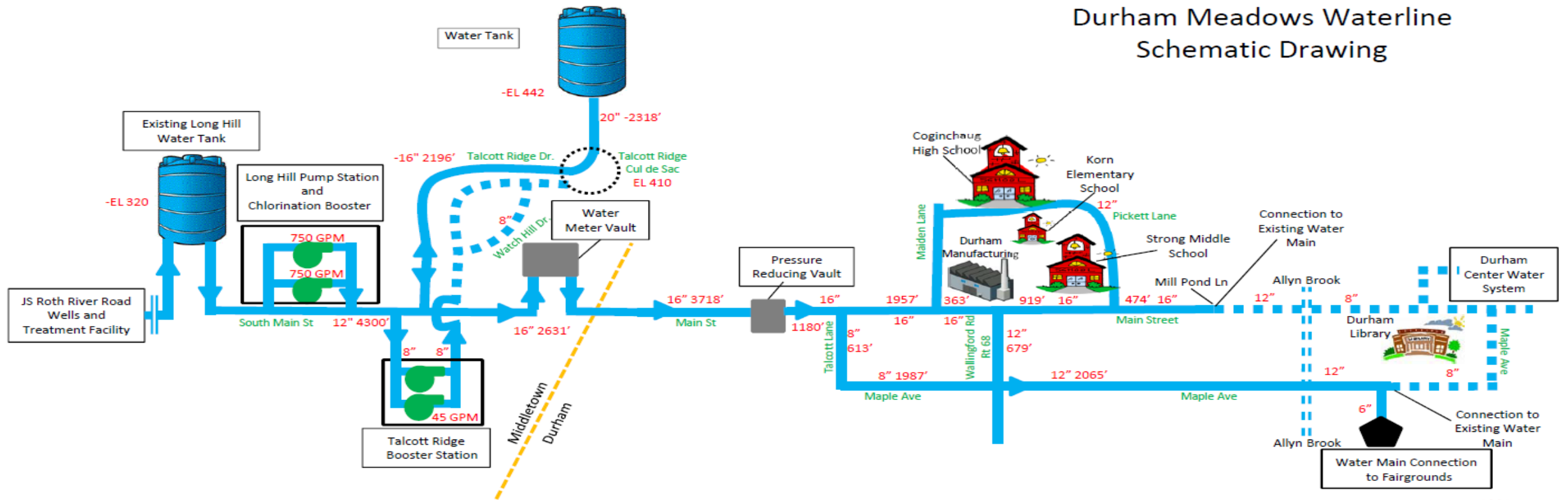


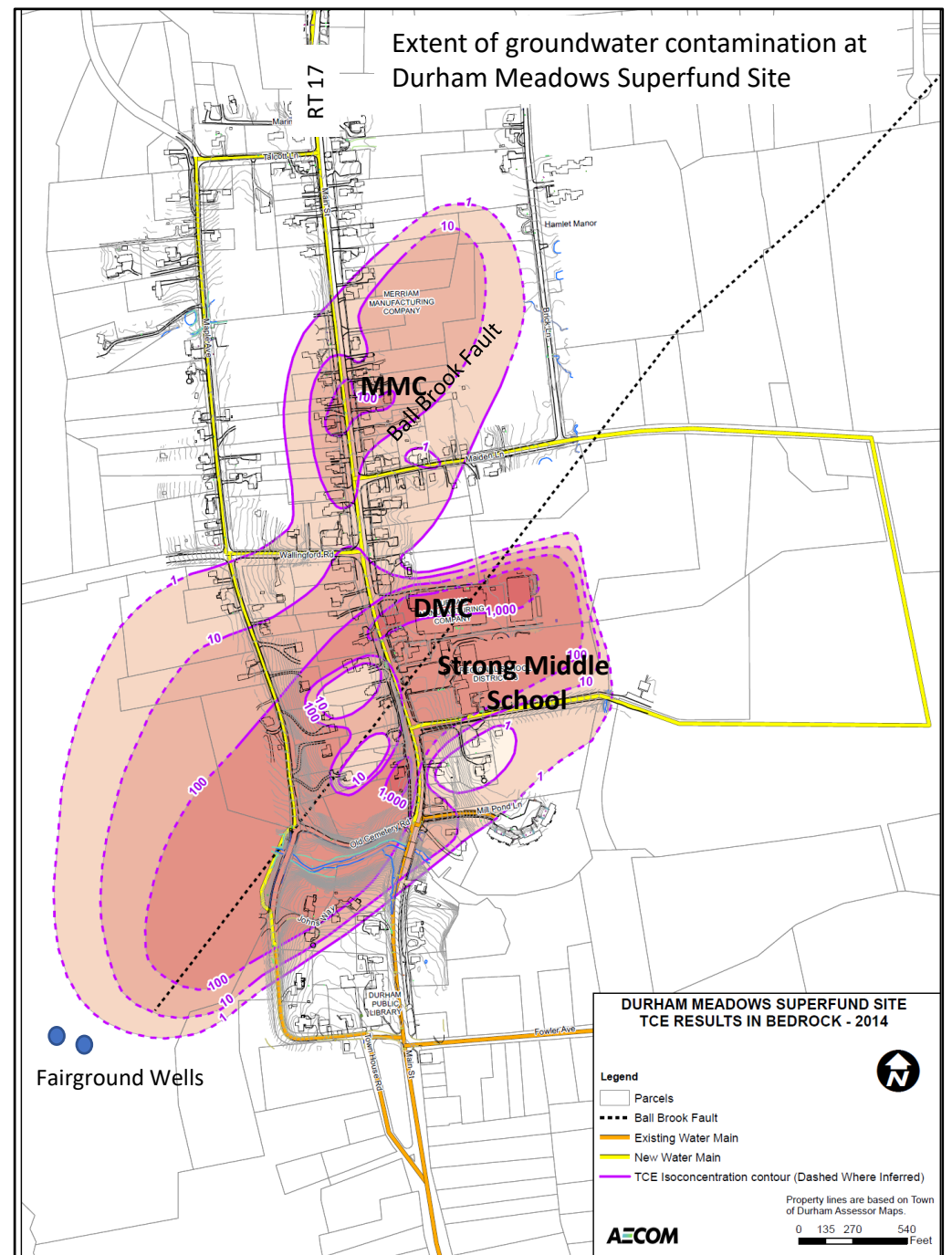
# Durham Meadows Superfund Site Alternative Water Supply Component of the Cleanup Action

