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BOARD OF DIRECTORS' MEETING

Date: Wednesday, February 4, 2026

Time: 9:30am

Location: MWRA Administration Facility, Board Room 2C/2D
2 Griffin Way, Chelsea, MA 02150
Photo ID required for entry.
The meeting will also be available via Webex.

Webex meeting link (registration required)

https://mwra.webex.com/weblink/register/rd4088d3d58d8c290e691026a2f5f41e3

Meeting number: 2333 234 5584 Password: 020426

AGENDA

I. WASTEWATER POLICY AND OVERSIGHT

A. Information

1. Draft Updated CSO Control Plan Alternatives Recommendation

II. CORRESPONDENCE TO THE BOARD

A. Correspondence Regarding the Draft Updated CSO Control Plan

- 1/8/26 letter from Jennifer Steel on behalf of the Newton Conservation Commission and Conservation Office
- 1/15/26 letter from State Senators Cynthia Stone Creem and Rebecca L. Rausch
- 1/20/26 letter from David Stoff
- 1/22/26 letter from Boston City Councilors Liz Breadon and Sharon Durkan
- 1/23/26 letter from Nicholas Palermo, Greater Boston Contractors Association, on behalf of 75 signatory contractors and UA Plumbers Local 12
- 1/26/26 email from Meredith DiMola
- 1/27/26 correspondence from Save the Alewife Brook: letter from Kristin Andersen and numerous other signatories (see letter with the meeting materials)
- 1/28/26 letter from Patrick Herron on behalf of the Mystic River Watershed Association
- 1/29/26 correspondence from the Charles River Watershed Association: email from Stefan Geller with linked video and attached comment letter from Emily Norton
- Additional correspondence

III. OTHER BUSINESS

A. Search for New Executive Director: Process and Preliminary Screening (Search) Committee (vote) - verbal

IV. ADJOURNMENT

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: February 4, 2026
SUBJECT: Draft Updated CSO Control Plan Alternatives Recommendation

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COMMITTEE: Wastewater Policy & Oversight

X INFORMATION
VOTE

Brian L. Kubaska, P.E., Chief Engineer
Colleen Rizzi, P.E., Director, Env. & Reg. Affairs
Rebecca Weidman, Deputy Chief Operating Officer
Preparer/Title

Kathleen M. Murtagh, P.E.
Chief Operating Officer

On October 29 2025, staff presented recommended alternatives for the Alewife Brook, Lower Charles River/Charles Basin and Mystic River for inclusion in the Draft Updated CSO Control Plan. Questions from the Board, highlighted the need for further evaluation and the deadline to submit the draft Plan was extended by MassDEP to the end of April. This Staff Summary presents revised recommended alternatives for consideration by the Board, which provide a level of control of Zero CSOs in a 2050 Typical Year for all three waterbodies. With implementation of these recommended alternatives, even with expected increased precipitation resulting from climate change, CSO discharges to the Variance Waters would not increase but rather are projected to be eliminated in the 2050 Typical Year and substantially reduced in the infrequent storm events greater than those in the 2050 Typical Year.

RECOMMENDATION:

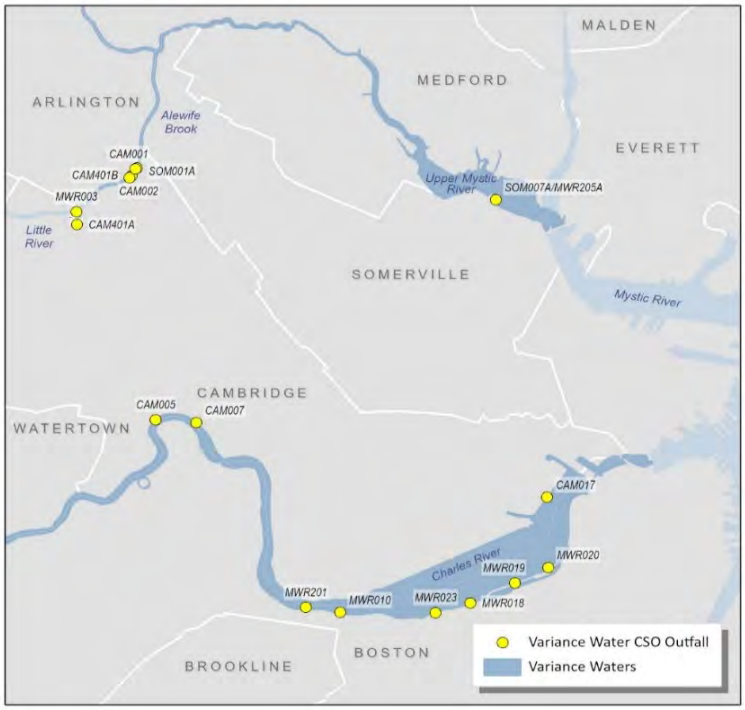
For information only.

DISCUSSION:

This staff summary provides an overview of the Combined Sewer Overflow ("CSO") control alternatives evaluated by staff for MWRA, the City Cambridge, and the City of Somerville ("the Partners") with respect to the remaining CSO outfalls located in the Alewife Brook/Upper Mystic River Basin (total of seven outfalls, two of which are owned or partially owned by MWRA) and the Lower Charles River/Charles Basin (total of nine outfalls, six of which are owned by MWRA) [1]. The staff summary includes a discussion regarding CSO control alternatives development and evaluation and provides recommended alternatives for consideration for the Draft Updated CSO Control Plan document under development.

Additional information regarding the Draft Updated CSO Control Plan development process and stakeholder/public outreach can be found in the staff summaries provided to the Board on September 17, 2025, October 22, 2025, and October 29, 2025. The Partners have conducted six

[1]At the Alewife Brook/Upper Mystic River Basin, MWRA has one outfall, Cambridge has four outfalls, Somerville has one outfall and one outfall is shared by Somerville and MWRA. At the Lower Charles River/Charles Basin, MWRA has six outfalls and Cambridge has three outfalls.



public meetings, one listening session and additional meetings with watershed associations. The Draft Updated CSO Control Plan, to be submitted by April 30, 2026, will include comprehensive documentation of the draft plan's development and the recommendations. Following the submission of the Draft Updated CSO Control Plan to the Massachusetts Department of Environmental Protection ("MassDEP") and the U.S. Environmental Protection Agency ("EPA"), there will be a five-month public comment period. During the public comment period, additional public meetings and public hearings will be held to garner feedback on the Draft Updated CSO Control Plan. Comments from MassDEP, EPA and the public will be addressed with the Final Updated CSO Control Plan scheduled for submittal by the end of January 2027.

Background

Over the last 35 years, substantial progress has been made toward reducing CSO discharges within the Metropolitan Boston area. As documented in the Supplement to the Final CSO Post Construction Monitoring and Performance Assessment Report (December 2024), 41 of the 86 CSO outfalls active in the late 1980s have been closed or effectively closed, and in comparison to expected annual CSO discharges in the late 1980s the region has seen an 88% reduction in CSO discharges with 94% of the remaining CSO discharge being treated at CSO treatment facilities.

In 1998, MassDEP began issuing Surface Water Quality Standards ("SWQS") variances, which authorize limited CSO discharges from the MWRA, Cambridge, and Somerville CSO outfalls in the Alewife Brook/Upper Mystic River Basin and the Lower Charles River/Charles Basin (individually "Variance Water"; collectively the "Variance Waters") while significant work continued to reduce CSO discharges into those water bodies. These variances were subsequently approved by EPA. The most recent variances, adopted by MassDEP on August 30, 2024 ("Variances"), have multiple requirements, including:

- development of Draft and Final Updated CSO Control Plans;
- consideration of climate change when evaluating control alternatives; and
- a public outreach program during planning efforts.

As noted above, MWRA, Cambridge, and Somerville (the "Partners") are each required to submit a Draft Updated CSO Control Plan for their respective outfalls (or a joint plan) to MassDEP and the EPA. The Draft Plan was originally due to MassDEP and EPA on December 31, 2025. The Partners requested and were granted a 120-day extension, to April 30, 2026, to submit the draft

plan(s). The Draft Updated CSO Control Plan(s) are required to include, among other things, evaluation of CSO control alternatives, *up to and including full elimination*. The Draft Updated CSO Control Plan(s) must also include an affordability analysis by each of the Partners in accordance with EPA's February 2023 Clean Water Act Financial Capability Assessment Guidance. The report will also include, as required in the Variances, water quality information and documentation to inform MassDEP's future decision making related to SWQS.

Levels of CSO Control

For the purposes of the development of the Draft Updated CSO Control Plan(s) four levels of CSO control for the future 2050 planning year were evaluated. These levels of control are based on forward-looking precipitation patterns in an effort to plan for the impacts of climate change. The four levels of control evaluated were:

- significantly reducing CSO discharges from those predicted to occur in a 2050 Typical Year ("Limited CSOs in the 2050 Typical Year");
- Zero CSO discharges in a 2050 Typical Year ("2050 Typical Year");
- Zero CSO discharges in a 2050 5-year, 24-hour design storm ("2050 5-year"); and
- Zero CSO discharges in a 2050 25-year, 24-hour design storm ("2050 25-year").

A "Typical Year" is a full year of precipitation data that best represents rainfall over a period of time, and is representative of an average year for planning, as rainfall changes from year-to-year. A Typical Year established as part of CSO control planning work is a necessary tool used to assess how planned improvements would perform under a series of precipitation conditions. The Typical Year may also be used throughout the CSO control planning development process, to identify and test alternatives, as well as during implementation, to set a benchmark to measure and assess progress. EPA's 1995 CSO Policy states that "continuous simulation models, using historical rainfall data, may be the best way to model sewer systems, CSOs, and their impacts." In the Partners' 2022 approved scope of work for the Updated CSO Control Plan(s), EPA strongly encouraged the Partners to both look at historical precipitation data, but also future anticipated precipitation data.

In response to input from the watershed groups and as strongly encouraged by the regulatory agencies, staff from each of the Partners jointly developed a future looking 2050 Typical Year that takes into consideration expected climate change using updated climate science and methodologies endorsed by the Commonwealth of Massachusetts. This novel approach is believed to be a first-in-the nation for CSO planning purposes.

The 2050 Typical Year of rainfall was used to evaluate CSO discharge volume and activation frequencies at outfalls tributary to the Variance Waters. The 2050 Typical Year analysis included identifying an observed year that is most representative of future projected precipitation patterns. The 2050 Typical Year was developed by considering both historic observed rainfall data and precipitation projections based on the best available rainfall predictions for the study area. This approach is consistent with those adopted by the Massachusetts Executive Office of Energy and Environmental Affairs, as part of the Statewide Climate Resilience Design Standards Tool (commonly referred to as the "RMAT Tool") and Guidance.[2] These future projections show

[2] Climate Resilient Design Standards Tool. Resilient MA Action Team.2022. https://resilientma.mass.gov/rmat_home/designstandards/

notable increases in storm intensity, volumes and total annual precipitation, reflecting the impacts of a changing climate. This analysis, not prescribed by EPA's CSO Control Policy, is unique for CSO control planning because it establishes a Typical Year that accounts for future climate change projections, including higher intensity rainstorms.

Using a 2050 planning horizon for Typical Year and larger events such as 5-year and 25-year storms yielded increased rainfall volume and intensity, and resulted in an increase in the number of predicted CSO activations and associated discharge volumes based on a baseline configuration of the collection system that does not include any additional CSO projects[3]. Table 1 provides the hydraulic model's CSO activation and volume prediction for the prior Typical Year (used as the regulatory planning standard in the original Long Term Control Plan ("LTCP")) for comparison with the 2050 Typical Year, as well as predictions of the single event largest storm in the 2050 Typical Year and the single event 5-year and 25-year 24-hour 2050 design storms, for the remaining CSO outfalls that discharge to the Variance Waters. Alewife Brook is expected to have the greatest number of activations with 13 of the 98 storm events included in the 2050 Typical Year resulting in CSO discharges. The values shown in Table 1 represent predicted discharges if an Updated CSO Control Plan was not implemented.

Table 1: Predicted CSO Activation and Volumes without Draft Updated CSO Control Plan Projects Implemented

Receiving Water	Hydraulic Model Predictions						
	Annual Activation Frequency		Annual CSO Discharge Volume (MG)		Single Event CSO Discharge Volume (MG)		
	Prior TY	2050 TY	Prior TY	2050 TY	2050 Largest Storm in TY	2050 5- year Storm	2050 25-year Storm
Upper Mystic	2	8	1.3	29.3	10.5	17.4	27.2
Alewife Brook	8	13	9.9	20.9	4.84	20.9	40.1
Charles River	3 3	4 6	6.6 1.4	29.4 8.2	10.1 3.9	33.8 31.6	55.9 64.6

Green Numbers – Treated CSO
Blue Number – Untreated CSO

[3] The baseline configuration does include CSO related projects that are already underway within the variance water tributary area.

Note:

1. The collection system model was not calibrated to storms of the magnitude of the 2050 5-year or 25-year storm. As a result, the accuracy of the predictions of CSO volumes in those extreme events is uncertain.

Table 1 further provides the basis for which the four levels of control were developed. This Table includes a comparison of the volumes/activations under the prior Typical Year used for the LTCP and the new 2050 Typical Year used for the proposed Draft Updated CSO Control Plan. For example, to achieve Zero CSO discharges in a 2050 Typical Year, at a minimum the volumes included in the 2050 largest storm in a Typical Year must be addressed through one or multiple CSO control projects. As noted in Table 1, the volumes to achieve higher levels of control for a 5-year or 25-year design storm increase significantly requiring much larger and more complex projects to manage the large volumes expected.

To achieve Limited CSOs in the 2050 Typical Year and Zero CSOs in a 2050 Typical Year, alternatives evaluated included various combinations of projects (localized storage tanks, micro tunnels, sewer separation, etc.) to address CSO discharges at individual CSO outfalls or smaller groupings of CSO outfalls. For 5-year and 25-year levels of control, alternatives also included regional tunnel solutions and full sewer separation of combined areas tributary to the Variance Water CSO outfalls. Given the large CSO volumes that must be captured for the 5-year and 25-year design storms, alternatives that were evaluated were large regional tunnel solutions for the Alewife and Charles, and combinations of storage with sewer separation for the Upper Mystic.

MWRA owns and operates two CSO treatment facilities with outfalls to the Variance Waters which provide fine screening of combined flows and neutralization of bacteria prior to CSO discharge. All CSO discharged to the Upper Mystic River is treated, while a significant portion of the CSO discharge to the Charles River is treated as illustrated in Table 1.

Updated Water Quality Analysis

MWRA's consultant, AECOM, updated the 2021 receiving water quality modeling utilized under the CSO performance assessment for the LTCP to reflect the impact of larger, more intense storms forecast in the 2050 Typical Year. Based on guidance from MassDEP, results were prepared treating the statistical threshold value in the state water quality standards for Class B waters as single sample maximums (<410 #/100ml for *E. coli*, <130 #/100mL for *Enterococcus*) equivalent to a swimming standard. To evaluate the impact of CSO discharges on the receiving waters in the future 2050 Typical Year, MWRA ran the models for the Charles and Alewife/Upper Mystic using rainfall from the future 2050 Typical Year. The models produced *E. coli* and *Enterococcus* loadings from CSO discharges, stormwater, and upstream boundary conditions, assuming no improvements were made to reduce bacteria levels from any sources, including no new CSO reduction projects. However, the impact of CSO discharges on the total duration of water quality exceedance when considering *E. coli* bacteria remains the equivalent of approximately one days-per-year for the Charles River, four days-per-year for the Alewife Brook, and 15 days-per-year in the Mystic River.[4]

[4] Total duration of WQ exceedances is the sum of several individual CSO events. For example, exceedances are expected to occur as a result of all 6 predicted untreated CSO discharges to the Charles River (see Table 1). The sum of the duration of each individual exceedance is predicted to total one day per year.

Modeling results show that the impact of other sources (*i.e.*, stormwater and upstream boundary conditions) continues to be the primary cause of water quality criteria exceedances during most of the 2050 Typical Year. When considering non-CSO sources of pollutants, water quality exceedances are predicted to be the equivalent of 179 days-per-year for the Charles River, 215 days-per-year for the Alewife Brook, and 175 days-per-year for the Upper Mystic River. Water quality exceedances associated with CSO discharges are not added to those predicted from other sources but occur concurrently since CSO discharges are associated with large rain events. Based on these model results, even if CSO discharges are eliminated in the 2050 Typical Year, the number of days where water quality exceedances occur would not decrease without significant reduction in bacterial loadings occurring during every rainfall event from stormwater and upstream sources.

To help assess the acute impact of CSO discharges to the Variance Waters, further analysis was performed to determine the bacterial levels and duration of impact from CSO during the storm in the 2050 Typical Year with the highest volume of CSO discharge (3.3-inches in 24-hours). The receiving water quality models were used to simulate a scenario where all other sources are clean and only the CSO discharges are contributing bacteria in this large storm. This was done to isolate the CSO impacts on the Variance Waters. The models showed that although CSO discharges resulted in high bacteria counts at the points where the discharges were occurring, the high *E. coli* counts exceeding the single sample maximum were short lived, dropping below the 410 #/100mL maximum in less than six hours for the Charles River and less than 24 hours for the Alewife/Upper Mystic. Public health officials recommend avoiding contact with water bodies during rainstorms and for 48 hours afterwards; in both river basins bacteria counts due to CSO discharges drop below the single sample maximum well before 48 hours.

As part this Updated Water Quality Analysis the modeled impact of CSO discharges on the receiving waters do result in exceedance of the Class B SWQS. for swimmable and fishable waters. However, the analysis shows that these exceedances occur concurrently with impacts from other sources (*e.g.*, stormwater, upstream boundary conditions) and that when CSO discharges occur the duration of exceedance due to CSO discharges is short. When considering higher, and higher, levels of CSO control, the water quality modeling performed demonstrates the diminishing return on investment. Any recommendation should consider whether significantly larger capital expenditure, construction impacts, system operational and capacity impacts, and forfeiture of park lands to ensure CSO discharges that statistically only occur once every five-years or 25-years in the future is a responsible ratepayer investment in the region's resources. This is especially pertinent when considering other climate change initiatives that must be undertaken to prevent widespread flooding and to meet other permit requirements to reduce stormwater nutrients.

CSO Reduction and Elimination Tools

Five different technologies or tools were evaluated to reduce or eliminate CSO discharges.

- **Sewer Separation:** This involves the separation of combined sewers into separate and dedicated sanitary and stormwater sewers. The EPA CSO abatement policies require that combined sewer system separation be evaluated as a step in CSO facilities planning.
- **Green Stormwater Infrastructure ("GSI"):** This tool uses nature-based solutions that can assist in mitigating stormwater and improving water quality by infiltrating flows directly into the ground or detaining flows before releasing them back into the drainage system and waterways.

- **Inflow/Infiltration Reduction:** This tool reduces the volume of groundwater or stormwater entering a sanitary or combined sewer system from cracked sewer mains, offset joints, or erroneously connected stormwater conduits that should otherwise go to a stormwater system.
- **Storage:** This technology consists of deflecting stormwater or combined sewage from the sewer system into an adjacent storage chamber and holding it until the system has available hydraulic capacity to handle the flows when they are released back into the sewer system and ultimately treated at the treatment plant. Storage facilities can also be designed to provide some sedimentation treatment capacity for flows exceeding the design storage volume.
- **Conveyance:** This includes upsizing pipes and pumps and improving pump station operations to increase the volume and flow that the sewer system can handle and therefore reduce the need for CSO outfalls as a point of relief.

Consideration was also given to treatment of CSO pollutants prior to discharging to the Variance Waters, similar to MWRA's existing Cottage Farm and Somerville Marginal CSO treatment facilities, which provide fine screening and neutralize bacteria and with the case of Cottage Farm provide settlement of some solid and organics further reducing pollutant loads. However, for reasons explained below, treatment was not considered a viable option.

Alternatives Development

MWRA, Cambridge, and Somerville, with input from Boston Water and Sewer Commission, developed 39 alternatives for CSO control for the Variance Waters.

Limiting Considerations for Alternative Development

Two significant considerations have been important when conceptualizing alternatives for further CSO control. First, alternatives that involve increasing the amount of stormwater to the Variance Waters must consider the additional nutrients and bacteria loading that are inherent with urban stormwater discharges. Given existing regulatory limits for phosphorus and nitrogen to the Variance Waters, any increase in nutrient loading may require treatment for the stormwater discharge and that must be considered in alternatives development. Second, with the Alewife Brook having limited capacity to take additional stormwater flows without exacerbating bank overtopping and flooding of nearby properties, developing alternatives which consider stormwater flow attenuation within this urban environment results in further limitation in alternative development for the Alewife Brook.

Process for Development of CSO Control Alternatives

The Variances require "[a]n evaluation of the costs and water quality benefits of further CSO control alternatives, up to and including elimination of CSO discharges." To address this requirement, alternatives to achieve a range of levels of CSO control (Limited CSO discharges in the 2050 Typical Year, Zero CSO discharges in the 2050 Typical Year, Zero CSO discharges in the 2050 5-year, and Zero CSO discharges in the 2050 25-year) were developed and evaluated for each of the Variance Waters. The development of alternatives for each of the levels of control was an iterative process that involved the following general steps:

- initial development and screening of the technologies described above for individual outfalls;

- assessment of opportunities to address two or more outfalls with a single control tool;
- assessment of the impact of control tools on hydraulically related outfalls;
- optimization of combinations of control tools; and
- assessment of elimination of CSO discharges.

Initial Development and Screening of Tools for Individual Outfalls

As a first step, staff from each of the Partners evaluated the potential applicability/feasibility of each of the CSO control tools (*e.g.*, sewer separation, green infrastructure, storage, *etc*.) for each outfall under its respective jurisdiction in each of the Variance Waters. Regional solutions such as system-wide infiltration/inflow removal, regional conveyance improvements, and stand-alone system-wide green infrastructure were also evaluated in this initial screening step. Region-wide sewer separation was evaluated in the context of CSO elimination as described below.

The hydrologic and hydraulic model was used to assess the initial sizing of tools and resultant CSO reduction that would be expected. Tools that were not predicted to achieve the targeted levels of CSO control were not evaluated further. For example, Inflow/Infiltration Reduction showed nominal CSO reductions even when considering aggressive system-wide Inflow/Infiltration Reductions of 30 percent and thus was not evaluated further. While GSI was not predicted to independently achieve meaningful reductions in CSO control, it was advanced for consideration with certain other tools given its community benefits. Other options may not have been evaluated further if different technologies could provide the same level of control with substantially less operational complexity, cost, and/or siting impacts.

Assessment of Opportunities to Address Multiple Outfalls

For Alewife Brook and the Charles River, multiple CSO outfalls are in relatively close proximity to each other, creating the potential opportunity to consolidate the outfalls with a single CSO control technology. The initial screening process for Alewife Brook and the Charles River therefore included assessment of consolidation of outfalls to either treatment or storage facilities, and the capture of multiple outfalls into a storage tunnel. Outfall consolidation opportunities were screened out of the assessment if the consolidated storage or treatment facility was infeasible, or if the size of the facility or conveyance piping needed to convey flows to the storage or treatment facility began to approach the size of a tunnel that could store the flow.

Assessment of the Impact of Control Technologies on Certain Outfalls

The initial sizing of CSO control technologies for each outfall was an iterative process. First, each Partner sized control technologies for their respective outfalls independently, initially targeting a level of CSO control of zero discharges in the 2050 Typical Year. Then, iterative model runs were conducted to assess the cumulative impact of the initially sized technologies on predicted performance. Technologies were re-sized based on the outcome of the cumulative-impact model runs, then re-assessed with the model until the sizing was optimized for the intended level of control. The initial outcome of this process was a combination of control technologies referred to as the "Integrated Alternative" to achieve zero discharges in the 2050 Typical Year for each waterbody.

Optimization of Combinations of Control Technologies

Once the Integrated Alternatives were established for each waterbody, further optimization was conducted by switching out individual technologies at individual outfalls, where the modeling and/or siting/feasibility assessments suggested a more optimal arrangement could potentially be beneficial. These alternatives were referred to as "Hybrid" alternatives.

Working from the group of Integrated and Hybrid Alternatives, the next step in the process was to investigate the optimal sizing of alternative components to reduce, but not eliminate, CSO discharges in the 2050 Typical Year. This approach involved looking at the predicted CSO volumes at each outfall for each storm predicted to generate a CSO activation in the 2050 Typical Year. This scenario was considered when there was a substantial increase in size/complexity/cost of the alternative component required to capture the next-largest overflow event. This approach resulted in varying levels of control among the outfalls depending on the characteristics of the discharges.

Assessment of Elimination of CSO Discharges

As noted above, assessment of alternatives to eliminate CSO discharges is required in the Variances. Traditionally, "complete" sewer separation was the approach for communities/agencies to eliminate CSO discharges. A notable exception to this approach was MWRA's North Dorchester Bay CSO Storage Tunnel, where capture of the CSO volume from the 25-year, 24-hour storm representing current projects at the time of the design, was agreed to be the equivalent of CSO elimination. However, guidance from the regulatory agencies on what would be considered elimination for the Variance Waters has not been provided. Therefore, alternatives to capture CSO discharges in a 2050 5-year and 25-year, 24-hour storm were developed.

System-wide sewer separation for the combined sewer areas tributary to the Variance Waters was evaluated as a means to achieve CSO elimination. However, as stated in the 1995 CSO Guidance for developing a CSO control plan, "Separation has been reconsidered in recent years because it typically results in increased loads of storm water runoff pollutants (e.g., sediments, bacteria, metals, oils) being discharged to the receiving waters, is relatively expensive, and can disrupt traffic and other community activities during construction." The total remaining combined area tributary to the Variance Waters totals approximately 5,950 acres.

In modeling sewer separation for the Variance Waters, it was assumed that 90 percent of the inflow from the combined areas could be captured by the sewer separation work, with 10 percent remaining tributary to the now separate sewage collection system. The remaining 10 percent was intended to reflect roof drains connected to interior building plumbing, and other extraneous sources of inflow that could not be feasibly captured based on experience performing sewer separation in the Variance Waters' sewersheds. However, given the magnitude of some of the large future storms, model predictions indicated that although CSO discharges would be mostly eliminated, the extraneous inflow remaining in the now separated sewer system and existing inflow and infiltration from upstream communities would still exceed the system capacity at some CSO outfalls.

Sewer separation was modeled with the existing combined system carrying the sanitary flow along with 10 percent of the inflow from the prior combined tributary area. These flows are modeled in the combined sewer system with the potential to enter the CSO regulator and overtop existing high outlets to CSO outfalls or activate a CSO facility if the level within the regulator exceeds a set

value. These overflow or action elevations are considered reasonable limits where upstream basements and street flooding could occur if levels were to go higher. Using this evaluation methodology, it was predicted that the now separate sewer system could rise to these high outlet elevations and discharge at a few locations in the 2050 Typical Year and several locations in the larger 2050 design storms. Therefore, the extent to which system-wide sewer separation would be considered to provide "CSO elimination" is uncertain, given the potential for the wastewater elevations to rise to a point that they could result in sanitary sewer overflows should the CSO outfalls be closed (blocked off).

To develop alternatives for controlling CSO discharges in the 2050 5-year and 25-year, 24-hour design storms, it was apparent that land availability to support the storage volumes needed were, in most cases, unavailable in the urban environments near the existing CSO outfalls. Feasible alternatives for controlling CSO discharges to the 5-year and 25-year levels of control would require large regional solutions such as deep tunnels with supporting pump stations, and odor control facilities for the Alewife Brook and Charles River. A large storage tank coupled with sewer separation was identified as a possibility for the Upper Mystic River.

Alternatives

Attachment A summarizes the various alternatives under consideration for the four levels of control for each of the three Variance Waters. The development process resulted in 39 alternatives across the three waterbodies and four levels of control (See Attachment A). These alternatives include a large range of project type, cost, construction durations and impacts.

Alternative Evaluation and Selection Process

Staff from each of the Partners collaborated on a means of comparing/contrasting and evaluating the various alternatives for the three waterbodies. The number of alternatives in each level of control for each water body was two to three, *except for* the larger group of alternatives for zero CSO discharges in the 2050 Typical Year, in which there were five to seven alternatives per water body. Thus, evaluating the many alternatives took a two-step evaluation process.

Step 1: 2050 Typical Year Alternatives Evaluation

First, the Partners sought to compare the larger and more varied group of alternatives for Zero CSOs in the 2050 Typical Year to better understand the benefits of each alternative that meet the same CSO control objective and identify preliminary preferred alternatives to carry forward in evaluations. This narrows the largest group of alternatives to a more reasonable number of alternatives to compare against other levels of CSO control.

A scoring rubric was developed to assign comparative values to the following criteria (see Attachment C).

- Water Quality Impact: Nutrient Load Reduction
- Schedule: Minimize Timeline to CSO Discharge Reduction Benefits
- Impact on Public Uses during Construction
- Neighborhood Impacts during Construction
- Construction Complexity/Risk due to Depth of Excavations
- Overall Construction Complexity

- Operation & Maintenance/Safety Consideration
- Resiliency and Adaptability
- Opportunity to Upgrade Existing Infrastructure
- Flooding: Reduce Sewer/Stormwater Flooding Risk
- Community Co-benefits
- Permanent Impacts to Public Uses
- Impact to Non-Variance CSO Outfalls

In addition to the above criteria, certain key factors that influenced the feasibility of an alternative, including cost, permitting uncertainty/regulatory risk, and land acquisition, were not assigned rating values, but were separately considered in conjunction with the overall ratings from the other criteria.

Step 2: Control Evaluation

Next, the Partners sought to evaluate the remaining alternatives across levels of control. After alternatives were scored for the zero CSO discharges in a 2050 Typical Year, those that rose to the top were assessed and compared against those across the four levels of control. This evaluation focused on balancing considerations including CSO control, timeline to CSO reduction benefits, cost, and implementation considerations, overall impacts such as neighborhood disruption and temporary and permanent loss of recreational areas and also evaluated regional flooding and water quality across levels of control.

Additional Considerations

Other important considerations in assessing the viability of a project include permitting uncertainties and land acquisition risks. For example, the ability to acquire real property interests currently subject to Constitutional (*i.e.*, Article 97) or other restrictions cannot be determined at this time but should be considered as a risk of being able to effectively advance a project. Further examples of permitting uncertainties include: (a) compliance with existing NPDES MS4 requirements and Total Maximum Daily Loads (TMDLs) for phosphorus (*i.e.*, increase in pollutant loads form stormwater discharges), (b) compliance with Chapter 91 (*i.e.*, permanent or temporary changes to existing shorelines or waterways), and (c) construction permitting (*e.g.*, transportation of equipment and construction materials or debris, occupation of public right of ways, *etc*.). In many cases, project components of an alternative require physical space for permanent above-grade assets. Where this involves acquiring private property, other parcels of land, or easements from others, land acquisition also introduces uncertainties.

Planning-level capital cost estimates were developed for each alternative for comparative purposes. For many CSO control alternatives, preliminary capital cost estimates were based on general unit costs derived from similar projects. For large tunnels and alternatives requiring known unique features, preliminary capital cost estimates were based on more project-specific features. In all cases, preliminary estimated capital costs are in today's dollars, without escalation to the mid-point of construction. Estimated land acquisition costs to purchase private property or to provide compensatory lands when siting facilities within public properties were also included, although these estimates are based on an estimated regional average property value and can vary significantly. The planning-level estimates further include preliminary construction costs plus 25% contingency and 37% for "soft costs" (*e.g.*, design, construction administration, resident engineering, general permitting, *etc.*). Costs associated with unknown circumstances (*e.g.*,

contamination, poor ground conditions, extensive permits, extensive construction mitigations, *etc*.) are not included in the preliminary estimated costs. Costs to operate and maintain the new assets constructed as part of the alternatives are also not included in the estimated costs presented herein. Planning level capital cost estimates for alternatives across the four levels of control are included in Attachment A and range from approximately $600 million to $6.9 billion. The project team continues to refine these estimates, as they work through the planning process. Estimated time to complete each of the projects that make up the alternatives are included in Attachments A and B and range from 5 years and 50+ years.

Impacts

Projects similar to those being evaluated as part of the Updated CSO Control Plan can result in significant impacts to abutting communities, especially in highly developed, densely populated neighborhoods like Cambridge, Somerville, and Boston. Some of these projects will require multiyear construction, removal of land from public use, and increase the number of facilities that the MWRA, as well as Cambridge and Somerville, would own and have responsibility to operate and maintain. The extent of these impacts varies based on the CSO reduction and elimination tool(s) that are included in each alternative. Some impacts will be temporary, for example truck traffic, road detours or lane closures; while others will be permanent, for example locating a new facility on land that is currently a public park and operation and maintenance of a large pump station and odor control facility. As indicated previously, the volume of CSO flow that would be needed to achieve the 5-year or 25-year design storm levels of control increase significantly requiring much larger and more complex projects.

Construction Impacts

Several of the potential projects being evaluated are less complex, limited to a particular site, and can be accomplished in a few years; while others are very complex, impacting large areas, and would be constructed over many years. In addition, several involve construction below ground, some significantly deep, which poses a unique set of challenges. Those construction challenges and community impacts include:

- Construction complexity
- Construction duration and work hours
- Traffic impacts
- Construction noise and vibrations
- Size of construction staging areas and new permanent infrastructure

Sewer Separation typically involves excavations in streets to install pipelines to convey either the sewer or stormwater in a separate pipeline. Construction could impact many interconnected streets over potentially large areas. These would be multiyear project(s) that are typically phased in order to somewhat limit the impact area of a particular construction project. While overall construction would not be 24 hours a day, 7 days per week (24x7), both day & night work would occur depending on the location. These types of projects will include temporary lane/road closures or detours.

Moreover, the new pipelines would be up to 84 in diameter with new manholes and other chambers to properly separate and convey the flows. It may not be possible to install such large

infrastructure in some roadways that already house many existing underground utilities and, where required, some existing utilities may need to be relocated and reconstructed in order to make room for the new pipelines, further adding complexity.

These types of projects can impact many neighborhood residents and business owners at once and require significant public outreach and coordination. Temporary disconnection/reconnection of individual property service lines (e.g., rainwater down spouts or sanitary sewer services) and by-pass pumping may be needed to maintain those services during construction.

No new above grade permanent structures are expected and acquiring of public land, beyond new pipeline easements, is not anticipated. Either conversion of the existing outfalls or construction of new outfalls would be needed to convey separated stormwater to the waterways. At some locations, particularly along the Alewife Brook, increased stormwater discharge may add to flooding concerns if large areas of Cambridge and Somerville were separated without some form of flow attenuation. Also, treatment for phosphorus and other pollutants would be needed to address stormwater quality.

Impacted roads would be repaved with possible new streetscapes (sidewalks, separate bike or transit lanes). This type of project could be a good opportunity to also alleviate street flooding and basement backups or the addition of rain gardens or other green infrastructure components, where possible.

The **Storage Tank** projects that were evaluated vary in size ranging from 0.5 to 16.7 MG. These would be multi-year construction projects that would primarily be done during daytime working hours, however, some night work would be expected. Most of the work would be confined to the project site with the exception of connection piping that may extend into nearby roadways where traffic impacts may occur.

If selected, storage tanks would be constructed below grade, some as deep as 70 ft. Based on system hydraulics, the largest tank sizes considered would need to be located in areas of known high groundwater and poor soil conditions (i.e., Magazine Beach and Assembly Square). The deeper tanks being considered may require special design features such as slurry walls, pile foundations and/or uplift resistance adding to construction complexity and cost.

Some tank options would require a large temporary construction staging area that would be active for several years. Each would include a permanent pump station and odor control facility. After construction, the area not occupied by the new facility would be restored, and possibly improved, and returned to its former use. Tank options would be located on both private and public land that would need to be acquired. Private land would be acquired either though a negotiated acquisition or failing that an eminent domain taking, and for park land that is subject to Article 97, legislation would be required.

Microtunneling is a specialized construction method used to install new pipelines without large stretches of open cut excavations. These new pipelines would add new conveyance and/or storage capacity to an existing system. Typically, the new pipe alignments follow public land (roadways or other green space) and avoid private property and extending under structures. The microtunnel projects considered would include installation of new pipelines up to 9 ft diameter, which is a large pipe to install by any method and would require careful coordination to find a suitable alignment. This method requires shaft sites at each end of the new pipeline alignment, plus up to 5 connection or transition points.

Construction at a particular shaft or connection point for microtunnel work can generally be accomplished in 1 to 2 years and requires a modest construction staging area (0.5 to 2 acres). However, since the new pipe alignments may follow roadways, these construction staging areas would be at least partially in roadways resulting in some traffic impacts. Most of the work would be done during the daytime with some night work and limited work being conducted 24x7.

Acquiring private or public land, beyond new pipeline easements, is limited and would only be needed for new connection chambers, pump station and odor control facility. Once construction is complete, the construction areas would be restored.

Regional Tunnels can provide large storage volumes. The potential projects being considered include 22 to 32 ft diameter, 1.4 to 4.5 mile long tunnels which could store approximately 21 to 123 MG of flow. For comparison, the Sumner Tunnel is about 31 ft wide and 1 mile long. If constructed, these tunnels would be some of the largest CSO tunnels constructed in the country.

Modern tunneling is a very complex construction method involving the use of tunnel boring machines (TBMs). Significant coordination of the sequence of work occurring inside the tunnel and shafts, at the surface, and off site is required to ensure that the TBM operates at an efficient rate otherwise construction is slowed resulting in not only a longer construction duration but also significant cost increase.

Based on available geologic data, the tunnels being evaluated for the Alewife Brook and Chales River would be located approximately 125 to 350 ft below ground, respectively. The Charles River tunnel would be constructed entirely in bedrock, however, due to the rapidly changing geology in the Alewife Brook area, the Alewife Brook tunnel options would likely involve mining through both soil and rock, further adding to that project's complexity.

Regional tunnel projects would require large multi-acre construction staging areas (at least 2 to 5 acres depending on site use) and take about 8 years to complete the work. Tunnel mining would be non-stop, meaning construction would run 24x7 for 1 to 2 years, depending on the tunnel diameter, length and actual tunnel mining rate.

For the tunnel sizes being considered between approximately 200,000 to 1,200,000 cubic yards of earth would need to be removed from the ground and trucked from the main tunnel work sites. No construction staging site would be large enough to stockpile that amount of material. It would be essential to truck the excavated earth off site quickly, which potentially means hundreds of trucks traveling to and from a construction site each day for several years. Otherwise, the tunnel boring machine could not advance because there would be no place to stockpile and handle the newly excavated earth.

All regional tunnel options would include the construction of a new permanent pump station with an odor control facility at one end of the tunnel and a second, typically larger, odor control facility at the opposite end(s) of the tunnel. Subterranean easements would be needed for the entire new tunnel alignment, regardless of depth and current property ownership. Shaft sites and the permanent facilities would be located on both private and public land that would need to be acquired, including park land subject to Article 97 that would require legislation for use.

There are two main types of **Shafts** for the regional tunnel options: large diameter shafts and drop shafts. Large diameter shafts include the construction shafts which are located at the tunnel start

and end points as well as a pump station shaft that is needed to house the permanent pump station that would be used to dewater the tunnel after each rainstorm. These shafts typically range from 20 to 100 ft diameter, extend the full tunnel depth (125 to 350 ft), and require blasting where the top of bedrock is located above the tunnel level. These shafts would be the main points of access into the tunnels for workers, equipment, and material.

Drop shafts would be located along the length of the regional tunnels and are used to collect flow at the current CSO outfall locations and divert that flow to the tunnel through a newly constructed diversion structure. These shafts are expected to be 5 to10 ft diameter and drilled from the ground surface down to tunnel level, also the full tunnel depth (125 to 350 ft).

MWRA Operations Impacts

Operation and maintenance of the new facilities that would be constructed as part of the alternatives being considered vary significantly. As indicated above, no new permanent above grade structures requiring routine operation and maintenance are anticipated for sewer separation options. However, for some of the microtunnel options, and all the tank and regional tunnel options, new pump stations and odor control facilities would be needed. In addition to the Cities of Cambridge and Somerville, the MWRA would be responsible to own, operate and maintain these new pump stations and odor control facilities.

For each Variance Water and each level of control, the largest new facility that the MWRA would own and operate (or jointly own and operate), along with an indication of a comparable MWRA facility, are summarized below.

Variance Water	Level of Control in 2050	Largest New Facility Type [1, 2]	Capacity (Million Gallons)	Location	MWRA Comparable Facility
Alewife Brook	0 CSOs in a TY	Tank with Pump Station and Odor Control	1.5	Near Alewife T Station	BOS019 [3]
	0 CSOs in 5-year storm	Tunnel with Pump Station and Odor Control	20	Dilboy Field	~NDB CSO Tunnel [4]
	0 CSOs in a 25-year storm	Tunnel with Pump Station and Odor Control	41	Dilboy Field	~2x NDB CSO Tunnel
Charles River	0 CSOs in a TY	Tank with Pump Station and Odor Control	10.2	Magazine Beach	None
	0 CSOs in 5-year storm	Tunnel with Pump Station and Odor Control	71.4	Magazine Beach	None

	0 CSOs in a 25-year storm	Tunnel with Pump Station and Odor Control	131.4	Magazine Beach	None
Mystic River [5]	0 CSOs in a TY	Tank with Pump Station and Odor Control	7.4	Assembly Square	None
	0 CSOs in 5-year storm	Tank with Pump Station and Odor Control	7.4	Assembly Square	None
	0 CSOs in a 25-year storm	Tank with Pump Station and Odor Control	14.2	Assembly Square	None

Notes:

1. Facility listed is the largest new facility for each alternative. Several new chambers and regulators would also be constructed as part of the various alternatives; however, those types of facilities do not have as much operational or maintenance impact.
2. Facility type and location shown for the regional tunnel options is the primary facility. Additional drop shafts and at least one secondary odor control facility would be required for alternatives involving regional tunnels.
3. BOS019 is a CSO Storage Facility located in Charlestown and has a capacity of 0.67 million gallons.
4. The North Dorchester Bay CSO Tunnel has a maximum capacity of 18.7 million gallons.
5. The tank and pump station for the Mystic River would be jointly owned and operated by the MWRA and the City of Somerville.

The storage facilities (microtunnels, tanks and tunnels) would be dewatered as soon as possible after each storm event, regardless of the volume captured, in order to provide that capacity for the next storm event. In most storm events, these new facilities can likely be pumped out within a day or two without negatively impacting other areas of the MWRA sewerage transport system. However, staff estimate that in the 2050 5-year and 25-year storm events, dewatering would not be fast and would need to be coordinated until other aspects of the system return to near normal flows. Staff estimate it would take approximately one week or more to dewater existing CSO storage facilities plus the new CSO storage tanks and tunnels given the large additional volume stored at these new facilities (approximately 100 to 190 million gallons ("MG"), respectively) without causing a potential sanitary sewer overflow ("SSO"), exceeding the secondary treatment capacity at the Deer Island Treatment Plant, or the recirculation of the captured flow back to the storage facility. Currently, the MWRA has the capacity to store approximately 25 MG of CSO flow.

Given the large amount of storage and size of the pump station associated with the 2050 5-year and 25-year levels of control for the Charles River regional tunnel alternatives, multiple size pumps would be required. One pump would need to be sized much larger than the others to accommodate the wide volume range that could be stored and need to be efficiently pumped back to the sewerage

system for transport to Deer Island for treatment after each storm event adding to the operational complexity of this facility.

Corrective and preventative maintenance activities at storage facilities, including cleaning after each storm and equipment replacement, and operation and maintenance of the deep tunnel and pump station would require specialized equipment and training for staff to enter the deep tanks and pump stations to perform the maintenance activities.

Additionally, the Cities of Cambridge and Somerville would be responsible for operating and maintaining new facilities associated with the updated plan.

The costs to operate and maintain these new facilities are not included in the current planning-level preliminary capital cost estimates.

