



Hamilton

Wastewater Treatment Plant Bypass and Combined Sewer Overflow Reporting

June 17, 2020

Agenda

- 1) Combined Sewer Overflows (CSOs) & Associated Infrastructure
- 2) Engineering Study for Unmonitored CSO Locations
- 3) New CSO & Wastewater Treatment Plant (WWTP) Bypass Reporting Protocol
- 4) Live Map Demo
- 5) New CSO Signs
- 6) Moving Forward
- 7) PW19091a Recommendations

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Combined Sewer System & Associated Infrastructure

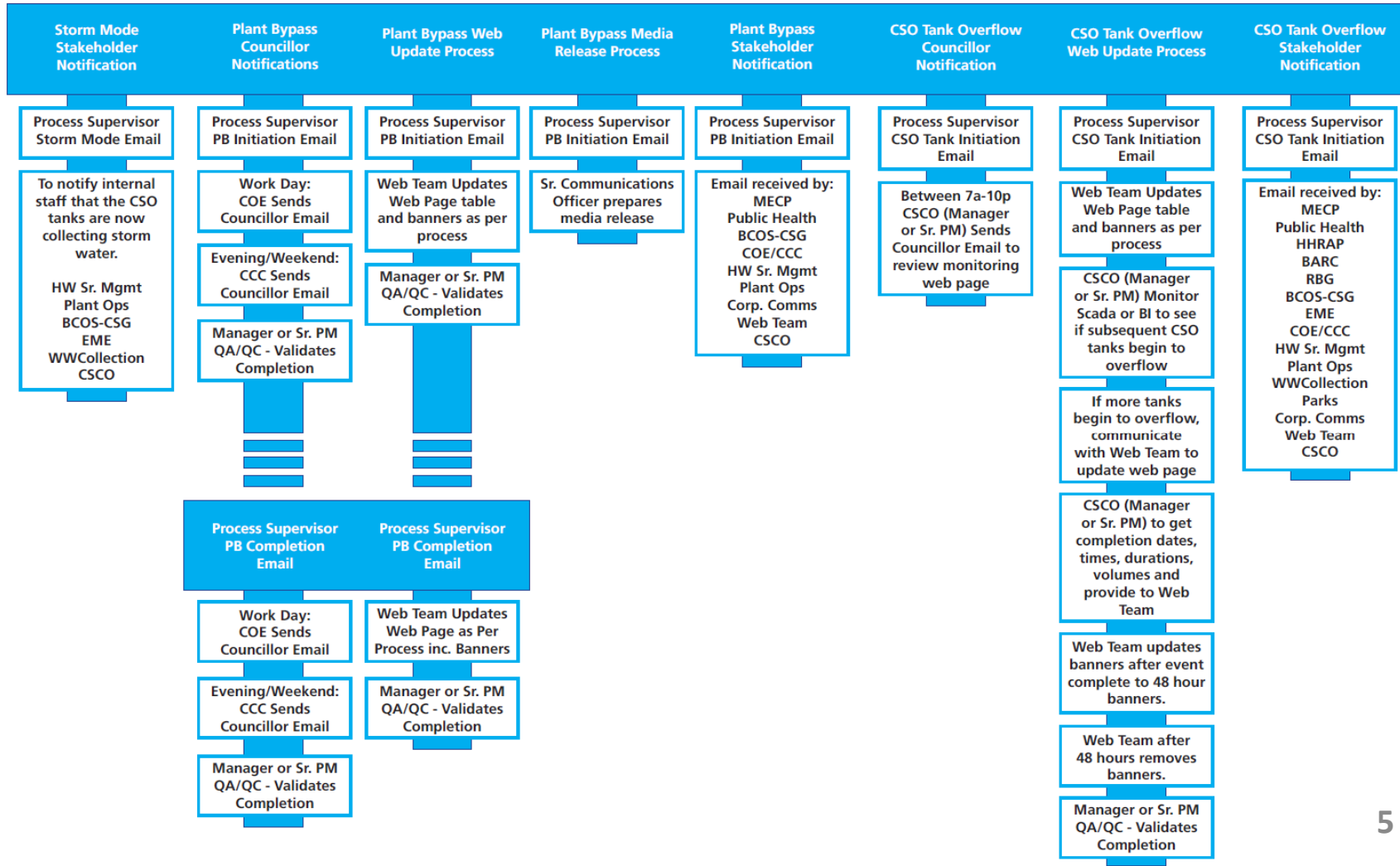
- 574 km of Combined Sewers
- 198 Regulators
- 9 CSO Tanks (314 Million Litres of Storage)
- 3 Real Time Control Facilities
- 30 CSO Locations (15 Remotely Monitored)
- 2 WWTP Bypass Locations (Both Monitored)

