Massachusetts Association of Conservation Commissions
protecting wetlands, open space and biological diversity through education and advocacy

April 30, 2024

Via Electronic Mail

MassDEP – BWR Wetlands Program
Attn: Wetlands-401 Resilience Comments
100 Cambridge Street, Suite 900
Boston, MA 02114
dep.wetlands@mass.gov

Re: Wetlands-401 Resilience Comments

MassDEP – BWR Wetlands Program
Attn: Waterways Resilience Comments
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Re: Waterways Resilience Comments

Comments on Proposed Wetlands Resilience 1.0 Draft Regulations, 310 CMR 10.00 and Proposed 401 Water Quality Certification Resilience 1.0 Draft Regulations, 314 CMR 9.00
and
Comments on Proposed Waterways (Ch. 91) Resilience 1.0 Draft Regulations, 310 CMR 9.00.

Dear MassDEP Wetlands and Waterways Staff:

Thank you for the opportunity to comment on Massachusetts Department of Environmental Protection's (MassDEP) Draft Climate Resilience 1.0 Regulations. We commend MassDEP for the incredible amount of work invested in these proposed regulatory changes. We recognize how imperative it is that Massachusetts adapts our environmental regulations to address the significant challenges we face due to the impacts of climate change and increasingly severe storms. We greatly appreciate the leadership of the Healey Administration in prioritizing actions on climate change and in recognizing the important role that wetlands play in climate resiliency.

The Massachusetts Association of Conservation Commissions (MACC) is a statewide non-profit organization that supports more than 2,500 volunteer conservation commissioners in their mission to preserve wetlands and open space. Each of the 351 cities and towns in Massachusetts has a conservation commission responsible for administering the state Wetlands Protection Act and municipal wetland bylaws and ordinances, as well as managing municipally owned conservation land. Our association protects Massachusetts' natural resources through our education and advocacy efforts, and we have been doing this work since 1961.

These comments were prepared with input from MACC's Board of Directors, a diverse team of environmental professionals, including environmental consultants, attorneys, land trust advocacy representatives, conservation commissioners, and regulators– practitioners who have implemented these wetlands and waterways regulations for years. In addition, over the course of

this public comment period, a core group of MACC's Directors met weekly with representatives from the Association of Massachusetts Wetland Scientists (AMWS), the Massachusetts Rivers Alliance (Mass Rivers), the Massachusetts Society of Municipal Conservation Professionals (MSMCP), and Mass Audubon, as well as representatives from environmental engineering firms and law firms. Our comments benefited from the expertise of these environmental professionals, and we extend special thanks to Nitsch Engineering, SWCA, Beals + Thomas, and A. Koenigsberg for their contributions to our stormwater comments.

MACC's comments pertain to the following three sets of proposed regulations under Climate Resilience 1.0:

- 310 CMR 10.00, Proposed Wetlands Protection Act Resilience 1.0 Draft Regulations (WPA)
- 314 CMR 9.00, 401 Water Quality Certification Resilience 1.0 Draft Regulations (401)
- 310 CMR 9.00, Proposed Waterways Resilience 1.0 Draft Regulations (Chap 91)

We have separated our comments on these proposed regulations by section but believe that our collective comments may be beneficial to both the MassDEP Wetlands and Waterways Programs where our comments overlap.

We also include recommendations for future improvements for wetland regulatory updates, for "Climate Resilience 2.0," and provide these at the end of this letter.

Recommendations for future improvements for wetland regulation updates, for Climate Resilience 2.0 are also included at the end of this letter. MACC looks forward to participating in the Climate Resilience 2.0 process. We encourage MassDEP to include in that process measures to further advance wetlands restoration. The ResilientMass Plan[1] includes more than a dozen action items for wetlands restoration, including permit streamlining, and the 2.0 process is also an opportunity to further align MassDEP's regulatory programs with the Biodiversity Initiative under Executive Order 618 as well as the role of carbon in wetlands in the state's Clean Energy and Climate Plan.

The Climate Resilience 2.0 process is also an opportunity to improve efficiencies in the wetland program. Particular attention should be paid to items identified in MACC's comments as well as MSMCP's comments, where procedures and standards could be improved to reduce time and complexity for common activities with minimal negative impacts, such as invasive species removal and trail maintenance.

1.0 MACC General Comments

MACC supports many of MassDEP's Climate Resilience 1.0 proposed regulations, including the following:

- establishing performance standards for Land Subject to Coastal Storm Flowage (LSCSF)
- establishing restrictions on new development in the areas with highest storm damage risk
- using future projections of sea level rise to deal with effects of climate change and intensifying storms
- updating precipitation calculations for stormwater designs
- using nature-based solutions
- moving toward more consistency with MS4 permits

[1] ResilientMass Plan Action Tracker

These are positive steps toward protecting our coastal resources and infrastructure and making Massachusetts more climate resilient. We offer our general comments followed by more detailed comments where we believe some refinements of the currently proposed language would add clarity and ease of implementation.

A. Comments on WPA Regulations

1.01 **Resource Protection and Restoration Preferred**. We support the new Land Subject to Coastal Storm Flowage (LSCSF) section at 310 CMR 10.24 includes provisions giving preference to the protection and restoration of coastal wetlands as alternatives to coastal engineering structures and allowing alteration of LSCSF to facilitate the migration of salt marshes and dunes.

1.02 **Updated Stormwater Standards and Aligning Stormwater Requirements with MS4 Requirements**. We support updating stormwater standards to include precipitation and coordinating with MS4 requirements, making compliance less burdensome for municipalities.

1.03 **Enhanced Use of Guidance Documents for details that will be outdated rapidly, rather than including them in the regulations.**

- The updated data (NOAA14+) that MassDEP is proposing to be tied to the Wetland Protection Act regulations will be outdated soon. That data instead needs to address precipitation intensities of future storm events, not just rainfall amounts. Similarly, regarding the Land Subject to Coastal Storm Flowage delineations, MassDEP proposes relying on FEMA maps, rather than sea level rise. Instead, we need to use dynamic, forward-looking projections for precipitation that will protect our community for decades to come. (Stormwater Handbook Standard 2). The Waterways regulations require new structures to be designed to address sea level rise for the life of the project. Similarly, the LSCSF regulations should require that buildings and infrastructure be designed taking into account projections on sea level rise and erosion for the life of the structure.
- Many of the LSCSF details could be included in guidance documents, rather than in the regulations.

1.04 **Permitting and Streamlining Restoration Projects**. MACC urges MassDEP to continue to explore mechanisms for additional interagency coordination, easing permit timelines, and costs for restoration projects.