Recommended Alternatives

While the overall alternatives analysis for each Variance Water was consistent, the characteristics and dynamics of the Alewife Brook, Mystic River, and Charles River are each unique, and the resulting decision processes for each waterbody aimed to reflect those unique characteristics. The alternatives evaluation narrowed the suite of alternatives in each waterbody from 12 to14 to about six to eight. These were further evaluated by comparing alternatives within a level of control to each other to determine the most feasible alternative within each level of control. These were then carried forward to an evaluation across the four levels of control.

The Partners compared the alternatives across the four levels of control to ultimately, for each Variance Water, recommend one alternative (and therefore one level of control). This evaluation focused on balancing considerations including CSO control, timeline to CSO reduction benefits, cost, and implementation considerations, overall impacts such as neighborhood disruption and temporary and permanent loss of recreational areas, operational impacts, and also evaluated regional flooding and water quality across the four levels of control.

Attachment B provides a summary description of the alternatives that are recommended by staff from each of the Partners for inclusion in the Draft Updated CSO Control Plan. While a thorough analysis of impacts and benefits, as well as a methodical evaluation of alternatives was conducted, the project team recognizes the possibility that the recommended alternatives may evolve as the Draft Updated CSO Control Plan advances through the regulatory review and public comment process.

The recommended alternative for each waterbody is further summarized below.

Alewife Brook

There are six CSO outfalls in the Alewife Brook Basin (see Figure 1). Of the 12 alternatives evaluated for Alewife Brook, the recommended alternative is "**Alewife Brook Zero CSOs in a Typical Year Hybrid 2** ***(Alternative 3.AB Hybrid 2)***," which is projected to result in zero discharges to the waterbody in the 2050 Typical Year.

Figure 1: Alewife Brook CSO Outfalls

Individual projects in this recommended alternative are described below and shown in Appendix B.

CAM401A and Conveyance

A 1.5 MG storage tank would be constructed below grade in a City of Cambridge-owned parking lot off Sherman Street adjacent to the MBTA commuter rail tracks. This storage tank alone would not result in zero CSO discharges in the 2050 Typical Year, requiring additional conveyance capacity from the CAM401A regulator to MWRA's downstream interceptor system. Predicted CSO discharges to Alewife Brook in the 2050 Typical Year would instead be diverted off the combined sewer on Sherman Street to the storage facility. After storm flows subside, the stored flow would be pumped back to the Sherman Street combined sewer. If the capacity of the storage tank is exceeded due to a storm event larger than that in the 2050 Typical Year, excess flow would be diverted to the existing CAM401A outfall via the existing regulator structure. While the tank structure would be below grade, a permanent above-grade structure would be required for maintenance access and to house electrical and odor control equipment. The work would include raising the elevation of the weir in the CAM401A regulator by 1.5 feet. In addition, the 48-inch diameter combined sewer along Sherman Street and Rindge Avenue between the existing CAM401A regulator and the connection to the Alewife Brook Branch Sewer ("ABBS") would be replaced with a new 60-inch diameter combined sewer.

MWR003

A 1.5 MG storage tank would be constructed below grade at a site in the vicinity of the MWR003 outfall. The site would likely be in Commonwealth-owned property adjacent to the outfall, or

potentially in a site to be identified as part of the redevelopment of the Alewife MBTA garage. A new diversion structure would be constructed along the existing MWR003 outfall to divert wet weather flow to the storage facility. After storm flows subside, the stored flow would be pumped back to the Alewife Brook Conduit ("ABC"). If the capacity of the storage tank is exceeded due to a storm event larger than that in the 2050 Typical Year, excess flow would be discharged to the existing MWR003 outfall via a weir in the new diversion structure. While the tank structure would be below grade, a permanent above-grade structure would be required for maintenance access and to house electrical and odor control equipment.

CAM401B and SOM001A

A 5,400 linear foot, 9-foot diameter storage conduit with a storage capacity of 2.3 MG would be constructed by microtunneling to capture the overflow from outfalls CAM401B and SOM001A. New diversion structures on the CAM401B outfall and at the SOM001A regulator would divert flow into the storage conduit. After storm flows subside, the stored flow would be pumped back to the ABC or the ABBS. If the capacity of the storage conduit is exceeded due to a storm event larger than that in the 2050 Typical Year, excess flow would be discharged to the existing CAM401B and SOM001A outfalls via the new diversion structure weirs. A preliminary route for the storage conduit would begin near the CAM401B outfall. The route would initially run parallel to Alewife Brook, then inland under public rights of way. A permanent above-grade structure would be required at the downstream end of the storage conduit for maintenance access and to house electrical and odor control equipment.

CAM001

Approximately eight acres of sewer separation would be implemented in the combined sewer area tributary to outfall CAM001. This work would include removing the connection between the Tannery Brook Drain and the CAM001 system on Clarendon Street, adding a new sanitary flow connection to the ABC or ABBS, and converting the existing CAM001 regulator/outfall to a stormwater outfall. Cambridge is committed to integrating GSI where feasible.

The estimated planning-level capital cost of the recommended alternative for Alewife Brook is approximately $340 million.

Upper Mystic River

There is one CSO outfall in the Upper Mystic River Basin, which is jointly owned by MWRA and Somerville (see Figure 2). The Somerville Marginal CSO treatment facility provides treatment of CSO flows from a combined area of approximately 560 acres. During storm events that exceed the capacity of MWRA's collection system, influent gates to the treatment facility are opened, relieving the upstream facility. Treated flows are discharged to either the ocean outfall (MWR205) downstream of the Amelia Earheart Dam, or during periods of high tide to the Upper Mystic River's Variance Water outfall (MWR205A/SOM007A). The alternatives evaluated for the Mystic River have been developed to reduce or eliminate CSO discharges to the Variance Water, although reductions to the ocean discharge (non-variance water) would also result from any alternative including sewer separation. Of the 14 alternatives evaluated for the Mystic River, the recommended alternative is "***Mystic River Zero CSOs in 2050 Typical Year Hybrid Alternative 1 (Alternative 2.MR Hybrid 1)***", which is projected to result in zero discharges to the waterbody in the 2050 Typical Year.

Figure 2 Upper Mystic River Brook CSO Outfalls

Individual projects in this recommended alternative are described below and shown in Appendix B

MWR205A/SOM007A

Approximately 95 acres of sewer separation would be implemented in the combined sewer area tributary to outfall MWR205A/SOM007A. Sewer separation would occur in the Winter Hill and Ten Hills area. A new stormwater outfall pipe would be constructed from Broadway to the Mystic River.

A 7.4 MG storage tank would be constructed below grade in a grassed area immediately adjacent to the parking lot serving the north end of the Assembly Square shopping area and extending into the parking lot. A diversion structure would be constructed on the outfall downstream of the existing regulator. While the tank structure would be below grade, a permanent above-grade structure would be required for maintenance access and to house electrical and odor control equipment. The work would also require relocating the existing MWRA effluent sampling building used to sample the discharge from the Somerville-Marginal CSO Facility.

Although not part of the Variance Waters' requirements, model predictions of the 95 acres of sewer separation upstream of the Somerville Marginal also indicate CSO activations at MWR205 (ocean discharge) would be reduced from 27 to 21 and the total volume would be reduced from approximately 79 MG to 45 MG.

The estimated planning-level capital cost of the recommended alternative for the Upper Mystic River is approximately $260 million.

Charles River

There are nine CSO outfalls in the Lower Charles River/Charles River Basin (see Figure 3). Of the 13 alternatives evaluated for this Variance Water, the recommended alternative is "***Charles River Zero CSOs in 2050 Typical Year Hybrid Alternative 3 (Alternative 4.CR Hybrid 3")***, which is projected to result in zero discharges to the waterbody in the 2050 Typical Year.

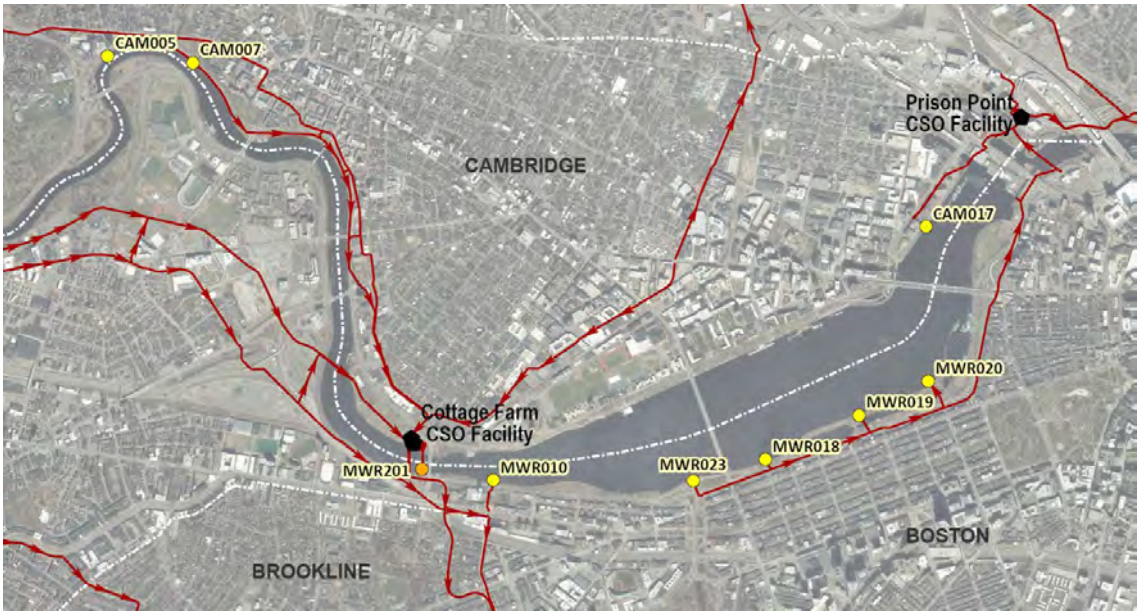


Figure 3: Lower Charles River CSO Outfalls

Individual projects in this recommended alternative are described below and shown in Appendix B.

CAM005

A 2.5 MG stormwater storage tank would be constructed below grade at a site upstream of the CAM005 outfall. This storage tank would limit flows from the existing separated area into the City's combined sewer by downsizing the stormwater connection significantly, and divert stormwater to a new storm storage tank, located in the parking lot behind the Collins Branch Library (privately owned). This storage tank would detain flow until a storm has ceased, then discharge to the combined sewer system. This alternative also includes a dewatering pump station. This project is expected to result in no CSO discharges from CAM005 in a 2050 Typical Year. For storm events larger than those in the Typical Year that result in the stormwater storage tank volume being exceeded, stormwater from this separated area would continue to enter the downstream combined system as it does now with the potential from relief through outfall CAM005.

CAM017

Approximately 80 acres of sewer separation would be implemented in the combined sewer area tributary to outfall CAM0017. This area is in the vicinity of Hampshire Street. This project is expected to result in no CSO discharges from outfall CAM017 in a 2050 Typical Year. For storm events larger than those in the Typical Year, the existing weir wall in the outfall CAM017 regulator

is expected to be overtopped, given the remaining combined flows within its tributary system. Cambridge is committed to integrating GSI where feasible.

MWR018, MWR019, MWR020

Approximately 366 acres of partial sewer separation in Boston's Back Bay would be implemented in the combined sewer area tributary to outfalls MWR018, MWR019, MWR020. As part of this project, 224 acres of combined sewer area would be separated, and 142 acres of separate stormwater areas tributary to the combined system would be redirected. This alternative requires three microtunnels under Storrow Drive and the Boston Marginal Conduit and to the Esplanade to convey separate stormwater to the Charles River. However, with partial sewer separation, during smaller storm events storm water would continue to be directed to the MWRA's collection system. Only during events when the existing combined collection system nears capacity, would stormwater be discharged to the Charles River, substantially reducing the potential impact on stormwater pollutant loads to the river. GSI would be implemented where feasible as part of the sewer separation efforts providing a dual benefit: (1) helping to reduce pollutant loads like phosphorus that make it to the Charles and (2) providing stormwater infiltration and groundwater recharge within the Back Bay region.

MWR023

Two storage conduits would be constructed to capture flow tributary to MWR023.

RE046-100 Storage

0.16 MG of storage would be provided to capture the overflow volume from regulator RE046-100. The storage would likely be provided in the form of a storage conduit and be located be located in the public right of way adjacent to Southwest Corridor Park between Atherton St. and Boylston St. in Jamaca Plain. The property is owned by the MBTA. A 9x9-foot box conduit extending for 300 feet would be an example of a configuration that could provide that volume of storage. The final configuration would be developed as part of additional planning and design. A 0.16 MGD dewatering pump facility would be provided at the low end of the storage conduit. Stored flows would likely be dewatered to the Southwest Corridor Interceptor for conveyance to Ward Street Headworks.

RE046-381 Storage

0.08 MG of storage would be provided to capture the overflow volume from regulator RE046-381. The storage would likely be provided in the form of a storage conduit and located on MBTA property adjacent to the DCR-owned Johnson Park near the intersection of Oakdale Street and Green Street. A 6x6-foot box conduit extending for 320 feet would be an example of a configuration that could provide that volume of storage. The final configuration would be developed as part of additional planning and design. A 0.08 MGD dewatering pump facility would be provided at the low end of the storage conduit. Stored flows would likely be dewatered to the Southwest Corridor Interceptor for conveyance to Ward Street Headworks.

MWR201 (Cottage Farm CSO Treatment Facility)

A 10.1 MG storage tank would be constructed below grade at a site located in parkland adjacent to the existing Cottage Farm CSO Facility. Flow would be diverted to the storage tank from the

existing Cottage Farm CSO Facility sedimentation tank influent channel, downstream of the existing influent pumps. If the tank was full, remaining influent flow at the existing Cottage Farm facility would continue to the existing sedimentation tanks, then discharge treated CSO to the Charles River when the tanks were full. After storm flows subside, a dewatering pump station would pump the stored flow back to the MWRA interceptor system adjacent to the Cottage Farm facility. While the tank structure would be below grade, a permanent above-grade structure would be required for maintenance access and to house electrical and odor control equipment.

The estimated planning-level capital cost of the recommended alternative for the Charles River is approximately $690 million.

Financial Capability and Cost Sharing

The project team have been working on developing a fair and equitable method of distributing the cost of implementing further CSO control work. Several meetings have been held to date, with further meetings in the coming weeks, to advance proposed method(s) to allocate costs. The following potential approaches to allocating costs have been evaluated:

- CSO Ownership – The owner of the outfall would pay for the solution. For regional projects, costs would be allocated between multiple owners by CSO volume.

- Project Type and Location – Separation or green infrastructure projects would be paid by the community being separated or where the projects are located. Local storage projects within a community collection system would be paid by the community whose flow is being captured. Regional storage would be allocated by contributing flow.

- CSO Volume Reduction – Costs would be apportioned for each receiving water based on the reduction in CSO volume by each outfall owner.

Various inequities surfaced when strictly applying these cost allocation methods, especially when attempting to develop a proposed methodology that is independent of the recommended alternative. However, as a starting point, staff from each of the Partners are proposing that an approximate distribution of the Draft Updated CSO Control Plan estimated cost of $1.28B could be allocated as 20% ($257M) Cambridge, 20% ($257M) Somerville, and 60% ($764M) MWRA as such allocation, in their view, is reasonable and equitable for the recommended alternatives. However, further discussions would be required should changes to the recommended alternatives be made. Final cost allocation among the Partners is subject, in any event, to approval by the respective governing bodies. Additionally, each Partner would need to evaluate how those costs are incorporated into their respective budgets and then passed on to rate payers.

MWRA Community Assessment Impacts

MWRA is required by its Enabling Act and Amended and Restated General Revenue Bond Resolution (Bond Resolution) to annually develop a Current Expense Budget (CEB) for its direct, indirect and capital finance expenses (debt service). All of these expenses form the assessments that are charged to either the Waterworks or Sewer Systems' communities and ultimately become part of the bills each ratepayer receives. There are currently 43 communities that receive services from the Sewer System, 35 of which are also members of the Waterworks System. MWRA is predominantly funded through the collection of those assessments from the ratepayers in its

member communities. Each community's share of MWRA's assessments, along with the cost of running their local systems, are combined to create the water and sewer bills received by the ratepayers.

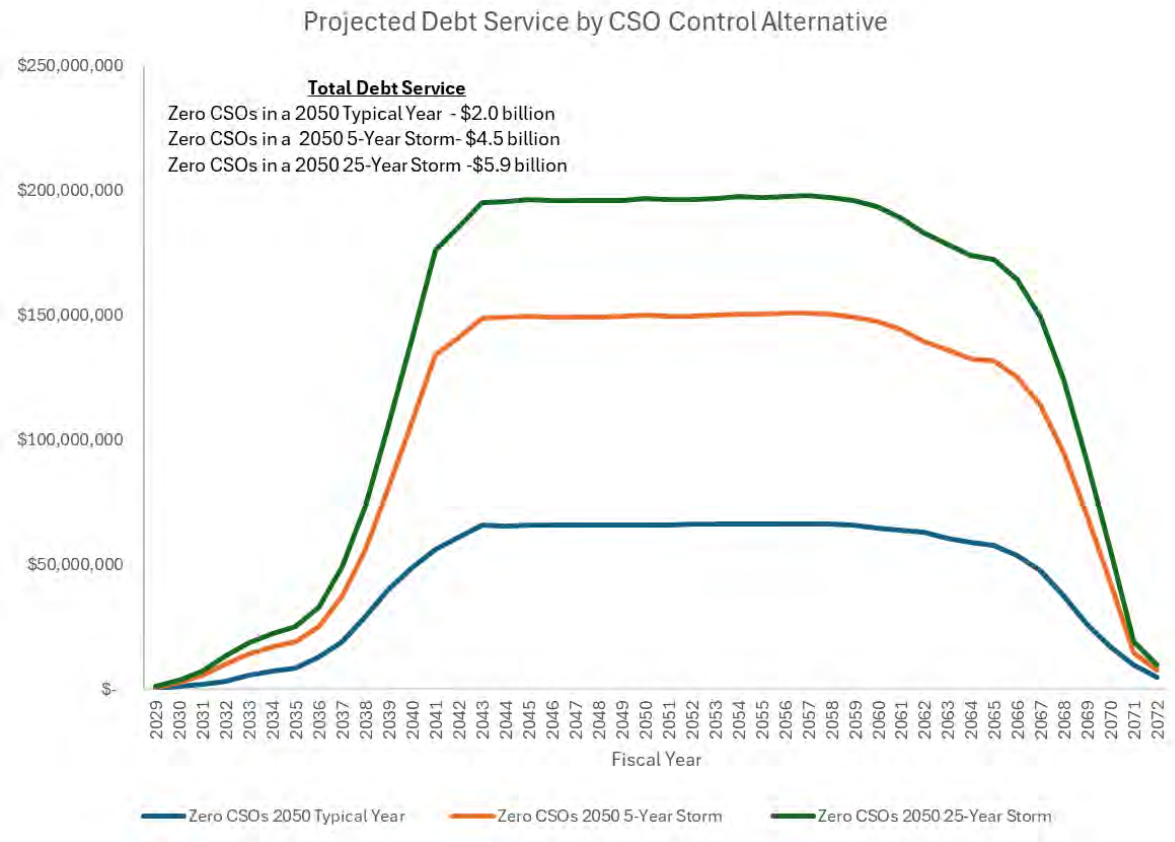
MWRA and its Advisory Board have actively worked for decades on a "long-term rates management strategy" to provide predictable and sustainable water and sewer assessments to its member communities. MWRA has actively worked to control its operating cost by reducing headcount, pursuing operational efficiencies, consolidating facilities, and pursuing green energy and other efficiencies. While controlling operating expenses is an important component in controlling ratepayer assessments, the debt service costs associated with MWRA's historic investments in modernizing the water and sewer systems have accounted for between 55% to over 60% of MWRA's total budget. This high level of debt service was driven by spending mandated by court ordered and regulatory requirements which historically represented about 64% of MWRA's total capital spending to date. Given the historic rates pressures from mandated capital spending, MWRA established five-year capital spending caps starting in 2003 to manage future spending to ensure a sustainable capital program. MWRA has actively managed its debt structure to take advantage of favorable interest rates. Tools used by MWRA to lower borrowing costs and manage assessment increases include refunding of outstanding debt, maximizing the use of subsidized State Revolving Fund (SRF) debt, issuing variable rate debt, and using positive year-end budget variance to defease debt. Management of MWRA's capital spending and the resulting debt service will continue to be integral in MWRA's "long-term rates management strategy". Working closely with its Advisory Board, MWRA has utilized these tools to limit its assessment increases to levels lower than projections to manage the affordability burden that is placed upon its member communities and thus the ratepayers.

To help manage its "long-term rates management strategy", MWRA maintains an Assessment Projection Model (the "Model"). The Model allows MWRA to conduct long-term planning of future costs, particularly as it relates to the impacts of new capital spending on projects like the Metropolitan Water Tunnels and the proposed CSO projects. Prior to the inclusion of the CSO spending, MWRA estimates that it will issue $6.1 billion in new bonds to support the existing overall capital program over the next 10 years. The Sewer System spending on the existing capital program is projected to result in $2.2 billion of the new debt, before any CSO spending. This new spending will cover costly projects including the complete rehabilitation of two headworks facilities and major components of the Deer Island Treatment Plant.

To model the future sewer assessment impacts of the various levels of CSO control, staff developed estimated design and construction costs and spending timelines for MWRA's share of the projects. The projected CSO alternatives costs discussed in this staff summary are in today's dollars and do not reflect potential inflationary pressures in the future. Consistent with MWRA's standard practice, the costs for the unawarded work were inflated at 2.5% per year until the estimated year the funds would be spent. The following table details the estimated future value of the potential MWRA share of CSO costs at three levels of control after 2.5% annual inflation assumption.

CSO Control Level	CSO Costs in 2026 dollars	Spending (2.5%/year)	CSO Costs in Future dollars
Zero CSOs in a 2050 Typical Year	$ 763,700,000	2028-2042 →	$ 1,011,274,416
Zero CSOs in a 2050 5-Year Storm	$ 1,730,000,000	2028-2042 →	$ 2,297,632,930
Zero CSOs in a 2050 25-Year Storm	$ 2,270,000,000	2028-2042 ↘	$ 3,014,813,150

Since long-term bonds will be issued to fund the costs of the CSO program, staff utilized the projected spending to develop future borrowings. For each year of future spending, a simulated 30-year bond at a 5.0% interest rate was created. These different borrowing scenarios result in the annual debt service to be added to the Assessment Projection Model to determine future sewer assessments that will directly impact ratepayers. The following graph details the projected annual debt service (principal and interest) costs by CSO control level.

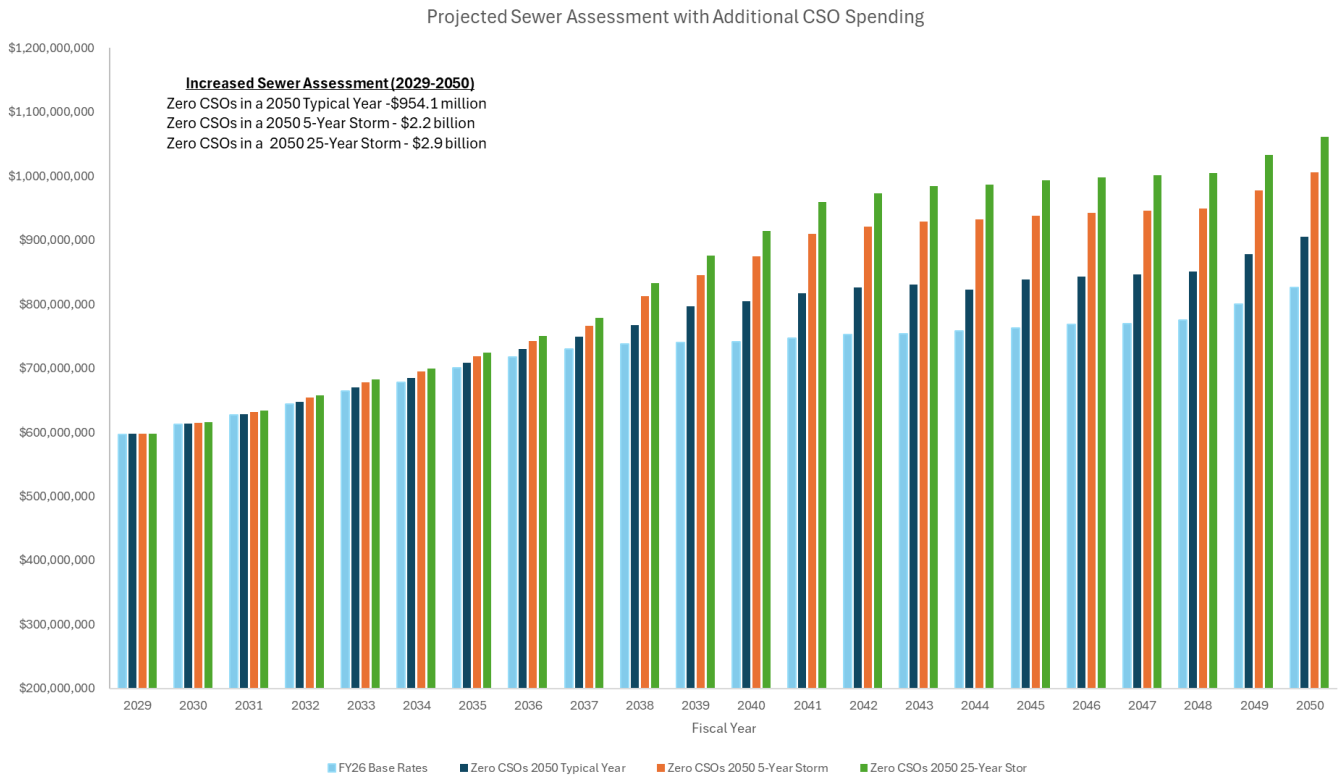


The debt service shown above results in between $1.9 billion and $5.9 billion in additional costs over and above the already planned capital spending between fiscal years 2029 and 2072. Annual debt service related to the CSO expenses peaks at $66.4 million, $150.9 million and $198.0 million for alternatives to achieve zero CSO in the2050 typical year, 2050 5-year and 2050 25-year storms, respectively. The debt service from these borrowings was added to the assessment model to project potential future rate impacts of the additional spending by CSO control level. In addition to the debt service cost, MWRA's assessment model also performs calculations to ensure that MWRA will comply with the requirements of the Bond Resolution.

Like most revenue bond issuers, MWRA's issuance of debt is governed by a Bond Resolution which provides financial security to investors that allows them to invest in MWRA. Since bondholders are pledged all revenues remaining after the payment of operating expense, MWRA is required to raise $1.20 for every dollar in senior debt service expenses. This is known as a coverage requirement. The baseline projected spending does not result in the need for additional revenues to meet this coverage requirement, however the additional CSO related debt service does result in additional assessments to the sewer communities to allow for the issuance of this debt. The model currently projects that between 2029 and 2050 that $143.6 million, $357.7 million and $464.8 million in additional revenue would be required to support the bond issues to fund the CSO

spending to achieve zero CSO in the2050 typical year, 2050 5-year and 2050 25-year storms, respectively.

The following graph details the results of that analysis of the impact of the additional CSO costs for the 43 communities that comprise the Sewer System.

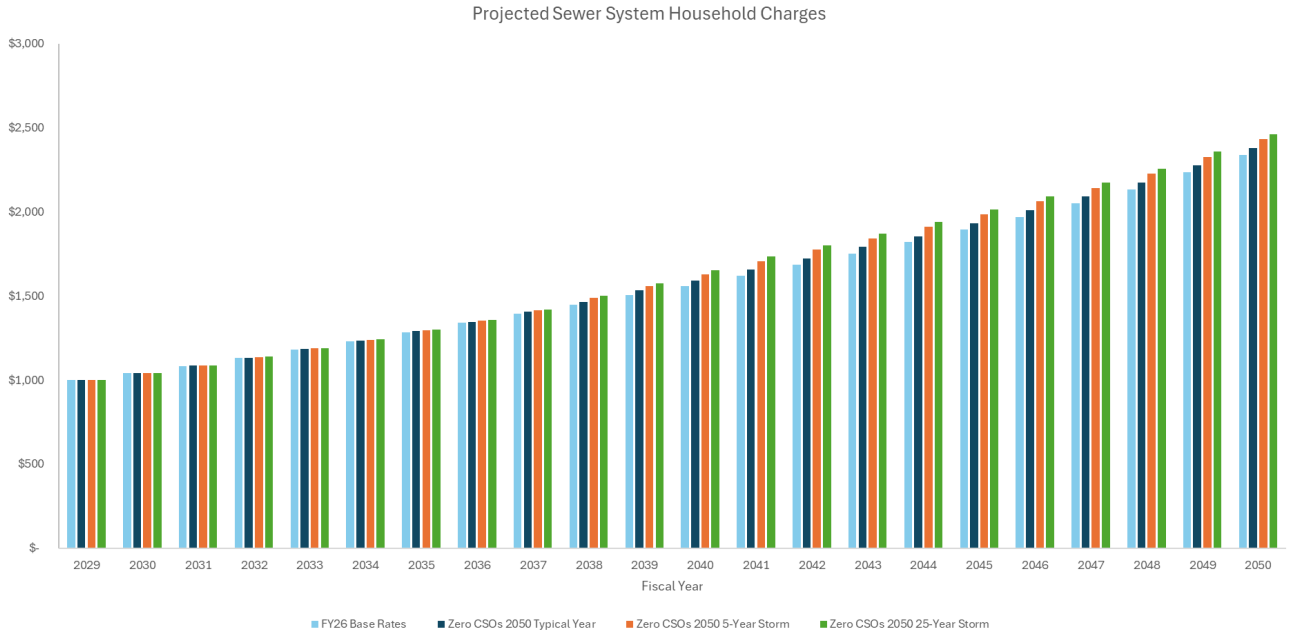


The following table provides the total sewer assessment increase after the inclusion of the additional costs for CSO control projects between fiscal years 2029 and 2050.

CSO Control Level	Fiscal Year 2029 Assessment		Fiscal Year 2050 Assessment
Baseline Sewer Assessments	$ 597,055,642	2029-2050 →	$ 825,810,377
Zero CSOs in a 2050 Typical Year	$ 597,444,765	2029-2050 →	$ 905,414,277
Zero CSOs in a 2050 5-Year Storm	$ 597,937,117	2029-2050 →	$ 1,005,400,851
Zero CSOs in a 2050 25-Year Storm	$ 598,212,260	2029-2050 →	$ 1,060,985,632

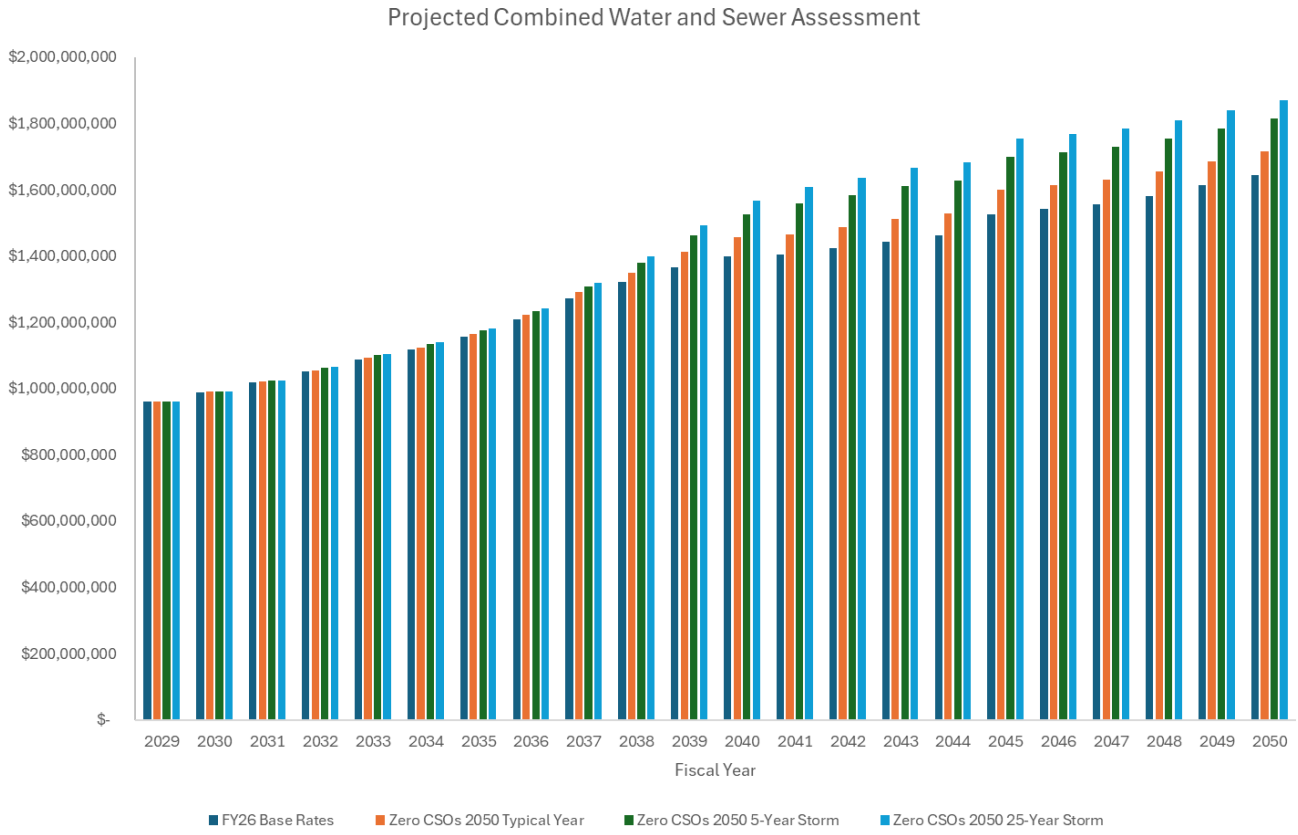
The proposed CSO spending increases sewer assessments between fiscal years 2029 and 2050 in total over the baseline projection by approximately $954.1 million, $2.2 billion and $2.9 billion to fund project to achieve zero CSO in the 2050 typical year, 2050 5-year and 2050 25-year storms, respectively.

The Assessment Projection Model also projects the future average annual household charges across the MWRA Sewer System. The following graph details the projected future sewer system household charges after the additional CSO spending.



The sewer system annual household charges are currently anticipated to increase from $999 per year to $2,337 per year without the CSO spending between fiscal years 2029 and 2050. In 2050 based on the additional CSO spending, the household charges are projected to increase to $2,380, $2,433 and $2,462 per year for spending associated with level of control to achieve zero CSOs in the 2050 typical year, 2050 5-year and 2050 25-year storms, respectively.

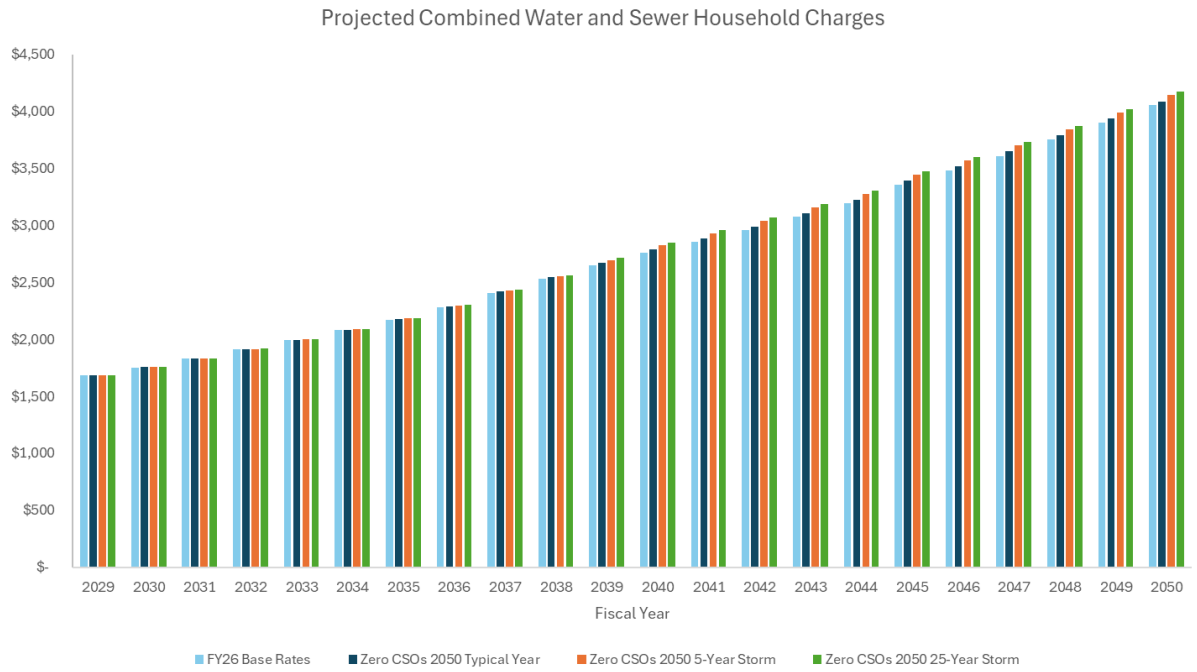
As mentioned earlier in this staff summary, 35 of the 43 communities served by the Sewer System are also members for MWRA's Waterworks System. In FY26, five MWRA communities (Boston Water and Sewer Commission, Newton, Quincy, Cambridge and Somerville) accounted for approximately 46% of its total combined water and sewer assessments. Of those top five communities, four (Boston Water and Sewer Commission, Newton, Quincy and Somerville) pay Sewer assessments, accounting for approximately 40% of the total sewer charges. These four communities also account for 48% of the total Waterworks Assessments. Therefore the ratepayers in these communities will face a larger share of the affordability challenges of both the Waterworks and Sewer Systems capital costs. Given the large number of ratepayers that will be impacted by MWRA's overall capital plan the following graphs details the projected combined water and sewer assessment increases between 2029 and 2050.



The following table details the combined assessment increase by level of control between fiscal years 2029 and 2050.

CSO Control Level	Fiscal Year 2029 Assessment		Fiscal Year 2050 Assessment
Baseline Sewer Assessments	$ 959,886,894	2029-2050 →	$ 1,643,964,346
Zero CSOs in a 2050 Typical Year	$ 960,276,017	2029-2050 →	$ 1,715,064,629
Zero CSOs in a 2050 5-Year Storm	$ 960,768,369	2029-2050 →	$ 1,815,051,203
Zero CSOs in a 2050 25-Year Storm	$ 961,043,512	2029-2050 →	$ 1,870,635,984

The following graph details the projected future combined water and sewer household charges after the additional CSO spending



The annual combined household charges are currently anticipated to increase from $1,682 per year to $4,054 per year without the CSO spending between fiscal years 2029 and 2050. In 2050, based on the additional CSO spending, the annual household charges are projected to increase to $4,088, $4,141 and $4,171 per year for spending associated with a level of control to achieve zero CSOs in the 2050 typical year, 2050 5-year and 2050 25-year storms, respectively.

Included in Attachment D to this document is a breakdown of the projected allocation of the additional sewer assessment costs associated with the CSO projects by Sewer System member community.

Stakeholder Engagement

As described in detail in the October 22, 2025 staff summary provided to the Board, the Partners have been committed to engaging impacted residents and clearly sharing critical information. The Partners made substantial efforts to not only inform stakeholders regarding the development of the draft plan but to facilitate public input and comments on CSO abatement alternatives in line with and beyond regulatory requirements. For more than three years, the Partners have focused on organizing public meetings open to all, providing up-to-date project information and materials, hosting more technical meetings with watershed organizations, facilitating community feedback, and conducting outreach to environmental justice groups. Methods of engagement include creation of a joint project website[5], public meetings, surveys, and engagement with watershed organizations.

To date, the Partners have hosted six virtual public meetings and one listening session on the Updated CSO Control Plan, with at least 170 participants in each. Topics ranged from a basic overview of what a CSO discharge is and why they occur, and prior accomplishments to an analysis of the efficacy and feasibility of various CSO mitigation alternatives.

[5] https://voice.somervillema.gov/joint-cso-planning

Following the October 29, 2025 Board presentation on alternatives recommended for the draft Updated CSO Control Plan, the Partners hosted a sixth public meeting on January 15, 2026 to provide both additional information and another opportunity for the public to engage. During this meeting the Partners' presentation focused on:

- providing information on the water quality impacts of CSO discharges as well as other sources of pollution;
- explaining the thorough evaluation and selection process that narrowed down 39 potential alternatives to 12 – one for each water body at the four levels of control;
- detailing both the short-term and long-term construction impacts of many of the specific alternatives, including sewer separation, large storage tanks, microtunneling, regional tunnels, and shafts; and
- sharing the financial impacts to MWRA ratepayers under various CSO reduction scenarios.

The meeting was well attended, with over 250 participants, many of which provided oral comments and questions. As in previous public meetings, the Partner's provided the opportunity for participants to take a live survey during the meeting to facilitate feedback. Interestingly, 46% of the respondents were attending their first Updated CSO Control Plan public meeting.

Moving forward, the Partners will continue to meet with the regulators ahead of the Draft Updated CSO Control Plan submission in April 2026. The Draft Updated CSO Control Plan submittal will be followed by public meetings and hearings on the Draft Plan within a five-month MassDEP/EPA and public review and comment period. Public outreach throughout impacted communities and to various stakeholders will continue during this comment period to encourage additional engagement. The Partners envision robust public involvement during these few months which may include additional public meetings, listening sessions, and stakeholder meetings.

Summary

Determining the recommended alternatives in each waterbody included a combination of factors such as implementation timeline to CSO reduction, constructability and construction impacts, long term operation and maintenance, impacts to public properties and neighborhoods, and the increase in cost relative to incremental and diminishing water quality improvements with increased levels of control. The Partners took a balanced approach considering this wide range of impacts, and were mindful of impacts to rate payers. The recommended alternatives include manageable construction impacts and modest impacts to public lands, allow for future modifications if/when new technologies are developed, and do not preclude future additional sewer separation.

With the implementation of the recommended alternatives, CSO discharges to the Variance Waters, even with the impacts of climate change, would not increase but rather are projected to be eliminated in the 2050 Typical Year and substantially reduced in the infrequent storm events greater than those in the 2050 Typical Year.

Next Steps

The Partners are working toward submitting a single Draft Updated CSO Control Plan document to MassDEP and EPA in April 2026. The Draft Plan will include a review of regulatory drivers for CSO control, a summary of past and current CSO control efforts, documentation of the planning process including outreach and engagement efforts, a complete summary of all the tools and

alternatives considered for further CSO control, with additional information on those that warranted further consideration, and documentation on scoring and other factors leading to a recommended Draft Updated CSO Control Plan for each of the three Variance Waters. Staff from each of the Partners are working on their respective Financial Capability Analysis to be included in the Draft Updated CSO Control Plan.

Staff expect to request Board approval to submit a Draft Updated CSO Control Plan with the recommended alternatives at the February 25, 2026 Board of Directors meeting.

As set forth above, the Draft Updated CSO Control Plan submittal will be followed by public meetings and hearings within a five-month MassDEP/EPA and public review period. The Variances require a Final Updated CSO Control Plan, which addresses comments received on the Draft Updated CSO Control Plan, be submitted for review by the Massachusetts Environmental Policy Act (MEPA) office by January 31, 2027. The Variances also provide that during the period between January 31, 2027 and August 31, 2029, MassDEP, in coordination with EPA, will review the Final Updated CSO Control Plan, review and consider public comments on the Plan, confer with the MEPA office, and take action to approve or disapprove the Plan. Staff will provide regular updates to the Board throughout this process and will present the recommended alternatives for the Final Updated CSO Control Plan for each of the three Variance Waters for the Board's consideration at future Board of Directors' meetings.

BUDGET/FISCAL IMPACTS:

The FY26 CIP includes $5,000,000 for future CSO projects. When a Final Updated CSO Control Plan is recommended and approved by the Board of Directors, staff will add any resultant projects in future CIP requests. Increases over currently planned expenditures will have an impact on rates.

