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## **The Massachusetts Wetland Program Plan**

**2019 – 2024**

**1st Edition**

**Prepared by the  
Massachusetts Department of Environmental Protection (MassDEP) pursuant to  
The Environmental Protection Agency (EPA)  
Enhancing State and Tribal Programs (ESTP) Initiative for Wetland Programs**

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The Massachusetts (MA) Wetland Program Plan (WPP) has been developed by the Massachusetts Department of Environmental Protection (MassDEP) in accordance with the EPA “Enhancing State and Tribal Programs (ESTP)” Initiative. As part of this initiative, EPA defined the Core Elements of an Effective State or Tribal Wetland Program Framework (“Core Elements Framework (CEF)”) which includes 1) Monitoring and Assessment, 2) Regulatory activities including 401 Certification 3) Voluntary Restoration and Protection, and 4) Water Quality Standards for Wetlands. The MA WPP has been developed to identify MassDEP’s overall goal(s) over the next six years, actions consistent with the CEF to achieve the goal(s), estimated schedule for each action and specific activities to be accomplished within each action.

MassDEP Wetland Program goals are as follows:

1. Protect valuable wetland resource areas and the public interests that they serve, including protection of public and private water supply, protection of ground water supply, flood control, storm damage prevention, prevention of pollution, protection of land containing shellfish, protection of fisheries, and protection of wildlife habitat;
2. Ensure that wetlands policy and regulation addresses emerging needs for adaptation to changing conditions including, but not limited to, increases in precipitation frequency and intensity and sea level rise, consistent with the Massachusetts Hazard Mitigation and Climate Adaptation Plan (SHMCAP);
3. Protect the additional valuable ecosystem services that wetlands provide including carbon sequestration, protection of public health (e.g. protection of water supply, groundwater) and recreational opportunities.
4. No Net Loss of Wetlands through avoiding and minimizing wetland loss and through successful mitigation, replacement and restoration;
5. Monitor, assess, and map wetlands including eelgrass.

The Massachusetts wetland permitting program including the state Wetlands Protection Act and implementing regulations at 310 CMR 10.00, and the Water Quality Certification regulations at 314 CMR 9.00 are the primary means of wetlands regulation in MA. MA also actively conducts Monitoring, Assessment, Mapping, Voluntary Restoration, and implementation of Wetland Water Quality Standards through Water Quality Certifications.

## Core Element: Monitoring and Assessment

**Goal:** To assess wetland condition and health in order to protect, preserve and improve the important functions that wetlands provide including the protection of ground and surface water quality, the prevention of flooding and storm damage, the prevention of pollution, and the protection of aquatic, shellfish and wildlife habitat.

**Objective:** The Commonwealth of Massachusetts will continue to monitor and assess wetlands consistent with *Elements of a State Water Monitoring and Assessment Program for Wetlands* (EPA 2006) by using a 3-level approach. Level 1 – continued development of landscape level approach – will involve assessment of wetland loss (and gain if feasible) using aerial photogrammetric mapping (e.g. wetlands, wetland change, eelgrass) and assessment of wetland condition using the Conservation Assessment and Prioritization System (CAPS) or other appropriate models (e.g. SLAMM). Level 2 – the rapid assessment approach - will include the continued development of Rapid Assessment Methods (RAM’s) based on Level 3 Site Level Assessment Methods (SLAMs) if feasible. Level 3 – the Intensive Site assessment – will involve use of SLAMs and Indices of Biological Integrity (IBI’s) or other appropriate tools. These combined efforts will enhance MassDEP’s ability to track wetland extent and condition, loss and gain, and aid in the development of wetland protection tools including those for wetland specific water quality standards or other regulatory goals, as needed.

<b>Action (a): Establish extent of wetland resources.</b>						
<b>Activity</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Map Wetlands, Wetlands Change and Coastal Eelgrass beds using the most current technology. Conduct mapping at regular intervals as resources allow.	X	X	X	X	X	X
<b>Action (b): Develop wetlands monitoring and assessment tools to inform wetlands program policies, guidance and regulations to accomplish long-term environmental improvement.</b>						
<b>Activity</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Develop predictive modeling tools to better understand the effects of climate change on wetland resources and to identify adaptation measures to support better protection and regulations. The remaining activities under this Action and/or other projects support this effort.	X	X	X	X	X	X
Continue development and testing of wetland monitoring and assessment methods for salt marshes. Explore the use of Unmanned Aerial Systems (UAS) to map salt marsh features and document stress and degradation. Explore the use of Landsat data and land use modeling to develop more a	X	X	X	X	X	X

more effective CAPS model for assessing ecological integrity.						
Expand on field data collection to gain a more comprehensive understanding of long-term impacts of climate change and other stressors to salt marshes (e.g. sea level rise, nutrient overload, and other causes) including additional sentinel site locations, metrics, and predictive model verification (e.g. SLAMM).	X	X	X	X	X	X
Run an updated CAPS analysis for MA that incorporates improvements in CAPS metrics and updates land cover maps with Microsoft data on the location of buildings and other structures		X				

## CORE ELEMENT: REGULATION

**Goal:** To avoid and minimize wetland loss, preserve wetland function, and replace unavoidable or illegal losses with healthy wetlands that are equivalent or greater in size and that function similar to or better than lost wetlands.

