



Water Transmission Incident Review & Response

Review of the 36", 42", and 54" Water Main Breaks

Peter Fromm, *Director of Water Transmission*

November 20, 2025

54" Water Main Break

February 17, 2025



Morning of the Break

Community's Perspective
February 17, 2025

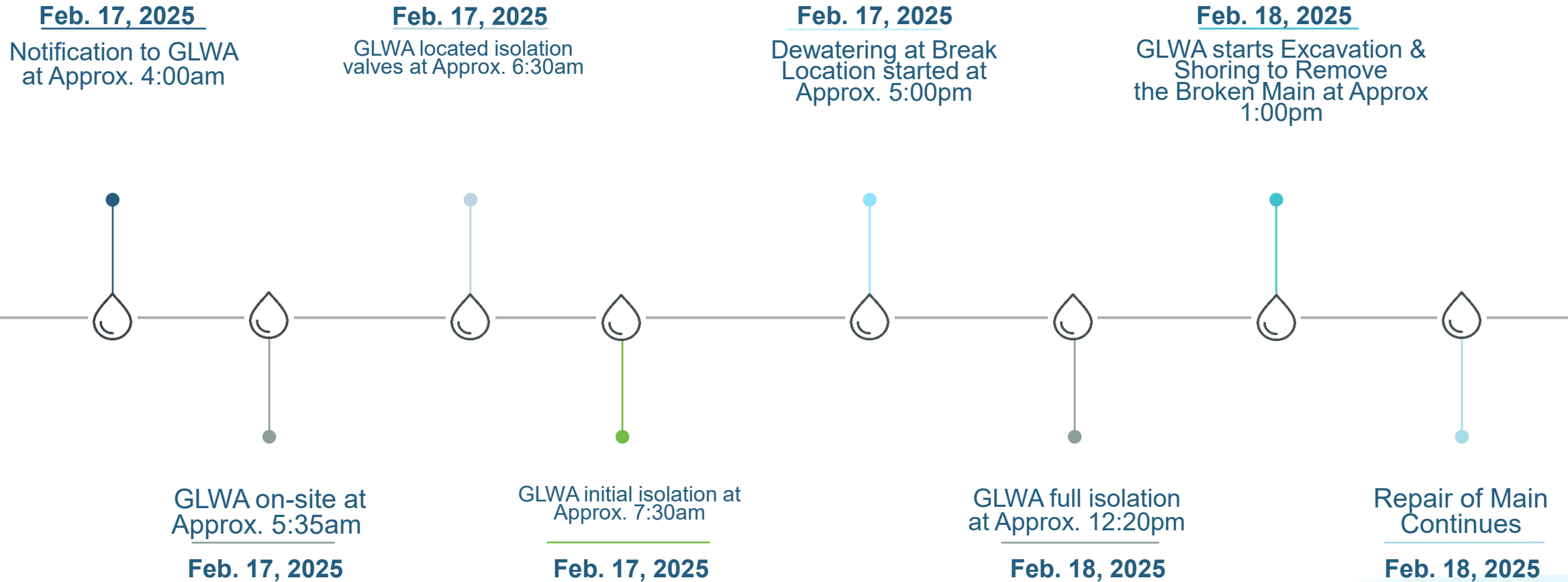


3:38 AM

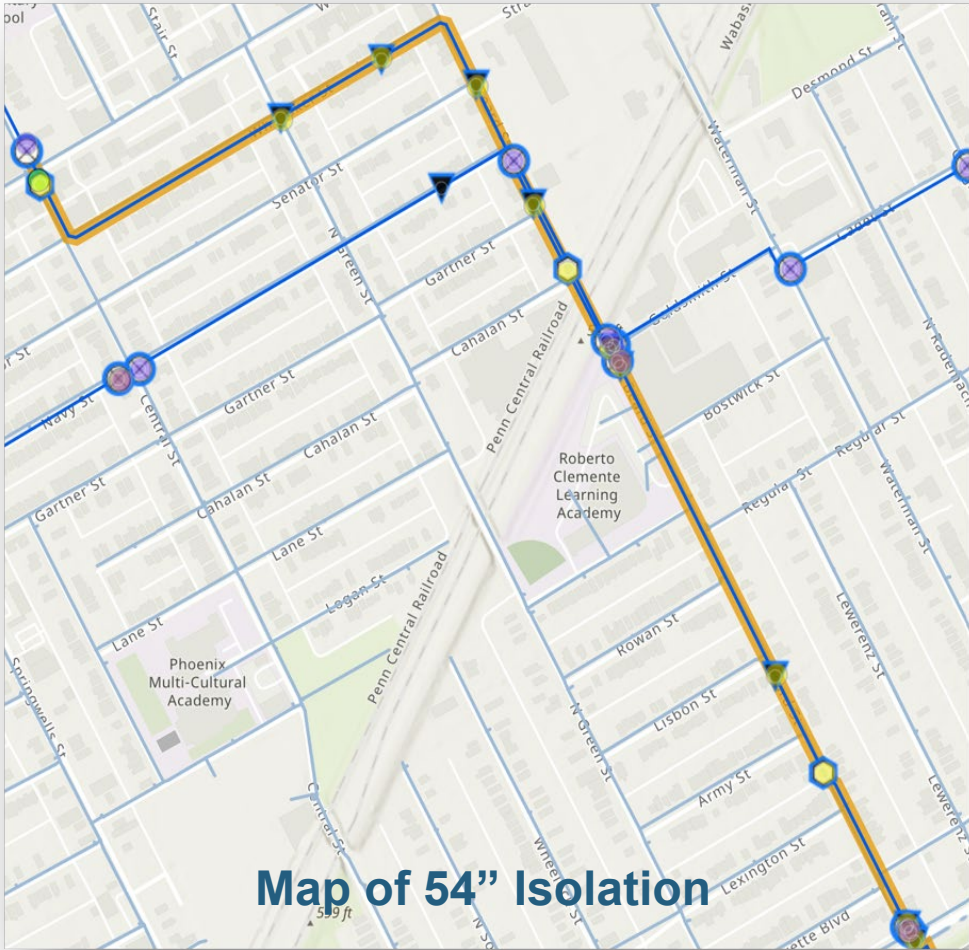


7:30 AM

First 48 Hours: Response Timeline



Water Main Break Location



Pipe Isolation and Repair



Repair In Process

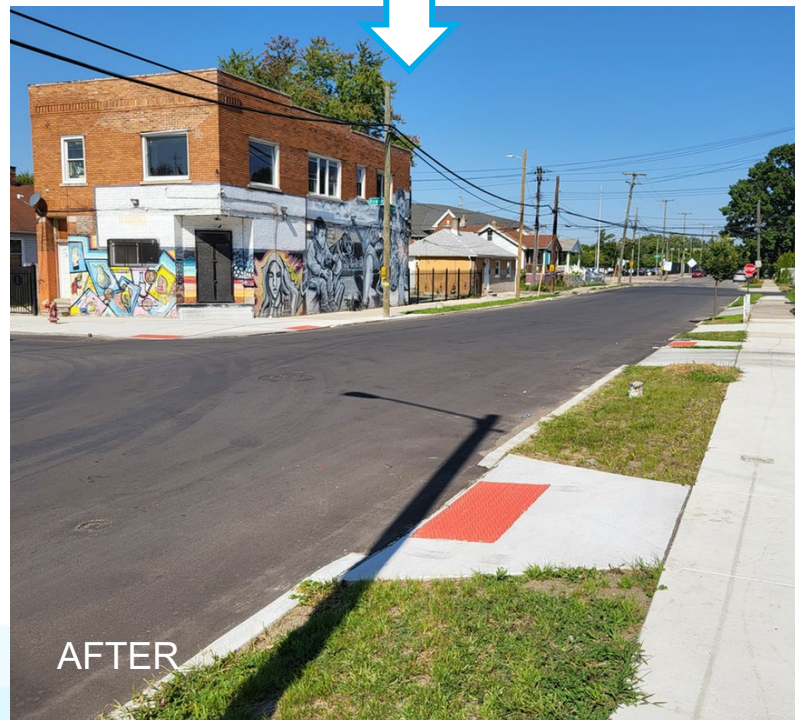
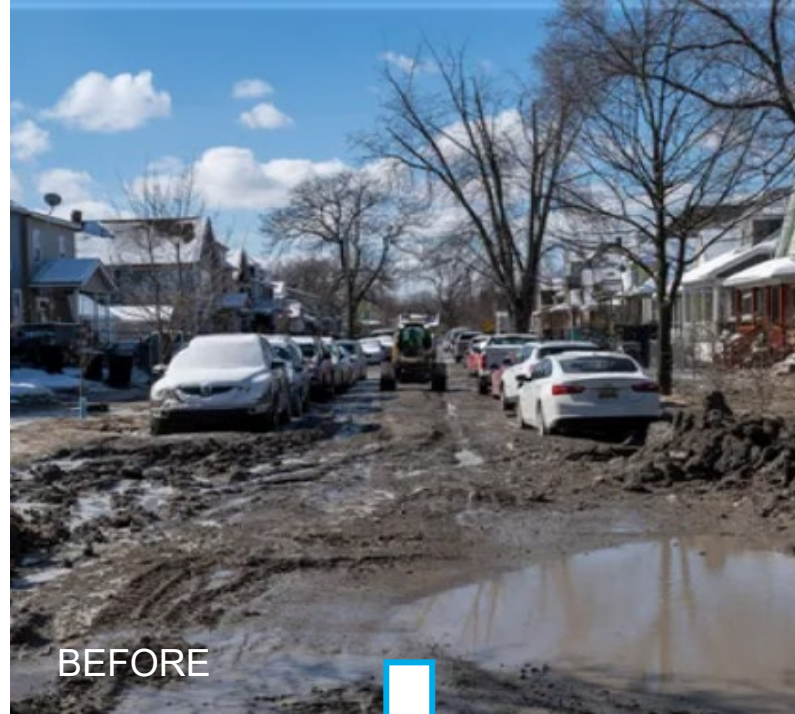


