



April 29, 2024

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Bonnie Heiple, Commissioner  
Massachusetts Department of Environmental Protection  
Bureau of Water Resources Wetlands Program  
Attention: Wetlands-401 Resilience Comments  
100 Cambridge Street, Suite 900  
Boston, MA 02114

**RE: Draft Wetlands Protection Act Regulations**

Dear Commissioner Heiple:

The Association to Preserve Cape Cod (APCC) submits the following comments regarding MassDEP's draft changes to the Wetlands Protection Act regulations.

Founded in 1968, APCC is the Cape region's leading nonprofit environmental advocacy and education organization, working for the adoption of laws, policies and programs that protect, preserve and restore Cape Cod's natural resources. APCC focuses our efforts on the protection of groundwater, surface water, and wetland resources, preservation of open space, the promotion of responsible, planned growth and the achievement of an environmental ethic.

APCC congratulates MassDEP on its extensive efforts to update and draft regulations to address climate resilience and to better facilitate ecological restoration. We greatly appreciate and support many of the proposed amendments. Our comment letter is divided into two parts: 1) proposed amendments that we support, and 2) recommendations for changes in the proposed amendments.

**1) APCC supports the following proposed amendments and encourages MassDEP to promulgate these new regulations:**

310 CMR 10.24 (1)(b): APCC strongly supports this new provision requiring nature-based solutions and improvements to be incorporated into coastal projects. Utilizing nature-based improvements will increase climate adaptation and resiliency while allowing the natural function of coastal ecosystems to continue. However, APCC recommends that the requirement for project applicants to merely "consider" nature-based resilience measures should be strengthened. APCC recommends that language to "consider" be changed to a requirement to utilize nature-based resilience measures unless the project applicant can demonstrate that utilization of such measures is infeasible due to physical limitations of the project site.

482 Main Street | Dennis, MA 02638  
Tel: 508-619-3185 | info@apcc.org | www.apcc.org

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310 CMR 10.36 (6): This provision adopts a new standard prohibiting new construction in the Velocity Zone. See additional comments below.

310 CMR 10.36 (9): This provision facilitates salt marsh and coastal dune migration inland in response to sea level rise and the changing dynamics of the coastal region.

310 CMR 10.04: This provision expands the definition of Impervious Surface to include artificial turf, which will add to the Commonwealth's ability to address runoff issues and improve water quality.

310 CRM 10.04 and corresponding 314 CRM 9.02 Definitions: The addition of definitions for stormwater management projects, including Best Management Practices, Environmental Protection Agency Performance Removal Curve, and Stormwater Control Measure, are very clear, are in line with our current use and application of definitions and stormwater management projects, and we support as proposed.

310 CRM 10.04 and corresponding 314 CRM 9.02 "Compacted Gravel and Soil" and "Impervious Surface" Definitions: APCC supports the definitions of compacted gravel and soil as well as impervious surface proposed for the purposes of stormwater management, in particular the inclusion of unpaved surfaces "including, but not limited to artificial turf, compacted gravel or soil..." in the definition of impervious surfaces, as these can effectively function as impervious.

APCC supports the provision that provides an increased one-inch recharge requirement for all new soil types in new development under the Stormwater Handbook Standard 3.

APCC supports the provision that expands Low Impact Design/Environmentally Sensitive Site Design credits under the Stormwater Handbook Standard 4.

APCC supports the provision aligning the Wetland Protection Act's conditions to coordinate with the Municipal Small Sewer System permit, making compliance less burdensome for municipalities.

## **2) APCC recommends revisions to the following proposed amendments:**

310 CMR 10.04 Definitions: Seasonal High Groundwater: The proposed definition of Seasonal High Groundwater should also be applied to Isolated Vegetated Wetlands, Isolated Land Subject to Flooding (ILSF), Vernal Pools, and Bordering Land Subject to Flooding, particularly in areas where other nearby wetlands or water bodies are groundwater-fed (i.e., where shallow unconfined aquifers exist). On Cape Cod such wetlands are often groundwater-fed.

310 CRM 10.04 and corresponding 314 CRM 9.02 "Time of Year Restriction" Definition: APCC strongly supports the inclusion of the definition of Time of Year Restrictions and recommends that additional text be included for the definition so it reads, "Time of Year Restriction means the date ranges established by the Massachusetts Department of Fish and Game, Division of

Fisheries and Wildlife and Division of Marine Fisheries, to provide protection to resources including inland streams, rare species habitat and marine resources in Massachusetts during times when there is a higher risk of known or anticipated significant lethal, sublethal, or behavioral impacts on the living resources, i.e., fish, shellfish, rare species and wildlife in these habitats and resource areas.”

