



Hamilton

# Enhanced Inspection and Monitoring Hamilton Water and Wastewater

June 14, 2021

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Public Works Department  
Hamilton Water Division



# AGENDA

Enhanced Inspections

Surface Water Quality  
Program





## ECHO Program

# ABOUT US

## Multidisciplinary Team

- Operations
- Maintenance

## Responsibilities

- Inspections
- Preventative maintenance
- Compliance and SOP's
- Process Control Narratives review



## ECHO Program **2020 RESULTS**

First ECHO Team Inspection was  
Main/King CSO Tank - August 18, 2020

Staff spent 4 days on-site

Completed inspections at 28 different  
facilities in 2020 including all of the  
CSO facilities



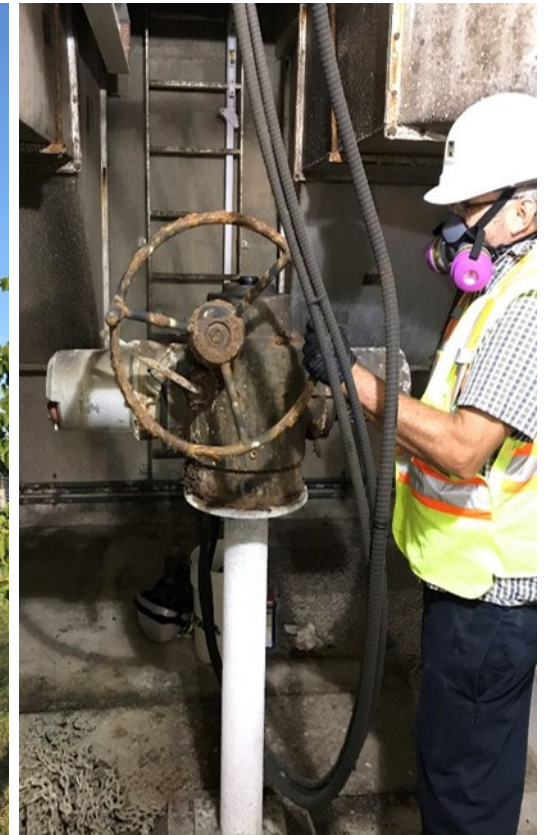


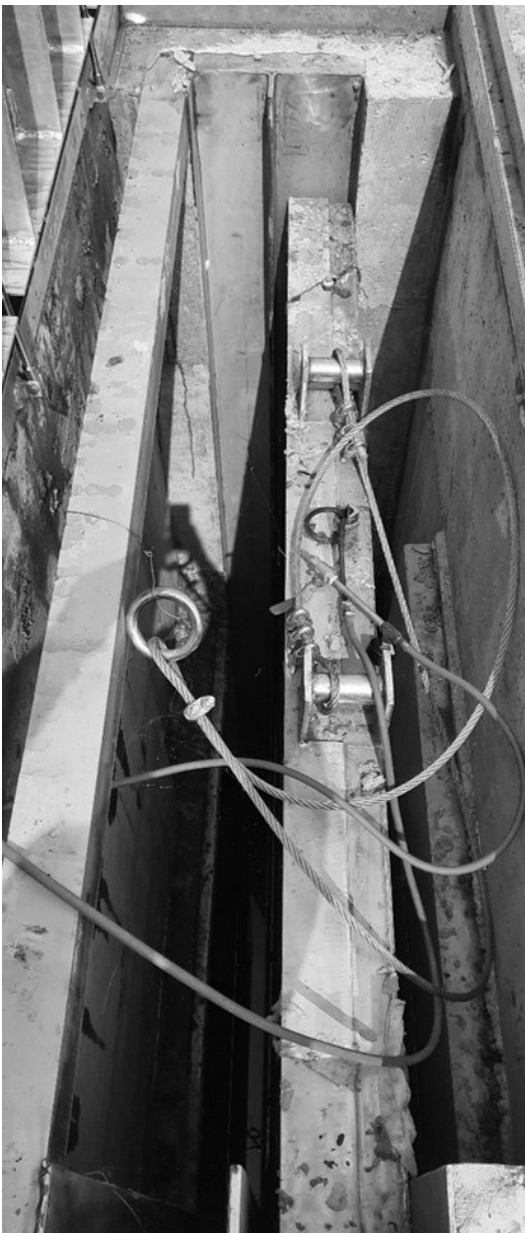
ECHO Program

# ISSUES DISCOVERED/ MITIGATED

Status update on Deficiencies

Refer to Appendix “B” of the report





ECHO Program

# NEXT STEPS

Fill remaining vacancies in  
operational team

Finalize inspections at all facilities by  
end of 2021

Create roadmap / priority matrix for  
future inspections





## Surface Water Quality Program

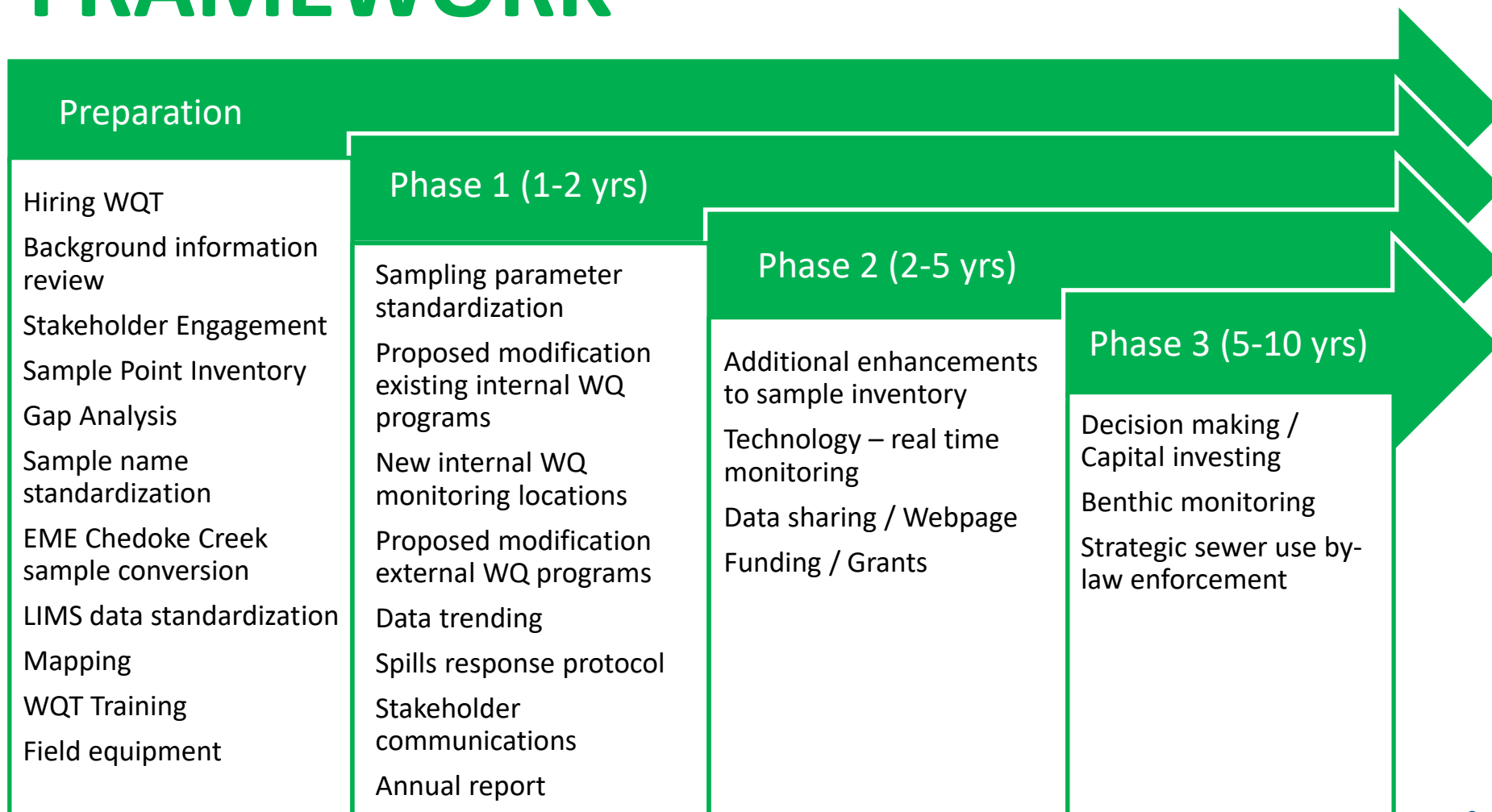
# DISCHARGE IMPACTS

Primary sources of wastewater & stormwater discharges include:

