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Council Item #510

Structural Rehabilitation of Taggart Outfall 30

Scott T. Gibson, P.E. | Principal Engineer | BES

May 23th, 2018



ENVIRONMENTAL SERVICES
CITY OF PORTLAND

NICK FISH, COMMISSIONER
MICHAEL JORDAN, DIRECTOR



Overview

- The 10-foot diameter brick outfall was built in 1906 to convey combined sewer flows away from the city's largest basin
- The outfall was found to have deterioration while conducting inspections of our large diameter sewers
- This project will construct 3400 linear feet of structural liner system to extend the useful life of the outfall an additional 100 years



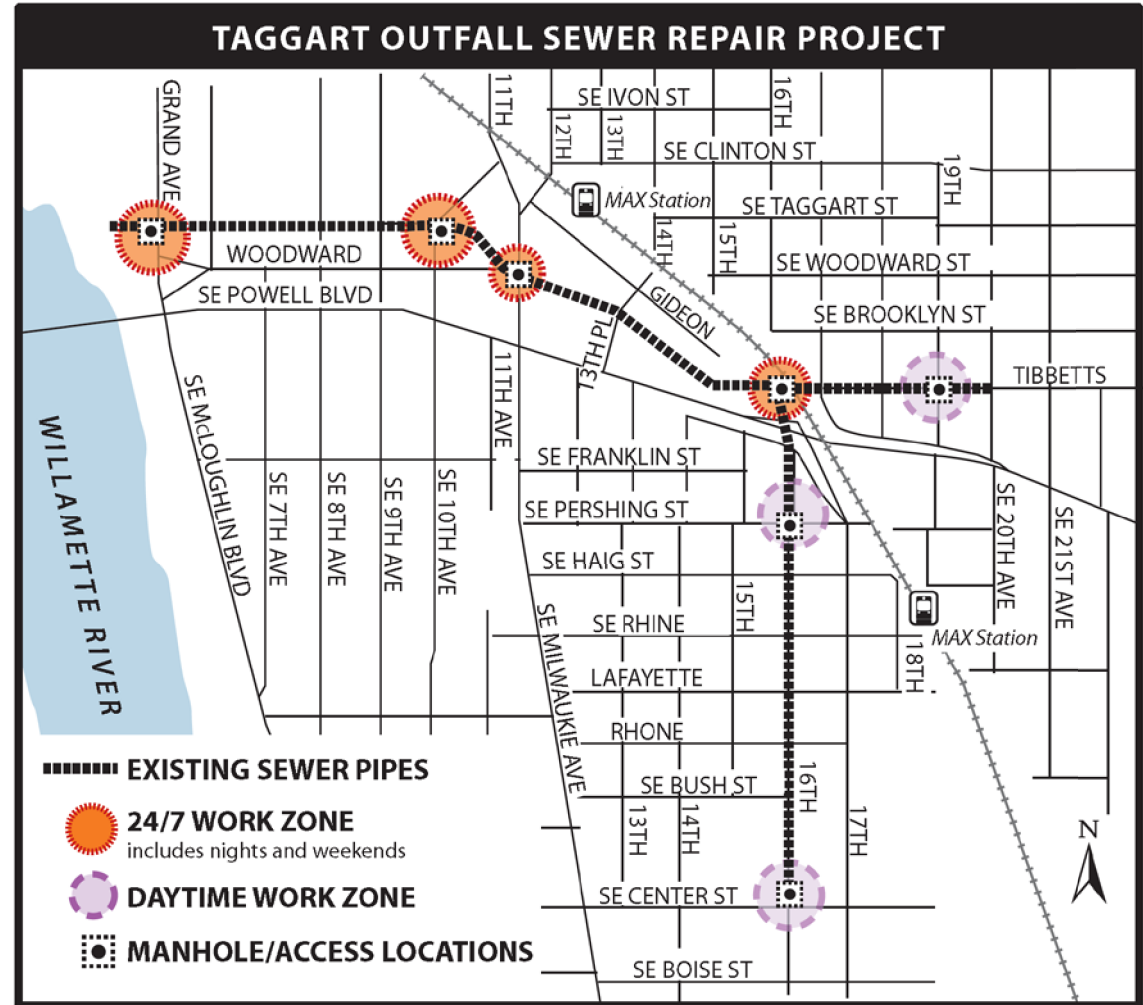
Project Location



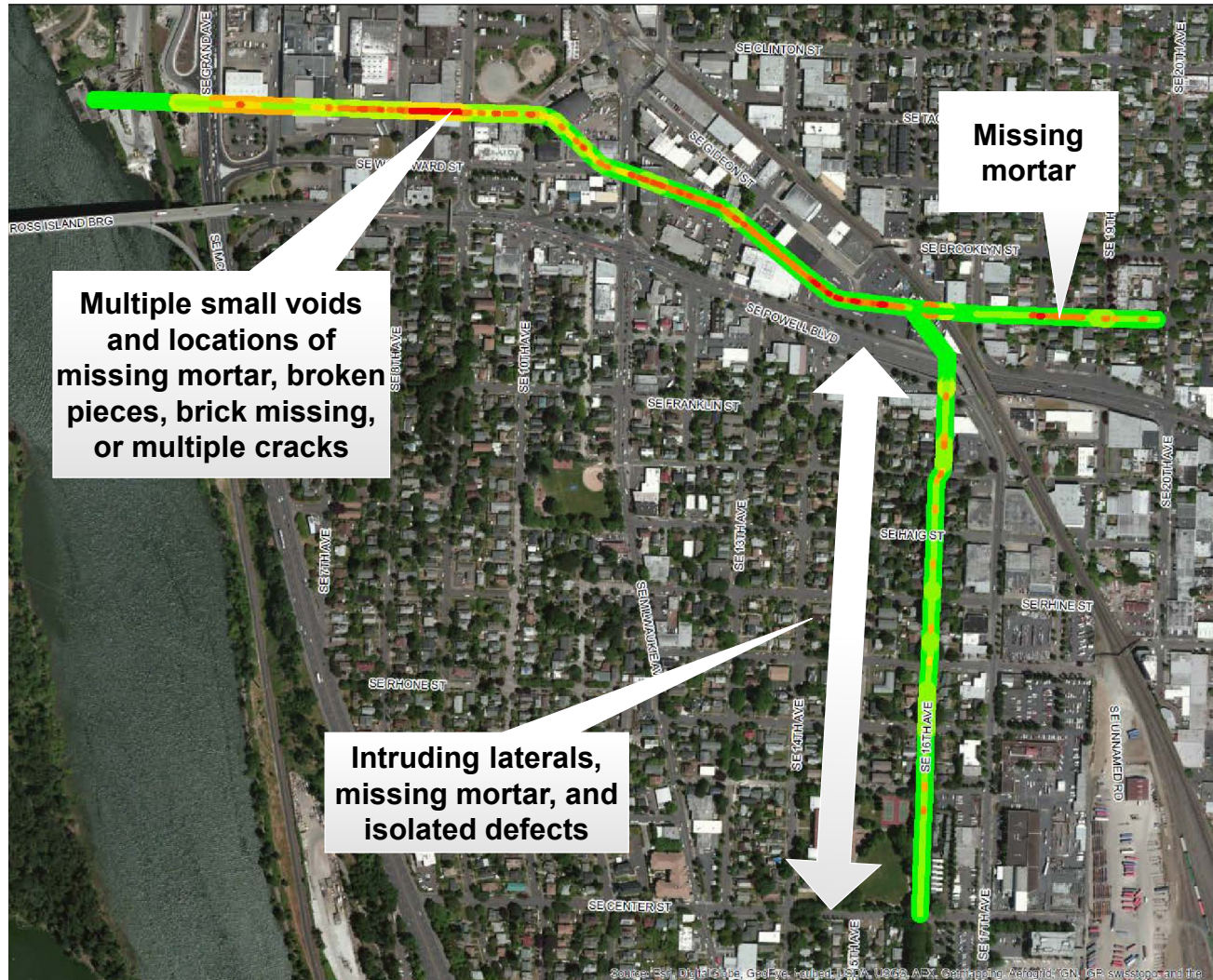
24/7 Work Zone



Daytime
Work Zone

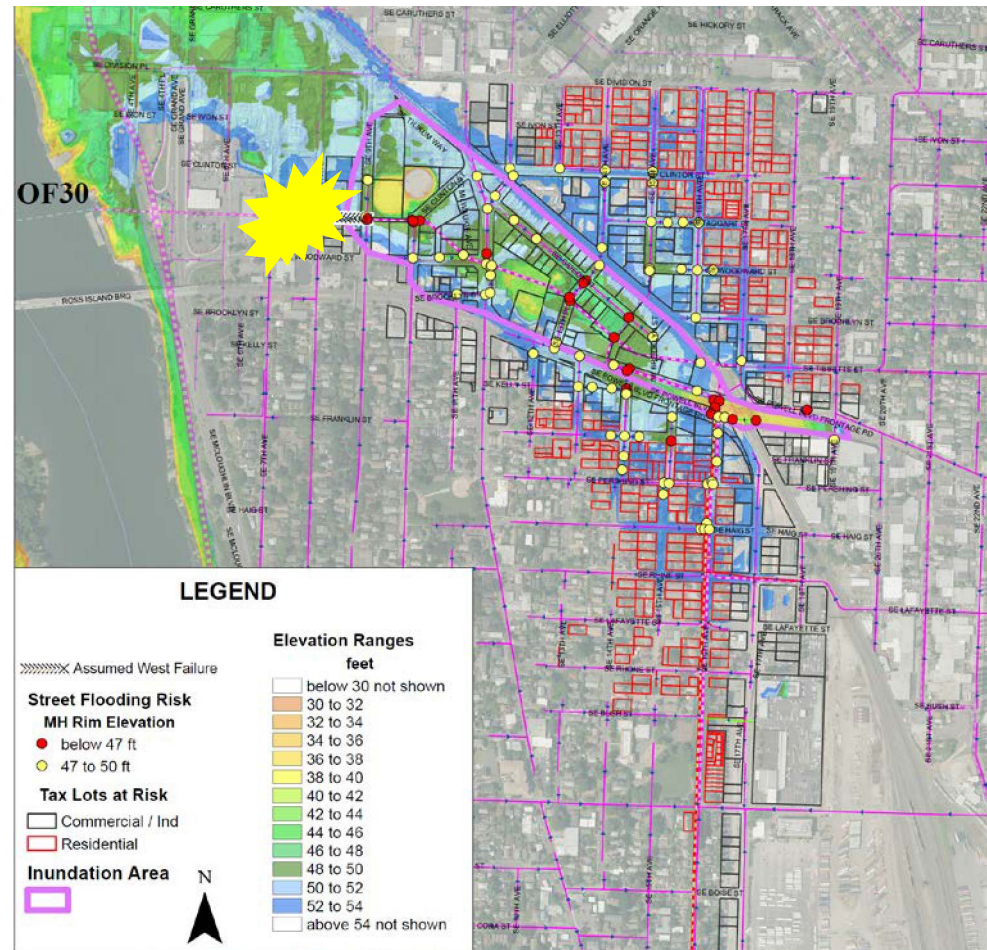


Condition of Existing Sewer



Potential Impact of Sewer Failure

- Flooding at
 - 103 manholes
 - 255 commercial properties
 - 318 residential properties
- \$10 million estimate to restore service and settle claims



Public Involvement

- Neighborhood and business outreach during design and construction
- On-site visits to impacted businesses
- Project scope, benefits, schedule, impacts, mitigation measures, and what to expect during construction

Over one-third of Portland's 2,500 miles of sewer pipes are more than 80 years old. Projects to replace or repair aging sewers are important for protecting water quality, public health and the environment.


