Project Overview

Mystic River Watershed Stormwater Management Community Support

Overview of the Opportunity:

Two municipalities in the Mystic River watershed will have the opportunity to work with an expert team (see below) to discuss their local water resource challenges and develop the most cost effective, appropriate approaches for improving stormwater management and other related practices.

They will work with the project team for six months, beginning this fall. Municipalities will identify what water resources they most want to protect or improve and the group will work to identify the most specific and appropriate stormwater management actions. The priority outcome will be helping each municipality develop a well-thought out plan with expert technical assistance and creative strategies. This collaborative project will also help the two municipalities make progress toward their future MS4 permit requirements.

Participating municipalities will be expected to commit a team of people who work on water resource management and/or municipal operations to engage fully in this joint learning opportunity between November and May. This will include approximately five three-hour in-person meetings to be held in the municipalities, as well as some in-between work.

The goal of the project is to help early adopter municipalities in the Mystic River Watershed make substantial progress in thinking through their nutrient management options, particularly municipal stormwater management, with a focus towards implementation. The project will also focus on creating solutions to local challenges and barriers to more effective stormwater management. This project may include work towards drought and flood resilience, groundwater recharge, aesthetic improvements, etc., depending on other community water resource needs. This approach can then serve as a model for other communities in the watershed.

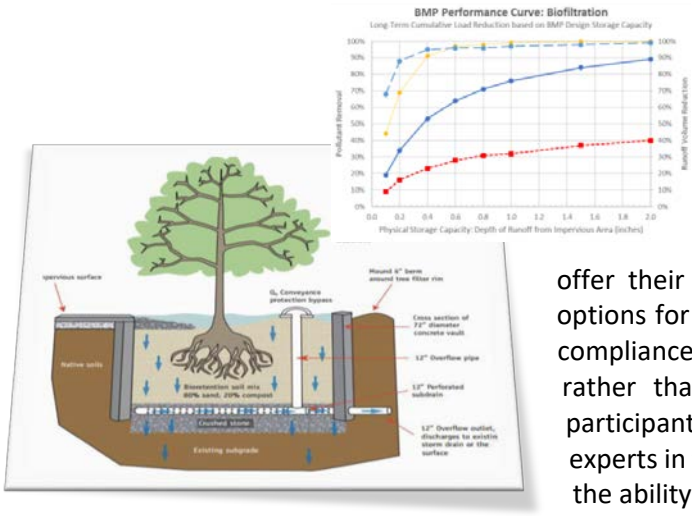
Stormwater conceptual plans (source: BWSC)

This project will pilot a new approach to addressing stormwater management in which regulators and technical experts work collaboratively with community leaders to identify opportunities for innovative stormwater controls. Two municipalities will work with the expert team to determine cost-effective and efficient ways to address stormwater pollution within their borders. The team and the leaders of these motivated municipalities will collaboratively develop strategic approaches and identify the technical support needed to effectively advance their water quality restoration efforts and reduce nutrient pollution in the watershed, while maximizing co-benefits such as drought and flood resilience, groundwater recharge, aesthetic improvements, etc.

Background

In 2016, the EPA, MassDEP and the Mystic River Watershed Association (MyRWA), with substantial support from the Massachusetts Water Resource Authority (MWRA), began work on the Mystic River Watershed Eutrophication Analysis (Eutrophication Analysis) to better understand and address degraded water quality. The freshwater portion of the watershed faces multiple water quality impacts related to eutrophication including excessive algal growth, harmful cyanobacteria blooms and excessive native and invasive aquatic plant growth. In addition to the significant nutrient input from stormwater runoff from impervious surfaces, other sources of nutrients from the watershed include illicit sewer connections, combined sewer overflows (CSO's), sanitary sewer overflows (SSO's), and erosion and non-point source runoff. In addition, the watershed has numerous water resource issues related to uncontrolled stormwater runoff from developed landscapes. Extensive areas of impervious cover in the watershed are primary contributors to water quality impairments, flooding and excessive low flow conditions during droughts.


Source: MyRWA



Example BMP and pollutant removal performance

The team of experts is interested in working collaboratively with watershed communities to address these and other important local water resource issues in an innovative, cost-effective, and efficient way. The approach will be one of joint learning and exploration. Participants from the project team are committed to learning from the two selected communities about the current situations on-the-ground related to nutrient management, and the project team will offer their resources and expertise to help the communities develop options for improving stormwater management and get a head start on compliance with MS4 permit. The reason for choosing two communities rather than one is to make for more open discussion, enable all participants to learn from each other, and build a group of collegial experts in their local stormwater situations. A larger group may preclude the ability for effective working sessions where all participate fully.