Public Information Meeting - April 23, 2019



# Background

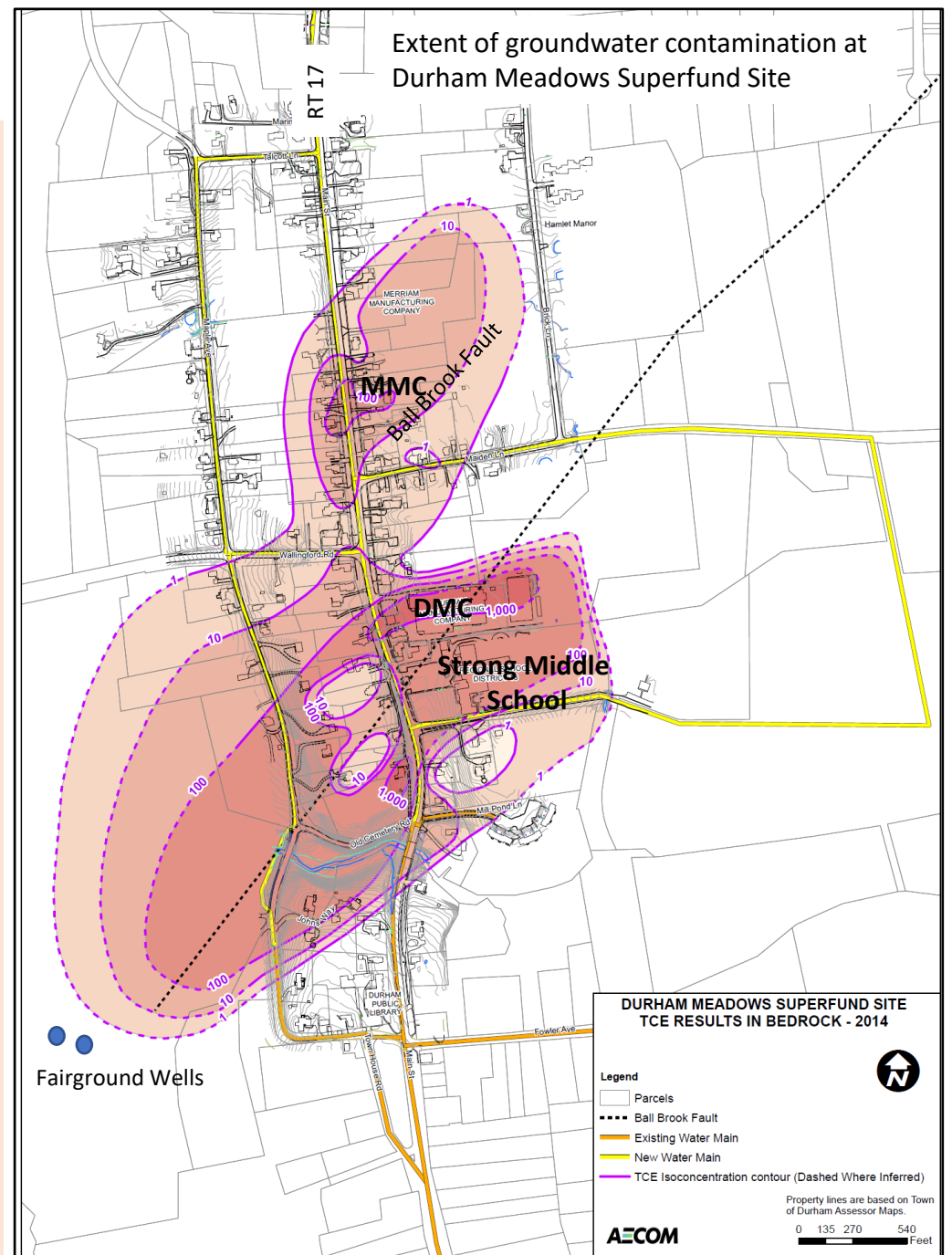
- A large area of groundwater contamination and the associated source areas were designated the Durham Meadows Superfund Site in 1989.
- 53 wells have contamination requiring use of carbon filters. 10 of these locations are also receiving bottled water for drinking water use due to 1,4-dioxane contamination. 2 additional locations contain 1,4-dioxane but provide their own bottled water.
- The major contaminant is trichloroethylene or TCE. The federal drinking water standard is 5 parts per billion. The CTDPH Drinking Water Action level is 1 part per billion.
- Concentrations detected in private wells in 2016 were as high as 1,400 parts per billion (280 times the safe level).



# Background

EPA completed the site investigations and signed a cleanup plan (Record of Decision) in 2005. The Durham Meadows Superfund Site cleanup plan has five components:

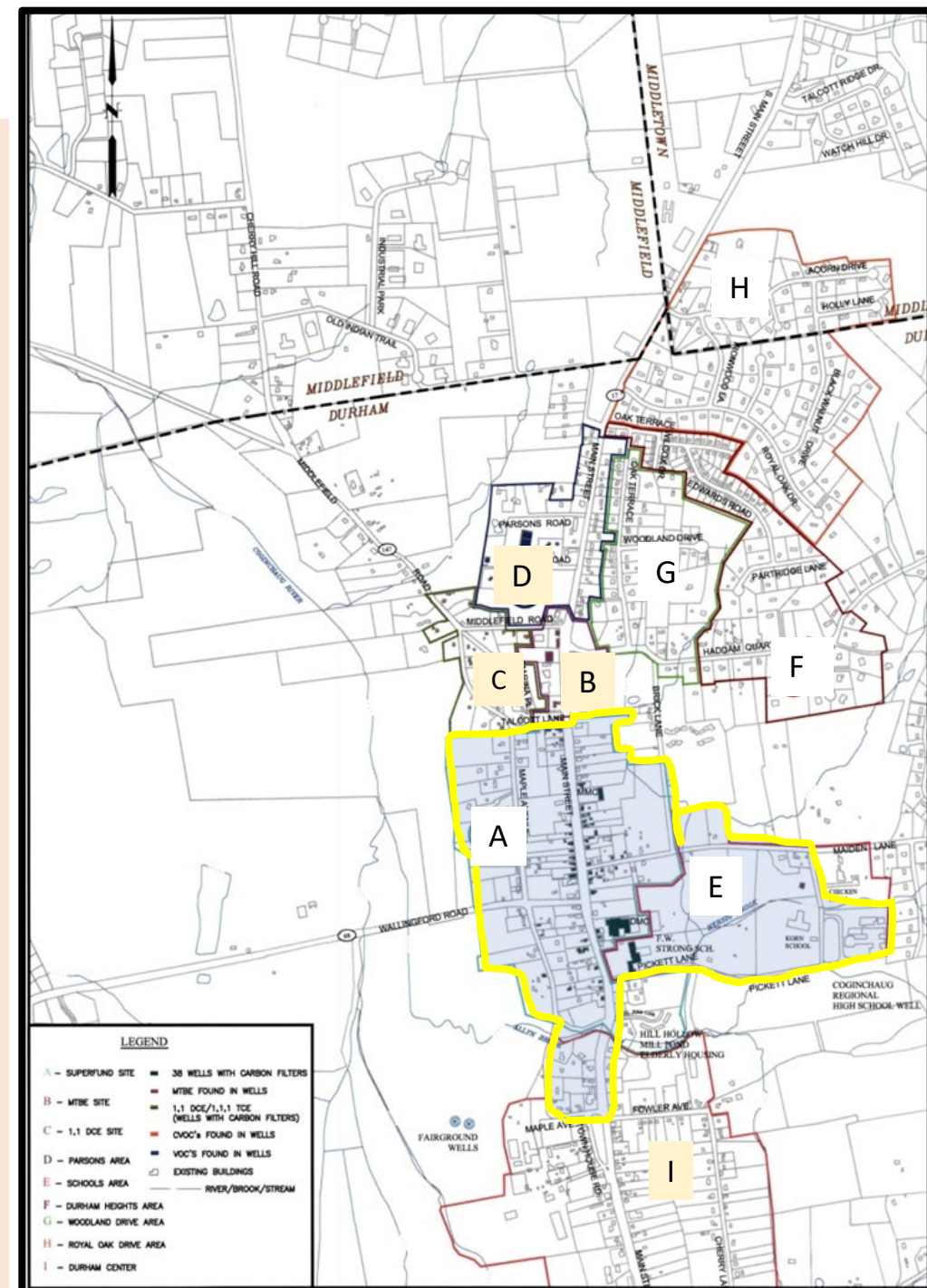
- Merriam Manufacturing Company (MMC) Study Area: The MMC Study Area cleanup was completed in 2013.
- Durham Manufacturing Company (DMC) Study Area: The design for this component of the cleanup was completed in 2015.
- Site-Wide Groundwater Study Area – Alternative Water Supply (Water Line) – construction to begin 2019.
- Site-Wide Groundwater Study Area - Source Zone and Dissolved Plume: The design for this component of the cleanup was initiated in 2016 and continues to be conducted.
- Site-Wide Groundwater Study Area - Contingency Groundwater Extraction for Hydraulic Containment: No activities have been undertaken with respect to this component of the 2005 ROD.