310 CRM 10.04 and corresponding 314 CRM 9.02 “Total Phosphorus (TP)” Definition: The definition currently reads “Total Phosphorus (TP) means the total phosphate content in stormwater including all particulate and dissolved phosphorus, in both organic and inorganic forms.” The definition should read, “...means the total phosphorus content in stormwater including all particulate and dissolved phosphorus...”

310 CRM 10.05 and corresponding 314 CRM 9.07: APCC supports the language for stormwater management systems for new development and redevelopment, including the proposed change for higher standards of pollutant removal, but we want to ensure that the standards for retrofits maintain that these projects meet the Stormwater Management Standard to the “Maximum Extent Practicable” to allow for the necessary flexibility in design and treatment. Requiring stricter standards for retrofits, which by definition are projects designed to improve water quality, reduce peak discharge rates, and increase recharge, would unintentionally limit or prohibit stormwater management in some locations due to site specific conditions. Examples include, but are not limited to, high groundwater level that limits the type of SCM that can be used and the TSS, TP and other nutrients that can be removed. APCC is currently targeting management of stormwater in many areas of direct discharge adjacent to priority and impaired water bodies currently with little no treatment of stormwater. We encourage MassDEP to continue with the proposed language to allow for retrofit projects to continue to address as much pollution at these sites of direct discharges as practicable and feasible, while requiring stricter standards for new development and redevelopment.

310 CMR 10.05(12). Scientific Research Projects: The definition of Scientific Research projects is too narrow to be beneficial both in terms of duration and scale. APCC recommends a duration of three years, including one year of implementation and three years of monitoring, to measure the impact and test the hypotheses. The area proposed as “no more than 1,000 square feet of salt marsh, 100 linear feet of coastal bank and 1,000 square feet of any other resource area” is too small and the requirement for a Notice of Intent filing as opposed to a Request for Determination seems more complex, timely and costly than should be warranted for a small research project. APCC recommends MassDEP consider doubling or tripling the scale of the allowable projects to allow for replication and controls to ensure the scope and size of the project is able to adequately address the answers of the proposed scientific inquiry.

310 CMR 10.24(b) Allowing conversion of one coastal Resource Area to other Resource Areas: In 310 CMR 10.24(b), in the context of shoreline protection, MassDEP proposes that, “Notwithstanding the provisions of 310 CMR 10.24(2), the Issuing Authority may allow the conversion of one Resource Area to other Resource Areas to achieve greater shoreline resiliency, but there shall be no loss of Salt Marsh, no alteration of Primary Frontal Dune, and no cumulative net loss of or adverse effects on Resource Areas.”

This proposed amendment raises considerable concerns and questions, as conversion of one Resource Area to another could result in impacts on land containing shellfish, fisheries, wildlife habitat, and other interests, as well as potential impacts on public access and properties beyond the lot undergoing permitting. Furthermore, the proposed amendment seems to prioritize providing shoreline protection options for coastal property owners rather than protection of wetland interests. Questions and comments include the following:

- Although the proposed conversion would require "no cumulative net loss of or adverse effects on Resource Areas," how would these performance measures be evaluated or confirmed?
- If conversion of a Resource Area(s) results in cumulative net loss of, or adverse effects on, Resource Areas, what is the recourse, and what are the performance standards for addressing net loss or adverse effects?
- Would all coastal property owners be allowed to apply for Resource Area conversion, or can preference be given to public projects that serve an overriding public need and purpose (e.g., public road, public infrastructure, flood control, restoration project, etc.)?
- Would the presence of nearby shellfish aquaculture projects or public access to a town-owned beach be taken into consideration?
- Although the proposed amendment calls for confirming "that the project will not cause an increase in flood velocity, volume, or elevation on other properties resulting in storm damage," it does not recognize that there may be additional impacts on other properties that extend beyond preventing storm damage and flooding, e.g., coastal access, viewshed, change in property values, etc.
- How would regional or neighborhood impacts of a Resource Area conversion be addressed?

APCC urges MassDEP to consider this proposed amendment in more depth, with a greater focus on protecting wetland interests and preventing cumulative impacts on a larger scale than the individual lot undergoing permitting to allow projects, for example, that promote resource restoration such as salt marsh migration.

