

City of Newton



Ruthanne Fuller
Mayor

DEPARTMENT OF PUBLIC WORKS

OFFICE OF THE COMMISSIONER

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RE: Comments on Draft Permit No. MA0103284 for the MWRA Deer Island Treatment Plant

Dear Ms. Barden and Ms. Golden:

The City of Newton, Massachusetts (herein Newton) appreciates the opportunity to comment on the draft National Pollutant Discharge Elimination System (NPDES) Permit No. MA0103284 (the Draft Permit) for the Massachusetts Water Resources Authority (MWRA) Deer Island Treatment Plant (DITP), which the U.S. Environmental Protection Agency – Region 1 (EPA or the Region) noticed for comment on May 31, 2023.¹ As one of the entities subject to the terms of the Draft Permit once they are finalized, Newton writes to express its support for the comments submitted by the Massachusetts Water Resources Authority Advisory Board (Advisory Board), which are incorporated by reference as if set forth herein, and also to write separately to articulate and highlight issues of particular concern to our community.

As an initial matter, Newton has substantial concerns about the Draft Permit's imposition of a novel requirement to develop and implement a major storm and flood event plans for its sewer system. This requirement will impose significant financial and resource burdens on communities like Newton. The extent of these burdens is unknown because neither EPA nor MassDEP has conducted any cost-benefit analysis of this new requirement. Newton also has significant concerns about the Draft Permit's directive to complete and begin implementing a plan within twelve months of the effective date of the final permit. Our community is also concerned that the mandate to modify its plan whenever new data are generated or discovered threatens to cast aside local planning priorities in favor of a federally mandated, perpetual planning cycle.

¹ On May 31, 2023, the Massachusetts Department of Environmental Protection (MassDEP) also issued a draft 2023 Draft Massachusetts Permit to Discharge Pollutants to Surface Waters for DITP (the State Permit) that incorporates by reference Parts I.A-K and Part II of the Draft Permit. This letter similarly comments on the State Permit.

Newton has other significant concerns with the Draft Permit discussed in detail below. In particular, the Draft Permit and State Permit inappropriately regulate communities like Newton as co-permittees and have failed to define their obligations with adequate clarity. As the Advisory Board has commented, unless EPA and MassDEP clarify the communities' and MWRA's responsibilities, the DITP's permit could upset the longstanding and successful relationship among MWRA and the communities.

I. Major Storm and Flood Events Planning Requirements

Part I.E.2.(e)(2) of the Draft Permit (the Major Events Planning Provisions) would impose on Newton and other cities and towns novel and onerous long-term obligations develop and implement plans to address sewer systems climate change resiliency. These plans, which the Draft Permit requires to be updated every five years, must include (1) an asset vulnerability evaluation; (2) a systematic vulnerability evaluation, and (3) a mitigation measures alternatives analysis, and they must take into consideration future conditions, "specifically the midterm (i.e., 20-30 years) and long-term (i.e., 80-100 years) and, in the case of sea level change, the plan must consider sea level change." Draft Permit Part I.E.2.(e)(2).

This requirement could strain Newton's resources beyond their breaking point and disrupt its broader capital planning process. The Draft Permit also gives Newton insufficient time to complete its plan. Worse yet, EPA lacks the authority to impose this new planning and project development obligation in DITP's NPDES permit, and both EPA and MassDEP have failed entirely to justify this new set of obligations.

A. EPA Failed to Evaluate the Costs that Newton and Other Communities Will Bear.

Complying with the Major Events Planning Provisions will impose substantial costs on Newton. The investments to undertake this work, including the up-front vulnerability and mitigation alternatives analysis and the significant implementation and ongoing re-evaluation requirements, will likely require thousands of hours of personnel time and the engagement of outside consultants. These costs could pale in comparison to the potential capital costs that Newton may incur in order to implement mitigation measures that could even require relocating existing facilities or building new ones.