# Water Line Project

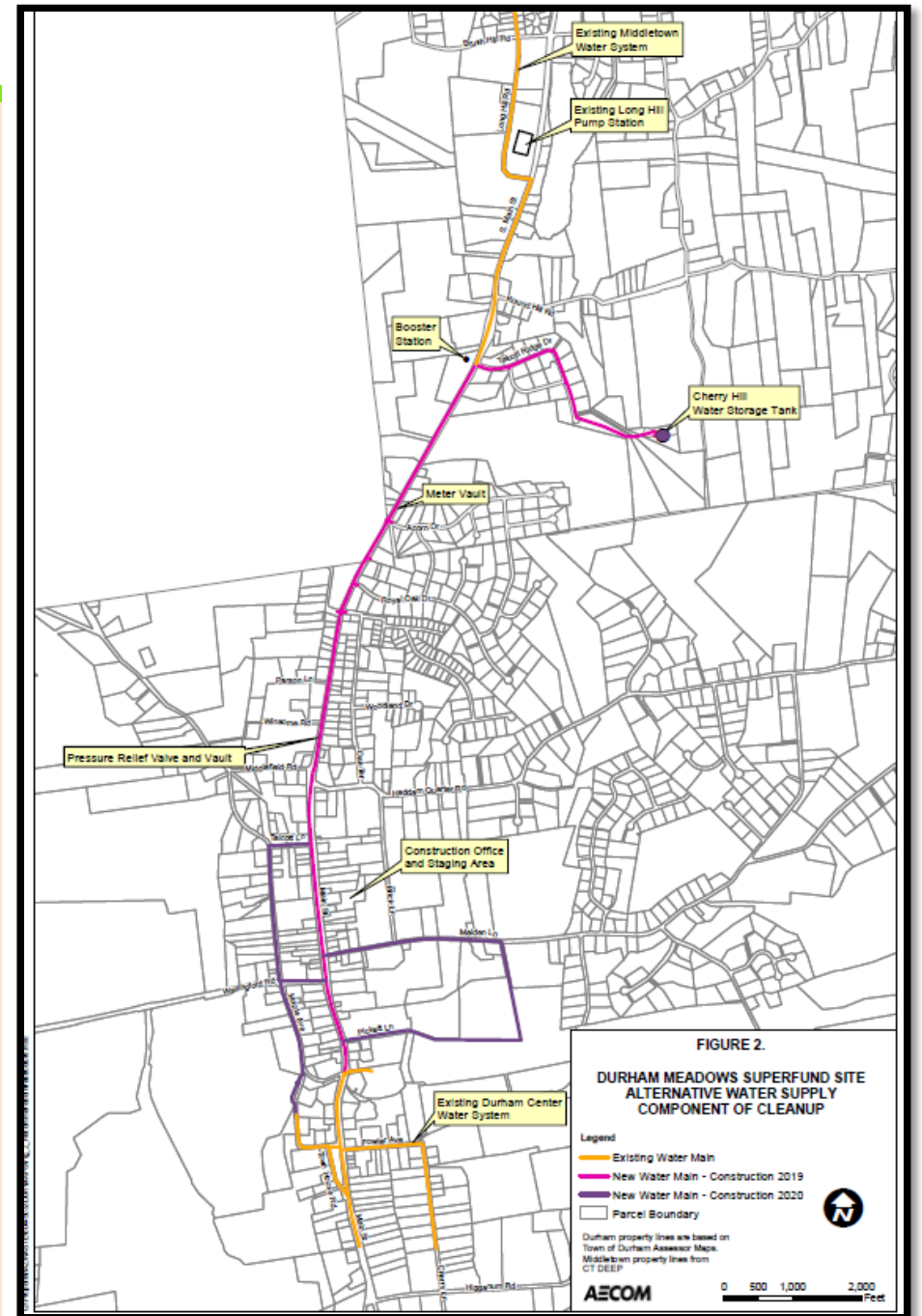
## Site-Wide Groundwater Study Area – Alternative Water Supply (Water Line Project):

- From 2009-2010, EPA participated in the revision of the Durham Water System Extension Feasibility Study, which was prepared by Fuss and O'Neill and funded by CTDEEP.
  - This study evaluated options to provide public water to nine areas with various water quality or yield issues, identified as A through I.
  - Only areas A, most of E, and a small portion of I are included in the EPA Superfund Water Line Project.
  - The Town of Durham and CTDEEP are working to address areas B, C, D, and the remaining area of I through the state 471 process.
- In 2012, the City of Middletown signed a Memorandum of Understanding with the Town of Durham confirming its commitment to provide water to the Town of Durham.
- In 2013, EPA initiated the Water Line design, which was completed in 2015.
- 2016 – 2018, EPA works with City of Middletown to obtain permits for Water Line Project and address community concerns in Middletown.
- A revised final Water Line design was completed in April 2018.



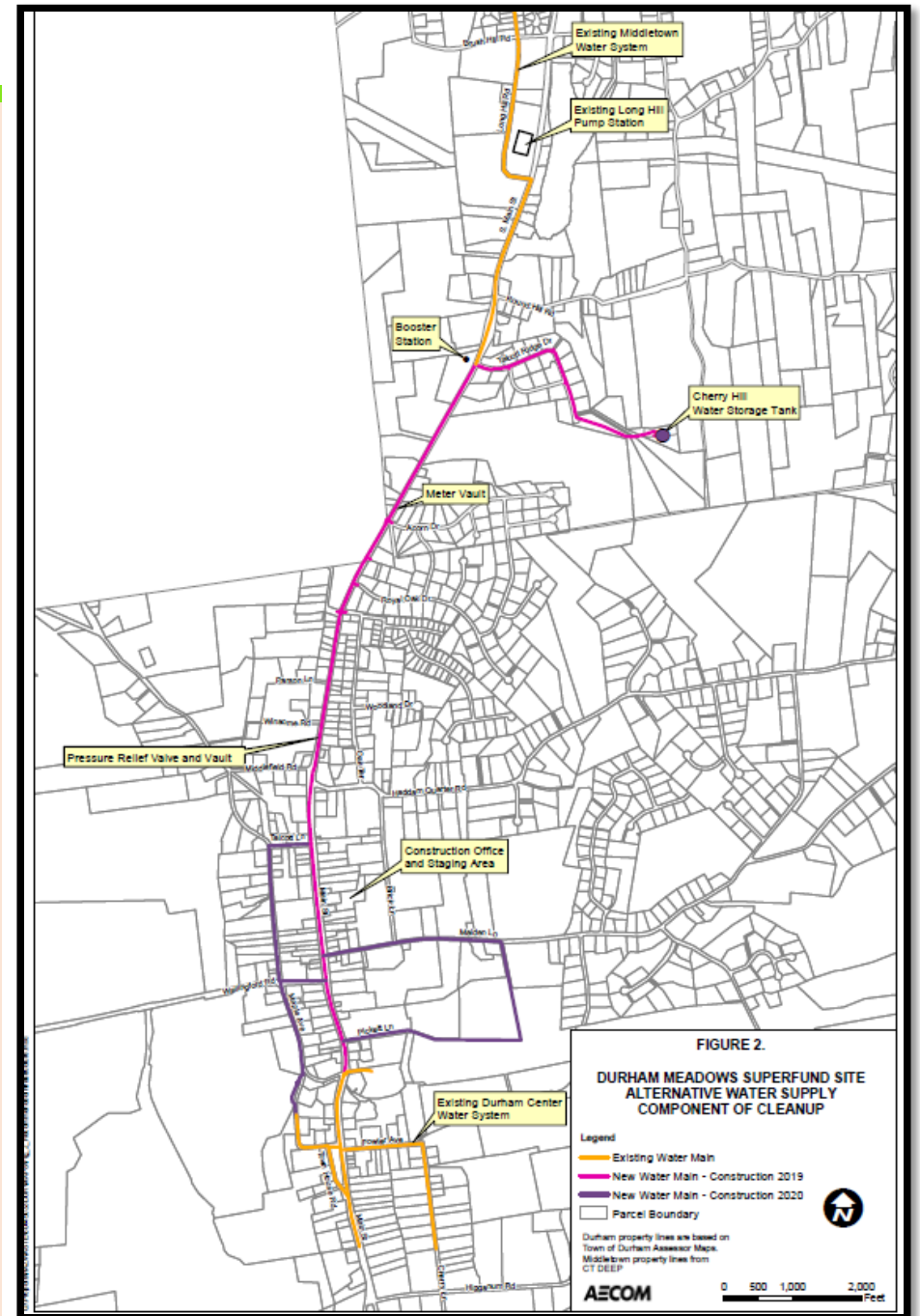
# Water Line Project

- Water line is being funded 90% by EPA and 10% by the CTDEEP pursuant to a State Superfund Contract.
- EPA has retained the United States Army Corps of Engineers (USACE) to award, manage, and provide technical inspection services for the Water Line Project.
- EPA and CTDEEP will continue to manage the overall Durham Meadows Superfund Site and provide oversight of the Water Line Project.
- EPA and USACE will continue to coordinate with CTDEEP, CTDPH, CTDOT, Town of Durham, and City of Middletown throughout the Water Line Project implementation.