**Objective:** Continue development of a strong regulatory program by strengthening wetlands regulations, policies and guidance documents; improve data management to efficiently quantify wetland impacts from permitting and non-permit activities; strategize and implement actions to improve mitigation success; execute strong compliance and enforcement actions, implement innovative and effective outreach initiatives that strengthens Massachusetts’ Wetland Protection goals.

Action (a): Strengthen and contribute to the Massachusetts’ hazard mitigation/climate adaptation strategies through Wetland Regulation (310 CMR 10.00), policies and guidance revisions and updates.						
Activity	2019	2020	2021	2022	2023	2024
Finalize wetland regulations (310 CMR 10.00) for Land Subject to Coastal Storm Flowage in accordance with agency priorities and public comment. Investigate need for additional guidance or other regulatory tools.	X	X				
Complete study of NOAA-14 Atlas precipitation frequency requirements and address any needed changes to the wetlands regulations. Investigate need for additional guidance or other regulatory tools.	X	X				
Integrate into wetlands policies, guidance and regulations relevant features of the SHMCAP where appropriate.	X	X	X	X	X	X
Coordinate with federal, state and local agencies as needed (MEMA, DCR Flood Hazard Management Program, CZM, State Building Code	X	X	X	X	X	X

Commission, MassDOT, EOEAA, UMass, local DPWs/Bay State Roads, FEMA, NOAA, USGS, NRCS, and National Weather Service) to carry out SHMCAP and support better wetlands protection. Includes participating in Drought Management Task Force, promoting adaptation initiatives, procedures, and guidance for projects, e.g. small culvert replacement to improve and support aquatic organism passage/connectivity, resiliency, and public health and safety. Development of emergency declarations where needed and reviewing grant proposals to FEMA via MEMA for hazard mitigation projects.						
In coordination with CZM and an interagency team, evaluate potential climate adaptation techniques and their application within current regulatory framework. Review possible policy/regulatory changes needed.	X	X				
<b>Action (b): Projects and Policy Initiatives</b>						
<b>Activity</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Update Stormwater Handbook and regulations as needed to address MS4, TS4, increases in precipitation frequency and intensity etc.	X	X	X			
Update the Hydrology Handbook to include revised stormwater management information.	X	X	X			
Update Bordering Vegetated Wetland Mitigation Guidance to address key issues from the Mitigation report.	X	X				
Update Bordering Vegetated Wetland Delineation Handbook and related portions of the regulations as appropriate.	X	X				
<b>Action (c): Perform public education and outreach about wetland protection and the regulatory process</b>						
<b>Activity</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Strong outreach and training program with focus on updated wetland mitigation and delineation standards, coastal bank erosion, Land Subject to Coastal Storm Flowage, Stormwater Management, and other initiatives as needed.	X	X	X	X	X	X
Update statewide CAPS wildlife maps to the web.		X	X			

## CORE ELEMENT: Voluntary Wetland Restoration and Protection

**Goal:** Protect wetlands from degradation or destruction and restore degraded wetlands to healthy condition to improve the important functions that wetlands provide including the protection of ground and surface water quality, the prevention of flooding and storm damage, the prevention of pollution, and the protection of aquatic, shellfish and wildlife habitat.

**Objective:** Define restoration goals, provide technical expertise and streamline permitting throughout Massachusetts.

Action (a): Work with Other Agencies to Define Restoration Goals and to Streamline Permitting Processes						
Activity	2019	2020	2021	2022	2023	2024
Work collaboratively with MA CZM on StormSmart Coasts Publications outreach particularly with northeast and southeast Wetland Circuit Riders.	X	X	X	X	X	X
Work with other programs and agencies (e.g. MA Estuaries Program) on voluntary restoration strategies.	X	X	X	X	X	X
Develop methodology to identify restoration sites for partners (e.g. Natural Resource Damages Program and others).	X	X	X	X	X	X

## CORE ELEMENT: Water Quality Standards for Wetlands

**Goal:** Improve the quality of Massachusetts wetlands in accordance with the Clean Water Act as well as the goals of the Massachusetts Water Quality Certification regulations at 314 CMR 9.00.

**Objective:** Ensure that wetlands are treated as waters within the state water quality program by monitoring and assessing wetland condition and developing criteria to achieve improvement.

Action (a): Work to Develop Tiered Aquatic Life Use Standards for Wetlands						
Activity	2019	2020	2021	2022	2023	2024
Collaborate with and support MassDEP's Division of Watershed Management as needed to better protect wetlands and eelgrass.	X	X	X	X	X	X