Engineering Study for Unmonitored CSO Locations

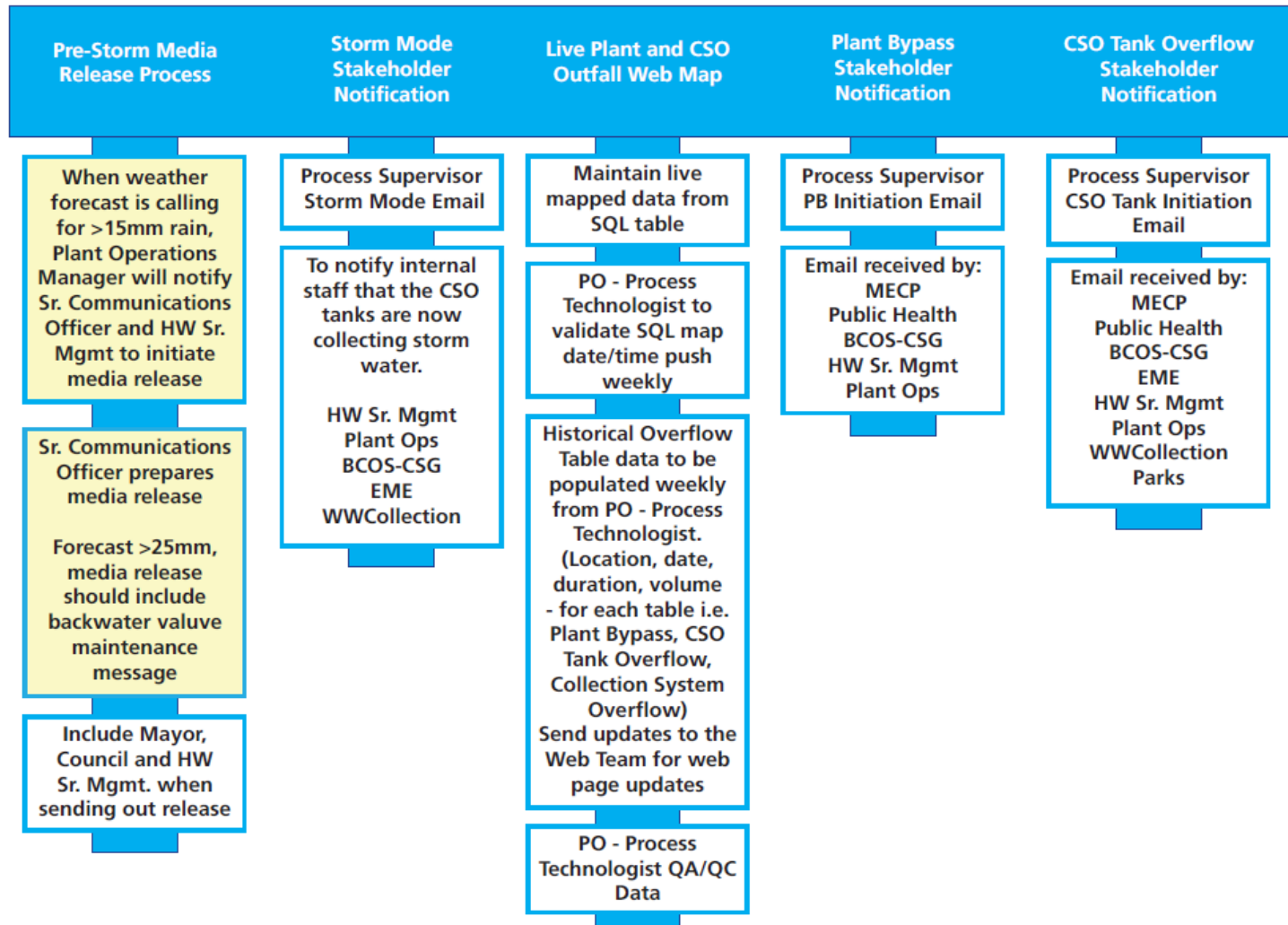
- Project Kick-off Meeting with Consultant Took Place on May 28, 2020
- Expected Completion by Fall 2020