# Water Line Project

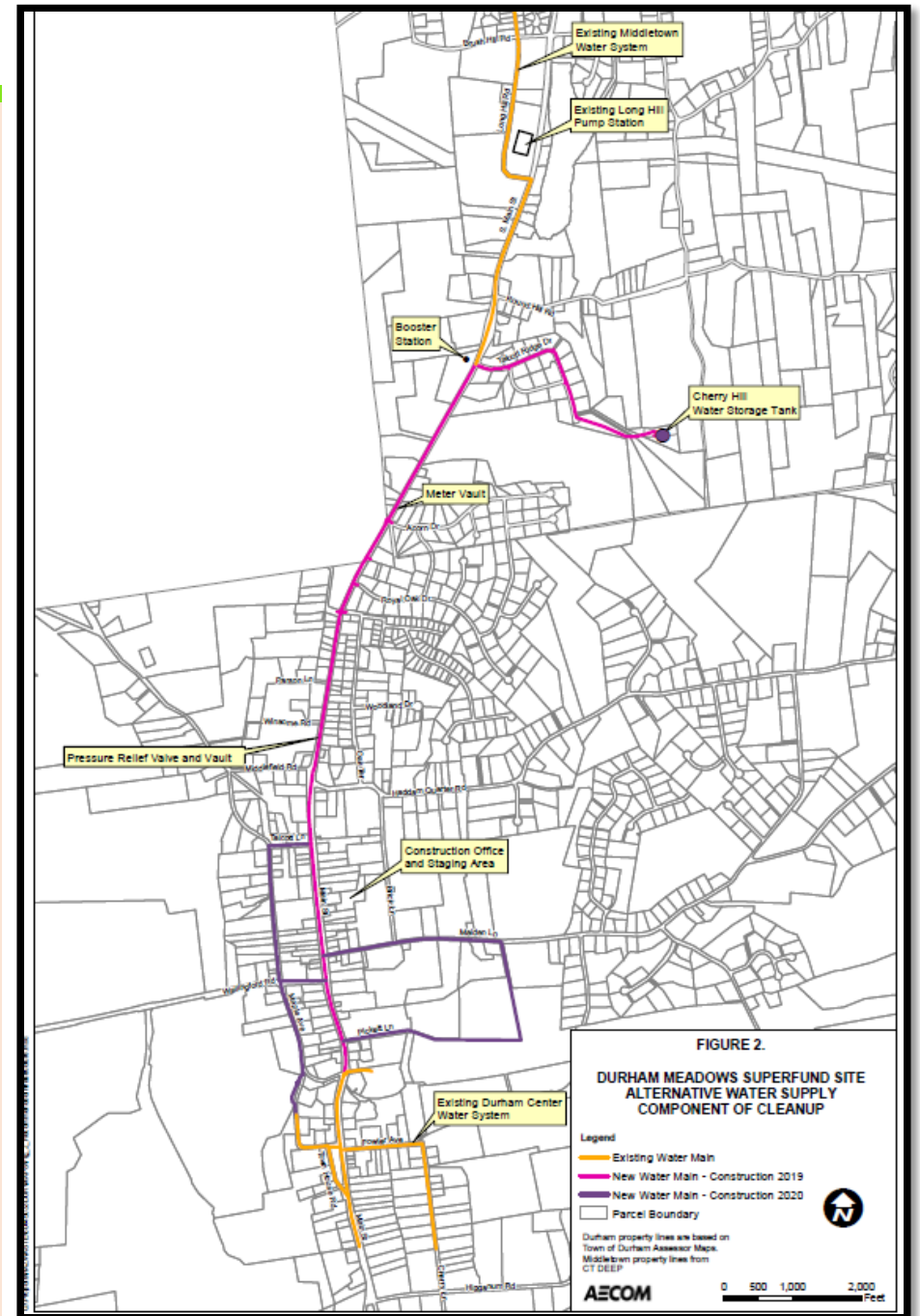
- USACE solicited bids for the Water Line Project in June –August 2018.
- November 2018, Ludlow Construction was selected as the water line contractor.
- Ludlow is preparing and providing all of required project submittals for review by USACE, EPA and others. The design contractor, AECOM, is also providing technical reviews of the project submittals.
- All of the major plans will be made available on the EPA Durham Meadows Superfund Site website [www.epa.gov/superfund/durham](http://www.epa.gov/superfund/durham). Once at the website, please select [Water Main Progress Reports](#).



# Water Line Project

The construction activities planned for 2019 include:

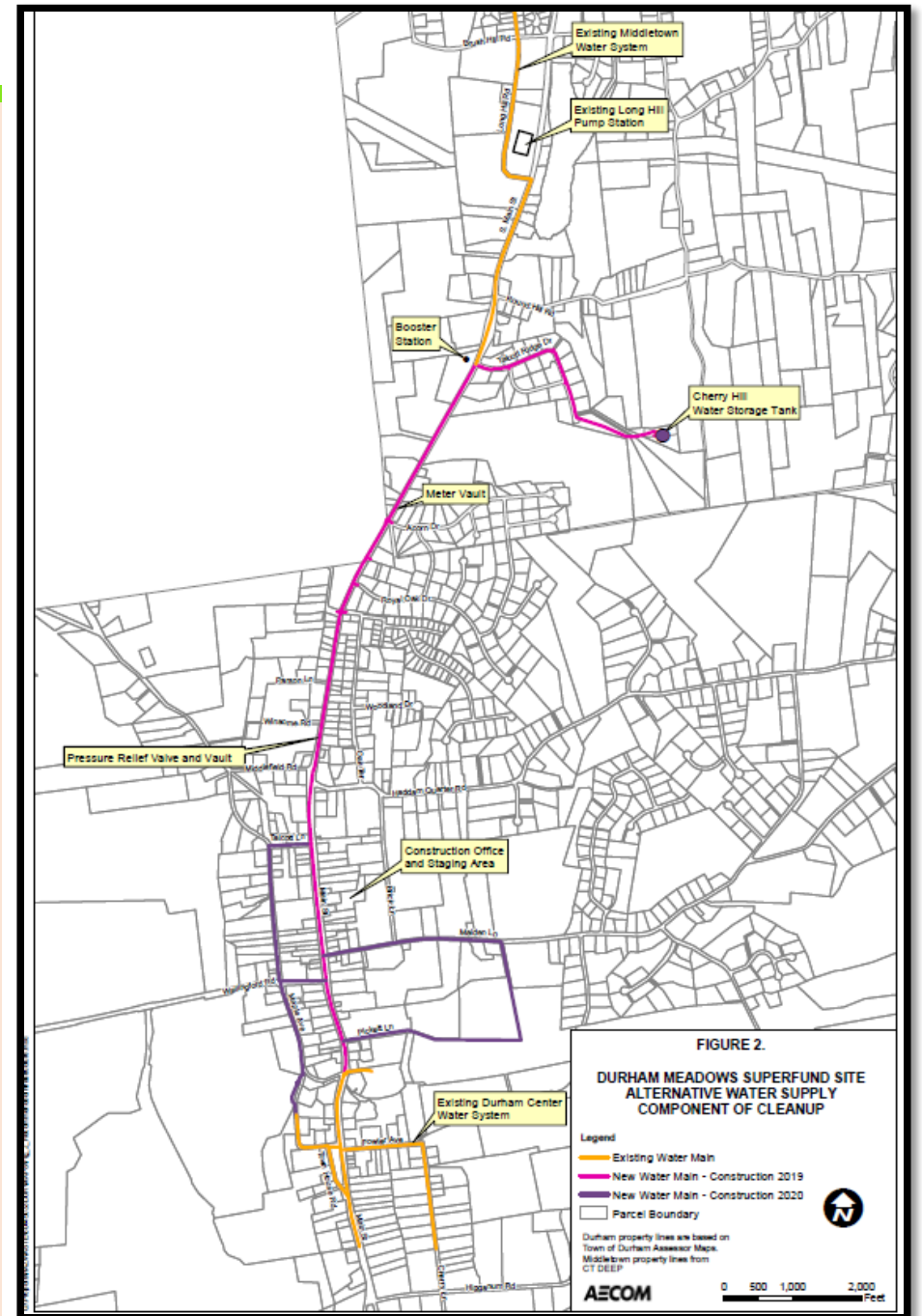
- Establishment of the construction office and staging area in Durham.
- Installation of the water main on Route 17 from Talcott Ridge Drive in Middletown to Mill Pond Lane in Durham, a distance of about 2 miles.
- Installation of the water main on Talcott Ridge Drive and sections of Watch Hill Drive in Middletown from Route 17 to the water tank location.
- Construction of the meter vault, booster station, pressure relief valve vault, and altitude vault.
- Installation of new pumps at the Long Hill Pump station.
- Clearing the water tank site and preparing the area of the water tank installation in 2020.