- Combined Sewer Overflows (CSOs)
- WWTP effluent and bypasses
- Sewage Pumping Station (SPS) emergency overflows and/or by-passes
- Sanitary Sewer Cross-connections
- Separated stormwater system discharges

## Surface Water Quality Program

# FRAMEWORK





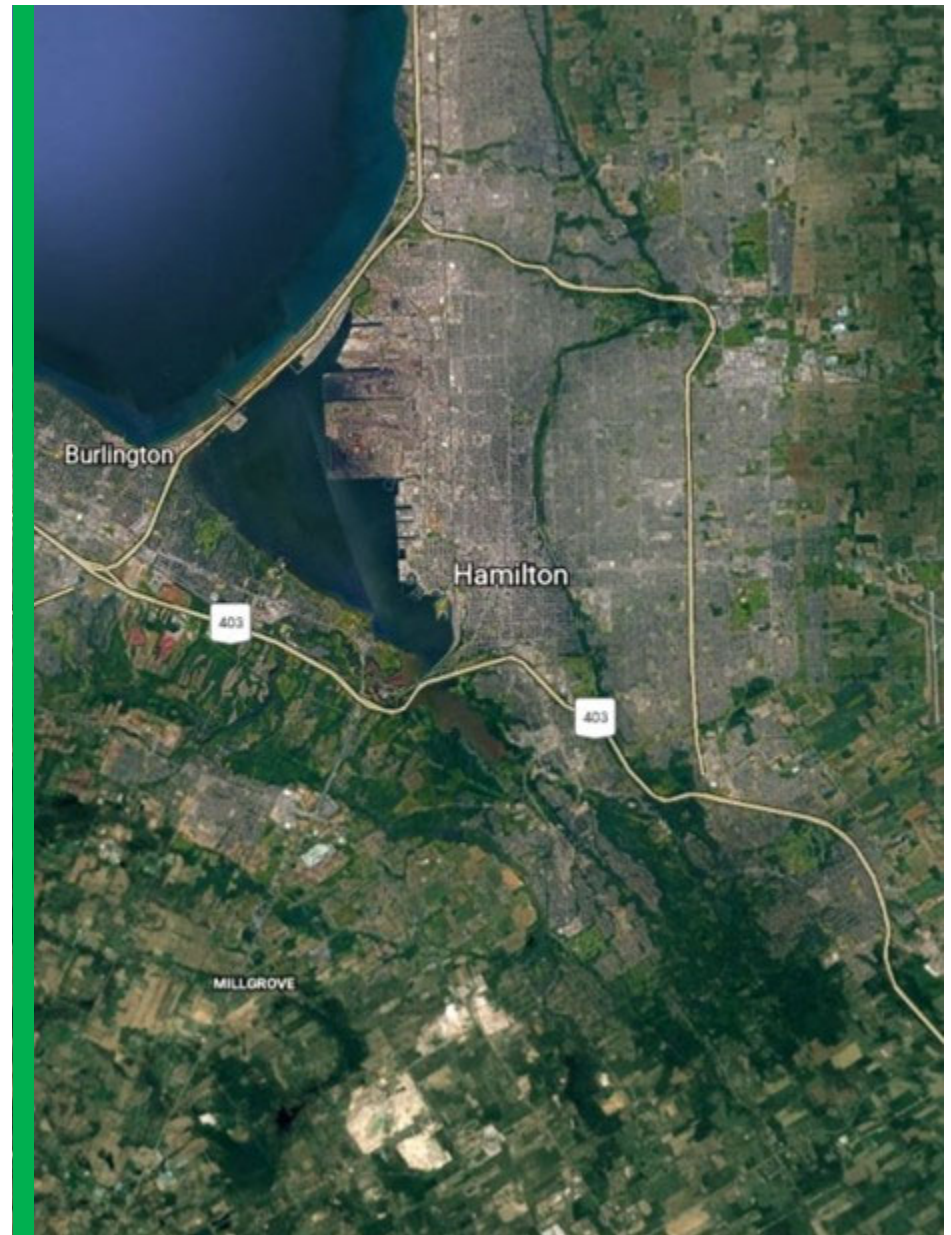
## Surface Water Quality Program

# STAKEHOLDER ENGAGEMENT

WQ Technologist has been in contact with several internal and external stakeholders

