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The 2016 Massachusetts Small MS4 Permit (MS4 permit) requires municipalities to strengthen their post-construction stormwater management standards for new and re-development sites by updating their existing ordinances, bylaws or other regulatory mechanisms. Currently, the proposed MS4 permit modifications require that this update be completed by June 30, 2021. This update ensures that municipalities require development sites to properly control the discharge of stormwater into their MS4 after the site has been developed. In particular, the MS4 permit requires that the updated regulations for post-construction stormwater management for new development sites be designed to remove 90% of the average annual Total Suspended Solids Load and 60% of the average annual Total Phosphorus load generated from impervious surfaces, such as paved areas or roofs on the development site prior to discharging. For re-development, the MS4 permit requires that sites be designed to remove 80% of the average annual Total Suspended Solids Load and 50% of the average annual Total Phosphorus load generated from impervious surfaces.

Collaboration is Key: Successful Regulation Updates in the Neponset River Watershed

Strong regulatory mechanisms are essential components of stormwater management programs. Taking a proactive approach to this requirement will help ensure that municipalities have time to develop a bylaw that meets community needs to manage issues like flooding and polluted runoff, is straightforward to implement, and meets the requirements of the current MS4 permit. Municipalities may face different challenges adopting a strong bylaw depending on their circumstances. Timing and outreach may be difficult – town meetings might only take place once or twice per year, and it may be challenging to engage the relevant stakeholders and build support for needed changes. There may be a shortage of municipal staff with the legal expertise to craft regulations. Finally, stormwater management responsibilities may reside with multiple boards, commissions, and departments, so changes to different bylaws or regulations can involve a high level of coordination.

The Neponset River Watershed Association (NepRWA), based in Canton, MA, southwest of Boston, represents the interests of a 120 square mile watershed that contains parts of 14 cities and towns. NepRWA worked with the Metropolitan Area Planning Council (MAPC) to assist their communities in forming a regional stormwater partnership during the initial 2003 MS4 permit term. The resulting entity, the Neponset Stormwater Partnership (NSP), provides technical assistance, education, and outreach to its member towns. For the 2016 MS4 permit, NSP recognized that difficulty in meeting the MS4 bylaw or regulation update permit requirements was not about a lack of will or knowledge of the subject matter; but a shortage of resources and lack of clarity about how to best complete this permit requirement. NSP tackled these issues head on and found several creative solutions to help its member towns.



