UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

May 28, 2020

Dear Mystic River Watershed Stakeholder:

The U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) are pleased to release the "Mystic River Watershed Alternative TMDL Development for Phosphorus Management-Final Report," (Alternative TMDL Study, or Study), which presents the results of an intensive three-year study to address degraded water quality in the Mystic River watershed. The agencies will make a presentation on the Study, and discuss next steps for its implementation, at the next Mystic River Watershed Steering Committee meeting on June 4.

The Alternative TMDL Study identifies excess phosphorus as the pollutant driving harmful and potentially toxic algal blooms and other cultural eutrophication-related impairments in the Mystic River watershed and provides estimates of the load reductions necessary to attain Massachusetts Surface Water Quality Standards (MASWQS) and to recover aquatic habitat and return water bodies to their designated uses including swimming, boating and fishing. The Study is available for download at the following link: https://www.epa.gov/mysticriver/environmental-challenges-mystic-river-watershed#NutrientChallenges.

After developing phosphorus reduction needs through the Alternative TMDL Study, the agencies began working collaboratively with six pilot Mystic River communities to develop long-term, feasible best management practices (BMPs) and strategies to help guide all watershed communities in making progress toward restoring water quality. The technical support provided to the six Mystic communities resulted in the development of some practical and cost-effective solutions to manage stormwater. Information on this process and the outcomes and work products are available at the following link: https://www.epa.gov/mysticriver/environmental-challenges-mystic-river-watershed#NutrientChallenges.

The Alternative TMDL Study, conducted from 2017 through 2019, was developed based on streamflow and water quality datasets collected by the Mystic River Watershed Association (MyRWA), Massachusetts Water Resources Authority (MWRA), U.S Geological Survey (USGS), EPA, and MassDEP. Extensive datasets were used to develop calibrated watershed hydrologic loading and water quality models; the models were used to estimate phosphorus loading from various sources and estimate load reductions necessary to attain MASWQS. Key findings include:

- Stormwater runoff is the predominant source of phosphorus in the Mystic watershed.

- Stormwater phosphorus loads across the watershed will need to be reduced by approximately 60 percent to restore water quality.
- The agencies recommend an adaptive management process in which communities immediately begin to develop and implement long-term strategies focused on increased stormwater management to make incremental improvements in water quality, with the ancillary benefit of reducing flooding and increasing community resiliency.

Alternative TMDL Analysis and Future Agency Actions

The development of this Alternative TMDL Study for the Mystic watershed was a more streamlined process than a traditional TMDL and provides essential management information that will lead to more efficient on-the-ground implementation activities by watershed communities. The goal of the Alternative TMDL Study is to achieve improvements in water quality in a shorter time frame. While the Study is not a traditional TMDL in the regulatory context, it includes many of the elements of a traditional TMDL analysis including quantification of the phosphorus source loadings and an estimation of load reductions necessary to attain MASWQS. MassDEP has submitted, and EPA has accepted, the Alternative TMDL Study as consistent with the CWA 303(d) Program Vision and for tracking and accountability purposes. The letters exchanged between the two agencies are available for download at this link: https://www.epa.gov/mysticriver/environmental-challenges-mystic-river-watershed#NutrientChallenges.

The agencies envision that future National Pollutant Discharge Elimination System (NPDES) permitting requirements will be a critical and necessary component to ensure long-term and accountable progress toward improving water quality throughout the Mystic River watershed. While the agencies have not yet determined what those future requirements might entail, an overriding objective is to enable communities to wisely build capacity and develop the most cost-effective and feasible programs for steady and sustainable progress towards phosphorus reductions, meeting MASWQS and improving aquatic habitat. The agencies expect that the experience gained and lessons learned by communities in the pilot program, that are actively engaged in implementation activities, will be vitally important to inform future permit requirements.

Management Needs and Solutions for the Mystic

MassDEP and EPA believe it is in the best long-term interest of the Mystic River watershed communities to begin development and implementation of stormwater management strategies that focus on the opportunistic retrofitting of the developed landscape with green infrastructure and both structural and non-structural stormwater BMPs.

We emphasize the following points related to community-wide stormwater management implementation, focusing on potential next steps that maximize cost effectiveness:

- Long-term costs will be reduced by quick adoption of opportunistic implementation strategies to incorporate small-scale stormwater controls or green infrastructure stormwater controls into future municipal infrastructure upgrade and maintenance projects as well as private redevelopment projects.
- Stormwater management actions to target phosphorus reduction will require participation of both public and private property owners.
- Communities should focus on making incremental upgrades to stormwater systems as opportunities arise, including incorporating green infrastructure stormwater control measures during system upgrades or maintenance.

- Updated municipal post-construction stormwater requirements for new development and redevelopment should ensure that future construction projects in the watershed create a net reduction in stormwater phosphorus loading.
- Stormwater management activities will have multiple co-benefits to communities, including reduced loadings of other stormwater pollutants (e.g., bacteria, metals, solids, hydrocarbons, etc.), and improved hydrologic conditions that may reduce flooding and excessively low baseflows during extended dry periods.
- Phosphorus reduction implementation undertaken now will be accounted for in any future NPDES permitting action for this watershed.

Agencies' Commitment

MassDEP and EPA recognize the challenge the Mystic River watershed communities face in implementing the level of stormwater management needed to achieve the estimated phosphorus load reductions and to also address other pressing water resource issues in the watershed. The agencies remain committed to facilitate and assist with the implementation of effective stormwater management strategies to reduce phosphorus loading, make progress toward attainment of MASWQS, and address other water resource issues important to the municipalities. We would like to continue to have more detailed and implementation-focused discussions about stormwater management to help communities enhance their stormwater management programs in a fiscally responsible manner.

On behalf of both agencies, we appreciate your attention to this important matter and welcome your input, as well as any questions you may have on the Study. We welcome your suggestions for making progress in the Mystic River watershed and improving water quality. For direct inquires on the Study or to follow up on this letter, please do not hesitate to contact us or our staff identified below.

Sincerely,

KENNETH MORAFF
Digitally signed by KENNETH MORAFF
Date: 2020.05.28 14:06:19 -04'00'

Kathleen M Baskin

Ken Moraff
Director
Water Division
U.S. EPA Region 1

Kathleen M. Baskin, P.E.
Assistant Commissioner
Bureau of Water Resources
MA Department of Environmental Protection

cc:
Melville P. Coté, Jr., EPA
Ralph Abele, EPA
Todd Borci, EPA
Laura Blake, MassDEP
Lealdon Langley, MassDEP