

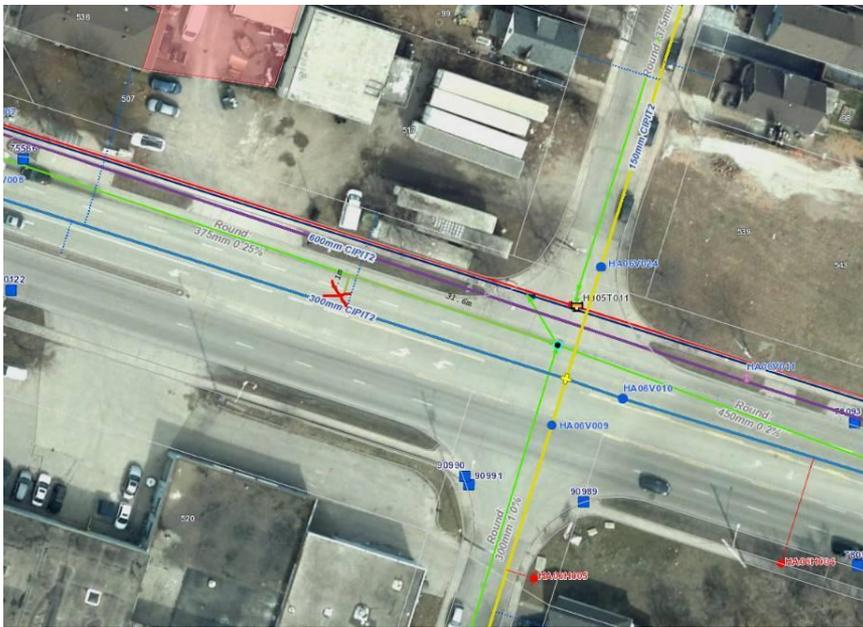


Hamilton

# **Burlington Street East and Wentworth Street North Sewage Spill**

November 28, 2022

# How Was This Found?



- 2019: Engineering Services completing inspections for a potential capital project
- November 2022: Hamilton Water asked to investigate a void in a sewer lateral near Burlington Street East, west of Niagara Street
- November 22, 2022: Hamilton Water reviewed a Zoom Camera inspection video made in December 2013 that didn't "look right"
- November 22, 2022: Hamilton Water completed a field investigation that identified the spill