# Water Line Project

The construction activities planned for 2020 include:

- Construction of the water tank.
- Installation of the water main on Pickett Lane, Maiden Lane, Wallingford Rd, Talcott Lane, and Maple Ave.
- Installation of curb stop connections.
- Installation of water service connections into residences and businesses within water service area.
- It is possible that some water service could begin in 2020.
- It is also possible that paving of Route 17 and Route 68 could occur in 2020.

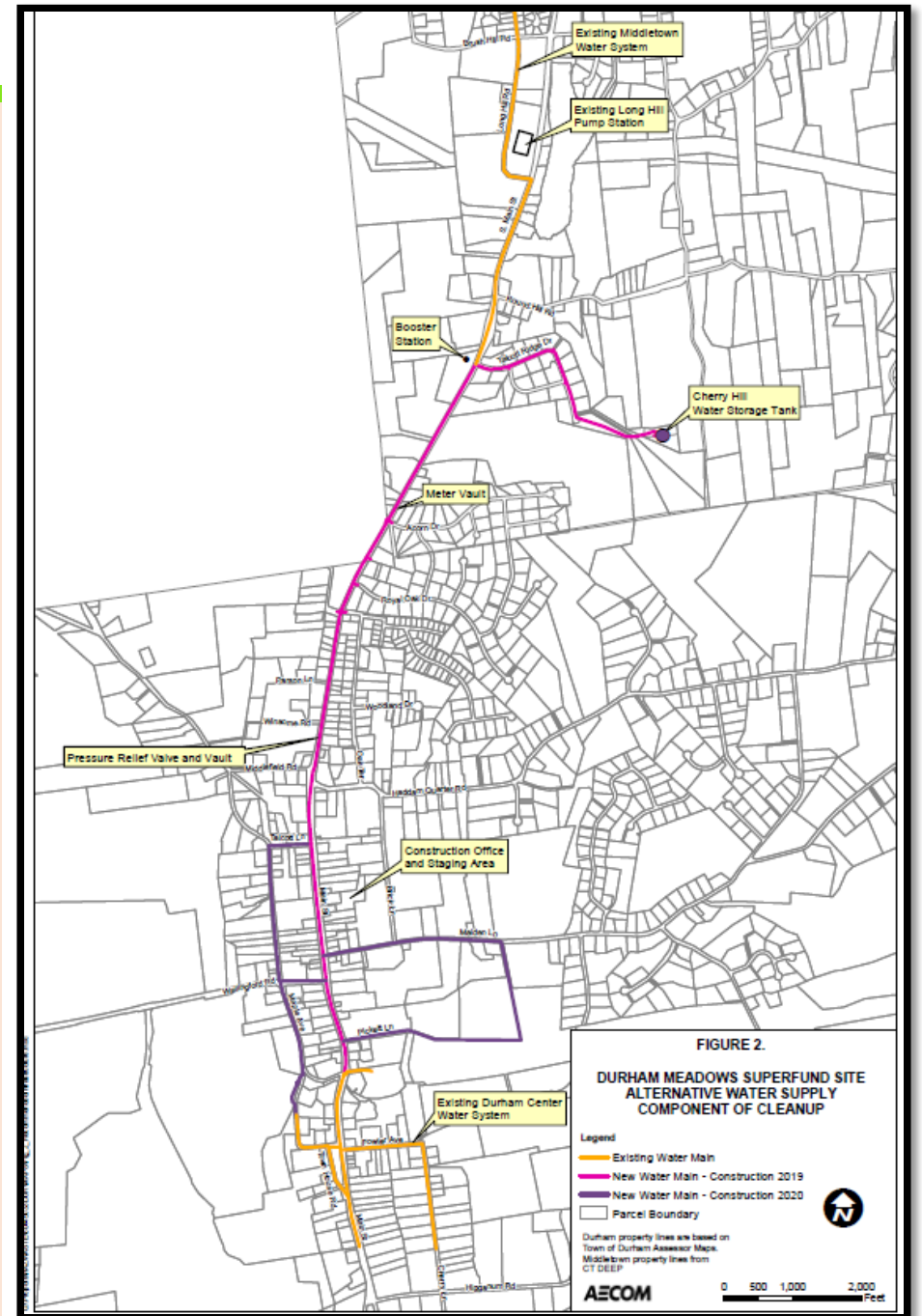




# Water Line Project

The construction activities planned for 2021 include:

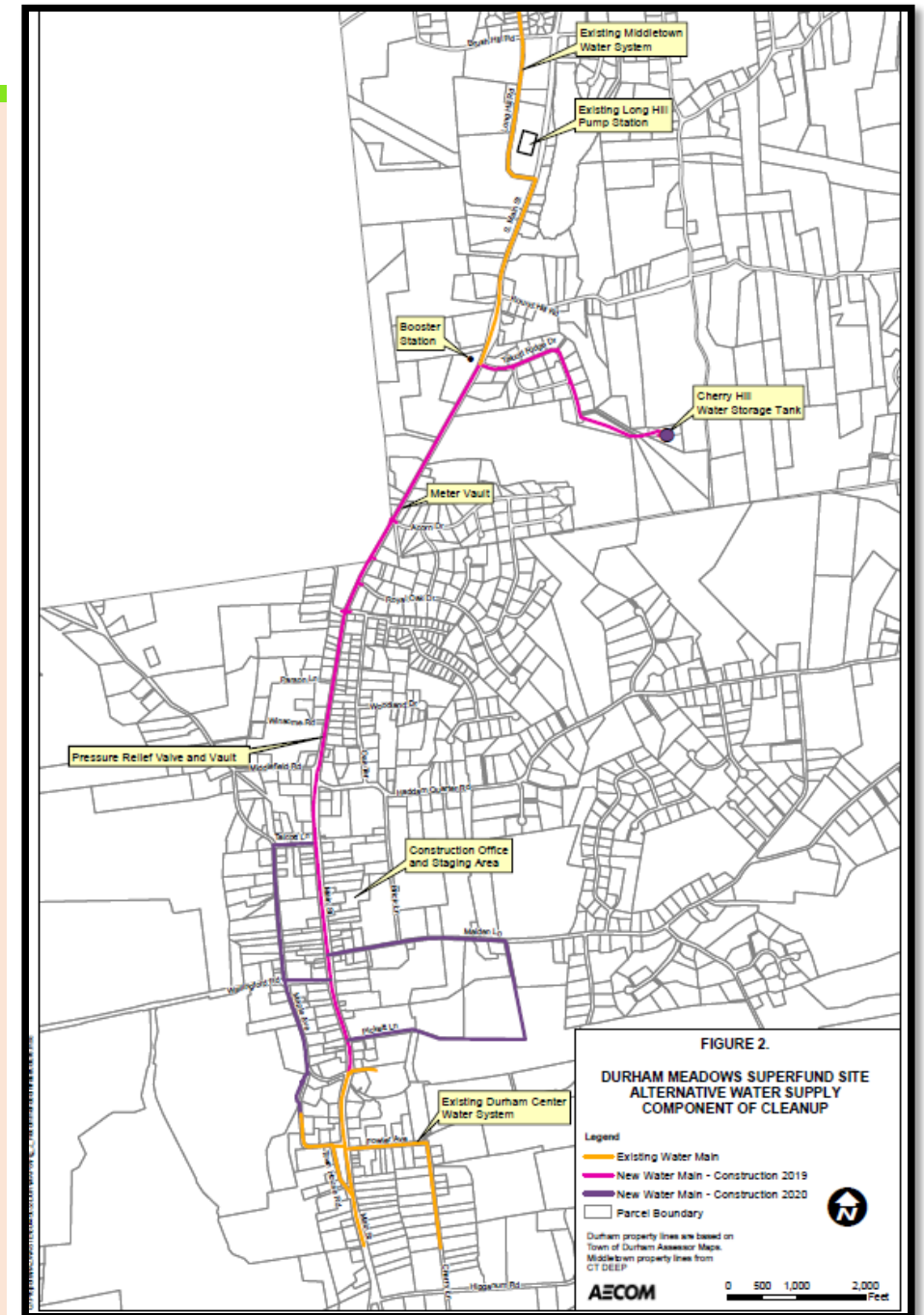
- Completion of the water service connections into residences and businesses.
- Complete testing and bring water tank into service.
- Initiation of water service.
- Decommissioning of the Durham Center Water Service pump station and separation of the fairground wells from the water system.
- Abandonment of water supply wells after full service is established and sustained.
- Paving of roads impacted by the construction activities.
- Demobilization of equipment and crews.



