

A century-old system, brand-new mandates. Your capital plan has to carry both.

Massachusetts water is overwhelmingly municipal — the MWRA and dozens of city systems running pipe that predates living memory, now facing lead-line removal, PFAS6 limits, CSO obligations, and a \$2.1 billion redundancy tunnel all at once. When the mandate list moves, the project list has to move with it. Invizion helps Massachusetts utilities re-sequence a capital portfolio in a click — and defend every decision.

3.1M¹ People served wholesale water & sewer by the MWRA across 61 metro-Boston communities.	161² Massachusetts public water systems found with PFAS6 above the state's 20 ppt limit in MassDEP testing.	\$200M³ MWRA zero-interest loan pool for lead service line replacement across member communities.	\$10.4B⁴ Financed by the Massachusetts Clean Water Trust to date, reaching 97% of the state's population.
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THE MASSACHUSETTS LANDSCAPE

Four forces are moving your project list at once

None of these is theoretical, and none of them waits for your next budget cycle. Together they mean the capital plan you approved last year may already be the wrong plan.

AGING SYSTEMS & REDUNDANCY

A system built for the last century, with no room for error

The MWRA has invested more than \$6 billion in facilities since 1985, yet the metropolitan water tunnels that carry Boston's supply still have no backup — a single shutdown means boil-water orders for millions.¹

The fix is the Metropolitan Water Tunnel Program: roughly 15 miles of new deep-rock tunnel carrying an estimated \$2.1 billion, with construction running into the late 2030s and the tunnels planned to be in operation by 2040.⁵ A program that size reshapes every other line on a capital plan for a decade.

COMPLIANCE — LEAD

Lead service lines, on a funded clock

Lead pipe is a New England legacy problem, and replacement is now a funded mandate. The MWRA has built a \$200 million pool — \$100 million approved in 2016 and another \$100 million in 2024 — offering member communities 10-year, zero-interest loans plus a 25% grant when a community fully funds private-side removals.

Through December 2025, only \$72.4 million had reached 22 of 47 eligible communities — the money is available faster than plans can absorb it. The state SRF layers on 0%-interest loans specifically for lead service line replacements.⁶

COMPLIANCE — PFAS

PFAS6 arrived early, and the federal rule is stricter

Massachusetts set its PFAS6 drinking-water limit — 20 nanograms per liter for the sum of six PFAS compounds — on October 2, 2020, well ahead of Washington.⁷ MassDEP's free testing program then found 161 public water systems above that limit out of the 1,171 tested (about 80% of the state's active systems).²

The federal MCLs finalized in 2024 go further — 4 ppt each for PFOA and PFOS — with compliance due by 2029 (extendable to 2031). Treatment for one contaminant rarely fits neatly into an existing plan.⁸

WASTEWATER & CSOS

Combined sewers that still overflow when it rains

Massachusetts' older cities run combined sewers that discharge to rivers and the harbor during storms. The MWRA's long-term control plan, completed in 2015, cost about \$906 million and cut typical-year CSO discharge by 88% — roughly 2.8 billion gallons a year — but dozens of active outfalls remain.⁹

CSO mitigation is an eligible use of the state's Clean Water SRF, so the work competes for the same subsidized dollars as renewal, lead, and PFAS.¹⁰ Something on the list has to give.

WHO RUNS MASSACHUSETTS’ WATER

A municipal state, wholesaled through the MWRA

Massachusetts water is run almost entirely by cities, towns, and public authorities. The MWRA wholesales water and sewer service to 61 metro-Boston communities, while a long tail of local systems — and a small handful of investor-owned utilities — run the pipes to the tap.¹

Municipal & public systems

Rates set by city councils, commissions & district boards

Massachusetts Water Resources Authority (MWRA)	3.1M people · 61 communities · wholesale water & sewer
Boston Water and Sewer Commission	1M+ people served · buys treated water from MWRA ¹¹
Springfield Water and Sewer Commission	Regional supplier · \$250M WIFIA renewal loan (2021) ¹²
Worcester DPW Water Operations	New England’s 2nd-largest city · own reservoir supply
Cambridge Water Department	One of few metro systems with its own source (Fresh Pond)

MWRA’s Quabbin and Wachusett reservoirs hold about 477 billion gallons combined, with a safe yield near 300 MGD; 2024 demand averaged just 201.2 MGD — supply is a relative strength here, aging delivery infrastructure is not.¹³

