

BOXBOROUGH-LITTLETON WATER LINE EXTENSION PROJECT INFORMATION SESSION

Hosted by:

Boxborough Water Resources Committee



Town of
BOXBOROUGH
Massachusetts



Facilitated by:



Meeting Process

- This informational webinar is being recorded. Access will be available later from the Water Resources Committee page or BXB-TV VOD.
- Attendee videos and microphones will be off.
- Attendees should submit questions via the Q&A line on the Zoom toolbar
- The moderator will direct questions to panelists
- A record of questions and answers will be available.

Drinking Water Solution for Western Boxborough

Les Fox

Chair, Water Resources Committee

Background

- About 1100 residents live in condominiums on the western edge of Boxborough, representing 20% of the town.
- They are served by small water systems operated by homeowner associations (HOAs). Boxborough has no municipal water supply.
- Residents here are consuming water with PFAS, sodium and chloride levels exceeding the Massachusetts Drinking Water Standards and Guidelines, posing serious health risks

Options for Clean Water

- Each homeowners association (HOA) or commercial business could install and maintain water treatment systems to clean their well water.
- **OR:** Get clean, treated water from Littleton Water Department.
HOA's can avoid costs and risks of separate small systems
- Boxborough and Littleton will need to enter into an Intermunicipal Agreement (IMA) to deliver water.

Water for Fire-fighting too

- Fire hydrants will be installed on the route along Swanson, Codman Hill Roads.
- Boxborough Fire Department will not have to use tankers to truck water to fires west of I-495.
- Additional tanker fill points for fires east of I-495.
- Greater fire protection for residences and businesses.

Funding

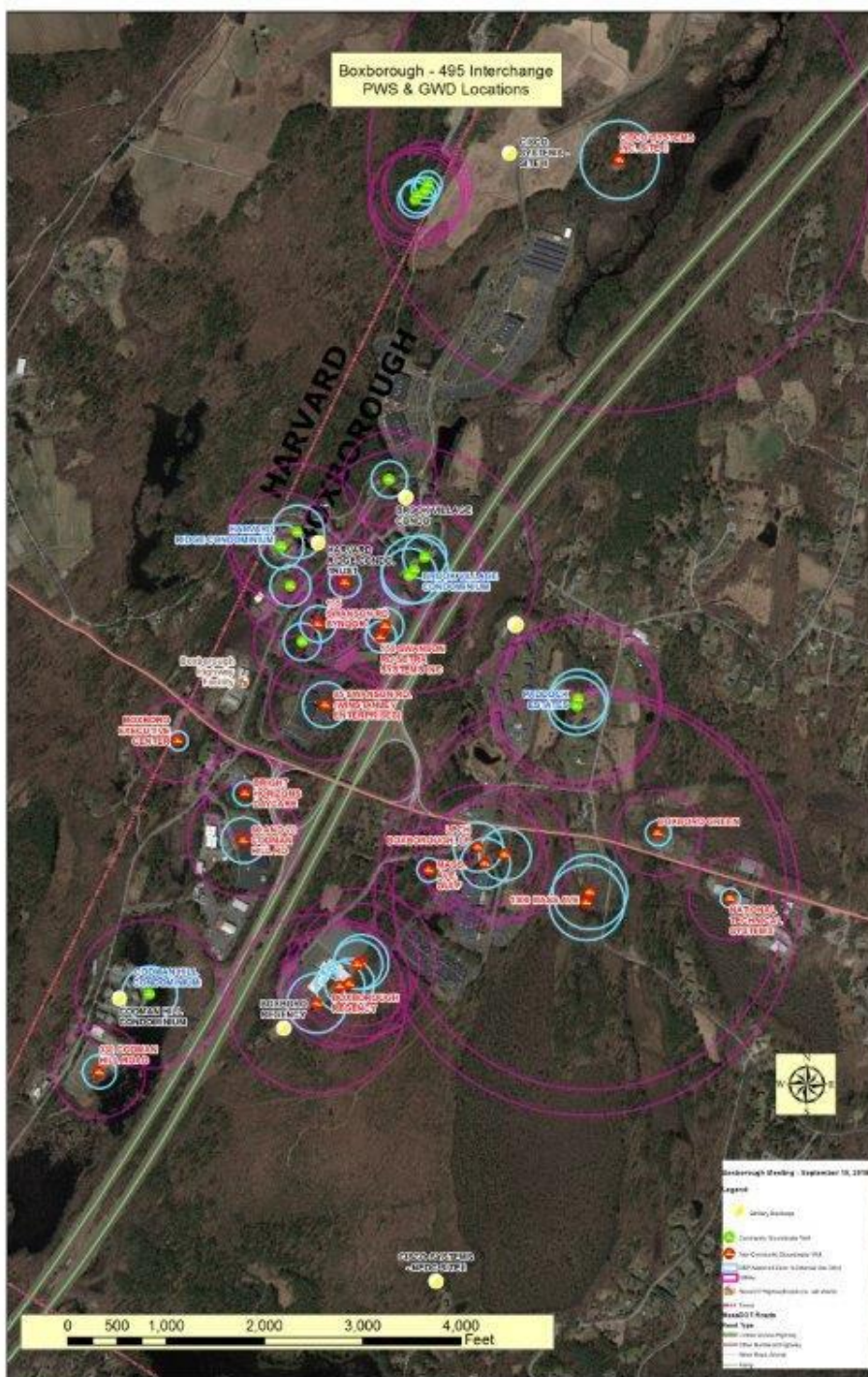
- Drinking Water State Revolving Fund (SRF) spend plan for 2023 includes \$19 million for LWD's line extension to Boxborough.
- Extremely favorable financing will lower the cost of borrowing and betterments. This is a once in a lifetime opportunity.
- Absent the Littleton option, MassDEP requires corrective action plans from the HOAs and businesses to solve the costly pollution problems on their own.