# Spill Notification

## **Initial notification to MECP Spills Action Centre:**

Tuesday November 22, 2022 at 12:12 pm

Spills # 1-29OZAO

## **Notification to City of Hamilton Spills line:**

Tuesday November 22, 2022 at 12:20 pm

## **Hamilton Water's Contractor Onsite for Spill Containment**

Tuesday November 22, 2022 at 4:00 pm

## **Notification to MECP Spills Action Centre regarding the completion of the spill:**

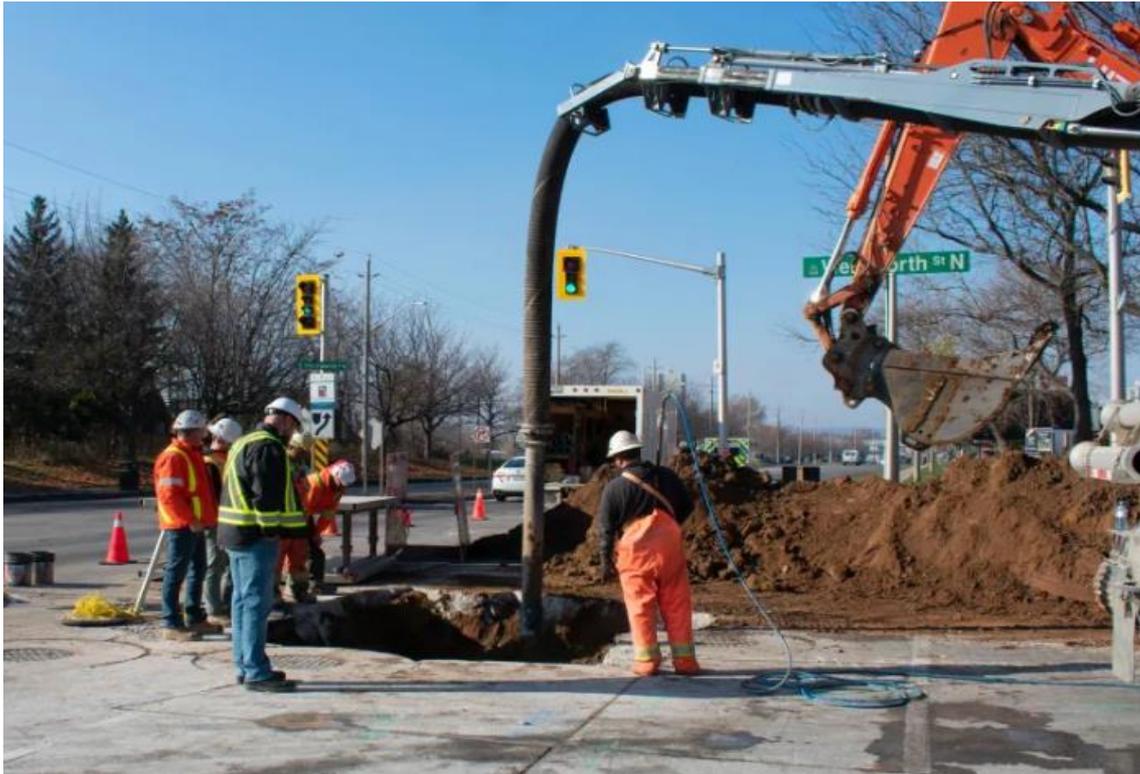
Wednesday November 23, 2022 at 9:32 pm

Spills # 1-29OZAO



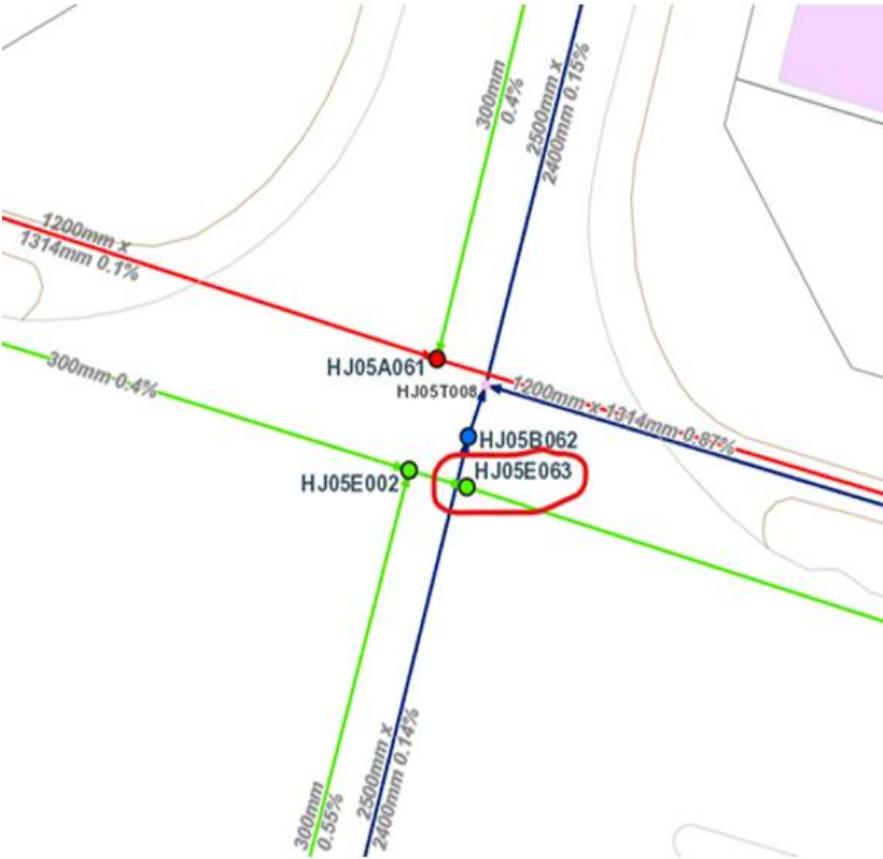


# Completed Repair & Sewer Realignment



- The repair and sewer realignment started at 8:00 a.m. on November 23, 2022
- The leak was stopped at 9:32 p.m. on November 23, 2022
- The crew completed all works and was offsite at 12:30 a.m. on November 24, 2022

# Completed Repair & Sewer Realignment



Pre Repair and Realignment



Post Repair and Realignment

# Completed Repair & Sewer Realignment



# Door to Door Notification – Catchment Area



**November 23, 2022**

Dear Owner/Occupant,

**RE: BURLINGTON STREET SEWAGE SPILL**

On November 22, Hamilton Water maintenance staff uncovered, through their investigation of a separate maintenance issue, a hole in a combined sewer pipe in the area of Burlington Street and Wentworth Street North. This hole led to a sewage spill into a large storm sewer that was discharging into Hamilton Harbour.