ATTACHMENTS:

Attachment A: Alternatives Evaluated
Attachment B: Recommended Alternatives
Attachment C: Scoring Rubric
Attachment D: Share of Total Sewer Assessment Increase Related to CSO Spending by Control Level

Attachment A
CSO Alternatives

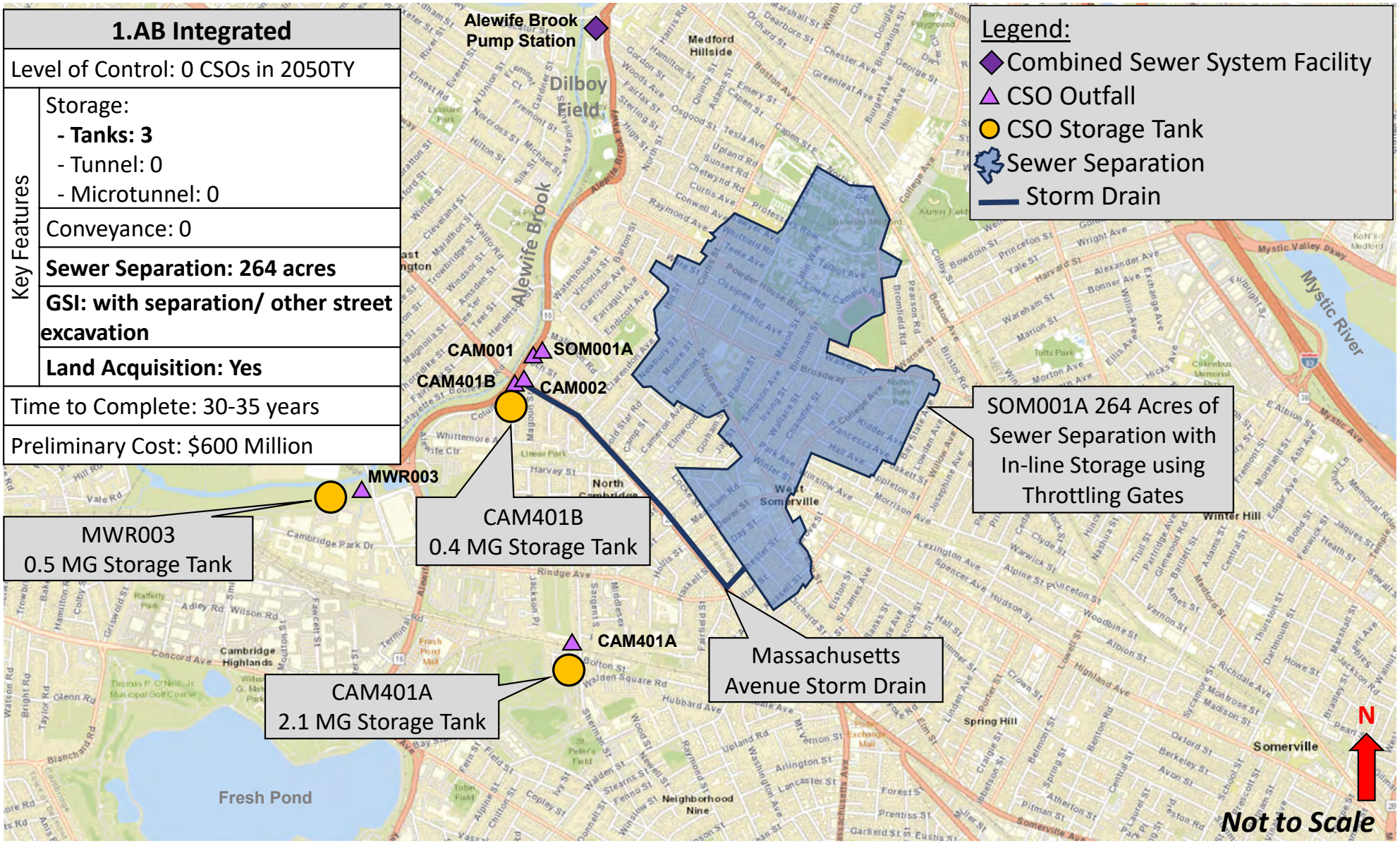
Alewife Brook Alternatives

Notes:

1. Estimated duration shown on the following slides is the approximate time period for construction and timeline to full CSO reduction benefit for each alternative. Some alternatives include the potential for earlier partial benefits.
2. Preliminary estimated costs shown on the following slides are planning level capital cost estimates that are not escalated to mid point of construction.

Alewife Brook: Summary of Alternatives Under Consideration

0 CSOs in 2050 Typical Year	Limited CSOs in 2050 Typical Year	0 CSOs in 2050 5-year Storm	0 CSOs in 2050 25-year Storm
1.AB Integrated 3 tanks (3 MG) + 264 acres of sewer separation	**7.AB Hybrid 1** 3 tanks (2.5 MG) + 108 acres of sewer separation + 0.75-mile-long conveyance pipe	**9.AB Tunnel** 1.5-mile-long deep tunnel (22 ft. diameter)	**11.AB Tunnel** 1.5-mile-long deep tunnel (32 ft. diameter)
2.AB Hybrid 1 2 tanks (2.9 MG) + 108 acres of sewer separation + 0.75-mile-long conveyance pipe + 0.5 mile-long microtunnel	**8.AB Hybrid 2** 3 tanks (2.5 MG) + 8 acres of sewer separation + 0.75-mile-long conveyance pipe + 0.5 mile-long microtunnel	**10.AB Tunnel + GSI** 1.5-mile-long deep tunnel (same tunnel as 9.AB) + GSI	**12.AB Tunnel + GSI** 1.5-mile-long deep tunnel (same tunnel as 11.AB) + GSI
3.AB Hybrid 2 2 tanks (3 MG) + 8 acres of sewer separation + 0.75-mile-long conveyance pipe + 1 mile-long microtunnel			
4.AB Tunnel 1.5-mile-long deep tunnel (11 ft. diameter)			
5.AB Tunnel + GSI 1.5-mile-long deep tunnel (same tunnel as 4.AB) + GSI area			
6.AB Full Sewer Separation 900 acres of sewer separation:			


1.AB Integrated
Level of Control: 0 CSOs in 2050TY
Key Features
Storage:
- Tanks: 3
- Tunnel: 0
- Microtunnel: 0
Conveyance: 0
Sewer Separation: 264 acres
GSI: with separation/ other street excavation
Land Acquisition: Yes
Time to Complete: 30-35 years
Preliminary Cost: $600 Million
Legend:
Combined Sewer System Facility
CSO Outfall
CSO Storage Tank
Sewer Separation
Storm Drain
Alewife Brook Pump Station
Dilboy Field
Alewife Brook
CAM001
SOM001A
CAM401B
CAM002
MWR003
CAM401A
SOM001A 264 Acres of Sewer Separation with In-line Storage using Throttling Gates
MWR003
0.5 MG Storage Tank
CAM401B
0.4 MG Storage Tank
Massachusetts Avenue Storm Drain
CAM401A
2.1 MG Storage Tank
Fresh Pond
Mystic River
Somerville
N
Not to Scale

2.AB Hybrid 1

Level of Control: 0 CSOs in 2050TY

Key Features

Storage:
- **Tanks: 2**
- Tunnel: 0
- **Microtunnel: 0.5 miles long**

Conveyance: 0.75 miles long

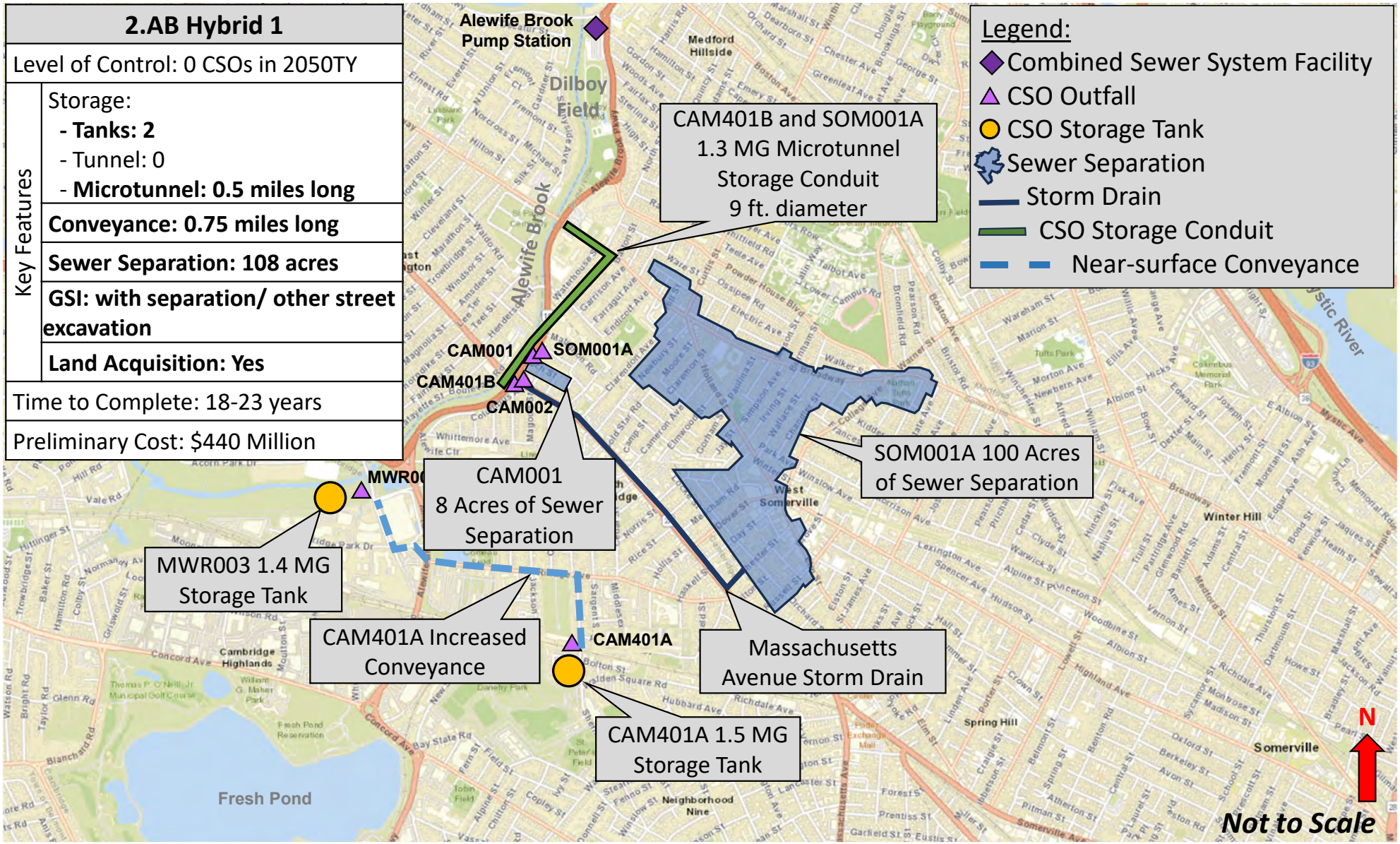
Sewer Separation: 108 acres

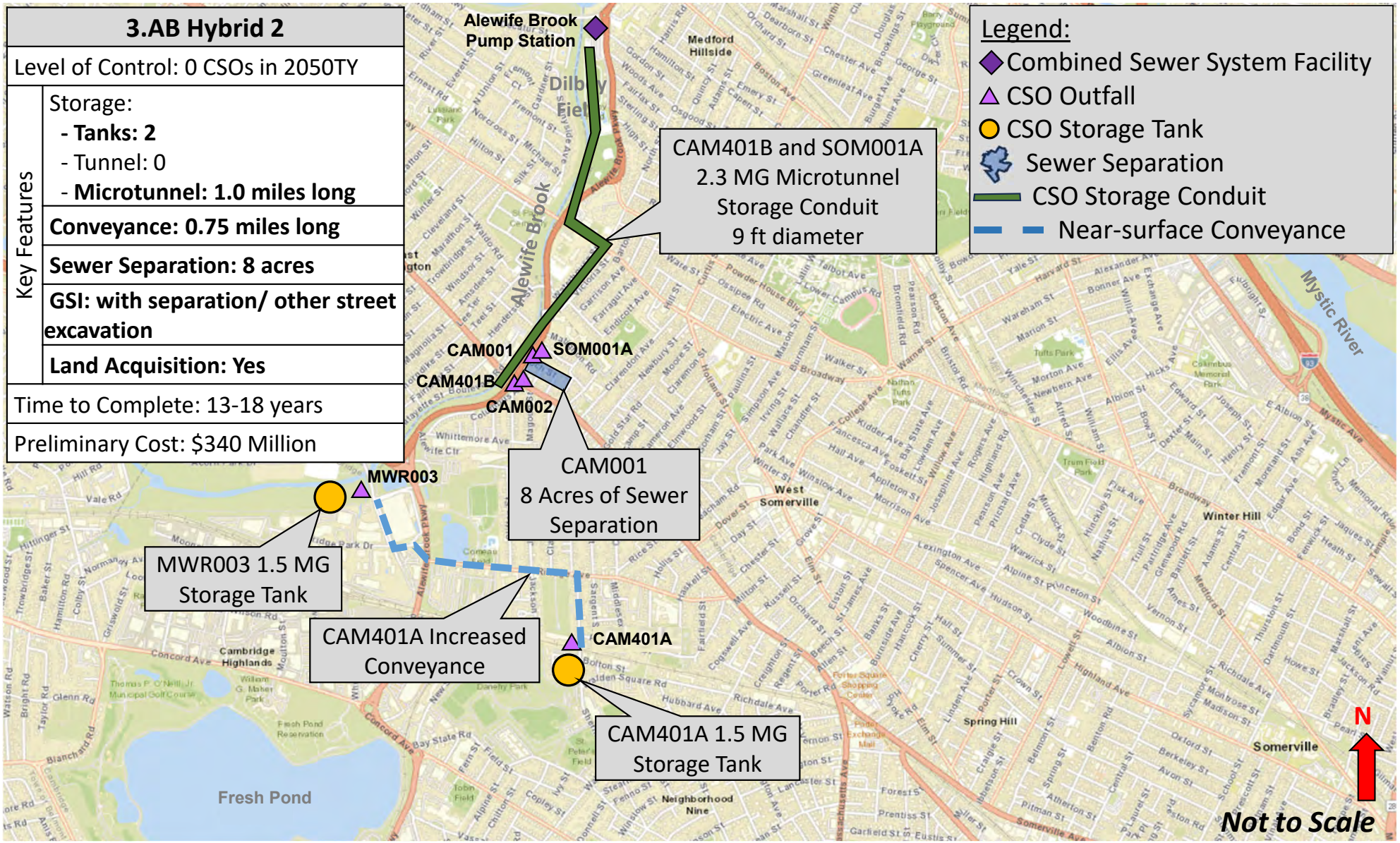
GSI: with separation/ other street excavation

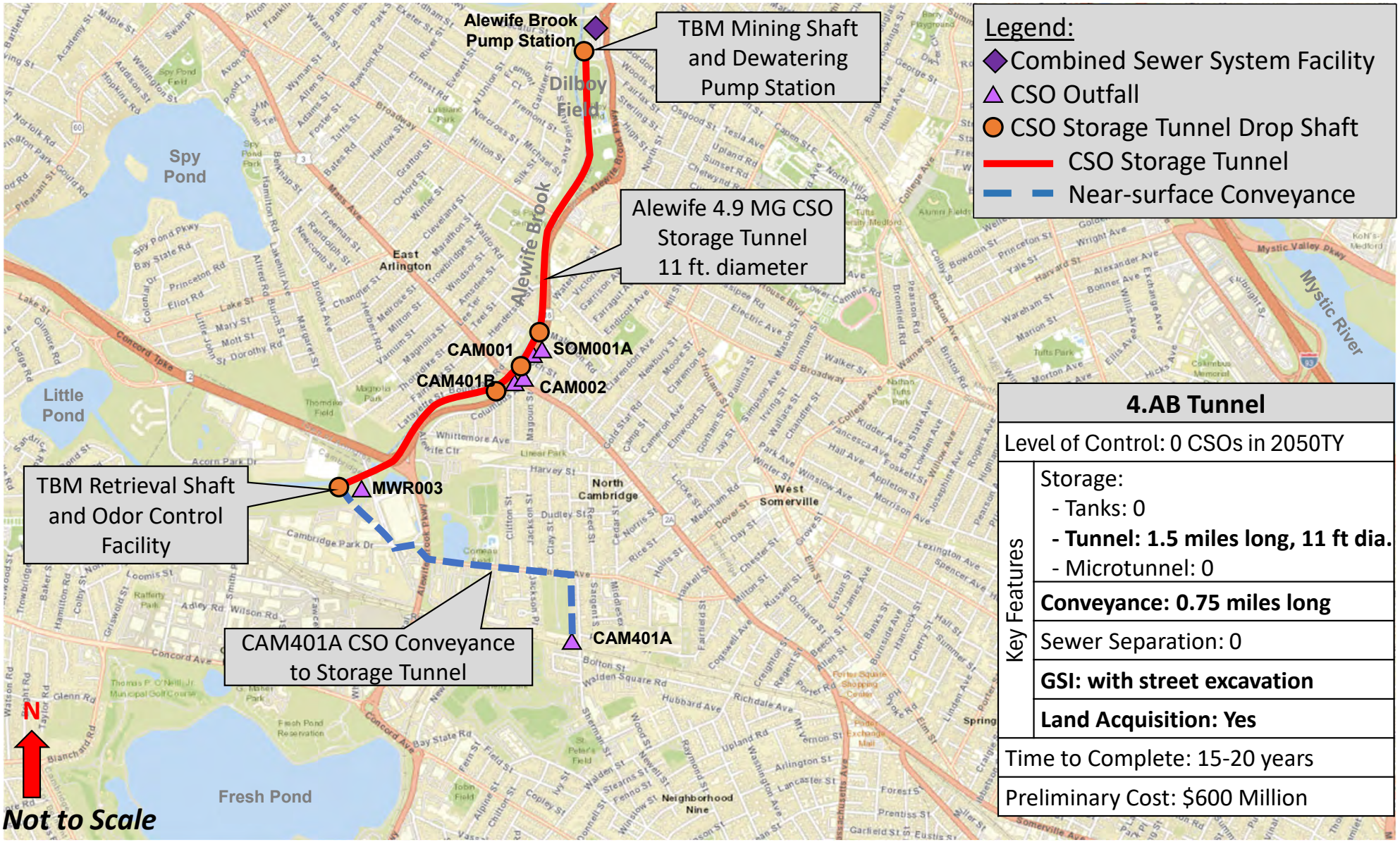
Land Acquisition: Yes

Time to Complete: 18-23 years

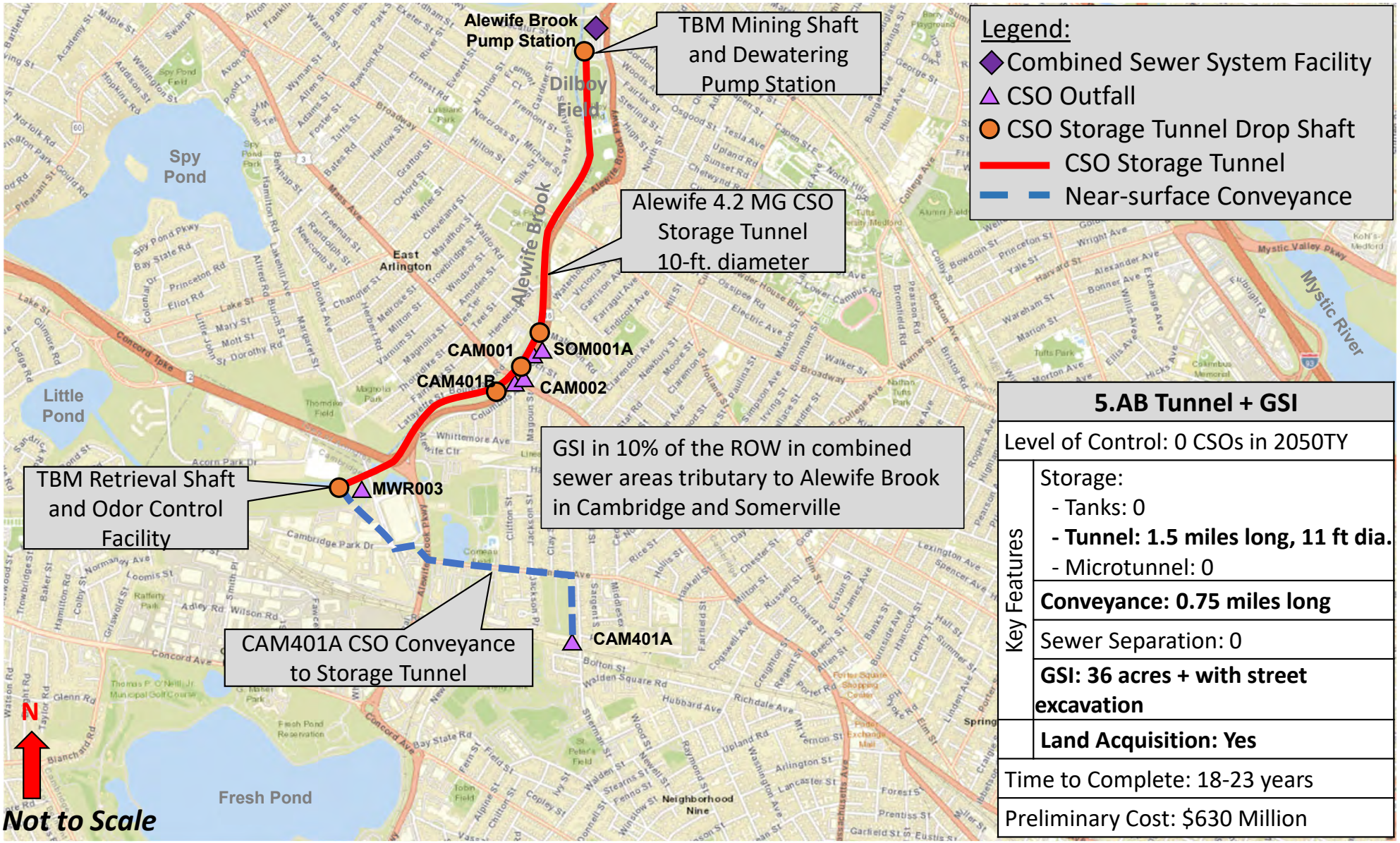
Preliminary Cost: $440 Million




3.AB Hybrid 2
Level of Control: 0 CSOs in 2050TY
Key Features
Storage:
- Tanks: 2
- Tunnel: 0
- Microtunnel: 1.0 miles long
Conveyance: 0.75 miles long
Sewer Separation: 8 acres
GSI: with separation/ other street excavation
Land Acquisition: Yes
Time to Complete: 13-18 years
Preliminary Cost: $340 Million
Legend:
Combined Sewer System Facility
CSO Outfall
CSO Storage Tank
Sewer Separation
CSO Storage Conduit
Near-surface Conveyance
Alewife Brook Pump Station
CAM401B and SOM001A 2.3 MG Microtunnel Storage Conduit 9 ft diameter
CAM001
SOM001A
CAM401B
CAM002
CAM001 8 Acres of Sewer Separation
MWR003
MWR003 1.5 MG Storage Tank
CAM401A Increased Conveyance
CAM401A
CAM401A 1.5 MG Storage Tank
Alewife Brook
Mystic River
Fresh Pond
Somerville
N
Not to Scale

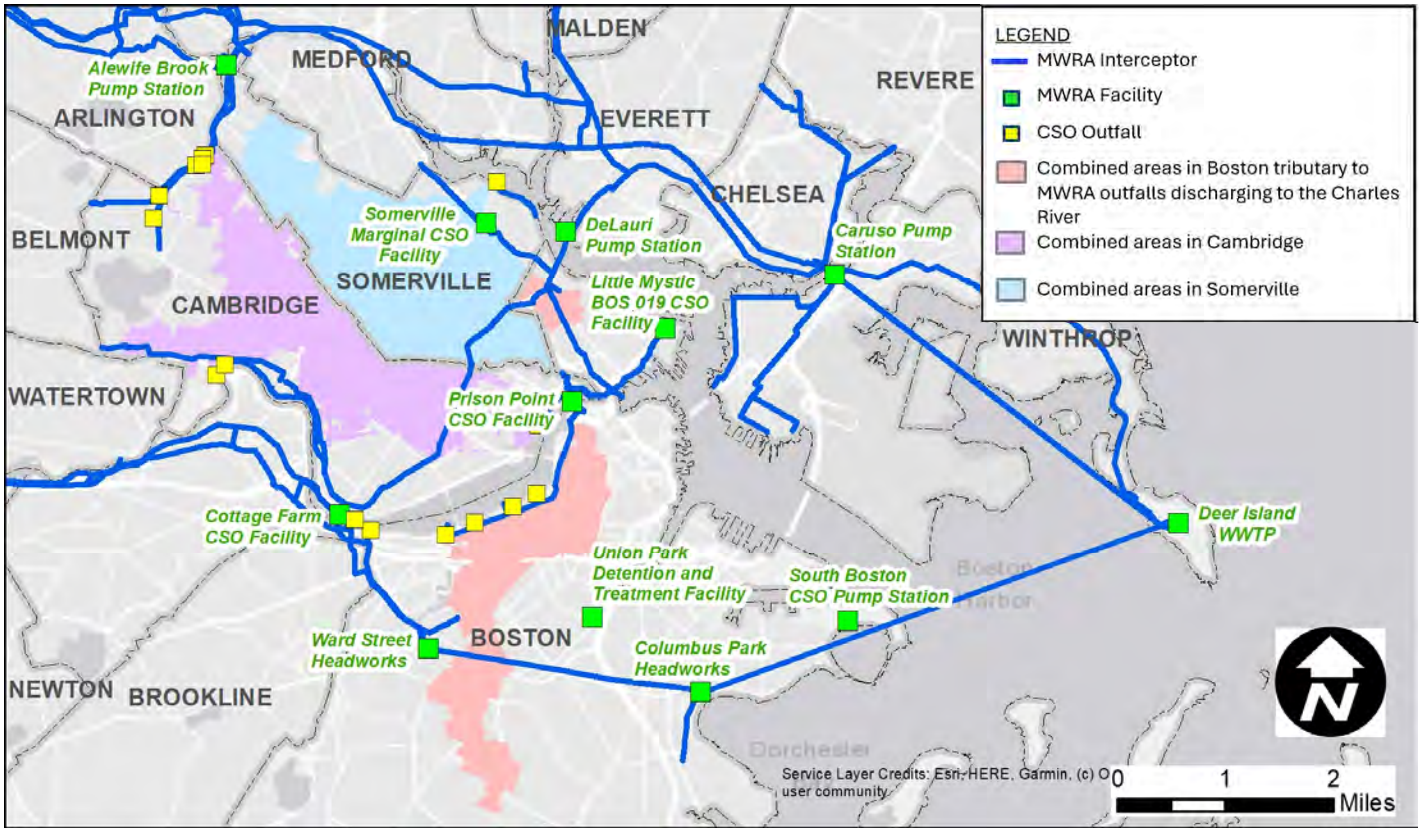


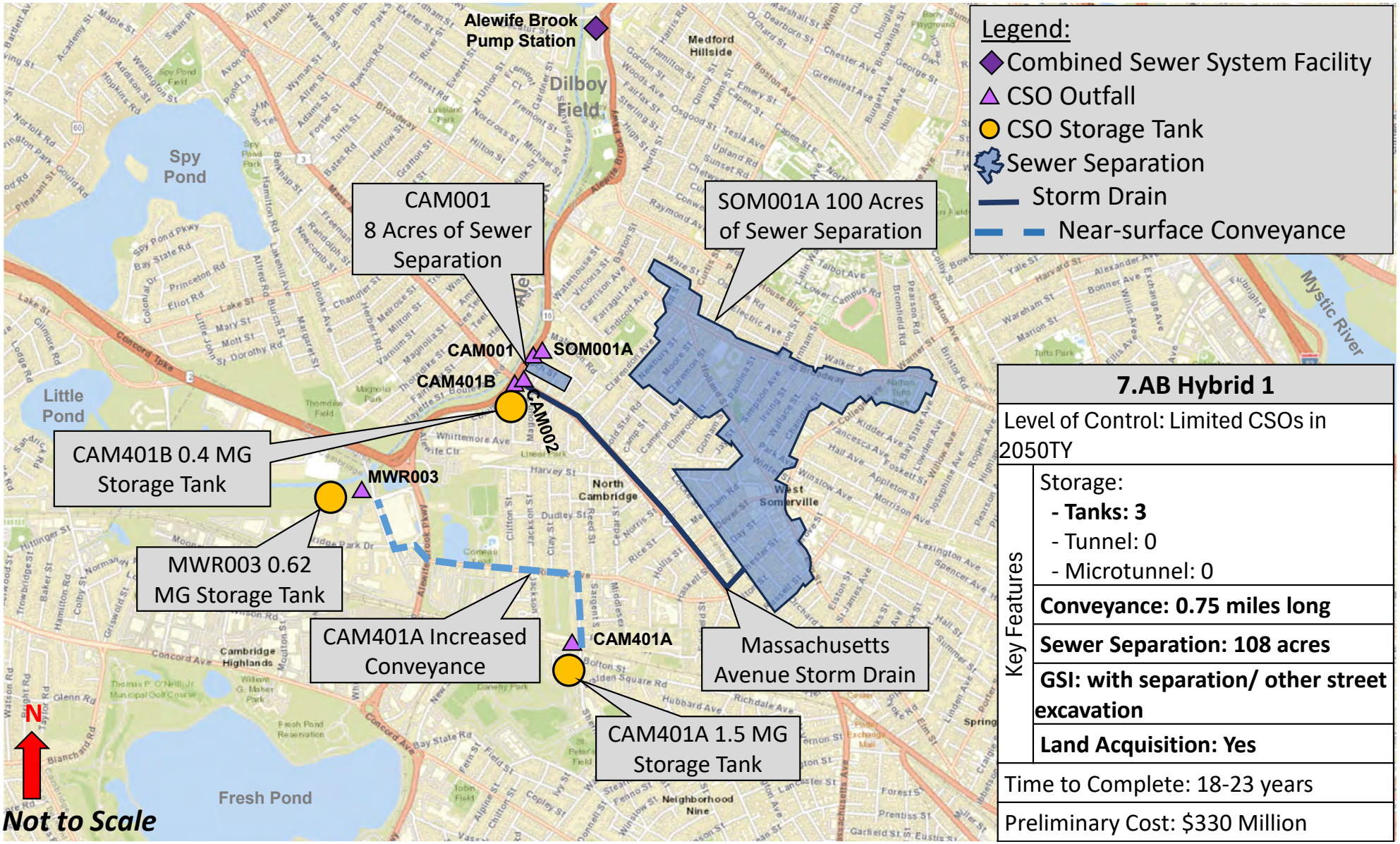
4.AB Tunnel	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: - Tanks: 0 **- Tunnel: 1.5 miles long, 11 ft dia.** - Microtunnel: 0
	Conveyance: 0.75 miles long
	Sewer Separation: 0
	GSI: with street excavation
	Land Acquisition: Yes
Time to Complete: 15-20 years	
Preliminary Cost: $600 Million	



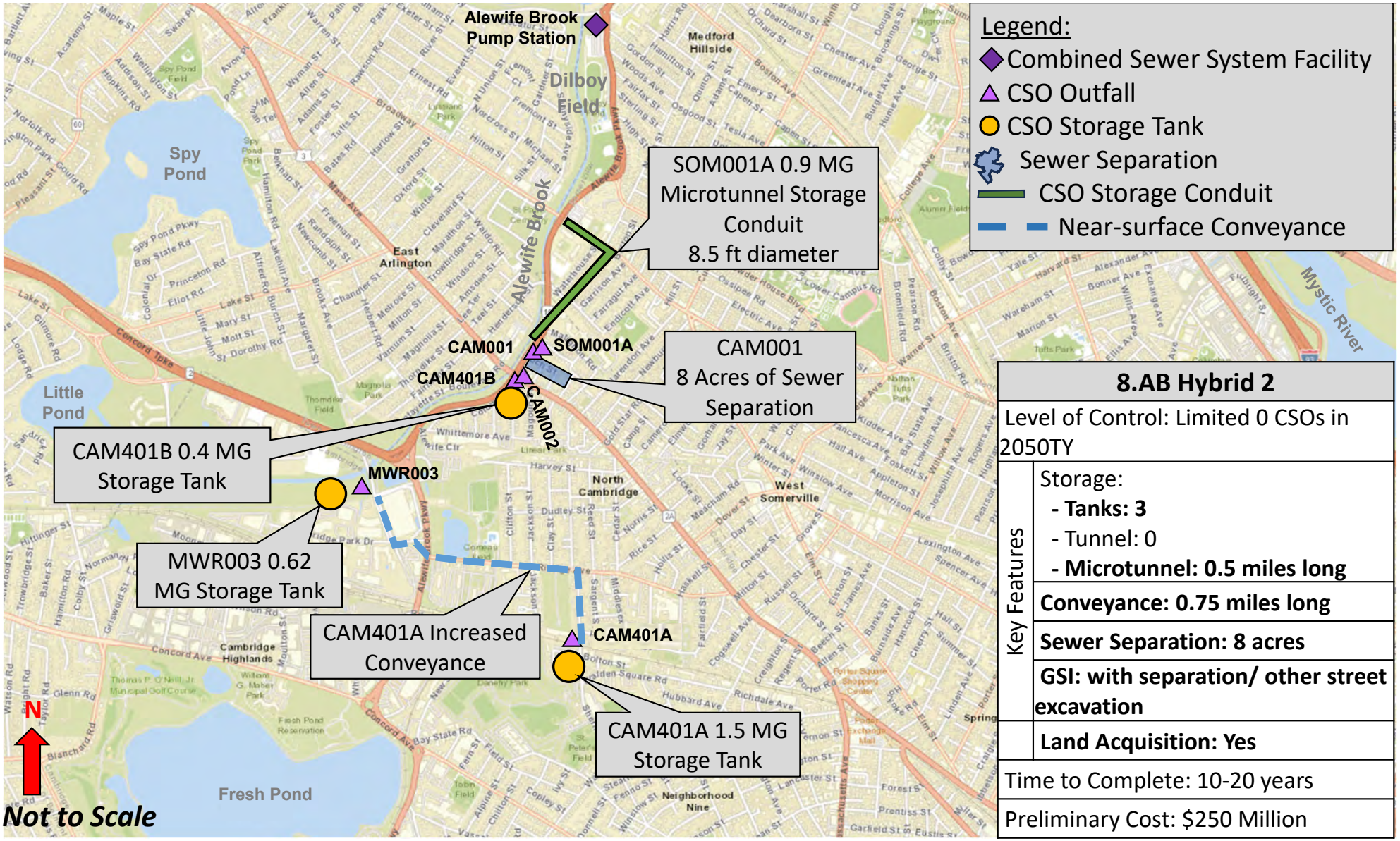
5.AB Tunnel + GSI	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: - Tanks: 0 **- Tunnel: 1.5 miles long, 11 ft dia.** - Microtunnel: 0
	Conveyance: 0.75 miles long
	Sewer Separation: 0
	GSI: 36 acres + with street excavation
	Land Acquisition: Yes
Time to Complete: 18-23 years	
Preliminary Cost: $630 Million	

6.AB Sewer Separation	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: - Tanks: 0 - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 900 acres
	GSI: with separation
	Land Acquisition: Yes
Time to Complete: 50+ years	
Preliminary Cost: $1,700 Million	





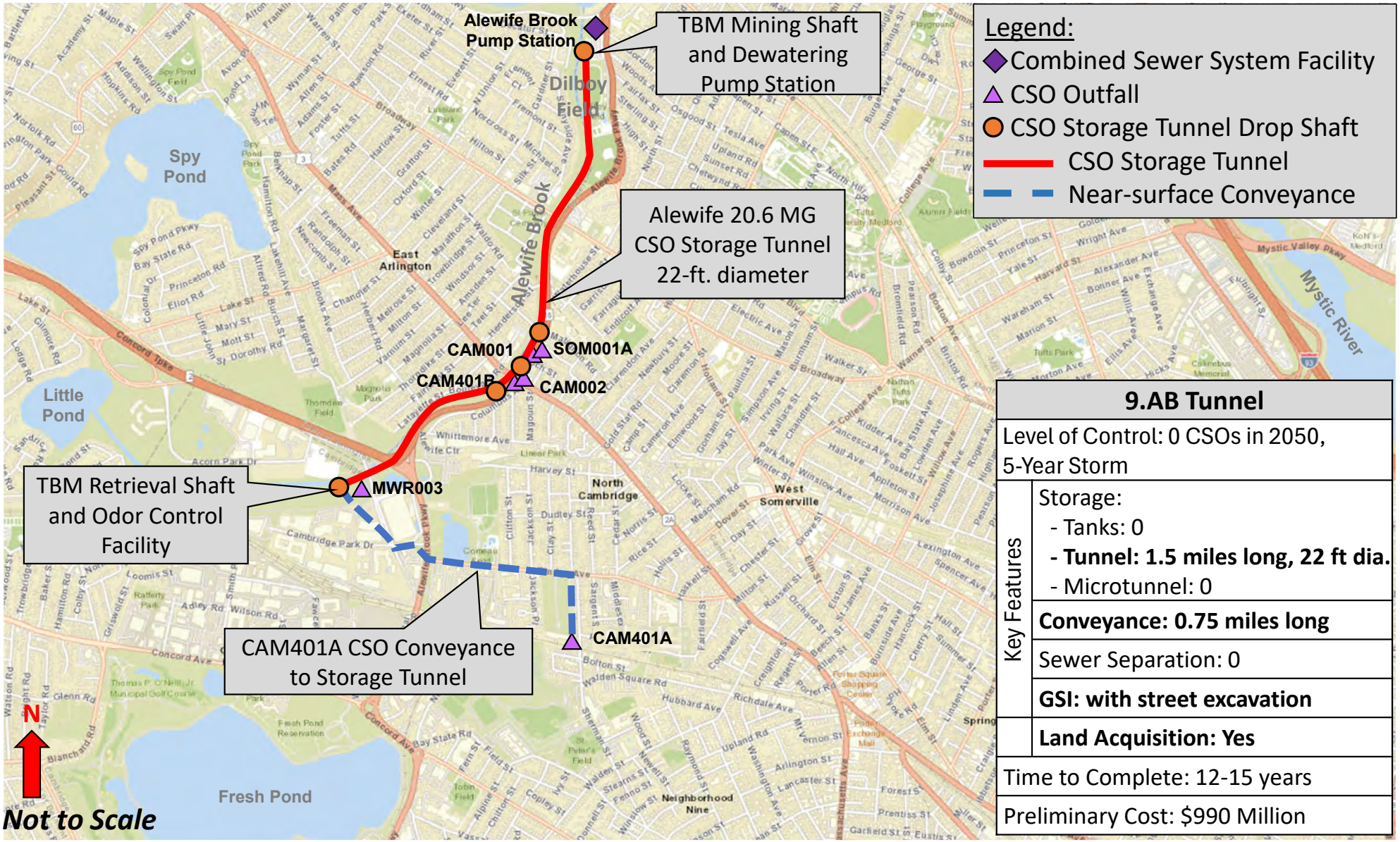
7.AB Hybrid 1	
Level of Control: Limited CSOs in 2050TY	
Key Features	Storage: **- Tanks: 3** - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0.75 miles long
	Sewer Separation: 108 acres
	GSI: with separation/ other street excavation
	Land Acquisition: Yes
Time to Complete: 18-23 years	
Preliminary Cost: $330 Million	



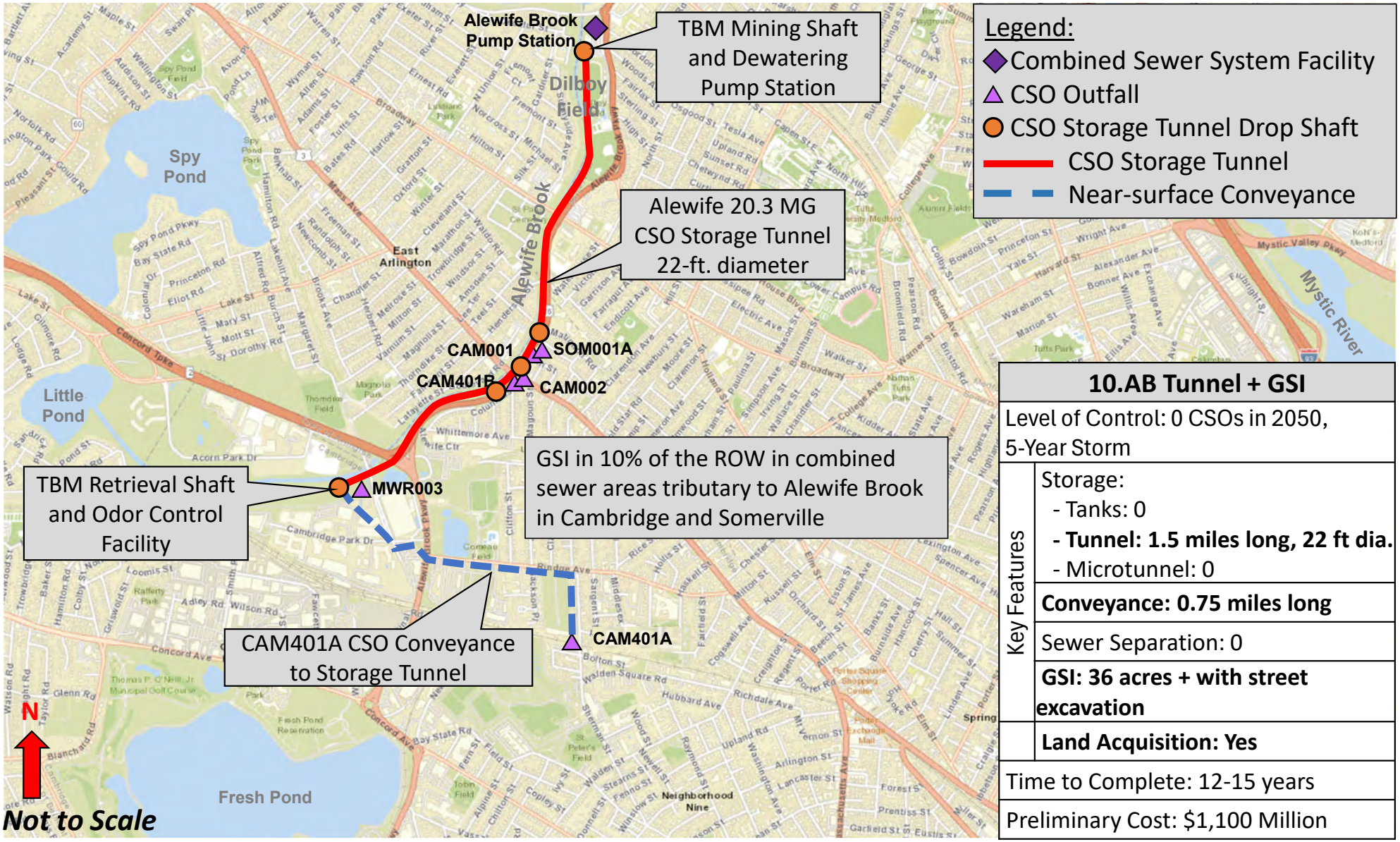
Legend:

- Combined Sewer System Facility
- CSO Outfall
- CSO Storage Tank
- Sewer Separation
- CSO Storage Conduit
- Near-surface Conveyance