The associated financial burdens on communities like Newton are unknown but certain to be substantial. Newton will need to assess whether it must hire more staff or engage consultants to comply with the Major Events Planning Provisions. Based on its planning efforts, Newton will then have to modify its capital improvement plans and budget for resiliency projects. These additional costs will ultimately impact other parts of Newton's budget, resulting in lower spending on other critical infrastructure or other community needs.

Newton has an aggressive sewer infiltration/inflow removal program, spending \$5 million to \$8 million per year for more than 11 years on removing excess sewer flow from Newton's aged sewer system.

Newton recently submitted our Lower Charles River basin phosphorus removal plan to both EPA and DEP, as part of our annual NPDES permit reporting requirements. The plan calls for a removal of 5679 lbs/year of phosphorus by 2038 (including 1136 lbs/year by 2026, and 1420 lbs/year by 2028). Estimated implementation costs approach \$142.24 million.

EPA and MassDEP must evaluate these costs before finalizing the Major Events Planning Provisions. At the very minimum, before issuing a final permit, EPA or MassDEP should provide Newton and the public more generally with a formal cost-benefit assessment that informs all interested parties of the cost burdens of implementing these novel and significant planning and implementation requirements.

B. The Major Events Planning Provisions Do Not Provide Sufficient Time for Compliance.

The Major Events Planning Provisions provide Newton inadequate time to develop a plan that must accomplish the following: (1) analyze sewer system-related assets and assess vulnerabilities, (2) conduct a systemic vulnerability evaluation of each individual system and develop an alternatives analysis, and (3) begin implementing mitigation measures. Draft Permit Part I.E.2.(e)(2). The Draft Permit affords Newton and its peer communities only 12 months to accomplish these tasks, an amount of time that is obviously insufficient to (a) retain the necessary staff or consultants and (b) complete the tasks required by the Draft Permit.

If EPA and MassDEP insist on including the Major Events Planning Provisions, the agencies must provide Newton and other communities a reasonable deadline to complete this major undertaking. Any final permit should allow the communities at least thirty-six months to develop and begin implementing major storm and flood events plans.

C. The Agencies Should Explore Whether Existing Programs Achieve the Objectives of the Major Events Planning Provisions.

Before requiring Newton to expend the significant resources necessary to comply with the onerous Major Events Planning Provisions, the agencies should assess the extent to which existing efforts or programs address or could be adapted to address the interests EPA seeks to protect through the Major Events Planning Provisions. For example, wastewater utilities in Massachusetts regularly seek funding from the Commonwealth's Clean Water State Revolving Fund (CWSRF), and this program already requires applicants to comply with planning and asset management requirements in order to receive funding. The agencies may find that the CWSRF is a better tool to address long-term planning obligations than an NDPES permit that is limited to governing specific discharges over a five-year term.

D. EPA and MassDEP Failed to Justify These Planning Requirements.

In addition to the foregoing issues, Newton is concerned that it has not had an adequate opportunity to comment on the Major Events Planning Provisions because EPA and MassDEP have failed to show their work. Both agencies' fact sheets must address "the significant factual, legal, methodological and policy questions considered in preparing the draft permit." 40 C.F.R. § 124.8(a); 314 CMR 2.05(3). For a set of programmatic requirements as important and sweeping as the Major Events Planning Provisions, one would expect substantial discussions of the various "factual, legal, methodological and policy questions" each agency considered.

EPA, however, justified the Major Events Planning Provisions by simply declaring them "necessary to ensure proper operation and maintenance" of wastewater treatment infrastructure.²

² This explanation appears inconsistent with what the Major Events Planning Provisions require. They do far more than ensuring "proper operation and maintenance" by requiring Newton and other cities and towns to consider—and possibly pursue—relocating facilities or building entirely new ones. Draft Permit Part I.E.2.e.(2)i.(c)(ii), (iv).