# Water Line Project

## Working hours (subject to change) and traffic control:

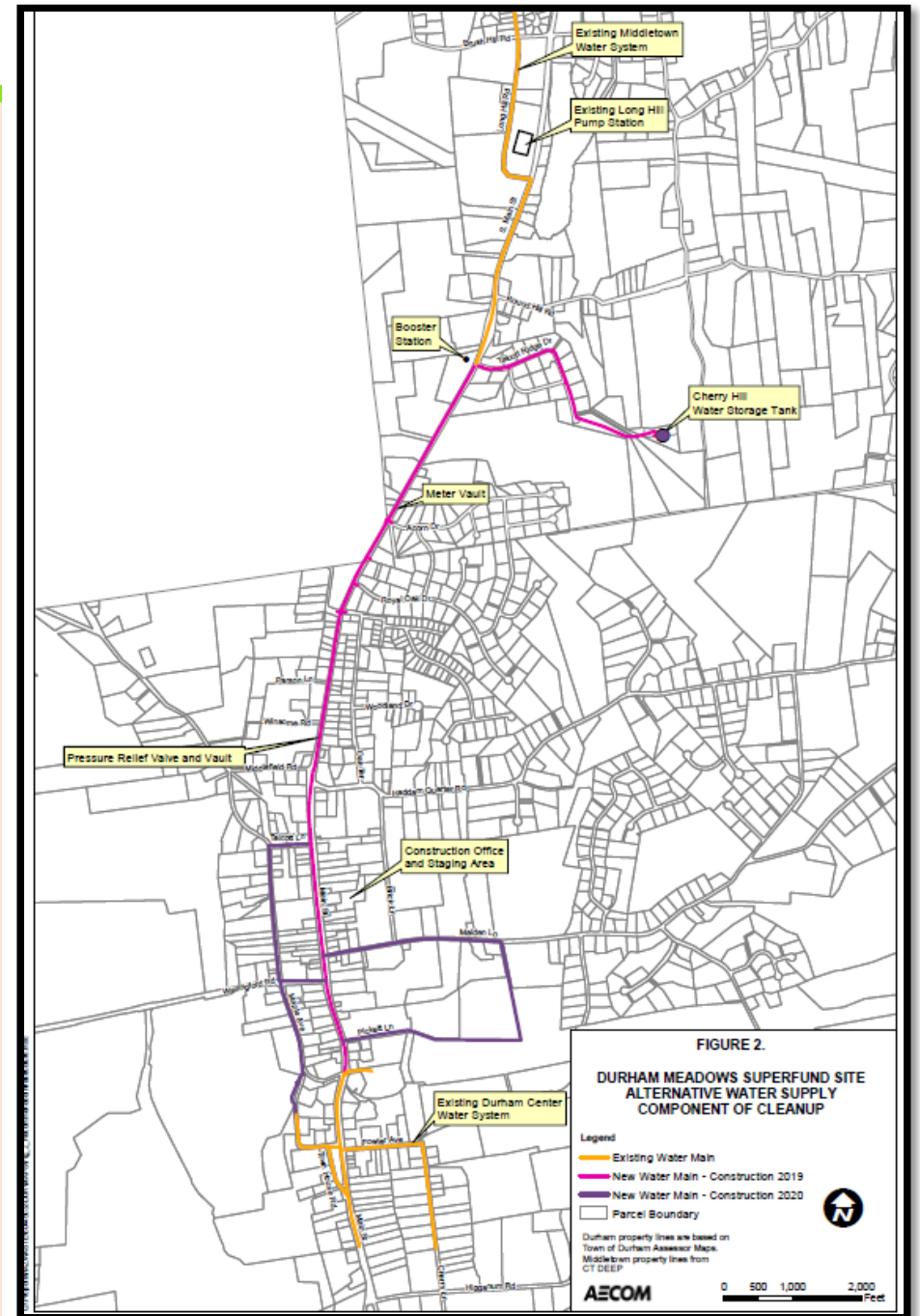
- The majority of the work on State highways (Route 17 and Route 68) will occur at night from 7 pm to 5 am from Sunday – Wed, some Thursdays.
  - Middletown Police or State Trooper will be present.
  - State highway will be reduced to one lane of alternating traffic during that time.
- Work on Town Roads will occur 7 am to 4 pm from Monday thru Friday.
  - Roads under construction will be closed to all traffic except residents and emergency vehicles.
  - Contractor is required to maintain access for emergency vehicles at all times and will make every effort to accommodate owner access to their homes and commercial properties.
- Work on roads will end by December each year.
- Work in roads will not be allowed five days prior to the start of, during, and one day after the completion of the Durham Fair.



# Water Line Project

## Information and Outreach:

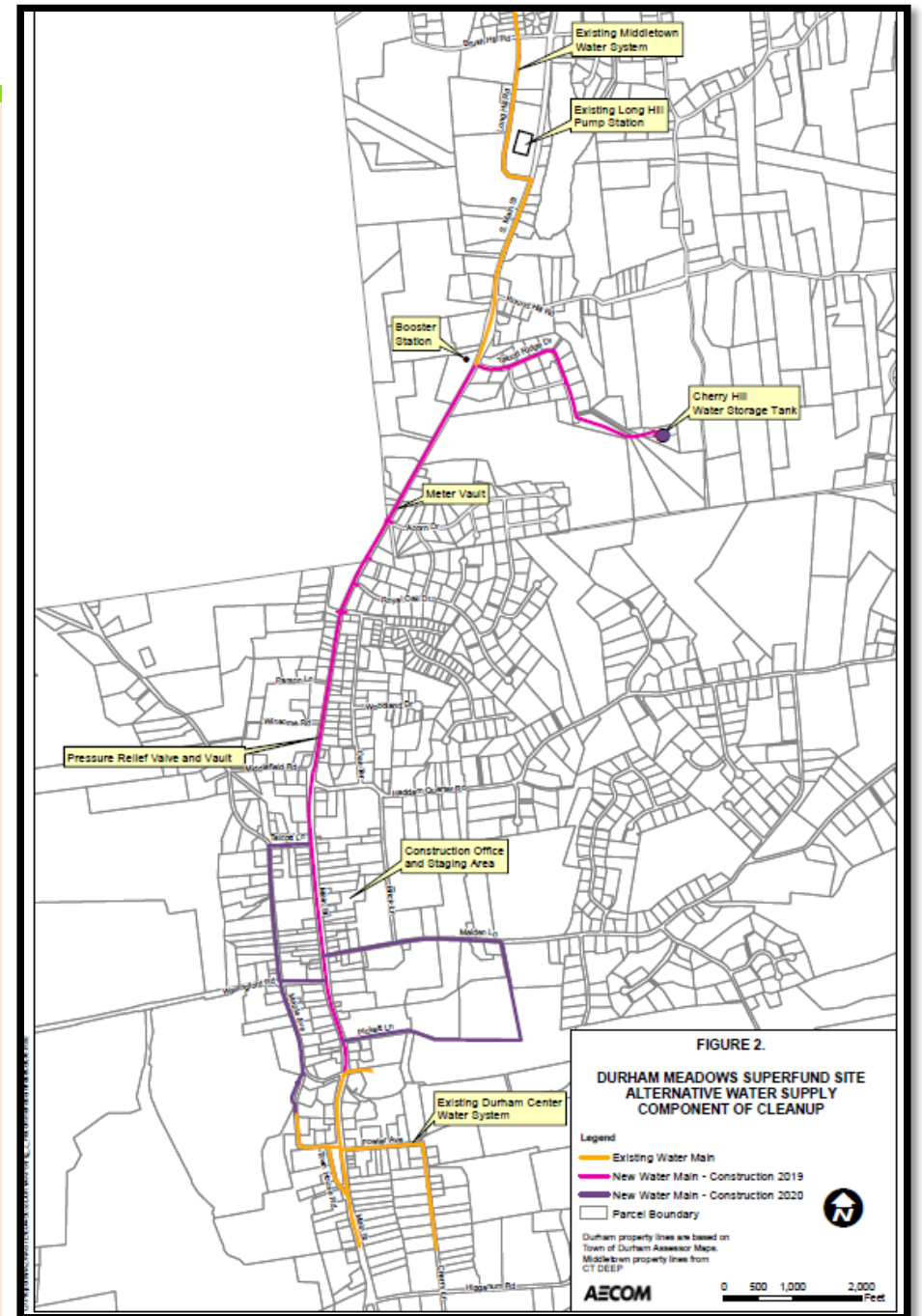
- Please send any comments, questions or concerns to Edward Hathaway at [hathaway.ed@epa.gov](mailto:hathaway.ed@epa.gov) or 617-918-1372
- Issues during night work: Contact information will be provided in advance of night work in front of your property to identify the project contacts during the overnight work hours.
- Ludlow will also employ a community liaison who will assist in providing updates and notifications to the community.