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Michael Jordan, Director


Taggart Outfall Repair Project

At a glance


These sewer improvements will help protect the public and the environment by reducing the possibility of costly breaks, leaks, blockages and sewage releases to homes, businesses and streets.



3,727 feet
of public sewer pipe to be repaired to protect public health



110 years
Age of Taggart Outfall brick sewer



2 summers
Construction is anticipated summer 2018 and summer 2019

FOR MORE INFORMATION: www.portlandoregon.gov/bes/Taggart

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Willamette River Watershed

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Taggart Outfall Sewer Project Proposed 24/7 Schedule for Sewer Repairs MAY 31, 2017

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Environmental Services is designing a project to repair about 3,700 feet of the 110-year-old brick Taggart Outfall sewer in the Brooklyn and Hosford-Abernethy neighborhoods. The sewer pipe is showing signs of cracks, fractures, and missing brick and mortar, putting the Outfall at risk of structural failure that could result in significant impacts to the area. This project will allow the Taggart Outfall sewer to properly perform its role in protecting public health, water quality, and the environment.

Timeline
Sewer repairs are anticipated to occur between May and October of 2018 and 2019.

Location
Construction activities will be concentrated at existing manhole access locations along the Taggart Outfall. Work zones will move as project segments are completed.

Proposed 24/7 Schedule
The Outfall will be repaired using construction methods that can be completed from inside the sewer line and will require minimal work aboveground in the roadway.



Crews can safely work in the Outfall pipes only on dry days when there will be no flow into the pipes from rain or other parts of the sewer system. Work at each manhole west of the light rail tracks may last several months, while work on manholes in SE 16th Avenue and in SE Tibbetts Street should be less than a month at each location. Crews may be working at multiple locations at the same time.

To take advantage of Portland's dry season to complete these urgent repairs, the city is proposing to work all hours and all days in the industrial area between SE Grand Avenue and SE 16th Avenue adjacent to light rail. Work in the other, more residential areas will be completed during regular daytime construction hours from 7 a.m. to 6 p.m. Monday through Friday, and Saturday if needed.

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Project Budget and Schedule

- Construction Contract Estimate is \$8 Million
- Advertisement June 2018
- Level of Confidence is High
- Purchasing Agent to report back to Council with lowest responsible bid
- Construction NTP October 2018
- Construction complete October 31, 2019



Questions?