Staff have concluded that the section of pipe within the area of Burlington Street East and Wentworth Street North services 50 properties. Your home or business is potentially within the catchment area for the combined sewer tied to this pipe and/or within the vicinity of the impacted outfall. There is no danger to your drinking water supply and there is no action is required from you at this time.

Hamilton Water's immediate priority upon discovering the leak was to protect the environment and mitigate the spill. Hamilton Water staff who discovered the leak yesterday immediately initiated field investigations and have since taken steps to stop the flow from leaking into the harbour. Crews remain on site with a vacuum truck to contain the leak, and Hamilton Water has initiated a construction project to install a new sewer pipe at this location which will stop the leak. This work is expected to be resolved by 10 p.m. this evening. Further system modeling will be undertaken to determine the most appropriate final resolution.

The City continues to follow the necessary notification protocol to the province and other agencies and have been in contact with the Ministry of Environment, Conservation and Parks as well as other key Hamilton Harbour agencies, stakeholders, and First Nations communities.

After a preliminary investigation, it is believed the hole was put in the combined sewer pipe in 1996. It appears that the contractor at the time was under the impression that all pipes were storm sewers and were designed to directly connect to box culverts leading out to the harbour.

You can expect to see a high level of activity in the area over the next few days with trucks and other vehicles as staff continue work to mitigate the current leak and begin to make the necessary repairs.

More information will be posted on [www.hamilton.ca](http://www.hamilton.ca) as it becomes available in the coming days. If you have any questions, please contact Hamilton Water's Community Outreach Educator ([coh\\_water@hamilton.ca](mailto:coh_water@hamilton.ca)).

City of Hamilton  
Hamilton Water

- Delivered on November 23, 2022
- Hand delivered by Hamilton Water staff
- Delivered to all 50 properties

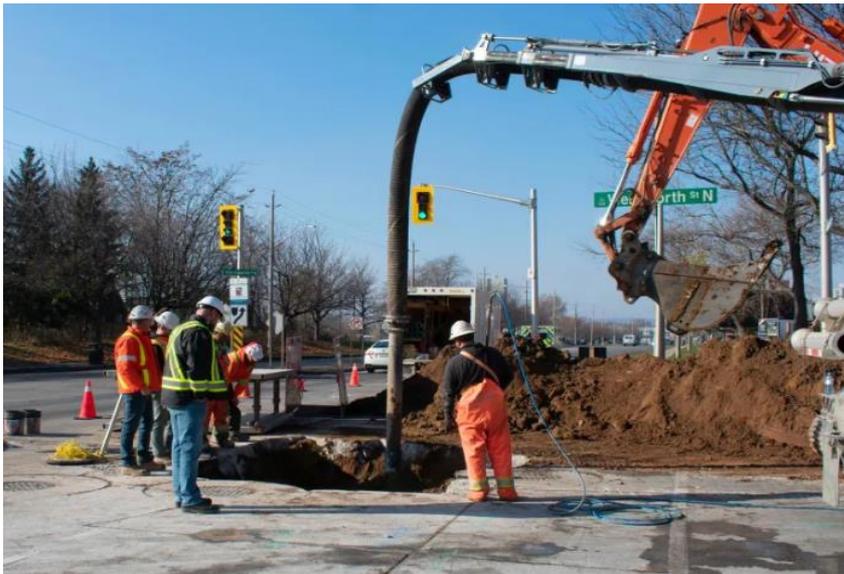
## Sampling Results

- Environmental Monitoring & Enforcement Staff completed sampling on November 22, 2022
- Samples were completed for: Escherichia coli, Conventional Parameters and Metals
- Preliminary sample results available to date show the sample is similar to residential wastewater
- Environmental Monitoring & Enforcement Staff completed post repair sampling at on November 25, 2022



