Wetlands Resiliency Regulation Update, 310 CMR 10.00 and 314 CMR 9.00
Notice to Reviewers – December 2023

Throughout the development of these regulations, MassDEP worked with Advisory Groups that included a wide range of stakeholders (*e.g.*, including developers, watershed organizations, municipalities, a municipal stormwater coalition, state and federal agencies, wetlands organizations, consultants, planning and engineering organizations and environmental organizations) who provided input on the concepts addressed in these regulations. MassDEP thoughtfully considered all the comments received and addressed many of them, which resulted in a better proposal. In reviewing these proposed regulations for comment, we ask that you also consider the following specific points and provide feedback.

Stormwater

In working to align the stormwater regulations with the EPA MS4 General Permit, and to restore and maintain the physical, chemical, and biological integrity of the Commonwealth's waters in accordance with the Federal Clean Water Act, MassDEP is proposing changes to the existing stormwater standards. In particular, the proposal for Stormwater Standard 4 is to align with EPA and require the removal of 90% Total Suspended Solids (TSS) and 60% Total Phosphorus (TP) from stormwater discharges from new development. The proposal for redevelopment is to require 80% TSS and 50% TP removal from stormwater, and to eliminate the maximum extent practicable standard for redevelopment with certain exceptions (*e.g.*, subdivisions with five to nine lots, shared use paths within abandoned railbeds, and roadway maintenance). To provide sufficient flexibility for redevelopment project proponents to meet this standard, MassDEP will be allowing this standard, as well as Standard 3 pertaining to recharge, to be met off-site. MassDEP considered allowing off-site mitigation for new development as well but decided to require that stormwater mitigation be fully provided on-site since the existing condition would be an undeveloped parcel, which should provide designers with sufficient flexibility. MassDEP is interested in hearing from reviewers about the proposal to not allow off-site mitigation for new development.

Recharge

Existing stormwater standard 3 requires that annual recharge from the post-development site approximate the annual recharge from the pre-development site conditions based on soil type. The current numerical recharge targets are failing to approximate the annual recharge volume lost from new development. MassDEP is therefore proposing that the required static Recharge Volume (Rv) be at least 1-inch times the total post-construction impervious are on the site for Hydrologic Soil Group (HSG) A, B and C, and to the Maximum Extent Practicable for HSG D soils. As requested by members of the Stormwater Advisory Committee, MassDEP conducted a reevaluation of this proposed approach working with the DCR State Hydrologist, and US EPA. Based on analysis of these results, MassDEP is considering revising the proposed Stormwater Management Standard 3 for new development to require a SCM Rv depth of at least **0.8 inches** for HSG A, B, and C soils as compared to the previous proposal of 1.0 inch. For redevelopment, the proposed standard would be 0.8 inches of recharge to the MEP if this change is adopted. MassDEP is interested in hearing from reviewers about this revised approach. The reevaluation is posted on MassDEP's web site.

Updated Precipitation

The existing Wetlands Protection Act (WPA) and Water Quality Certification (WQC) regulations include Stormwater Management Standards that specify design storms that rely on outdated precipitation data (from the 1940s and 1950s) which substantially underrepresents current conditions. As a result, stormwater systems are undersized, creating potential for increased flooding, storm damage, and water pollution. MassDEP is proposing to update the precipitation estimates and frequencies required in its wetlands regulations from the U.S. Weather Bureau's 1961 Technical Paper 40, to the updated National Oceanic and Atmospheric Administration's Atlas 14, Volume 10 ("NOAA Atlas"). The NOAA Atlas was developed through a rigorous, collaborative, and multi-year effort between the federal government (NOAA) and the six New England states. The proposed amendments to the WPA and WQC regulations require use of the higher end of the range of currently observed storms documented in the 2019 NOAA Atlas ("NOAA Plus"), instead of the average value, to provide resiliency in stormwater management design and address increasing precipitation. MassDEP is seeking comments on this proposed change which is intended to bring Massachusetts up to date with current conditions, including extreme storms.

Future Climate Conditions

To ensure that these regulations are readily implementable statewide we have incorporated current data that accounts for extreme precipitation, existing sea level rise, and intensifying storms. MassDEP is also aware of many promising new models and tools under development to project future climate conditions. In a subsequent regulation update, MassDEP plans to consider incorporating approaches that address projected future conditions. We welcome comments on this topic generally and on specific tools, projects, and models that may be relevant for future consideration by the Department.

For example, MassDEP has already received comments suggesting that the proposed regulations include a commitment to revisit and update its rainfall criteria every three to five years and incorporate new rainfall data. This recommendation was made in part due to the recognition that climate change has affected and is expected to continue to affect precipitation in Massachusetts. It was also recommended to MassDEP that a review be initiated if significantly different new precipitation data or tools become available. The Executive Office of Energy and Environmental Affairs has developed projections of future precipitation under various scenarios of climate change in a project referred to as the Massachusetts Climate and Hydrologic Risk project, for which Cornell University developed a Stochastic Weather Generator and scaled intensity-duration-frequency (IDF) curve datasets for multiple locations across the state. Likewise, the Massachusetts Coast Flood Risk Model (MC-FRM) incorporates projections of sea level rise and coastal storm frequency and intensity, and processes those projections to develop risk-based climate datasets for water surface elevation, wave heights, tidal datums, and annual exceedance probability scenario layers. MassDEP is interested in hearing how such tools might be applied in future regulations.

Scientific Research Projects

MassDEP requests input on a resiliency proposal that was not previously reviewed by stakeholders. The regulations propose to establish procedures and standards for permitting scientific research projects that are solely intended to gather information or test hypotheses on the ability of wetland resource areas to respond to the effects of climate change. Projects must be based on sound theory supported by reliable field, laboratory, or modelling data to ensure protection of resources, and be conducted by an individual with expertise in environmental science. Limited resource area impacts and timeframe for project completion are proposed, and removal and restoration would be required (310 CMR 10.05(12)).