Current CSO & WWTP Bypass Reporting Protocol



New CSO & WWTP Bypass Reporting Protocol



New CSO & WWTP Bypass Reporting Protocol

- Launch Planned for June 25, 2020 (Pending Council Approval)
- Live Reporting Map for CSOs & WWTP Bypasses
 - Provides real-time data to the Public 24/7/365
- Enhanced Webpage Includes Archived Data for CSOs & WWTP Bypasses (Volume, Duration, etc.)
- Pre-Storm Media Releases Guiding the Public to the Enhanced Website
- Accompanying Social Media Campaign

Living In

City services and programs for residents.

Doing Business

Start, grow and operate your business here.

Discovering Hamilton

Explore the best the City has to offer to visitors and newcomers.

City Hall

Connect to the Mayor & Councilors, meetings, planning & development.

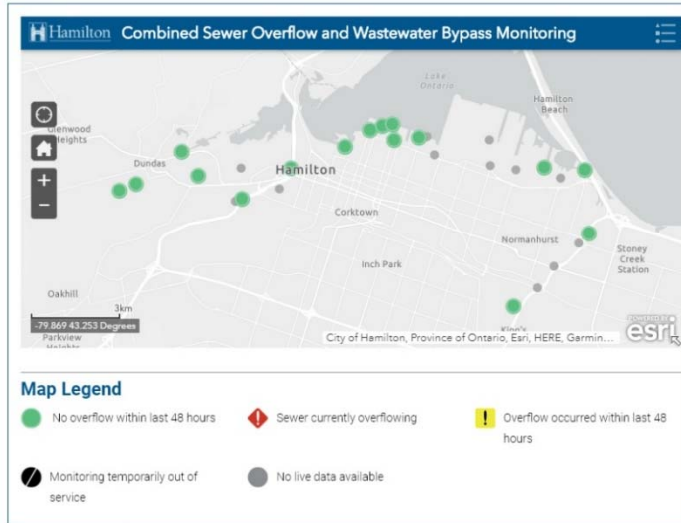
WATER & SEWER

- Bulk Water Filling Stations
- Carlisle Conservation Committee
- Community Wells
- Concerns With Your Water Supply
- Flood Preparedness
- Flushables - Own Your Throne
- Frozen Pipes
- Lead in Your Drinking Water
- Low Impact Development
- Low Level Water Conditions
- Private Wells
- Protective Plumbing Program
- Source Water Protection
- Surface Water Management
- The Sewer System
- Wastewater Overflows and Bypasses**
- Water Conservation Tips
- Water Leaks in Your Home
- Water Meters
- Water Quality
- Water Rates
- Water Service Line
- Wastewater Collection & Treatment
- Water Treatment & Distribution
- World Toilet Day
- Clean Water and Wastewater Fund

Monitoring Wastewater Overflows and Bypasses

Home > Home, Property and Development > Water & Sewer > Wastewater Overflows and Bypasses

Live map is updated every 15 minutes providing current information for each outfall location.



