

Mystic River Watershed Initiative

Mission Statement & 2018/2019 Joint Priorities

Mission Statement: The mission of the Mystic River Watershed Initiative’s Steering Committee (“Steering Committee”) is to serve as a coordinating and information-sharing body to help establish strategic direction and priorities as well as to recommend and promote key projects and actions needed to improve environmental conditions in the Mystic River Watershed.

The members of the Steering Committee work collaboratively to improve environmental conditions throughout the watershed. The efforts of the Steering Committee contribute to the protection, development, and use of water resources in a sustainable manner. The Committee’s goals include the restoration and protection of water quality, wildlife and its habitats, and the protection and creation of open spaces for safe public access to the waterfront. In addition, the Steering Committee promotes sustainable recreational uses on the river and its tributaries.

All organizations participating in this collaborative effort will maintain base program work, to the best of their abilities, with additional targeted involvement that supports the Mystic River Watershed Initiative with a particular focus on the actions and strategies listed below. The Steering Committee members work together to identify resources including funding for needed activities and projects in the watershed.¹

2018-2019 Joint Priorities

The following is a list of priority actions and strategies that support the protection, increase and development of open space and access, as well as improved water quality. Members of the Steering Committee will work together to implement these actions and to increase public awareness, participation, understanding, and access to information about the Mystic River Watershed.

- **Work to make the waters of the Mystic River Watershed fishable, boatable, and swimmable through activities and strategies that decrease phosphorus loading; reduce or eliminate wastewater contamination of water bodies; assist municipalities to address pollution from stormwater and to meet permit requirements; remediate legacy pollution; and increase public awareness of health risks pertaining to recreational use of water bodies, including fish consumption health advisories.**

Priority #1: Reduce non-point source pollution, which specifically includes phosphorus loading in the watershed, a principal cause of eutrophication and other impairments

- A. In collaboration with state and federal agencies, use scientific best practices to intensively study phosphorus dynamics and loading in the watershed with the aim of informing a watershed-based plan for management.

- B. Develop a Total Maximum Daily Load (TMDL), Watershed-based Plan, or other TMDL alternative to quantify and establish guidelines for phosphorus reduction in the watershed.
- C. Promote the use of low or no-phosphorus fertilizers on public properties through support in the development of Integrated Management Programs.
- D. Educate businesses, institutions, and the public on the benefits of low and no-phosphorus fertilizer.
- E. Promote funding for more pilot/example projects incorporating infiltration, onsite retention, and other green infrastructure strategies.
- F. Investigate the value and cost of phosphorus treatments and strategies beyond infiltration (aluminum treatments/biomass harvesting).
- G. Investigate the costs and benefits to ecosystem services provided by the lower Mystic River by periodic flushing via opening of the Amelia Earhart dam.
- H. Identify water bodies with water quality impairments (e.g. low dissolved oxygen, elevated chlorophyll a, cyanobacteria) resulting from high phosphorous availability.
- I. Measure and model the current phosphorous budget and estimate levels of reduction required to resolve water quality impairments.
- J. Reduce the density and areal extent of aquatic invasive species (Eurasian milfoil, other invasive milfoil species, water chestnut, etc.), as well as native species. Track such changes over time by mapping their extent and estimating density.
- K. Leverage partnerships with the U.S. Geological Survey (USGS), the Federal Emergency Management Agency (FEMA), the Massachusetts Department of Transportation (MassDOT) or other state and federal agencies to complete strategies A through K.

Priority #2: Reduce and eliminate wastewater contamination of water bodies

- A. Assist in the identification and elimination of illicit discharges of sewage to storm drains and surface waters throughout the watershed, including:
 - i. Working with and encouraging municipalities to aggressively identify and eliminate illicit discharges; and
 - ii. Assisting in the collection, coordination, and dissemination of water quality data that may indicate the presence of illicit discharges to watershed groups, municipalities, state, and Federal parties.
- B. Create long-term Sanitary Sewer Overflows (SSO) control plan that includes:
 - i. Identifying funding sources to alleviate overflows;
 - ii. Creating an electronic form with required fields and conducting outreach to Departments of Public Works (DPWs) to ensure provision of data on volumes, duration and locations for SSO events;
 - iii. Improving transparency of SSO releases by posting release notifications online;
 - iv. Collecting additional data on current locations and causes of SSOs;
 - v. Increasing opportunities to reduce SSOs; and
 - vi. Creating a network or forum for communities to share best practices for SSO prevention and increase the need for addressing inflow.

