Real-Time Predictive Modeling for the Dorchester Interceptor

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2020 NEWEA Annual Conference & Exhibit

January 29, 2020

Boston, MA

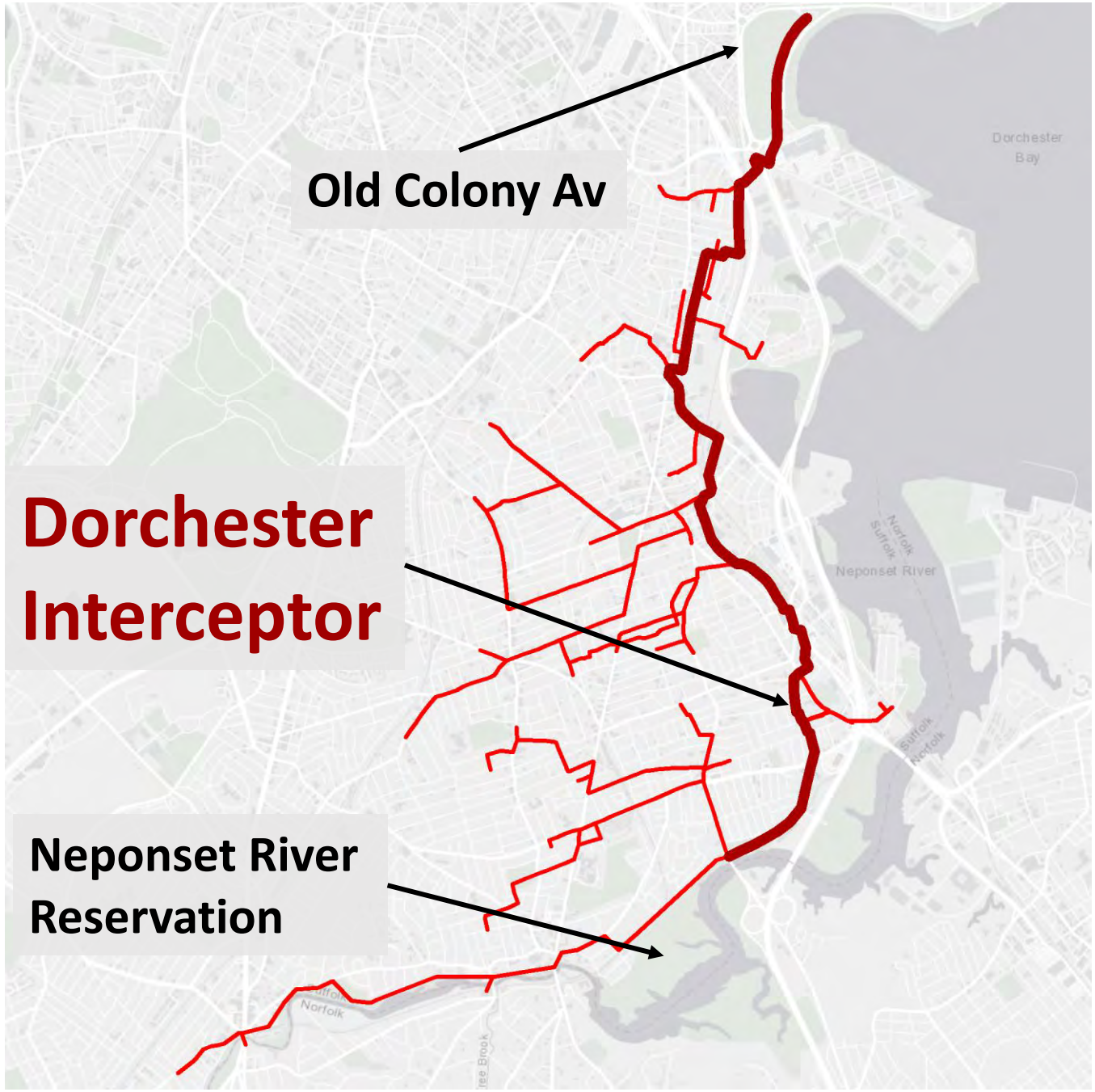
Overview

- Background
- Field Monitoring
- Application Demonstration
  - Observed Data Integration
  - Forecast Data Integration
- Next Steps