Site Restoration



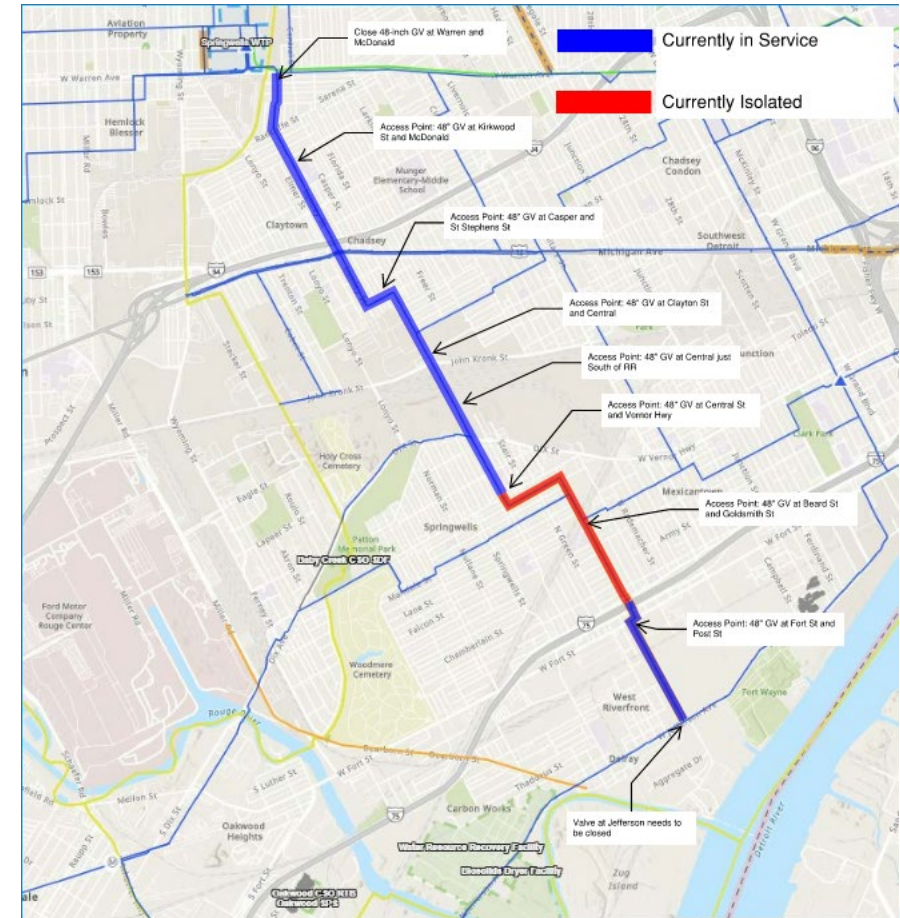
Visual Summary

Before and After Comparison



Next Steps for Renewal

- 💧 Field Testing to determine the length of the 54" that needs to be renewed
- 💧 Pipeline Assessment of the 54"
 - 💧 Inspection of Pipeline
 - 💧 3D LiDAR Scanning of Pipeline
- 💧 54" Pipeline Lining Project