Fact Sheet at 102-03. This explanation fails short of what EPA's regulations require, but it at least provides *some* indication of EPA's views. MassDEP, by contrast, failed entirely to discuss the Major Events Planning Provisions in its Supplemental Fact Sheet. If Newton and the public are to have a meaningful opportunity to comment on the Draft Permit, the agencies must better explain the Major Events Planning provisions and allow for additional public comment.

Newton suspects that EPA may have failed to justify the Major Events Planning Provisions because it lacks authority to impose them under the Clean Water Act (CWA). The statute limits EPA's authority under the NPDES program to regulating discharges, not the wider facility (or facilities) that discharge. *See, e.g., Natural Resources Defense Council v. EPA*, 859 F.2d 156, 170 (D.C.Cir.1988) (“[T]he [Clean Water Act] does not empower the agency to regulate point sources themselves; rather, EPA's jurisdiction under the operative statute is limited to regulating the discharge of pollutants.”). The Major Events Planning Provisions, however, reach far beyond regulating discharges by potentially regulating the location of permittees' facilities or even requiring the construction of additional infrastructure. Because the Major Events Planning Provisions exceed EPA's jurisdiction under the CWA, they should be removed from any final permit.

II. THE DRAFT PERMIT IMPERMISSIBLY INCLUDES SANITARY SEWER COMMUNITIES AS CO-PERMITTEES.

As the Advisory Board has emphasized in its comments, for the first time, EPA and MassDEP are attempting to regulate Newton and thirty-eight other sanitary sewer communities under DITP's permit. This radical change to these communities' regulatory obligations exceeds both agencies' respective authorities and threatens to disrupt the longstanding relationships between MWRA and the communities it serves. The agencies have also sought to impose this new regime without Newton's consent by unlawfully waiving their permit application requirements.

Worse yet, MassDEP has provided no explanation at all for its decision to regulate the Co-permittees under the State Permit. MassDEP has an obligation to provide a “summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions” in its fact sheets but has provided none in the Supplemental Fact Sheet for including these Co-Permittees in the State Permit. 314 CMR 2.05(3)(c). In order for Newton to have an adequate opportunity to comment on the State Permit, MassDEP should explain its reasons and open a new comment period.

A. Neither EPA nor MassDEP Has Jurisdiction to Regulate Communities Like Newton.

1. The Federal Draft Permit

The Draft Permit's inclusion of Newton as Co-permittee exceeds the EPA's authority under the NPDES program. Under the CWA, EPA may only regulate “the discharge of [a] pollutant.” 33 U.S.C. § 1311(a). A regulated discharge requires an “addition of any pollutant to navigable waters from [a] point source” 33 U.S.C. § 1362(12)(A); 40 C.F.R. § 122.2. Unless its sanitary sewer system adds a pollutant to navigable waters, Newton is “neither statutorily obligated to comply with EPA regulations for point source discharges, nor are they statutorily obligated to seek or obtain an NPDES permit.” *Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486, 504 (2d Cir. 2005); *Nat'l Pork Producers Council v. EPA*, 635 F.2d 738, 751 (5th Cir. 2011) (“There must be an actual discharge into navigable waters to trigger the CWA's requirements and the EPA's authority.”).

Newton’s sanitary sewer system adds no pollutants to navigable waters. As EPA concedes in the Fact Sheet, it only adds pollutants to MWRA’s treatment works. Fact Sheet 20 (“The Massachusetts municipalities in Appendix A own and operate wastewater collection systems that *discharge flows to the DITP*” (emphasis added)). The only addition of pollutants to navigable waters occurs downstream from Newton’s sewers, when DITP discharges treated effluent from Outfall T01.³

EPA rules reinforce that the communities do not have discharges that trigger the Region’s CWA authority. The regulatory definition of a “discharge of a pollutant” explains that the term encompasses releases “through pipes, sewers, or other conveyances owned by a State, municipality, or other person *which do not lead to a treatment works*” This language would only be necessary if the obverse is true: flows conveyed through municipally-owned sewers that *do* lead to a treatment works are not discharges.

