CHAPTER 500 STAKEHOLDER ENGAGEMENT | STEERING COMMITTEE MEETING #6 MINUTES

RE: **Chapter 500 Stakeholder Engagement, Steering Committee Meeting #6**

DATE: Monday, November 25, 2024

TIME: **9:30am – 1:00pm**

LOCATION: Hybrid: in-person (Deering Conference Room 101 – 90 Blossom Ln, Augusta, ME)
& remotely via Microsoft Teams

INVITEES: Cody Obropta, Jeff Dennis, David Waddell, Naomi Kirk-Lawlor, and Rob Wood (Maine DEP)
Bina Skordas (FB Environmental Associates)
Chapter 500 Steering Committee
Chapter 500 Stakeholders

SUMMARY

The Technical Committee reviewed updates to Chapters 500 and 502, focusing on post-construction stormwater management. Key changes include the separation of construction-related stormwater requirements to a dedicated permit, while Chapter 500 will now specifically address post-construction management, including new standards for wetland protection, runoff pollutants, and stormwater conveyance systems. The committee also discussed stormwater control measures (SCMs), with an emphasis on approaches like vegetated buffers and infiltration systems. Subcommittees made significant revisions, including renaming the Groundwater Recharge standard to the "Runoff Volume Reduction Standard" and introducing a Permit by Rule (PBR) for smaller projects. There was also concern about chloride standards, with engineers proposing a point system for better managing chloride runoff. Additionally, the Groundwater Recharge Subcommittee refined soil testing procedures and stormwater management practices, focusing on ensuring accurate soil data and proper hydraulic conductivity testing. Updates aim to streamline permitting, enhance environmental protections, and ensure more effective stormwater management across the region, with ongoing stakeholder input shaping future revisions.

TECHNICAL COMMITTEE INFORMATION

Updates

1. Technical Committee Work
    - Reviewed how the new Chapter 500 standards will work and their applicability.
    - Discussed the first draft of the Groundwater Recharge Subcommittee's consensus report.
    - Explored how GIS will aid in implementing the new standards, especially for wetland protection and natural drainage.
2. Subcommittee Activities
    - Groundwater Recharge: Renamed standard to "Runoff Volume Reduction Standard"; developed a technical memo comparing Maine's approach to that of other states.
    - Core LID: Renamed to "Basic Standards"; introduced eligibility for Permit by Rule (PBR) for certain projects.
    - Sensitive & Threatened (S&T) Watersheds: Discussed criteria for identifying S&T watersheds and how standards will evolve.
    - Stormwater Control Measures (SCM): Focused on redevelopment designs and the selection of compliant measures.

- Chloride Standards: Engineers raised concerns over feasibility; reviewed a proposed chloride point system.

3. Progress and Communication
    - Maine's Construction General Permit will be rolled out in January, with a webinar planned to help contractors understand the permit and its connection to Chapter 500.
    - The MOA between DEP, DOT, and the Turnpike Authority needs updating post-rule adoption.

Redevelopment

1. Tailored Standards
    - Revise Chapter 500 to include location- and size-specific stormwater treatment standards.
    - Address the pace of land development and watershed stressors to avoid a "one-size-fits-all" approach.
2. Addressing Specific Stressors
    - Target key pollutants such as phosphorus, nitrogen, chloride, and stormwater volume in project designs.
    - Use data like phosphorus TMDLs and chloride impacts to create more effective stormwater systems.
3. Sensitive & Threatened Watershed List
    - Develop a dynamic list of S&T watersheds based on data-driven assessments (e.g., GIS and imperviousness data), and update regularly.
4. Urban Impaired Streams (UIS) and Prevention
    - Implement targeted stormwater management practices for UIS and focus on preventive measures to avoid costly restoration.
5. Proactive Monitoring and Adaptation
    - Regularly assess stormwater management systems using updated data (e.g., new GIS datasets).
    - Introduce adaptive management strategies to adjust standards based on evolving development patterns.

MEETING TOPIC 1: UPDATING STANDARDS

Task: The committee focused on updates to Chapters 500 and 502, particularly related to stormwater management for construction and post-construction activities. The revisions hope to streamline permitting processes and enhance environmental protection in the region.

Background: The major update is the separation of construction stormwater standards from Chapter 500, with construction-related stormwater requirements now moved to the MCGP. Chapter 500 will now focus specifically on post-construction stormwater management. The changes were introduced to ensure better management of stormwater impacts on wetlands, natural drainage networks, and hydrologic systems. New basic standards were introduced to protect these natural features, and a PBR process was designed to expedite permits for smaller projects that meet these standards, encouraging developers to incorporate environmental protections early in the design phase. These updates emphasize hydrologic connectivity, ensuring that development projects don't disrupt natural water flow and drainage patterns. The revised standards introduce a more structured approach to addressing runoff pollutants, with new treatment standards for nitrogen, phosphorus, and chloride runoff, particularly in urban and sensitive watersheds.

