

Mystic River Watershed (Boston, Massachusetts)



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Overall Assessment of the Partnership Since the Beginning

The Mystic River Watershed is a collection of rivers, streams, lakes, and ponds that drain an area of approximately 76 square miles and 21 municipalities north of Boston. Mystic River proper, which flows from the Mystic Lakes in Winchester and Arlington through Medford, Somerville, Everett, Charlestown, and Chelsea to Boston Harbor, is one of the great urban rivers of New England.

The river, and the watershed that feeds it, served as an epicenter of activity from which sprung settlement and economic activity in the colonies such as mills, shipyards and villages. Unfortunately, settlement and industrial activity have not always been kind to the watershed. The watershed became a designated Urban Waters Partnership location in 2013. The Mystic River Watershed Urban Waters Partnership works to improve coordination and focus among federal agencies to solve problems in the watershed.

The partnership promotes community-led efforts at economic, social, and ecological revitalization. The focus of efforts for the Mystic River Watershed include: urban water restoration and monitoring, water quality awareness, improved access to open space, and

scientific research. Since its beginning in 2013, the partnership has grown in size and capacity and has delivered impressive results which are described throughout this chapter.

Nature of the Partnership

The partnership works in conjunction with the Mystic River Watershed Initiative (the Initiative), which is governed by a steering committee comprised of interested parties who represent educational institutions, local non-governmental organizations (NGOs), municipal governments, and state and federal agencies. The partnership has adopted the Initiative's "Mission and Priorities" statement, which can be viewed here, but is also in the process of finalizing an Action Agenda that specifically describes each agency's role in the partnership on the Mystic. The action agenda is expected to be available online shortly.

The steering committee meets quarterly to discuss new or upcoming projects in the watershed and to update the group on existing projects. Steering committee meetings act largely as an information sharing and networking platform. Within the steering committee there are several subcommittees: the Open Space subcommittee, the Municipal Subcommittee and the Water Quality subcommittee.

- Municipal Subcommittee: This groups consists primarily of municipal engineers and other municipal staff. Currently the group prioritizes challenges associated with the recently finalized 2016 MA MS4 permit. With guidance from the water quality subcommittee, Environmental Protection Agency (EPA), and other federal partners, the municipal subcommittee has embarked on a multi-part series of MS4 related workshops which are intended to promote information sharing and collaboration among municipalities. Topics addressed in this series include illicit discharge detection and elimination, public education and outreach, and stormwater funding. This group meets twice annually.
- Open Space Subcommittee: This subcommittee works towards the mission of increasing the establishment of safe, public open spaces and access to the river and its tributaries. Examples of their work include redevelopment and remediation of brownfields, development of walkways, bikeways, and trails by supporting development, and/or improvement of Open Space and Access at targeted sites in the watershed previously identified. Additionally, the Open Space Subcommittee continues to investigate and search for possible Open Space and Access targets in other parts of the watershed system. The subcommittee is consists of a wide variety of individuals representing local NGOs, municipalities, state and federal agencies who meet two or three times per year.

• Water Quality Subcommittee: The intention of the water quality subcommittee is to help to make the waters of the Mystic River Watershed fishable, boatable, and swimmable through activities and strategies that reduce and eliminate the occurrence of SSOs, assist municipalities address pollution from stormwater, remediate legacy pollution, decrease phosphorus loading, and increase public awareness of fish consumption health advisories. This subcommittee is made up of scientist from state and federal agencies as well as local NGOs, who advise action to the municipal subcommittee. The water quality subcommittee also coordinates a Science Forum every other year. This symposium serves as an opportunity for researchers in Greater Boston to share their work as it relates to the Mystic River Watershed.

Members of the Partnership

The Mystic River Federal Partnership has a diverse collection of partners, ranging in capacity and scope from federal agencies to concerned individuals. A snapshot of the partnership base is below:

Federal Agencies

- EPA: The EPA acts as the lead agency in the Partnership. The EPA can also provide support on water quality and other environmental issues. In some cases, the EPA can support open-space projects.
- United States Army Corps of Engineers (USACE): The USACE engages in projects having to do with navigation, flood risk reduction and occasionally, ecosystem restoration.
- Housing and Urban Development (HUD): 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): The USFS can provide guidance on urban site development and ecosystem restoration. Some USFS programs have small grants available.
- United States Geological Survey (USGS): The USGS is committed to gathering stream flow data for regulatory and modeling work.
- Federal Emergency Management Agency (FEMA): FEMA can provide guidance on flood control and climate change adaptation measures. Some FEMA programs have grants available.
- National Park Service (NPS): The NPS can provide guidance on use and programming for public open spaces. NPS also coordinates the Canoemobile event which engages several of the partner agencies in an event that promotes access and environmental education to urban youth.