2. The State Permit

For the reasons set forth above, MassDEP regulation of Newton and the other Co-permittees in the State Permit is inconsistent with the regulations governing Surface Water Discharge Permits. The Surface Water Discharge Permit regulations, like the CWA, generally impose the requirement to obtain a permit on persons who “discharge pollutants to surface waters” 314 CMR 3.03(1). And much like the federal program, the regulations define a “discharge” as an “addition of any pollutant to waters of the Commonwealth,” and explain that a discharge includes “discharges through ... sewers, or other conveyances owned by a ... municipality ... which do not lead to a POTW.” 314 CMR 3.02.

The sanitary systems’ conveyance of flows to DITP involves no addition of pollutants to any waters of the Commonwealth. They add flows only to the downstream POTW, a circumstance that the regulations make clear is not a discharge that requires a permit.

B. Communities like Newton are not part of the Deer Island Publicly-Owned Treatment Works.

1. The Federal Draft Permit

EPA cannot cure its lack of jurisdiction by lumping Newton and other sanitary sewer communities in with the larger publicly-owned treatment works (POTW) that includes DITP authorized under the Draft Permit.⁴ EPA’s regulations define a POTW to be “a treatment works ... which is owned by *a State or municipality*—expressed only in the singular. 40 C.F.R. § 403.3(q) (emphasis added); *see also id.* (referring to “*the municipality ... which has jurisdiction over Indirect Discharges to and discharges from such a treatment works.*” (emphasis added)). The definition’s use of the singular means that a POTW can only be owned by a single municipal entity, such that Newton’s sewer system cannot be part of same POTW as DITP.

³ The Region’s assertion that a sewer system’s lack of proximity to the “the ultimate discharge point is not material to the question of whether it ‘discharges’” is inconsistent with the Supreme Court’s interpretation of the Act. Fact Sheet, Appendix D at 13. In *County of Maui v. Hawaii Wildlife Fund*, the Court explained that “[t]ime and distance traveled are obviously important” to determining whether a regulated discharge has occurred. 140 S. Ct. 1462, 1476 (2020).

⁴ *See* Fact Sheet, App’x D at 10 (EPA may regulate satellite communities because they are part of “facilities subject to the NPDES program”); *id.* (“NPDES regulations similarly identify the ‘POTW’ as the entity subject to regulation.”).

EPA’s regulatory definition of a “discharge” confirms that the Region has improperly expanded the definition of POTW to span multiple communities’ sewer systems. That definition covers “discharges through pipes, sewers, or other conveyances owned by ... a municipality ... which do not lead to a treatment works.” 40 C.F.R. § 122.2. If a satellite collection system could be part of a POTW, there would never be circumstance where a municipally-owned sewer could “lead to a treatment works.” Instead, this provision would refer to municipally-owned sewers “which are not *part of* a treatment works.” The Region’s attempt to make the Co-Permittees part of the same POTW as DITP contradicts and cannot be reconciled with its own regulations.

2. The State Permit

MassDEP similarly cannot deem Newton’s sewer system part of the same POTW as DITP under its permitting regulations. Like their federal counterpart, the Surface Water Discharge Permit regulations define a POTW by reference to a single public entity rather than several. *See* 314 CMR 3.02 (“any device or system used in the treatment ... of municipal sewage ... which is owned by *a public entity*.” (emphasis added)). Having chosen to define a POTW by reference to a single owner, MassDEP cannot include satellite systems owned by thirty-nine communities in the same POTW as DITP.

C. Newton Has Not Submitted An Application To EPA or MassDEP, and Neither Agency Has Authority To Waive The Requirement To Do So.

Newton did not submit a permit application to either EPA or MassDEP. Even if the agencies could regulate the Co-permittees in DITP’s permit, issuance of a permit to a community that never submitted a permit application would violate their respective permitting regulations. EPA’s rules specify that “[a]ny person who discharges ... must submit a complete application ...” 40 C.F.R. § 122.21(a)(1). The Region then “shall not issue a permit before receiving a complete application for a permit ...” Without a permit application from Newton, EPA cannot issue a permit imposing conditions on Newton.