Public Water System (PWS) Contamination Issues and Requirements

Marielle Stone

Deputy Regional Director - Bureau of Water Resources
Massachusetts Department of Environmental Protection
Central Regional Office - Worcester

- Approximately 29 Active PWS in Boxborough - Focus area is on the 11 PWS west of Rt. 495
- No municipal water system
- PWS is any facility that serves water to 25 or more persons 60 or more days per year.
- PWS are regulated by MassDEP.
- Complex regulations with many requirements to ensure safe and reliable drinking water for users.

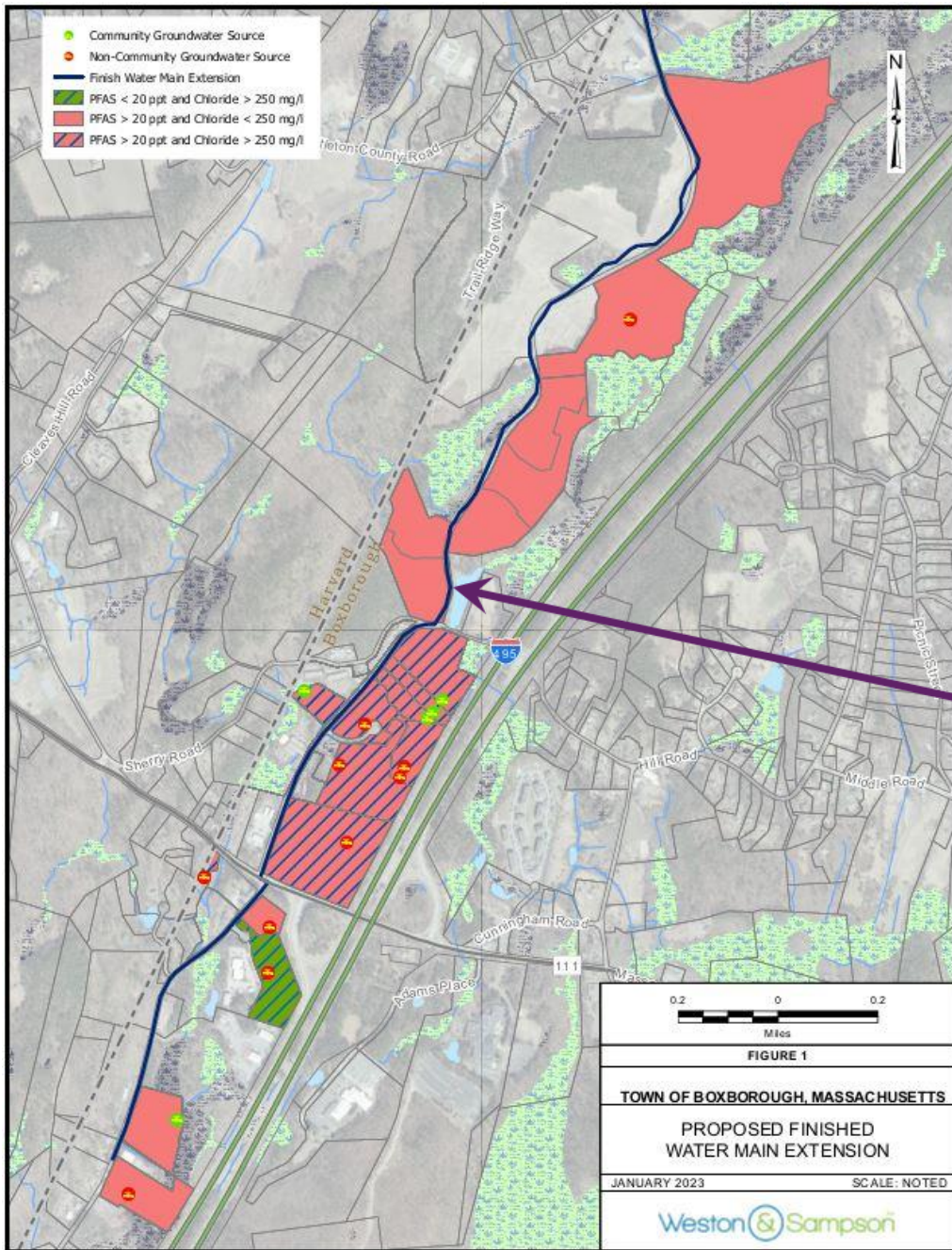


Contamination Issues in Focus Area

- Sodium (Guideline - 20 mg/L)
- Chloride (SMCL - 250 mg/L)
- Lead and Copper (AL - Lead $>$.015 mg/L and Copper $>$ 1.3 mg/L)
- Per and Polyfluoroalkyl Substances - PFAS6 (MCL 20 ppt)

PFAS6 Contamination

- PFAS - “Forever Chemicals”
- October 2020 - New MCL - PFAS6 20 ppt (Total of 6 of the most toxic)
- 10 of the 11 PWS in focus area currently exceed the MCL for PFAS6
- Notice of Noncompliance and Public Notice
- Sensitive subgroup (pregnant or nursing women, infants, and individuals with compromised immune systems) that consume water above the MCL may have adverse health effects if exposed over short time periods - such as months not years.
- These include effects on the liver, blood, immune system, thyroid and fetal development. PFAS may also elevate the risk of certain cancers.



Areas of PFAS6 and Sodium Chloride Contamination

Route of Water Line Extension

Requirements and Next Steps

- The public water systems on Swanson Road, Codman Hill Road, and at 1740 Massachusetts Ave. must submit corrective action plans to the Massachusetts Department of Environmental Protection (MassDEP) to address the PFAS6 contamination.
- Implement Interim measures - bottled water
- Other issues - lead and copper, infrastructure upgrades, wastewater treatment upgrades, residual disposal, new regulations.
- Cost evaluations and individual meetings
- Water line opportunity and SRF

Small Water System Expenses