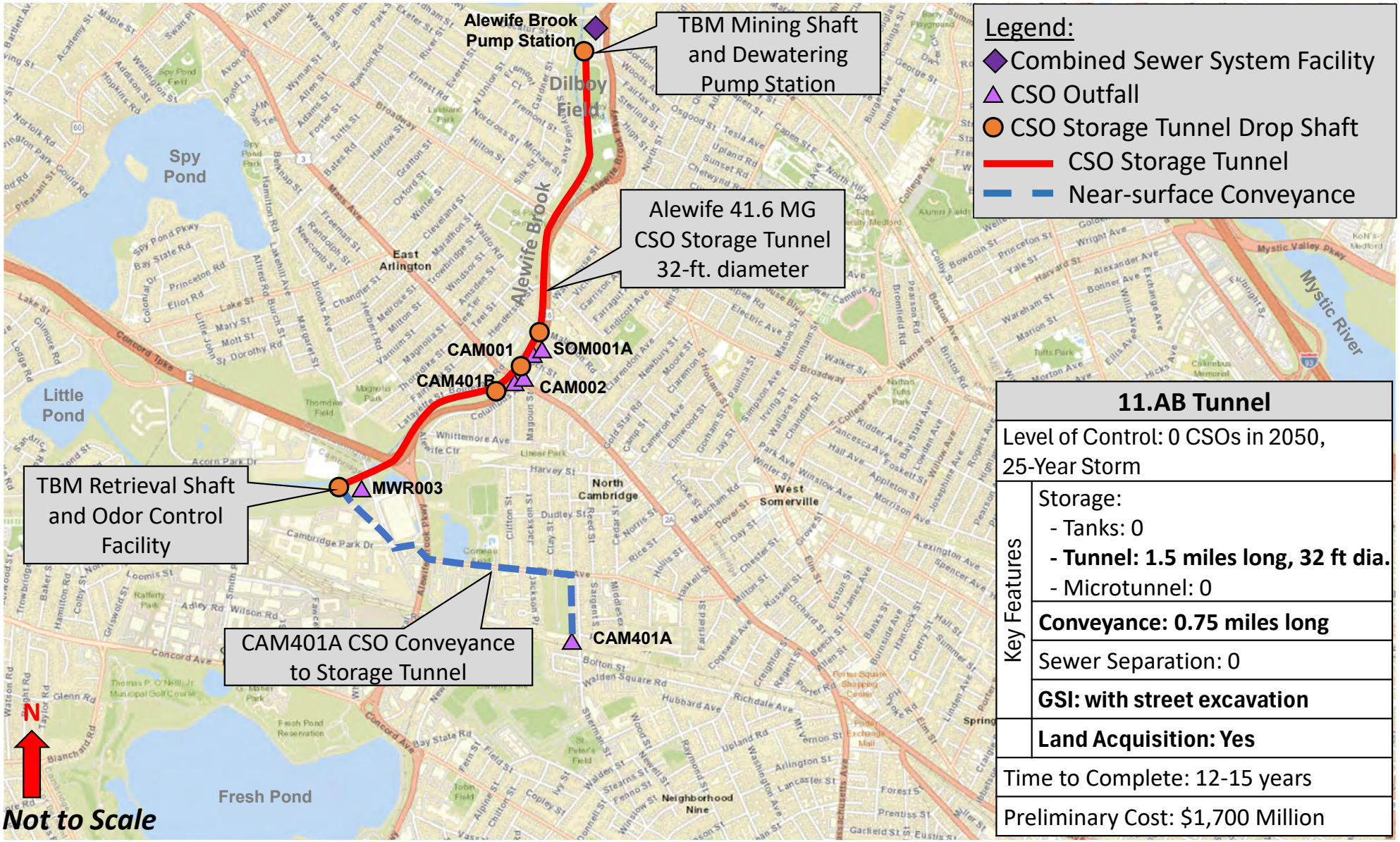
8.AB Hybrid 2	
Level of Control: Limited 0 CSOs in 2050TY	
Key Features	Storage: **- Tanks: 3** - Tunnel: 0 **- Microtunnel: 0.5 miles long**
	Conveyance: 0.75 miles long
	Sewer Separation: 8 acres
	GSI: with separation/ other street excavation
	Land Acquisition: Yes
Time to Complete: 10-20 years	
Preliminary Cost: $250 Million	



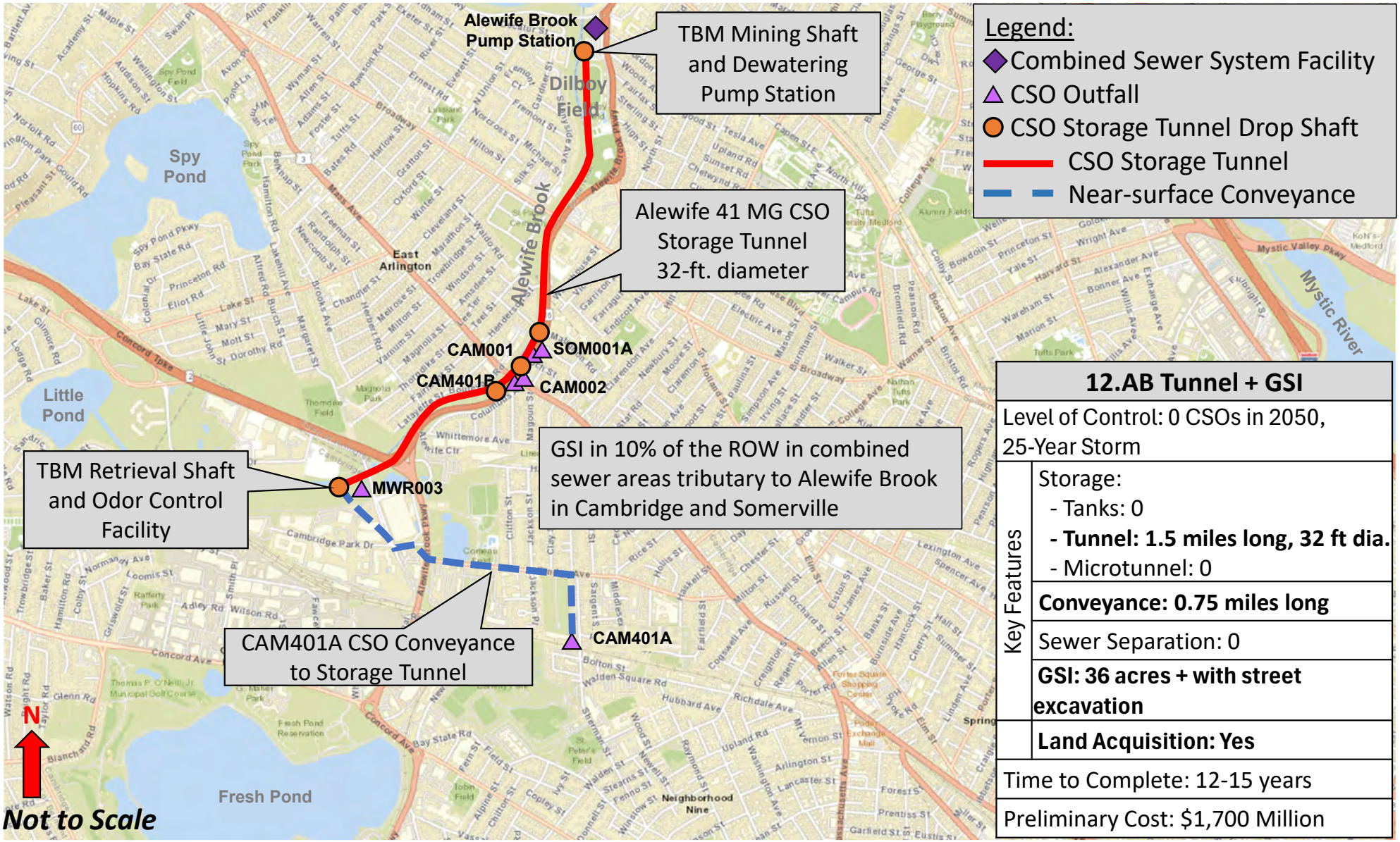
9.AB Tunnel	
Level of Control: 0 CSOs in 2050, 5-Year Storm	
Key Features	Storage: - Tanks: 0 **- Tunnel: 1.5 miles long, 22 ft dia.** - Microtunnel: 0
	Conveyance: 0.75 miles long
	Sewer Separation: 0
	GSI: with street excavation
	Land Acquisition: Yes
Time to Complete: 12-15 years	
Preliminary Cost: $990 Million	



10.AB Tunnel + GSI	
Level of Control: 0 CSOs in 2050, 5-Year Storm	
Key Features	Storage: - Tanks: 0 **- Tunnel: 1.5 miles long, 22 ft dia.** - Microtunnel: 0
	Conveyance: 0.75 miles long
	Sewer Separation: 0
	GSI: 36 acres + with street excavation
	Land Acquisition: Yes
Time to Complete: 12-15 years	
Preliminary Cost: $1,100 Million	



11.AB Tunnel	
Level of Control: 0 CSOs in 2050, 25-Year Storm	
Key Features	Storage: - Tanks: 0 **- Tunnel: 1.5 miles long, 32 ft dia.** - Microtunnel: 0
	Conveyance: 0.75 miles long
	Sewer Separation: 0
	GSI: with street excavation
	Land Acquisition: Yes
Time to Complete: 12-15 years	
Preliminary Cost: $1,700 Million	



12.AB Tunnel + GSI	
Level of Control: 0 CSOs in 2050, 25-Year Storm	
Key Features	Storage: - Tanks: 0 **- Tunnel: 1.5 miles long, 32 ft dia.** - Microtunnel: 0
	Conveyance: 0.75 miles long
	Sewer Separation: 0
	GSI: 36 acres + with street excavation
	Land Acquisition: Yes
Time to Complete: 12-15 years	
Preliminary Cost: $1,700 Million	

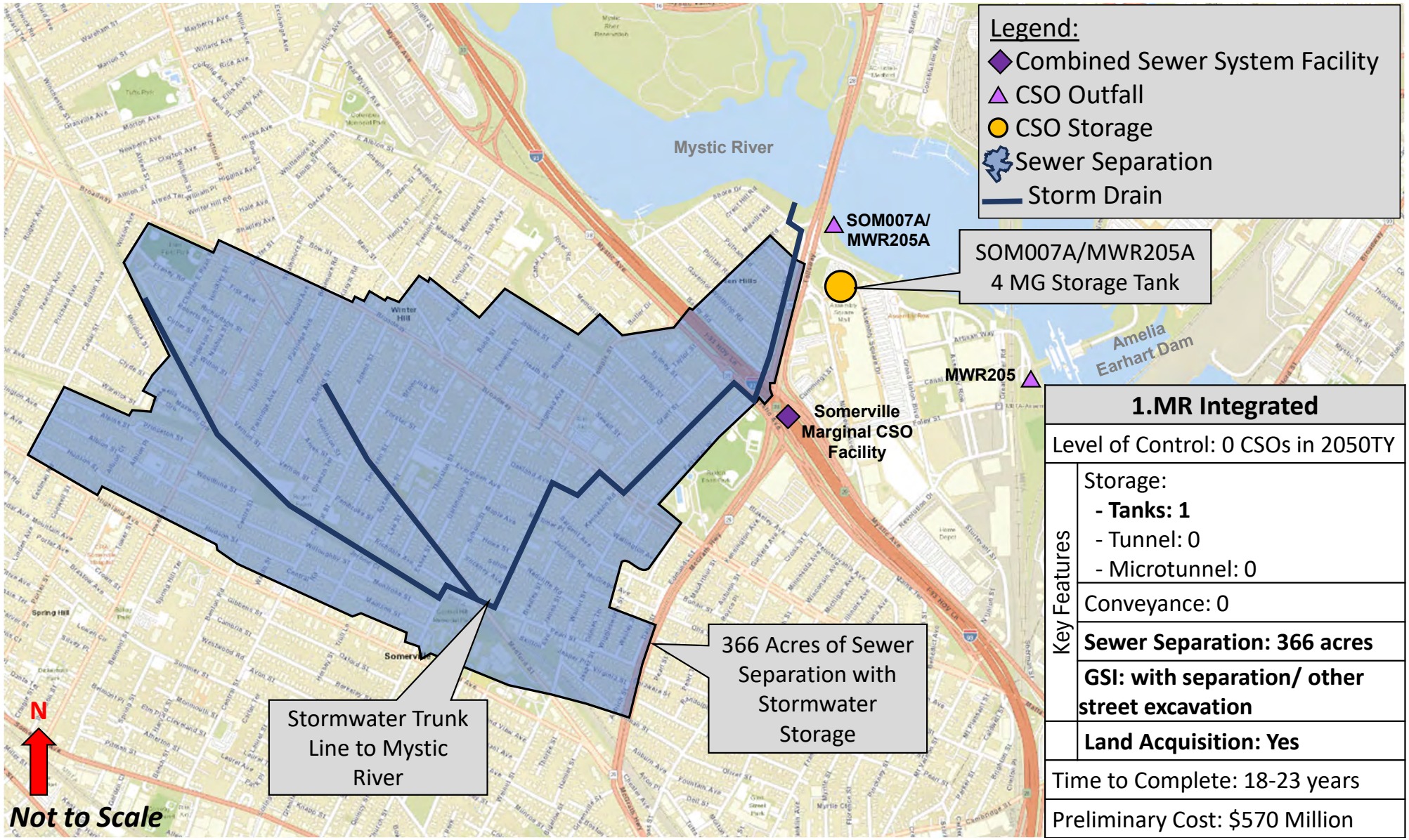
Mystic River Alternatives

Notes:

1. Estimated duration shown on the following slides is the approximate time period for construction and timeline to full CSO reduction benefit for each alternative. Some alternatives include the potential for earlier partial benefits.
2. Preliminary estimated costs shown on the following slides are planning level capital cost estimates that are not escalated to mid point of construction.

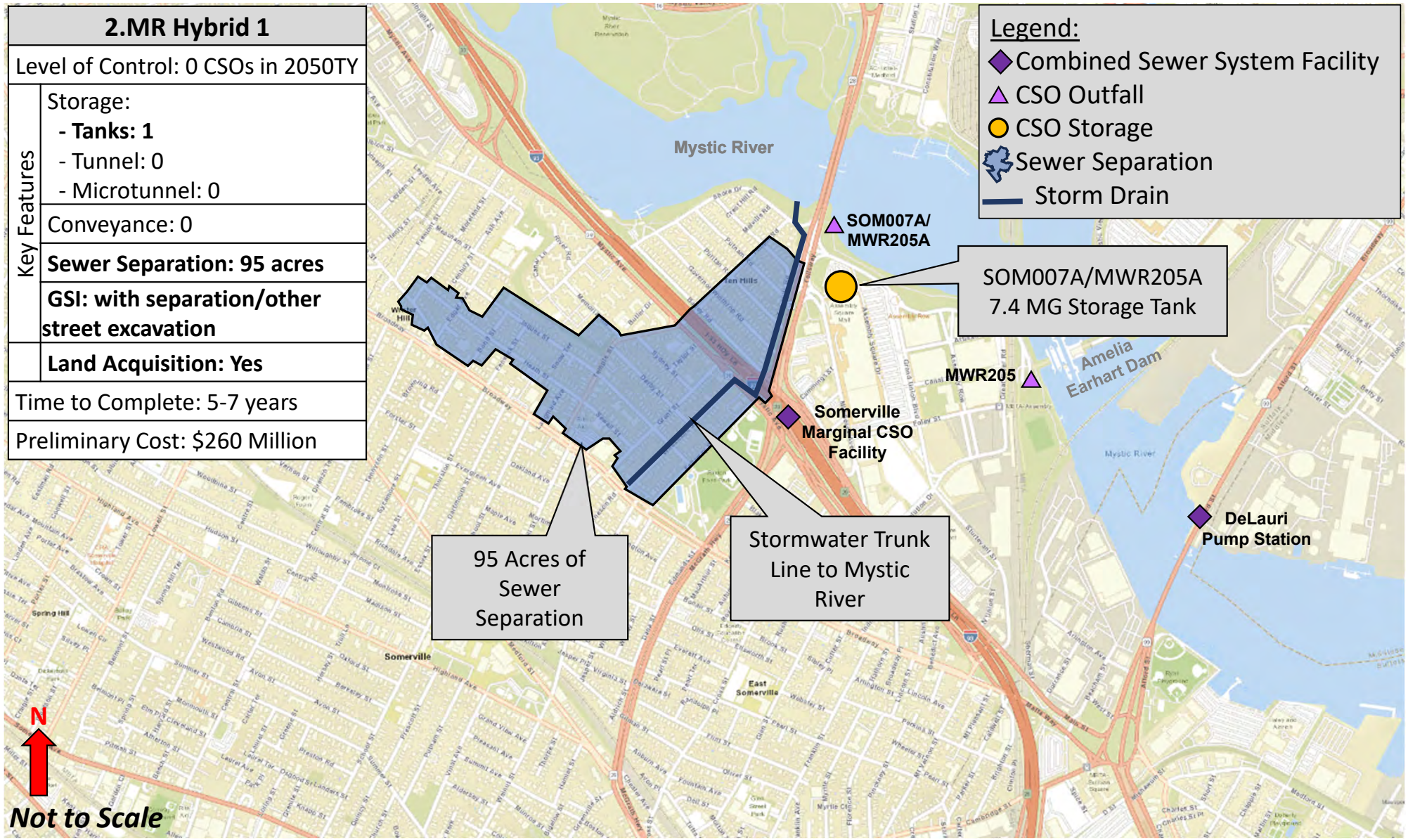
Mystic River: Summary of Alternatives Under Consideration

0 CSOs in 2050 Typical Year	Limited CSOs in 2050 Typical Year	0 CSOs in 2050 5-year Storm	0 CSOs in 2050 25-year Storm Mid-Tide
1.MR Integrated 1 tank (4 MG) + 366 acres of sewer separation	**6a.MR Hybrid 1** 1 tank (2.7 MG) + 95 acres of sewer separation	**7.MR Storage** 1 tank (10.5 MG)	**10.MR Storage** 1 tank (16.7 MG)
2.MR Hybrid 1 1 tank (7.4 MG) + 95 acres of sewer separation	**6b.MR Hybrid 2** 1 tank (5 MG)	**8.MR Storage + GSI** 1 tank (9.4 MG) + GSI (20 acres)	**11.MR Storage + GSI** 1 tank (15 MG) + GSI (20 acres)
3.MR Storage 1 tank (10.5 MG)	**6c.MR Hybrid 3** 95 acres of sewer separation	**9.MR Hybrid 1** 1 tank (7.4 MG) +95 acres of sewer separation	**12.MR Hybrid 1** 1 tank (14.2 MG) + 95 acres of sewer separation
4.MR Storage + GSI 1 tank (9.4 MG) + GSI (20 acres)	**5.MR Sewer Separation*** 690 acres of sewer separation **With additional sewer separation in Charlestown this alternative can achieve 0 CSOs in 2050 Typical Year*		

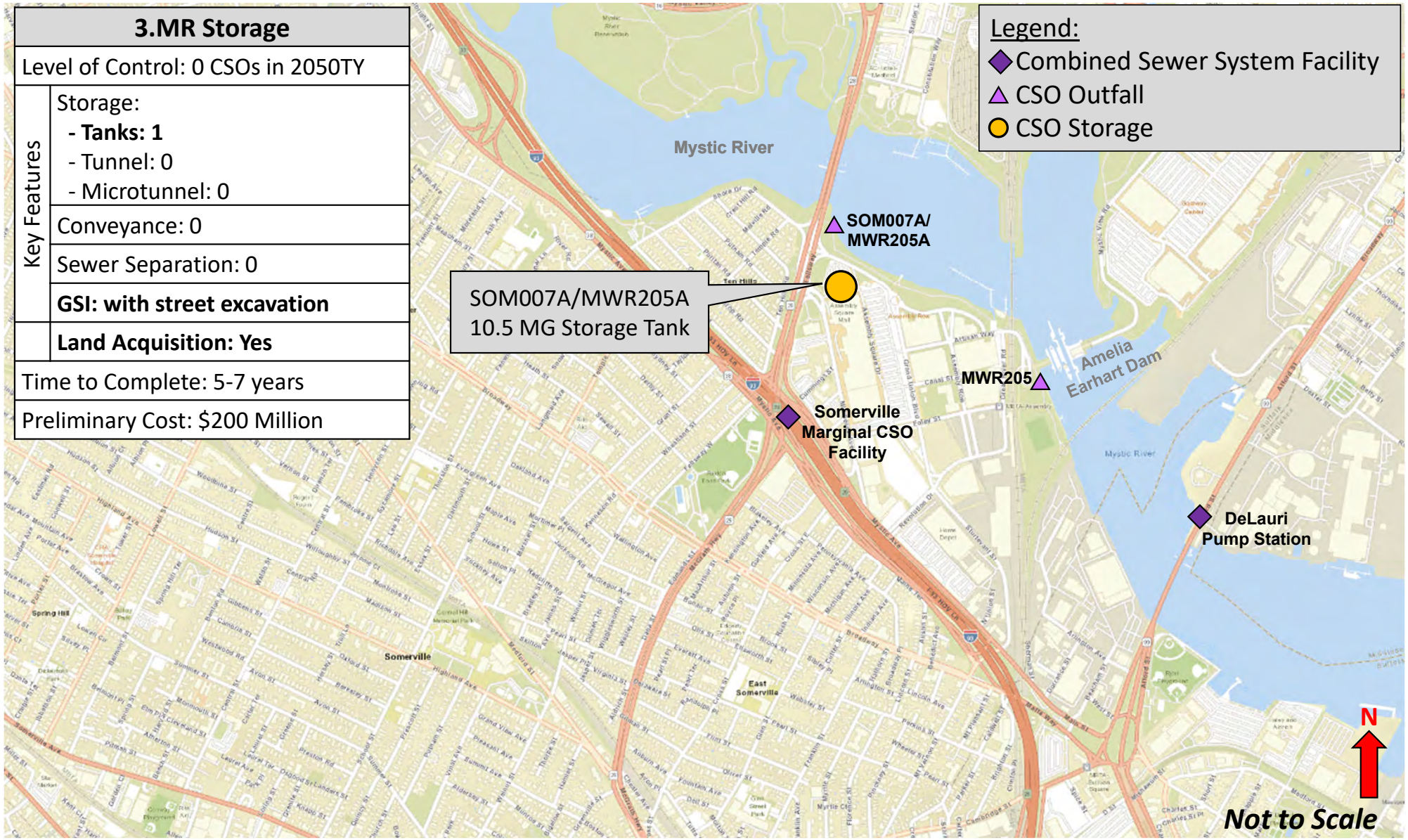


1.MR Integrated	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: **- Tanks: 1** - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 366 acres
	GSI: with separation/ other street excavation
	Land Acquisition: Yes
Time to Complete: 18-23 years	
Preliminary Cost: $570 Million	

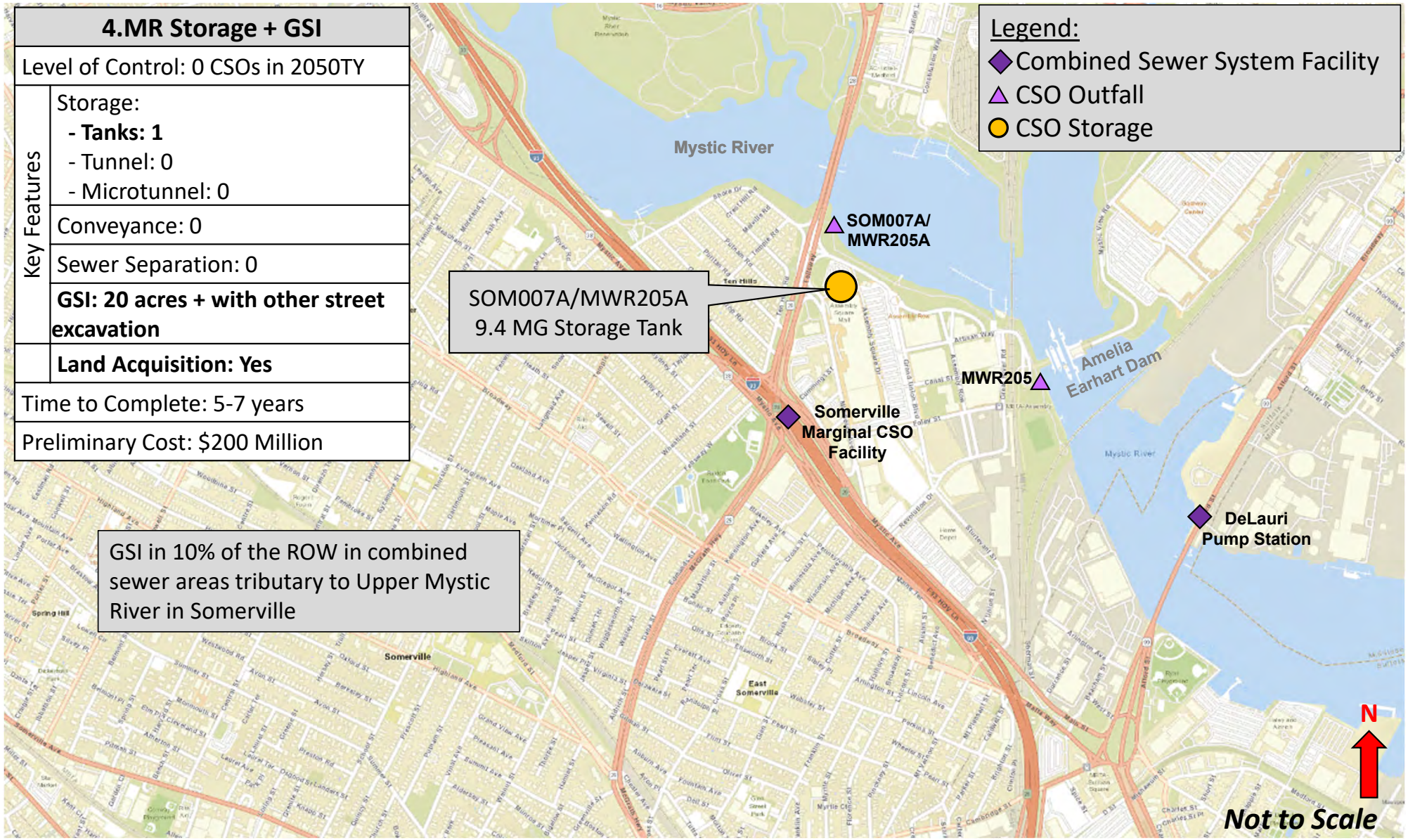
2.MR Hybrid 1	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: **- Tanks: 1** - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 95 acres
	GSI: with separation/other street excavation
	Land Acquisition: Yes
Time to Complete: 5-7 years	
Preliminary Cost: $260 Million	



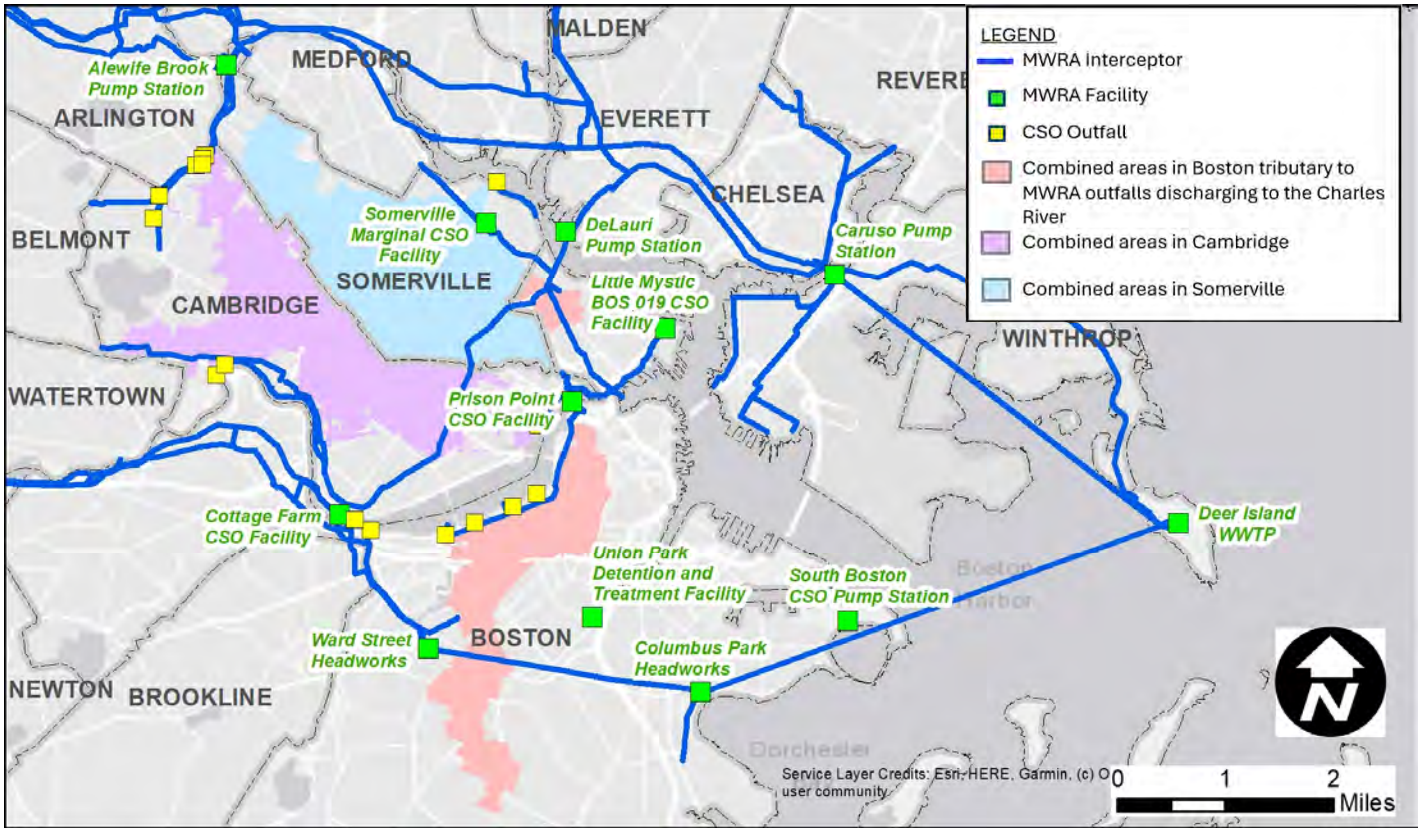
3.MR Storage	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: **- Tanks: 1** - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 0
	GSI: with street excavation
	Land Acquisition: Yes
Time to Complete: 5-7 years	
Preliminary Cost: $200 Million	



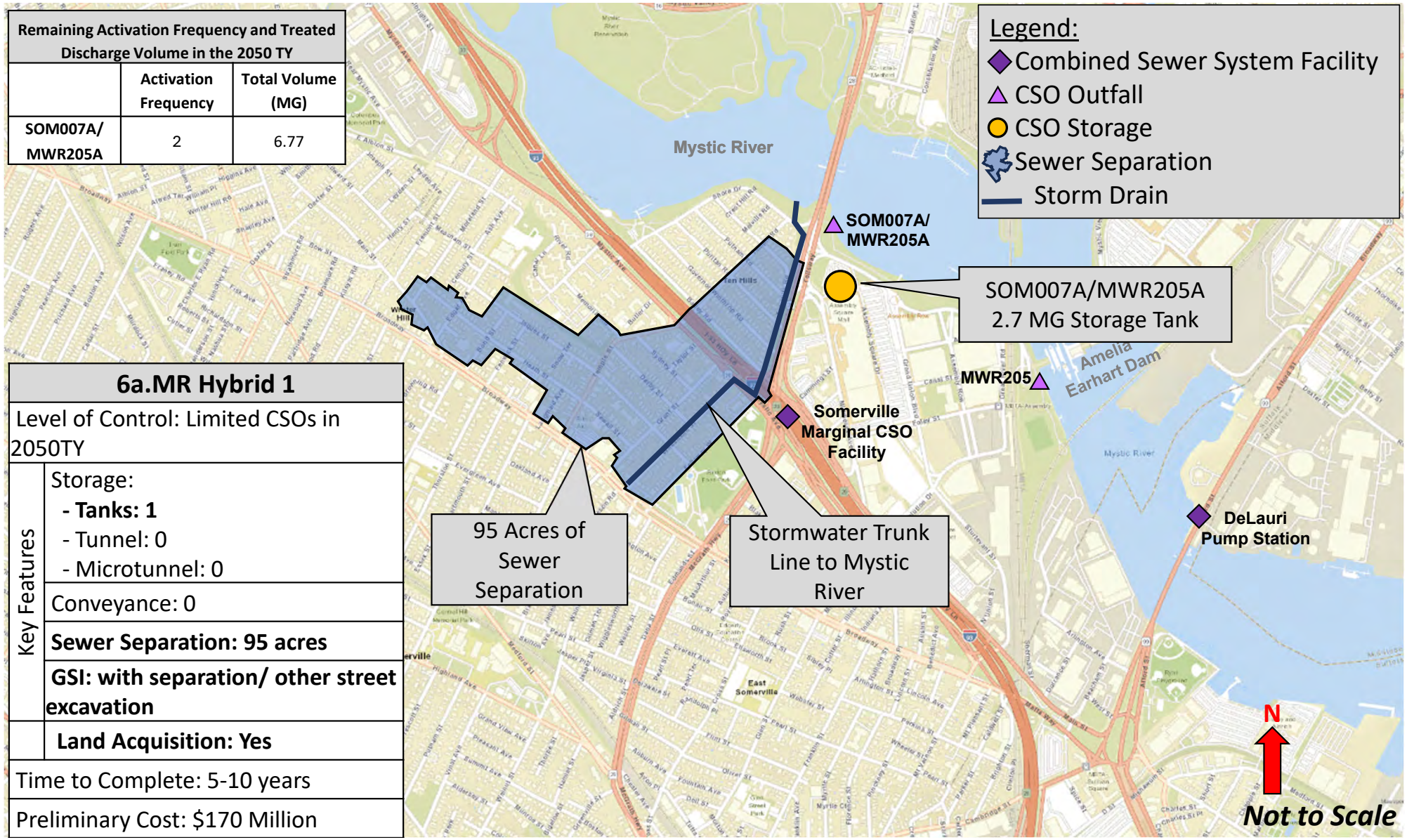
4.MR Storage + GSI	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: **- Tanks: 1** - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 0
	GSI: 20 acres + with other street excavation
	Land Acquisition: Yes
Time to Complete: 5-7 years	
Preliminary Cost: $200 Million	



5.MR Sewer Separation	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: - Tanks: 0 - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 690 acres
	GSI: with separation
	Land Acquisition: Yes
Time to Complete: 50+ years	
Preliminary Cost: $810 Million	



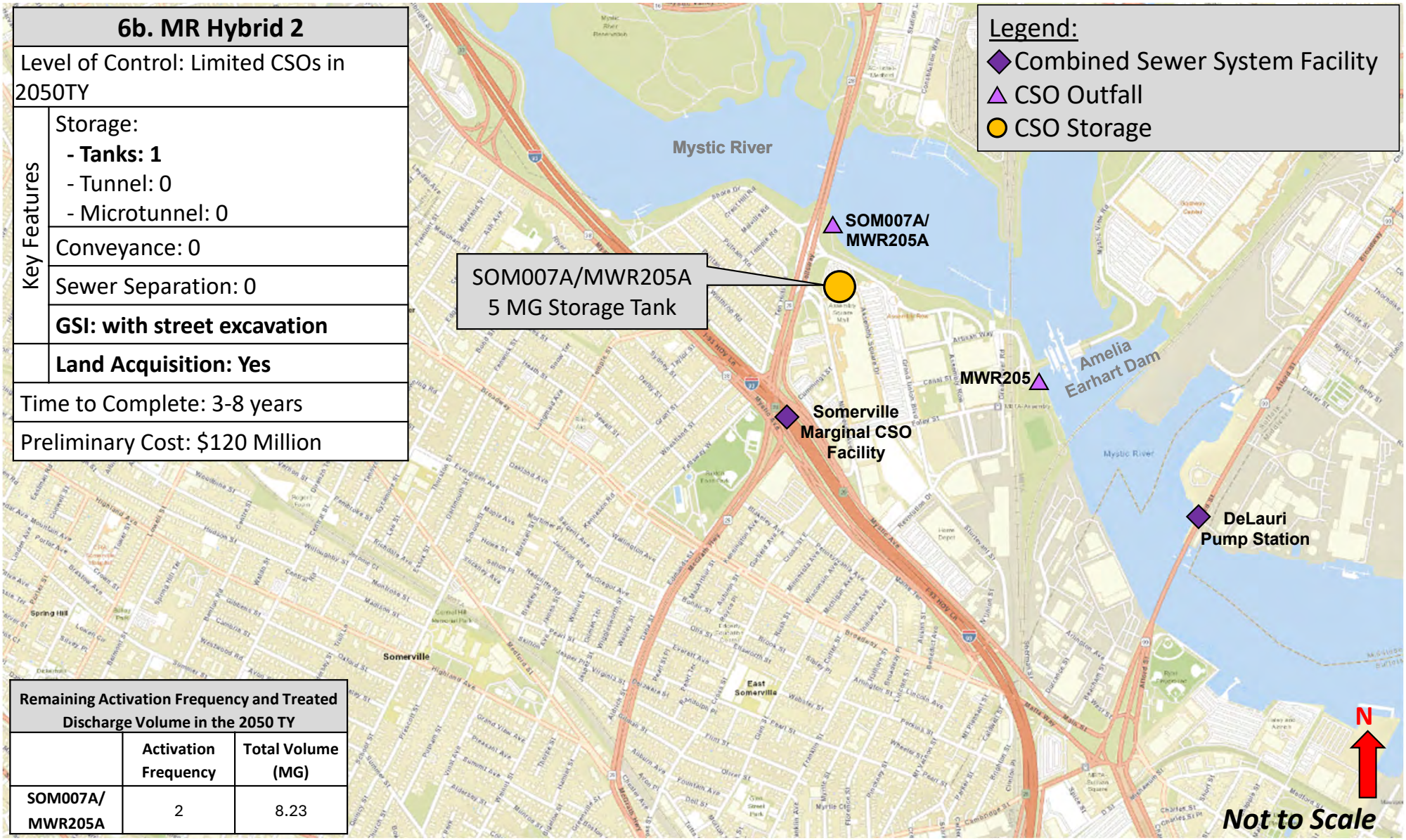
Remaining Activation Frequency and Treated Discharge Volume in the 2050 TY		
	Activation Frequency	Total Volume (MG)
SOM007A/ MWR205A	2	6.77



6a.MR Hybrid 1	
Level of Control: Limited CSOs in 2050TY	
Key Features	Storage: **- Tanks: 1** - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 95 acres
	GSI: with separation/ other street excavation
	Land Acquisition: Yes
Time to Complete: 5-10 years	
Preliminary Cost: $170 Million	

6b. MR Hybrid 2

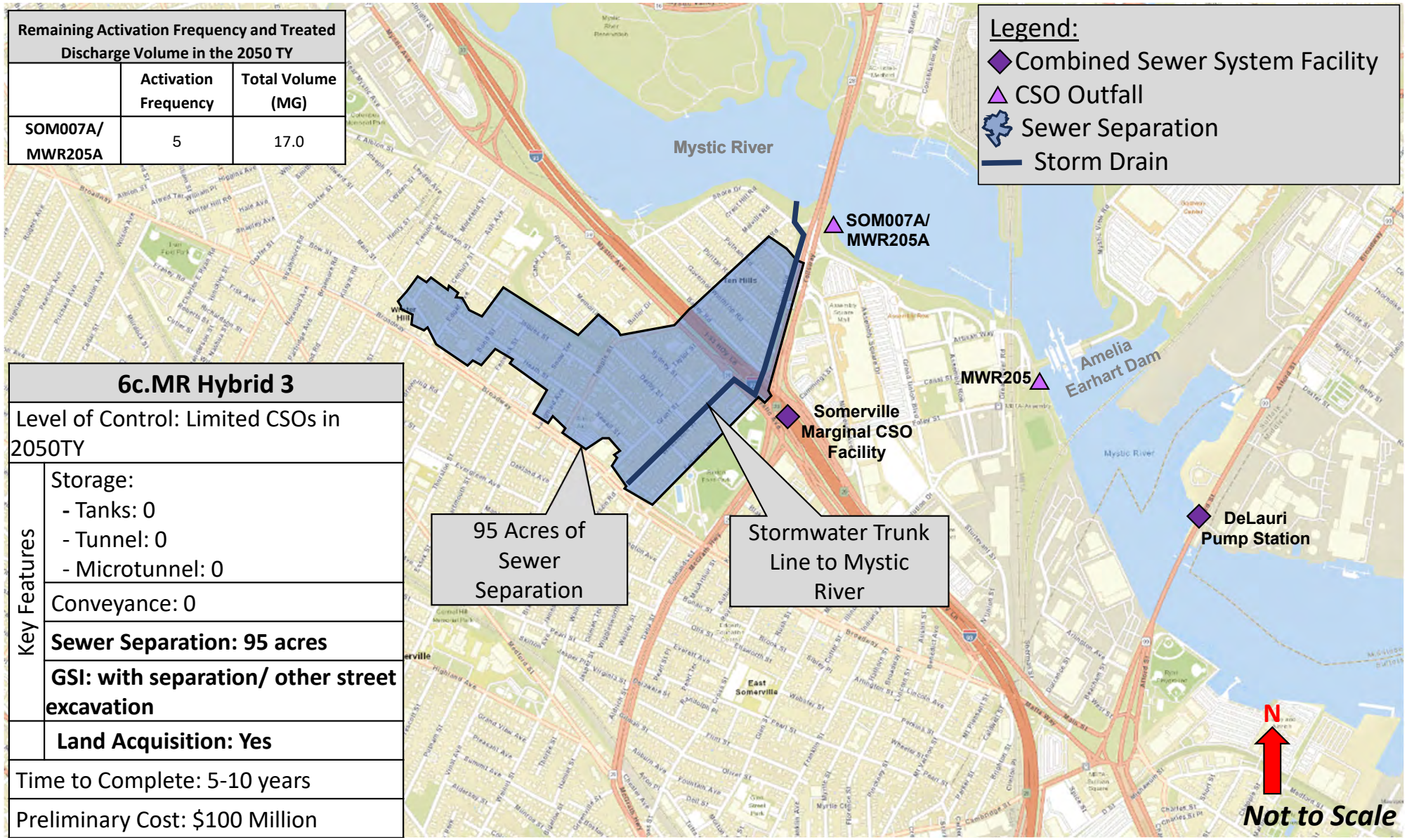
Level of Control: Limited CSOs in 2050TY	
Key Features	Storage: **- Tanks: 1** - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 0
	GSI: with street excavation
	Land Acquisition: Yes
Time to Complete: 3-8 years	
Preliminary Cost: $120 Million	