EPA cannot avoid this problem by waiving application requirements. *See* Fact Sheet 12, 21. EPA’s March 8, 2023 letter to Newton claimed that 40 C.F.R. § 121.21(j) authorized the Region to waive permit application requirements in their entirety. *See* Attachment 1, Newton’s Waiver Letter dated March 8, 2023. The Region’s waiver authority under this provision, however, extends only “to any requirement under this paragraph [*i.e.*, the POTW-specific requirements in § 122.21(j)].” 40 C.F.R. § 122.21(j). Thus, EPA only could have waived discrete information requirements for treatment works, not the fundamental requirement that a regulated entity submit a permit application. *Accord* 64 Fed. Reg. 42434, 42440 (Aug. 4, 1999) (“EPA proposed the introductory paragraph of § 122.21(j) to allow the Director to waive any requirement in *paragraph (j)*” (emphasis added)). The Region violated its own regulations by attempting to waive Newton’s obligation to submit an application.

MassDEP similarly violated its regulations by seeking to regulate Newton in the State Permit without having received a permit application from Newton. The Surface Water Discharge Permit rules specify that “[a]ny person required to obtain a permit ... shall complete and submit the appropriate application form(s).” 314 CMR 3.10(1); *see also* 314 CMR 2.03(1) (“Any person required to obtain an individual permit ... shall apply to the Department.”). MassDEP “shall not issue a permit before receiving a complete application ...” 314 CMR 3.10(4); *see also* 314 CMR 3.02(2) “The Department shall not issue an individual permit ... before receiving a complete application.”). Nothing in MassDEP’s regulations offer the department *any* authority to waive permit application requirements. This framework dictates that

MassDEP cannot issue a permit that regulates Newton because Newton has not submitted an application for a Surface Water Discharge Permit.

III. The Draft Permit Fails to Define with Sufficient Clarity the Relative Responsibilities of MWRA, CSO-Responsible Co-Permittees and Co-Permittees.

Even if EPA and MassDEP could lawfully structure DITP's permit to include Newton and other communities, neither the Draft Permit nor the State Permit define these parties' obligations with clarity sufficient to ensure that they are not held liable for conduct or events over which they have no control.

The cover page and Part I.E.2 must be revised to provide the communities and MWRA with absolute clarity that the communities are not responsible for MWRA's noncompliance and vice versa. Any final permit issued by EPA and MassDEP must make clear that the communities cannot be held liable for violations of permit requirements applicable to DITP; the Draft Permit and State Permit fail to do this. Language in Part C, Part D, and Part E must also be clarified further to remove any ambiguity regarding the several liability of MWRA, the CSO-responsible Co-permittees, and the Co-permittees.

It is particularly critical that EPA and MassDEP clearly delineate these responsibilities to avoid disrupting the longstanding relationship between MWRA and the communities, and among the communities themselves. Each community and MWRA have their own responsibilities with respect to wastewater treatment, and collection system management and compliance.⁵ Under its organic statute, MWRA must be accountable to the communities, rather than a manager or regulator of the satellite sewer systems it serves. An NPDES permit or Surface Water Discharge Permit that could make the communities liable for MWRA's conduct—or vice versa—could threaten that relationship. Accordingly, Newton supports the Advisory Board' proposed revisions to the Draft Permit's language that the Board submitted with its comments.

Excerpts from the city of Newton's Capital Improvement Plan are attached.

IV. Conclusion

Newton appreciates the opportunity to comment on the Draft Permit and State Permit. Please feel free to contact Mr. Louis M. Taverna, P.E., City Engineer (Ltaverna@newtonma.gov) if you have any questions or would like to arrange a meeting to discuss the resolution of the issues raised above.