1.05 **Aligning Infrastructure Protection with Restoration and Migration.** The proposed regulations allow elevation and relocation of existing roads and construction of berms to protect existing developed areas. The final regulations should more clearly define the planning process for such projects, to support restoration and migration of coastal wetlands to the fullest extent possible. For example, road elevation or relocation projects should avoid conflicting with interests of neighboring conservation-oriented landowners to restore more natural flows to salt marshes where the road has been acting as a barrier to that flow.

1.06 **Combined Applications.** The regulations currently allow combined applications for Wetlands, Waterways, and 401 Water Quality permitting for Ecological Restoration Permit (ERPs). The proposed regulations eliminate those provisions. Rather than

eliminating combined review, MassDEP should seek to improve and expand combined application and permitting of restoration projects.

1.07 **Research Projects. 310 CMR 10.05(12)** The proposed regulations include a new provision for Scientific Research Projects to allow research into the response of coastal wetlands to climate change. This provision is too narrowly crafted and should be broadened to allow experimentation with coastal and inland wetlands restoration techniques that are not currently utilized in Massachusetts. Appropriate limits on the scale and siting of such projects should be set, and successful projects should be allowed to remain in place. Additional training for conservation commissioners will be needed to interpret monitoring data during the first year of the project and in subsequent years.

1.08 **Implementation, Complexity, and Training**. The complexity of the new regulations will make review by Conservation Commissions, which are comprised of volunteers that often do not have a wetlands or engineering background, even more challenging. Training for commissions and staff will be important for the successful roll out of these regulations. MACC will be happy to assist with the training in any way we can.

1.09 **Regulate Based on Impacts not Type of Activity.** Wetland regulation revisions must strive to create greater consistency of thresholds, exemptions/allowances, and requirements based on existing wetland functions and values and the potential impacts (or benefits) on those wetland functions and values of proposed projects, not on the user groups conducting the activity. For instance, the new regulations offer flexibility for moving vulnerable roads that could have a large impact to the resource area but there is not the same flexibility for maintaining trails, where Resource Area impacts could be negligible.

1.10 **Gravel Roads.** MACC has concerns that classifying gravel roads as impervious surfaces will encourage the construction of paved roads, which are more impactful to wildlife and the environment. This will also likely require construction of stormwater management systems for gravel roads, which may have unintended consequences in rural settings including removal of mature trees and other native vegetation. Low impact designs such as vegetated swales should be preferred for gravel roads, especially in rural settings.

B. Comments on Ch. 91 Regulations

1.11 **Chapter 91. 310 CMR 9.37(1)(d).** MACC supports the new requirement for sea level rise data to be considered for new development and redevelopment. All fill and structures to be designed in a manner that "*incorporates the impacts of projected sea level rise throughout the design life of the building structure*."

1.12 **Chapter 91. 310 CMR 9.05(g).** We support clarifying that culvert replacements that meet Massachusetts Stream Crossing Standards are exempt from Chapter 91 permits in order to speed up restoration projects.

2.0 MACC Specific Comments – WPA (310 CMR 10.00)

MACC's specific comments pertaining to the Massachusetts Wetlands Protection Act Regulations follow the order in which they are presented under each major category within the regulations.

A. Definitions under 310 CMR 10.04

1.13 **Alter.** The definition of **Alter** has been modified to include a "change" in water level or water table. As the requirement for infiltration is being increased to "meet predevelopment groundwater recharge and to support baseflow" as outlined in Summary of Target Recharge Volume Evaluation, we expect that this increase in recharge will increase baseflows and potentially water levels in adjacent resource areas. We recommend MassDEP retain the current definition of Alter to eliminate the contradiction of the new increase to baseflow requirements.

1.14 **Best Management Practices (BMPs) and Stormwater Control Measures (SCM).** More concise, less confusing definitions would be helpful. Some information would be better placed within sections on performance standards. The distinction between BMP and SCM is not clear.

1.15 **Combined Applications.** The regulations currently allow combined applications for Wetlands, Waterways, and 401 Water Quality permitting for Ecological Restoration Permits (ERPs). The proposed regulations eliminate those provisions. Rather than eliminating combined review, MassDEP should seek to improve and expand combined application and permitting of restoration projects. To accelerate the pace of restoration projects, we need a simplified permitting process. NJ DEP has an office of permit coordination that is effective at streamlining the permit process. California has the "Cutting the Green Tape program for streamlining the environmental permitting process. EPIC has compiled examples from other states, and recommendations for Funding Nature not Paperwork: Funding Nature Not Paperwork - Policy and Programmatic Pathways to Speed Restoration Permitting — Environmental Policy Innovation Center.

1.16 **Highway Specific Considerations**. This gives one agency (MassDOT) special rights. Municipal Department of Public Works (DPWs) often have control of roadways of similar size and undertake projects of similar scales, and so should be afforded similar allowances. The regulations should not be based on the governing agency but should be based on the size of the roadway, the scale of the proposed project, the intended public benefits, and the potential environmental impacts.

1.17 **Impervious Surface**. The definition of impervious area includes solar arrays as impervious. However, *MassDEP Wetlands Program Policy 17-1: Photovoltaic System Solar Array Review* mentions using the CN value of material below the arrays. What part of the solar array is considered impervious? The footprint? The land below the panel? The entire array field? MACC recommends revising the definition of solar arrays to indicate they may be considered impervious or pervious based on the surface cover below the array if stormwater will be able to flow off and drain to that surface.

1.18 **Impervious Surface.** Artificial turf has reduced permeability, which can vary depending on the manufacturer and installer. While there is a drainage layer at the base

of the turf, there are drainage holes in the top layer allowing it to drain; infiltration and groundwater recharge are significantly reduced. https://westernresourceadvocates.org/wp-content/uploads/2023/01/2022_WRA_Artifical_Turf_Report.pdf.

1.19 **Impracticable** and **practicable** have different qualifications in their definitions. The added definition for "Impracticable" is based on physical constraints while the definition of "practicable" factors in costs, technology, proposed use, logistics, and adverse consequences. We believe this will lead to confusion. These definitions should be updated so that the criteria are consistent, such as updating the definition of "impracticable" to include all of the factors listed in the definition of "practicable."

1.20 **Macro-Approach**. This definition is less prone to multiple interpretations if the word "development" is removed.

1.21 **Near** (as also related to **10.05(6)(k)7**)**.** This new definition is vague and thus will be problematic to implement. Does it refer to volume or rate? The terms "strong likelihood" and "significant impact" can be interpreted differently by consultants and commissioners alike. This definition lends itself to inconsistent application. Does this refer to "in addition to" proposed setbacks?

1.22 **Offsite Mitigation**. How can evaluation be done on any location outside the project locus? The way it is drafted could include a site in a different municipality or even potentially outside of the Commonwealth.