Background

Dorchester Interceptor (DI)

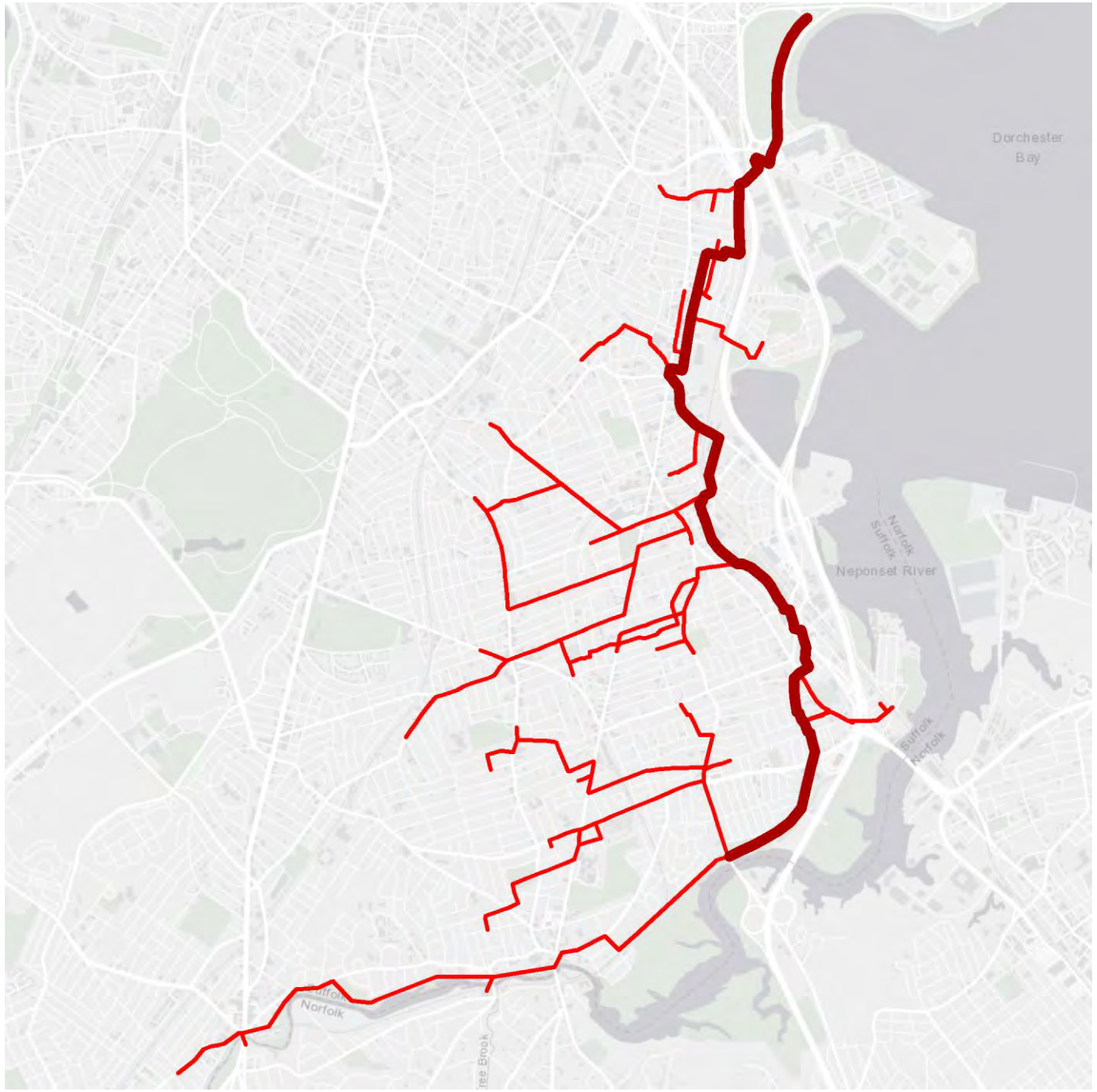
- 54 – 60 inch diameter sewer
- Old combined system, completely separated as of 2008
- Serves ~2,800 acres of separated sewer area