Sincerely,

James McGonagle
Commissioner Public Works

ATTACHMENTS:

⁵ See Acts of 1984 ch. 372, § 26(d), 1984 Mass. Acts 809 (each local body served by MWRA has "the charge and control of the respective water, waterworks and sewer works owned and used by said local body and not in the ownership, possession and control of [MWRA].").

NEWTON'S SEWER SYSTEM

In 2013 the City developed a multi-year phased program to systematically address the 300 miles of sewer mains and related manhole structures citywide. This plan began with those areas known to have significant inflow and infiltration problems, as well as those areas that were experiencing flooding or sewer surcharging problems. The work in each project area is divided into 3 phases: Inspection and Assessment, including heavy cleaning; design of repair work; and construction, including post-construction flow assessment. Each project area generally is completed over a two-year period. Prior to the development of the City's comprehensive strategic plan for the improvement of its sewer infrastructure, it was estimated that more than 60% of the sewerage and wastewater that was sent to the Massachusetts Water Resource Authority (MWRA) for processing by the City of Newton was the result of Inflow (stormwater from direct illegal connections) and Infiltration (groundwater that gets into the sewer pipes through cracks and other imperfections). This infiltration and inflow ("I&I") was costing the City in excess of \$5 million per year. Furthermore, back-ups in the sewer lines due to insufficient capacity with the additional groundwater/stormwater resulted in sewer surcharges from some street and park manholes. To date the city has inspected 278 miles of sewer main, lined 99 miles of sewer main to reduce I&I, inspected 8,852 manholes then rehabilitated 3,947 manholes and performed 228 excavations to replace failed sewer main. This has resulted in the elimination of an estimated 1,960,408 gallons/year of Inflow and Infiltration of groundwater into the city's sewer collection system that would need to be transported and treated before being released into Boston Harbor. In FY2023, Public Works expects to complete Post Construction Flow Evaluation in Project Area 7 (Newton Upper Falls, Newton Highlands, Newton Centre, and Chestnut Hill), Continue Construction in Project Area 8 (Newton Upper Falls, Newton Highlands, Thompsonville, and Oak Hill), Complete Design in Project Area 9 (Newton Upper Falls, Waban, and Oak Hill). The City has 11 sewer pump stations within its wastewater collection system, in February 2020 the City performed a Pump Station Condition and Performance Assessment Evaluation to determine a Capital Improvement Plan (CIP) over the next 10 years. In FY23 the city is expected to upgrade the Heating and Ventilation in all the pump stations along with replacing the gate valves at the Quinobequin Road and the Elliot Street pump stations, and total replacement of the Oldham Road Pump Station.