Contract Operator & Compliance Reporting	Spare Parts, Equipment, & Materials	Cross Connection Surveys & Backflow Prevention Device Testing
Treatment Chemicals & Equipment	General Repairs & Upgrades	Emergency Events
Waste Disposal / Residual Management	Capital Improvements	Storage Tank Inspections
Sampling & Lab Analysis	Professional Services - Engineering, Legal, Etc.	Utilities - Electricity

MassDOT Highway Division Salt Remediation Program

Laurene Poland
Supervisor, Salt Remediation Program

Salt Remediation Program

Exists to process complaints submitted to the MassDOT for potential salt contamination affecting public, private, industrial and commercial water supplies.

Several properties west of 495 in Boxborough have submitted applications and qualify for the Salt Remediation Program.

- Highways, parking lots, municipal and private roads, salt added to finished water and discharged on site all contribute to salt in this area.
- Elevated sodium may have health impacts to those who are salt sensitive. Significant elevation of chloride may cause premature degradation of plumbing infrastructure and may leach lead and copper into the water supply which may cause additional health concerns.

Solutions to Water Supplies Impacted with Sodium and Chloride

- Connect to a public water system
- Drill a replacement well, and as a last resort
 - Reverse Osmosis System
- Operational Best Management Practices (BMPs)

Connection to the Littleton waterline makes the most sense for a long-term, cost effective solution to provide clean water to these condominiums and businesses for now and in the future.

MassDOT's Contribution to this Project

- MassDOT has been working with DEP, Weston & Sampson, Littleton, Boxborough and RCAP Solutions to come up with a cost-effective, long-term solution for all the contamination in this area.
- MassDOT has been supporting this project by funding the following:
 - Preparation and submission of the SRF application
 - Waterline design
 - Wetland delineation and MEPA coordination, and
 - Interbasin Transfer Request for Determination
- MassDOT is evaluating an additional financial contribution to Littleton to subsidize the betterment fees.