36" Water Main Leak Overview

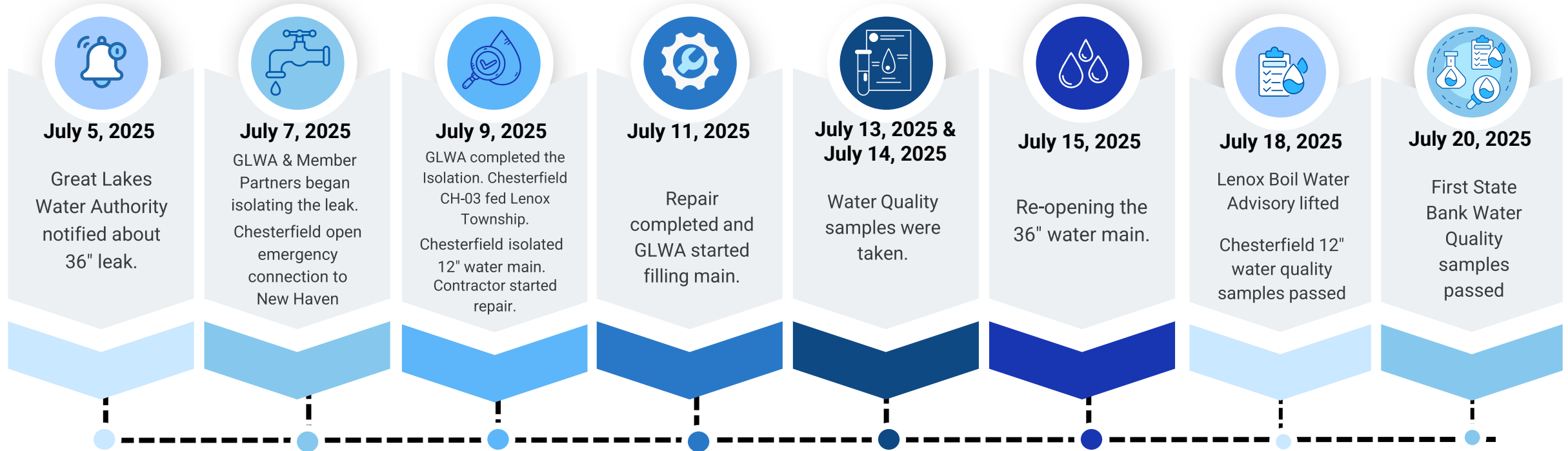
July 5, 2025



Reported 36" Leak

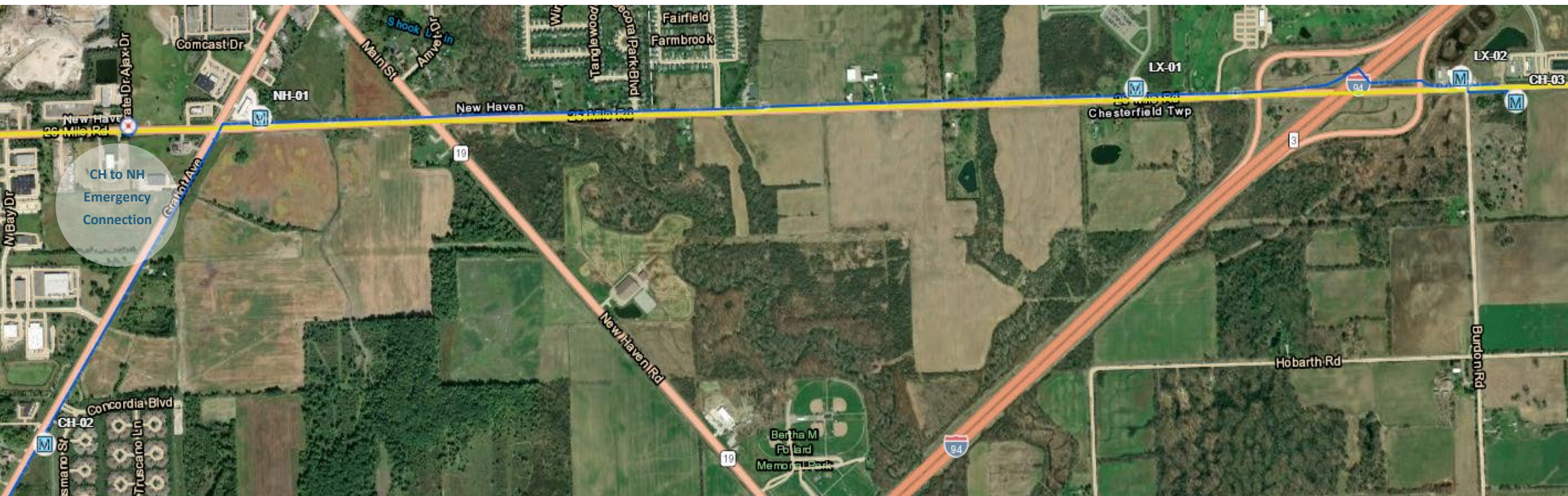
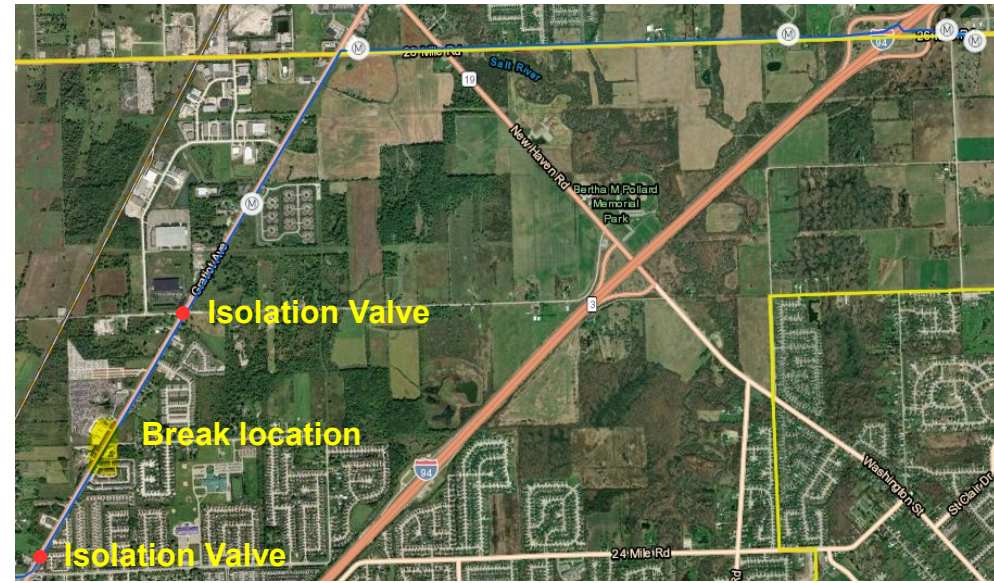
July 5, 2025