1.23 **Watershed.** Could a clearer definition be provided? See the definition available on the USGS website.

1.24 **General Comment on Section 10.04**. In addition to the definitions discussed above, MACC recommends that **all newly introduced terms and definitions also be cited under 310 CMR 10.04**, even when discussed under specific sections elsewhere in the regulations. For instance, just as "Bordering Vegetated Wetland is defined in 310 CMR 10.55(2)," so should be referenced all new definition and terms.

B. Procedures under 310 CMR 10.05

MACC has a number of comments about revisions to procedures, many of which focus upon the new procedures pertaining to stormwater management.

1.25 **10.05(4)(a) Notices of Intent**. The regulations should include some flexibility and should not require such a high level of stormwater management detail for every NOI filing. The amount of information should be commensurate with the size and scale of the project.

1.26 **10.05(4) NOI.** The difference between a long-term pollution prevention plan and an operation and maintenance plan is unclear. Are these terms defined?

1.27 **10.05(4)(a)**. Should the wording "Impracticable due to physical site constraints" be in this section and not just in the definitions?

1.28 **10.05(6)(k)**. Is this minimum setback (from receiving waters and wetlands) the same as that described in the table in 10.05(6)q?

1.29 **10.05(6)(k)3**. There should be requirements for the level of detail of what needs to be included in the alternatives analysis. Does it need to include a plan or just a narrative?

1.30 **10.05(6)(k)4.c.ii**. Is there some missing text or a numbering error?

1.31 **10.05(6)(l)5**. The numeral "5" is mislocated. It should precede the text "Gardens…" not follow it.

1.32 **10.05(6)(l) and (m). Exemptions.** Residential (single and multi-family) with 4 or fewer units don't have to meet stormwater standards. (No change to current regs). But the MS4 permits regulate everything over an acre, so these regulations are not consistent but should be as much as possible.

1.33 **10.05(6)(m)6**. Does this include boardwalks? Are concrete sidewalks excluded?

1.34 **10.05(6)(m)(6).** Requiring unpaved footpaths in natural areas to comply with the Stormwater Management Standards seems unreasonable. Trails generally rely on country drainage and so do not "fit" the intentions of the Standards. MassDEP should include unpaved footpaths in natural areas as exempt activities under the Stormwater Management Standards 10.05(6)(l).

1.35 **10.05(6)(o)2. Stormwater MEP.** Does this include boardwalks? Are concrete sidewalks excluded?

1.36 **10.05(6)(o)2. Stormwater MEP.** Language is confusing and unclear. How is this to be evaluated? How are costs to be considered?

1.37 **10.05(6)(q) Stormwater Minimum Setbacks from All wetland Resource Areas except …** Could the minimum setback be rephrased to state "Setback of at least 10 feet outside of BVW and Bank"?

1.38 **10.05(6)(q) Stormwater Setbacks from Surface Waters.** Why is Land Under Waterbodies and Waterways included in surface waters, but Bank is not? The difference between the minimum 10-foot setback and the 50-foot setback is not clearly explained.

1.39 **10.05(12) Research Projects.** The proposed regulations include a new provision for Scientific Research Projects (310 CMR 10.05(12)), to allow research into the response of coastal wetlands to climate change. This provision is too narrowly crafted and should be broadened to allow experimentation with coastal and inland wetlands restoration techniques that are not currently utilized in Massachusetts. Appropriate limits on the scale and siting of such projects should be set, and successful projects should be allowed to remain in place.

C. General Provisions at 310 CMR 10.24

1.40 **10.24(1)(b)** We support the new requirement for nature-based projects to be incorporated into coastal projects "as an alternative to coastal engineering structures to promote resiliency along the shoreline." The **nature-based resiliency requirement** is non-binding. Having applicants merely "consider" these measures does not mean they will implement them. MassDEP could go further in requiring these measures or offering incentives for implementation of nature-based resiliency measures. "Nature-based Projects" is a very broad term. MassDEP should develop guidelines for specific types of

projects and should limit the scope and scale of projects that alter resource areas, regardless of the terminology used in describing them, unless there is a clear demonstration of a net positive benefit to the interests of the Act.

D. Land Subject to Coastal Storm Flowage (310 CMR 10.36)

1.41 **10.36(1) Preamble**. Other interests of the Act should be acknowledged including wildlife habitat and prevention of pollution, at least for consideration in project analysis.

1.42 **10.36(6)**. **Land Subject to Coastal Storm Flowage.** We support the prohibition on new structures in velocity zone, and design requirements for development in other parts of floodplain.

3.0 Specific Comments on Stormwater

MACC supports updating the stormwater standards to include more current precipitation data and to further support Environmentally Sensitive Site Design (ESSD) and Low Impact Development. The details still need to be refined in several respects. We encourage DEP to avoid inserting too many specific requirements into the regulations and consider moving some of those details into the Stormwater Handbook. The effective date of the stormwater provisions may need to be extended in order to address all of the comments and provide sufficient time and training for conservation commissioners and proponents to prepare to apply the new provisions.

In addition to the comments provided under Section A. Definitions and Section B. Procedures above, we offer the following comments on stormwater.

1.43 **Precipitation values and calculations** should stay in Stormwater Handbook rather than in the regulations to allow for future changes and considerations.

1.44 **Regulations vs. Guidance**. MACC suggests moving much of the detailed stormwater information from the regulations to the Handbook to allow for updates.

1.45 **Legacy Projects.** Consideration should be given to granting "legacy status" certain projects from the new stormwater requirements, similar to the exemptions afforded for projects in Riverfront Area at 310 CMR 10.58(6)(e). Large-scale phased projects that have completed MEPA review will have designed a master plan stormwater system and advanced financing and development plans based upon anticipated square footage. Updating such master planned systems to address the new requirements could result in significant loss of development square footage and affect the viability of such projects.

1.46 **The Setback Table** in the regulations differs from the detailed setback table in the Stormwater Handbook. We recommend providing the setback table only in the Stormwater Handbook to allow for periodic and/or minor changes without changing regulations. This change would also increase clarity and prevent having references in multiple locations.

1.47 **Implementation of the Stormwater Handbook**. Considering the large volume of information within the Stormwater Handbook and Appendices, with references to calculation methods and backup documentation in additional manuals (i.e., Hydrology Handbook for Conservation Commissioners), it will be difficult for Commissions to review and implement the requirements and content of the Handbook as is currently presented.

We recommend that MassDEP allow a longer lead time than six months for implementation of the new Stormwater Handbook.

1.48 **Update the Hydrology Handbook for Conservation Commissioners** concurrent with the release of the Stormwater Handbook to remove potentially outdated and conflicting information (i.e., TP40 rainfall). To ensure consistent implementation and interpretation, MassDEP should hold training and working sessions held for Commissions and practitioners prior to the release of both Handbooks.