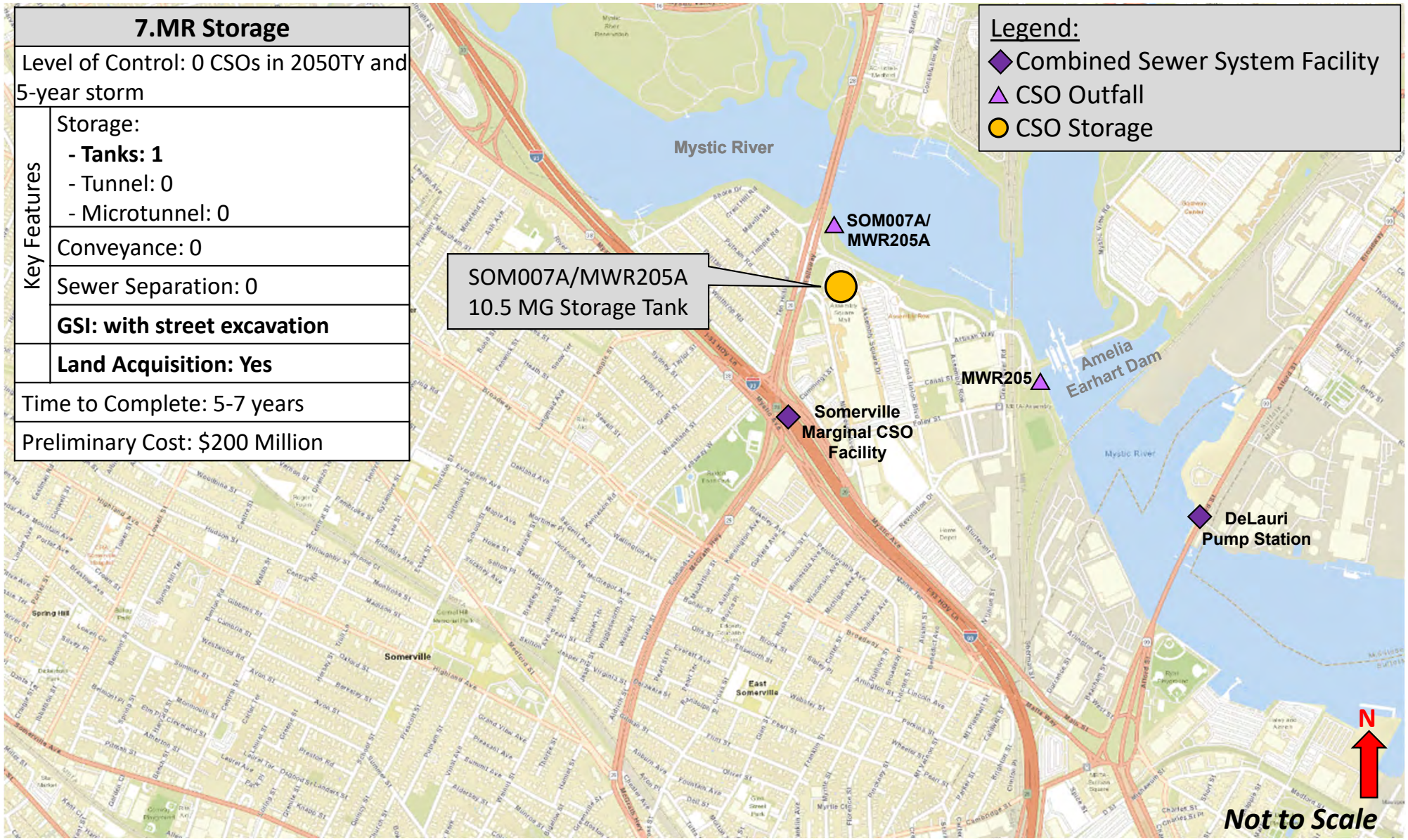
Remaining Activation Frequency and Treated Discharge Volume in the 2050 TY

	Activation Frequency	Total Volume (MG)
SOM007A/ MWR205A	2	8.23

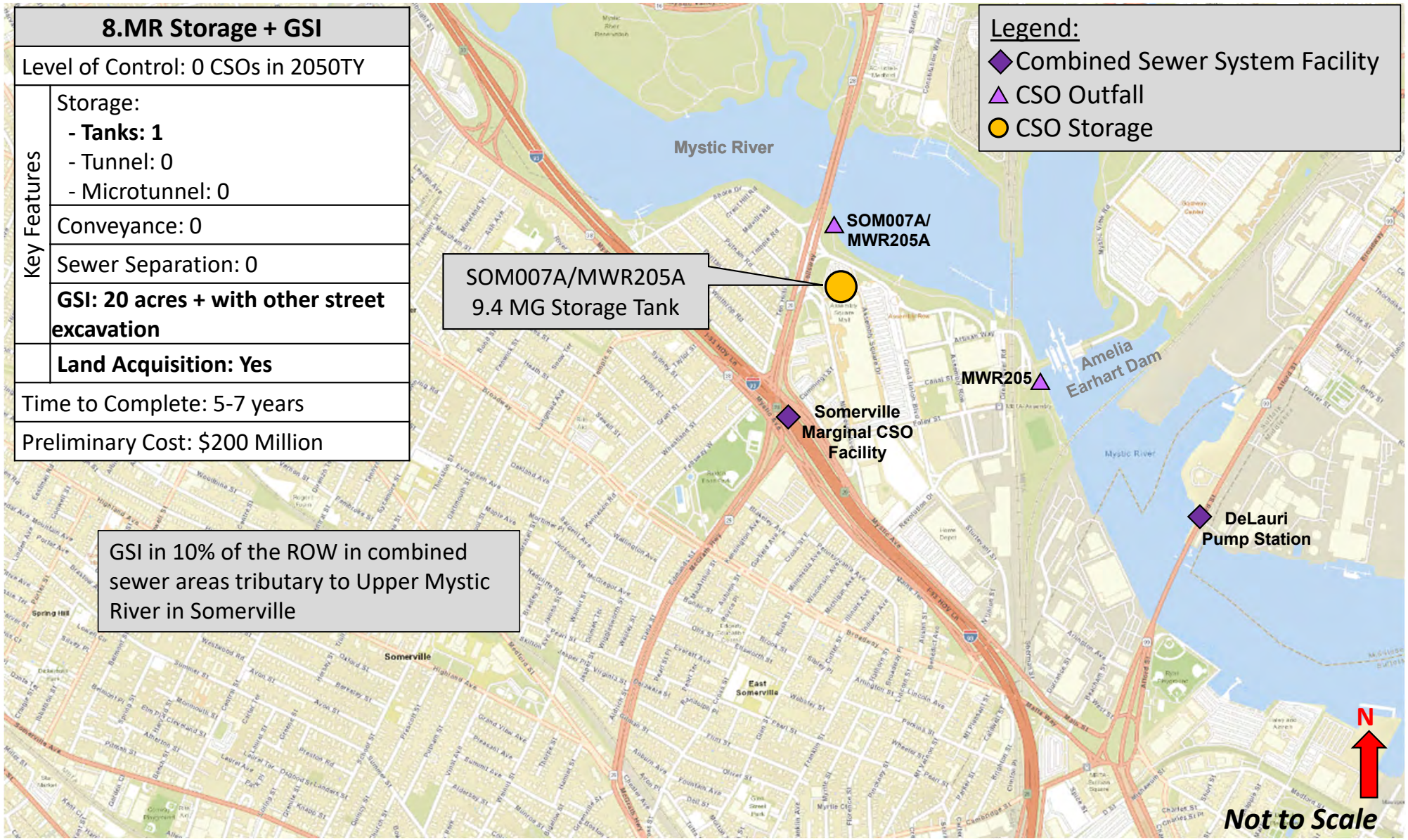
Remaining Activation Frequency and Treated Discharge Volume in the 2050 TY		
	Activation Frequency	Total Volume (MG)
SOM007A/ MWR205A	5	17.0



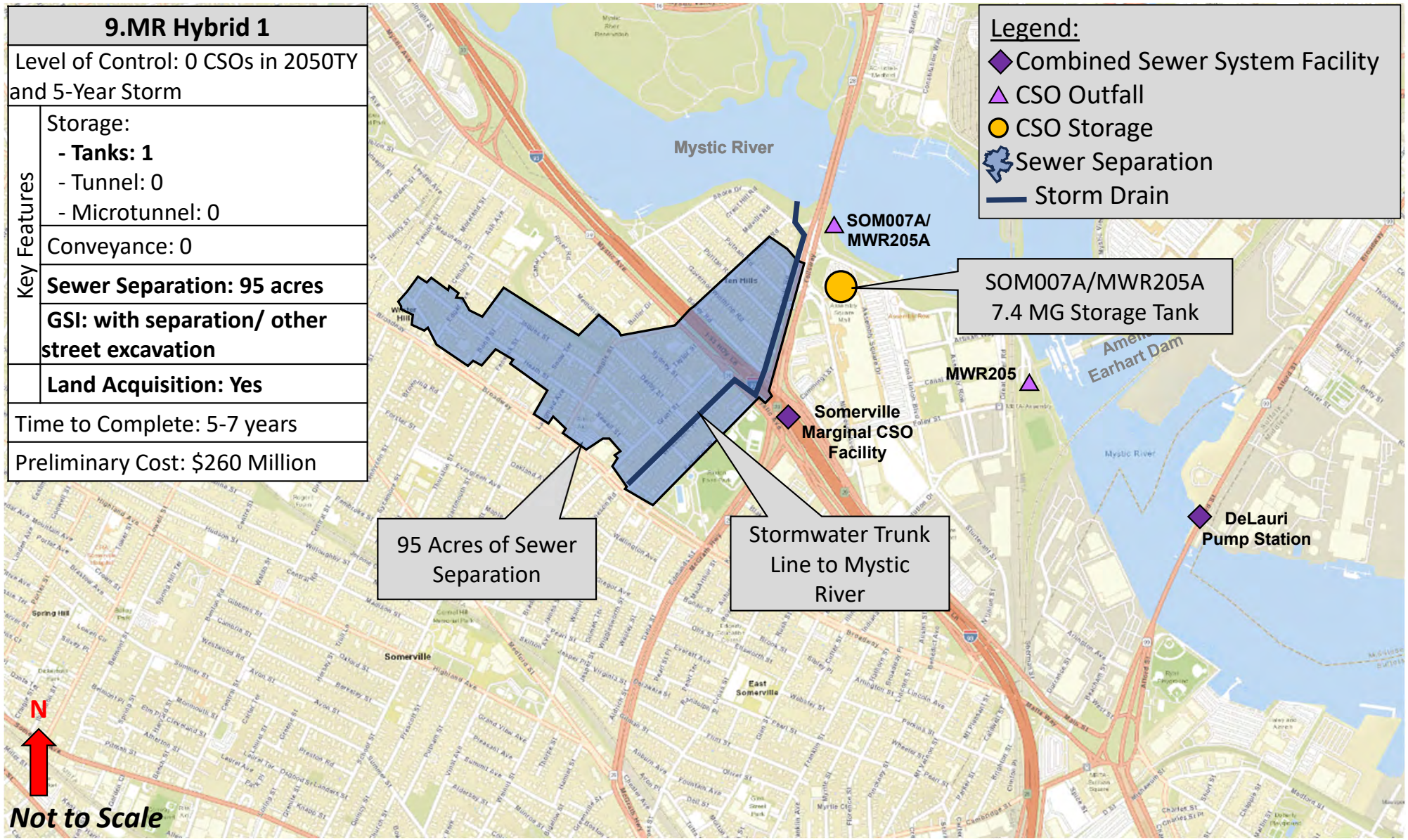
6c.MR Hybrid 3	
Level of Control: Limited CSOs in 2050TY	
Key Features	Storage: - Tanks: 0 - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 95 acres
	GSI: with separation/ other street excavation
	Land Acquisition: Yes
Time to Complete: 5-10 years	
Preliminary Cost: $100 Million	


7.MR Storage
Level of Control: 0 CSOs in 2050TY and 5-year storm
Key Features
Storage:
- Tanks: 1
- Tunnel: 0
- Microtunnel: 0
Conveyance: 0
Sewer Separation: 0
GSI: with street excavation
Land Acquisition: Yes
Time to Complete: 5-7 years
Preliminary Cost: $200 Million
Legend:
Combined Sewer System Facility
CSO Outfall
CSO Storage
Mystic River
SOM007A/ MWR205A
SOM007A/MWR205A 10.5 MG Storage Tank
MWR205
Amelia Earhart Dam
Somerville Marginal CSO Facility
DeLauri Pump Station
Somerville
East Somerville
Spring Hill
N
Not to Scale

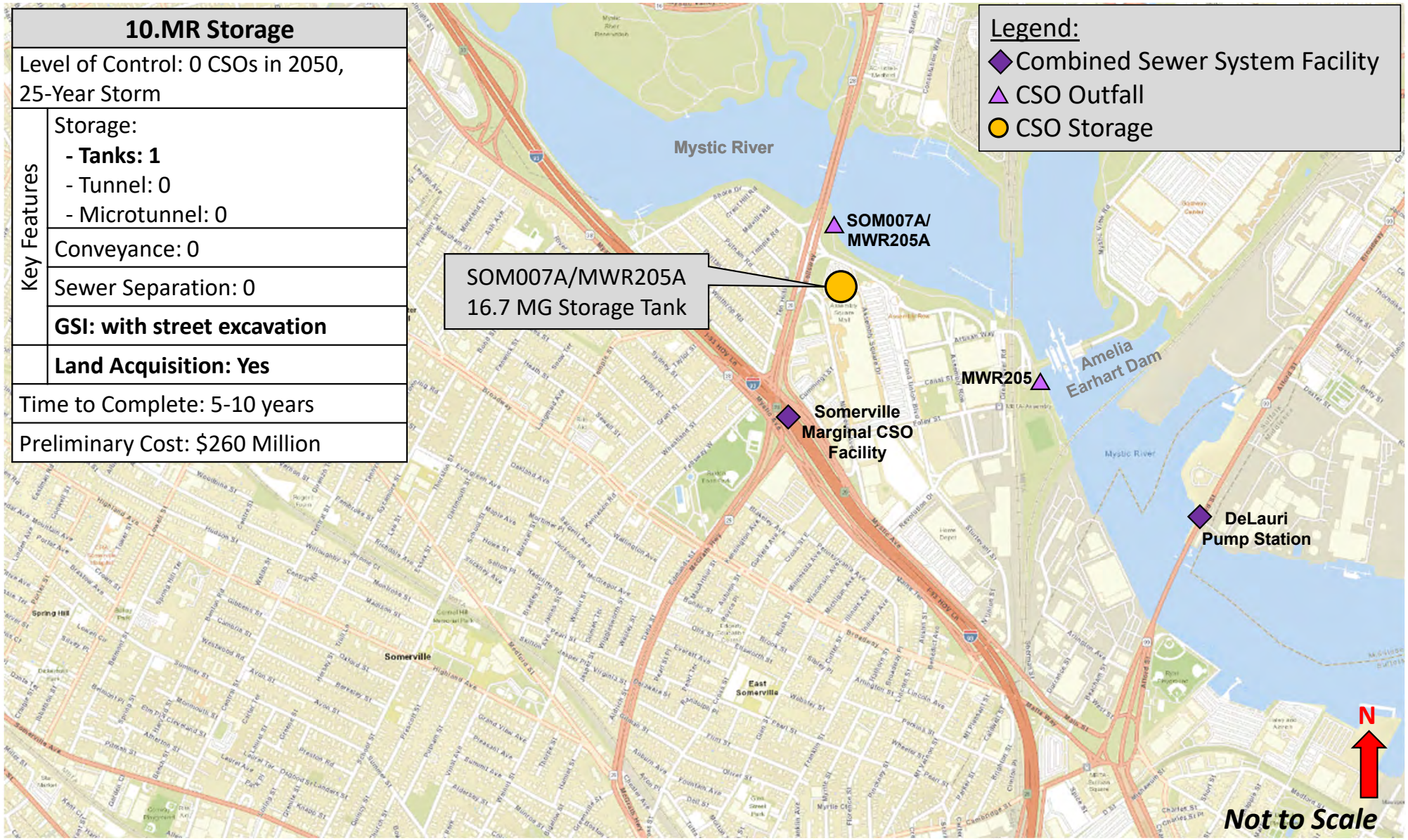
8.MR Storage + GSI	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: **- Tanks: 1** - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 0
	GSI: 20 acres + with other street excavation
	Land Acquisition: Yes
Time to Complete: 5-7 years	
Preliminary Cost: $200 Million	



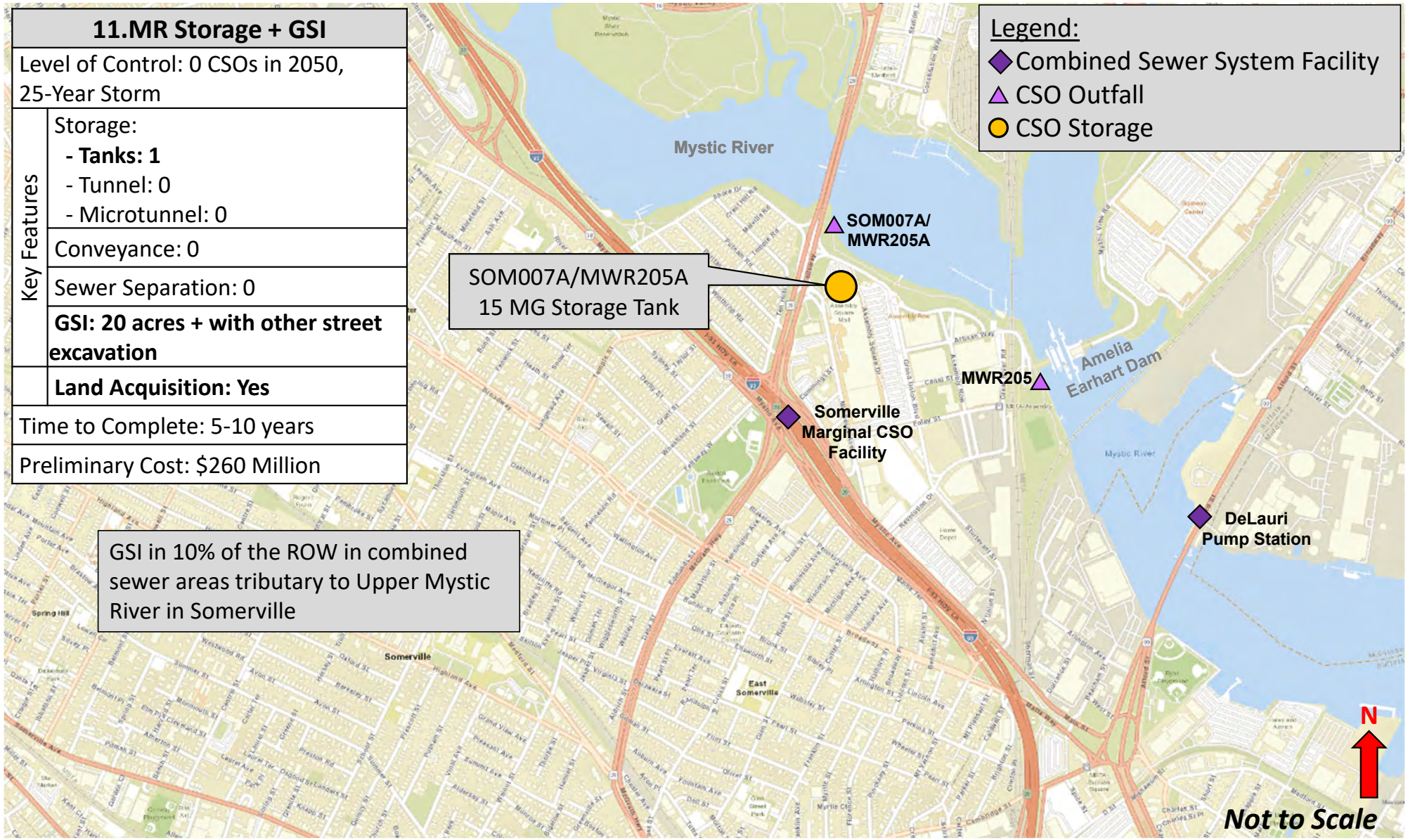
9.MR Hybrid 1	
Level of Control: 0 CSOs in 2050TY and 5-Year Storm	
Key Features	Storage: **- Tanks: 1** - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 95 acres
	GSI: with separation/ other street excavation
	Land Acquisition: Yes
Time to Complete: 5-7 years	
Preliminary Cost: $260 Million	



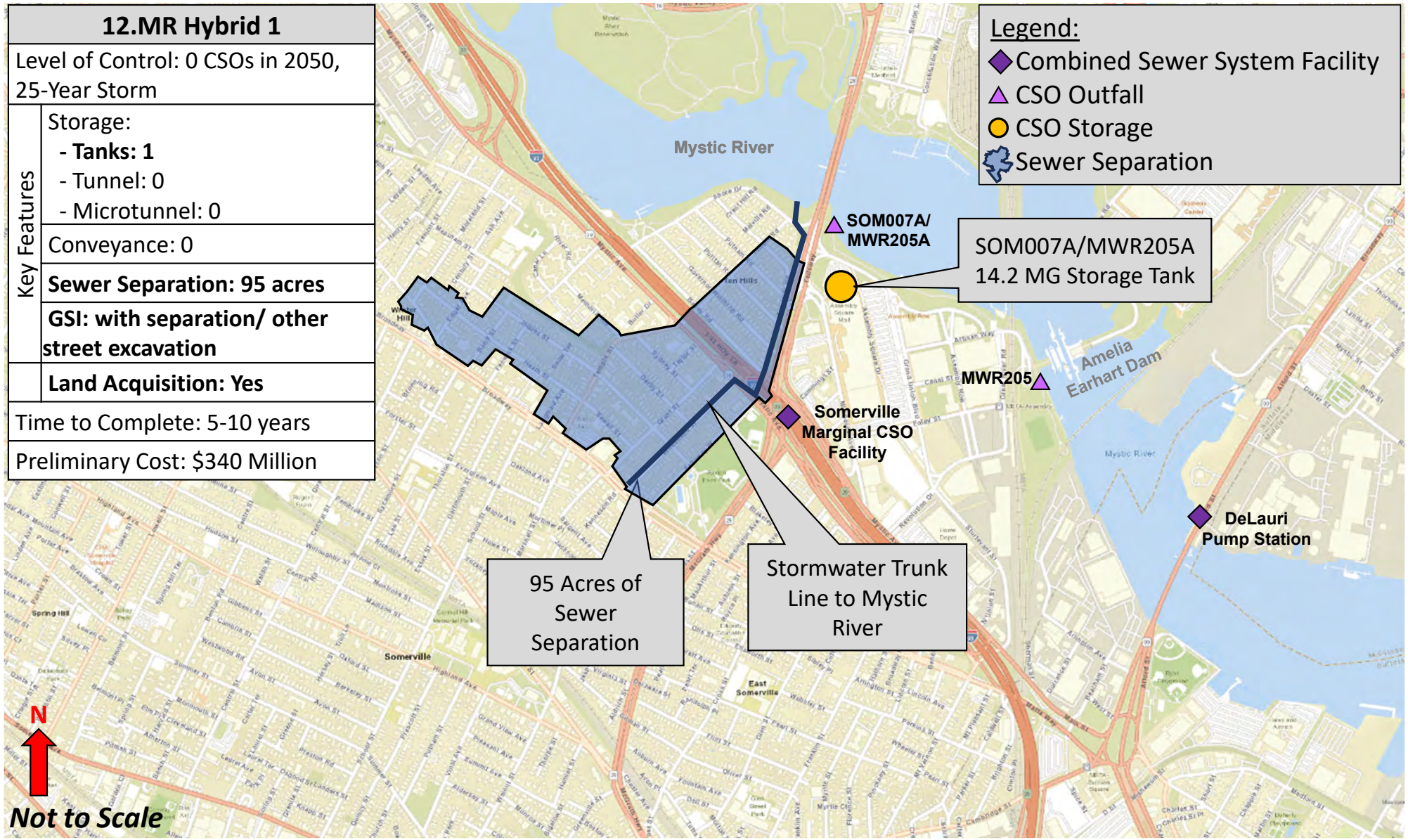
10.MR Storage	
Level of Control: 0 CSOs in 2050, 25-Year Storm	
Key Features	Storage: **- Tanks: 1** - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 0
	GSI: with street excavation
	Land Acquisition: Yes
Time to Complete: 5-10 years	
Preliminary Cost: $260 Million	



11.MR Storage + GSI	
Level of Control: 0 CSOs in 2050, 25-Year Storm	
Key Features	Storage: **- Tanks: 1** - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 0
	GSI: 20 acres + with other street excavation
	Land Acquisition: Yes
Time to Complete: 5-10 years	
Preliminary Cost: $260 Million	



12.MR Hybrid 1	
Level of Control: 0 CSOs in 2050, 25-Year Storm	
Key Features	Storage: **- Tanks: 1** - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 95 acres
	GSI: with separation/ other street excavation
	Land Acquisition: Yes
Time to Complete: 5-10 years	
Preliminary Cost: $340 Million	



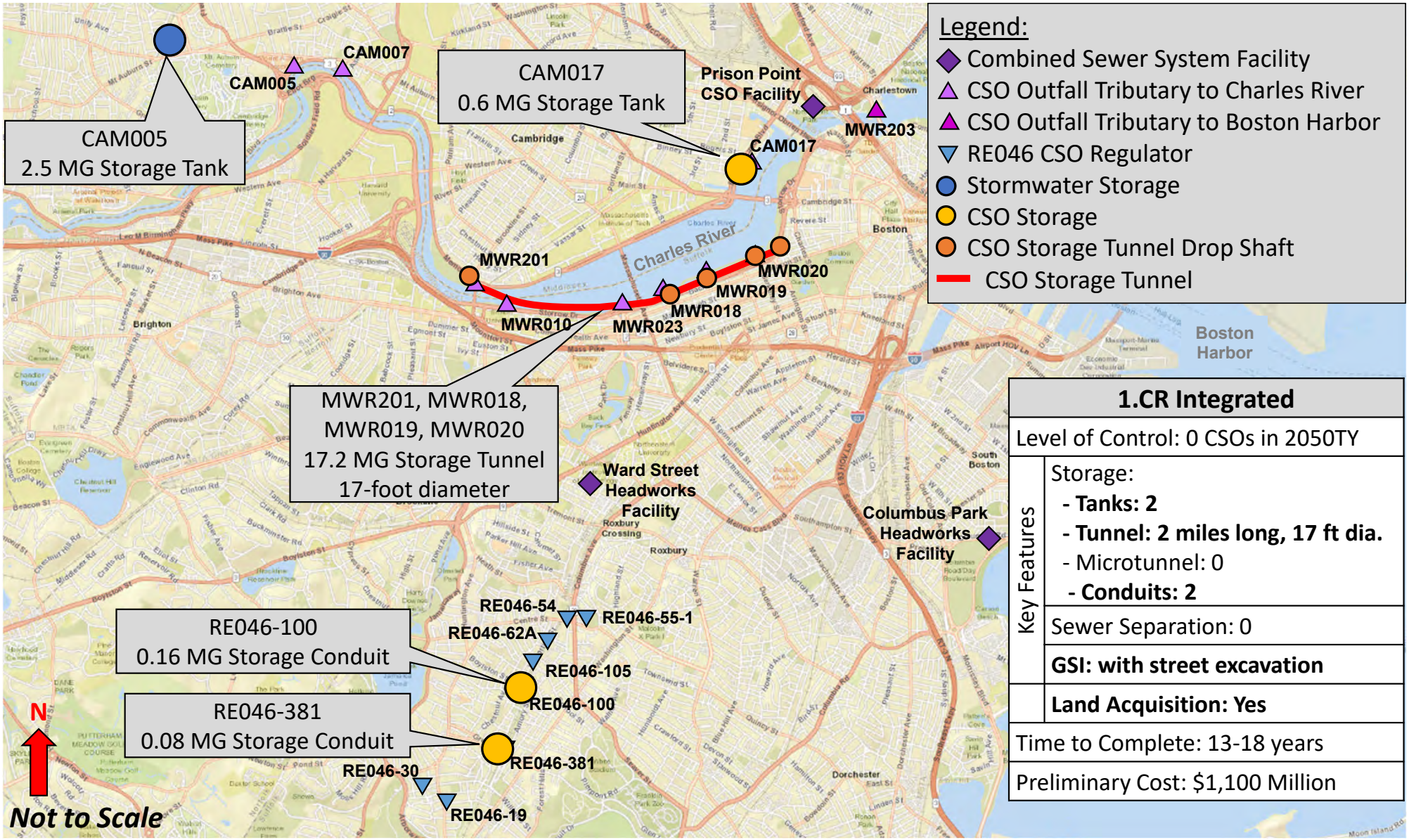
Charles River Alternatives

Notes:

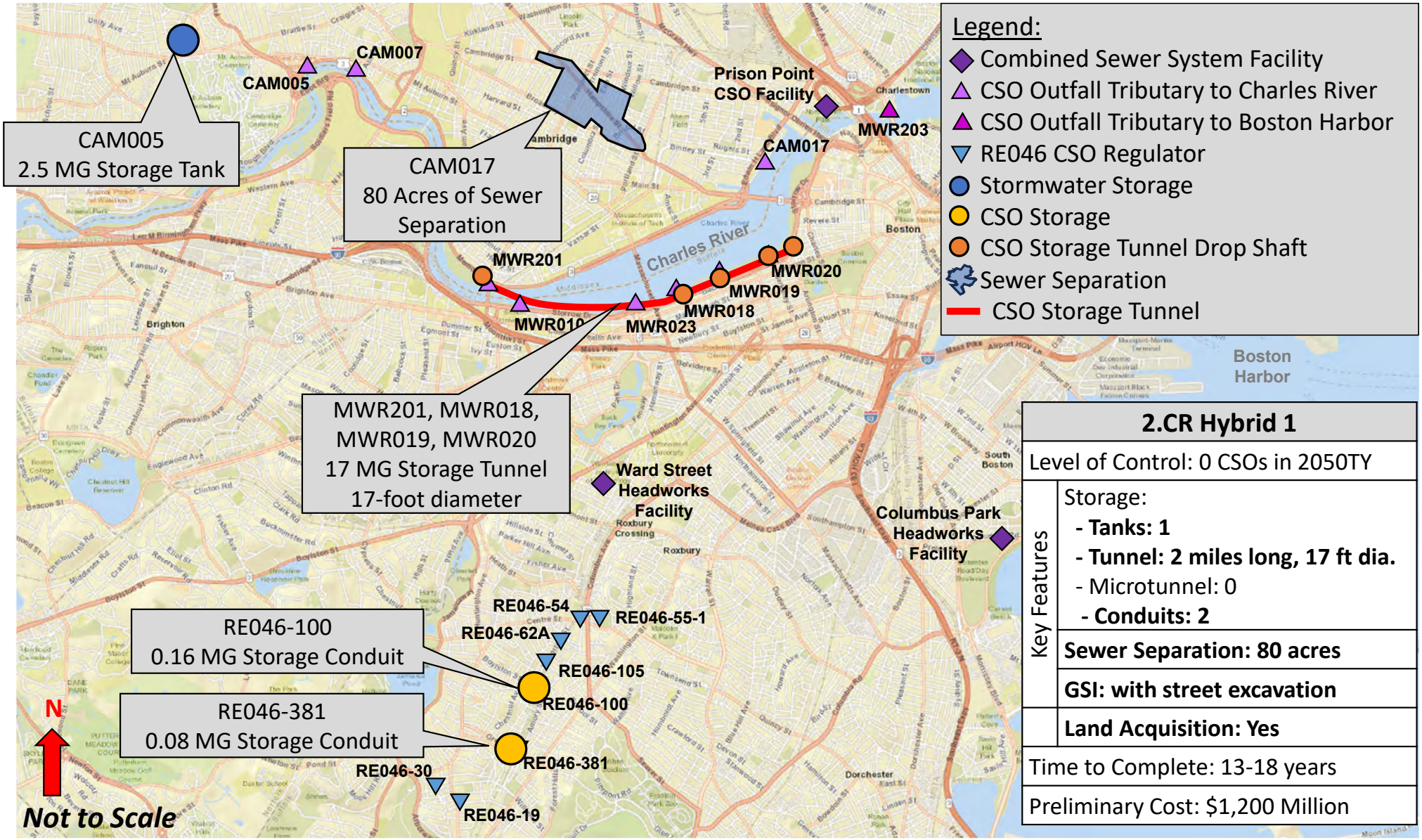
1. Estimated duration shown on the following slides is the approximate time period for construction and timeline to full CSO reduction benefit for each alternative. Some alternatives include the potential for earlier partial benefits.
2. Preliminary estimated costs shown on the following slides are planning level capital cost estimates that are not escalated to mid point of construction.

Charles River: Summary of Alternatives Under Consideration

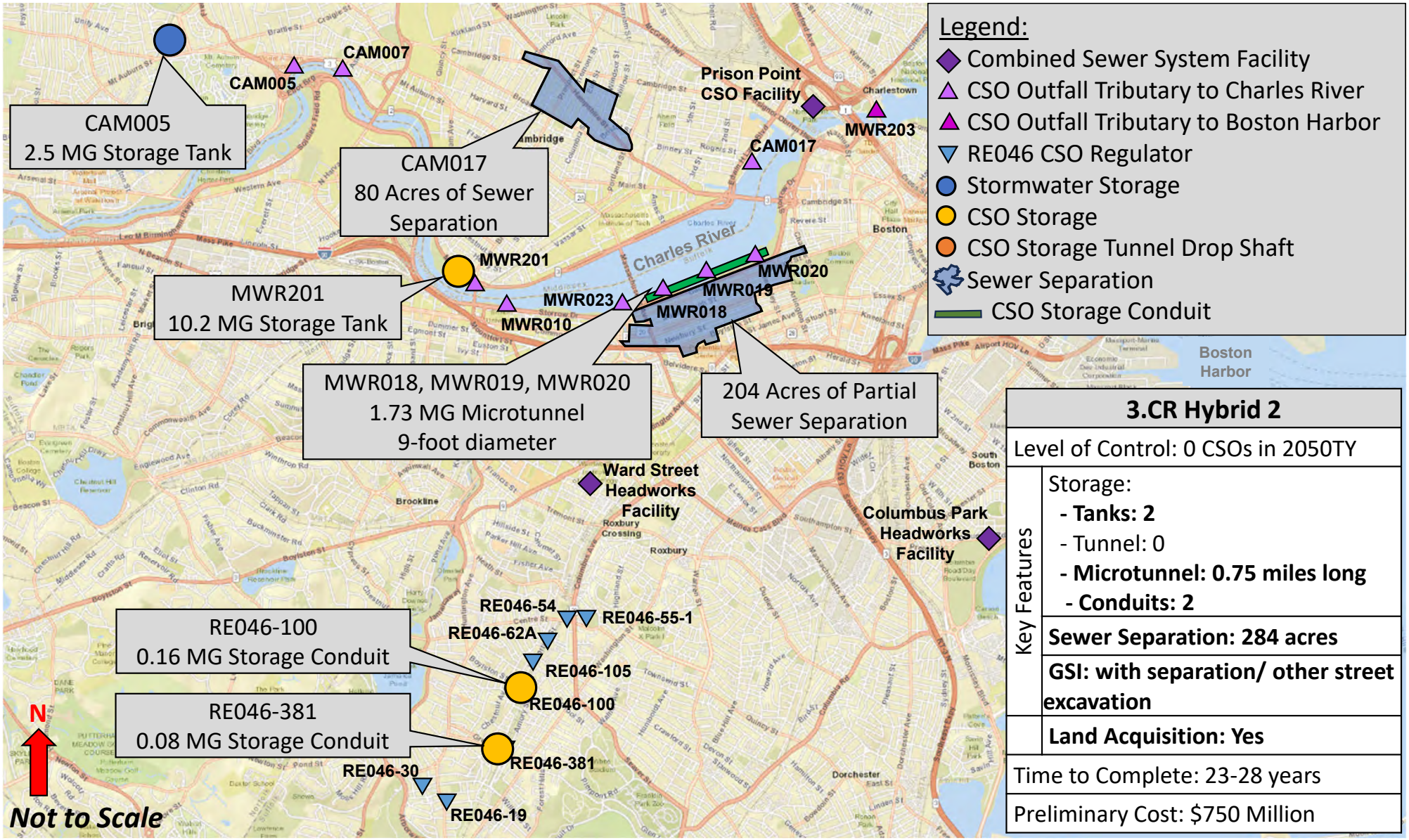
0 CSOs in 2050 Typical Year	Limited CSOs in 2050 Typical Year	0 CSOs in 2050 5-year Storm	0 CSOs in 2050 25-year Storm
1.CR Integrated 2 tanks (3.1 MG) + 2-mile-long deep tunnel (17 ft diameter) + 2 storage conduits	**8.CR Hybrid 1** 1 tank (2.5 MG) + 268 acres of sewer separation + 1 storage conduit	**10.CR Tunnel** 4.5-mile-long deep tunnel (24 ft diameter) +1-mile-long Microtunnel	**12.CR Tunnel** 4.5-mile-long deep tunnel (32 ft diameter)+ 1-mile-long Microtunnel + 1 storage conduit
2.CR Hybrid 1 1 tank (2.5 MG) + 80 acres of sewer separation +2-mile-long deep tunnel (17 ft diameter)			
3.CR Hybrid 2 2 tanks (12.7 MG) + 284 acres of sewer separation +0.75 mile-long Microtunnel + + 2 storage conduits			
4.CR Hybrid 3 2 tanks (12.6 MG) + 446 acres of sewer separation + 2 storage conduits	**9.CR Hybrid 2** 1 tank (2.5 MG) + 80 acres of sewer separation + 0.75 mile-long Microtunnel + storage conduit	**11.CR Tunnel + GSI** 10.CR + GSI (90 acres)	**13.CR Tunnel + GSI** 12.CR + GSI (90 acres)
5.CR Tunnel 4.5-mile-deep tunnel (12 ft diameter) + 2 storage conduits			
6. CR Tunnel + GSI 5.CR + GSI (90 acres)			
	7.CR Full Separation 4,400 acres		



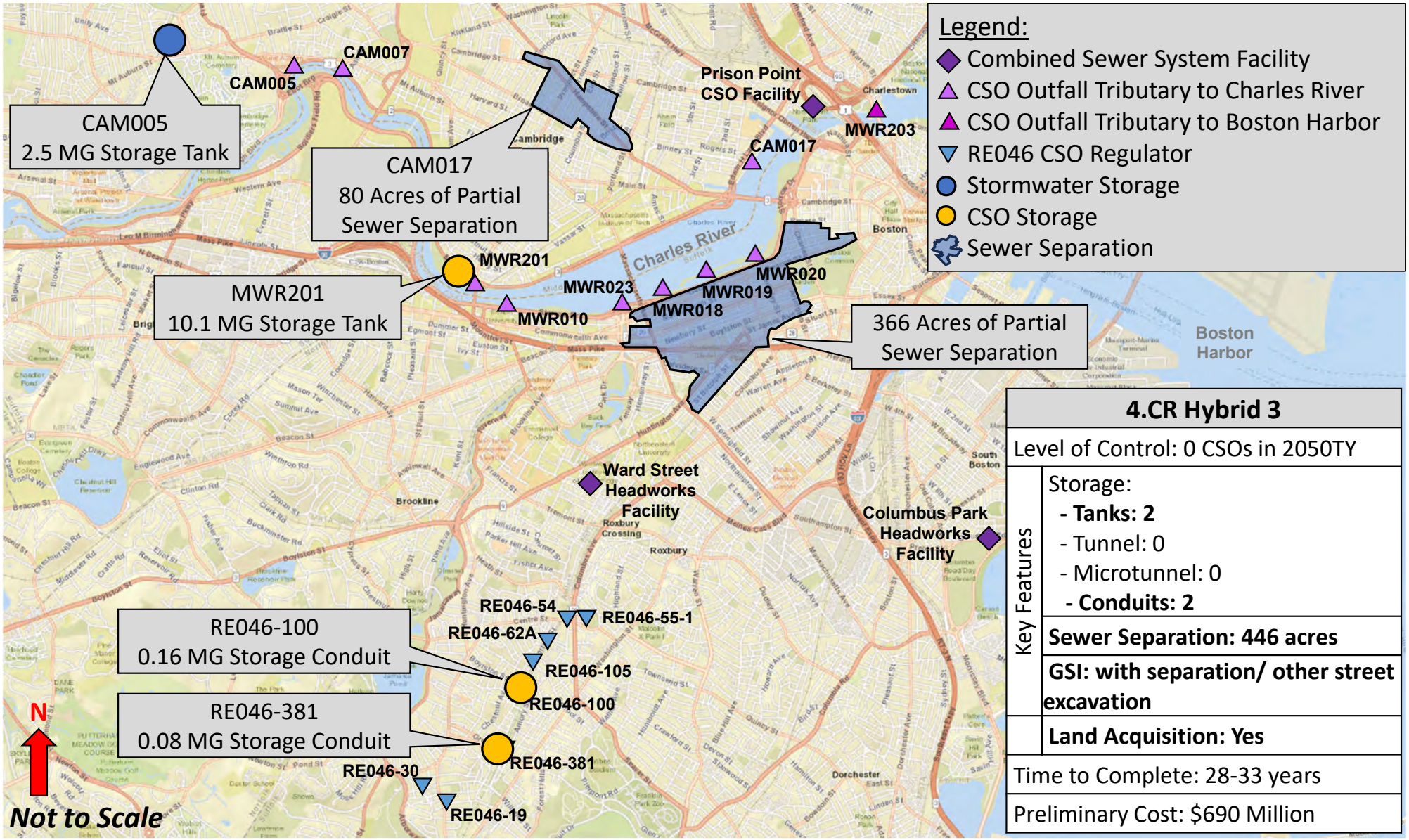
1.CR Integrated	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: **- Tanks: 2** **- Tunnel: 2 miles long, 17 ft dia.** - Microtunnel: 0 **- Conduits: 2**
	Sewer Separation: 0
	GSI: with street excavation
	Land Acquisition: Yes
Time to Complete: 13-18 years	
Preliminary Cost: $1,100 Million	



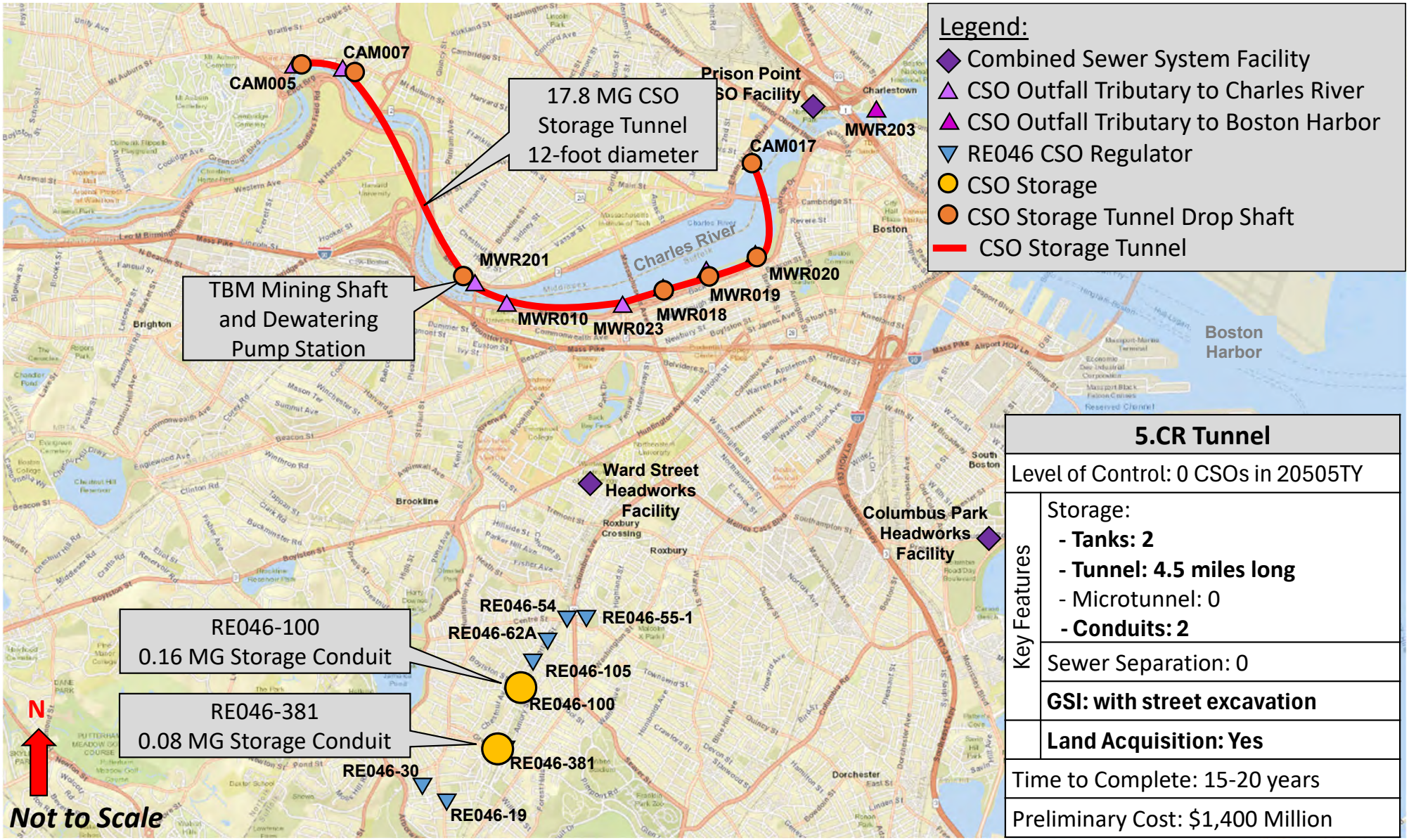
2.CR Hybrid 1	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: **- Tanks: 1** **- Tunnel: 2 miles long, 17 ft dia.** - Microtunnel: 0 **- Conduits: 2**
	Sewer Separation: 80 acres
	GSI: with street excavation
	Land Acquisition: Yes
Time to Complete: 13-18 years	
Preliminary Cost: $1,200 Million	