Background

Sanitary Sewer Overflows (SSOs)

- History of SSO issues along DI
- Undersized pipe, flat slope
- Remaining inflow and infiltration issues



Field Monitoring

Metering Program

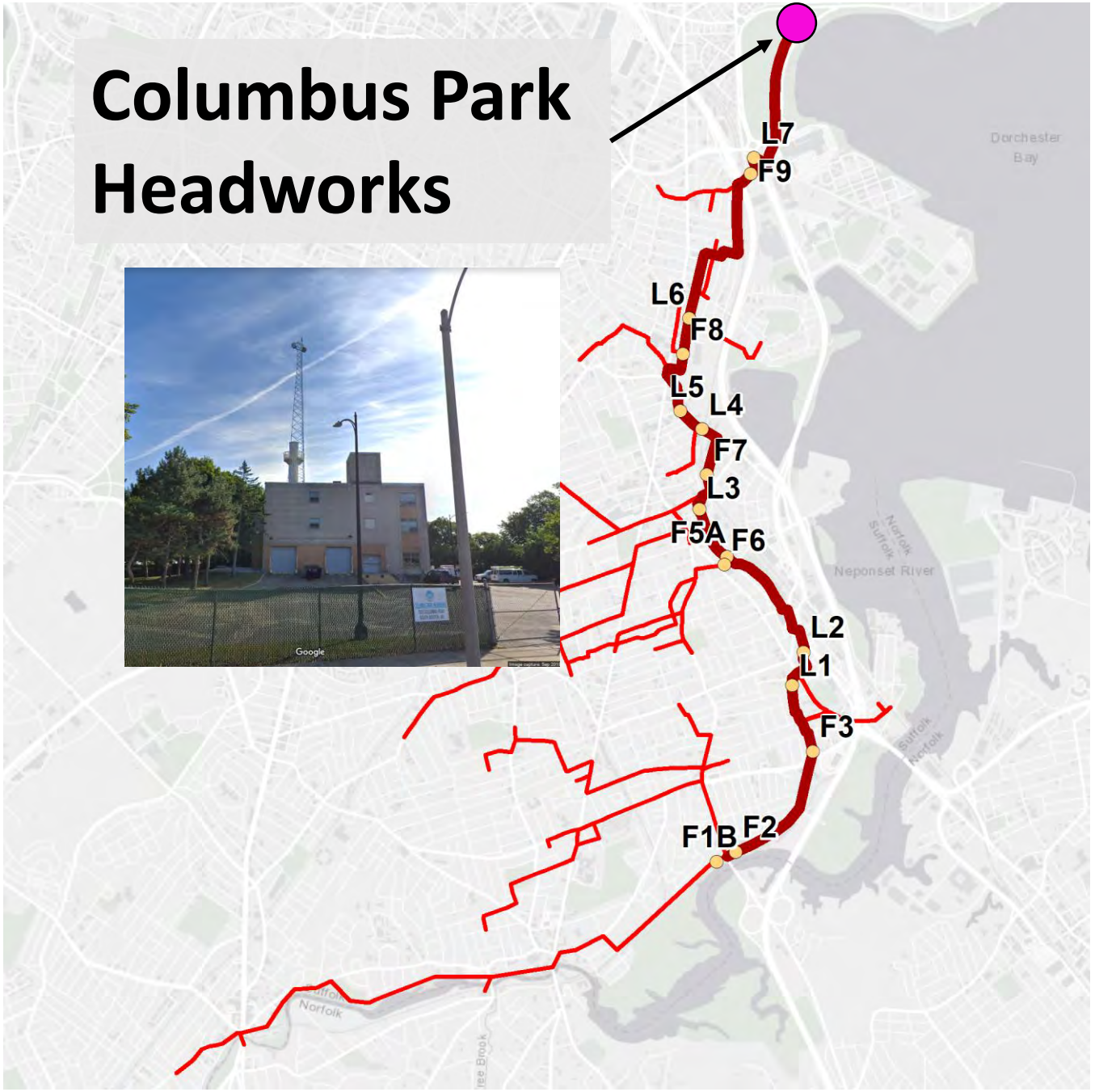
- 8 flow meters
- 7 level sensors
- 3 rain gages
- 4 groundwater gauges
- Collecting data for up to 3 years