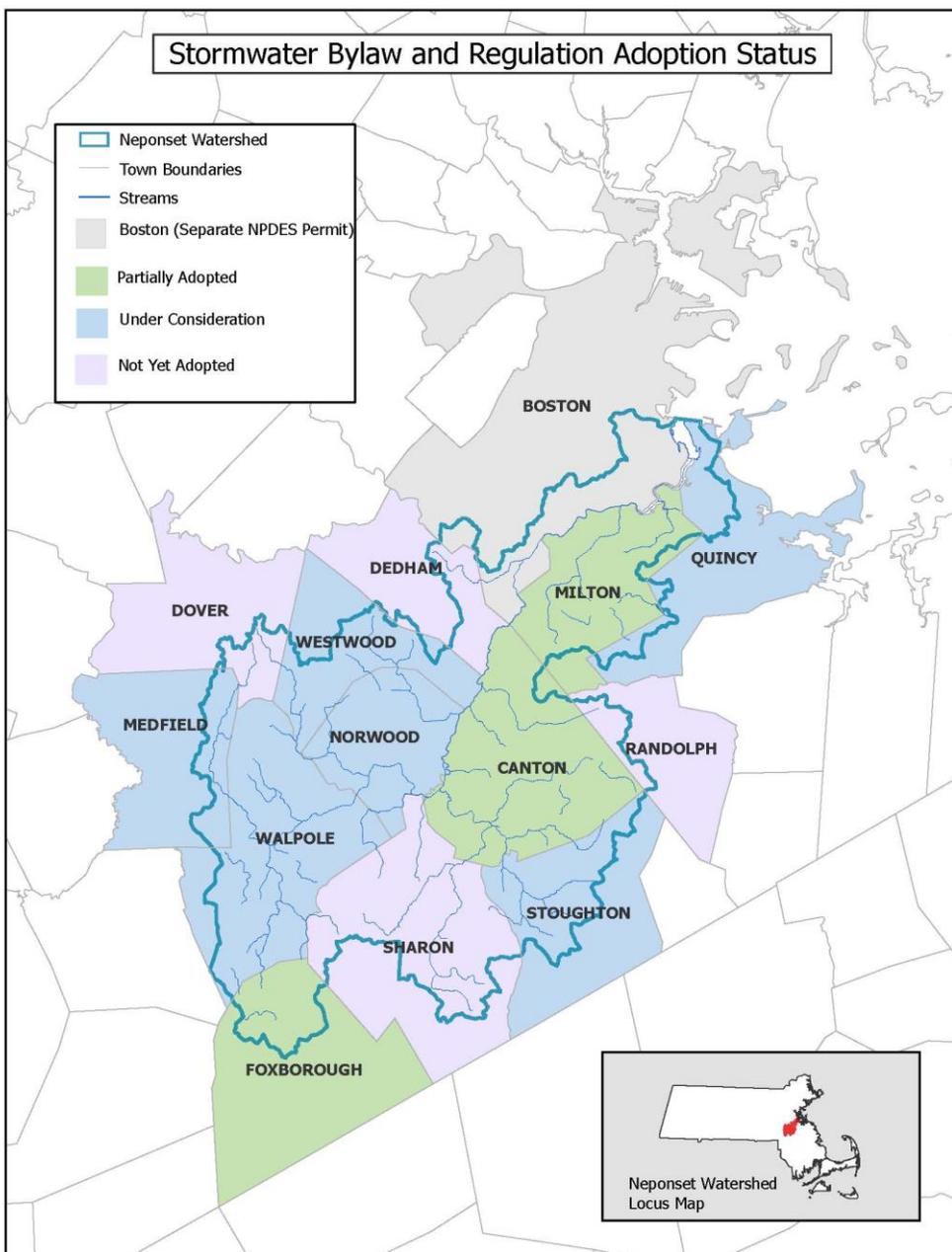
Ponkapoag Pond, Canton. Credit: NepRWA

This is a special edition of Stormwater News profiling work that Massachusetts communities are doing to meet the MS4 permit requirements related to regulatory mechanisms for post-construction stormwater standards.

NSP, like the many other stormwater coalitions across the state, aims to achieve an economy of scale from taking a regional approach to stormwater issues. “By focusing on the commonalities, we can get things done in a way that is hopefully more cost effective for everyone,” says NepRWA Executive Director Ian Cooke. This mentality was applied to the development of the model bylaw as well as a checklist for retrofitting existing bylaws to meet MS4 permit requirements.

Development of a New Model Bylaw in Westwood

In 2016, the Town of Westwood unanimously adopted a collaboratively prepared stormwater bylaw and set of regulations, which were prepared by BETA Engineering based on the draft 2016 MS4 permit, with input from NepRWA. After EPA released the final 2016 MS4 permit in 2018, NSP annotated and highlighted Westwood’s stormwater regulations’ language to reflect elements required by the final permit, and other additional components that may be in a towns’ interest to incorporate. The final product was a model bylaw and regulations that other communities could use and tailor, if needed, to local conditions, while ensuring that the minimum requirements in the MS4 permit for post-construction stormwater management would be met.



A significant selling point of NSP’s model bylaw and regulations is that they are town-approved and tested. Westwood’s early adoption allowed other municipalities to learn from its experience administering the new regulations. Currently, three or four other towns are considering drafts of the updated model that reflects the final permit, including Westwood. “Really, it was the credibility of peers and their direct experience that was the most beneficial,” according to Mr. Cooke. Just this past June, the Town of Milton [adopted a new bylaw](#) based on this model. Given the situation with COVID-19, much has been put on hold, but many additional towns in the Neponset watershed plan to bring up the bylaw at Town Meetings in the spring of 2021.



A snapshot in time showing stormwater bylaw and regulation adoption status in the Neponset watershed. Map by EPA Region 1, data from NepRWA.