WQ Technologist sits on 4 of HHRAP's teams for continuity of programs

In the final stages of finalizing Memorandums of Understanding (MOU) for Data Sharing





## Surface Water Quality Program

# GAP ANALYSIS

### CITY ASSETS

54 Outfalls associated with Wastewater System

755 Outfalls Associated with Stormwater System

61 Sampling locations with ongoing/regular sampling programs (inclusive of WWTPs & CSOs) WWTP effluent and bypasses

### AREAS WITH LIMITED VISIBILITY

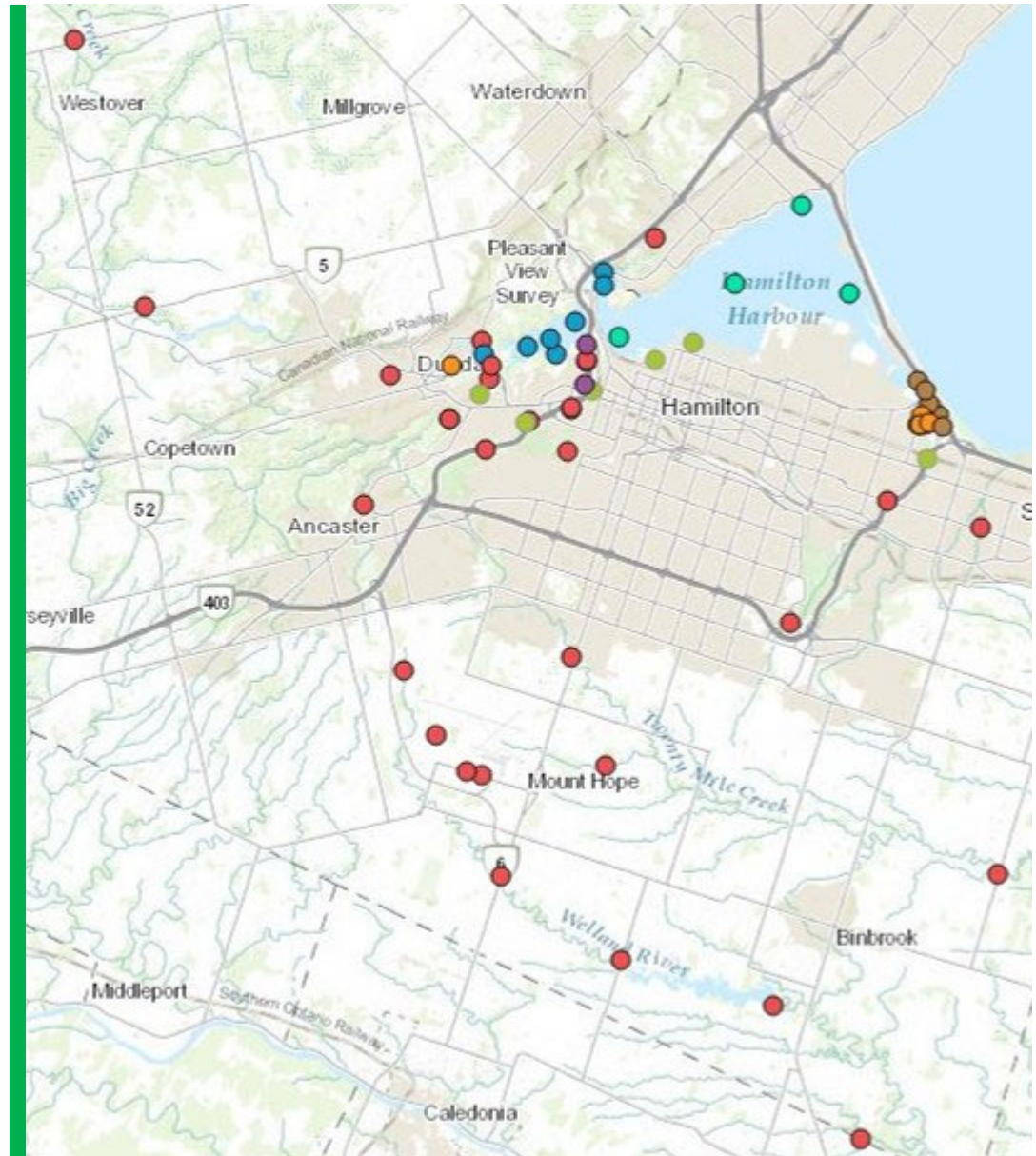
Hamilton Harbour, Cootes Paradise, Chedoke Creek, Red Hill Creek, Grindstone Marsh