310 CMR 10.24 (7)(c)(9): This provision for Limited Projects allows relocation of roads and railroads in response to sea level rise, but does not include specific direction on how such projects should be considered in relation to how the project could impact ecosystem function, habitats or even other existing infrastructure. APCC believes promulgation of this proposed provision is premature, since the Healey administration only recently launched a ResilientCoasts Initiative that is tasked with developing "a holistic strategy for addressing the impacts of climate change along the coastline of Massachusetts." Once completed, the findings of the ResilientCoasts Initiative should better inform policies related to relocation of coastal roads and railroads and the potential impacts of such actions.

310 CMR 10.36. Land Subject to Coastal Storm Flowage (LSCSF): APCC commends MassDEP for proposing new regulations concerning Land Subject to Coastal Storm Flowage (LSCSF). Such regulations have long been sought by the conservation community. LSCSF serves important

roles in coastal processes and coastal habitat and at the same time is subject to great pressure from coastal development. Our comments are intended to bolster and strengthen the ability of these regulations to provide long-term coastal resilience and habitat protection while allowing existing developed properties to be protected from storm damage, flooding, and sea level rise.

- LSCSF Recommendation 1: LSCSF interests should be expanded. The proposed interests of LSCSF in MassDEP's current draft include only two interests: prevention of storm damage and flood control. We strongly recommend that the LSCSF regulations should address additional interests: protection of groundwater, prevention of pollution, protection of public and private water supplies (where such water supplies are located within LSCSF), and protection of wildlife habitat. Reasons for including these additional interests are given as follows:
  - LSCSF experiences flooding and floodwaters will either infiltrate into the ground and/or recede to nearby water bodies and wetlands. Floodwaters that infiltrate into the ground may carry contaminants that could pollute groundwater. Floodwaters that recede into nearby water bodies and wetlands may carry contaminants or debris that could pollute water bodies and wetlands. Therefore, LSCSF should be significant to prevention of pollution and protection of groundwater.
  - On Cape Cod, 15 percent of drinking water is supplied by private wells or privately-owned small volume wells, mainly located in Truro, Wellfleet, and East Sandwich (<https://www.capecodcommission.org/our-work/drinkingwater/>). State guidelines for placement of private wells are provided at <https://www.mass.gov/doc/private-well-guidelines/download>; these state in the section on "Relation to Surface Water and Wetlands" that where possible, private systems should be located above the 100-year floodplain, but go on to say that if a well must be located in an area subject to flooding, special precautions must be taken. Because there may be drinking water wells located in LSCSF, protection of public and private drinking water supply should be added as a protected interest.
  - In undeveloped LSCSF, wildlife habitat will likely exist. Even in already-developed areas of LSCSF, wildlife habitat may exist, particularly if there are other Resource Areas or Buffer Zone to Resource Areas adjacent to LSCSF. For this reason, protection of wildlife habitat should be added as a protected interest.
- LSCSF Recommendation 2: Strengthen LSCSF regulations to prohibit new development in MoWA and MiWA zones where sea level rise is predicted to occur. The proposed LSCSF regulations concerning development prohibit any new development in V-zones defined by areas with wave heights of 3 feet or greater. The prohibition on new development in V-zones is welcome and highly justifiable given current risks due to storm surges and flooding. APCC strongly supports this proposed measure.

However, in the Moderate Wave Action (MoWA) Zone where wave heights are between 1.5 feet and 3 feet, new development would be allowed, provided buildings are on pilings. Additionally, in the Minimal Wave Action (MiWA) Zone where wave heights are

less than 1.5 feet and variable, new development would also be allowed, with buildings on pilings or open foundations. Allowing new development in MoWA and MiWA Zones, even if buildings will be elevated on pilings, does not serve long-term coastal resilience when predicted sea level rise in Cape Cod communities within the current century will be on the order of several feet, according to state-sponsored Municipal Vulnerability Preparedness (MVP) studies. In towns as diverse as Falmouth, Bourne, Barnstable, and Wellfleet and Truro, MVP studies predict sea level rise by the 2090s to range from 4-10 feet (Falmouth: <https://www.falmouthma.gov/DocumentCenter/View/7066/Municipal-Vulnerability-Assessment-Presentation->; Bourne: <https://www.mass.gov/doc/bourne-report/download>; Barnstable: <https://www.mass.gov/doc/barnstable-report/download>; and Wellfleet-Truro: <https://www.mass.gov/doc/wellfleet-truro-report/download>). This means that within 66 years from now, sea level rise in these communities could be 4 feet at minimum, or potentially higher up to 10 feet. Even with the lower estimate of sea level rise of 4 feet by 2090, areas that are now MoWA or MiWA could well be V-zones by 2090. Allowing new development in areas where sea level rise will overlap with current MiWA and MoWA zones does not make sense and will endanger future development that is allowed to be placed in such areas. Furthermore, the additional interests recommended by APCC would not be served by allowing new development in MoWA and MiWA Zones.