Results from the Technical Committee: The committee introduced specific requirements in Chapter 500 to ensure the protection of wetlands and natural drainage systems. One of the key updates is the establishment of a hydraulic capacity standard for stormwater conveyance systems, ensuring that these systems can handle peak flows without contributing to erosion or water quality degradation. The committee also focused on the importance of managing runoff pollutants like nitrogen, phosphorus, and chloride, with particular attention to UIS and S&T watersheds. A new point system for managing chloride runoff is under development, offering developers different methods for addressing

chloride levels, including the use of rooftop infiltration systems. These options allow for more flexibility in how developers mitigate the impacts of urban runoff.

Additionally, the committee introduced new standards for seasonal high water table separation and hydraulic conductivity testing to ensure the proper design of SCMs. The goal is to maintain adequate separation distances to prevent groundwater mounding and avoid altering the natural flow of groundwater. A new emphasis was placed on non-structural SCMs, such as vegetated buffers and infiltration systems, which should be prioritized over structural solutions like detention basins. This non-structural approach is seen as more effective in mitigating the impacts of impervious surfaces and improving the overall health of urban watersheds. The development of these standards and permitting processes marks a significant step toward improving stormwater management, enhancing environmental protection, and promoting sustainable development practices across the region.

Discussion/Feedback:

- While there are effective BMPs for nitrogen and phosphorus, more are needed for chloride.
- Develop a point system for setting standards for chloride?
- It is going to be difficult to achieve the minimum number of points. What do people do if they can't reach this?
- The point system needs to be tweaked and the number of points may need to be lowered.

Meeting topic #2: GROUNDWATER RECHARGE SUBCOMMITTEE ~~CENSUS~~ REPORT

Task: The Groundwater Recharge Subcommittee worked on refining soil testing procedures and stormwater management practices to ensure better groundwater recharge. This included addressing the limitations of the Web Soil Survey, implementing hydraulic conductivity testing for infiltration-based stormwater control measures, and updating the separation requirements from the seasonal high-water table to prevent groundwater mounding.

Background: The primary goal of the subcommittee was to enhance the accuracy of soil data and improve stormwater management strategies, especially considering the limitations in the Web Soil Survey at smaller sites. To address these challenges, the committee proposed requiring soil testing to verify the findings of the Web Soil Survey. In cases where the survey's data is found to be inaccurate, additional analysis will be needed to determine the appropriate hydrologic soil group. A key part of this process includes setting a requirement for one soil pit or confirmation test per half-acre of impervious area. This standard was developed in collaboration with professional soil scientists to balance the need for accurate data without placing an undue burden on developers.

Additionally, the subcommittee focused on SCMs that rely on infiltration for volume reduction. Hydraulic conductivity testing was identified as critical to ensure that the design infiltration rate aligns with the site's actual conditions. For sites with underdrains, the need for specific hydraulic conductivity tests may be waived, as design rates based on soil types would be sufficient. The committee also worked on updating the separation distance from the seasonal high-water table to prevent groundwater mounding, with a minimum one-foot separation distance proposed as a reasonable standard.

Discussion/Feedback:

- Given the change in storm intensity, how does the seasonal high-water table consider how things are shifting with climate change?
    - Different distribution is unlikely to affect the seasonal high-water table, and that one foot of separation should meet the flux and address mounding.

Results from the Technical Committee: The technical committee proposed several key updates to stormwater management practices, including the requirement for soil testing to validate the accuracy of the Web Soil Survey data. The standard of one soil pit or confirmation test per half-acre of impervious area was considered a reasonable approach to ensure sufficient data without imposing excessive testing burdens on developers. This standard was determined with input from professional soil scientists, who helped shape the methodology.

The subcommittee also discussed the implementation of hydraulic conductivity testing for stormwater control measures that rely solely on infiltration to reduce volume. The committee emphasized the importance of testing to ensure that the site's design infiltration rate is accurate. However, if an underdrain system is used, the need for hydraulic conductivity testing may be waived, with design rates based on soil types serving as an alternative. This flexibility was considered important for accommodating various site conditions and stormwater management approaches.

The committee updated the seasonal high water table separation requirements, clarifying existing rules to ensure consistency and prevent confusion. The new minimum one-foot separation distance was deemed adequate to avoid groundwater mounding while ensuring the effectiveness of stormwater control measures. In response to concerns about shifting precipitation patterns, the committee acknowledged the potential effects of changing storm intensities and seasonal variations on the seasonal high-water table. This led to discussions about site-specific factors, such as perched water tables versus regional aquifers, which may require tailored separation distances.

Lastly, the committee stressed the importance of establishing clear and consistent protocols for hydraulic conductivity testing. Proper testing procedures are vital for ensuring that stormwater management systems are designed effectively, and that groundwater recharge is properly managed. The committee's recommendations aim to enhance the accuracy and reliability of testing, thereby supporting the updated standards for groundwater recharge and stormwater management.

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