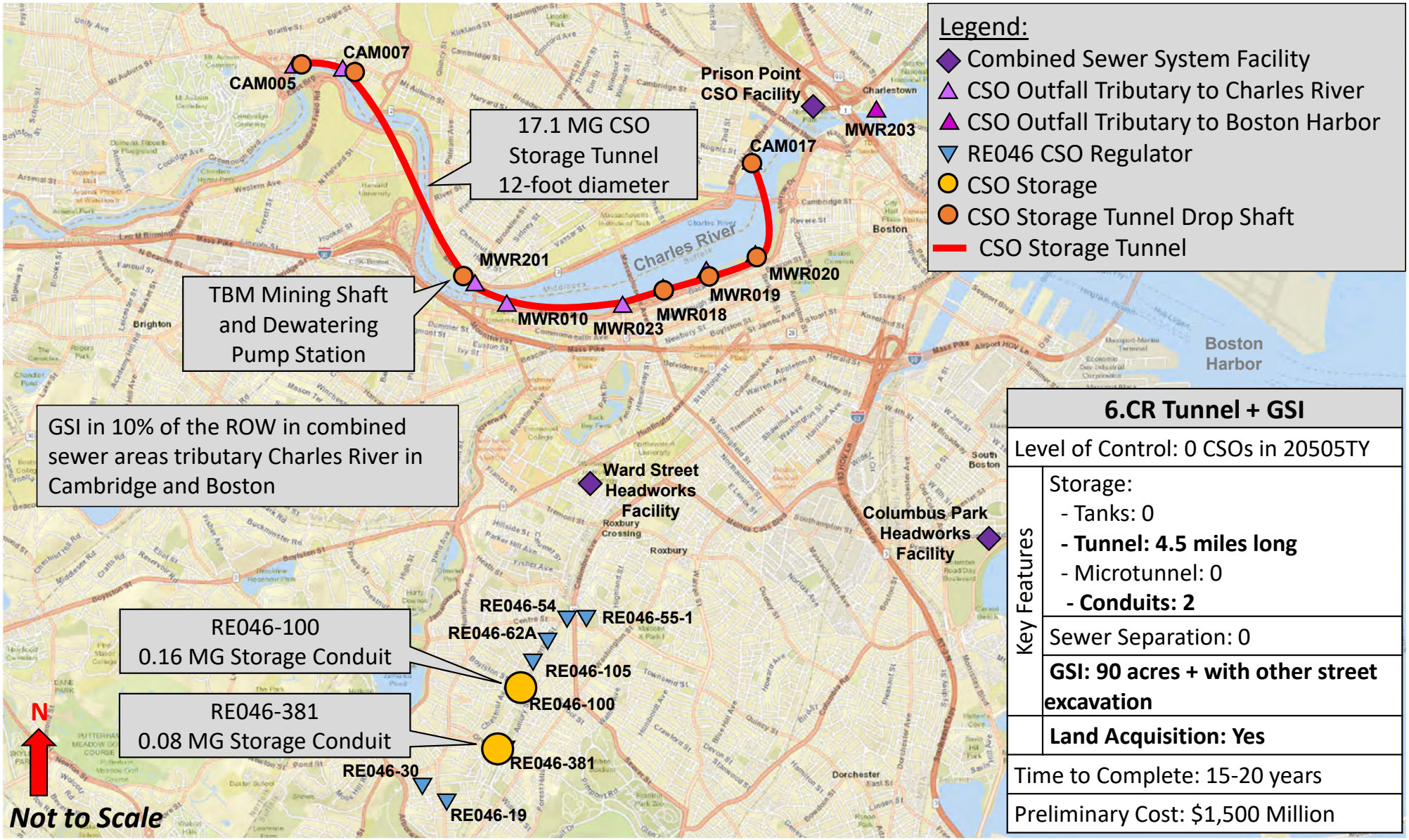
3.CR Hybrid 2	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: **- Tanks: 2** - Tunnel: 0 **- Microtunnel: 0.75 miles long** **- Conduits: 2**
	Sewer Separation: 284 acres
	GSI: with separation/ other street excavation
	Land Acquisition: Yes
Time to Complete: 23-28 years	
Preliminary Cost: $750 Million	



4.CR Hybrid 3	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: **- Tanks: 2** - Tunnel: 0 - Microtunnel: 0 **- Conduits: 2**
	Sewer Separation: 446 acres
	GSI: with separation/ other street excavation
	Land Acquisition: Yes
Time to Complete: 28-33 years	
Preliminary Cost: $690 Million	

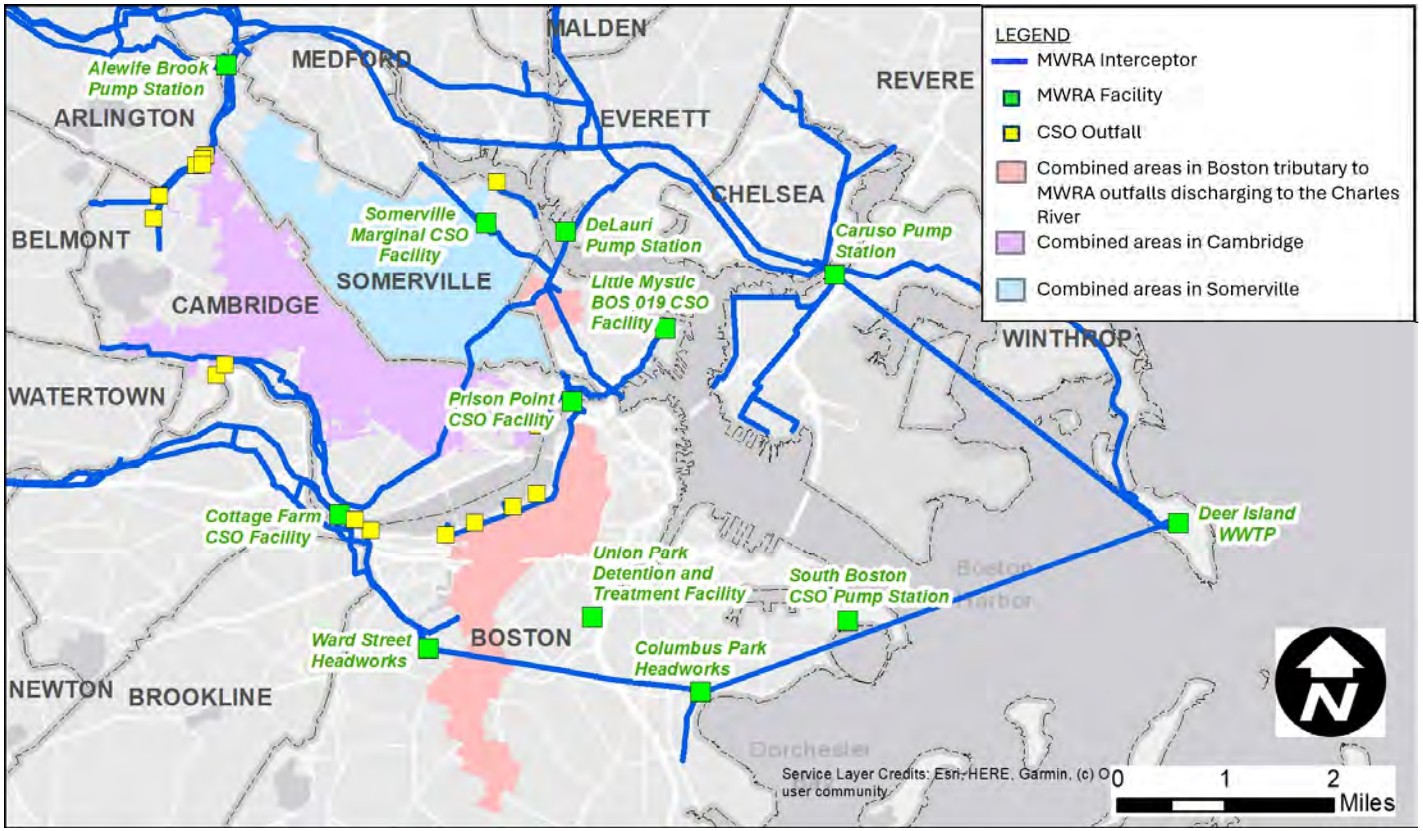


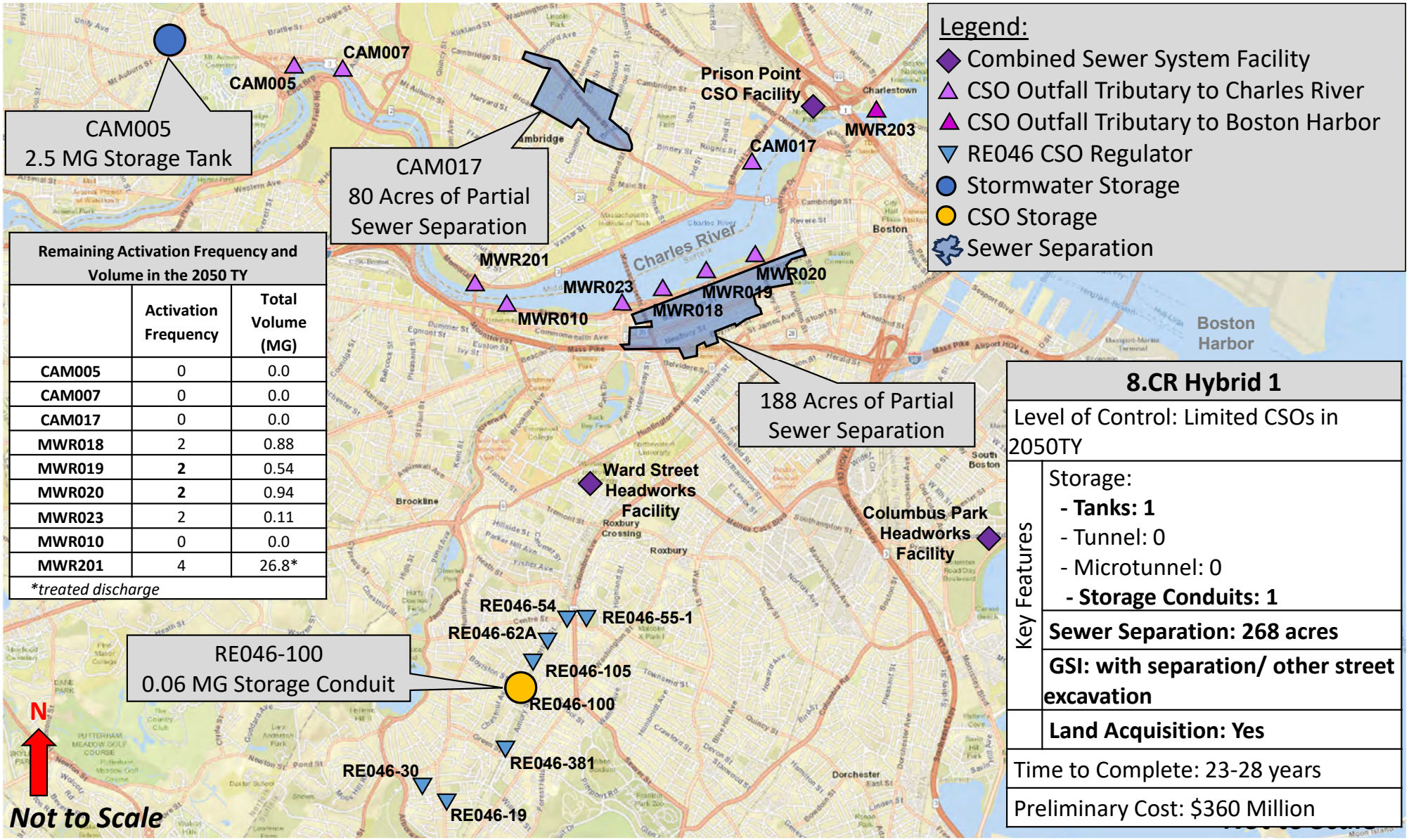
5.CR Tunnel	
Level of Control: 0 CSOs in 20505TY	
Key Features	Storage: **- Tanks: 2** **- Tunnel: 4.5 miles long** - Microtunnel: 0 **- Conduits: 2**
	Sewer Separation: 0
	GSI: with street excavation
	Land Acquisition: Yes
Time to Complete: 15-20 years	
Preliminary Cost: $1,400 Million	



6.CR Tunnel + GSI	
Level of Control: 0 CSOs in 20505TY	
Key Features	Storage: - Tanks: 0 **- Tunnel: 4.5 miles long** - Microtunnel: 0 **- Conduits: 2**
	Sewer Separation: 0
	GSI: 90 acres + with other street excavation
	Land Acquisition: Yes
Time to Complete: 15-20 years	
Preliminary Cost: $1,500 Million	

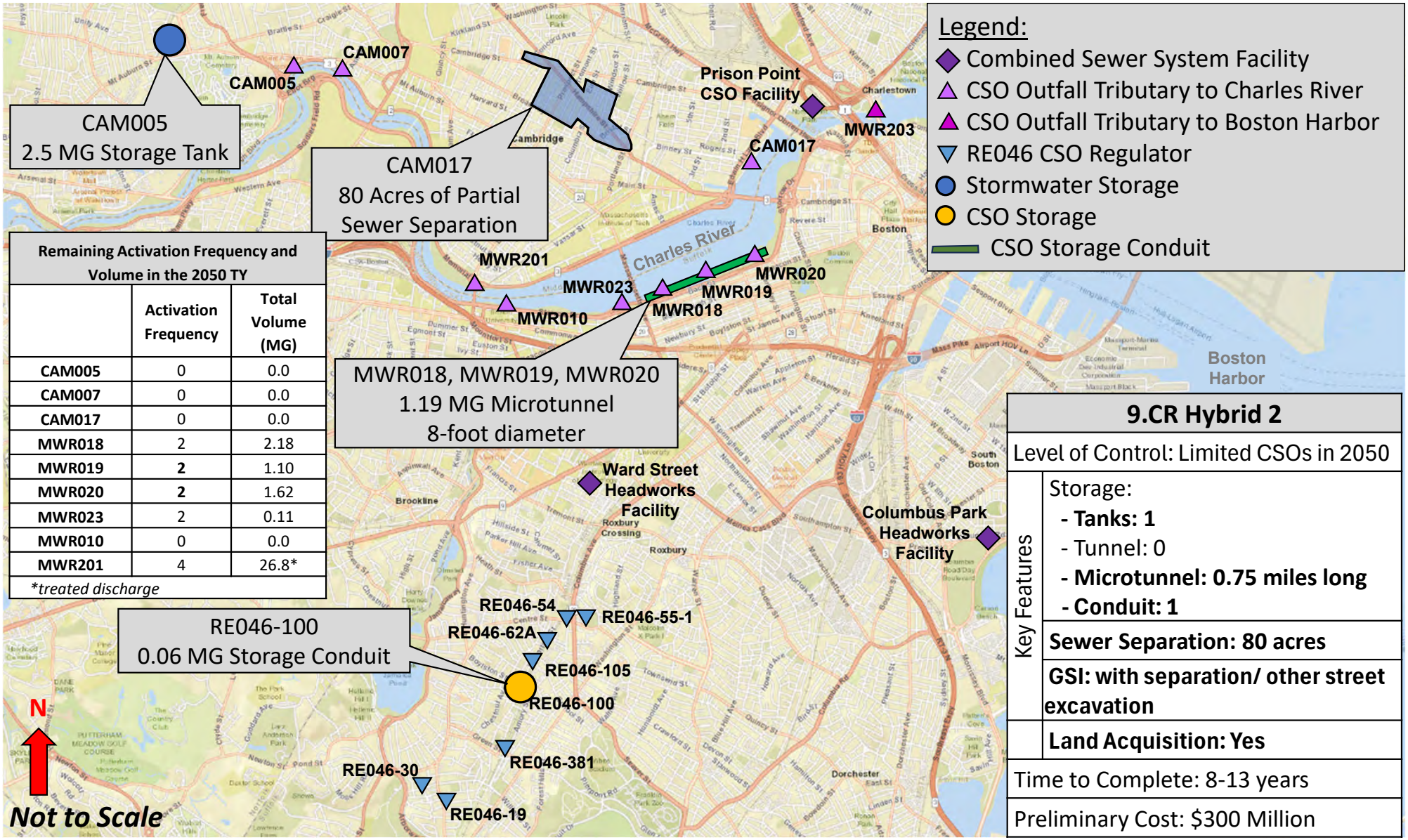
7.CR Sewer Separation	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: - Tanks: 0 - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 4,400 acres
	GSI: with separation
	Land Acquisition: Yes
Time to Complete: 50+ years	
Preliminary Cost: $4,500 Million	





Remaining Activation Frequency and Volume in the 2050 TY		
	Activation Frequency	Total Volume (MG)
CAM005	0	0.0
CAM007	0	0.0
CAM017	0	0.0
MWR018	2	0.88
MWR019	**2**	0.54
MWR020	**2**	0.94
MWR023	2	0.11
MWR010	0	0.0
MWR201	4	26.8*
**treated discharge*		

8.CR Hybrid 1	
Level of Control: Limited CSOs in 2050TY	
Key Features	Storage: **- Tanks: 1** - Tunnel: 0 - Microtunnel: 0 **- Storage Conduits: 1**
	Sewer Separation: 268 acres
	GSI: with separation/ other street excavation
	Land Acquisition: Yes
Time to Complete: 23-28 years	
Preliminary Cost: $360 Million	



Legend:

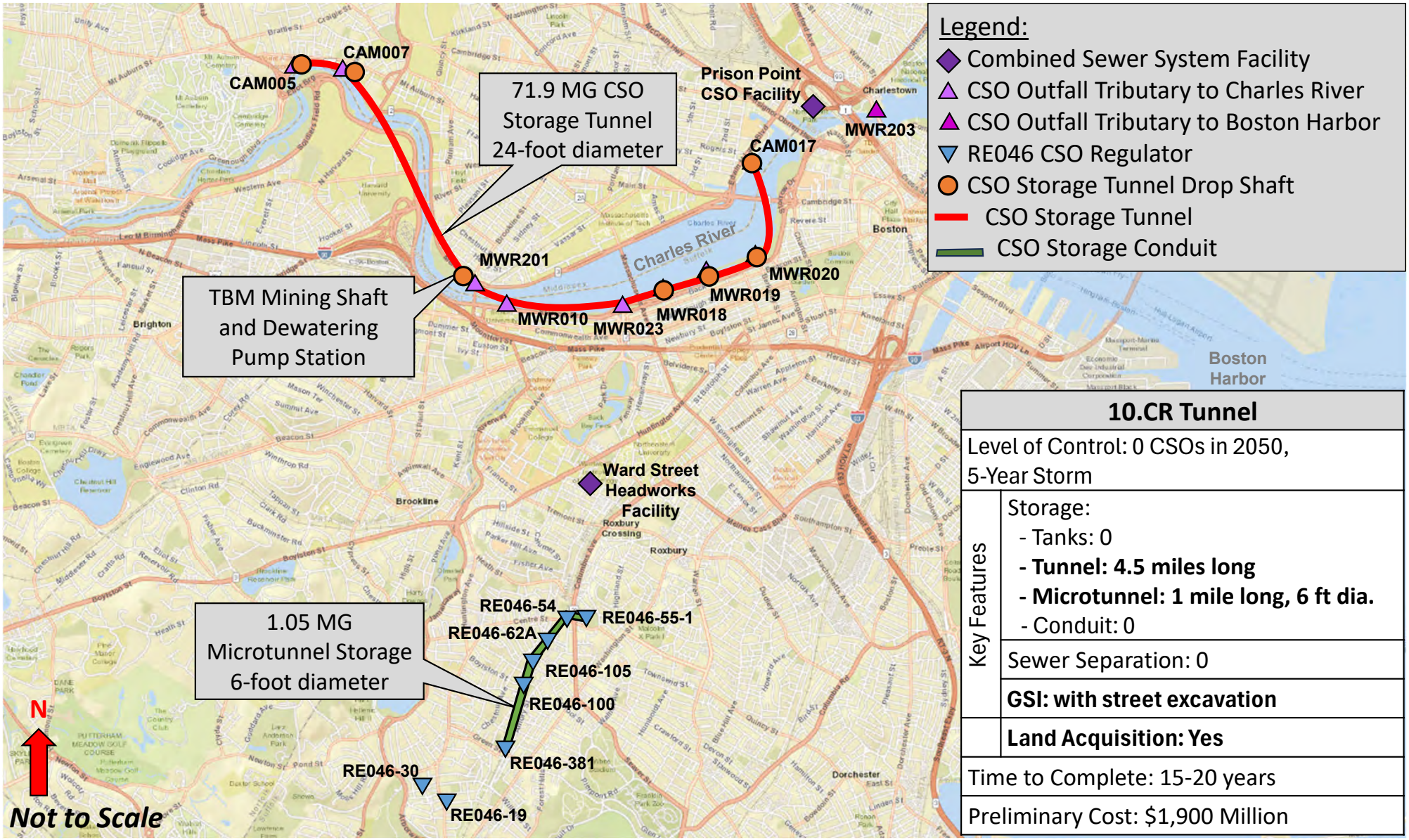
- Combined Sewer System Facility
- CSO Outfall Tributary to Charles River
- CSO Outfall Tributary to Boston Harbor
- RE046 CSO Regulator
- Stormwater Storage
- CSO Storage
- CSO Storage Conduit

Remaining Activation Frequency and Volume in the 2050 TY

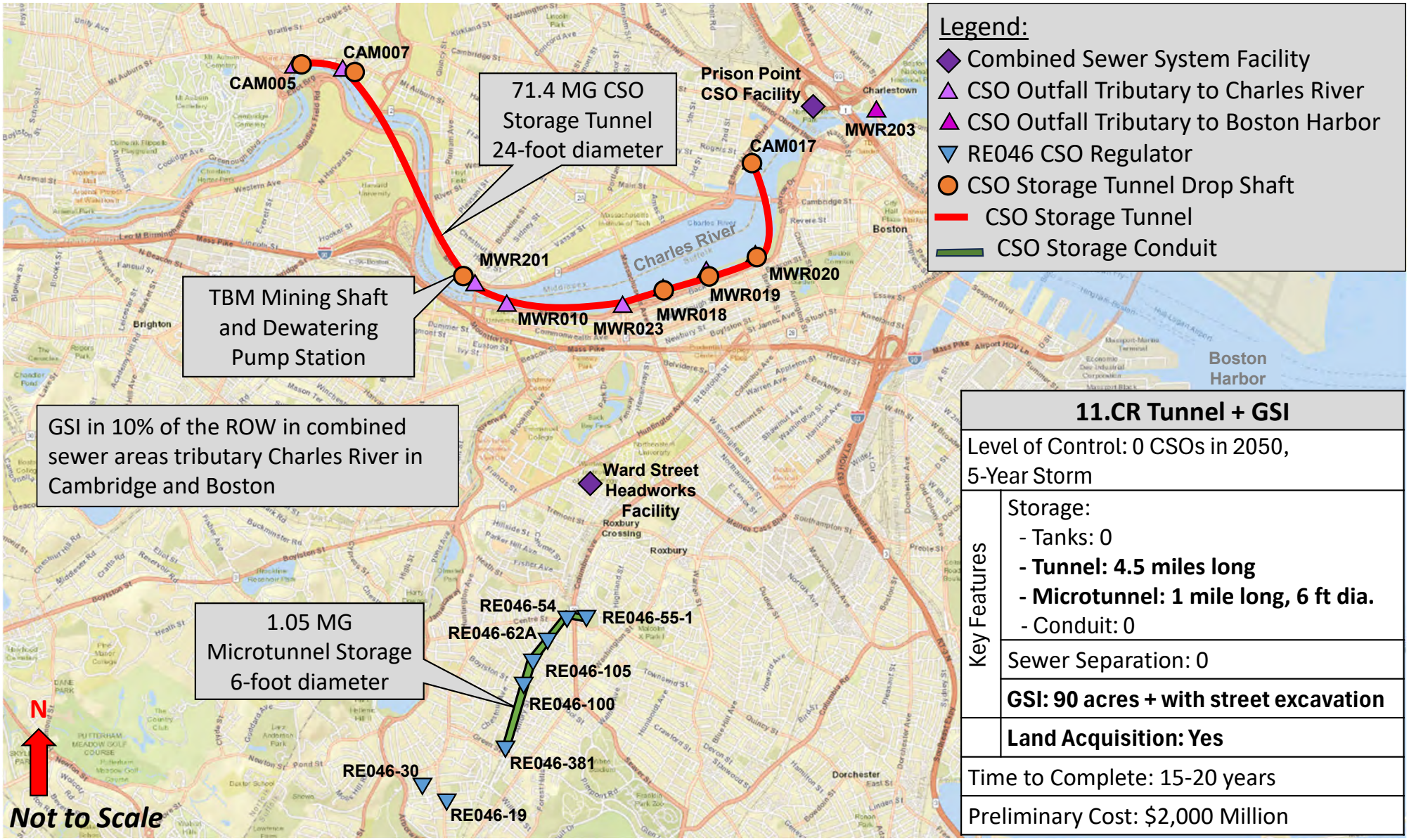
	Activation Frequency	Total Volume (MG)
CAM005	0	0.0
CAM007	0	0.0
CAM017	0	0.0
MWR018	2	2.18
MWR019	**2**	1.10
MWR020	**2**	1.62
MWR023	2	0.11
MWR010	0	0.0
MWR201	4	26.8*

**treated discharge*

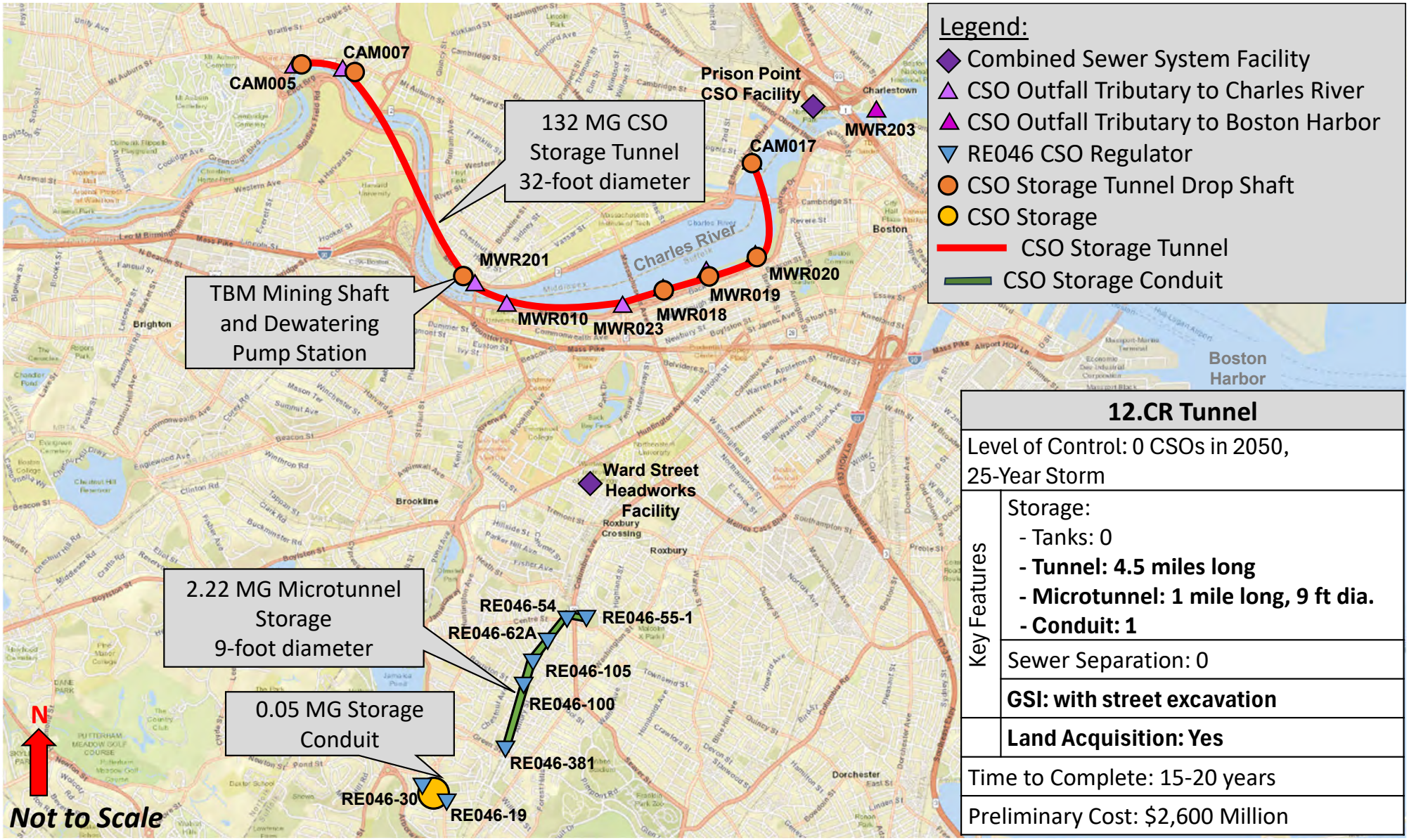
9.CR Hybrid 2	
Level of Control: Limited CSOs in 2050	
Key Features	Storage: **- Tanks: 1** - Tunnel: 0 **- Microtunnel: 0.75 miles long** **- Conduit: 1**
	Sewer Separation: 80 acres
	GSI: with separation/ other street excavation
	Land Acquisition: Yes
Time to Complete: 8-13 years	
Preliminary Cost: $300 Million	



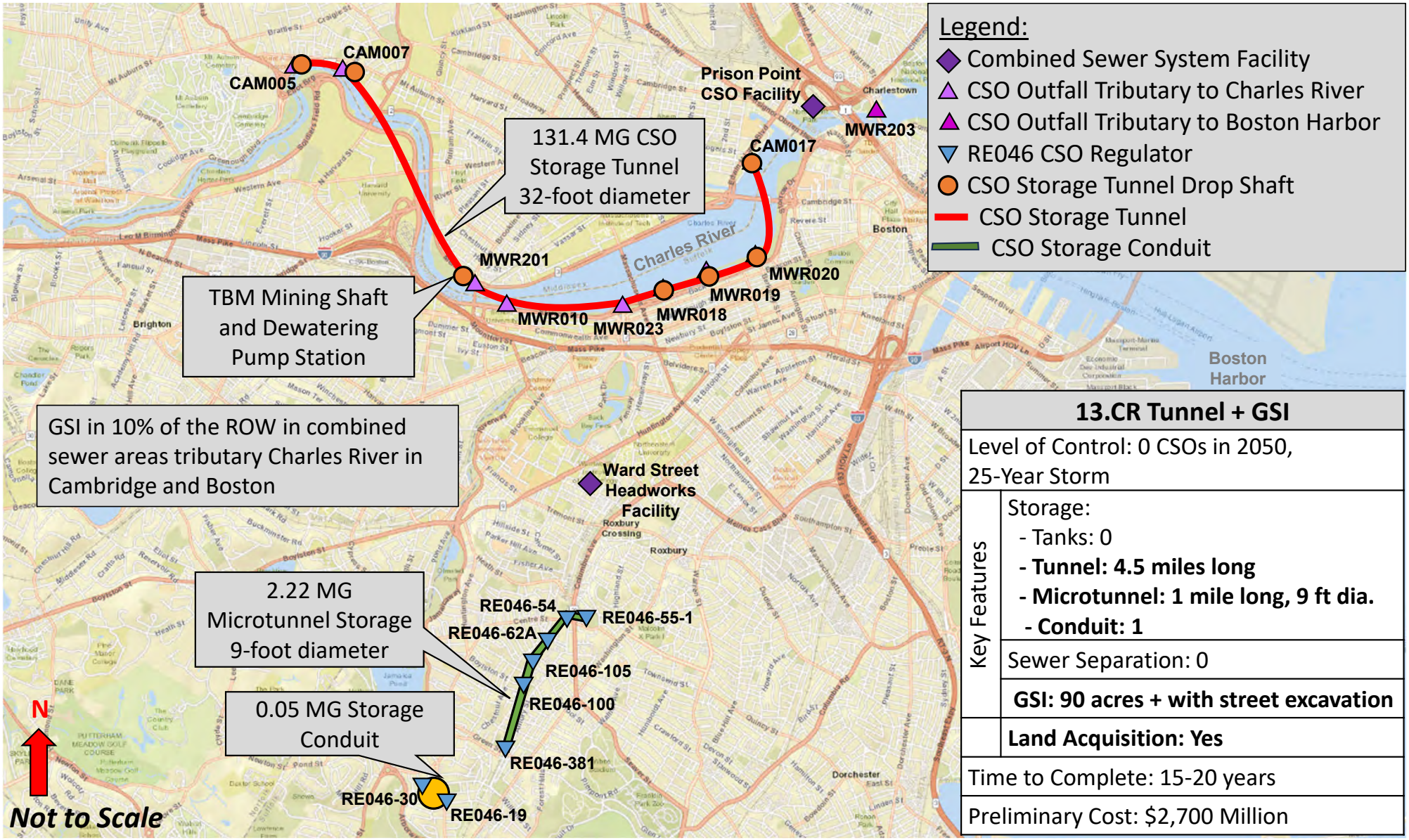
10.CR Tunnel	
Level of Control: 0 CSOs in 2050, 5-Year Storm	
Key Features	Storage: - Tanks: 0 **- Tunnel: 4.5 miles long** **- Microtunnel: 1 mile long, 6 ft dia.** - Conduit: 0
	Sewer Separation: 0
	GSI: with street excavation
	Land Acquisition: Yes
Time to Complete: 15-20 years	
Preliminary Cost: $1,900 Million	



11.CR Tunnel + GSI	
Level of Control: 0 CSOs in 2050, 5-Year Storm	
Key Features	Storage: - Tanks: 0 **- Tunnel: 4.5 miles long** **- Microtunnel: 1 mile long, 6 ft dia.** - Conduit: 0
	Sewer Separation: 0
	GSI: 90 acres + with street excavation
	Land Acquisition: Yes
Time to Complete: 15-20 years	
Preliminary Cost: $2,000 Million	



12.CR Tunnel	
Level of Control: 0 CSOs in 2050, 25-Year Storm	
Key Features	Storage: - Tanks: 0 **- Tunnel: 4.5 miles long** **- Microtunnel: 1 mile long, 9 ft dia.** **- Conduit: 1**
	Sewer Separation: 0
	GSI: with street excavation
	Land Acquisition: Yes
Time to Complete: 15-20 years	
Preliminary Cost: $2,600 Million	

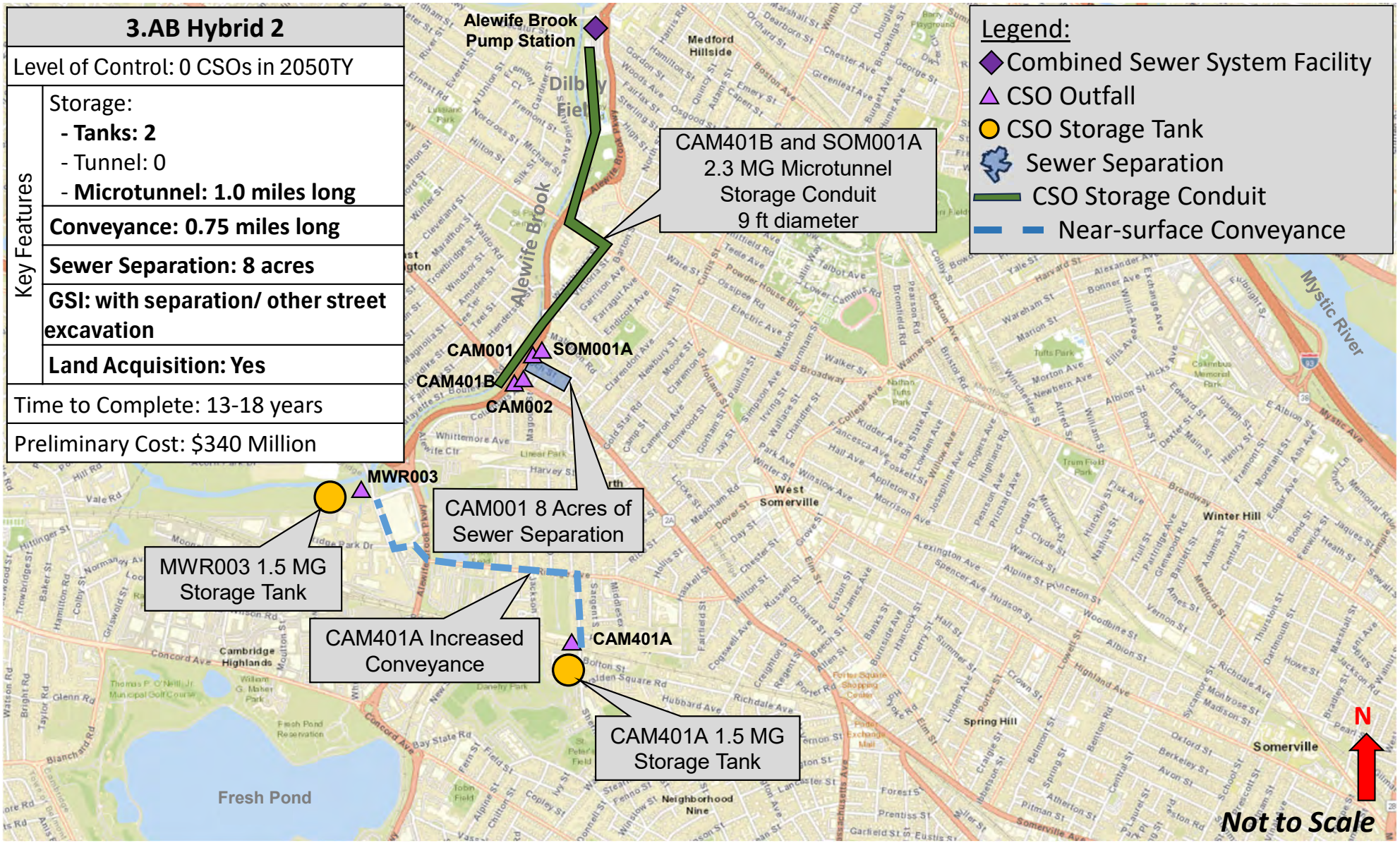


13.CR Tunnel + GSI	
Level of Control: 0 CSOs in 2050, 25-Year Storm	
Key Features	Storage: - Tanks: 0 **- Tunnel: 4.5 miles long** **- Microtunnel: 1 mile long, 9 ft dia.** **- Conduit: 1**
	Sewer Separation: 0
	GSI: 90 acres + with street excavation
	Land Acquisition: Yes
Time to Complete: 15-20 years	
Preliminary Cost: $2,700 Million	

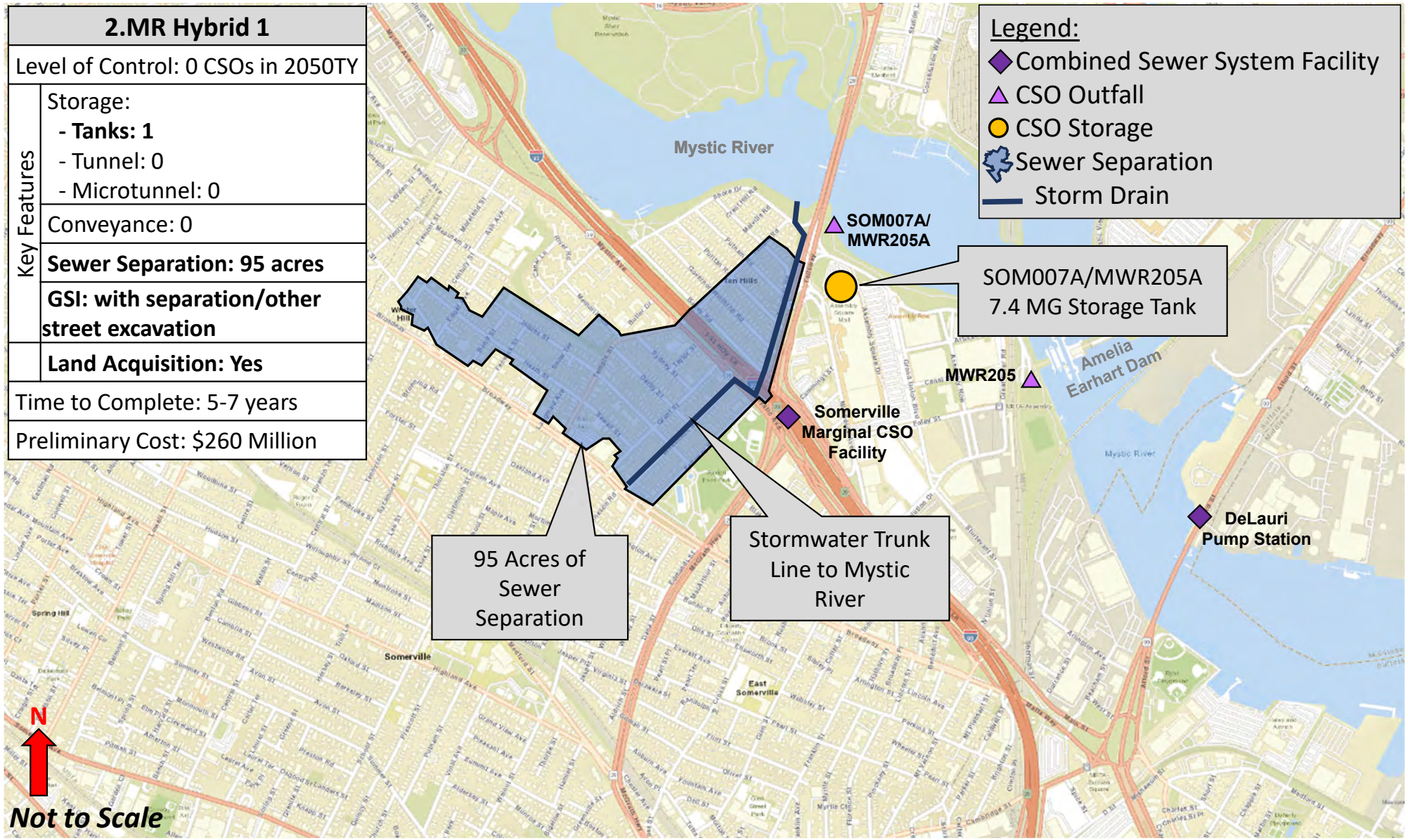
Attachment B
Recommended Alternatives

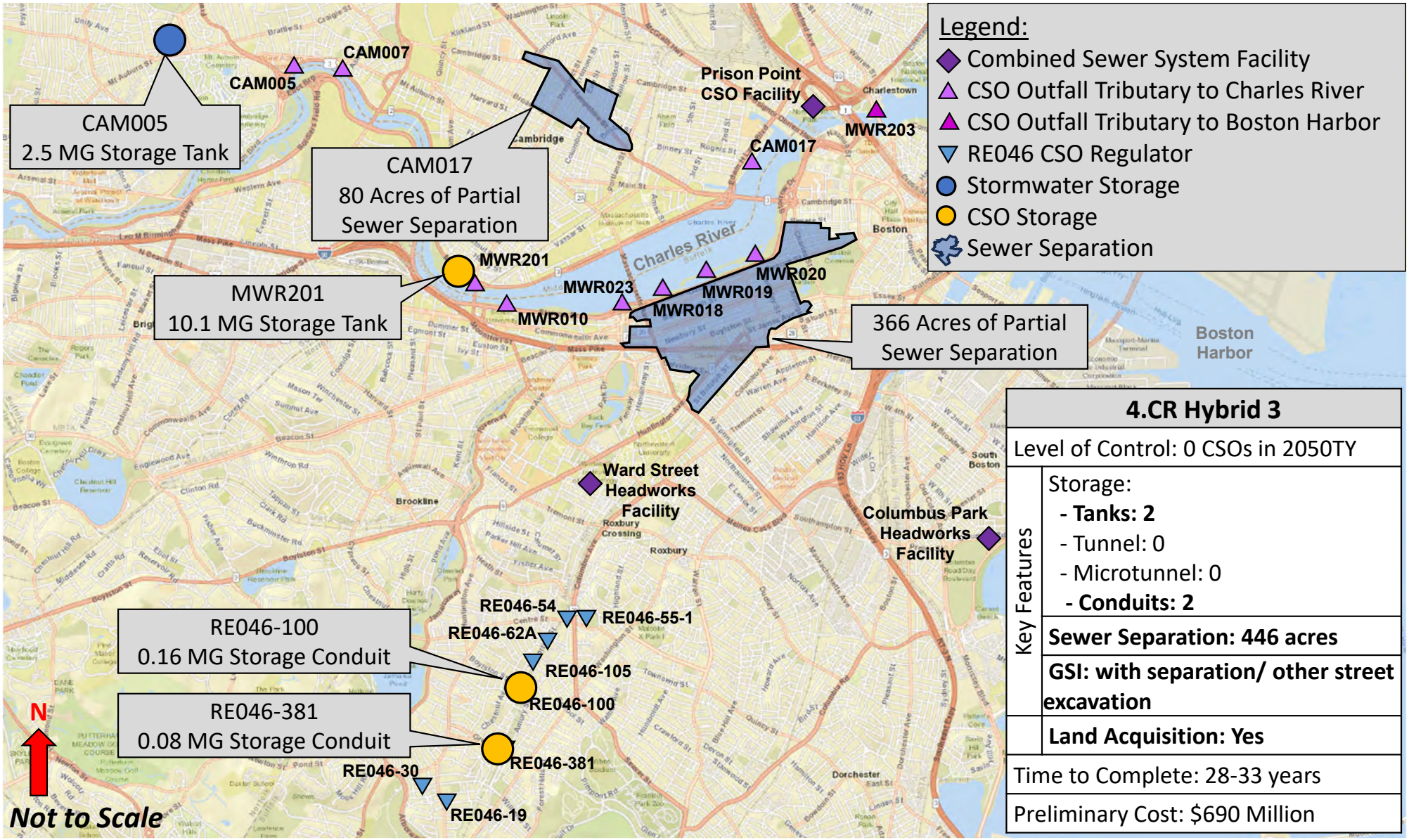
Notes:

1. Estimated duration shown on the following slides is the approximate time period for construction and timeline to full CSO reduction benefit for each alternative. Some alternatives include the potential for earlier partial benefits.
2. Preliminary estimated costs shown on the following slides are planning level capital cost estimates that are not escalated to mid point of construction.