Historical Wastewater Treatment Plant Bypass Log

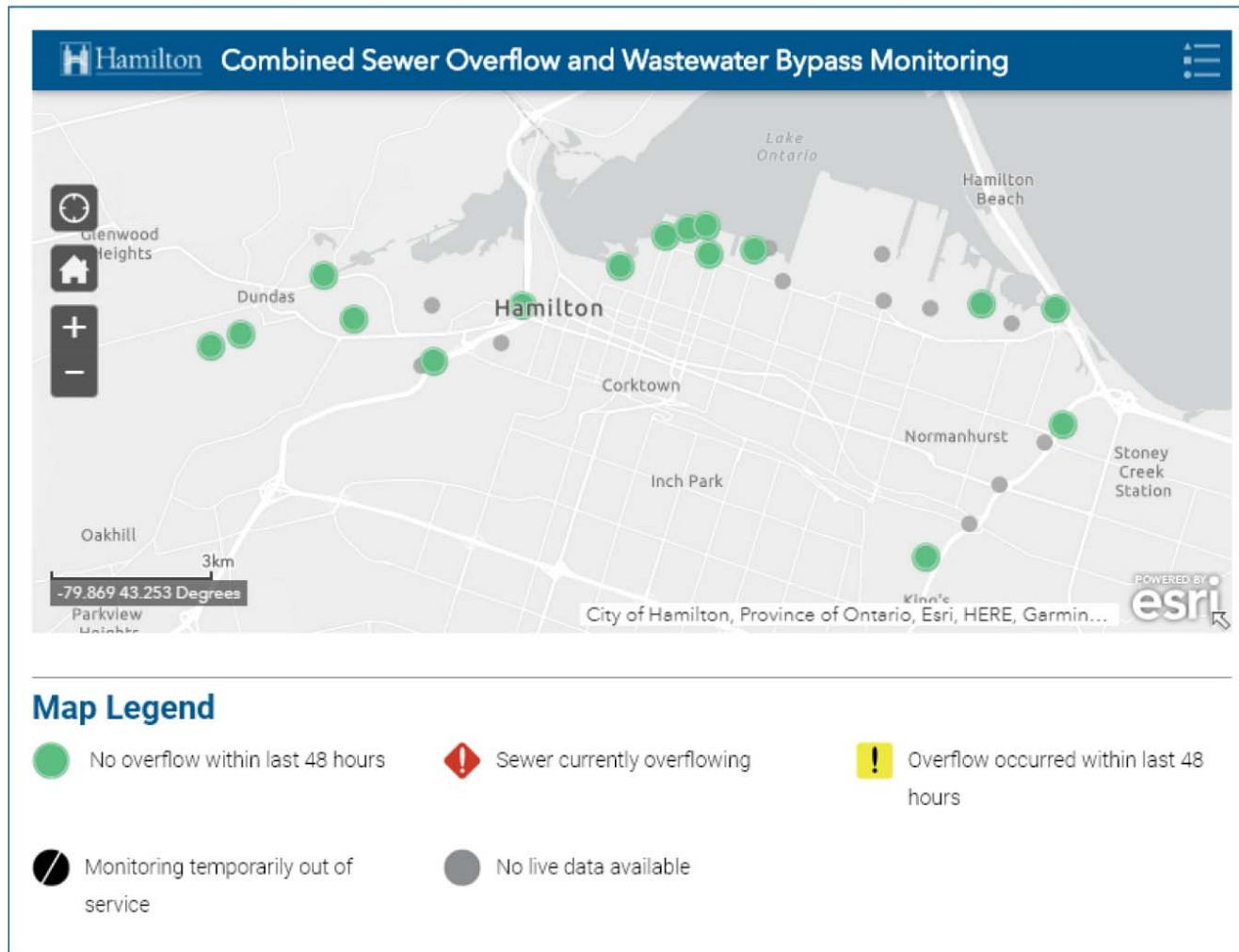
Updated weekly

Initiation	Completion	Wastewater Treatment Plant	Type of Bypass	Duration	Volume
January 24, 2020 8:53 pm	January 25, 2020 10:51 pm	Woodward	Secondary Bypass	25.97 hrs	206.6 million litres
January 11, 2020 11:21 am	January 13, 2020 4:15 am	Woodward	Secondary Bypass	40 hrs 54 mins	638 million litres