APCC strongly encourages MassDEP to strengthen LSCSF regulations to prohibit new development and expanded redevelopment in MoWA and MiWA zones.

- LSCSF Recommendation 3. Strengthen Provisions for Migration of Salt Marsh and Coastal Dunes into LSCSF. The proposed LSCSF regulations include “a provision which would allow owners of Land Subject to Coastal Storm Flowage, particularly when adjacent to these other Resource Areas (Salt Marsh or Coastal Dune), to prepare or set aside land for landward migration...” Given the importance of Salt Marsh and Coastal Dunes for WPA interests and for coastal resilience, APCC recommends that MassDEP strengthen these provisions to encourage migration of these Resource Areas into LSCSF. APCC suggests that proposed development projects in LSCSF adjacent to Salt Marsh or Coastal Dunes include an assessment of suitability of the LSCSF area for salt marsh or coastal dune migration. Such an assessment can be evaluated by a qualified consultant working for the Conservation Commission (WPA regulations already allow for the Conservation Commission to hire a consultant to evaluate projects). The requirement for such an assessment could be overcome by a factual finding by the Conservation Commission or MassDEP that the LSCSF area would not be suitable for migration.

#### Appendix A SCM Specifications for MA Stormwater Handbook Stormwater management:

Although APCC is pleased to see that MassDEP is proposing to replace its current references to precipitation projection in its Stormwater Handbook Standard 2 regulations, the proposed NOAA14+ precipitation frequency data source is likely to become outdated in the foreseeable future due to changing climate conditions. APCC recommends that the regulations reflect the reality of changing trends and the need for periodic adjustments in the reference data by



including language such as, “NOAA14+ or its most current revision.”

Combined Application: In proposing to eliminate the “Combined Application” option for the Wetlands Protection Act, Waterways, and Section 401 Water Quality Certifications, MassDEP has not proposed a new procedure that would help expedite the permitting process for beneficial restoration projects. APCC recommends that a streamlined process be included to reduce the time and expense in permitting restoration projects that enhance ecosystem function and promote climate resiliency.

“Maximum Extent Practicable” Standard for Recharge: APCC is concerned that allowing the “Maximum Extent Practicable” recharge standard for all soil types in redevelopment will be too easy for applicants to circumvent, resulting in insufficient recharge in many sites. We recommend that MassDEP hold recharge to a more stringent standard than MEP in order to achieve the climate resilience intentions of these proposed regulations.

Appendix A SCM Specifications for MA Stormwater Handbook A-18: The “Tree Canopy Implementation” table for street trees that is recommended by MassDOT and DCR currently includes a combination of native and non-native street trees. APCC recommends the table be more strictly limited to trees either native to Massachusetts or to the ecoregion, thereby removing species such as Chinese elm, Japanese zelkova and Callery pear, which are non-native and/or known nuisance species.

Appendix A SCM Specifications for MA Stormwater Handbook A-129 through A-141 Bioretention Planting Lists: APCC recommends these lists be limited to species native to Massachusetts or to the ecoregion and any known invasive or nuisance species be removed.

Appendix A SCM Specifications for MA Stormwater Handbook A-120: Bioretention Design Considerations references the MassDEP crosswalk curves and indicates Redevelopment, Stormwater Standard 7 would require 80 percent TSS removal and 50 percent TP removal. Design consideration for other SCMs either do not include this reference to pollutant removal standards or they have been stricken from the handbook. APCC recommends this section of bioretention design considerations be removed and/or revised to be consistent with other sections of the Handbook and regulatory changes.

## **Conclusion**

APCC greatly appreciates the effort by MassDEP to update its existing regulations in order to improve climate resiliency in Massachusetts. Overall, the proposed revisions are a welcome and positive step forward and should be promulgated as quickly as possible, along with the recommended changes identified above.

After their promulgation, APCC urges MassDEP to move forward immediately in drafting and releasing Resilience 2.0 to further strengthen the Commonwealth’s regulations and policies that will provide critical protections to wetlands in response to the challenges created by a rapidly changing climate.

Thank you for this opportunity to provide comments.

Sincerely,



Andrew Gottlieb  
Executive Director