Field Monitoring

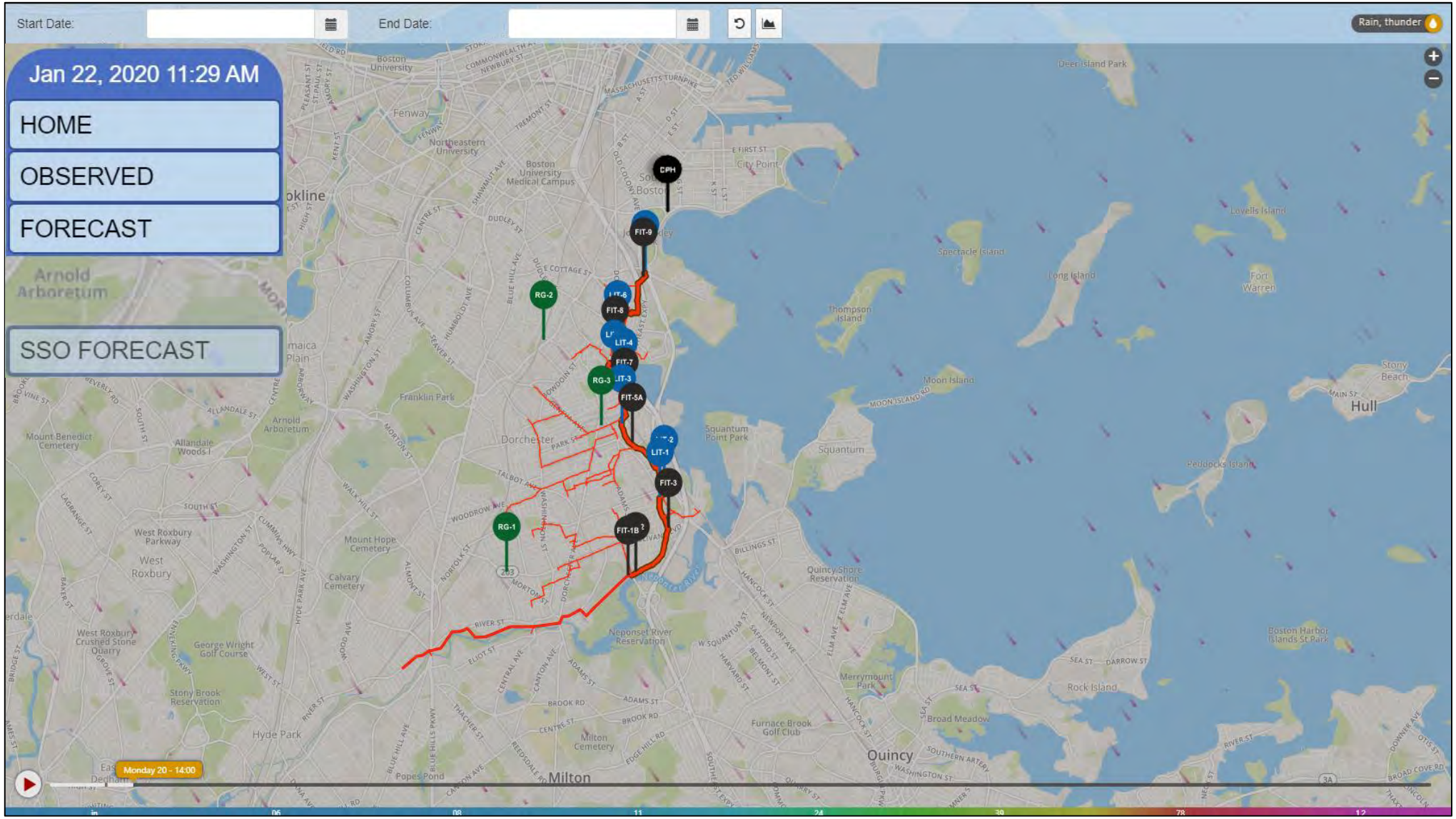
Columbus Park Headworks (CPH)