Live Map Demo

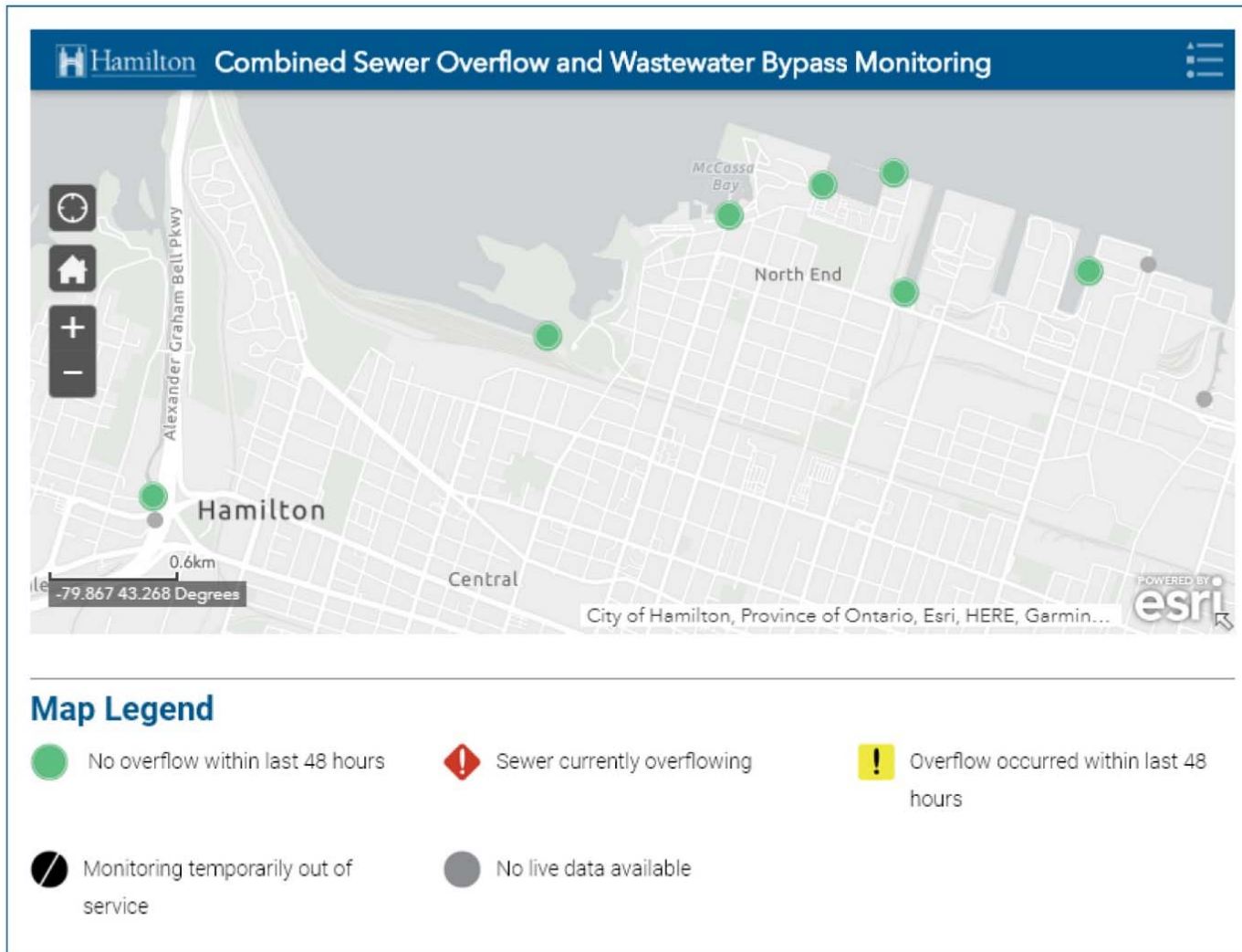
- Screenshot of Enhanced Webpage
- Embedded Live Map
- Archived Data for CSOs & WWTP Bypasses (Volume, Duration, etc.)

Live Map Demo



- Close-up of Live Map
- 32 Total Locations Identified
- 30 CSO Locations
- 2 WWTP Bypass Locations
- 5 Map Icon Types