1.49 **Stormwater and Conservation Commission Jurisdiction.** Do Conservation Commissions have jurisdiction for the entire site for all stormwater management, even if the stormwater management system is not in a wetland resource area? If the upland site drains to a municipal system, and the discharge is to a wetland or jurisdictional area, how can the Conservation Commission have jurisdiction?

1.50 **Gravel.** The definition of gravel is problematic. Gravel roads might be more impervious than non-paved roads, but many gravel roads are not impervious, just a lower permeability than some others. There should be more leeway/flexibility on this issue.

1.51 **Small Stormwater Project Exemptions** While we agree with the need for the changes in the stormwater regulations including increased treatment and infiltration requirements, the stormwater regulations should provide limited exemptions for small projects. For example, stormwater standards do not apply to residential developments of 4 or fewer units (reference 10.05(6)(l)), but these regulations do apply to new trail projects, or commercial properties seeking to add accessible parking spaces. Considering that the trail projects, or the commercial property's addition a few handicapped accessible parking space could have considerably less impervious area and impact on stormwater than exempted residential development, and the trails and handicapped accessible parking spaces would be of a public benefit. MassDEP should consider allowing additional exemptions or maximum extent practical (MEP) projects that would allow Commissions to review and approve small projects.

1.52 **Alternatives Analyses.** Guidance is needed for the Alternatives Analyses to provide consistency in applications and in review of applications. 10.05(6)(k) requires that projects provide "Environmentally Sensitive Site Design (ESSD) and Low Impact Development (LID) techniques or practices to attenuate pollutants unless it is Impracticable." We anticipate that the Commissions will receive a wide and varied range of "proof" that ESSD/LID are impracticable and recommend that MassDEP provide additional guidance on how practitioners will document and how Commissions will review, interpret, and implement these requirements.

1.53 **PE stamps.** It is clear that stormwater project calculations will be stamped by a Professional Engineer (PE), but the way the proposed stormwater regulations are currently written, it appears that a PE stamp will also be required for the Stormwater Checklist. MACC suggests that if projects are minimal and include removal of impervious surfaces, then PE stamps might not be needed for projects when there are no changes in impervious surfaces and no changes in grade or topography.

A. Stormwater Handbook Comments

MACC has compiled the following comments specific to the new Stormwater Handbook.

General Comments

1.54 **Delay of Handbook Implementation.** The Stormwater Handbook could use some additional clarifications. MACC suggests delaying implementation of the Handbook beyond the 6-month implementation period noted in the draft to allow additional input from practitioners.

1.55 **Flexibility**. We would like to see additional flexibility for sites with numerous constraints to allow stormwater improvements where feasible.

1.56 **Stormwater Handbook Target Audience.** It is difficult to understand for whom the Stormwater Handbook is written. MACC sees this as problematic for several reasons.

- Who will interpret the Handbook when there are lots of variables?
- **Training**. MACC strongly encourages training for conservation commissioners and staff will be needed for consistent reviews across the Commonwealth.

1.57 **Definitions within the Handbook**. The Stormwater Handbook needs to provide **more precise definitions** for important concepts, including 72-hour drawdown and hydraulic conductivity. These should be consistent with those in the updated regulations at 310 CMR 10.04 as discussed above.

1.58 **Mounding Analysis**. This analysis is required in several instances, and instructions on how to implement the analysis will help for consistency. The Handbook needs to provide instructions on how to perform and evaluate a mounding analysis, including how to determine and use valid inputs.

1.59 **MassDOT Section**. During previous stormwater advisory group meetings, it was discussed that the Stormwater Handbook would include a MassDOT section. The Handbook would benefit from a transportation section.

1.60 **Standardization**. Some Standardization tools may help. Along with the need for flexibility with design approaches, standardization tools will help with consistent implementation of the Stormwater Handbook.

Chapter 2: The Massachusetts Stormwater Management Standards

1.61 **Table 2-1**. The minimum infiltration rate is 0.01 inch per hour. Is this an error? One would need 100 hours to recharge at 0.01 inch per hour.

1.62 **Standards for compliance should be performance based**, not based upon infiltration rates for a performance standard. Suggestion: remove this requirement, and have the applicants make sure the drainage system works.

1.63 **Stormwater Standard 2. Peak Rate Attenuation** Table 2-7 (Pg 2-50)

- Several smaller SCMs, including dry wells, tree box filters, and water quality swales, are noted in Table 2-7 as "Does not have the ability to partially or fully meet the specific Standard."

- However, all of these SCMs can be designed to provide a measure of detention, particularly on smaller sites. For example, a subdivision may have single family houses with individual dry wells and are tributary to larger treatment SCMs.
- Although the dry wells would only provide detention during smaller rain events, they can decrease the overall size of the downstream SCM, saving on cost and size demands.

1.64 **Stormwater Standard 3, Stormwater Recharge**. Table 2-1 Rules for Groundwater Recharge (Page 2-11). This states that recharge volumes may be infiltrated to the maximum extent practicable for various conditions, including water that has "been classified as contaminated." What are the specifications for this requirement?

1.65 **Standard 6. Critical Areas. Handbook.** There appears to be a typo in line 8 of the Definition paragraph of Standard 6. The words "described in" are floating without context.

1.66 **Standard 9. Operation and Maintenance Plan**. **Handbook.**

- It is a step in the right direction to have a post-construction inspection of all SCMs prior to the issuance of a Certificate of Compliance. However, as written on page 2-43, this inspection would be performed either by the Conservation Commissions or MassDEP. Understanding the design and signs of failure in SCMs is a technical skill that requires experience and training.
- Can the definition of inspector be expanded to include other municipal employees (e.g., town engineer) who may have additional experience with inspecting SCMs? Or will training and documents be made available by MassDEP to provide Conservation Commissions with guidance on inspections?

1.67 **Standard 10. Illicit Discharges to Drainage System. Handbook.** The URL for "Urban Water Resources Research Council" on page 2-45 is broken.

1.68 **Consistency Among Use of Terms.** There are different terms in the same sentence used in similar and different ways in several parts of the Handbook. The inconsistent use of some of the terms is confusing.

1.69 **Section 2.5. Setback Table 2-8 (page 255).** Several practitioners have expressed concerns with this table. How does one interpret this table if the project and the building are not in a resource area, and the infiltration area is not in a resource area. Is the Conservation Commission supposed to evaluate the project? There was no concurrence in MACC's practitioner's group. In addition, are these setbacks required for *all* projects? The amount of slope requirement and separation distances seem difficult to comply with, especially for some smaller parcels.

