	47.0	0.0
January 4-5, 2023	Heavy Rain	546.5	22.4
December 23, 2022	Heavy Rain	9699.2	54.0
June 03, 2022	Heavy Rain	37.8	20.1
June 01, 2022	Heavy Rain	864.9	48.1
March 06, 2022	Rain on Snowmelt	563.9	8.5
February 17-18, 2022	Rain on Snowmelt	7834.8	31.5
December 11-12, 2021	Rain + Power Failure	2506.6	15.4
October 26-27, 2021	Long Duration Rainfall	4639.0	49.9
October 26, 2021	Equipment Failure (spill)	38.0	0.0
October 16, 2021	Heavy Rain	8,315.4	43.8
September 27, 2021	Rain	0.1	7.7
August 11, 2021	Heavy Rain	5,970.8	43.8
July 15, 2021	Heavy Rain	474.5	26.1
July 13, 2021	Heavy Thunderstorms	1,684.6	34.9
July 5, 2021	Heavy Thunderstorms	260.1	35.7
July 1, 2021	Heavy Rain	333.0	18.5
June 19, 2021	Heavy Rain	1.1	17.0

Table 2. Collection system sewage overflows historical totals in the Kingston area (since Sept. 1, 2006). Last updated: 2023-06-05, 12:39:09 PM [Sewer Overflow Log](#).

Year	Events	Volume (m ³)	Precipitation (mm)
2022	5	19,000.6	162.2
2021	5	17,183.7	144.0
2020	18	65,701.1	443.1
2019	40	31,033.6	572.1
2018	26	84,373.3	666.0
2017	20	171,556.3	761.2
2016	14	120,226.9	371.1
2015	24	27,502	422.2
2014	26	106,731+	439.1
2013	17	132,573	280.1+
2012	12	120,786	276.0
2011	16	518,411	512.3
2010	26	209,643	399.0
2009	24	314,278	447.0
2008	41	626,588	N/A(2)
2007	31	85,431	350.0
2006	13	139,381(1)	340.3

Table 3. Environmental sources of fecal contamination at Olympic Harbour Beach and their associated risk categories in the 2022 sampling season

Environmental Sources	Risk Category (None, Low, Med, High)
Birds (e.g. gulls, ducks, geese, other)	Med
Other wildlife	Low
Pets (dogs)	Med
Swimmers	Low

Table 4. Contaminated sites in the vicinity of Portsmouth Olympic Harbour and their respective statuses and contaminants.

Site Name	Site Status	Status	Contaminants
Site 00026073 - 416-C03 Kingston Penitentiary - Western exterior areas, Portsmouth Harbour side	Active	“Confirmatory sampling completed. Long term monitoring underway.”	PAHs (polycyclic aromatic hydrocarbon); Metal, metalloid, and organometallic (surface soil and soil)