## Estimated Costs to Date

- Excavation and repair/realignment of the sewer- \$17,000
- Onsite vacuuming of combined sewer wastewater to stop the spill - \$9,830
- Permanent restoration of the road (future work) \$3,000



## Estimated Spill Duration & Volume

- Duration – Approximately 26 Years
- Number of properties - 50
- Used water consumption data for each property
- Total estimated spill volume is 337 million litres (equivalent to 13 million litres per year)





Photo Credit: CP24 [www.cp24.com](http://www.cp24.com)

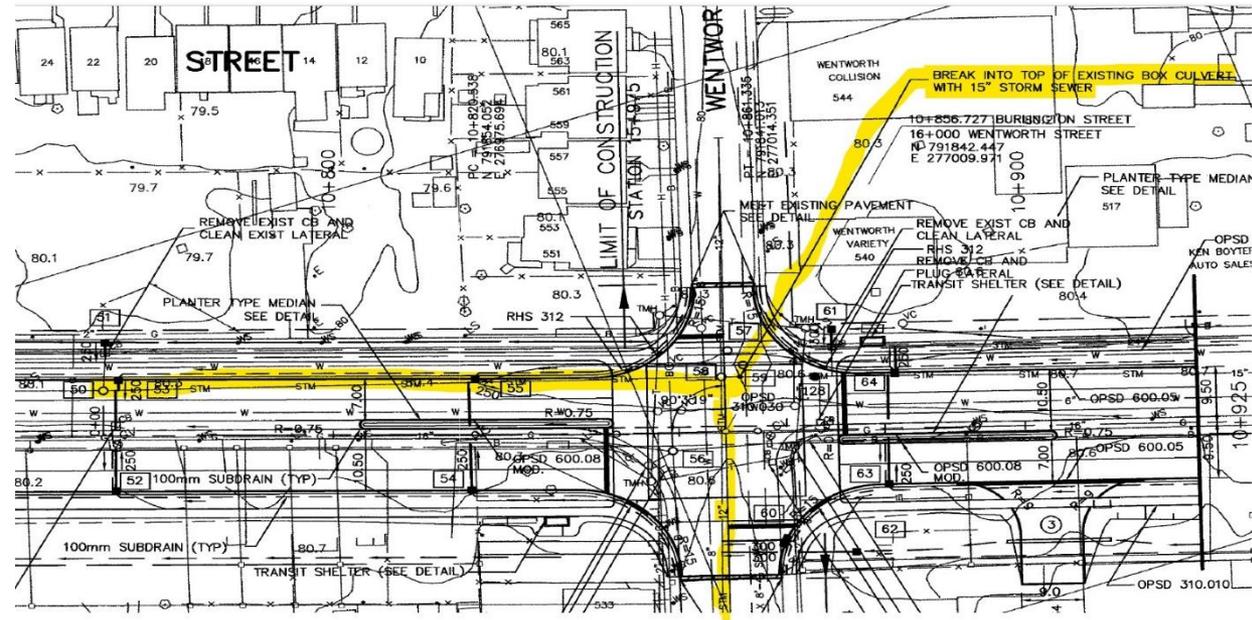
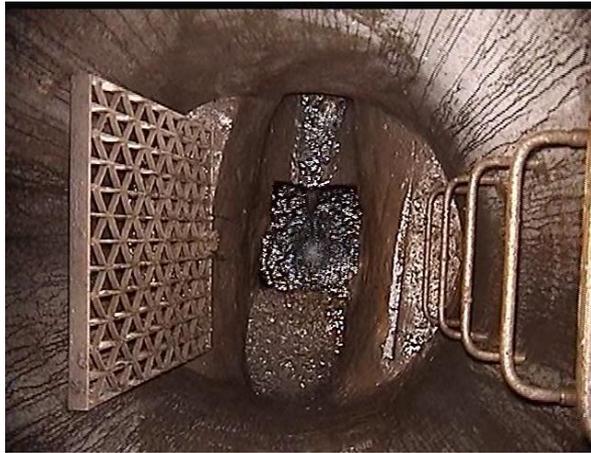


Photo Credit: Joey Coleman [www.thepublicrecord.ca](http://www.thepublicrecord.ca)