- Note 8 of Table 2-8 (pg. 255) states that "Structural Stormwater Management Systems (e.g., pipes, catch basins) and structural SCMs are therefore not allowed to be installed in groundwater."
- This standard could potentially be onerous to design around, particularly for public entities with large drainage systems located in the public way with a variety of groundwater conditions.
- For instance, it would be a barrier to the installation of deep sump catch basins, which are much deeper than a typical catch basin but provide a measure of water quality.
- It could also have the side effect of driving up design costs; test pits to identify groundwater are not a typical component in the design of a typical pipe and catch basin

system. For larger systems over a wide area and a myriad of conditions, the implication is that many soil investigations, including potentially at each individual drainage structure, would need to be performed.

- Table 2-8 requires that several SCMs have a >/= 12-foot access perimeter. In many cases, especially smaller applications, a smaller perimeter is sufficient for maintenance access.
- Having a larger access could mean that additional site clearing is needed for space and grading. This could have an overall damaging effect of removing additional forest or undeveloped land that are beneficial for resource areas and for dealing with stormwater.

1.70 **Chapter 2 (page 2-53).** The Handbook indicates that SCMs other than green roofs, rooftop detention, roof gutters, and down spouts may not be installed inside or under buildings. In urban environments such as Boston that have strict infiltration requirements and limited site area, infiltration under the building or location of a storage tank within the building can be unavoidable. Additionally, stormwater reuse tanks may be located within buildings to provide reuse water for building purposes.

MACC recommends allowing for installation of SCMs inside or below buildings as allowed by the Massachusetts Plumbing Code. Furthermore, underground infiltration systems under buildings are the only way in many cases to meet City of Boston Article 32 zoning requirements on existing zero lot line buildings in Boston. The zoning article has the goal of infiltrating stormwater to raise groundwater and protect wooden piles. Allowing the installation of SCMs inside the building would support this Article.

1.71 **Chapter 2 (page 2-54 and 2-55).** Table 2-8 provides the vertical and horizontal setback requirements for each SCM. The setback requirements are unreasonably restrictive and will make it impracticable to provide SCMs on sites. MACC recommends that these setbacks be provided as general guidance where possible and necessitated by site-specific conditions. MassDEP could provide separate language saying SCM setbacks can be evaluated on a case-by-case basis with the Conservation Commission reviewer and requirements of the local jurisdiction.

1.72 **Title 5.** Will the Title 5 code need to be changed because of this Stormwater Handbook and the new regulations? Why are Title 5 soil evaluators not allowed to do work outlined in the Stormwater Handbook?

1.73 **Automated Excel Spreadsheet.** Where is it located? It is very hard to find. Are the links working? This spreadsheet was found but only after much searching (p. 679 – footnote 102).

Chapter 3 – Legal Framework for Stormwater Management. Stormwater Handbook.

1.74 **Stormwater "Manmade" BMPs.** Table 3-1 etc.: Concerns have been raised about circumstances in which "manmade" BMPs are providing ecosystem services. If the BMP is not in a buffer or wetland zone, it seems like there is no authority to subject a developer to review prior to infilling a BMP, even if it is long standing and may still be providing services to the adjacent wetland area.

1.75 **Typo.** Page 3-14, add “TP” in the sentence "If a TMDL has been established, these regulations may address pollutants other than TSS and TP. The 2016 MS4 permit has regulations on TSS and TP, which are a required local bylaw component.

Chapter 4 - Site Planning & Design

1.76 **Consistency of Terminology.** There is a great deal of referencing back and forth between the use of LID, SCMs, BMPs, ESSD etc. In some places (4-2) BMPs are not mentioned at all when defining SCMs and providing examples, while BMP is regularly used in Chapter 3. There should be better consistency between these acronyms as they seem to all mean just about the same thing.

- Section 4.2.4. lists to ESSD section could be much more robust --- 4.2.5. all of the additional information on LID is from the 90s, shouldn't these be updated with more recent supplemental material?

Chapter 5 – Miscellaneous Stormwater Topics

1.77 **Chapter 5 of the Handbook** references the Transportation Separate Storm Sewer System (TS4) permit. It is our understanding that The EPA is in the process of finalizing requirements for the TS4 permit and a final version of this permit has not been released to the public at this time. Has MassDEP coordinated with the EPA to ensure that the requirements contained within the Draft Regulations are consistent with the requirements in the TS4 permit? Are the draft Regulations consistent with the requirements for the TS4 permit?

1.78 **Shared-Use Path provisions. Handbook 5.6**

- It is helpful to have a section discussing Shared Use Paths (SUPs); however, many of the provisions, requirements and recommendations make no sense for either stormwater or resource area protection.
- SUPs do not generate pollutants like many other development activities. The section on suggested SCM and BMP is not clear.
- Definitions and widths of adjacent "suitable pervious area" are impractical in more areas.

Chapter 6: Documenting Compliance with the Stormwater Management Standards

1.79 **Soil Evaluations.** Soil evaluations can be completed by Engineers in Training (EITs) but what about the soil evaluators? There is a specific statement that soil evaluators are not considered soil professionals. The definition of a competent soil professional is too narrow; other professionals should be considered soil evaluations in these types of projects.

1.80 **Chapter 6** (page 6-72) and **Chapter 1** (page viii) each indicate that a Soil Evaluator cannot be considered a competent soil professional. Although the soil evaluator title was developed for Title V, training involved as part of becoming a soil evaluator can be used when evaluating soils for stormwater infiltration, particularly identifying estimated seasonal high groundwater elevations.

MACC recommends revising the Stormwater Handbook to include soil evaluators as competent soil professionals.

1.81 **Chapter 6** (page 6-76). The Handbook indicates that for infiltration SCMs, at a minimum, one test location for every 5,000 SF with a minim of three (3) test locations per infiltration practice should be included for soil testing. Two boring per test locations: one for ESHGW and one for infiltration testing. Though three test locations may make sense for large scale infiltration SCMs, many SCMs are less than 5,000 SF and may not need that many test locations. Additionally, why can't one test pit be used for both ESHGW and infiltration testing? The way this is written indicates that every infiltration SCM will require 6 test pits or borings which is beyond what should be required.

MACC recommends revising this to remove the minimum so that smaller systems are able to do one or two test pits/borings where it would be impractical or even impossible to dig six test pits.

1.82 **Soil Testing**. Why does the Handbook limit the types of testing for soil saturated hydraulic permeameter? Other methods are often used in the field and in other states, but they are not allowed in this Handbook. What is the rationale? Can a falling head test be conducted, or other options for K evaluations, such as grain size and other tools?