- CPH operated by Massachusetts Water Resources Authority (MWRA)

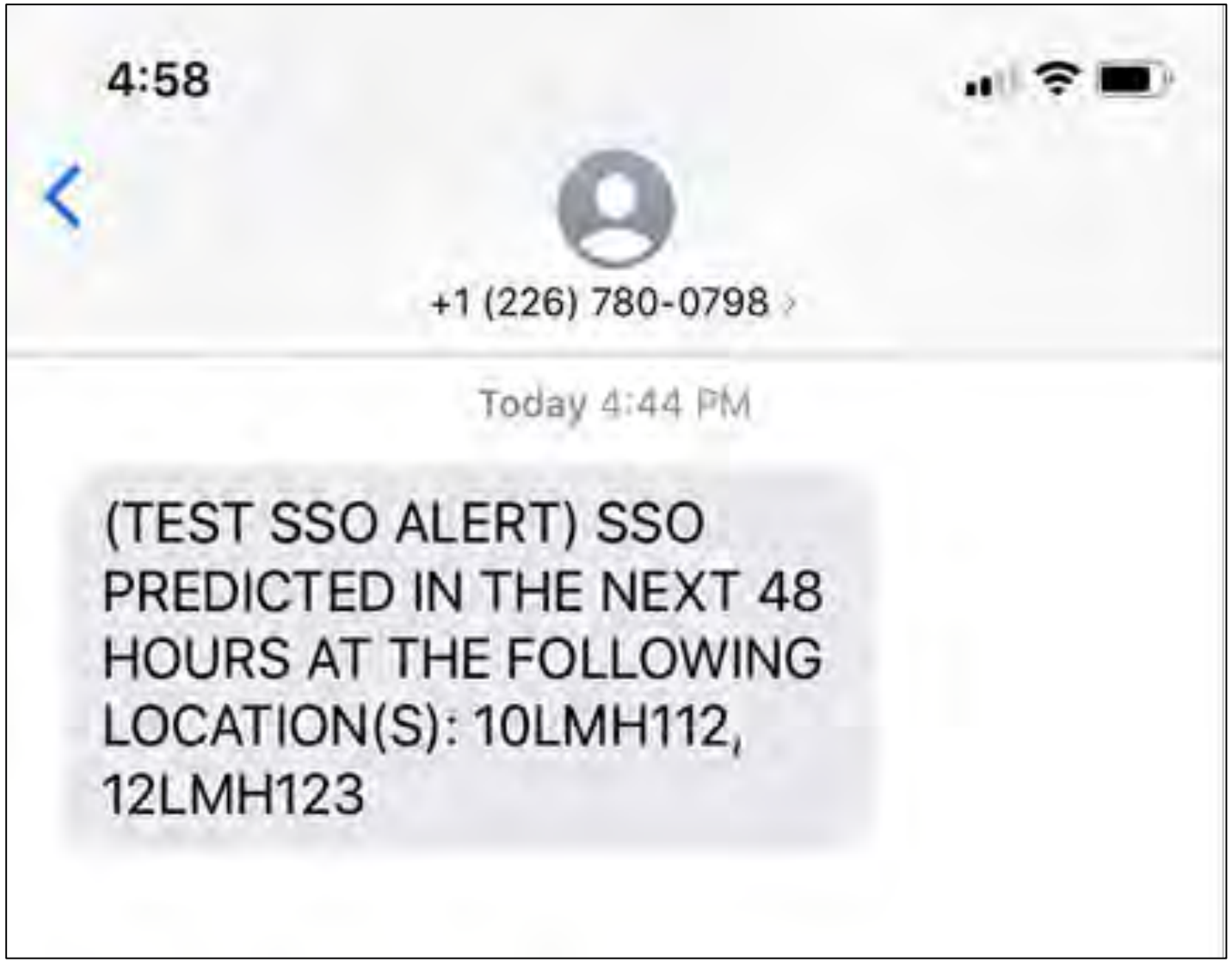
- MWRA limits CPH flow to 180 MGD to protect system capacity