## Surface Water Quality Program

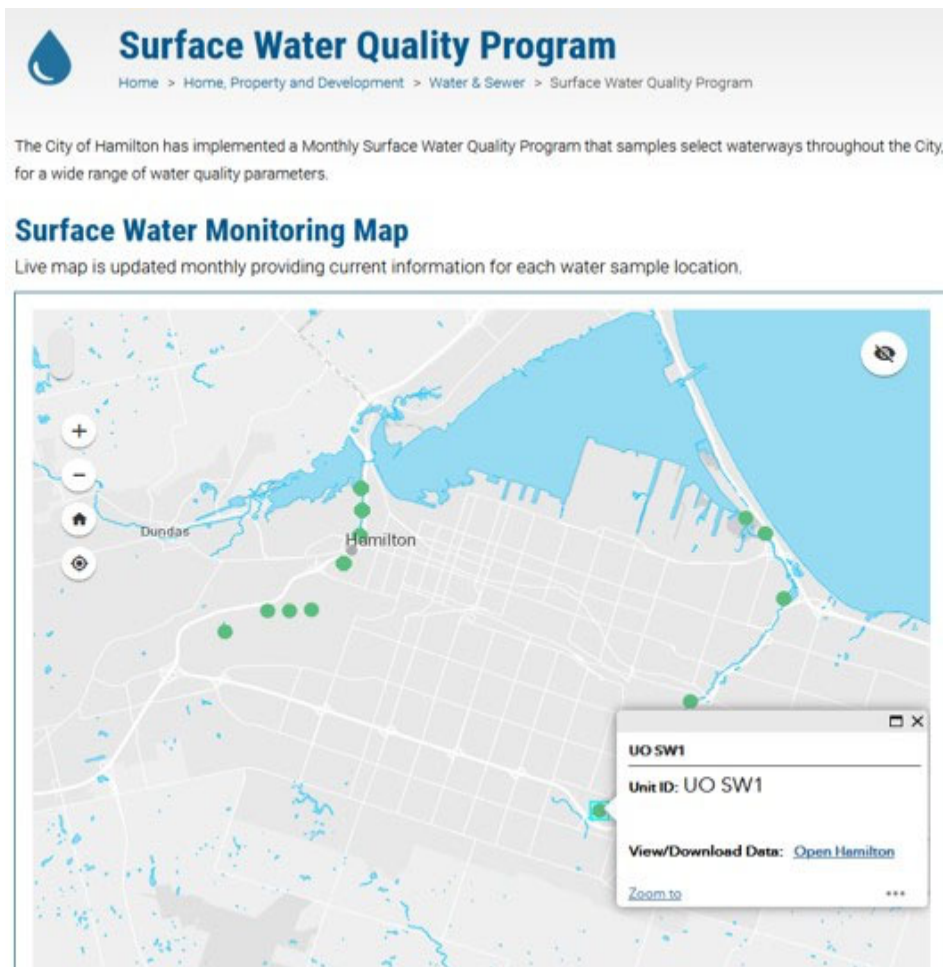
# EXISTING SAMPLING LOCATIONS

- EXTERNAL CA SITE
- EXTERNAL RBG SITE
- EXTERNAL ECCC
- CITY CSO TANK EFFLUENT SITE
- CITY SURFACE WATER MONITORING SITE
- CITY WWTP DISCHARGE
- WWTP EXPANSION PROGRAM



## Surface Water Quality Program

# WEBSITE & DATA SHARING



**Phase I** – Integrate existing Chedoke Creek Surface Water Quality Program



**Phase II** – Integrate new City of Hamilton Surface Water Quality Program, Monitoring locations and revised parameter monitoring list



**Phase III** – Integrate external stakeholder sampling locations and monitoring data

BI Dashboard development

**Phase IV** – On demand data trending and analysis.





# QUESTIONS?