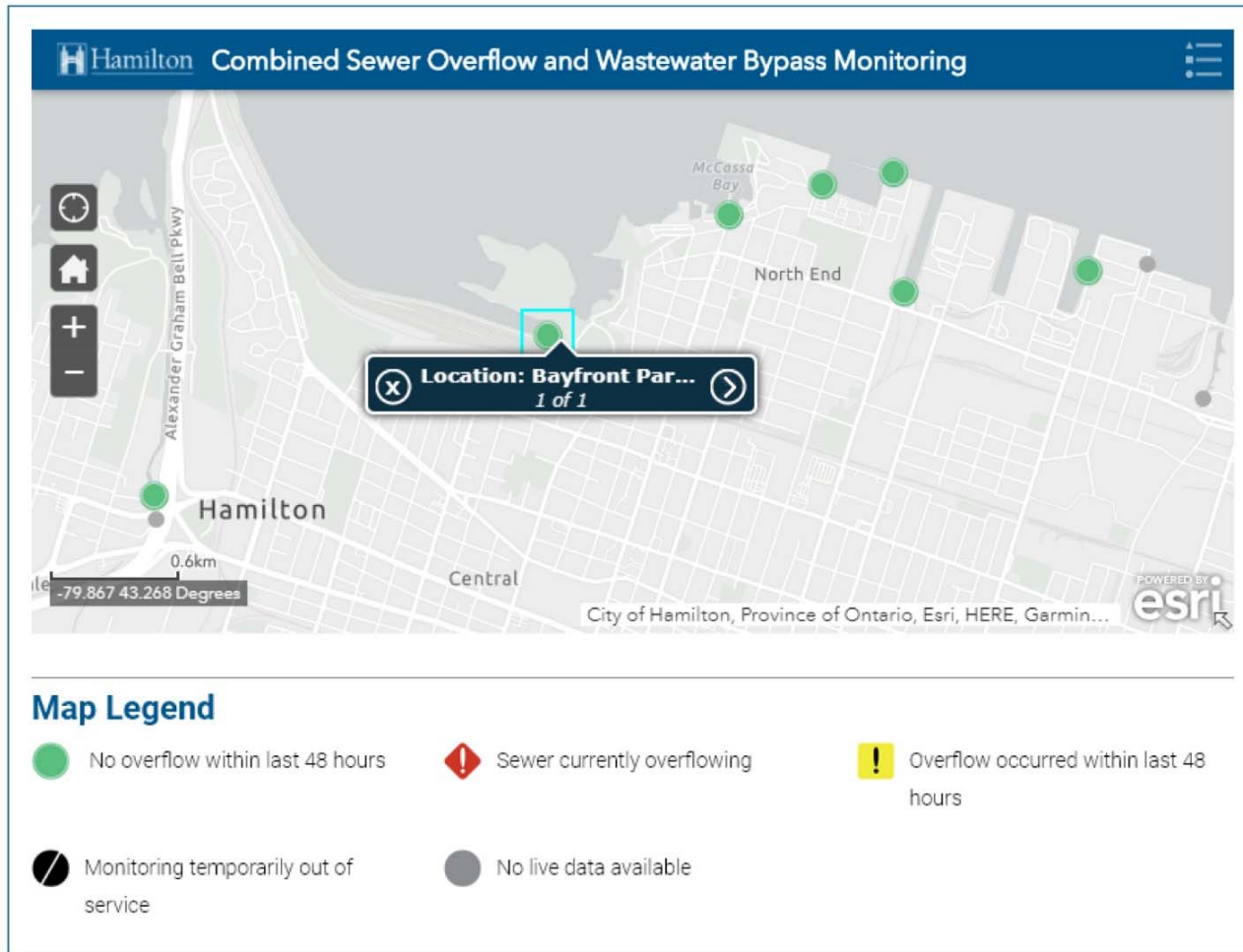
Live Map Demo



- Zoom and Scroll Within the Map
- Focus on Specific Areas of the City or Specific Locations

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Live Map Demo



- Locations Can be Clicked/Selected to Display Details

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Live Map Demo






1 of 1

Location: Bayfront Park CSO Tank Outfall

Location: Bayfront Park CSO Tank Outfall
Discharge Receiving Water: This outfall discharges to Hamilton Harbour.
Status: No overflow has occurred in 48 hours
Last Updated: 2020-05-12 14:54:00

...