# Water Line Project

## Information and Outreach:

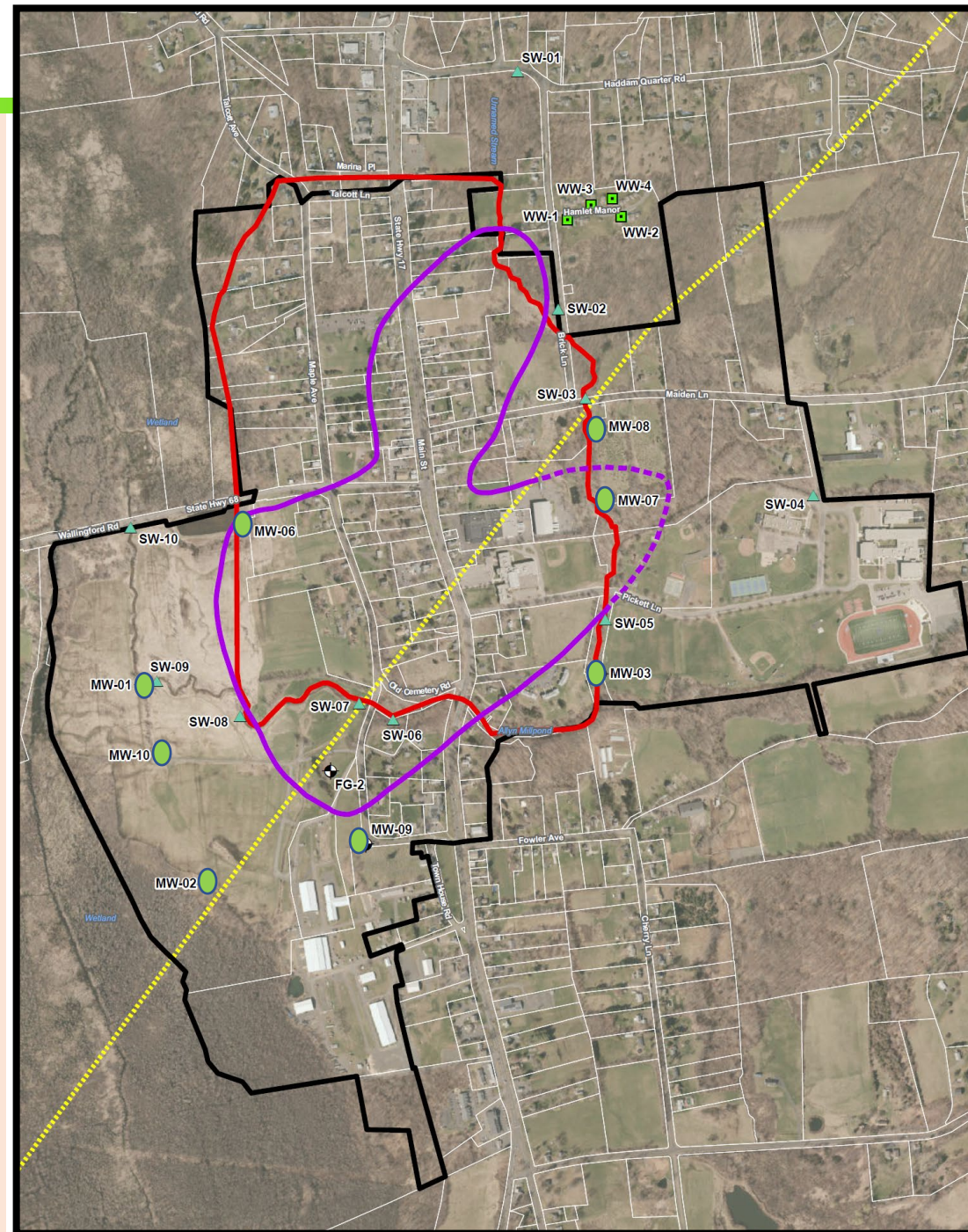
- EPA plans to post regular updates regarding the Water Line Project on the EPA Durham Meadows Superfund Site website [www.epa.gov/superfund/durham](http://www.epa.gov/superfund/durham). Once at the website, please select [Water Main Progress Reports](#).
- EPA will also be coordinating with the Town of Durham and City of Middletown to provide progress updates.
- Residents will be notified in advance when work is expected to occur on or in front of their property.



# Groundwater Component of Cleanup

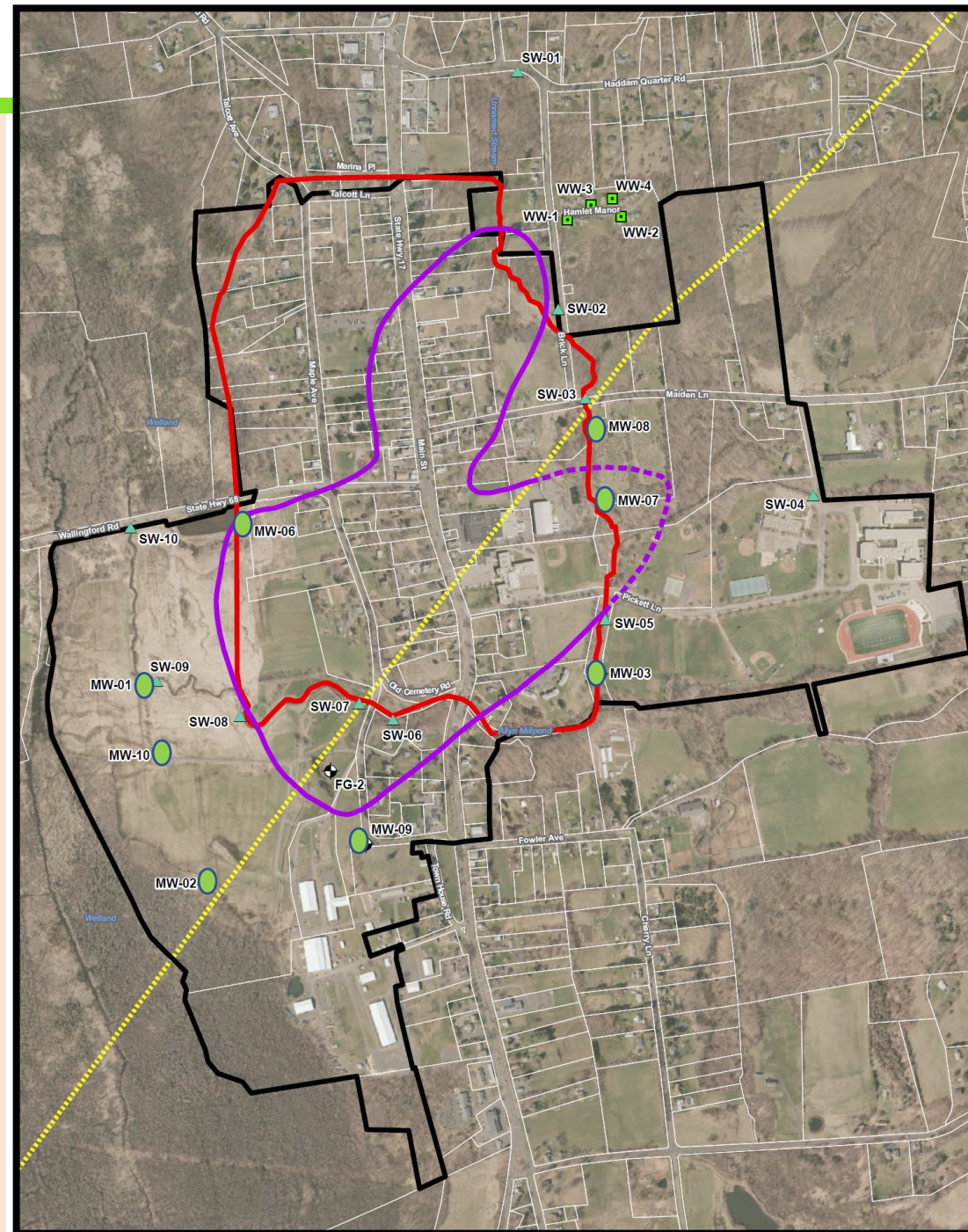
EPA continues work on the design for the groundwater component of the cleanup.