## Community and Partner Communications

- Updates to Mayor and Council
- Media Briefings
- Notifications to HHRAP Partners
- Notifications to First Nations
- Notifications to Affected Residents
- Collaboration with Public Health Services
- Notifications to the MECP
- Spill webpage:
  - [www.hamilton.ca/burlingtonstreetspill](http://www.hamilton.ca/burlingtonstreetspill)

# What Happened and How?



- 1996 Burlington Street Reconstruction & Widening Project
- City of Hamilton – Transportation & Environmental Services Group
- Design drawing 96-H-11\_3 has mislabeled sewers – shows a deliberate connection to the storm sewer

# Why Was the Spill Not Discovered Sooner?



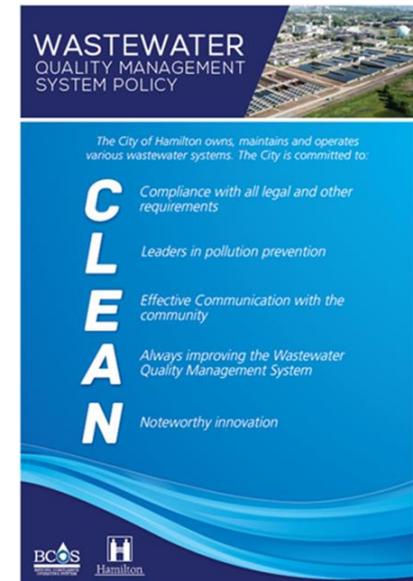
Photo Credit: Peter Vidor [www.jjei.com](http://www.jjei.com)

- Zoom Camera Sewer Inspection Contracts
  - C11-29-04
  - C11-86-10
  - C11-39-15
- Approximately 9,600 videos per year
- PDF Deficiency Reports Provided to City Staff
- Bulk Uploads of Videos
- Contractors not Experienced with City Sewers
- Contractors not Looking for Cross Connected Sewers

# Why Was the Spill Not Discovered Sooner?

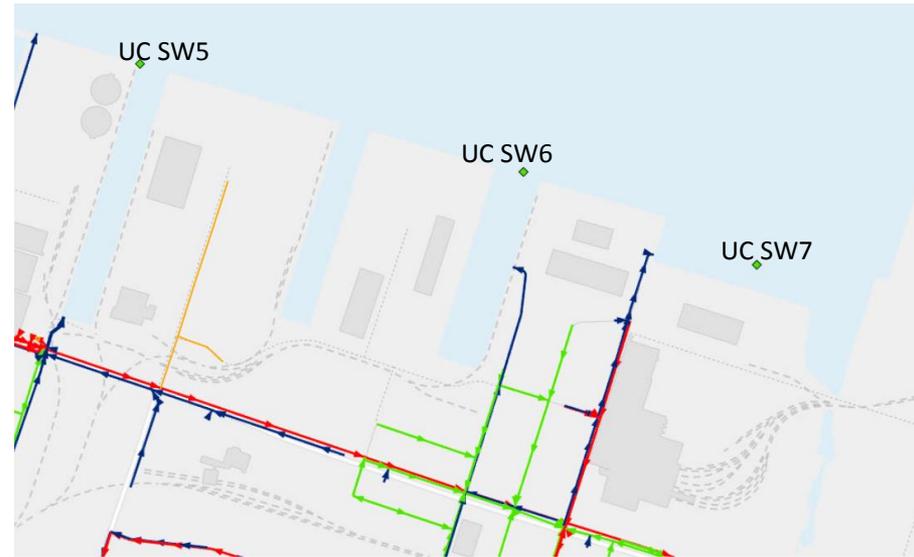
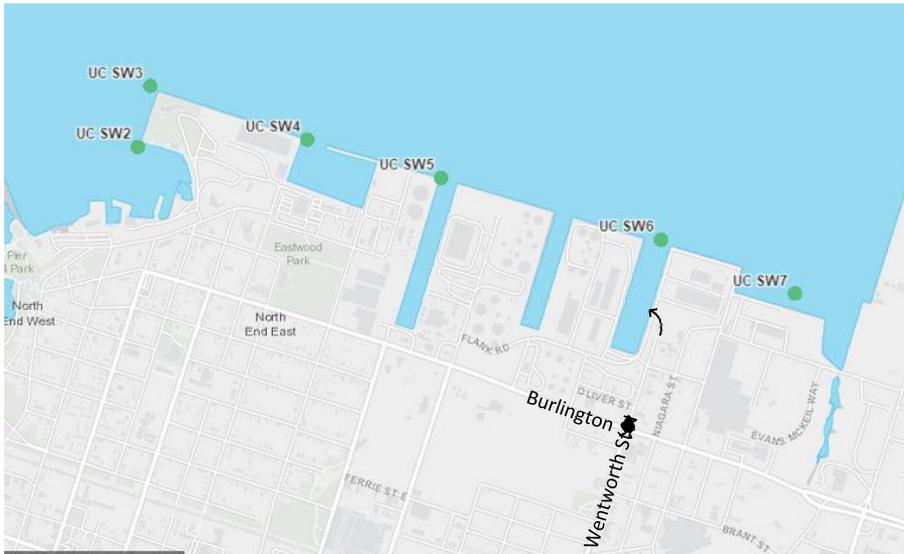
## Corrective Actions from Chedoke Creek Spill