36" Leak Repair Timeline



36" Transmission Main

Pressure Flow Overview



36" Leak

Visual Timeline



An aerial photograph showing a multi-lane road with a significant water main break. A large, turbulent plume of white water is erupting from the center of the road, creating a massive splash that extends across several lanes. The surrounding area is lush with green trees and vegetation. To the right of the road, there are several residential houses with dark roofs and light-colored siding. The overall scene depicts a major infrastructure failure in a suburban or rural setting.

42" Water Main Break Overview

September 25, 2025

42" Water Main Repair Timeline



6:30am 42" main broke

GLWA arrived at 8:00 am

GLWA started isolating at 9:00 am

16" Insertion valve installed at 11 pm

Isolation continued throughout the night



At 3:00 am, Novi (NV-04) started to receive flow again.

At 1:30 pm, GLWA isolated at break site

At 2:00 pm, break site dewatered and repair started

Field crew worked to broken main



42" damaged pipe was removed and new pipe section installed

Installed linestop on 24" main and replaced 16" valve

Inspection of existing 42" pipe at break site

Bac-T Sample on 24" main



42" repair continued

Prepared for inspection of 42" pipe

16" valve replacement started

Prepared for 30" valve replacement

Bac-T samples taken for the GLWA 24" main and Novi System



42" repair continued

Started Inspection on existing 42" pipe

30" valve replacement began

2nd round of Bac-T samples were taken from the Novi System

Bac-T samples passed for the 24" watermain



42" repair with man-way access

30" valve replacement continued

Water Quality lifted Boil Water Advisory in Novi

Valve Maintenance continues at WA-01

Inspection of existing 42" continued

September 25

September 26

September 27

September 28

September 29

September 30

42" Water Main Repair Timeline (cont'd)



Repair on 42" continued

30" valve replacement continued

Repair completed on valve to Walled Lake (WA-01)

Review initial inspection data began



42" repair site backfilled

30" valve replacement continued

Review of initial inspection data continued

Prepared for second inspection of existing 42"

Water Quality samples at WA-01 and CM-01

BWA lifted at Walled Lake & Commerce



Backfilled at 42" repair site

30" valve replacement continued with installation starting

BWA lifted in Wixom

Water Quality samples at WA-01 and CM-01

Inspection of existing 42" main

Repair Novi watermain at 30" valve location



Restoration Prep. at 42" repair site

30" valve replacement continued

Water Quality samples passed at WA-01 and CM-01

Prepare for new 42" valve cut-in east of break location



Site Clean-up
Dewatering Pump Watch



Restoration Prep. at 42" repair site

30" valve installation completed

Mob. to new 42" valve cut-in east of break location

GLWA continues to review inspection data

October 1

October 2

October 3

October 4

October 5

October 6

42" Water Main Repair Weekly Timeline (cont'd)



EOC Meetings

36" Valve installation completed and vault structure continues

42" valve installation

42" Break site road restoration

Review of Inspection data

**Week of
October 6**



EOC Meetings

42" Valve Vault Structure Continues

36" Valve Vault Structure Continues

Prep. For 42" Inspection from E. Walled Lake to WX-01

42" from Haggerty Booster Station to 24" Back in Service

CM-01 & WA-01 Back in Service from the 24" Main

**Week of
October 13**



EOC Meeting

Road Restoration on W. 14 Mile

Inspection of the 42" from E. Walled Lake to WX-01

Site Clean Up

**Week of
October 20**



EOC Meeting

W. 14 Mile Re-Open

Review of Repair Alternative Options

Meeting with Operation Group (GLWA/Member Partners /Stakeholders)