1.83 **Alternatives Analysis.** Across the state every conservation commission could interpret this language in different ways ("feasible" or "practicable" or "exhaustion" of all practicable). Should the applicant get a waiver if they cannot complete the analysis? There is a concern that without additional clarification, applicants can state the Alternatives Analysis indicates that none are feasible due to cost. Can the requirements be simplified into using a form with all of the green infrastructure options on one page, rather than multiple pages of written information?

1.84 **Peer Reviewers**. There is a need for consistent reviews of stormwater submittals. This process would benefit from recommendations or guidance on education and experience requirements.

1.85 **72-Hour Drainage.** Please clarify the 72-hour required drainage time for infiltration systems. It is assumed that the 72-hour drainage time for infiltration systems starts at the end of the storm, but it is not clear in the Handbook.

For example, for the purposes of a groundwater mounding analysis, the recharge rate is based on the design storm duration. In addition, the mound builds during recharge and declines after recharge stops. If the clock starts at the beginning of a 24-hour design storm, then the basin has to drain within 48 hours of the end of the storm. Therefore, the time the clock starts is critical to determining the system design and performance. If the clock starts at the beginning of the storm, the infiltration system would have to be larger to provide more area for infiltration, so this issue is not trivial. It could lead to substantial extra expense in both system design and construction cost.

MACC supports the recommendation of setting the 72-hour "clock" to begin at the end of the 24-hour storm.

1.86 **Stormwater Handbook.** To ensure consistency by practitioners and enable review by Commissions, we recommend that MassDEP provide detailed guidelines for mounding

analyses in the Handbook including inputs values, references, and resources for obtaining input values, and documentation requirements for the Stormwater Report such as Height vs. Time graph showing that the mound height is below the infiltration system invert 72-hours post storm. Would MassDEP consider adding instructions on how to do a mounding analysis? The instructions could provide the following:

1. *Definition and purpose of a mounding analysis*
2. *Definition and explanation of inputs*
    a. *basin dimensions*
    b. *recharge rate*
    c. *horizontal saturated hydraulic conductivity*
    d. *duration of recharge*
    e. *effective porosity (aka specific yield)*
    f. *initial aquifer saturated thickness*
3. *Instructions on how to determine the above values and what NOT to use (such as Rawls Rates)*
4. *Require the output to be a Height vs Time graph, also known as a water table recession hydrograph, which shows that the mound height is below the infiltration system invert 72-hours post storm.*
5. *Expectation that a narrative will be provided which explains how each input was determined and provides a detailed model output.*

1.87 **Infiltration basin design guidelines** require installation of monitoring wells. It would be useful to have guidance on how to use the wells for the infiltration design. Potential clarifications could include:

- Monitoring well water levels will be measured at the end of each major storm and at 72 hours thereafter for the first year of operation for each detention system.
- These measurements will be reported to the Conservation Commission and the Town Engineer. If the basin still contains water at 72 hours, water levels shall be measured at 24-hour internals until the basin or infiltration system is empty.
- These procedures will be incorporated into the Operations & Maintenance Plan for the project.
- Corrective action will be required if the basin consistently does not empty within 72 hours after two storm events. This standard shall apply during the lifetime of the system.

1.88 **Infiltration Rates**. The infiltration rates in the Stormwater Handbook, Recharge Rationale memorandum and EPA BATT are all different.

- Table 1 is a comparison of various recharge rates and Ksat extracted from the references listed below.
- Recharge Rate and Ksat are not the same thing. The first is a rate of infiltration, the latter is an intrinsic property of a given soil, even though both use the same units of measure, Length/Time. That being said, Recharge Rate and Ksat are used interchangeably throughout the various references listed below.
- Note that different recharge rates were used within the Recharge Rationale memorandum. The one used in Appendix B of that document is the same as the Rawls Rate used in the current Handbook. In addition, the EPA BATT also uses the Rawls Rate. The draft Stormwater Handbook uses much lower rates.

- For comparison purposes, the last two columns show Ksat values for NRCS A and C horizons from soils representative of the HSG Soil groups A through C.
- What is concerning is that calculations used to determine target recharge values are much higher than those used for Ksat in the new Stormwater Handbook. The design criteria for SCMs in the BATT assume much higher Ksat values than those used in the new Handbook as well. This inconsistency will make design of SCMs difficult since the tools use different standards for recharge.

Recommendations:

1. MassDEP should review the methodology used to determine Target Recharge and whether it can actually integrate with the much lower values used in the draft Handbook and the much higher rates in the EPA BATT for SCM design.
2. Use of the Rawls Rate (which is actually a hydraulic conductivity, not a rate), for regional infiltration modeling may be underestimating the amount of recharge. Rawls Rates may be sufficient for conservatively modeling recharge for simple infiltration analyses used in HydroCAD, but it is problematic for large regional surficial hydrology models. It may be more accurate to use the vertical hydraulic conductivities specified in NRCS soil mapping. For HSG A soils, Kv for Hinkley soils is 4 in/hr, not the 1.02 in/hr used in the model, and thus is more appropriate. Kv data obtained from the MassMapper Physical Resources > Soils > Top 20 Soils: Saturated Hydraulic Conductivities (Ksat) would be a useful spatial data source to replace Rawls Rates. DEP should evaluate the models using Kv values provided by NRCS or MassMapper data sources instead of the Rawls Rates used in their models to more accurately model runoff and recharge for the Recharge Rationale memorandum.

Table 1 – Comparison of Recharge Rate / Ksat values in references cited in the draft Stormwater Handbook								
Soil Type	**Soil HSG**	**Recharge Rationale Recharge Rate from Text (in/hr)** [1]	**Recharge Rationale Recharge Rate from Appendix B (in/hr)** [2]	**BATT Structural BMP Infiltration Rates (in/hr)**	**Proposed Handbook Ksat (in/hr)**	**Current Handbook Recharge "Rawls" Rate (in/hr)**	**NRCS A Horizon Vertical Ksat (in/hr)** [3]	**NRCS C Horizon Vertical Ksat (in/hr)** [4]
Sand	A	1.02	8.27	8.27	1.42	8.27	4.0	25.5
Loamy Sand	A		2.41	2.41		2.41		
Sandy Loam	B	0.52	1.02	1.02	0.57	1.02	1.4	14.1
Loam	B		0.52	0.52		0.52		
Silt Loam	C	0.10	0.27	0.27	0.10	0.27	1.4	0.01
Sandy Clay Loam	C		0.17	0.17		0.17		

References

[1] Summary of Target Recharge Volume Evaluation Memorandum - See Sub-Bullet 6 on Page 2

[2] Summary of Target Recharge Volume Evaluation Memorandum - UNIT-AREA GROUNDWATER RECHARGE ESTIMATES FOR ESTIMATING IMPERVIOUS COVER RUNOFF CAPTURE FOR INFILTRATION FOR NEW DEVELOPMENT ACTIVITES – DRAFT 04/20/2022 Appendix B

[3] EPA BATT (version 2.1) Add Structural BMP Infiltration Rate Selections.