- Bypass gate closed and physically locked
- Computer Programming Error Corrected
- Updated control documents and enhanced operator training
- Enhanced City of Hamilton Outstations Team created
- **Wastewater Quality Management System created**
- **Creation of Surface Water Quality Program**
- **Wastewater Overflows and Bypasses Monitoring website created**
- Chedoke Creek Water Quality Framework Study
- Creation of the Watershed Management Office



# Why Was the Spill Not Discovered Sooner?

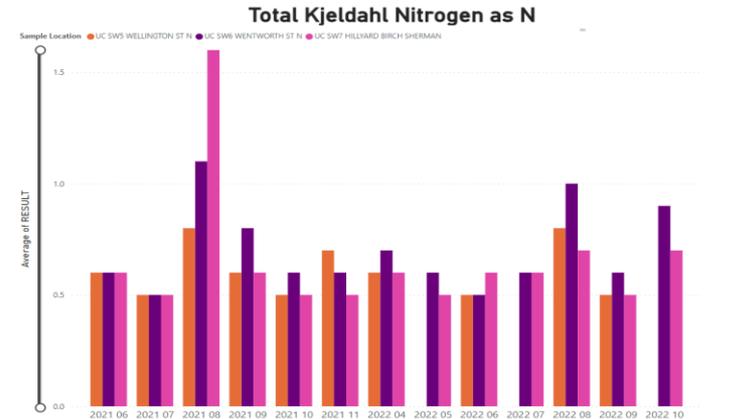
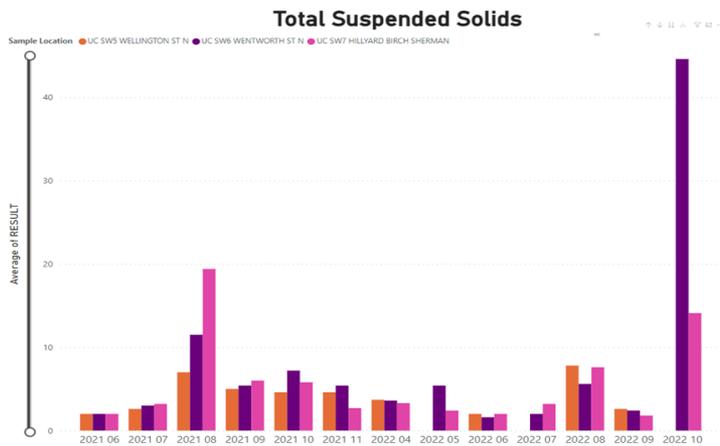
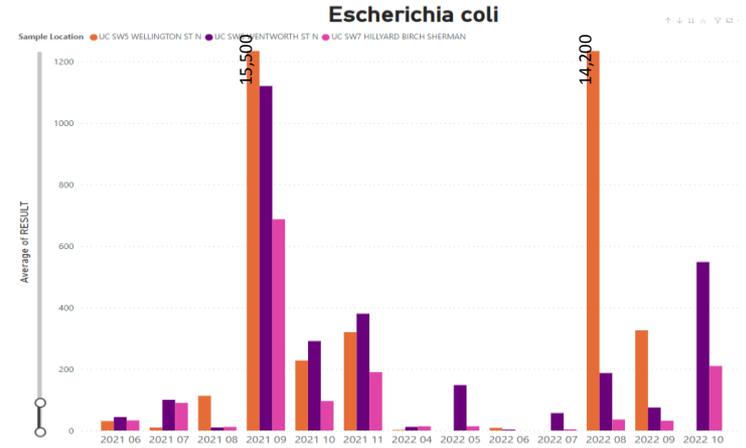
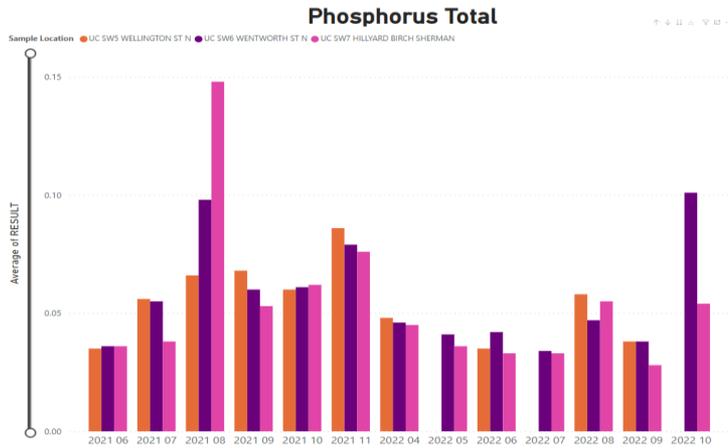
## SURFACE WATER QUALITY PROGRAM: HAMILTON HARBOUR SAMPLE LOCATIONS AT AND UP- / DOWN-STREAM TO WENTWORTH CSO