- C. Work with and encourage municipalities and Massachusetts Water Resources Authority (MWRA) to reduce or eliminate Combined Sewer Overflow (CSO) discharges to the Mystic River, Alewife Brook, and Chelsea Creek.
- D. Educate communities about likelihood of increased frequency of SSOs and CSOs with increase in extreme precipitation events.
- E. Use data from baseline monitoring and stormwater outfall testing to develop communications tools—including the annual EPA report card and reports on outfalls—that report evidence of bacterial contamination to municipalities and the general public.

Priority #3: Continue Municipal Technical Assistance Program related to Municipal Separate Storm Sewer System (MS4) permit compliance

- A. Support collaborative community outreach and education programs and approaches.
- B. Encourage the investigation and removal of illicit discharges where they are suspected or known to exist.
- C. Conduct a workshop or roundtable for discussion of successes and failures with inflow/infiltration programs.
- D. Provide training on compliance and development of “measurable goals” to satisfy the new MS4 permit and Minimum Control Measures.
- E. Promote or identify funding for more pilot/example projects to illustrate Best Management Practices relative to infiltration, onsite retention, etc.
- F. Provide information on low-cost outfall water quality testing programs (dry and wet weather).
- G. Develop fact sheets or assemble information on the connection between water quality and water quantity.
- H. Engage municipal leaders on how municipal master plans impact stormwater management.
- I. Provide access to modeling to identify opportunities for stormwater infiltration.
- J. Provide forum to explore sharing of best practices, resources, contracts, etc.
- K. Initiate a stormwater collaborative of multiple municipalities to share information and achieve efficiencies of scale in the area of stormwater education.

Priority #4: Increase knowledge of legacy sediment contamination, identify impacts on designated uses, educate the public, and identify priorities and opportunities for restoration.

- A. Compile information on sediment contamination and identify data gaps.
- B. Identify health risks associated with exposure to sediment contamination that could occur during recreation (literature reviews and risk assessments).
- C. Educate the public on environmental conditions and what activities (fishing, swimming, and boating) are supported and not supported in each water body.
- D. Identify priorities for remediation of sediment contamination based on threats to human and ecosystem health, cost effectiveness, and emerging opportunities. Prioritization should include consideration of locations where recreation is occurring with high frequency (e.g. Malden River).

- E. Leverage resources at municipal, state, and federal levels and academic institutions to accomplish A through D such as the Metropolitan Area Planning Council (MAPC), the Massachusetts Department of Health (MDPH), the Massachusetts Department of Environmental Protection (MassDEP), the U.S. Environmental Protection Agency (EPA), USGS, the U.S. Army Corps of Engineers (USACE), the University of Massachusetts Boston, Tufts University, and Massachusetts Institute of Technology (MIT).
- F. Help publicize fish consumption health advisories for the lower Mystic River watershed.

Priority #5: Serve as a clearinghouse of information on how climate change may impact water quality. Work with municipal and state partners to identify funding opportunities and address issues such as:

- A. Engaging regional conversation on the capacity of Amelia Earhart Dam to protect inland areas from storm surge and sea-level rise.
 - B. Planning for increased frequency and extent of flooding events from extreme precipitation.
 - C. Limiting erosion caused by increased extreme precipitation events to limit nutrient inputs.
 - D. Educating citizens on how increases in temperature can lead to increased frequency and intensity of cyanobacteria blooms.
 - E. Developing resilience plans.
- **Increase establishment of safe open space and public access to the river and its tributaries (for example, the redevelopment and remediation of brownfields, development of walkways, bikeways and trails) by:**
 - 1. Supporting the development and/or improvement of open space and access at targeted sites in the watershed already identified; and
 - 2. Continuing to investigate and search for possible open space and access targets in other parts of the watershed system.

Priority #1: Focus on selected sites in the lower watershed that have been investigated by the open space subgroup and which will be supported by the Steering Committee. The recommended priority sites for 2017-2018 are as follows:

- A. Development and/or improvement of public open space and access at the Malden River Massachusetts Bay Transportation Authority (MBTA) parcel, Draw 7 Park in Somerville and at one selected site in the Chelsea Creek sub-watershed.

Priority #2: Continue a systemic investigation of other segments of the river system to identify other properties or projects which may provide for the development of public Open Space and Access.

The Open Space group, when and if resources become available, will take a five-step approach:

- A. Select an area of the watershed to study.
- B. Identify potential open space and access sites through field investigation and a review of all available open space studies and inventories for that area.
- C. Evaluate prospects for open space where the committee determines there is appropriate potential by a review of the physical, financial and regulatory conditions that surround the selected property;
- D. Establish collaborative efforts for open space planning and funding where possible.
- E. Develop support for open space development at the selected sites through the public process.