Salt Marsh, Neponset River Estuary, Milton. Credit: NepRWA



A Neponset Stormwater Partnership meeting. Credit: NepRWA

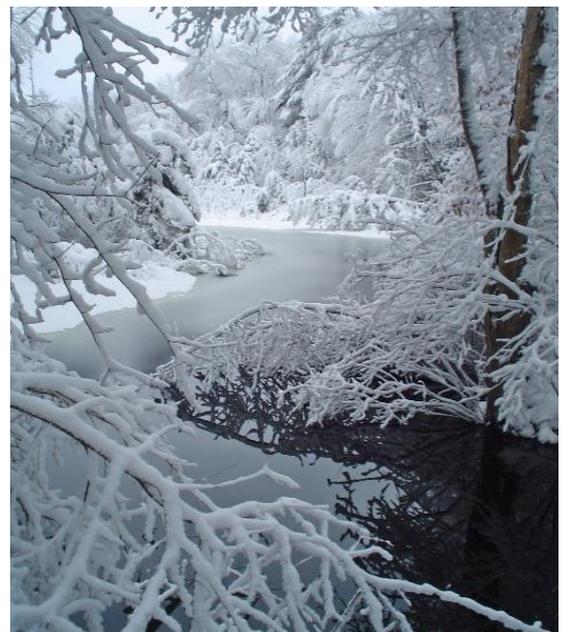
Not Ready for a Brand-New Bylaw? There is a Retrofit Bylaw Checklist

While some communities might choose to start fresh using a model bylaw, others prefer to retrofit existing bylaws and regulations. In this case, NSP has developed stormwater bylaw checklists to help these towns inventory their existing regulations and chart a path forward.

The approach is two-prong: first, the basic assessment of stormwater bylaws that helps towns ensure that they are staying on pace with meeting the MS4 permit requirements – and a second, an effort spearheaded by MAPC to evaluate potential barriers to implementing effective post-construction stormwater management that may be contained in other bylaws throughout town. This second checklist delves more deeply into topics that will be relevant to Year 4 of the permit – identifying potential barriers within a town’s zoning and subdivision code. It gets more “in the weeds”, making any bylaw or regulation more easily implementable by developers.

NSP has already completed an initial evaluation of its member communities’ municipal codes. One community, Canton, has conducted a comprehensive review of its zoning code, and was able to identify areas in the town code that needed revision based on the in-depth checklist created in partnership with MAPC. Many of the Partnership’s member communities are expected to follow suit, creating a holistic stormwater management approach. NepRWA Advocacy Director Kerry Snyder has an important piece of advice for MS4s in this arena: **Grant stormwater regulation enforcement authority to one department, commission, or board.** “That way, you’re treating all development in the town the same way,” said Ms. Snyder. “It’s not always easy to accomplish due to political issues, but you’ll be a lot more effective.”

A town might have several departments responsible for reviewing specific projects – such as a Conservation Commission, Engineering Department, Department of Public Works, and a Board of Health – leading to confusion and potentially differing requirements for developers in the same town.

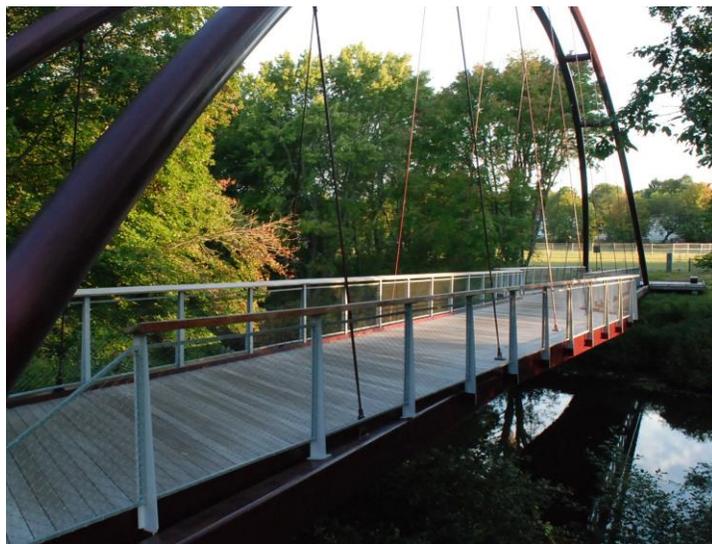


Beaver Brook, Sharon. Credit: Paul Lauenstein

Lessons Learned & Recommendations for MS4 Communities

NSP shared the following lessons learned and recommendations for MS4 communities working on bylaw or regulation updates:

Reach out and connect with your neighbors. Municipal officials don't have many natural opportunities to interact with counterparts in neighboring towns. "But if you can overcome that, there are real benefits to tackling things on a regional basis," said Mr. Cooke. "Our participating towns want to hear primarily from their peers, not so much from us." In other words, each community must figure out a piece of the (MS4) pie – sharing their knowledge paints the whole picture and holistically tackles water quality issues at a watershed level.