Application Demonstration – Link



Application Demo – Forecast Data Integration



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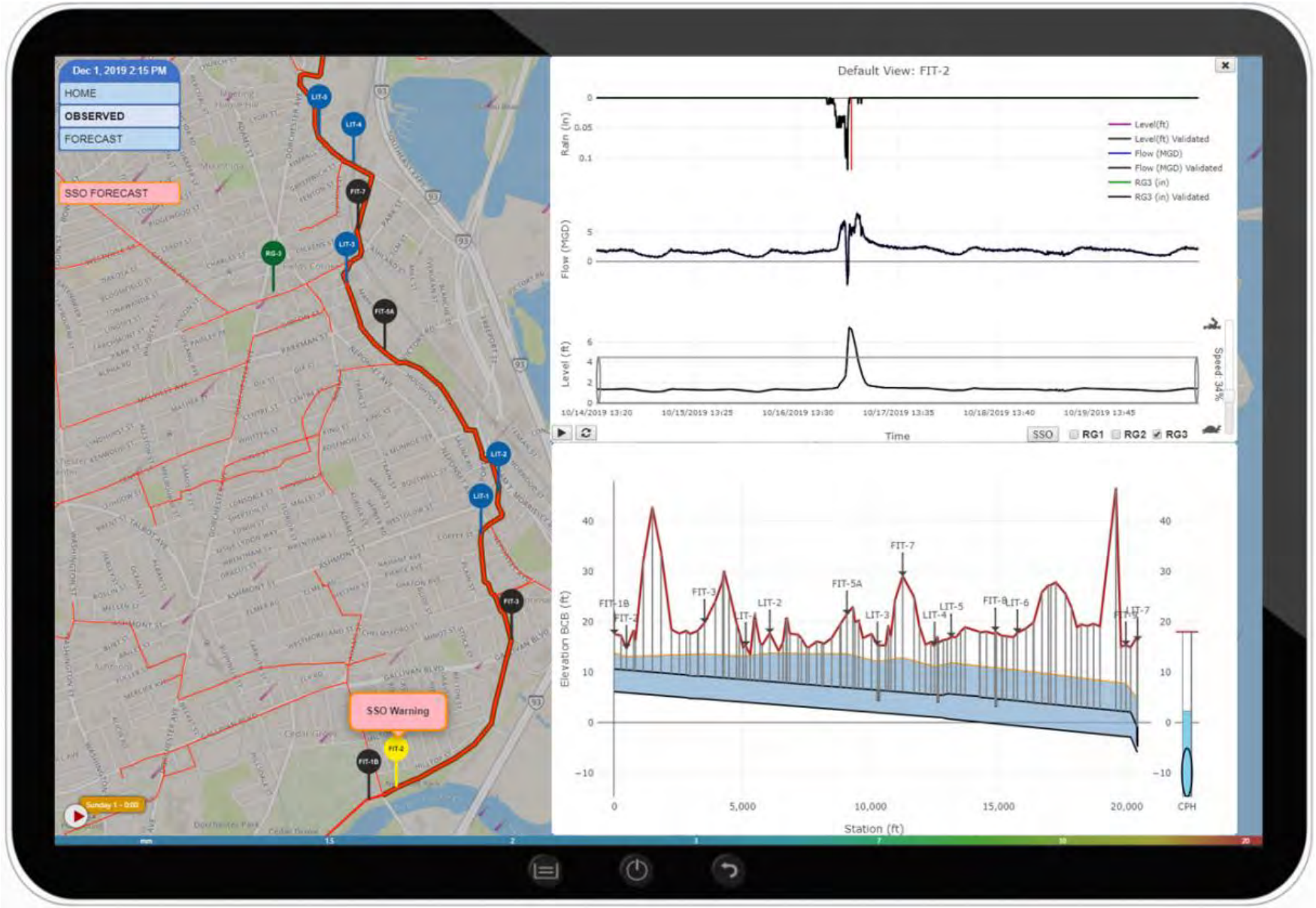

Next Steps

- Calibrate hydraulic model
- Gather user feedback
- Develop SSO control plan

Questions?

Thank You!

Contact Us!

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