**Week of
October 27**



EOC Meeting

Final decision on Direct Replacement

Notice to Proceed with Direct Replacement

Meeting with Operation Group (GLWA/Member Partners/Stakeholders)

**Week of
November 3**



EOC Meeting

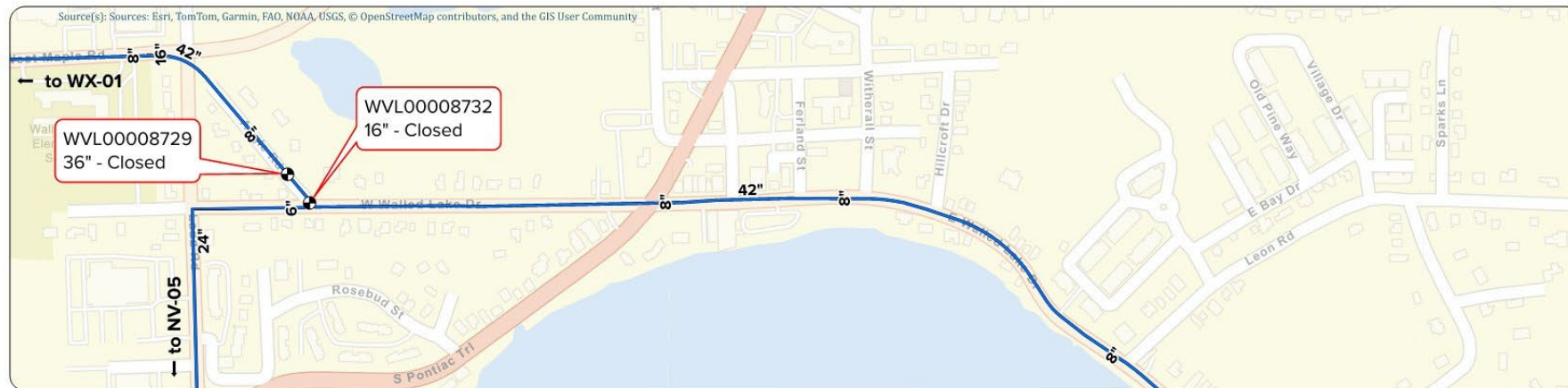
Kick-off Meeting for Direct Replacement

Meeting with Stakeholders & EGLE

Start of 42" Design

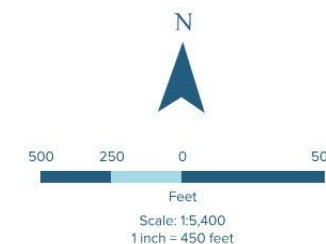