Harvest Bridge, connecting the Neponset Greenway Trail between Mattapan and Milton. Credit: NepRWA

Look ahead to the future and don't forget water quality goals. While it is critical to maintain compliance with the permit, be sure to keep in mind the overall intent of the permit – providing your residents with clean water. The MS4 permit is a general permit that provides a minimum level of control for all permittees. However, each town should consider local conditions when setting meaningful stormwater management objectives. Only focusing on crossing off the technical aspects of the permit may result in missed opportunities to accomplish things in a more cost-effective manner. For instance, if the majority of development in your town disturbs less than $\frac{1}{4}$ acre, you might consider lowering the threshold for development that triggers compliance with your local bylaw or regulation so that you don't miss opportunities in town to address flooding and water quality issues.

Set the stage. Engaging the public and local decision makers is key. Stormwater management can be an unfamiliar concept to the public and elected officials, so reaching out to them to exchange information about the water quality and flooding impacts caused by excess stormwater is crucial to build support for comprehensive stormwater management town-wide. NepRWA has helped municipalities conduct outreach in advance of stormwater-related topics coming up at town meetings. The organization has also done some early outreach directly to Boards of Selectmen about high-level anticipated costs and sequencing for MS4 requirements in an effort to "break a trail" for public works departments. Being proactive and building that mindset into the town's culture pays off in the long run. Allowing excessive pollution from developers now could result in a significant financial burden for a town that must clean it up later down the road.

Collaborate for success. For municipalities, collaboration with a watershed association and participation in a stormwater coalition can provide the expertise and networks to help facilitate the complex process of adopting bylaws. Municipalities are engaged at different stages with revising or drafting bylaws. Checking in with peers, stormwater coalitions, watershed associations, and/or regional planning agencies can reveal best practices and solutions to common challenges.

Want to learn more? Links to Neponset Stormwater Partnership resources:

[Model Stormwater Bylaw](#) (May 2019)

[Model Stormwater Regulations](#) (May 2019)

[Checklist for Evaluating Your Municipal Stormwater Bylaw under the 2016 MS4 Permit](#) (Updated May 2019)

[Non-Stormwater Low Impact Development \(LID\) Checklist](#) (2015)

Additional resources for municipalities may be found here: <https://yourcleanwater.org/member-resources/nsp-tools/>

Additional Assistance Resources from EPA and MassDEP

EPA Stormwater Tools in New England Website

- Find the latest tools, resources, and updates on upcoming training opportunities: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england>

MassDEP Stormwater Website

- <https://www.mass.gov/info-details/stormwater>
- Public education & outreach program resources: <https://go.usa.gov/x5dgr>

Upcoming Soak Up the Rain Webinars

- Wednesday 10/14, 1-2:30pm: The Green Connector: Building municipal resiliency through nature-based approaches
- Wednesday 11/18, 1-2:30pm: Greater Streets: The Burlington, Vermont St. Paul Great Street Project
- Stay tuned for updates at: <https://www.epa.gov/soakuptherain/soak-rain-new-england-webinar-series>

Contacts

Specific questions about the permit should go to:

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MassDEP: Laura Schifman – laura.schifman@mass.gov

Massachusetts Stormwater News is a collaborative effort of the Massachusetts Department of Environmental Protection (MassDEP) and the New England office of the U.S. Environmental Protection Agency (U.S. EPA). This newsletter will be sent via email every few months to provide information to municipalities and others related to the Massachusetts Small Municipal Separate Storm Sewer System (MS4) permit. MA Stormwater News will feature topics of interest, provide updates on upcoming permit deadlines, and highlight assistance resources from MassDEP, U.S. EPA and others.

Suggestions for future topics, questions or assistance, or requests to be added or removed from the Stormwater News mailing list can be sent to: StormwaterNewsMA@epa.gov. Past editions of Stormwater News can be found [here](#).

U.S. EPA and MassDEP know that stormwater management is just one of the many challenges facing municipalities. We are committed to working with municipalities as you move forward on permit implementation.

**REMINDER:
MS4 Year 2 Annual Reports are due
Monday, September 28th, 2020!**