[4] NRCS A and C horizon Ksat values for Hinkley (HSG A), Agawam (HSG B), and Paxton Soils (HSG C) Soils

1.89 Chapter 6, Page 6-40.

- The text states: "*The mounding analysis must also show that the groundwater mound that forms under the recharge system will not break out above the land or water surface of a wetland (e.g., it doesn't increase the water sheet elevation in a Bordering Vegetated Wetland, Salt Marsh, or Land Under Water within the 72-hour evaluation period).*"
- Water level increases in Resource Areas are theoretically possible due to recharge from an infiltration system, but any such changes from an infiltration system after a storm event will be transient in nature and will be overwhelmed by natural water level fluctuations caused by precipitation events or daily processes such as evapotranspiration. These temporary increases will be rapidly attenuated and have no long-term impact on Resource Areas. The flow rate through the subsurface will also be very slow, on the order of 1×10^{-5} ft/second, so it is unlikely that any discharge from groundwater to surface water will flow fast enough or discharge sufficient volume to cause any detectable impacts to a resource area, such as temporary flooding or inundation and certainly no permanent impacts.
- **Recommendation**: Remove this requirement, as an increase in sheet flow elevation due to groundwater discharge into a Resource Area, if any, will be quite small compared to surface runoff and will be quickly attenuated.

1.90 ESSD. Handbook Appendix A, page A-16-17. Non-Native Trees.

- One of the recommended trees in the appendix (page 22 of the document or a-17 of the appendix) is the Callery pear which has been listed as "Likely Invasive" in Massachusetts: https://massnrc.org/mipag/speciesreviewed_category.htm. MACC recommends that this species be removed as one of the recommended species.

1.91 Stormwater Precipitation Update- NOAA - 14+. It would be beneficial to include a note of the new EEA Climate change projections dashboard (which is part of Climate Resilient Mass). This dashboard allows one to see town-specific precipitation projections using NOAA 14+.

1.92 Stormwater Standard 6 Critical Areas. Handbook. Table 2-4b.

- In Tables 2-4b through 2-4d, the language reads "only use proprietary manufactured separators for pretreatment."
- This wording is potentially confusing, implying that only proprietary separators can be used for pretreatment, excluding other forms like deep sump catch basins, vegetated filters, etc.
- The language in Table 2-4a, "Proprietary manufactured separators may be used only for pretreatment" presents the requirement in a clearer fashion.

1.93 Stormwater Standard #11 Total Maximum Daily Loads Table 2-6 (page 2-47)

- Table 2-6 lists the suitability of SCMs to treat TMDL pollutants, and several SCMs including bioretention area (filtration), extended dry detention basins, sand/organic filters, wet basins, and green roofs are noted as "unlikely to provide significant reduction of target pollutant."
- However, these technologies are listed in Appendix F, Attachment 3 of the MS4 permit as approved structural controls for meeting nutrient load reductions.

- This is a confusing contradiction between the two regulatory documents that will add to the administration and design burden when considering the selection of appropriate SCMs, particularly in retrofit scenarios.

4.0 LSCSF Comments

MACC supports the adoption of performance standards for work within LSCSF. This is essential to improve resiliency for the dynamic natural systems along the coast, particularly in light of sea level rise, increasing storm intensities, and accelerating rates of coastal erosion in many locations. In particular, MACC supports the proposed prohibition on new buildings in the highest risk area, the Velocity Zone. Where our comments also overlap with those for the Ch. 91 Waterways regulations, the text is underlined.

1.94 Current vs. Future Conditions.

- The proposed LSCSF regulations rely on FEMA maps. These are not updated frequently enough, and do not take ongoing sea level rise and erosion rates into consideration. The **Chapter 91 regulatory revisions** require structures to be designed for future SLR conditions. MassDEP should modify the LSCSF regulations to include consideration of future conditions and use the same SLR projection as proposed in the **Chapter 91 Regulations**.

- The regulations will allow construction of **berms** to protect existing developed areas. While this is generally preferable to armoring, these projects need to be part of **district or neighborhood level** plans developed with public input. This is the approach proposed tie-in the ResilientCoasts strategy initiative. Any berms or other resiliency measures to protect particular properties need to be planned and permitted in consideration of the Interaction of adjoining landowner interests. For example, if a conservation-oriented landowner wants to facilitate marsh/dune migration but others want to build a berm, the final design for local resiliency measures needs to avoid conflicts between these competing public interests.

- The regulations would allow relocation of roads and railroads into other resource areas if no alternative is available (new limited project). Restoration of the former road or railroad bed to salt marsh or other resource area that would naturally occur in that location is required. This provision needs to be refined to address situations where the existing road or railroad bed is acting as a protective berm for existing developed areas. It should also allow for increased tidal flows into adjoining undeveloped areas where that is beneficial for salt marsh restoration or resource migration.

1.95 Salt Marsh Restoration.

- MACC is supportive of the efforts that MassDEP has been engaging in with other agencies and external experts to develop guidance for salt marsh restoration projects. We recommend that a **new Ecological Restoration Permit provision** be added to the regulations, based on the guidance, instead of currently proposed language directing these projects to the Limited Project Ecological Restoration process.

- Salt marsh hay to heal ditches – Use the provision in waterways regulations 310 CMR 9.05(3)(m) that allows removal of an unauthorized structure with simple approval from MassDEP, it does not require a **Chapter 91 License**.

- Also consider **clarifying the definition of fill**, recognizing that use of native plant material to heal a previously excavated, unlicensed ditch is not fill.

1.96 Coastal Resiliency with Nature Based Solutions.

- Scientific Research Projects. This provision should be revised and broadened to allow testing of nature-based solutions techniques, not just deployment of research data gathering devices.

5.0 Recommendations for Regulatory Reform Package 2.0

MACC appreciates the opportunity to provide input for the upcoming 2.0 reform package, and we look forward to participating actively in that process. To the extent any of our comments above are not able to be addressed in the 1.0 final regulations, we request that they be considered through the 2.0 process.

2.01 Stakeholder Engagement (2.0). MACC recommends that MassDEP Continue Stakeholder engagement with "Office Hours" on a quarterly basis. The MassDEP Office Hour Meetings held in March and April 2024 were very successful in sharing questions and concerns about proposed wetlands regulations. MassDEP should immediately engage day-to-day practitioners in the "Resilience 2.0" planning process. Regulatory changes should incorporate close coordination with conservation commissions, conservation staff, and professional non-profit staff, the people responsible for day-to-day interpretation and consistent implementation of these regulations.