3.AB Hybrid 2
Level of Control: 0 CSOs in 2050TY
Key Features
Storage:
- Tanks: 2
- Tunnel: 0
- Microtunnel: 1.0 miles long
Conveyance: 0.75 miles long
Sewer Separation: 8 acres
GSI: with separation/ other street excavation
Land Acquisition: Yes
Time to Complete: 13-18 years
Preliminary Cost: $340 Million
Legend:
Combined Sewer System Facility
CSO Outfall
CSO Storage Tank
Sewer Separation
CSO Storage Conduit
Near-surface Conveyance
Alewife Brook Pump Station
CAM401B and SOM001A 2.3 MG Microtunnel Storage Conduit 9 ft diameter
CAM001
SOM001A
CAM401B
CAM002
MWR003
CAM001 8 Acres of Sewer Separation
MWR003 1.5 MG Storage Tank
CAM401A Increased Conveyance
CAM401A
CAM401A 1.5 MG Storage Tank
Alewife Brook
Mystic River
Fresh Pond
Somerville
N
Not to Scale

2.MR Hybrid 1	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: **- Tanks: 1** - Tunnel: 0 - Microtunnel: 0
	Conveyance: 0
	Sewer Separation: 95 acres
	GSI: with separation/other street excavation
	Land Acquisition: Yes
Time to Complete: 5-7 years	
Preliminary Cost: $260 Million	





4.CR Hybrid 3	
Level of Control: 0 CSOs in 2050TY	
Key Features	Storage: **- Tanks: 2** - Tunnel: 0 - Microtunnel: 0 **- Conduits: 2**
	Sewer Separation: 446 acres
	GSI: with separation/ other street excavation
	Land Acquisition: Yes
Time to Complete: 28-33 years	
Preliminary Cost: $690 Million	

Attachment C
Scoring Rubric

CSO Control - MWRA, Cambridge, Somerville - Alternative Scoring
Working Draft

ALTERNATIVE INFORMATION		
	Level of CSO Control	
	Preliminary Capital Cost ($M)	
	Timeline to Implementation	
	Net Present Value	
	Impact on Vulnerable Populations	
	Regulatory Risk	
	Site Acquisition Risk	
BENEFITS EVALUATION		
	Evaluation Criterion	**Scoring Rubric**
CSO Performance-related Criteria	**Water Quality Impact; improve/reduce phosphorus loads**	Quantitative evaluation. 5 - Greatest net reduction in phosphorous load to variance waterways 0 - No change in phospohrous load to variance waterways Any increase in phosphorous loads to variace waterways gets a score of zero and is documented "above the line"
	Schedule: minimize duration to CSO Reduction Benefit	5 - <5y to full CSO benefit 4 - 6-15 +/- yrs to full CSO Benefit 3 - 16-25 +/- yrs to full CSO Benefit 2 - 26-35 +/- yrs to full CSO Benefit 1 - >35 yrs to full CSO benefit to full CSO Benefit +1 point for early/interim meaningful CSO benefit
Construction-related Criteria	**Minimize Construction Impacts**	Average of two subcriteria
	Impacts to Public Uses during Construction	5 - Relatively limited interruption to access and use of public facilities, including major arteries (consider degree/duration of disruption, and populations impacted) 3 - Relatively moderate interruption 1 - More extensive interruption
	Neighborhood Impacts during Construction	5 - Relatively limited construction impacts to neighborhoods (noise, dust, vibration, lighting, truck traffic) (consider intensity/duration of impact and popluations impacted) 3 - Relatively Moderate impacts 1 - More extensive impacts
	Minimize Construction Complexity/Risk	Average of two subcriteria
	Depth to Excavation	5 - Shallowest excavation e.g. pipes < 20 feet 3 - Deeper excavation e.g. tank 20 to 50 ft 1 - Deepest excavation e.g. tunnel >50 ft
	Construction Complexity	5 - Traditional construction/limited constraints 3 - Moderately complex sequencing/constraints 1 - Relatively complex sequencing/site constraints/potential impact to existing infrastructure
Operations/Maintenance/ Resiliency-related Criteria	**Operation and Maintenance/Safety Considerations**	5 - Relatively minimal additional O&M activities/safety risks 3 - Moderate additional O&M activities/safety risks; typical access requirements 1 - Substantial additional O&M activities and/or challenging access/safety risks
	Resiliency and Adaptability	5 - Can be readily modified/expanded to accommodate future conditions (rainfall, regulations, etc) 3 - Modification/expansion is possible but economies of scale are limited. 1 - Does not include provisions for future modification/expansion.
	Opportunity to Upgrade Existing Infrastructure	5 - Rehabilitates existing critical sewer infrastructure in poor condition 3 - Includes notable rehabilitation (larger assets, larger areas, and/or areas with poorer condition scores) 1 - Includes minimal rehabilitation (smaller assets and/or smaller areas)
Community/Ancillary Benefits Criteria	**Flooding: Reduce sewer/stormwater flood risk**	Quantitative evaluation (proportional to a scale of 5 points) 5 - Greatest number of manhole nodes with a reduced risk of flooding. 0 - No improvement to flood risk
	Community Co-benefits and Long-term Site Impacts	Average of subcriteria
	Community Co-benefits	5 - Offers notable co-benefits in more categories, serving larger populations, and/or contributing to identified areas of need (green space, complete streets, utility renewal, recreation, groundwater replenishment, renewable energy production, damage reduction in flood-vulnerable areas) 3 - Offers notable co-benefits in one category, serving medium populations 1 - Offers some co-benefits reaching small populations 0 - no co-benefit opportunities
	Permanent Impacts to Public Uses	5 - Relatively minimal permanent impact to existing public uses, negatively impacting small populations 3 - Relatively moderate permanent impact to existing public uses, affecting medium
	Impacts to Non-Variance CSOs	Quantitative evaluation (proportional to a scale of 5 points) 5 - Greatest reduction in CSO volume to non-variance waters 0 - No change to CSO volume to non-variance waters Any increase in CSO volume to non-variance waters gets a score of zero and is documented "above the line"

Attachment D

Share of Total Sewer Assessment Increase Related to CSO Spending by Control Level 2029 - 2050

Massachusetts Water Resources Authority
Share of Total Sewer Assessment Increase Related to CSO Spending by Control level
2029 - 2050

Community	Average Share of Sewer Assessment[1]	2050 Typical Year	2050 5-Year Storm	2050 25-Year Storm
Arlington	1.76%	$ 16,822,529	$ 38,464,580	$ 50,389,701
Ashland	0.54%	$ 5,178,768	$ 11,841,213	$ 15,512,328
Bedford	0.72%	$ 6,858,254	$ 15,681,344	$ 20,543,009
Belmont	1.06%	$ 10,075,247	$ 23,036,973	$ 30,179,095
Boston Water and Sewer Commission	28.60%	$ 272,890,957	$ 623,963,011	$ 817,409,406
Braintree	2.01%	$ 19,139,515	$ 43,762,350	$ 57,329,932
Brookline	2.65%	$ 25,314,171	$ 57,880,652	$ 75,825,311
Burlington	1.15%	$ 11,001,600	$ 25,155,071	$ 32,953,863
Cambridge	5.38%	$ 51,309,999	$ 117,319,906	$ 153,692,436
Canton	0.92%	$ 8,770,276	$ 20,053,167	$ 26,270,223
Chelsea	1.73%	$ 16,512,959	$ 37,756,749	$ 49,462,422
Dedham	1.17%	$ 11,144,153	$ 25,481,018	$ 33,380,863
Everett	1.85%	$ 17,675,544	$ 40,414,992	$ 52,944,797
Framingham	2.69%	$ 25,699,269	$ 58,761,175	$ 76,978,822
Hingham Sewer District	0.40%	$ 3,781,879	$ 8,647,236	$ 11,328,126
Holbrook	0.37%	$ 3,564,510	$ 8,150,224	$ 10,677,027
Lexington	1.59%	$ 15,213,840	$ 34,786,326	$ 45,571,082
Malden	2.74%	$ 26,119,563	$ 59,722,173	$ 78,237,756
Medford	2.51%	$ 23,934,416	$ 54,725,852	$ 71,692,433
Melrose	1.33%	$ 12,692,678	$ 29,021,709	$ 38,019,269
Milton	1.16%	$ 11,087,517	$ 25,351,521	$ 33,211,218
Natick	1.21%	$ 11,541,185	$ 26,388,829	$ 34,570,122
Needham	1.28%	$ 12,244,792	$ 27,997,620	$ 36,677,684
Newton	4.44%	$ 42,316,678	$ 96,756,748	$ 126,754,110
Norwood	1.63%	$ 15,579,338	$ 35,622,033	$ 46,665,883
Quincy	4.25%	$ 40,544,196	$ 92,703,982	$ 121,444,870
Randolph	1.34%	$ 12,763,892	$ 29,184,538	$ 38,232,580
Reading	1.03%	$ 9,808,828	$ 22,427,808	$ 29,381,071
Revere	2.24%	$ 21,347,980	$ 48,811,987	$ 63,945,100
Somerville	3.37%	$ 32,113,415	$ 73,427,068	$ 96,191,562
Stoneham	1.03%	$ 9,844,637	$ 22,509,684	$ 29,488,330
Stoughton	1.05%	$ 10,007,901	$ 22,882,986	$ 29,977,367
Wakefield	1.29%	$ 12,305,733	$ 28,136,960	$ 36,860,223
Walpole	0.83%	$ 7,913,533	$ 18,094,230	$ 23,703,959
Waltham	2.80%	$ 26,689,532	$ 61,025,403	$ 79,945,025
Watertown	1.31%	$ 12,527,806	$ 28,644,728	$ 37,525,414
Wellesley	1.20%	$ 11,443,012	$ 26,164,357	$ 34,276,056
Westwood	0.61%	$ 5,806,459	$ 13,276,423	$ 17,392,494
Weymouth	2.61%	$ 24,875,109	$ 56,876,739	$ 74,510,156
Wilmington	0.59%	$ 5,653,609	$ 12,926,933	$ 16,934,652
Winchester	0.89%	$ 8,530,085	$ 19,503,971	$ 25,550,760
Winthrop	0.74%	$ 7,034,809	$ 16,085,035	$ 21,071,856
Woburn	1.93%	$ 18,394,874	$ 42,059,733	$ 55,099,454
Total	**100.00%**	**$ 954,075,047**	**$ 2,181,485,037**	**$ 2,857,807,847**
		$ -		

1. Sewer assessment share based on average of shares between fiscal years 2017 and 2026.

Received 1/21/26

City of Newton
Department of Planning & Community Development
1000 Commonwealth Avenue, Newton, Massachusetts 02459
(617) 796-1120 | newtonma.gov/planning

Marc C. Laredo
Mayor

Katie Whewell
Acting Director

January 8, 2026

To: Massachusetts Water Resources Authority Board of Directors

Via: Kristin.MacDougall@mwra.com

From: Newton Conservation Commission

RE: Updated Combined Sewer Overflow (CSO) Control Plan

We urge MWRA, Cambridge, and Somerville to reevaluate the alternatives in the next draft of the Updated Combined Sewer Overflow (CSO) Control Plan and reconsider their respective recommendations to ensure compliance with the federal Clean Water Act and the Massachusetts Surface Water Quality Standards.

Currently, tens of millions of gallons of sewage-filled stormwater are discharged into the river every year through CSOs. Any approach that would result in a greater number of activations and/or an increased volume of sewage entering the Charles River is not acceptable. We stand in stern opposition to any attempts to downgrade the water quality standards classification of the Charles River to a Class B (CSO).

The Charles is much cleaner than it used to be, and MWRA, along with all the municipalities addressing their discharges, is to be commended. We want to build on those improvements, not go backwards. Our residents and visitors want and deserve a clean and healthy Charles River.

Newton is investing millions to clean up the Charles River through its Stormwater Infrastructure Improvement Plan and its MS4 permit obligations. We are asking you to do your part.

Sincerely,

Jennifer Steel

Chief Environmental Planner
On behalf of the Newton Conservation Commission and Conservation Office

Cc: Todd Borci, Charles River Enforcement, USEPA borci.todd@epa.gov
Ken Moraff, Water Division Director, USEPA Region 1 kenneth.moraff@epa.gov
Eric Worrall, Regional Dir, MassDEP Northeast Regional Office Eric.Worrall@mass.gov
Kathy Murtagh, Chief Operating Officer, MWRA kathy.murtagh@mwra.com
Brian Kubaska, Chief Engineer, MWRA brian.kubaska@mwra.com
Richard Raiche, Dir. of Infrast. & Asset Mgt, City of Somerville rraiche@somervillema.gov
Lucica Hiller, Senior Project Manager, City of Cambridge lhiller@somervillema.gov

The Commonwealth of Massachusetts

General Court

January 15, 2026

Board of Directors
Massachusetts Water Resources Authority
Deer Island, 33 Tafts Avenue
Boston, Massachusetts 02128

To the board of the Massachusetts Water Resources Authority (MWRA),

We are writing regarding the next Long Term Control Plan (LTCP) for the Charles River. As elected officials representing residents within the Charles River watershed, we write to express our respectful opposition to the LTCP you proposed in October 2025.

The proposed plan would downgrade the water quality standards of the Charles River and make sewage discharges the status quo for decades to come. Ever since the news broke that this plan was under consideration, we have heard from constituents who are deeply concerned about the proposal to not only continue dumping sewage into the river, but also to increase the volumes of these discharges. We share our constituents' concerns.

The residents of our districts love the Charles and the recreational opportunities it provides. They want to ensure that it is clean and protected. In addition, our constituents have a right to be healthy in their own communities, and increased sewer discharges undermine their health. A recent study from the Boston University School of Public Health demonstrated that combined sewer overflows (CSOs) increase local hospital visits.

Significant progress has been made to address CSOs, and the MWRA and its municipal partners deserve credit for that progress. However, the work is not done, and our constituents want the Commonwealth to finish the job as expeditiously as possible. Above all, our constituents do not want to see our progress reversed.

We believe that it is possible to protect the interests of MWRA ratepayers without abandoning the ultimate goal of eliminating sewage discharges entirely. At the very least, we should not adopt a plan that would lead to increased CSO volumes as climate change increases the intensity of precipitation events.

You are making a generational change with this decision. We urge you to put us on a path toward clean rivers by dramatically reducing and eventually eliminating the problem of combined sewer overflows.

Sincerely,

Cynthia Stone Creem
State Senator
Chair, Senate Committee on Climate Change and Global Warming
Norfolk and Middlesex District

Rebecca L. Rausch
State Senator
Senate Chair, Joint Committee on Environment and Natural Resources
Norfolk, Worcester and Middlesex District

MWRA Board of Directors January 20, 2026
Massachusetts Water Resources Authority,
Deer Island, 33 Tafts Avenue
Boston, MA 02128

To the MWRA Board of Directors:

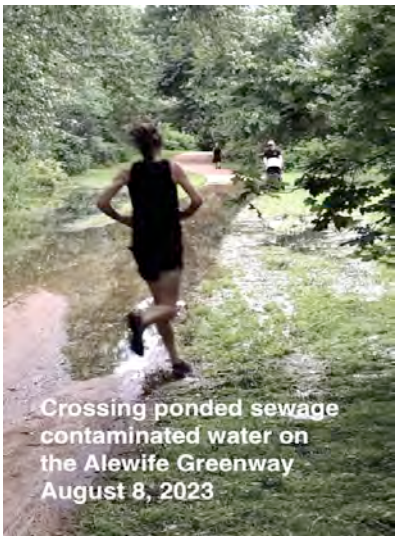
At the January 14, 2026, MWRA Board of Directors meeting, a Board member asked MWRA Chief Engineer Brian Kubaska about the accuracy of public complaints of CSO discharges from Alewife Brook entering people's homes. As an individual with first-hand knowledge of this, I felt compelled to provide additional information to the Board.

In his answer, Mr. Kubaska stated that the Alewife Brook overtops its banks, and that the Alewife does contain CSO discharges in larger storms, but the Authority has no documented evidence that it reaches people's homes.

1. Do CSO Discharges Reach Homes Along the Alewife Brook?

I can tell the Board, without hesitation, that CSO discharges from the Alewife do reach people's homes, because it has happened to me. I've experienced three major storm events: the October 1996 storm, the June 1998 storm, and the March 2001 storm. As Mr. Kubaska noted the CSOs in the Alewife Brook discharge in these larger storms. In each of the storms the Alewife Brook was in my yard; up to my steps in 1996, when my basement flooded as well.

I took this widely circulated picture behind my house after a ***minor*** storm in 2023:



2. Does the MWRA Have Evidence of CSO Discharges Reaching People's Homes?

The second issue raised by Mr. Kubaska's response to the Board is whether the MWRA has evidence of sewage reaching people's homes. Without doubt the MWRA has this evidence because the Authority has previously studied the problem.

Extensive information is available in the MEPA document submitted by the MWRA to implement the court ordered Long Term CSO Control Plan For Alewife Brook (*Notice of Project Change, Long Term CSO Control Plan For Alewife Brook,* EOEA #10335, April 30, 2001, Attachement F, pg. 43-44, the "NPC"). Local residents were surveyed about flooding during the period leading up to the release of the NPC. The NPC notes "flooding up to the steps," "flooding of the yard," etc. The MWRA's conclusion in the NPC was:

> [T]he first row and possibly the second row of homes located next to the channel and southwest of Herbert Road may experience flooding under the existing and proposed conditions for storms equal to or greater than a 10-year frequency event.

I have attended dozens of meetings with Mr. Kubaska. I have always found him to be professional, and patient with my persistent questions. The MWRA is lucky to have him. My recollection is that he was not employed by the MWRA when the 2001 Alewife Brook CSO Control Plan was implemented. I wouldn't expect him to be familiar with every detail in the NPC.

The same cannot be said for the MWRA itself. The MWRA is a public instrumentality established by an act of the legislature. Records in MWRA's possession are certainly "documented evidence" and it is entirely reasonable to charge the MWRA with knowledge of the contents of its own records. What does that evidence show? That MWRA knows untreated sewage discharges from Alewife Brook can reach homes in storms as frequent as the 10-year storm event.

The 2002 10-year storm event correlates to a surface water elevation of about 6 feet along the Alewife Brook in East Arlington. Current modeling shows surface water elevations rising to 11-12 ft for the 10 yr.storm. The CSO Control Plan presented to the Board in October does not provide a level of CSO Control sufficent eliminate CSO discharges in the 10 yr. storm.

Conclusion

I've been involved with 3 CSO Control Plans for Alewife Brook. The first [1997] promised our community 4 discharges a year with a total of 2.9MG of untreated sewage released. The second, the one described in the NPC, promised 7 discharges a year with a total of 7.4MG released. The plan presented to the MWRA Board in October called for 13 discharges a year and 9.85 MG of untreated

sewage released to the Alewife Brook. These are modeled CSO limitations. The actual [monitored] CSO discharge frequency and volumes to Alewife Brook are much higher.

In every case, the estimated cost of completely separating sewers discharging to Alewife Brook is exceeded by the cost of the subsequent "cost effective" CSO Control Plan. For once, I ask the Board of Directors to put themselves at the end of the project timeline. The investment in clean water *is* the fiscally responsible choice. Operation of a combined sewer system in the Alewife is inconsistent with the housing and transportation plans put forward by other state agencies. It puts my community at risk because the MWRA knows the unteated sewage they discharge will reach homes, and degrade an extremely fragile resource, the Alewife Brook. The Alewife is a place where complete sewer separation is necessary. Everyone recognizes that building the separated wastewater system the future demands is a hard problem. It's a problem I certainly trust Brian Kubaska and the others I've met at MWRA to solve.

Sincerely,

David Stoff
88 Fairmont Street
Arlington, MA 02474

[ATTACHEMENTS: NPC/2001_Attachment F, pdf 476_477; Arlington Advocate, Page1, 1996-10-24.pdf; Arlington Advocate, Page5, 1998-06-18.pdf]

have increased the time of concentration of the catchments contributing runoff to Little River/Alewife Brook that would result in a higher peak rate of runoff. The wetter conditions also decrease the infiltration capacity of the soils in the contributing catchments which results in an increase in runoff volume to Little River/Alewife Brook.

F.5.3.1 Historical Flooding Comparison

During the survey, several local residents provided information regarding historical flooding events. One resident reported that during the June 12-13, 1998 extreme rain event, the Brook flooded to the back yard of the first house on the left past Lafayette Street along Herbert Road. This correlates to a flood elevation of approximately 7.2 feet (NGVD). Another resident reported that during the same extreme rain event, the Brook flooded up to the first front step of his house (#57/59 Lafayette Street), which is approximately at elevation 7.6 feet (NGVD).

Shown below in Table F.17 are historical rainfall intensities for this June 12-13, 1998 storm event, recorded at three rain gauges in Cambridge and around Boston. Table F.18 provides historical and statistical data compiled from the Cornell University, Northeast Regional Climate Center.

Table F.17
June 12 – 13, 1998 Rainfall Duration and Intensity (inches)

Duration	Cambridge	Logan Airport	Blue Hill	Average
Max 2 Hour	2.90	1.82	2.50	2.41
Max 3 Hour	3.86	3.02	3.38	3.42
1 Day	6.76	5.25	5.96	5.99
2 Day	7.02	6.59	7.02	7.24

Data Source: National Oceanic & Atmospheric Administration, and the City of Cambridge, MA

Table F.18
Statistical Rainfall Duration and Intensity (in inches) from the Cornell University, Northeast Regional Climate Center

Intensity	25-Year	50-Year	100-Year
Max 2 Hour	2.3	2.4	2.75
Max 3 Hour	2.8	3.1	3.7
1 Day	5.4	6.2	7.5
2 Day	6.6	8.0	10.0

Based on the statistical data presented in Table F.18, a reasonable assumption is that the June 12-13, 1998 rainfall event equates to between a 50-year and 100-year storm event. HEC-RAS modeling shows that in Arlington between Massachusetts Avenue and Route 2, a 10-year storm event has a water surface elevation of approximately 5.5 feet (NGVD) under existing conditions, and 6.3 feet (NGVD) for a 25-year storm event. The reported range of water surface elevations during this June 1998 flooding is between 7.2 and 7.6 feet (NGVD), which translates to a probable flood elevation for a 50 to 100 year storm event.

F.5.4 Phase II HEC-RAS Model

To improve the model accuracy, a number of additional interpolated sections were constructed to better represent the topography in this residential area. Nine additional cross sections were added between Route 2 and Massachusetts Avenue. The additional cross sections show two major areas that serve to contain most of the flooding on the north side of the channel. These include CambridgePark Place and the bike path under Route 2 on the west, and Lafayette Street running parallel to the channel with an elevation typically greater than 5.5 feet (NGVD). The exception to this boundary is just west of Lafayette Street where this becomes a gravel road and the elevation drops down to 3.5 feet (NGVD). It is at this location where increases in the water surface elevation along Alewife Brook could result in additional flooding. To determine the impacts of these geographic changes, the HEC-RAS model geometry was updated to represent the revised conditions. The previously determined input flows were then simulated through the model to determine changes in water surface elevations. As with previous HEC-RAS analysis, downstream boundary conditions at the Woodstock Avenue bridge were estimated to be 5.0 feet (NGVD) for 10-year 24-hour storm conditions, and 6.0 feet (NGVD) for the 25-year 24-hour storm conditions.

Since the Phase I model did not account for this refined topography, the Phase I model shows the floodplain extending almost 1400 feet left of the channel bank. With the inclusion of the ridge geometry along Lafayette Street, as determined by the January 2001 survey, the lateral extent of the floodplain is greatly reduced. Even with this ridge, however, the first row and possibly the second row of homes located next to the channel and southwest of Herbert Road may experience some flooding under the existing and proposed conditions for storms equal to or greater than a 10-year frequency event.

This flooding, however, is not directly caused by the Cambridge drainage improvements, but is the result of the existing low ground elevations. Table F.19 compares the Phase I and Phase II modeling results at specific locations due to the more refined field survey data.

Table F.19
10-Year Water Surface Elevations (Feet - NGVD)

	Cross Sections				
Scenario	No. 12 Perch Pond	No. 7 CambridgePark Place Bridge	No. 6 Route 2 Culvert	No. 3 Mass. Ave. Bridge	No. 1 Woodstock Ave. Bridge
Phase I Survey Existing 2000	5.83	5.80	5.63	5.40	5.00
Phase I Survey Proposed Conditions	5.97	5.93	5.74	5.46	5.00
Phase II Survey Existing 2000	5.87	5.83	5.67	5.40	5.00
Phase II Survey Proposed Conditions[1]	6.01	5.97	5.78	5.46	5.00

[1]Alternative 6

ISSUE OF THURSDAY, OCTOBER 24, 1996 VOLUME 124 • NUMBER 42 • 75 CENTS

The Arlington Advocate

COMMUNITY NEWSPAPER COMPANY SERVING THE RESIDENTS OF ARLINGTON SINCE 1871

Flood subsides as damage toll rises

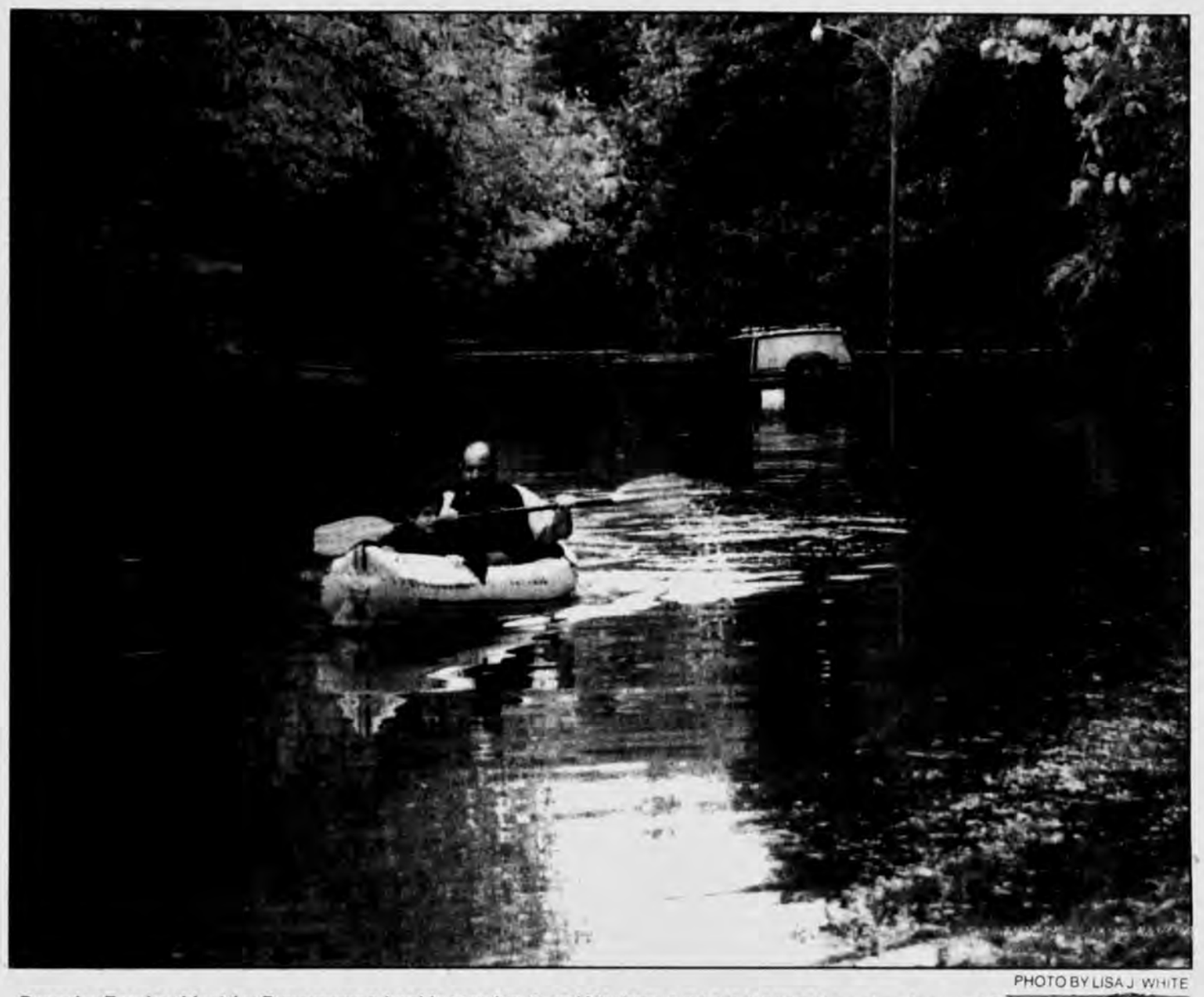


PHOTO BY LISA J. WHITE

Rangeley Road resident Jay Provenzano takes his sons Ian, 8, and Matthew, 5, who is blocked from view, for a paddle near abandoned Jeeps on flooded Mystic Valley Parkway on Monday. Provenzano recalls swimming on the flooded parkway as a child in the 1960s and snowmobiling on it during the Blizzard of '78.

Sewage plagues some homes

By Tom Rose
ADVOCATE STAFF

As hundreds of Arlington residents pumped out their basements and started making headway against flooding rains Monday night, a group of town officials stood on a dam between the Upper and Lower Mystic lakes, pondering the future.

Their concern centered on the Scalley Dam at Horn Pond, two miles to the north in Woburn. If it gave way, there was a good chance millions of gallons of water would wash through Winchester before flooding Upper Mystic Lake.

"If that dam had gone, this one right here might have failed," Fire Chief Perry Cayton said while surveying the dam between the Mystic lakes Tuesday afternoon. "That would have had a serious impact on Arlington neighborhoods."

While that disaster scenario did not occur, the flooding earlier this week is likely to go down as the costliest natural disaster ever to strike Arlington. At least 800 residents suffered some water damage, most caused by water in their basements.

'I'm sure some individuals went through some incidents where they would say the damage for them was worse, but overall this is the worst damage that I know of.'

ARLINGTON FIRE CHIEF PERRY CAYTON
CALLING THE FLOOD THE WORST NATURAL DISASTER IN TOWN HISTORY

"It's the worst I've ever seen," said Cayton, who has been a firefighter for two dozen years. "I'm sure some individuals went through some incidents where they would say the damage for them was worse, but overall this is the worst damage that I know of."

The fire department heard from approximately 735 residents throughout town who had flooding in their basements. There was no count available on the number of other residents who took care of flooding problems without calling authorities. Town officials said it could take several weeks to determine a damage estimate in Arlington.

Areas that sustained the worst flooding included Lafayette Street in East Arlington, where the Alewife Brook overflowed its banks; the Forest Road area, a low-lying area at the foot of Arlington Heights; the Mystic Valley Parkway, which remained closed Wednesday morning due to flooding from the Mill Brook; neighborhoods around Spy Pond, and the Reeds Brook area.

The closures of Alewife Brook Parkway, Mystic Valley Parkway and Route 2 also caused havoc on Arlington's roadways Monday and Tuesday. The drive on Massachusetts Avenue Monday morning was stop-and-go, with more stopping than going. At 9:30 a.m., the drive from the Cambridge line to Arlington Center took 25 minutes. By Wednesday morning, traffic had returned to normal for most of the town.

But traffic was not the big concern for most residents. On Tuesday afternoon, 625 people remained on the fire service's waiting list for pumping. John Justice, a dispatcher, estimated that 110 basements had been pumped out with the fire department's 12 pumps.

"Every phone line plus 911 was going continuously," said Justice, pointing to the eight phone lines at his switchboard. "It never stopped."

Lists of houses were taped to the walls in the dis-

FLOOD, see page 12A.

Backed up on Beck Street

By Jessica Taverna
SPECIAL TO THE ADVOCATE

Demetris Maradianos was alarmed Sunday when he walked into a small bathroom in the corner of his basement and found raw sewage coming up through the shower drain.

He tried stopping the flow with his feet, but when the sewage started pouring from the toilet and sink, he headed for help, closing the bathroom door behind him. When he returned with his brother an hour later, drain plugs in hand, they could not push the door open. So they kicked it in, causing a wave of mirky, brown liquid to gush out, flooding the basement.

Two days later, Maradianos was busy at his Beck Street home bringing water out of the basement by the bucket-full and tearing up the floor boards.

"I have three kids living here," he said. "We have no place to go, so we're staying here. The fumes are ridiculous."

Maradianos and Brian Azar, a neighbor at 22 Ryder St., both complained to the Board of Selectmen Monday night, arguing that the town must take responsibility for their sewage problems.

"This is a case of negligence of maintenance and care," said Brian's wife, Kristen Azar.

But Town Manager Donald Marquis and other town officials say there was no way to prevent or anticipate the sewage overflow that happened in various parts of Arlington during a storm that brought 11 inches of water in a 12 hour period.

"(The Arlington Fire Department) told us it was a lost cause and that we should just evacuate," Brian Azar said. "If we didn't do anything it would've started coming out the windows. This is our home. We would've lost everything," he said.

Instead, the Azar and Maradianos families borrowed pumps from the Cambridge Fire Department and spent hours pumping the sludge out of their basements - sludge they say would not have ended up there had the town followed through on cleaning out pipes after sewage overflowed last summer during a rainstorm.

"If you stood in our front yard this summer you could smell it from our sewer," said Kristen Azar. She said she and her hus-

SEWAGE, see page 12A.

Local businesses swamped with calls

By Tom Rose
ADVOCATE STAFF

The most water Town Manager Donald Marquis remembers recording on the water gauge he has operated for 20 years at his Jason Street home is four. By Monday evening he had a reading of 11 inches.

The deluge – while predicted to some extend – caught most people off guard with its steadiness and amount of rain. By Monday afternoon, most area store were sole out of pumps. One woman even called The Advocate looking for back issues of the paper to use in soaking up water from her carpet.

Businesses selling and renting pumps, as well as those in the plumbing and cleaning industries were swamped with calls and customers.

"We literally don't have room to park ourselves," said Kevin Connors, service manager at Taylor Rentals on Massachusetts Avenue in Arlington Heights. "The people are lined up here in the morning."

The business has 13 sump pumps to rent. Many that were rented Monday had not been returned by Tuesday afternoon.

"We have three phone lines and yesterday (Monday) the phones never stopped ringing," Connors said. "We told people they could head out to the Taylor Rental in Leominster... and people actually were

BUSINESS, see page 12A.

ADVOCATE PHOTO BY DAVID STONE

A car sits submerged on Lafayette Street after the nearby Alewife Brook overflowed Monday.

RECYCLING ROUTE NEXT WEEK ▲

WHAT'S INSIDE

■ Standard time returns at 2 a.m. Sunday. Set your clocks back an hour before you go to sleep.

Selectmen vote to support unions in fighting MBTA privatization

By Jessica Taverna
SPECIAL TO THE ADVOCATE

The Board of Selectmen vowed Monday night to send out a letter urging Governor William F. Weld to do away with his plan to privatize MBTA bus routes after approximately 30 MBTA and town employees came out to rally for the board's support.

Various unions, including those representing carmen, teachers, patrolmen, firefighters, town workers, machinists and iron workers, turned out for an informational picket prior to the Board of Selectmen meeting toting signs that defined privatization as a "Weld scam."

"It's not going to save the consumer anything in the long run. Ultimately, it's going to benefit big business," said Officer John Brescia, a member of the Arlington Patrolmen's Union.

As many as 5,000 members of the Carmen's Union who are responsible for maintenance of the vehicles would be laid off, fairs would increase and services would be far more limited, Brescia said.

As picketers lined the back wall of the Town Hall meeting room listening attentively, Selectman Charles Lyons made the first motion to send copies of the letter to Weld, James Kerasiotes, secretary of transportation and Town Manager Donald Marquis opposing Weld's plans for privatization. With Arlington contributing $2.4 million annually to the MBTA, Lyons said the secrecy surrounding Weld's plan makes him skeptical of the governor's intentions.

"I don't trust Weld or Kerasiotes," he said. "They're upset with the unions because you people don't support them politically, and they're doing everything to hurt you and your families."

Shortly after Lyons made the motion, State Sen. Robert Havern (D-Arlington) reiterated points made in a letter read aloud that he had sent to the board supporting the workers, and added that it would be a "huge step backwards."

Before the board filed the motion, Brescia came forward to express his distrust of Marquis. He told him that since he had had the opportunity to hear from the people, all eyes will be on him to see how he votes when the Weld plan comes up.

"What bothers me is I don't even think there will be a vote on this. The legislature will need to step in," Havern said.

The MBTA just purchased 250 new busses at $200,000 a piece, said Craig Hughes, member of the Machinist Union. The federal government has given the state approximately $300 million for the new busses. By privatizing the MBTA the state would break a gov-

UNIONS, see page 13A.

Kerry, Weld differ on their lists of key issues

By Mark Leccese
CNC STATEHOUSE BUREAU

NEEDHAM – Incumbent Democratic U.S. Sen. John Kerry and his challenger, Republican Gov. William Weld, in separate interviews with Community Newspaper Company editors and publishers last week, disagreed on which are the most important issues facing Arlington and other suburban eastern Massachusetts communities.

"The most important issues in the suburbs are keeping the tax rate down, keeping the economy healthy, and making sure the crime problem doesn't spill into the suburbs," Weld said.

But Kerry said, "The single most important issue in this campaign and our future is education."

Transportation, he said, is the other major issue. "People travel from the suburbs to urban areas for work. Transportation is critical," Kerry said. "It's awfully hard to get from here to there in our state."

As the two candidates come into the last days of the campaign, they are sharpening their pitch to the voters.

"My argument for the last weeks will be that you've got to hire one of us," Weld said. "Here's what I've done and here's what he's done. I think that when people look at our records, they'll choose mine."

Kerry, who was first elected to the Senate in 1984, said, "We should not cut off the 12 years we've invested in John Kerry and replace him with a guy who will vote contrary to the interests of our communities and our state."

The Democratic senator touted the improved economy and the trimmed-down federal government of the 1990s.

"We now have more home own-

SENATE, see page 7A.

Parts of town hit by flooding

FLOODING, FROM PAGE 1

ment. He directed the blame at town officials.

"You are dragging your heels," Warren said. "You're not doing the best job that you can. We can't get mad at the workers. You are the bosses."

Lyons denied town officials were lacking in their attempts to solve the problem, and he said the town was spending $10 million to improve the Reeds Brook area, treatment not enjoyed by other neighborhoods.

Planning Director Alan McClennen Jr. said construction on the proposed work on Reeds Brook would have started four months ago if the process had not been held up by the appeal.

Officials and residents disagreed how much warning people had about the storm and whether the town could have acted sooner.

"This storm came out of the blue," said Richard Bento, director of public works.

Bento emphasized the intensity of the storm, dumping several inches of rain in a shorter time period than major storms of the past.

Marquis said the town began calling in public works employees early Saturday afternoon, but many people were away because of graduations and other summer events.

Fred Greener of Thesda Street told the selectmen the town should have called its workers Friday night and ask whether they would be available the next day, in case the storm proved to be serious.

Marquis said later he was listening to the forecast Friday night, and meteorologists were not predicting a severe rainstorm at the time.

However, Rosemarie Carvalno, a Varnum Street resident who came before the selectmen, said after the meeting she heard forecasts of rain a few days earlier and had prepared her pumps. She could not understand why the town was not more prepared.

Town Meeting member Roger Barnaby told the board about property damage in the thousands and his visit to a home which reeked of sewage. He criticized the town's planning.

Selectman Jack Hurd suggested the town may need to adjust some points in its emergency plan. He also said the town possibly could have called in employees sooner, and officials may want to purchase another pump.

Chairman Stephen Gilligan said a meeting of the emergency planning committee will be scheduled for July or August to discuss such issues.

Carvalno and another Varnum Street woman expressed concern after the meeting about the town's efforts during the rainstorm. Carvalno, who lives in a two-family house, said the backyard and basement were flooded, and sewage was bubbling up into the basement sink.

Linda Byrne, who lives in the same house, said she felt bad for elderly neighbors who also had flooding. Fortunately, they had children who came to pump out the water.

Byrne thought the town lacked a plan for coping with the storm. She also feels it should buy more pumps and make emergencies a higher priority.

"This is a priority, more than $1 million or $1.2 million for flowers and bushes," said Byrne, referring to the town's planned restoration of the Town Hall gardens. "They have to be more proactive, instead of reactive."

Marquis, in a telephone interview with The Advocate, defended the restoration of the gardens and said the town should pay for both the maintenance of the gardens and emergencies.