NEWTON'S STORMWATER SYSTEM

Like many communities, Newton's storm water system is old and faces challenges related to storm water quantity and quality, system maintenance and upgrades, and localized flooding. In 2006, the City initiated a Storm Water Fee to help fund necessary improvements. These improvements are required as part of the National Pollutant Discharge Elimination System (NPDES) permit. Whenever a municipality, industry, or other entity wishes to discharge pollutants to a surface water of the United States, they must first obtain a NPDES permit. In the Commonwealth of Massachusetts, the Environmental Protection Agency (EPA) is the permitting authority and NPDES permits are typically co-issued by EPA and the Department of Environmental Protection (MassDEP). NPDES permits regulate wastewater discharges by limiting the quantities of pollutants to be discharged and imposing monitoring requirements and other conditions. The limits and/or requirements in the permit ensure compliance with the Massachusetts Surface Water Quality Standards and Federal Regulations, all of which were written to protect public health and the aquatic environment. While the City has completed a number of localized drainage repairs, the Department of Public Works recognized the need to develop a comprehensive plan to identify and address storm water needs throughout the City and to establish a funding plan to accomplish this work. In addition, the NPDES MS4 Permit increases requirements for maintaining and improving storm water quality. These needs must also be factored into all storm water planning. In order to accomplish several NPDES MS4 permit requirements, the City has developed a stormwater ordinance that requires stormwater mitigation for land disturbing activities on both private and commercial properties. Therefore, the City has undertaken a system-wide assessment to identify its program needs and develop a 20-year Storm Water Infrastructure Improvement Plan. Four primary areas being evaluated are: Stream Improvements, Localized Flooding, Culvert Maintenance and National Pollutant Discharge Elimination System (NPDES) compliance. Recommended projects include removal of debris within the stream bed and on nearby embankments; removal of sediment in stream beds, culverts and ponds; structural and capacity evaluation; rehabilitation and maintenance of pipes and culverts; repair of failing retaining walls and public education. A methodology and rating criteria will be used to prioritize the list of projects based on probability of failure and consequence of failure. Probability of failure is based on two factors: the age of the asset and the condition of the asset. Consequence of failure will look at the potential impacts related to the potential failure of the asset, including public health and safety, property damage, cost of deferred maintenance, number of people influenced and City development priorities. Combined with regulatory timelines for implementation of projects associated with the pending NPDES MS4 Permit and the financial impacts for each of the identified projects, the City has prioritized the results for the Storm Water Infrastructure Improvement Plan. In 2023, Public Works expects to remove 3,200 cubic yards of excessive sedimentation from the three ponds adjacent to City Hall, complete structural improvements to the Bullough's Pond Dam adjacent to Dexter Road, complete stormwater improvements to the Newton Free Library parking lot including the addition of a porous drainage pipe, complete drainage improvements of Union Street to alleviate street flooding, design, bid, complete construction of structural retrofits to maximize nutrient reduction for the discharge of stormwater into Crystal Lake at the intersection of Crystal Lake and Lake Avenue, and perform a stormwater assessment to the Public Works Elliot Street and Crafts Street Maintenance Facilities. In 2023 the City will continue work towards the development of a Phosphorus Control Plan (PCP) required by the U.S. Environmental Protection Agency (EPA) under the Municipal Separate Storm System (MS4) General Permit Appendix F. This plan will identify phosphorus reduction means and methods to be incorporated into future stormwater projects.

NEWTON'S WATER SYSTEM

The City of Newton has been identifying, evaluating, and improving 319 miles of Newton's water distribution system for many years. Beginning in 2000, the City took full advantage of the Massachusetts Water Resources Authority's water loan program to focus on cleaning and lining old (mostly pre-1900) water pipelines to improve water quality. The City then developed a strategic investment plan for our water system in 2013. The first few years of the plan focused on replacing water pipelines to improve fire flows. After completing a hydraulic analysis in 2016, the City began aggressively targeting leak-prone pipelines from the World War II Era to reduce the "unaccounted-for water" levels from leakage in the system. The City recognized the need to increase the renewal of the aging water distribution pipe network, much of which dates to the 1870's and developed a comprehensive capital improvement program. The City is currently continuing with its multi-year investment plan, spending in the \$4.5 - \$5.0 million a year range to replace and/or repair its water distribution system. In conjunction with the hydraulic analysis performed in 2016, the city is developed a Capital Efficiency Plan in 2021. The plan combined the hydraulic analysis with asset management and critical infrastructure to provide an updated Capital Improvement Plan (CIP). This approach will allow the City to fund the most important capital improvements with the greatest positive impact on the City's water customers. In FY 2023 the Waban Hill Reservoir Improvements project will replace original valves and piping along with rehabilitation of the central core to extend the service life of this reservoir that was originally put in service in the 1890's. In FY 2023, Public Works expects to rehabilitate 15,000 LF of watermain at various locations throughout the city. In addition, the City will be starting the process of replacing residential and commercial water meters that were installed in 2010. The replacement project includes a new automated meter reader system for residential and commercial properties that includes a customer portal that will allow customers to monitor their water consumption and be notified when there is abnormal usage, such as a leak. In FY 2023, Public Works will begin an inventory of all water service line materials to be complete by October 2024. Once the inventory is complete, Public Works will develop plans to ensure the City of Newton is in compliance with the US Environmental Protection Agency's revised Lead and Copper Rule.