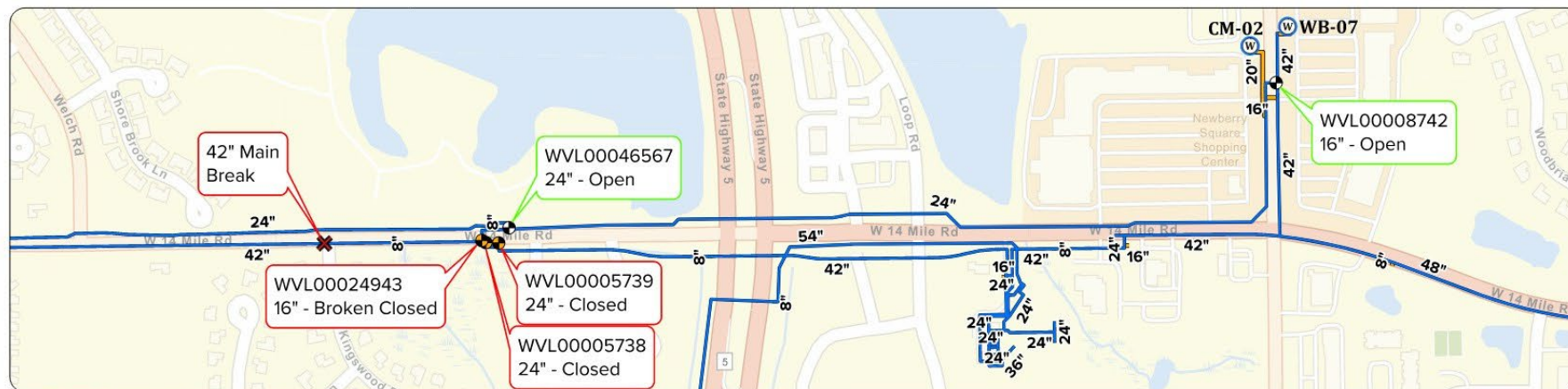
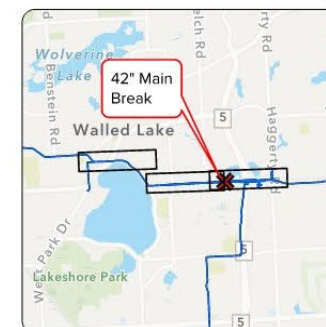
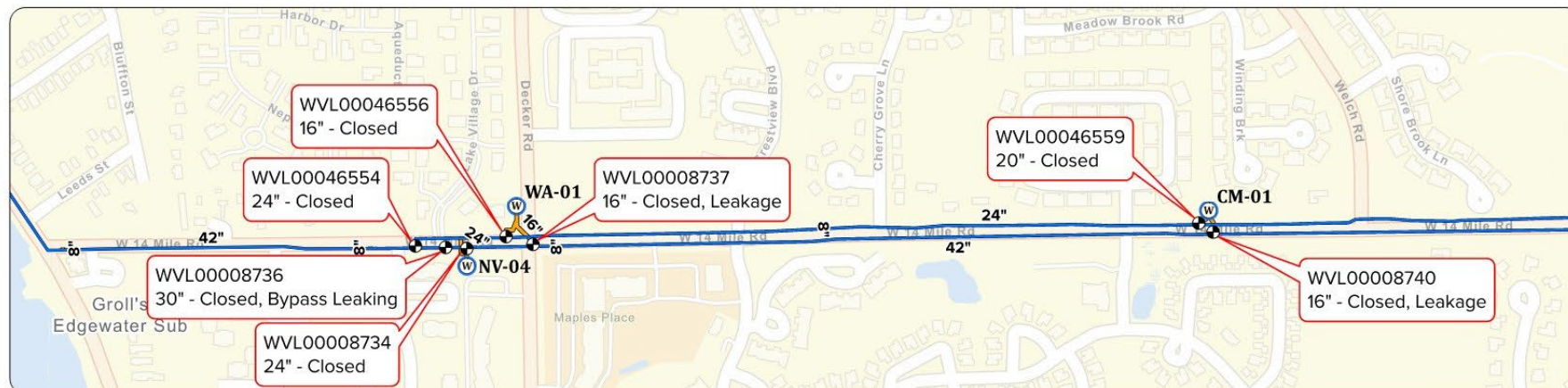
Meeting with Operation Group (GLWA/Member Partners/Stakeholders)

**Week of
November 10**



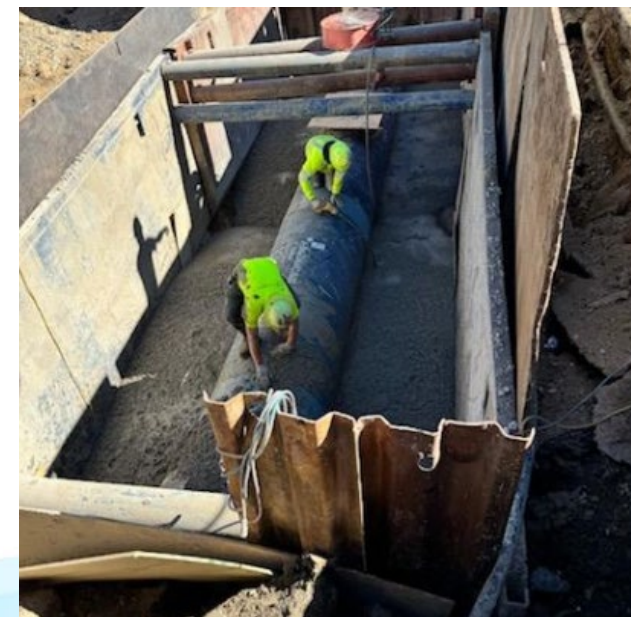
42" Main Break

- ✖ Main Break Location
- W WAMR Site
- ⦿ Gate Valve
- ⦿ Tapping Sleeve Valve
- GLWA Transmission Main
- GLWA Outlet Main
- GLWA Meter Inlet Main