Project Phases (to be refined with the two communities that are selected)

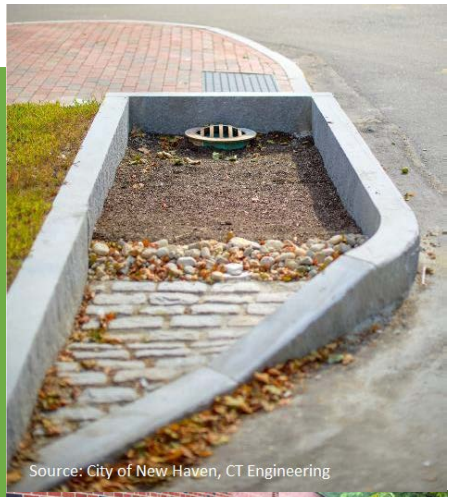
Phase 1 – Planning (Oct) One or two people from each selected community will work with the project team to refine the overall approach and serve as a liaison to their community, get commitments of participation, figure out the best meeting times and places, and collaborate with the team on how to lay the groundwork for the best possible project (likely by conducting some interviews or surveys to gather information).

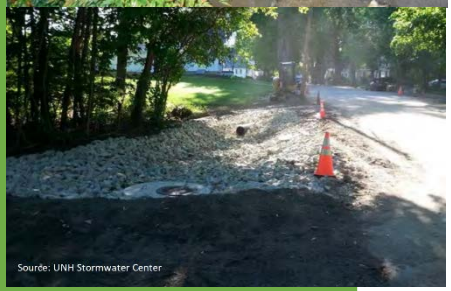
Phase 2 – Project Meetings (November – May) A handful of key leaders (about 2-6) who work in some way on stormwater from each municipality will participate in regular joint meetings with the project team. As currently imagined, these meetings are likely to last 3 hours and occur approximately every 6 weeks. These working sessions will include time when the project team and representatives of both teams are talking together to share information or ideas and time when the people from the two municipalities are split and focus internally on their own situation. They would alternate locations between the two municipalities. Community participants will likely have to do some work between meetings, as will the project team, possibly together.

Project meetings would be designed to work through the following questions:

1) What are municipal water resource management activities and challenges? What are local and regional water resource objectives?
2) What stormwater BMPs are available and would make sense here? How do they perform? What do they cost? What are their maintenance needs? How can they provide additional benefits to the community?
3) What are the municipal (and broader regional) constraints and barriers, including those related to funding, staffing, planning, local ordinances, local approval process, physical site constraints, etc.?
4) What approach will each community use for moving forward once they have identified some options they want to move forward with? How can they most effectively communicate their approach, and what workplan makes sense? How can we share this information and promote learning among communities in the watershed?

Phase 3 – Workplan Development (May-June) The representatives of each municipality, with support from the project team, will draft a simple workplan outlining how they intend to proceed on stormwater management in the next few years, identifying promising sites or techniques or opportunities and resources needed to move forward successfully.





Small Scale Stormwater BMPs

Project Roles

This project involves people from many agencies and organizations filling distinct roles, as follows. The intent is for everyone who participates to learn a lot from everyone else by listening and sharing real, meaningful information about management challenges, financial situations, political realities, technical or modeling opportunities and more.

- **Conveners: responsible for funding this effort and providing guidance and technical support**
  - EPA Region 1: also responsible for managing process, logistics
  - MassDEP
- **Technical and research support: responsible for presenting tools and running models to help the community participants understand what is available to them and what is known about the watershed**
  - Mystic River Watershed Association, responsible for serving as a liaison to communities and assist in consideration of possible BMPs.
  - Eastern Research Group (ERG), responsible for providing assistance to the municipalities in using the technical tools and providing some conceptual design work.
  - UNH Stormwater Center, responsible for providing information to the municipalities concerning innovative stormwater BMPs, including siting and maintenance considerations.
- **Facilitation: responsible designing project meetings with the project team, for facilitating meetings, and for overseeing the full process**
  - The Consensus Building Institute
- **Community participants**
  - Up to 6 members appointed from each community. These should be professionals and community leaders who work on stormwater, nutrient management, or related topics and who would be involved in implementing any management changes. These participants are responsible for sharing information (can be informal) about their individual community practices, such as staff resources, municipal procedures, other challenges/complicating factors in stormwater management at their local level. These participants are responsible for participating in the project from start to finish, coming to meetings prepared, participating in good faith, and doing work between meetings as needed.

Note: this project does not include an organized public engagement effort for the broader public.