Bringing Water to Boxborough: Cost Estimates and Schedule

Corey Godfrey

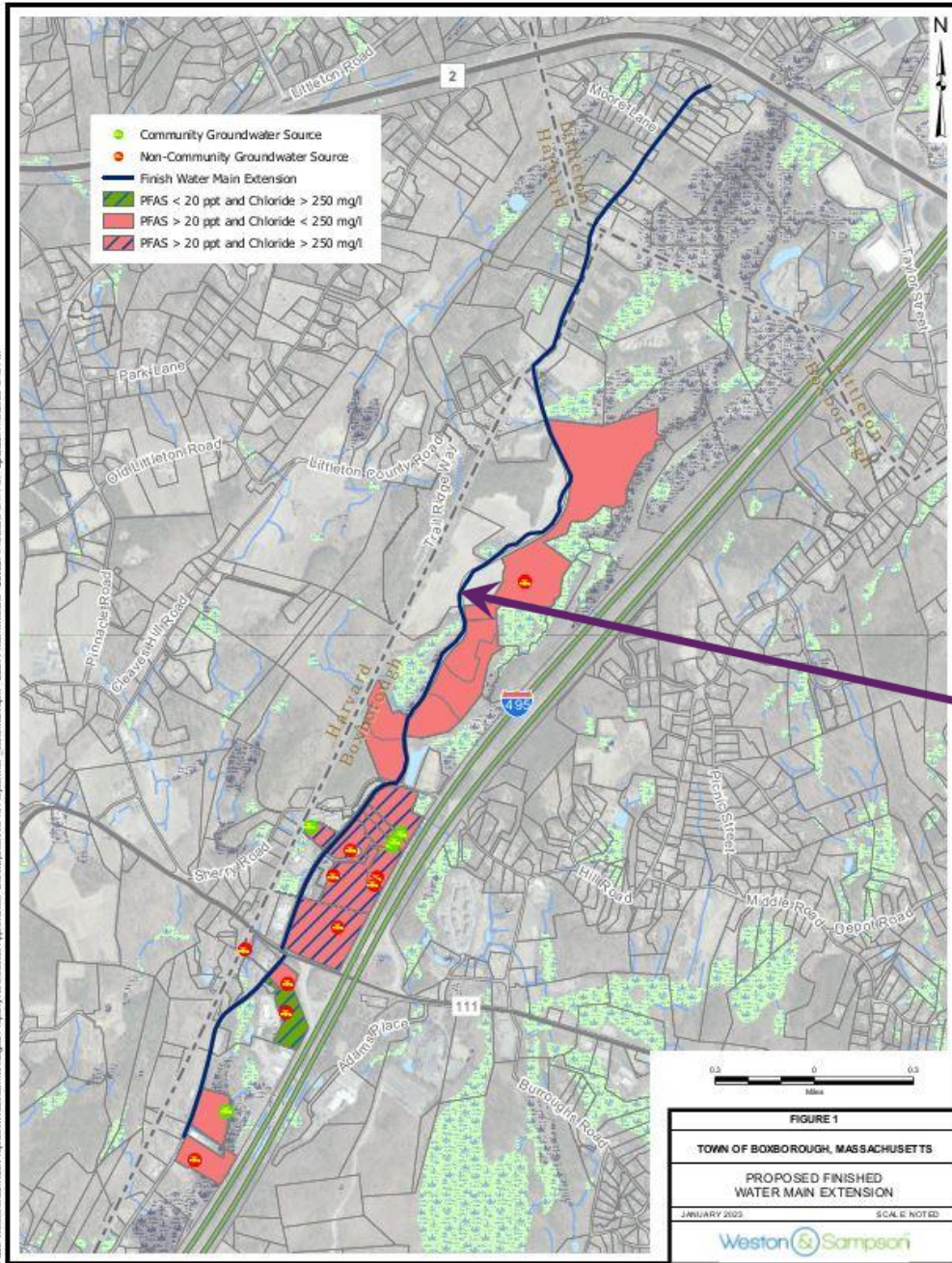
LELWD Water & Sewer Superintendent

Proposed Water Line Extension

- The Littleton Electric Light & Water Department (LELWD) has been meeting with the Boxborough Water Resources Committee, MassDEP, and MassDOT.
- Focus is on constructing a water line from Littleton to connect the 11 public water systems to its municipal system as a long-term solution.
- This would eliminate the need for individual public water systems to remove PFAS and have other associated operating costs (media disposal, certified operators, ongoing water quality sampling, maintenance, etc).