- ↪ - Wentworth CSO Outfall
- - Burlington / Wentworth Spill Location

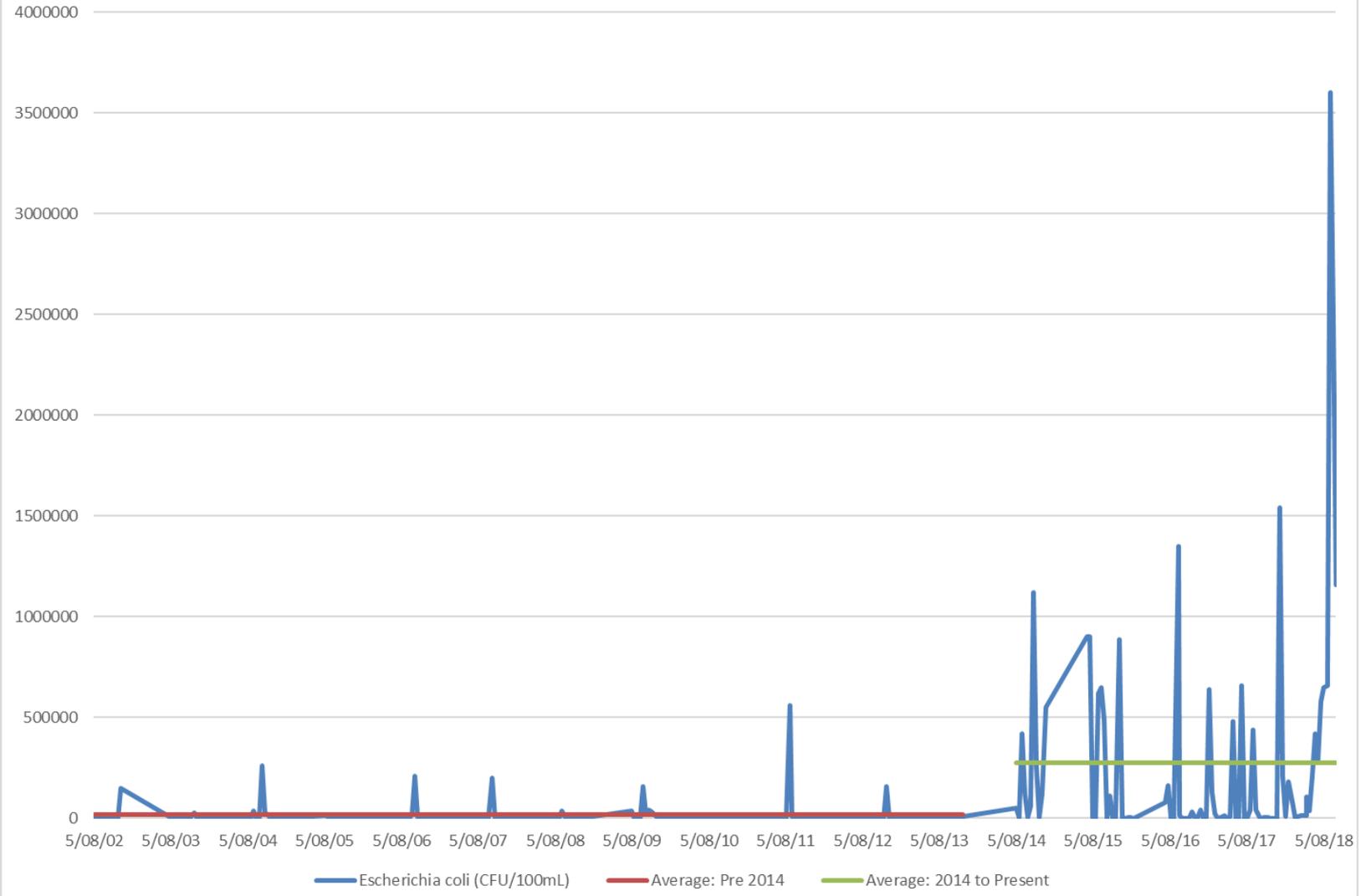
# SURFACE WATER QUALITY PROGRAM: SW6 Data