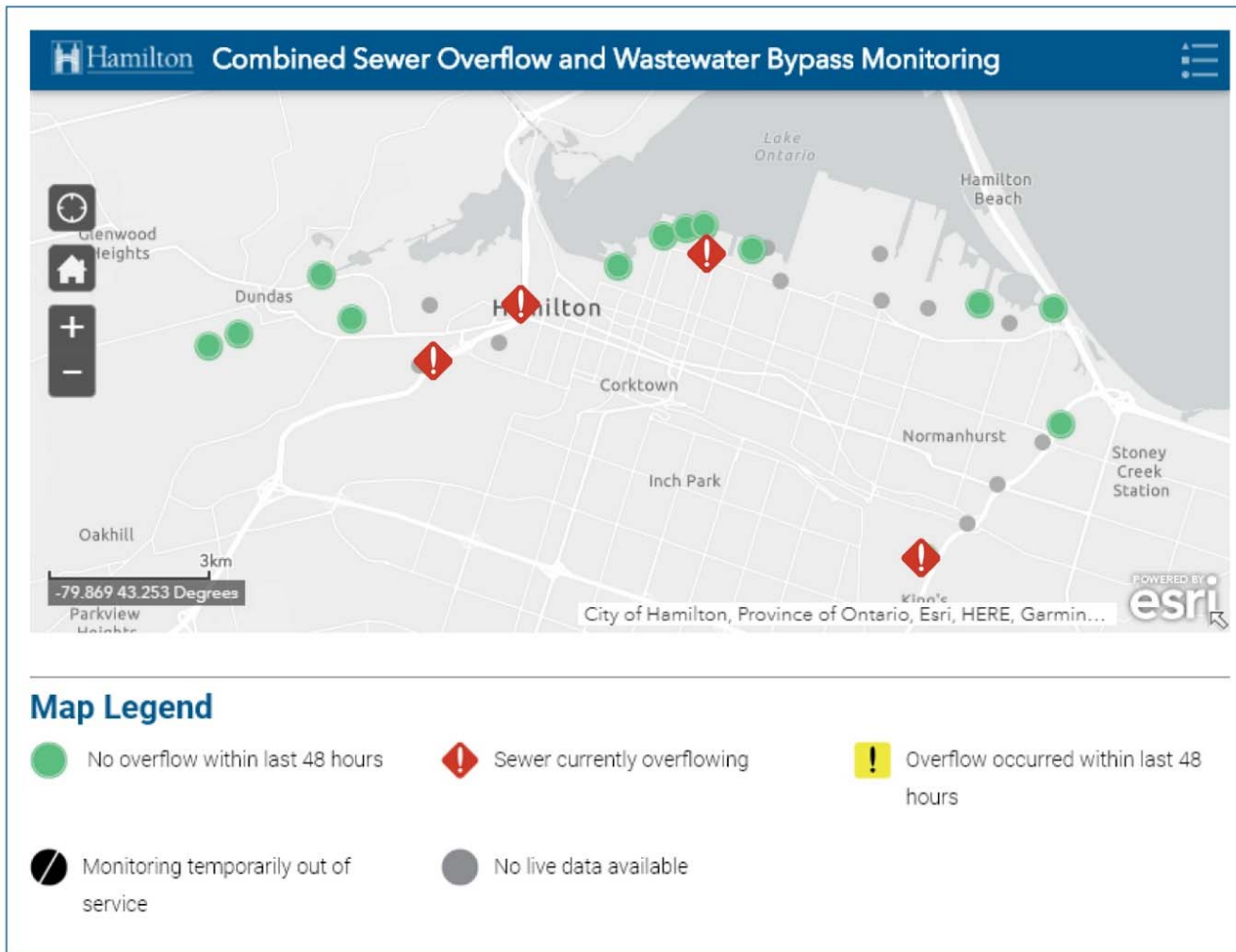
Map Legend

 No overflow within last 48 hours	 Sewer currently overflowing	 Overflow occurred within last 48 hours
 Monitoring temporarily out of service	 No live data available	

- Detailed Information for a Specific Location
- **COMING SOON!**
– Outfall Photos