Investor-owned & special districts

IOU rates regulated by the Department of Public Utilities (DPU)

Aquarion Water Company of Massachusetts	IOU serving Hingham, Hull & Cohasset · being acquired by Unital (2025) ¹⁴
Dedham-Westwood Water District	Regional water district
~1,400+ public water systems statewide	Most municipal; many small & rural ²
Massachusetts has relatively few investor-owned water utilities; Aquarion’s Massachusetts and New Hampshire subsidiaries were agreed to be sold to Unital in 2025, while its Connecticut operations transfer to a public authority. ¹⁴	

Every capital dollar has to be defensible

Most Massachusetts systems answer to a city council, commission, or district board rather than a regulator — but the question is the same everywhere: why this project, why now, why at this cost?

City councils, commissions & district boards set rates and approve capital for the state's municipal systems — in public, in front of ratepayers. There is no PUC backstop to blame.

Department of Public Utilities (DPU) regulates rates for the state's few investor-owned water utilities, such as Aquarion — whose Massachusetts operations are being acquired by Unifi⁴

MassDEP holds Safe Drinking Water Act primacy — enforcing the state's 20 ppt PFAS⁶ limit, lead service line inventories, and the compliance capital that follows⁷

Federal PFAS & lead rules now drive the calendar — EPA's 4 ppt PFOA/PFOS MCLs (compliance by 2029–2031) and lead-line replacement mandates stack on top of local priorities⁸

The money is moving — can your plan absorb it?

Massachusetts utilities have more subsidized capital available than in a generation. The constraint is no longer only dollars — it's readiness: which projects are shovel-ready, which qualify, and how the timing lines up with everything else on the list.

Massachusetts Clean Water Trust has financed roughly \$10.4 billion for nearly 300 borrowers, reaching 97% of the state's population, through the Clean Water and Drinking Water SRFs⁴

Subsidized SRF rates — a 2% standard loan, dropping to 0% for PFAS remediation and lead service line replacement projects, subject to available funds.⁶

\$200M MWRA lead-line loan pool — 10-year zero-interest financing plus a 25% grant option; \$72.4 million distributed to 22 communities through 2025.³

\$250M WIFIA loan closed by the Springfield Water and Sewer Commission (2021) for its water and wastewater renewal program — a template for large-system federal financing¹²

Clean Water SRF for CSOs & nutrients — CSO mitigation is SRF-eligible, and nutrient-reduction projects can qualify for 0% interest¹⁰

MASSACHUSETTS WATER, IN BRIEF

Questions Massachusetts utility leaders are asking

Short, sourced answers — the same facts we'll dig into on a call, in the context of your system.

How much lead-line funding is available through the MWRA, and how fast is it moving?

The MWRA has assembled a \$200 million loan pool — \$100 million in 2016 and another \$100 million in 2024 — offering 10-year, zero-interest loans and a 25% grant when a community fully funds private-side removal. Through December 2025, \$72.4 million had reached 22 of 47 eligible communities, so the constraint is project readiness, not dollars. The state Drinking Water SRF adds 0%-interest loans for lead work as well³⁶

How many Massachusetts water systems have a PFAS problem?

Massachusetts set an early PFAS⁶ limit of 20 ppt in October 2020. MassDEP's free testing program then found 161 public water systems above that limit out of 1,171 tested — roughly 80% of the state's active systems. The federal MCLs finalized in 2024 (4 ppt for PFOA and PFOS) are stricter still, with compliance due by 2029–2031, so many more systems will need treatment capital²⁸

What is the Metropolitan Water Tunnel Program and why does it matter to my plan?

It is the MWRA's roughly \$2.1 billion program to build about 15 miles of new deep-rock water tunnel so the existing metro tunnels can finally be taken offline for maintenance without risking a supply outage. Construction runs into the late 2030s, with the tunnels planned to be operational by 2040 — a commitment of that scale reshapes the sequencing of nearly everything else on a member community's capital plan⁵

Who sets my water rates in Massachusetts?

For the great majority of Massachusetts systems — municipal departments, commissions, and districts — rates and capital budgets are approved by city councils, commissions, or district boards, not by a state regulator. Only the state's few investor-owned utilities, such as Aquarion, have rates regulated by the Department of Public Utilities. Either way, capital spending has to be justified publicly to a governing body and to ratepayers³⁴

What subsidized funding can a Massachusetts utility actually count on?