## Why Was the Spill Not Discovered Sooner?



Note: During the Oct 2022 sample event, two (2) tugboats were docking a ship, working up sediment at UC SW6 location.

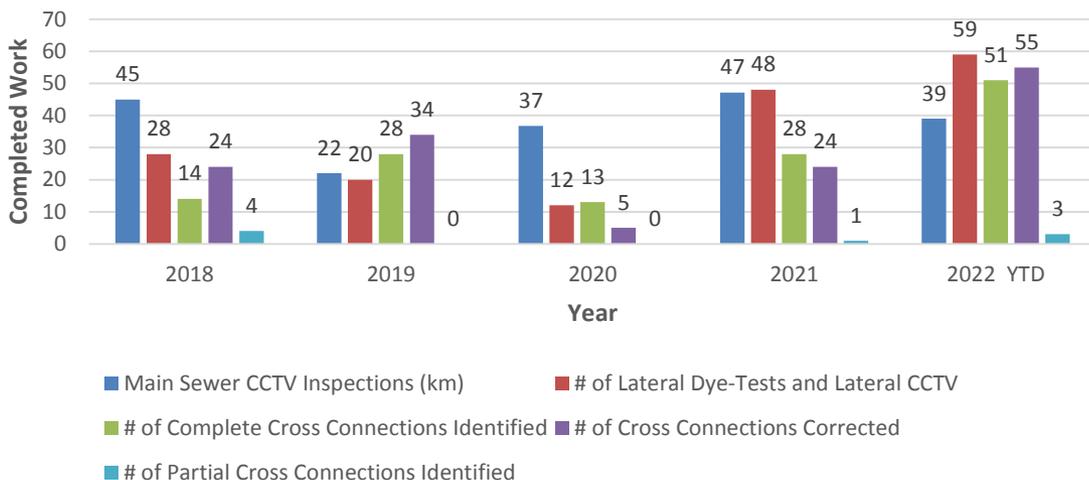
CP 11 (Chedoke Creek) *E. coli* Results - HCA



# Sewer Lateral Cross Connection Program



Sewer Lateral Cross Connection Program Activities



## Sewer Lateral Cross Connection Program Totals:

- 382 km Storm Sewer surveyed
- 722 Dye Test Investigations completed
- 455 Sewer Lateral Cross Connection Corrections  
= 102.5 million liters of wastewater diverted each year

## Next Steps



- Complete hydraulic modelling of the new sewer connection
- Complete permanent restoration of the temporary road cut
- Determine environmental impact and whether remediation is warranted or practical
- Determine and implement appropriate program to assess system to identify issues
- Continue to investigate records related to 1996 capital project



Hamilton