- In 2018, well drilling was performed at eight locations to better define the extent of groundwater contamination.
- Downhole geophysical techniques were used to assess the location of bedrock fractures that may be transmitting water.
- Water quality samples were obtained at multiple locations within each borehole based on the geophysical information.
- Two permanent wells were installed within each borehole to serve as long term monitoring wells for water level and water quality sampling.



# Groundwater Component of Cleanup

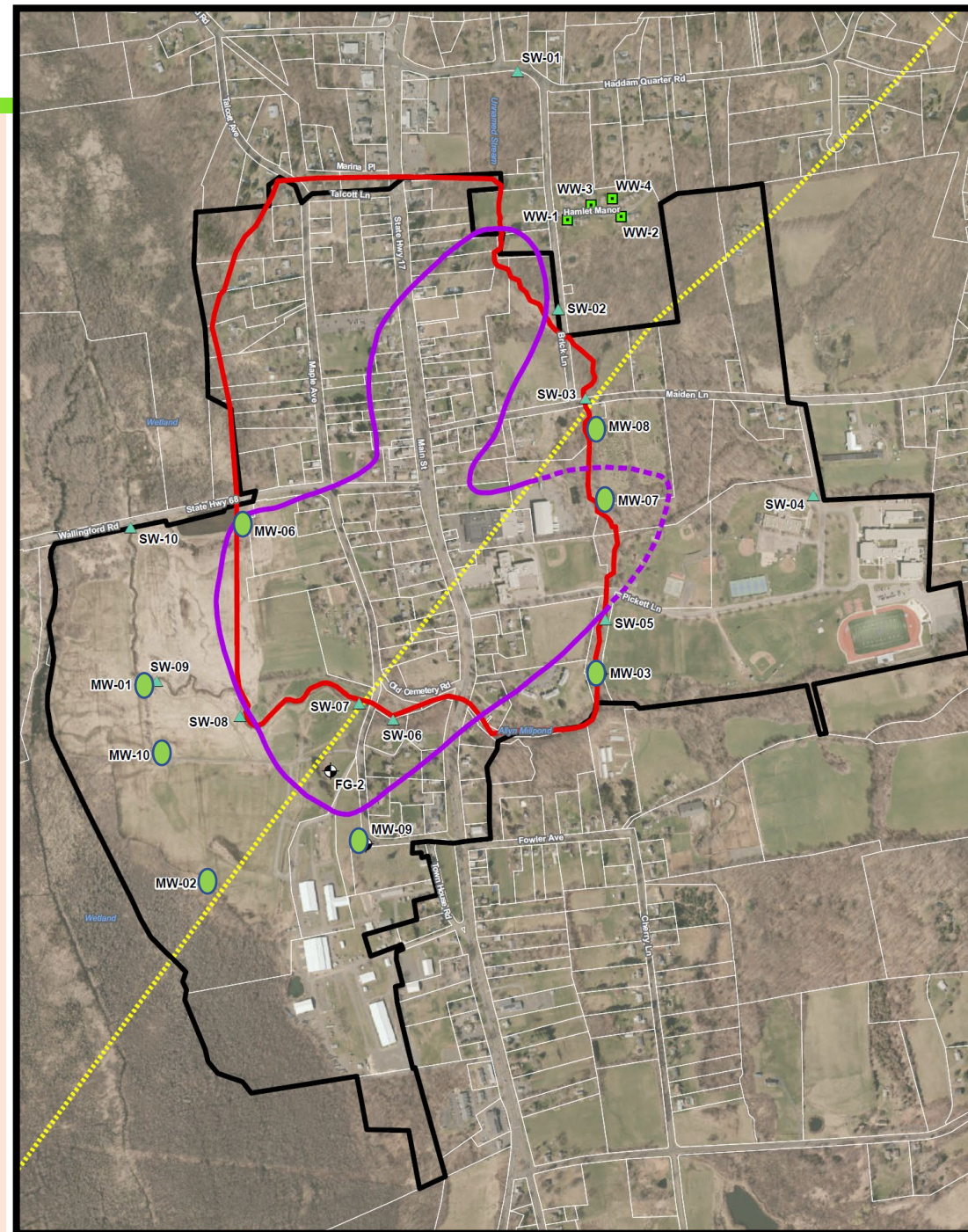
- The 2018 monitoring well results were used to update the extent of groundwater contamination (shown in purple on adjacent figure).
- The extent of contamination is consistent with recent maps developed by EPA.
- Six of the eight locations did not detect any site-related contamination.
  - MW-06, near the skating pond on Route 68, contained low levels of contamination.
  - MW-07, behind Durham Manufacturing Company, contained site-related contamination.
  - Surface water contamination was also detected in Allyn Brook near Maple Ave.
- The northwest extent of groundwater contamination remains uncertain. EPA was not able to obtain access to install a well in this area.



# Groundwater Component of Cleanup

The Town of Durham enacted a groundwater ordinance as part of the groundwater cleanup action.

- The Groundwater Ordinance is in effect as of January 1, 2016.
- The Groundwater Ordinance restricts the use of groundwater within the Groundwater Management Zone, as defined in the Ordinance (shown as a black line on the adjacent figure).
- All properties within the Groundwater Management Zone must connect to the water line when service becomes available and cease use of their private well unless granted an exception pursuant to the requirements of the Groundwater Ordinance.
- The Groundwater Ordinance can be found at: <http://www.ecode360.com/30752082>.



# Summary

## Water Line Project:

- The Water Line Project should begin in May/June 2019 and is expected to be complete in 2021.
- Work along Route 17 and Route 68 will take place during the night in 2019 and 2020.
- All other work will occur during daytime.

## Groundwater Component of Cleanup:

- 2018 well installation and sampling program confirmed the extent of contamination for most locations.
- A few areas may require additional wells to define the outer limit of contamination.
- EPA will continue work on the groundwater cleanup define the extent of contamination.

## Durham Manufacturing Company Cleanup

- Design is complete.
- Project is awaiting funding.



## Contact Information

### EPA Contact Information:

Edward Hathaway, Project Manager

Mailcode: OSRR07-1

(617) 918-1372

[hathaway.ed@epa.gov](mailto:hathaway.ed@epa.gov)

Darriel Swatts, Community Involvement Coordinator  
(CIC):

(617) 918-1065

[Swatts.darriel@epa.gov](mailto:Swatts.darriel@epa.gov)

### EPA Mailing Address:

EPA New England, 5 Post Office Square, Suite 100, Boston, MA  
02109-3912

Durham Meadows Superfund Site website:

[www.epa.gov/superfund/durham](http://www.epa.gov/superfund/durham)

### Town of Durham:

Laura Francis, First Selectman

(860) 349-3625

[Lfrancis@townofdurhamct.org](mailto:Lfrancis@townofdurhamct.org)

### CTDEEP:

Jing Chen, Project Manager

(860) 424-3391

[Jing.Chen@ct.gov](mailto:Jing.Chen@ct.gov)

### City of Middletown Water and Sewer Department:

Joe Fazzino, Director

860-638-3510

[Joe.Fazzino@MiddletownCT.Gov](mailto:Joe.Fazzino@MiddletownCT.Gov)

Donald Fisco, Deputy Director

860.638.3545

[Donald.Fisco@MiddletownCT.Gov](mailto:Donald.Fisco@MiddletownCT.Gov)