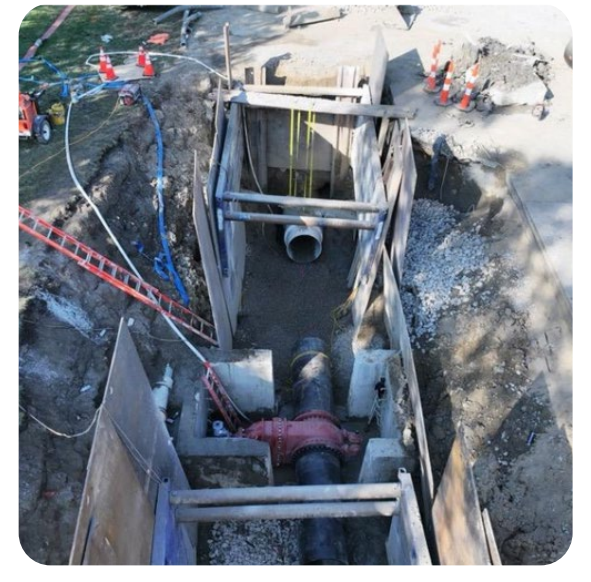
42" Main Repair

Visual Timeline

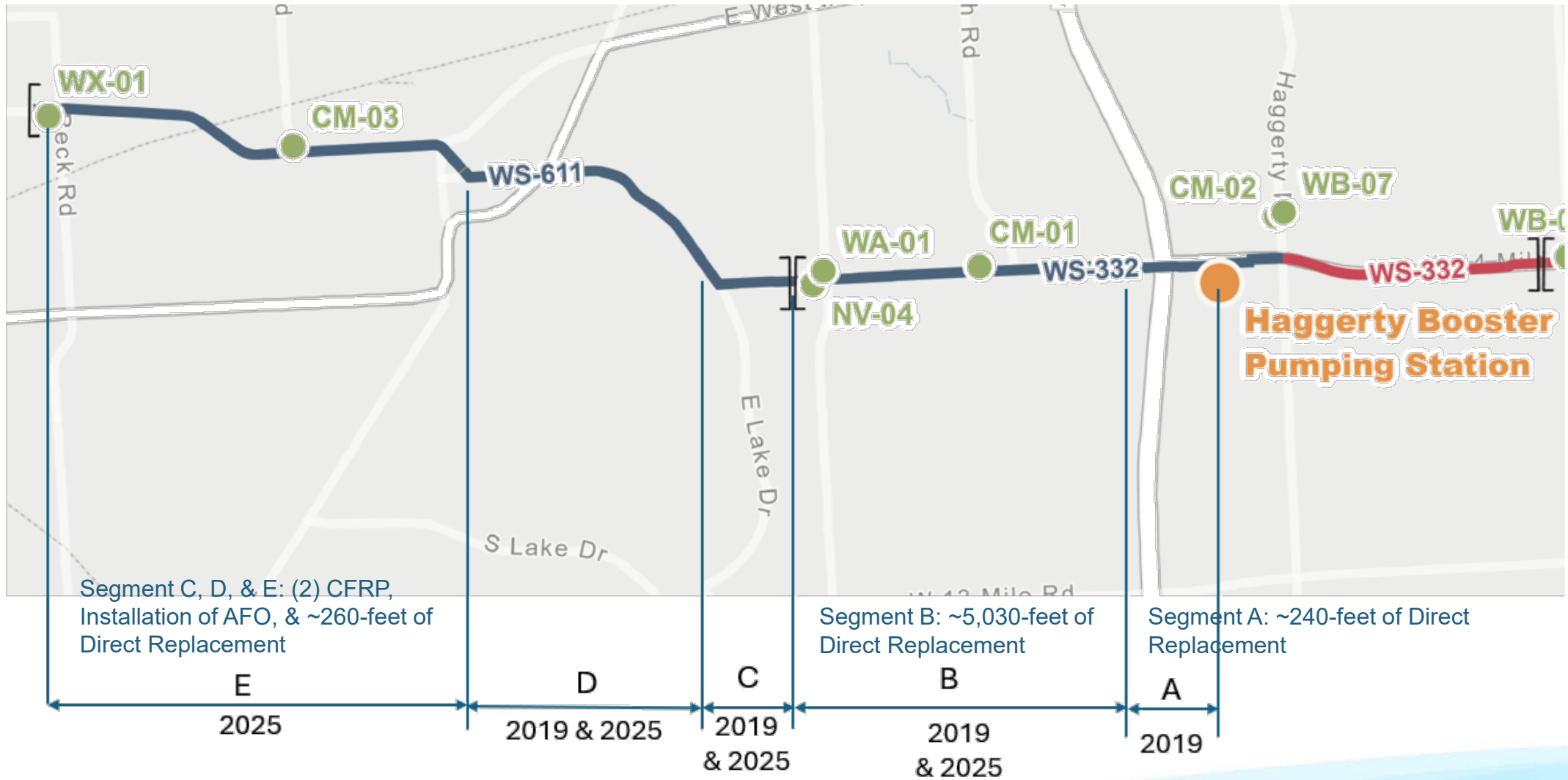


42" Break Repair

Visual Timeline (cont'd)



42" Renewal Phase



Thank You!