As this work proceeds, it is anticipated that each targeted site will be different and will require different actions by the Steering Committee. In the case of Malden River GE site, clear plans and timelines for development of open space and access have been established, whereas the effort at Draw 7 Park will be to help redesign current uses and park layout and to support development of open space and access and trail connectivity on nearby private parcels. In every case, effort will be made to approach all property owners with respect and to engage neighborhood stakeholders wherever possible.

Caveats

¹ Any transaction involving reimbursement or contribution of funds between the parties to this initiative will be handled in accordance with applicable laws, regulations, and procedures under separate written agreements. Nothing in this document, in and of itself, obligates EPA to expend appropriations or to enter into any contract, assistance agreement, interagency agreement, or incur other financial obligations that would be inconsistent with the Agency's statutory authority, its budget priorities, or the availability of appropriated funds. Furthermore, EPA's membership in the Steering Committee, may not be construed as an effort on the part of EPA or any federal executive agency to direct the particular use of any funds which the Steering Committee may obtain in support of its projects or activities. Any discussion concerning the use of funds will be made in accordance with the Watershed Committee's written operating procedures.

Membership in the Mystic River Watershed Steering Committee and/or participation in its collaborative efforts shall not be the basis for any exemptions from compliance with any and all regulatory requirements established by local, state, and/or federal governmental entities.

This document does not create any right or benefit, substantive or procedural, enforceable by law or equity against any member of the Mystic River Watershed Initiative or EPA, their officers or employees, or any other person.

Mystic River Watershed Federal Partnership Action Agenda

April 2016/Reviewed 2018

The Mystic River Watershed Federal Partnership (the Partnership) aims to stimulate local economies, improve quality of life, and protect human health by revitalizing the Mystic River and its tributaries, specifically by implementing improvements in water quality and access to open space. The Partnership works in conjunction with the Mystic River Watershed Initiative (the Initiative) and has adopted the Mission and Priorities for the Initiative. Agencies participating in the Partnership include: the US Environmental Protection Agency, the US National Park Service, the US Forest Service, the US Army Corps of Engineers, the Department of Housing and Urban Development, the US Geological Survey and the Federal Emergency Management Agency. Representatives from these agencies will convene no less than once per year to discuss collaboration in the watershed. Efforts of the Partnership will support the Guiding Principles of the Urban Waters Federal Partnership Program by promoting clean urban waters, reconnecting people to the Mystic River and its tributaries, promoting economic revitalization within the watershed, and encouraging community improvements through active partnerships. To contribute to these guidelines and the Initiative, the Partnership will support key projects in the watershed that emphasize and improve water quality and open space. For the next 2-3 years, the Partnership will focus on the following areas of collaboration:

- Stream Gauge Installation- USGS installed three new stream gauges (for a total of six in the watershed) on the Mystic and Malden rivers in August 2015; all data from the gauges are now available online through the USGS website. These gauges will aid in the development of phosphorous loading studies, which will be supported by EPA, USGS, state agencies and local organizations. The USGS may also be able to assist with Storm Water Management Modeling (SWMM), which also would be useful for the phosphorous loading study.
- Canoemobile- The Partnership supports the annual Canoemobile event led by Groundworks Somerville and the National Park Service. At this event, students from urban communities in the watershed engage in educational activities on the river and in adjacent public spaces. Federal partners collaborate to provide educational land based activities that teach students about local history, forestry, water quality and other environmental issues. Many students at these event have had no previous access to the Mystic River.
- Open Space Development/Improvement- the Steering Committee has identified four locations as areas of interest for open-space development or improvement to increase public access to the Mystic River and its tributaries. Further research will be conducted to identify which of these sites is most suitable for a Partnership collaboration project.

When considering future areas for collaboration, the Partnership will work to break down federal program silos to promote more efficient and effective use of federal resources through better coordination. Potential roles of partnering agencies for future projects are described below:

Environmental Protection Agency- EPA acts as the lead agency in the Partnership. EPA can also provide support on water quality and other environmental issues. In some cases, EPA can support open-space projects.

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United States Army Corps of Engineers-USACE engages in projects having to do with navigation, flood risk reduction and occasionally, ecosystem restoration.

Housing and Urban Development- HUD offers Community Development Block Grants, a flexible funding mechanism to support community development projects. Grants can be used for open space improvements that benefit low and moderate income populations.

United States Forest Service- USFS can provide guidance on urban site development and ecosystem restoration. Some USFS programs have small grants available.

United States Geological Survey-USGS is committed to gathering stream flow data for regulatory and modeling work.

Federal Emergency Management Agency- FEMA can provide guidance on flood control and climate change adaptation measures. Some FEMA programs have grants available.

National Park Service- NPS can provide guidance on use and programming for public open spaces.