"I believe we should be doing both," he said. "These gardens were given to us by a family in town. We should be so thankful that we are willing to properly maintain them."

Marquis sympathized with the residents, saying his basement was flooded too. But he said there was little the town could do to help Varnum Street at first, because the water was coming from the Alewife Brook, and no amount of pumping would have relieved the flooding as long as the brook's water level was high.

Residents on Forrest Street, where a man was briefly trapped in his submerged car, said the town can fix their problem by fixing two spots where water runs off the Minuteman Trail onto their property and the street.

"It's destroying my whole street and they just don't fix it," said Claudia Sheehan, who witnessed the rescue of the driver whose car got stuck under the bridge on Forrest.

"The police did a great job, wading in chest-high to pull the guy out," she said.

The police department's other major call of the day was to Bridals by Alena, 489 Mass. Ave., where a leak in the ceiling allowed 800 gallons of water to seep into the store. Firefighters drained the water, but numerous gowns were damaged by the water.

Warren and Greener argued the pump used for Thesda Street should have been started earlier. A pump that was tested earlier in the year in Greener's backyard, the lowest point on the street, was stored at the public works headquarters on Grove Street.

Marquis said perhaps the town could have deployed the pump sooner. The town will keep the pump in place for now, although it may be removed in dry weather to protect it from theft or damage.

Referring to the difficulty of Thesda Street, Marquis said rain water from 160 acres of land drain into Reeds Brook. He estimated there was four feet of water on the 22-acre lot Saturday. Under those conditions, it takes a long time to pump the water.

PHOTO BY WENDY MIMRAN

Janet McLaughlin and her dog Buddy walk across Teel Street in East Arlington Saturday.

PHOTO BY WENDY MIMRAN

Kirby Stoff, 3, bails out his family's garden on Fairmont Street with the help of his brother Max, 5, in foreground.

Boston City Council
LIZ BREADON
Councilor – District 9

Boston City Council
SHARON DURKAN
Councilor – District 8

January 22, 2026

Board of Directors
Massachusetts Water Resources Authority
Deer Island, 33 Tafts Avenue
Boston, MA 02128

TRANSMITTED VIA EMAIL

RE: Massachusetts Water Resources Authority (MWRA) November 19, 2025 Board Meeting

To the MWRA Board:

As Boston City Councilors representing Districts 8 and 9, and as elected officials within the Charles River Watershed, we urge you to support the highest level of CSO control in the next phase of the Long Term Control Plan.

Longer-term residents of both Districts 8 and 9 remember when the Boston Harbor and Charles River were lifeless and reeked of sewage. They remember the presidential campaign when George HW Bush came to Boston to embarrass Governor Dukakis for having the "most polluted harbor in America." The cleanup of the Boston Harbor is considered one of the greatest environmental achievements in our nation's history. Why did we clean it up only to turn it back into a dumping ground for sewage?

Our residents care deeply about clean water and the health of the Charles River. We are well aware that the Charles is much cleaner than it was, and MWRA is to be commended for its prior work to reduce sewage overflows. We are also aware that MWRA ratepayers, including our residents, have paid for the improvements to date, improvements we don't want to see erased.

We were surprised and dismayed to hear that of the four options under consideration for the next phase of CSO control, MWRA staff recommended an option that increases the volume of discharges in coming years, and ensures sewage would forever be dumped into the Charles.

Instead, we urge you to communicate to the MWRA staff that you support the highest level of CSO control. We also strongly oppose any attempts to downgrade the water quality standards classification of the Charles River to a Class B (CSO). This would be a disastrous result, making the status quo a river regularly polluted with sewage and unsafe for recreation and disincentivizing any future efforts to clean it up.

Boston City Council
LIZ BREADON
Councilor – District 9

Boston City Council
SHARON DURKAN
Councilor – District 8

Our residents want and deserve a clean and healthy Charles River. They have invested in the cleanup to date, and they want to see the job finished. They want to see the Charles safe enough for boating, they want it safe enough for swimming, they want to end the practice of using it as a sewer.

Sincerely,

Liz Breadon
President- Boston City Council
District 9, Allston-Brighton

Sharon Durkan
Boston City Councilor, District 8

35 Braintree Hill Office Park, #108
Braintree, MA 02184
P: 978-777-6764
admin@greaterbostonpca.com
www.greaterbostonpca.com

MWRA Board of Directors
Massachusetts Water Resources Authority
Deer Island, 33 Tafts Avenue Boston, MA 02128

Dear Members of the Board,

My name is Nicholas Palermo, and I am the Director of Public Affairs for the Greater Boston Plumbing Contractors Association (GBPCA). I'm writing on behalf of our 75 signatory contractors and UA Plumbers Local 12 to urge the MWRA to finish the work it began with the Boston Harbor cleanup by eliminating combined sewer overflow (CSO) discharges in the Charles and Mystic River watershed, including the Alewife Brook.

CSO discharges pose a real and ongoing threat to public health, environmental safety, and the long-term resilience of our communities. As licensed plumbers, GBPCA contractors are not only tradespeople, but safety professionals and stewards of the Commonwealth's water resources. We see firsthand the risks posed by aging infrastructure, overwhelmed sewer systems, and increasing rainfall driven by climate change.

Further development in areas impacted by CSO discharges is not realistic or responsible planning. Additional development brings increased water use, increased sewage generation, and added stress on infrastructure that is already failing. Climate change will only produce more frequent and intense storm events which will only further overwhelm these systems unless decisive action is taken. This is not just a planning concern. It is a matter of public safety and public health. The potential for people to become sick and for waterways to be degraded is real, ongoing, and already impacting communities like Alewife Brook.

The solution requires investment, a commitment to modern infrastructure, and leadership like the MWRA has shown in the past. Ending CSO discharges is essential to completing the promise of the Boston Harbor cleanup and protecting inland waterways like the Alewife Brook. The good news is that the workforce, expertise, and technology needed to solve this problem already exist.

UA Plumbers Local 12 and the union contractors of the GBPCA stand ready to rise to this challenge. Our members are highly trained to fix and modernize the infrastructure that protects our communities. But the solution will also require some ingenuitive thinking, and we are prepared to help develop outside-the-box solutions. Things like rainwater harvesting, on-site storage, reuse systems, and other strategies that responsibly control, store, and manage water have been installed by our plumbers for years. These approaches not only reduce pressure on sewer systems under stress, such as during heavy rainfall, but also provide resilience during drought conditions.

Not only will fixing this infrastructure help to protect public health and the environment, but it will also create hundreds of well-paying, local jobs. These are careers that support families, strengthen communities, and ensure that critical water infrastructure is built and maintained by highly trained, licensed professionals. All the pieces are in place: the workforce, the skill, the training, and the technology. The only thing left is decisive leadership to act decisively and deploy them effectively.

The time to invest in our water future is now. We urge the MWRA to prioritize the elimination of CSO discharges and to continue leading with the same vision and resolve that once transformed Boston Harbor. Our organizations stand ready to be partners in this work and to help deliver lasting solutions that keep people safe and protect our waterways for generations to come.

Thank you for your leadership and for your commitment to the people of Massachusetts.

Respectfully,

Nicholas Palermo
Director of Public Affairs

Outlook

[EXTERNAL] Eliminate CSOs at Alewife Brook

From Meredith DiMola <meredithdimola@gmail.com>
Date Mon 1/26/2026 1:53 PM
To MacDougall, Kristin <Kristin.MacDougall@mwra.com>
Cc arlington@savethealewifebrook.org <arlington@savethealewifebrook.org>

Dear Massachusetts Water Resources Authority Board of Directors,

Please fulfill the mission of the MWRA to **protect community health** and welfare **through modernization of the sewer system**. Vote in favor of a Combined Sewer Overflow (CSO) plan that **eliminates CSO sewage pollution** at Alewife Brook.

During heavy rain events, **sewage-contaminated water floods over the banks of Alewife Brook.** It then flows into the homes, yards, and parks of the area's most diverse and vulnerable Environmental Justice neighborhoods. The area is densely populated, with 5000 people living in Alewife Brook's 100-year flood plain.

Alewife CSOs have made people sick. At Alewife Brook, E. coli counts are 10 times higher than EPA's recommended safe level for primary contact and 3 times higher for secondary contact. In addition to E. coli, Alewife area residents can be exposed to other live bacteria, viruses, and parasites, including norovirus and intestinal worms. A Boston University School of Public Health study concluded that just **living near CSOs can make people sick.**

A runner on a flooded path beside Alewife Brook, illustrating the impact of sewage flooding.

In 2023, 29 million gallons of untreated sewage were discharged into Alewife Brook. That same year, the brook flooded five times. **Children rode bikes through sewage**

floodwater after these storms. Joggers ran through it. And **parents pushed baby strollers through untreated sewage** flood water. The situation is horrifying and unacceptable.

MWRA can and must eliminate CSOs at Alewife Brook. Alewife Brook is what the Environmental Protection Agency refers to as a **"sensitive area."** This is because of its proximity to Cambridge's drinking water source at Fresh Pond. Alewife Brook is also considered an **"underserved and problem area"** because of frequent flooding and malfunctioning regulators. Alewife Brook CSOs are a major factor in water pollution and are responsible for a public health crisis. CSOs also increase health risks to Environmental Justice communities. This violates MWRA's mandate to protect public health, by providing an adequate sewage collection, treatment, and disposal system.

MWRA is in violation of its charter at Alewife Brook. Alewife CSOs are not in compliance with the Boston Harbor court case.

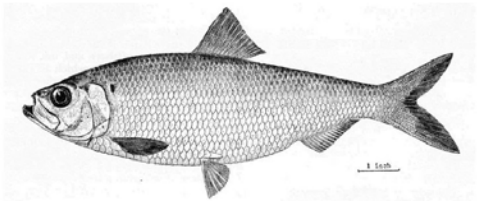
Please eliminate CSOs at Alewife Brook. Protect the health of folks who live near Alewife Brook. Protect the people who use the DCR state parkland around the brook. Protect future generations.

Thank you so much.

Meredith DiMola
617.458.1744

Received 1/27/26, 4:24pm

Save the Alewife Brook



Environmental Health is Community Health

The Honorable Rebecca Tepper,
Secretary Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

MWRA Board of Directors
c/o Frederick Laskey, Executive Director
Massachusetts Water Resources Authority
100 First Avenue
Charlestown, MA 02129

Dear Secretary Tepper and Members of the MWRA Board of Directors:

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Please eliminate CSOs at Alewife Brook. Protect the health of folks who live near Alewife Brook. Protect the people who use the DCR state parkland around the brook. Protect future generations.

Sincerely,

First Name	Last Name	Email	Street	City	State
Clare	Nosowitz			Carlisle	MA
Richard	Haughey			Watertown	MA
Troy	Lustick			Somerville	MA
Andy	Visser			Somerville	MA
Connor	Smith			Medford	MA
bridget	wright			arlington	MA
Doug	Brown			Cambridge	MA
Danielle	Metzger			Arlington	MA
Darci	Hanna			Somerville	MA
Margaret	Ball			Somerville	MA
Elana	Friedland			Somerville	MA
George	Stephans			Arlington	MA
Russell	Bartash			arlington	MA
Allison	Berger			Arlington	MA
Jon	Levine			Newton	MA
Gary	Goldsmith			ARLINGTON	MA
Nick	Morfesi			Arlington	MA
Randolph	Billings			Arlington	MA
David	Hughes			Arlington	MA
Noelle	Colant			Arlington	MA
Brian	Merrick			WEST SOMERVILLE	MA
LESLIE	WOODARD			Arlington	MA
Lynne	Eisenberg			ARLINGTON	MA
Michael	Dewberry			Medford	MA
Robert	Tosi Jr			Arlington	MA
Gilbert	Martin			Arlington	MA
Justin	Giaquinto			Somerville	MA
Amy	Duke			ARLINGTON	MA
Antonio	Tempesta			Arlington	MA
Ava	Hill			Somerville	MA
Annie	DeVane			Arlington	MA
Jake	Tomlinson			Arlington	MA

Save the Alewife Brook

Environmental Health is Community Health

Heidi	Friedman	[redacted]	Somerville	MA
Regina	Capasso		Arlington	MA
Leonard	Solomon		Cambridge	MA
Steve	Forrest		Arlington	MA
Andrea	Blodgett		Arlington	MA
Janice	Undem		Arlington	MA
Jacob	Bloom		Arlington	MA
Robert	Ressler		Cambridge	MA
Kate	Watson		Cambridge	MA
Philip	Shafnacker		Somerville	MA
Itamar	Turner-Trauring		Cambridge	MA
Erik	Holum		Arlington	MA
Laura	Newsad		Cambridge	MA
Samuel	Fredericksen		Cambridge	MA
Laure	Porter		Arlington	MA
Thomas A.	King		Somerville	MA
Erica	Skelton		Cambridge	MA
Oscar	Smith		Cambridge	MA
Janet Burns	Campbell		Somerville, MA	MA
Amanda	Burroughs		Lynn	MA
Jackie	Shepherd		Arlington	MA
Hector	Cazares		Arlington	MA
Moneer	Ba-Ahmad		Cambridge	MA
Aja	Procita		Somerville	MA
Michael	Metzmaker		Cambridge	MA
Lauren	Kim		Cambridge	MA
Gabriel	Garon		Somerville	MA
Sara	Billingsley		Arlington	MA
Sarah	Bojsen		Cambridge	MA
Greg	Baracchi		Cambridge	MA
Jay	Konopka		Cambridge	MA
Colette	Parry		Arlington	MA
Evelyn	Roberts		Medford	MA
Louisa	Bissett		Somerville	MA
Patricia	Palanza Paynter		Arlington	MA
Ausra	Kubilius		NORTH CAMBRIDGE	MA
Diane	Connor		Arlington	MA
Jacqueline	Scott		Waltham	MA
Matthew	De Remer		Arlington	MA
Aram	Hollman		Arlington	MA
Elisabeth	Carr-Jones		Arlington	MA

Save the Alewife Brook

Environmental Health is Community Health

Jo	Babiarz	[redacted]	Arlington	MA
David	Reiss		Arlington	MA
Alan	Lai		Cambridge	MA
Chris	Logan		Arlington	MA
Amy	Rothschild		Cambridge	MA
Carolyn	Chandler		Somerville	MA
Sue	Janowitz		Arlington	MA
Brandon	Lodi		Somerville	MA
Jonathan	King		Apt 6C	MA
Jarasa	Kanok		Somerville	MA
Gerri	Strickler		Arlington	MA
Meredith	Zona		Arlington	MA
Laura	Gennarelli		Arlington	MA
Charlotte	Graham		Somerville	MA
Richard	Madden		Arlington	MA
Jeffrey	Orlin		Newton	MA
Brandon	Hanks		Somerville	MA
MaryAnna	Foskett		Arlington	MA
Lawrence	Rogovin		Arlington	MA
Katharine	Fennelly		Arlington	MA
Josh	Read		Belmont	MA
Sarah	Burks		Arlington	MA
Jane	Culbert		Arlington	MA
Aimee	Taberner		Arlington	MA
David	Taberner		Arlington	MA
Alexandra	Kohout		Somerville	MA
Jennifer	Chang		Arlington	MA
Pooja	Usgoankar		Cambridge	MA
denis	dettling kalthofer		Medford	MA
Meredith	Olsen		Cambridge	MA
Kate	Schell		Arlington	MA
Erik	Dykema		Boston	MA
Meredith	DiMola		Arlington	MA
Andrea	DePaola		Reading	MA
Sarah	Jansen		Somerville	MA
Dana	Bullister		Cambridge	MA
Colleen	Kirby		Arlington	MA
John	Rice		Arlington	MA
Cynthia	English		Arlington	MA
Pamela	Meister		Arlington	MA
Nick	David		SOMERVILLE	MA

Save the Alewife Brook

Environmental Health is Community Health

Lewis	Weitzman	[redacted]	CAMBRIDGE	MA
Teresa	Cader		Arlington	MA
Mallory	Cargill		Watertown	MA
Jaimie	Mailander		Somerville	MA
Jaclyn	Pillitteri		Somerville	MA
Carolyn	Parsons		Arlington	MA
Jennifer	Golden		Somerville	MA
Jeff	Battles		Arlington	MA
Alexander	Garcia-Rivera		Medford	MA
Holly	Grant		Lynn	MA
Carol	Bigs		Somerville	MA
Alexandre	Lussier		Cambridge	MA
Ruth	Schmidt		Arlington	MA
Linda	Hertwig		Cambridge	MA
Lois	Grossman		Medford	MA
Ellen	Watson		Cambridge	MA
Marilyn	Sullivan		Arlington	MA
Victoria	Sliwa		Somerville	MA
Ethan	Bissett		Somerville	MA
Liz and Adolf	Jochnick		Cambridge	MA
Carol	Luddecke		Arlington	MA
Richard	Rabin		Arlington	MA
Nelson	Barnett		Somerville	MA
Aaron	Bennett		Somerville	MA
Andy	Gao		Cambridge	MA
Julia	Zachary		Arlington	MA
Wesley	Pedone		Somerville	MA
Judy	Geyer		Arlington	MA
Thomas	Erdenberger		Arlington	MA
Cynthia	Reid		Cambridge	MA
Michael	deMello		Somerville	MA
Paula	Jordan		Arlington	MA
Shannon	Bewleys		Brookline	MA
Judith	Grossman		#25	MA
Sean	Garballey		Boston	MA
Morgan	LaForge		Somerville	MA
Ruth	Foreman		Somerville	MA
Dimitri	Modesto		Somerville	MA
Linda	Varone		Arlington	MA
Marjorie	Smith		Arlington	MA
Reva	Stein		Cambridge	MA

Save the Alewife Brook

Environmental Health is Community Health

Gary	Shostak	[redacted]	Arlington	MA
Diane	Mahon		Arlington	MA
Emma	Wightman		Somerville	MA
Pamela	Blittersdorf		Somerville	MA
David	White		Arlington	MA
Marcos	Rodriguez		Boston	MA
Brittany	Freeman		Somerville	MA
Eric	Dion		Arlington	MA
Daun	Anderson		Arlington	MA
Larry	Raffel		Arlington, ma	MA
Mahesh	A MacDowell		Lowell	MA
Warren	Pemsler		Arlington	MA
trevor	taylor		somerville	MA
William	Rothschild		Watertown	MA
McNamara	Buck		Cambridge	MA
Clarissa	Rowe		Arlington	MA
Mark	Bowers		Arlington	MA
Daniel	Menard		Cambridge	MA
MELISSA	LUDTKE		Cambridge	MA
Matthew	Dorson		Arlington	MA
Susan	Denham		Arlington	MA
Amanda	Trombley		Cambridge	MA
Sibylle	DECARLO		Watertown	MA
Melanie	Jones		Marshfield	MA
Seymour	Kellerman		Cambridge	MA
Arlene	Olivero		Cambridge	MA
Lauree	Mansour		Cambridge	MA
Jane	Whitmore		Arlington	MA
SUSAN	GOULD		WEST MEDFORD	MA
Steve	Schnapp		Medford	MA
Peter	Boshco		Cambridge	MA
Ann	McDonald		Cambridge	MA
Janine	Hart-Hueber		Arlington	MA
Christopher	Mow		Arlington	MA
Trudi	Goodman		Cambridge	MA
Paula	Maute		Cambridge	MA
Michael	Polito		Arlington	MA
Lois	Josimovich		Cambridge	MA
Ann	Elliott-Holmes		Cambridge	MA
Michael	Nowlan		Arlington	MA
Karen	Kramer		Arlington	MA

Save the Alewife Brook

Environmental Health is Community Health

Alex	Prengel	[redacted]	Arlington	MA
Resa	Blatman		Somerville	MA
Mary Baine	Campbell		Cambridge	MA
Camilla	Haase		Arlington	MA
Emma	Perrow		Arlington	MA
Silvia	Dominguez		Arlington	MA
Carolyn	Greenberg		Cambridge	MA
Emily	Talley		Somerville	MA
John	Anderson		Branford	CT
Judith	Washburn		Belmont	MA
Jessica	Lane		ARLINGTON	MA
Lyndsay	Washburn		Belmont	MA
Greg	Hill		Somerville	MA
Allysen	Palmer		Arlington	MA
Kari	Sizemore		Arlington	MA
Anne	Grady		Natick	MA
Liana	Laughlin		Cambridge	MA
Robin	Bergman		Arlington	MA
Isabella	Roversi		Arlington	MA
Christopher	Legere		Arlington	MA
Mark	Paglierani		Arlington	MA
Eric	Mooney		Arlington	MA
Peter	Gailitis		Belmont	MA
Justin	Crane		Cambridge	MA
Susan	Stamps		Arlington	MA
Beth	Melofchik		Arlington	MA
Elizabeth	Widerski		Arlington	MA
Melissa	Ress		Medford	MA
Natalie	Clark		Arlington	MA
John	Tortelli		Arlington	MA
Michelle	Gulen		Arlington	MA
Peter	Fuller		Arlington	MA
Aiden	Gerstmyer		Somerville	MA
Lucy	Weltner		Concord	MA
Janet	Surrey		Newton	MA
Diane	Bradley		Arlington	MA
Elaine	Lyte		Arlington	MA
Rebecca	Persson		Arlington	MA
Rebecca	Sandvos		Belmont	MA
Barry	Rafkind		Somerville	MA
Jennie	Rathbun		Arlington	MA

Save the Alewife Brook

Environmental Health is Community Health

Wynelle	Evans	[redacted]	Arlington	MA
Peg	McAdam		Arlington	MA
Tracy	Revett		Somerville	MA
Lois	Greenbaum		Somerville	MA
Judy	HunT		Cambridge	MA
Ajda	Snyder		Somerville	MA
Rebecca	Behizadeh		Arlington	MA
Debora	Hoffman		Belmont	MA
Sally	Orme		Medford	MA
Deb	Olken		Cambridge	MA
Susan	Lemont		Arlington	MA
Paul	Parise		Arlington	MA
Lindsay	Frazier		Cambridge	MA
Meryl	Becker		Arlington	MA
Melanie	Abrams		Cambridge	MA
Maureen	Mueller		Cambridge	MA
Elizabeth	Thomason		Cambridge	MA
Patricia	Kervick		Arlington	MA
Elizabeth	Murphy		CAMBRIDGE	MA
Ellen	Crocker		Cambridge	MA
Naomi	Dworkin		Belmont	MA
Susan	Keane		Arlington	MA
Matthew	Carlino		Somerville	MA
Christine	Dall		Lexington	MA
Irene	Lanois		Somerville	MA
Lynn	Betlock		Cambridge	MA
Karen L	Grossman		Arlington	MA
Anna	Cavallo		Arlington	MA
Ann	LeRoyer		Arlington	MA
Jill	Dierx		Cambridge	MA
catherine	coleman		Cambridge	MA
Karen	Hartford		Arlington	MA
Heidi	Selig		Arlington	MA
Zach	Meyer		Cambridge	MA
Jennifer	Wade		Cambridge	MA
Thomas	Mason		Arlington	MA
Jenny	Cutraro		Arlington	MA
Rachel	Rosenberg		Cambridge	MA
Erica	McDonel		Arlington	MA
Macee	Damon		Arlington	MA
Cathy	Ball		Arlington	MA

Save the Alewife Brook

Environmental Health is Community Health

Ann	J	[redacted]	Arlington	MA
Ron	Newman		Somerville	MA
Gillian	White		Cambridge	MA
Jessica	Kinner		Somerville	MA
Julie	Viens		Cambridge	MA
Madeleine	Aster		Cambridge	MA
Elissa	Ely		Belmont	MA
Diane	Mahon		Arlington	MA
Leili	Towfigh		Medford	MA
Marina	Popova		Arlington	MA
Ellen & Paul	Zimmermann		Arlington	MA
Marcia	Ciro		Watertown	MA
Leah	Broder		Arlington	MA
Elaine	Campbell		Arlington	MA
Betty	Krikorian		Belmont	MA
Ann	Stewart		Cambridge	MA
Rebecca	Gruber		Arlington	MA
Libby	Hsu		Cambridge	MA
Michael	Cerone		Arlington	MA
Vic	Wollam		Norwell	MA
Michael	Lonetto		Somerville	MA
George	Laite		ARLINGTON	MA
Kristin	Anderson		Arlington	MA

Mystic River
WATERSHED ASSOCIATION

January 28, 2026

MWRA Board of Directors

Dear MWRA Board:

I am writing again on behalf of the Mystic River Watershed Association and its many constituents about the issue of resolving the remaining out-of-compliance combined sewer overflows on the Mystic River and Alewife Brook.

We appreciate the attention that is being collectively brought to this issue, and urge you to take this extension to the planning process to focus on the largest questions before us.

The single biggest question on the table is what **scale of investment** will be brought to bear on this regional challenge, including all state resources that can be harnessed.

We urge you to focus on the following large-scale questions and issues:

1. **Full sewer separation should be the presumptive solution,** unless transparent public decision-making decides that it is infeasible. We understand in principle the project team's claim that even full sewer separation would not entirely remove the threat of CSOs (or SSOs) because any complex system requires relief valves in the worst case scenarios. But a slide in a public presentation in 2025 suggests that the modeling indicates a **>99% reduction in CSO volumes under sewer separation** in 2050 conditions (see Attachment A). This would be a result that we suspect all parties would eagerly welcome. We believe that the public case against sewer separation--the gold-standard, permanent solution to combined sewer pollution, after all--has not been made in a compelling way. Our own proposal is that all avenues toward full sewer separation should be explored as a first priority.

2. **How can we be the most ambitious and visionary here?** What creative funding mechanisms can be brought to bear on this regional problem? What are all the possible sources of funding at the state level?

3. **What are the maximum spending limits** consistent with the Financial Capability Assessment, and why are we not proposing projects that spend up to that limit to finally remove sources of sewage in the rivers and streams of greater Boston?

4. **What are the true benefits of the projects currently on the table?** All the projects predict some level of CSO releases in the future. What is not clear from the current analysis is what those levels will be. The "Zero-CSOs in a Typical Year" formulation is particularly misleading. This level of control does not mean that over, say, a 10-year period, the average CSO release will be zero. Far from it. In "greater-than-typical" precipitation years, CSOs will happen, by definition. For the public to make proper evaluations of the impact of any project, we need a prediction from the modeling teams of how volumes of CSO releases in a modeled decade using 2050 climate predictions. In addition, we need an accounting of the co-benefits to public health, climate resilience, and ecosystem health, not merely benefits measured as reductions in CSO volumes.

5. **Why were the most ambitious plans in the Mystic River not the preferred solutions?** In the Mystic in particular, the cost differential between the least and most ambitious plans was most modest. We should achieve higher levels of control on the Mystic.

6. **Do not abandon Alewife Brook to a guaranteed future of raw sewage inputs.** Alewife Brook is the scene of the largest completely **untreated** sewage inputs of any river or stream in greater Boston. It is a stain on the environmental history of Boston and the history of the cleanup of Boston Harbor. CSOs on Alewife should be eliminated.

We look forward to a robust, transparent public debate on the path forward in this important year.

Sincerely,

Patrick Herron
Executive Director

Attachment: Slide from Project Team presentation

Attachment A: Slide from 2025 Public Presentation by the project teams, estimating CSO activations and volumes in 2050 if no work is done (blue columns) and if regional sewer separation were accomplished (green columns). **Please note**: Complete Sewer separation yields **ZERO** CSO volumes in all but two outfalls under 2050 conditions in a typical year. This is a greater than 99% decrease in CSO volumes in a typical year in the Mystic and Charles watersheds.

Preliminary Results – For Discussion Only

Deep Dive: Regional Sewer Separation in Cambridge, Somerville, and Boston

Even with full separation of all combined areas, CSOs still occur in 2050 TY

CSOs by Outfall

Outfall	2050 Typical Year* - Baseline Conditions		2050 Typical Year* - Baseline Conditions + Regional Sewer Separation	
	Activation Frequency	Volume (MG)	Activation Frequency	Volume (MG)
ALEWIFE BROOK				
CAM001	1	0.02	0	0.00
CAM002	0	0.00	0	0.00
CAM401A	12	10.95	0	0.00
CAM401B	3	0.30	0	0.00
MWR003	3	1.08	0	0.00
SOM001A	13	8.51	0	0.00
Alewife Total	**13**	**20.86**	**0**	**0.00**
MYSTIC RIVER				
SOM007A/MWR205A	8	29.31	0	0.00
Mystic Total	**8**	**29.31**	0	**0.00**
CHARLES RIVER				
CAM005	6	0.73	0	0.00
CAM007	0	0.00	0	0.00
CAM017	3	1.04	0	0.00
MWR010	0	0.00	0	0.00
MWR018	4	1.86	0	0.00
MWR019	3	1.33	0	0.00
MWR020	3	3.14	0	0.00
MWR201 - Cottage Farm	4	30.12	1	0.13
MWR023	6	0.13	6	0.14
Charles Total	**6**	**38.35**	**6**	**0.27**

** The Unified Model is still being developed and reviewed. Model results provided in this presentation are preliminary and are subject to change.*

DRAFT

Outlook

[EXTERNAL] CRWA Correspondence to MWRA Board

From Stefan Geller <sgeller@crwa.org>
Date Thu 1/29/2026 9:56 AM
To MacDougall, Kristin <Kristin.MacDougall@mwra.com>; CSO <CSO@mwra.com>

2 attachments (24 MB)
Portland, OR weighs in on CSO elimination in MA.mp4; CRWA comments - Feb 4th meeting.pdf;

Good morning,
Please include the attached comments and video (Portland, OR weighs in on CSO elimination in MA) in the Board Correspondence for the 2/4/26 meeting
Best,

Stefan Geller | He/Him

Senior Communications Manager

(617) 540-5650 x1079

Charles River Watershed Association

Lands of the Massachusett, Nipmuc, and Wampanoag tribes

41 West St. Floor 8 | Boston, MA 02111

LinkedIn | Facebook | Instagram

Portland, OR weighs in on CSO elimination in MA.mp4

February 4, 2026

Via email

Massachusetts Water Resources Authority
2 Griffin Way
Chelsea, MA 02150

Re: Combined Sewer Overflow Long Term Control Plan

Dear Members of the MWRA Board of Directors,

We are reaching out to you once again on behalf of the thousands of CRWA members and supporters, and the 1M+ greater Boston residents who recreate on the Charles River each year, because the decision that is before you will have meaningful consequences for nearly every resident and visitor to our region in the coming decades. Setting the path for decades of infrastructure investment is a once-in-a-generation opportunity; we can choose to be ambitious and fiscally responsible by ending CSOs once and for all. Or we can fail future generations by investing in an outdated system, throwing good money after bad, and kick the can down the road for others to deal with. Today, we have the opportunity to invest in a healthy and safe greater Boston, where people enjoy our local waterways without finding themselves in the emergency room with gastrointestinal illness or staph infections, or we can continue the refrain of "it's too hard" and " it will take too long," and default to spending tens of millions of dollars to just keep dumping sewage into the Charles River.

The mission of Charles River Watershed Association since our founding in 1965 has been to "protect, restore and enhance the Charles River and its watershed," and we use science, advocacy, and the law to carry out that mission. CRWA has been an essential voice for decades in the improvement of the Charles River, and increasing public access to the river. We have a well-earned reputation for centering data, information, and evidence to guide our advocacy, and our recommendation to you today reflects that philosophy.

We come to you, once again, with a clear and achievable request: **Bring the Success of the Boston Harbor Beaches to the Charles River.** We request that this board do the right thing and direct the staff to find a way to achieve a 25-yr level of control in all three waterbodies (or come as close as is technically feasible through complete sewer separation with additional storage).

Jon Chesto's January 15th article in the Boston Globe celebrating 25 years of successful MWRA leadership by Director Fred Laskey, highlights one success before all others:

> *[Fred Laskey] joined in June 2021, soon after the MWRA's giant, 9.5-mile outflow pipe for its modernized Deer Island treatment center came online. The Deer Island project, prompted by 1980s-era environmental litigation, pushed treated sewage out to sea. It cleaned up the harbor's infamous dirty waters and contributed to the building boom that turned the South Boston waterfront of warehouses and seafood joints into the modern-day Seaport of glass office towers and lush steakhouses.*

Continue Director Laskey's success in the next 25 years by developing an ambitious plan, fit for the people of this region. Take the same stance as the City Council of Cambridge in requiring this level of control. By your own analysis, through effective bonding and debt management, this is achievable.

On a less positive note, CRWA continues to have serious concerns with the updated LTCP planning process. As we noted in previous letters, we have been active participants in this process from before the start, providing comments on the scope of work included in the Variance, attending every meeting we were invited to, attending and planning local meetings, engaging with this board, and more. Since the time of our previous correspondence, the process has only degraded further, something we did not believe to be possible. We provide the following comments for your thoughtful review and consideration.

Inadequate Engagement

The project team continues to claim that they have conducted extensive and meaningful engagement, but we are uniquely positioned to tell you they have not. The project team held public meetings as well as smaller individual meetings with us, Mystic River Watershed Association, and Save the Alewife Brook. We appreciated these meetings and always showed up, however, this was not a two-way conversation, it was a one-way communication of information from the project team to participants. Our voices continue to be ignored and, in the case of the last public meeting, even silenced (please see 1:56 of the January 15th public meeting where a participant was cut off while sharing a personal testimonial of contact with CSO waters). These meetings are tightly controlled and involve attendees being talked at for over an hour. The January 15th meeting presentation lasted approximately 1 hour and 45 minutes, while attendees were provided a maximum of 2 minutes to offer thoughts or ask questions. That time balance alone demonstrates the team's interest in speaking over listening. Despite a very loud and publicly stated interest in knowing what the team will recommend as a preferred alternative for the Charles River, at the time of providing these comments we have not been made aware of that recommendation. This type of one way, top down "engagement" would be unacceptable in many projects that receive state grant funding, why is this acceptable here? We have yet to see the project team effectively communicate that they understand the concerns of the residents showing up to all of these meetings. They continue to prioritize their own internal concerns, like cost, over the concerns voiced by residents. Additionally, we have not seen the project team make *any effort* to inform and engage with the general public about this whole process (be it via placing ads, penning editorials,

tabling at community events, etc.). We also have yet to see any evidence that the team has met requirement F.3 of the Variance: *MWRA and the City of Cambridge shall conduct robust public outreach to Environmental Justice communities about the Variance waters*. We have asked for a specific response to this in the past and it has been ignored. We ask that the board request the staff to report in detail what activities were conducted here and demonstrate how they meet this requirement. We do note that the WAC meeting held on January 16th, did provide a more open opportunity for questions and back and forth with the project team, and we thank the WAC for hosting that conversation.

No Conversation about the Public Health Impacts

There has yet to be any acknowledgement of the public health risks presented by dumping untreated or undertreated wastewater into the Charles and Mystic Rivers, and Alewife Brook. Given the high level of expertise on the project team, and MWRA's outstanding expertise in modern wastewater treatment practices, this is shocking. Every meeting we are subjected to multiple slides intended to demonstrate that there will be no benefits to water quality by reducing or eliminating CSOs. This analysis, however, is extremely limited in scope and omits key details. In the Charles, this work has been done on a questionable geographic scale, which we have asked the project team to address in the past. The project team continues to use this analysis to blame water quality problems on stormwater. Stormwater is a problem, however, MWRA staff always fail to mention the millions of dollars communities are spending to address stormwater under MS4 permit requirements, only to have MWRA continue to dump sewage into the Charles. The analysis uses a bacterial water quality metric that does not effectively capture the impact of CSOs on human health. Despite members of the public continuously raising concerns over public health, no additional metrics have been explored, such as:

- Potential increase or decrease in emergency visits for gastrointestinal illness (as was studied by BU school of public health)
- Days of increased public health risk/river advisories
- Public health risks associated with partially treated wastewater (if chlorination alone was an adequate form of sewage treatment, why wouldn't we use this everywhere?)
- Exposure from flooding/bank overtopping of CSO discharge

No True Understanding of the Economic Impacts

MWRA, the state, and the people of Massachusetts should not make a final decision on the updated Long Term Control Plan without complete information about what we are investing in or what we are potentially missing out on. Other cities have used "triple bottom line analysis" or full environmental and social economic analysis to better understand the impacts of their decision. These are expensive and impactful projects, we deserve to have a full understanding of the impacts. We ask that you join the Cambridge City Council in making this a part of the process.

Narrow Focus

This process has not been designed to solve the problem, it has been designed to save money. MWRA's capable team has not created an ambitious vision for how we can improve our existing

infrastructure and build resilience to climate change. That's what we need, that's what other cities have done, and we can do it too! Instead this process has been an extremely narrowly-focused planning exercise looking at increasing or decreasing CSOs through very traditional infrastructure projects and comparing them to the financial cost of those infrastructure projects. We've seen the project team exclude entirely or cap some more modern solutions, like smart sewers and green stormwater infrastructure, for reasons that still remain unclear or unacceptable to us. When CRWA and other members of the public have asked the project team to take a more holistic view of the problem, we are met with explanations of red tape, and scope or charge limitations. We have let bureaucracy sabotage the process. It's time to take the blinders off and look at the big picture, look at the possibilities, take a one water approach that looks at stormwater, wastewater, combined sewage, and flooding as pieces of the same puzzle. Slide 10 from the January 15th presentation is a stark demonstration of this. Stormwater is combined sewage in the making, stormwater is what causes CSOs, these do not occur in dry weather. We do appreciate that Somerville and Cambridge are considering flooding during this process and we strongly urge MWRA to take whatever steps necessary to remove the red tape preventing it from doing the same.

Listen to your Constituents

In just the past few months, officials from Boston, Cambridge, Somerville, Newton, Lexington, Watertown, Needham, Brookline and Waltham — all communities in the MWRA system — have taken the time to make their voices heard in this process. Residents are willing to fund investments in clean water, especially when they learn that this disgusting practice of dumping untreated or undertreated sewage is going on in their very own back yard.

Sincerely,

Emily Norton
Executive Director

Additional Correspondence to the Board

2/4/26 Meeting

Outlook

[EXTERNAL] For MWRA Board Feb 4: Combined Sewer Overflow Control Planning Program - Joint efforts by Cambridge, MWRA, and Somerville | SomerVoice.

From Beth Melofchik <bethmelofchik@gmail.com>

Date Tue 2/3/2026 8:36 AM

To MacDougall, Kristin <Kristin.MacDougall@mwra.com>

Cc Garballey, Sean - Rep. (HOU) <sean.garballey@mahouse.gov>; Rogers, Dave - Rep. (HOU) <dave.rogers@mahouse.gov>; Save the Alewife Brook <Arlington@savethealewifebrook.org>; Diane Mahon <dianemahon@verizon.net>; dstoff <dstoff@rcn.com>; Patrick Herron <patrick.herron@mysticriver.org>

Ms. MacDougall, please include for Feb 4 Board meeting

MWRA Board

Dear MWRA Board,

January 15, 2026, for 90 minutes MWRA, Cambridge and Somerville presented highly technical plans regarding CSOs. Highly technical, for 90 minutes, repeating talking points designed seemingly to overwhelm and produce acquiescence to their preferred minimal cheaper choice.

New COO Kathy Murtagh opened the meeting, same CSO planning team, paid moderator.
The moderator cut off Kristin Anderson, Save Alewife Brook, just as she was explaining the financial piece and that there is funding capacity.*

The presentations were designed, having brought along Kathy Murtagh, to bring along the public to MWRA'S sclerotic obsolete kick the can down the road protocol.
Dominant fear mongering included: rate hikes, more pollution from storm water, construction site traffic congestion, trucks, big trucks.

MWRA, Cambridge and Somerville have still again rationalized their do the least approach.

Commenters allowed to complete remarks noted continued stonewalling, general obtuseness and dissatisfaction with material designed to subdue rather than inform the public.

COO Murtagh has our support in order to craft plans to address our communities' needs.
We respectfully submit she needs a new team with new ideas and a solution based approach.

No mention in the plans to use the vast acreage at the Alewife MBTA site, locale of the largest CSO outfall of raw sewage in the Boston area.**

We got the message: convince the public lower rates and shit in our rivers, brook, parks and basements is better than rolling up their sleeves to get the job done.

MWRA, Cambridge and Somerville bureaucrats are loathe to relinquish their safety valve, shitting on East Arlington neighborhoods, in the Charles, Mystic Rivers and Alewife Brook.

*A new team is needed, a new vision.
Save Alewife Brook deserves a seat at the table. At least to make a complete statement.

Please reject any proposal at Alewife Brook that does not result in full sewer separation in Cambridge, elimination of Somerville's Tannery Brook CSO regulator (SOM001A), and a 25-year level of storm control for MWRA's Alewife Brook / Little River CSO (MWR003).
Alewife Brook floods regularly, parents have been seen pushing baby strollers through raw sewage.
It is in the rate payers' best interest to remove stormwater from the combined sewer pipes.
Why are we sending stormwater from these antique sewer systems to Deer Island for treatment?

MWRA is required to complete the job of the Boston Harbor Court Case.
People have been getting sick from exposure to sewage in the flood water in Arlington due to MWRA'S choices and inaction.

No more variances.
Arlington is owed solutions, now, before more dense development implodes a crumbling public sewer system.
Arlington pays the price in public health impact, in contaminated yards and basements.

MWRA Board please end the exploitation of Alewife Brook and East Arlington as the decades long open sewer of convenience safety valve for Cambridge and Somerville.
And, get a new team.

Beth Melofchik
Town Meeting Member

https://voice.somervillema.gov/joint-cso-planning

https://savethealewifebrook.org/

February 4, 2026

Via email

Massachusetts Water Resources Authority
2 Griffin Way
Chelsea, MA 02150

Re: Combined Sewer Overflow Long Term Control Plan

To the MWRA Board,

We are writing in response to the proposal released by MWRA staff in late October recommending increased sewage discharges to the Charles River, Mystic River, and Alewife Brook under the updated Long Term Control Plan.

As representatives of conservation commissions and committees from communities across Massachusetts, we strongly oppose this proposal and urge you to pursue a plan that fully eliminates sewage releases rather than allowing them to persist.

The cleanup of Boston Harbor and its rivers stands as one of the nation's most significant environmental success stories—and it is central to MWRA's legacy. It is difficult to understand how the Authority could choose to abandon that progress before the work is complete. MWRA's original leaders set forth an ambitious Long Term Control Plan to dramatically reduce combined sewer overflows (CSOs). In contrast, the revised plan now under consideration would increase overflow volumes and effectively lock CSOs in place indefinitely.

Through our work in local communities, we know that Massachusetts residents deeply value their natural resources and support investing in their protection. Allowing the Charles and Mystic Rivers to remain permanently subject to sewage discharges would not only harm nearby communities, but also send a troubling signal statewide—that we should accept pollution in our own rivers, streams, beaches, ponds, and lakes. Sewage discharges also pose serious public health risks that research shows disproportionately impact environmental justice communities.

It is long past time to make the investments necessary to end sewage discharges in the Charles River, Mystic River, and Alewife Brook—and ultimately in waterways across the Commonwealth—once and for all.

Sincerely,

Matthew Gardner, Chair, Natick Conservation Commission

Meredith Confrey, Conservation Agent, Town of Dedham

Leonel Lainez, Environmental Specialist, Town of Dedham

Erik DeAvila, Chair, Dedham Conservation Commission

Stephanie Radner, Vice Chair, Dedham Conservation Commission

Elena Taurasi, Clerk, Dedham Conservation Commission

Nathan Gauthier, Dedham Conservation Commission

Leigh Hafrey, Dedham Conservation Commission

Elizabeth Yntema, Dedham Conservation Commission

Dave Herer, Chair, Needham Conservation Commission

Alexander Sbordone, Chairman, Waltham Conservation Commission

Chuck Tirone, Chair, Arlington Conservation Commission

Claire Rundelli, Conservation Agent/Environmental Planner, Town of Natick

CC:

DEP Commissioner Bonnie Heiple

Governor Maura Healey

Lt Governor Kim Driscoll

US Senator Ed Markey

US Senator Elizabeth Warren