2.02 Collaborate on Training Programs for Conservation Commissioners, Agents, and Wetland Practitioners (2.0)

- Continue the successful Wetlands Circuit Rider Program.
- Coordinate training programs given by MassDEP's Circuit Riders to each region should be made available to Conservation Commissioners and Commission staff in all regions Currently, regional circuit riders provide valuable training to conservation commissions in each region. This training is not provided across all of the regions.
- MACC, MSMCP, AMWS, and MassDEP should collaborate on educational training programs for wetland practitioners and conservation commissioners. This collaboration will provide consistency of regulatory interpretations and implementation of wetland programs.
- MACC welcomes input by MassDEP on MACC's Fundamentals program training for conservation commissioners to provide a collaborative approach for continuous improvements.

2.03 Consistent regulatory interpretations are needed across MassDEP regions.

- MACC strongly urges MassDEP to institute consistent interpretation of wetlands regulations and guidance across the four MassDEP regions.
- Currently, wetlands regulatory interpretations are not always consistent across Massachusetts (for example, the 10% redevelopment in Riverfront Areas).

2.04 Project reviews, audits, and enforcement actions should be prioritized by MassDEP Wetlands staff in order to focus on projects with large impacts and complex projects and to improve consistency of policy implementation across MassDEP regions.

- MassDEP should provide proactive guidance and feedback to assist the day-to-day practitioners with creating strong, consistent, and unlikely-to-be-appealed decisions.

2.05 Additions to Minor Activities (2.0)

- MassDEP should expand activities included under Minor Activities.
- Removal of hazard (high-risk) trees should be allowed as a minor activity (or other action) to allow removal of a tree or trees, similar to the Agricultural exemption, with agreement by conservation agent, commissioners, or arborists.
- Allow invasive species management as a minor activity.

2.06 Additional streamlining is needed for restoration projects, both coastal and inland (2.0)

- Allow use of salt marsh hay for salt marsh restoration; do not include salt marsh hay as "fill."
- Create new provisions allowing living shorelines and other nature-based solutions that are extremely difficult to permit under current regulations.

2.07 Greater Protection for Vulnerable Wetlands. In light of the Sackett Decision eliminating federal jurisdiction under the Clean Water Act, **establish additional protections for smaller isolated wetlands, vernal pools and vernal pool habitat (2.0).**

2.08 Greater Protection for Streams. In light of the Sackett Decision, establish additional protections for Intermittent Streams and Headwater Streams (2.0).

2.09 Buffer Zone Protections should be enhanced for limiting new construction, or no build zone requirements. (2.0). There is room for expansion of the provisions in 310 CMR 10.53(1), including considerations for a no-disturb zone.

2.10 Riverfront Area. MACC strongly recommends that MassDEP provide additional guidance documents or Program Policy to assist Commissions and the regulated public in understanding and interpreting the riverfront area. Based upon the nature of the questions received, it is apparent to MACC that this is one of the most difficult sections of the regulations to understand and implement.

2.11 Allow for flexibility for **Trail Maintenance and Invasive Species Management Projects (2.0).**

2.12 Provide Guidance on RR Rights of Way and Herbicide usage, RDA submittals or NOI forms (2.0).

2.13 Artificial Turf Guidance. MACC recommends MassDEP develop guidance for use of Artificial Turf related to potential impacts to wetlands; surface and groundwater quality; microplastic, PFAs, metals, and phthalates contamination; habitat impacts; and heat impacts, in all wetlands resource areas, and especially in areas of Outstanding Resource Waters (ORWs) and cold water fisheries.

A. MassDEP WPA Forms (2.0)

MACC recommends updating and simplifying the MassDEP WPA Forms for ease of use and to include additional information to help conservation commissions, municipalities, commission

staff, and applicants. We urge MassDEP to meet with MACC and MSMCP concerning improvements to the forms, including, but not limited to the suggestions below:

- Application forms should mirror permit application forms.
- Application forms and permit forms should reflect the regulations.
- Forms should list the date, project, site, and owner/applicant information on the first page.
- Forms should rely on "appendices" for site or project specific information (such as coastal resource areas, rare species, and stormwater).
- There should be forms that are tailored for purely inland municipalities.
- The language of the forms should be simplified and easier to understand by the public.

2.14 NOI Form (WPA Form 3) (2.0).

- The NOI form should be more succinct.
- Much of the NOI form is not relevant to a majority of projects.
- The use of appendices would greatly simplify the application for many applicants. Consideration should be given to having coastal and freshwater applications be separate parts of the form.
- The NOI form (under C.7.) should add categories of projects to which the stormwater standards do not apply (i.e., not "industrial, commercial, institutional, office, residential and transportation projects").

2.15 OOC Form (WPA Form 5) (2.0).

- The OOC form should be able to be modified to allow for routine additions such as longer lists of approved plans, the Commission's findings, and the Commission's site-specific conditions.
- The OOC should be more succinct and tailored so that the information is pertinent to the project.

2.16 Determination of Applicability (WPA Form 2) (2.0). Conservation Commissions need to have more latitude to issue negative determinations of applicability or general permits for small-scale or low-impact projects (such as the hand-pulling of aquatic invasives).

2.17 ORAD (WPA Form 4B) (2.0)

- The ORAD form should be revised to correct the following inconsistencies:
  - The Recording Block on Page 1 and the Recording Information on Page 7 should be removed. MassDEP Circuit Riders have confirmed that ORADs do not need to be recorded yet the form, which was last revised on April 22, 2020, states that the form must be recorded.
  - ORADs are simply confirming a wetland boundary for 3 years. When applicants record this document, it can create a cloud on a title in part because there is no equivalent of a certificate of compliance to "close it out."
- The ORAD form should be revised to reiterate an important regulatory requirement. DEP should add a regulatory note on ORADs which states "If requesting an Extension, the Applicant must submit written confirmation by a professional with relevant expertise that the resource area delineations remain accurate, per 310 CMR 10.05(6)(d)." Most Commissions and conservation professionals are unaware of this language since it is difficult to find in the regulations.

2.18 **Wetland Fees** do not cover the administrative costs for processing, reviewing, issuing, and mailing wetland permits. We ask MassDEP to consider increasing application fees to help struggling Conservation Departments that rely on the Wetland Protection Fund for auxiliary services.

2.19 **On-line Database.** Provide an on-line, searchable database of wetlands projects to allow for coordinated project review and climate resilience planning.

- A program similar to the consolidated online permit system implemented by Virginia and Rhode Island could help streamline wetland permitting.
- An on-line wetlands database system could promote carbon tracking of no-net loss of carbon in wetlands.

Thank you for your time and consideration of these comments. We look forward to a continued collaborative effort with MassDEP in the protection of our Commonwealth's wetland resources.

Sincerely,

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