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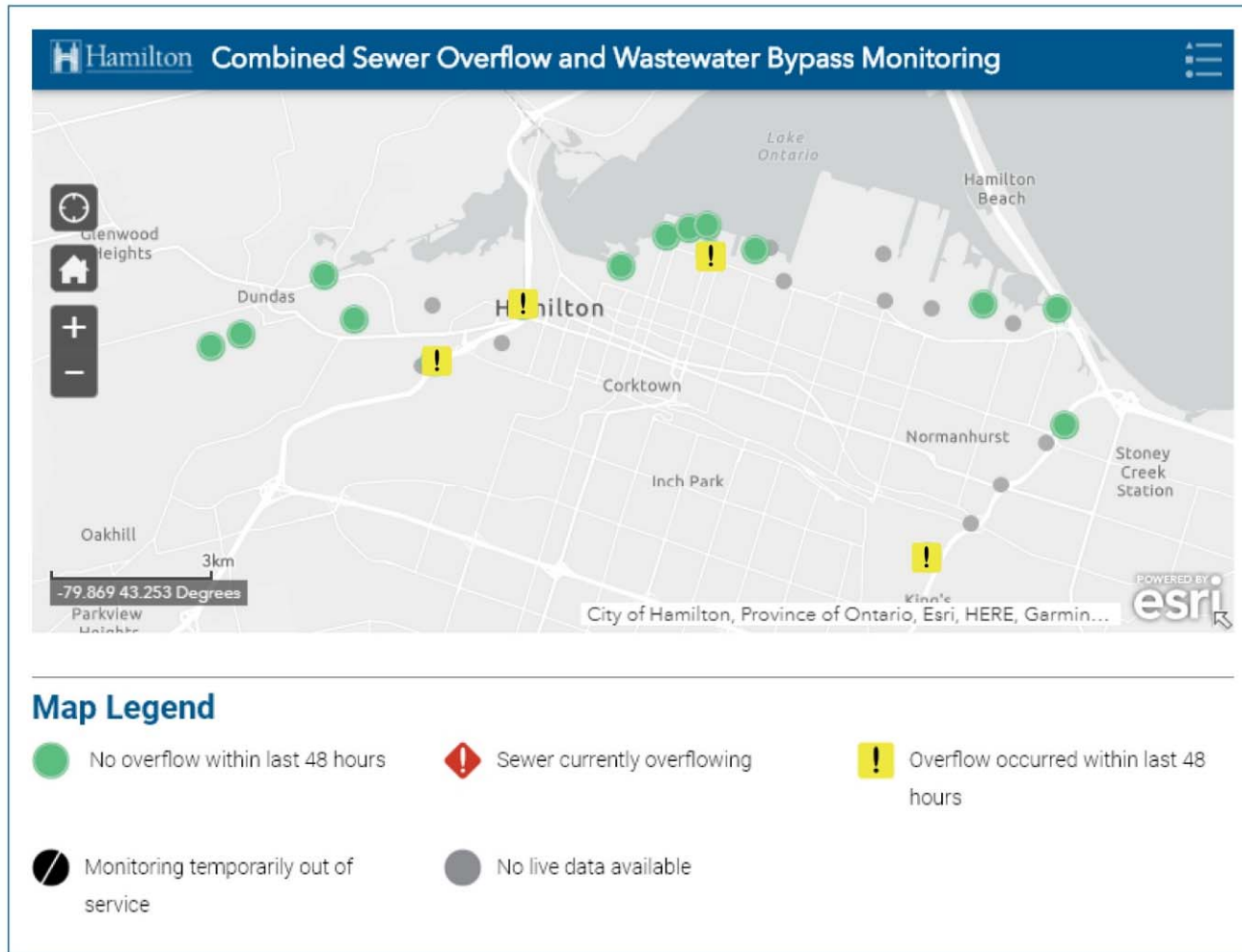
Live Map Demo



- Example of Map Showing Active Overflows

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Live Map Demo



- Example of Map Showing Overflows Have Occurred Within the Past 48 Hours

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New CSO Signs

- New Signs to be Posted at all 32 Locations
- Installation On-Schedule for Completion by July 2020



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New CSO Signs

- Multiple Signs at Some CSO/Bypass Locations
- Collaboration Between Hamilton Water & Public Health Services



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Moving Forward

- Expected Growing Pains
 - E.g. Not all Programmed Logic Has Been Fully Tested During a Wet Weather Event
 - Potential for Reporting of Some Overflows in Error
- Continual Improvement of Map & Webpage
 - E.g. Addition of Outfall Photos
- Monitored Locations Will Increase as Infrastructure is Installed at Additional Locations
 - E.g. Real Time Control Phase 2 Project

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PW19091a Recommendations

- (a) That staff be directed to implement the New Real Time Public Notice Protocol for Wastewater Treatment Plant Bypass and Combined Sewer Overflow Reporting; and,
- (b) That the interim report requirement of recommendation (a) and all of recommendation (b) of Public Works Committee Outstanding Business List, respecting Wastewater Treatment Plant Bypass and Combined Sewer Overflow Reporting, be considered complete and removed.



QUESTIONS?