Areas of PFAS6 and Chloride Contamination

Route of Water Line Extension



Project Budget

Cost Estimates

- Development of Taylor Street Well in Littleton - \$3.1 Million
- Raw water transmission main to existing Whitcomb Ave Water Treatment Plant - \$2.9 Million
- Extension of Littleton's distribution system into Boxborough - \$13.2 Million

Funding Sources

- State Revolving Fund (SRF) Loan
 - 0% Interest Rate
 - 30 year term
 - Potential for 20% principal forgiveness
- MassDOT Contribution

Costs to New LELWD Water Customers

- **Betterment Fees to repay SRF loan**
 - Total annual borrowing cost of \$244,400 – \$458,600 will be apportioned to properties through betterments for 30 years
 - Estimated at \$26.16 to \$71.03 per month, per residential unit
- **Connection Fees**
 - Recovers depreciated value of existing Littleton water infrastructure
 - Estimated at \$30,260 - \$726,336 per property, depending on size of water service connection
- **Water Usage Rates**
 - Recovers operational costs of running the Littleton water system
 - Estimated at \$20.83 - \$49.31 per month, per residential unit
- **Debt Service Fees**
 - Recovers existing debt used to finance Littleton water infrastructure
 - Estimated at \$10.32 - \$14.93 per month, per residential unit
- Total estimated monthly cost to average residential unit = \$57.31 - \$135.27, plus one-time connection fee

Timeline

- Compare estimated costs on previous slide to your current ongoing costs and estimated future costs to install treatment on your own
- Submit letter of support to Boxborough Select Board ASAP
- April 17, 2023 - Inter-Municipal Agreement (IMA) must be signed by Littleton and Boxborough Select Boards
 - Allows LELWD to design, construct, install, operate, and maintain water infrastructure in the Town of Boxborough
 - Allows LELWD to collect betterment fees from Boxborough properties
- May 1, 2023 - Littleton Town Meeting
 - Borrowing Authorization for \$19 Million
- October, 2023 - 100% Design Complete
- December, 2023 - Bidding
- April, 2024 - Construction Begins

Conclusion

Les Fox

Chair, Water Resources Committee
and Team

Need to Act Now

- Favorable loan terms and up to 20% loan forgiveness are now available through the Drinking Water State Revolving Fund with preference given to PFAS projects.
- These financing terms will significantly lower the cost of borrowing. But, there is a deadline to act.
- Absent the Littleton option, MassDEP will require corrective action plans from the HOAs and the handful of businesses to solve the costly pollution problems on their own.

Next Steps

- Boxborough and Littleton to begin drafting framework for an intermunicipal agreement.
- Owners and associations are encouraged to send letters of support to the Boxborough Select Board.
- Follow-up separate meetings and working sessions with owners and associations.
- PWS owners are encouraged to estimate current water costs. RCAP Solutions can assist.

Send a Letter of Support to the Boxborough Select Board

- Letter of your own
- Use example letter - can download from Water Resources Page

<https://www.boxborough-ma.gov/311/Water-Resources-Committee>

- US Mail:

Select Board
29 Middle Road
Boxborough MA 01719

- Use Select Board Contact form

<https://www.boxborough-ma.gov/327/Select-Board>

Can insert text or attach a letter.

Send a Letter of Support as Soon as Possible

Example Letter:

DATE:

TO:

Boxborough Select Board
29 Middle Road
Boxborough, MA 01719

RE: Littleton water line for Boxborough

I support the Select Board's efforts to bring clean drinking water from the Littleton Water Department to the affected areas west of I-495. This is important to our community.

Please continue working with the Littleton Electric Light and Water Department to extend Littleton municipal water service to Boxborough properties located along and near Swanson and Codman Hill Roads west of I-495.

Sincerely,

<NAME>

I am a OWNER
 RESIDENT
 ASSOCIATION BOARD MEMBER
 PROPERTY MANAGER

Please check all that apply.

Questions/Contacts:

Danielle Desmarais: Potential Assistance with Cost/ Benefit Analysis

Community Specialist, Community and Environmental Resources

Cell Phone: 774-502-8409

DDesmarais@rcapsolutions.org

RCAP Solutions

<https://www.rcapsolutions.org/community-resources/>

Corey Godfrey: Littleton Water Department

Water and Sewer Superintendent

Phone: 978-540-2282

cgodfrey@lelwd.com

[Littleton Electric Light & Water Departments | Littleton LELWD](#)

Marielle Stone: Individual Public Water System Questions

Deputy Regional Director, Bureau of Water Resources

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Massachusetts Department of Environmental Protection

<https://www.mass.gov/orgs/massachusetts-department-of-environmental-protection>

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Thank You For
Attending