Involved Non-Federal Government Agencies

- Massachusetts Department of Energy and Environmental Affairs
- Massachusetts Department of Public Health
- Massachusetts Department of Conservation and Recreation

Involved NGOs

- Friends of Upper Mystic Lake
- University of Massachusetts Boston
- Tufts University Institute for the Environment
- Mystic River Watershed Association
- Friends of Alewife Reservation

- Massachusetts Department of Environmental Protection
- Massachusetts Area Planning Council
- Massachusetts Port Authority
- Massachusetts Water Resource Authority
- Municipal Governments of all 21 communities within the watershed
- Boston Habitat Coalition
- GreenRoots Chelsea
- Groundworks Somerville
- Charlestown Waterfront Coalition
- Neighborhood of Affordable Housing
- Alternatives for Community and Environment

Major Actions Taken Since the Beginning of the Partnership

FEMA Projects:

FEMA has a long-standing presence in the watershed, assisting with water quantity and flooding issues through involvement in the Watershed Summit and early steering committee meetings. The partnership contacted FEMA and they have agreed to re-engage with this initiative on water quantity issues as they relate to water quality and overflows. There are many opportunities to engage their expertise in the partnership's Water Quality Work Group and SSO work.

Canoemobile Partnerships Brings New Paddlers to the Watershed:

In September 2015 Canoemobile, a Wilderness Inquiry program, came to the Mystic River, enabling more than 300 students from the City of Somerville to venture on to the Mystic in 24-foot Voyageur canoes. In addition to on-the-water activities, partnering agencies such as the USFS, the NPS, and EPA led stations where students learned about water quality, local history and the environment through hands-on activities. This program returned to the Boston area in 2016 for 4 days of activities in the Mystic River Watershed, providing an opportunity to connect urban youth to the natural world through hands-on and outdoor learning.

Stream Gauge Installation:

In August 2015, USGS installed three new stream gauges (totaling six in the watershed) on the Mystic River. After the gauges are tested, all the data will be available live online. Data from these gauges will be analyzed by EPA, USGS, and the Mystic River Watershed Association to aid in the development of a phosphorous loading study for the watershed. The findings of this study will be used in the development of a TMDL for Phosphorus, which could have significant impacts on water quality in the watershed. In the summer of 2016, EPA's national TMDL office awarded this project \$100,000 for technical assistance, in support of the innovative collaboration between multiple agencies.

Federal Grant Workshop

In March 2016, a panel of federal representatives gathered to discuss grant opportunities administered by agencies in the partnership. The meeting provided education and information on potential funding opportunities for open space projects to an audience of local NGOs and municipal partners. The following programs were featured: HUD's Community Development Block Grants, USFS's Landscape Scale Restoration Grants, the NPS's Rivers, Trails, and Conservation Program, and FEMA's Pre-Disaster Mitigation Grant Program.

Major Impacts of the Partnership

The commitment of the Federal Partners towards events and projects has strengthened the commitment from local partners in the watershed. Moreover, establishing the federal partnership in the Mystic River Watershed has improved communication between sister agencies. All members of the partnership agree that removing silos is the first and most important step towards collaboration in the watershed.

Additionally, action associated with the federal partnership in the Mystic River has inspired collaboration in other urban water systems throughout New England. Representatives from other watersheds, for example the Connecticut and the Merrimack River, have reached out with interest in the Urban Waters Program and Learning Network. In some cases, these groups have begun research and made efforts towards a nonaffiliated partnership.

Major Actions Planned in the Future

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. Another major project includes the finalization of the Federal Partners Action Agenda to be posted on the Federal Partnership webpage for public viewership.

Major Challenges in the Future

Engaging and energizing partners without the draw of new money presents a challenge that the partnership hopes to overcome by trying to educate partners on new grant opportunities and prospects they can collaborate on. Another issue will be creating innovative ways to collaborate with federal partners beyond the grant programs and funding opportunities the agencies provide.