The Massachusetts Clean Water Trust has financed about \$10.4 billion to date through the Clean Water and Drinking Water SRFs, reaching 97% of the state's population, at a 2% standard rate that drops to 0% for PFAS and lead work. Larger systems can also tap federal WIFIA loans — Springfield closed a \$250 million WIFIA loan in 2021 — and MWRA members can draw on the \$200 million lead-line pool⁴¹²

How does Invizion help Massachusetts water utilities plan capital?

Invizion is scenario-based capital portfolio optimization built for water utilities. When a PFAS deadline moves up, a lead-line loan lands, or the MWRA tunnel assessment reshapes your wholesale costs, you don't re-plan by hand for weeks — you model the change, watch it ripple across the whole project list, and re-sequence the portfolio in a click against the constraints you set. Every prioritization and trade-off is captured, so when your council, commission, or the DPU asks 'why this project, why now,' the answer is documented rather than reconstructed. The best next step is a short first meeting to look at it against your

own program.

REFERENCES

Sources

Every figure in this briefing is tied to a primary or authoritative source.

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2. MassDEP, "Free PFAS Analysis Program Final Report" — 1,171 public water systems tested (~80% of active PWS); 161 systems above the 20 ppt PFAS6 MCL, 2019–2022. [mass.gov](https://www.mass.gov)
3. MWRA, "Lead Service Line Replacement Program" — \$200M loan pool (\$100M 2016 + \$100M 2024), 10-year 0% loans, 25% grant; \$72.4M to 22 of 47 eligible communities through Dec 2025. [mwra.com](https://www.mwra.com)
4. Massachusetts Clean Water Trust — ~\$10.4B financed for nearly 300 borrowers, serving 97% of the Commonwealth's population, 2026. [mass.gov](https://www.mass.gov)
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6. MassDEP, "Drinking Water State Revolving Fund (SRF) Program" — 2% standard loan; 0% for PFAS remediation and lead service line replacement, subject to available funds, 2025. [mass.gov](https://www.mass.gov)
7. MassDEP, "Per- and Polyfluoroalkyl Substances (PFAS)" — PFAS6 MCL of 20 ng/L (ppt) for the sum of six PFAS, effective October 2, 2020. [mass.gov](https://www.mass.gov)
8. MassDEP, "PFAS in Drinking Water" — federal EPA MCLs of 4 ppt each for PFOA and PFOS (April 2024), compliance by 2029 (extendable to 2031). [mass.gov](https://www.mass.gov)
9. MWRA, "Combined Sewer Overflow (CSO) Control" — ~\$906M long-term control plan (completed 2015), typical-year CSO discharge cut 88% (~2.8B gallons/yr). [mwra.com](https://www.mwra.com)
10. MassDEP, "Clean Water State Revolving Fund (SRF) Program" — 2% standard loan; CSO mitigation eligible; 0% for qualifying nutrient-reduction projects, 2025. [mass.gov](https://www.mass.gov)
11. Boston Water and Sewer Commission, "About" — drinking water and sewer to 1M+ people daily; created 1977; purchases treated water and wastewater treatment from MWRA. [bwsc.org](https://www.bwsc.org)
12. U.S. EPA, WIFIA Closed Loans — Springfield Water and Sewer Commission \$250M loan, Water and Wastewater Infrastructure Renewal Program, closed August 19, 2021. [epa.gov](https://www.epa.gov)
13. MWRA, "Reservoirs & Watersheds" — Quabbin (412B gal) + Wachusett (65B gal) = ~477B gal; safe yield ~300 MGD; 2024 demand averaged 201.2 MGD. [mwra.com](https://www.mwra.com)
14. Wikipedia, "Aquarion Water Company" — Eversource acquired Aquarion for \$1.675B (2017); 2025 sale sends CT ops to a public authority and the MA & NH subsidiaries to Unitil. en.wikipedia.org

ABOUT INVIZION

Capital program optimization for utilities

Invizion is a purpose-built capital lifecycle management platform for water and wastewater utilities. It integrates budgeting, CIP, scenario analysis, and funding-source tracking in one system — so utilities can re-sequence a capital portfolio in a click and demonstrate audit-ready, defensible decisions to regulators, boards, and rating agencies.

See what a defensible Massachusetts capital plan looks like — book a 20-minute first meeting.

Book your first meeting →