



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

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BOSTON, MA 02109-3912

March 30, 2015

Mr. Collis Adams, Bureau Administrator
Wetlands Program
New Hampshire Department of Environmental Services
29 Hazen Drive PO Box 95
Concord, NH 03302-0095

Dear Mr. Adams:

This letter acknowledges EPA Region 1's approval of the **New Hampshire Wetlands Program Plan 2011-2017** ("the Plan"). This is an update of the previous plan which covered the period 2011-2015. EPA has reviewed the plan for consistency with the goals of the Core Elements Framework and the minimum components of a Wetland Program Plan identified as part of EPA's Enhancing State and Tribal Programs (ESTP) Initiative. The Plan addresses the four core elements and one additional element on outreach and education and local capacity building. The plan systematically outlines a multi-year plan that will ultimately improve wetlands protection and management in New Hampshire. The Plan reflects the excellent work NH has done to improve the wetland permit process using LEAN techniques and the work to integrate the wetlands program into other water and land programs at DES. The plan also looks forward to address issues related to climate change and includes many activities proposed to be done in collaboration with other agencies and outside groups, we applaud these efforts.

The Plan provides the potential opportunity for grant applicants in New Hampshire to receive multi-year funding through the Wetland Programs Development Grant (WPDG) Program. Thank you for providing a thoughtfully considered plan and continuing your efforts to protect the wetlands and aquatic resources of New Hampshire.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jackie LeClair".

Jackie LeClair, Manager
Wetland Protection Unit
Office of Ecosystem Protection

cc: Mary Ann Tilton, Assistant Bureau Administrator

2011-2017

New Hampshire Wetland Program Plan



New Hampshire Department of Environmental Services
Water Division / Wetlands Bureau
29 Hazen Drive / PO Box 95
Concord, NH 03302-0095

Collis Adams, Bureau Administrator
Mary Ann Tilton, Assistant Bureau Administrator



Introduction

The New Hampshire Wetland Program Plan (the Plan) provides a framework and direction over the next six years for the New Hampshire Department of Environmental Services (NHDES) and its partners to strengthen and improve the program and in doing so better protect wetlands and aquatic resources statewide. In order to prepare the plan, NHDES brought together various internal and external programs that share common interests related to wetlands, most notably NH Department of Fish and Game and the NH Department of Transportation to discuss shared goals. These entities identified the actions and activities necessary to reach those goals. The Plan should be considered a work in progress that will be revisited and revised as needed.

New Hampshire's tidal and nontidal wetlands are of great importance for flood control, water filtration, water storage and recharge for both groundwater and surface waters. These functions become more valuable with the expected increase in occurrence and severity of storm events associated with climate change. Wetlands also support the food chain, providing food and shelter for a variety of aquatic and upland plants and animals. Although New Hampshire has lost fewer wetlands to filling and dredging than many coastal states, landscape change poses a significant challenge to the protection of New Hampshire's wetlands. Given the important functions and values of wetlands, there have been a number of attempts to place an economic value on wetlands resources. For instance, a 2006 EPA funded study estimated that the economic benefits generated by a single acre of wetland amount to \$150,000 to \$200,000 (NACO, 2006). The same study found that wetlands increase surrounding real estate values by an estimated 28 percent while enhancing the quality of life. In 2002 a study by the Clean Water Network (CWN) estimated the economic value of New Hampshire's remaining wetlands to be approximately \$1.2 bill (CWN, 2002)

The primary state law that authorizes the permitting program to protect wetlands is RSA 482-A, the New Hampshire Fill and Dredge in Wetlands Act (the Wetlands Act). The last complete re-write of the NHDES wetlands rules was in 1991. Since then there have been many piecemeal changes in the laws and rules and much advancement in our understanding of our natural systems and better engineering practices. Over the years the collection of different application and notification forms and our procedures also have become complicated and confusing. The goals of the Wetlands Program Rulemaking and Process Improvement Effort are to enhance transparency and predictability, increase consistency and standardization, and ensure scientifically-based decisions that protect New Hampshire's sensitive and important natural resources. NHDES carried out extensive outreach and Listening sessions to hear comments in 2013 and 2014. The focus of the rulemaking effort is to clarify the wetland permit process and criteria.

The state's wetland permitting program is the primary means of wetlands regulation in New Hampshire. For projects with significant wetland impacts, based on either square footage (>10,000 square feet) or the impact on sensitive species, NHDES requires the applicant to compensate for the unavoidable loss of wetland functions and values that will result from the proposed impact. The applicant must also demonstrate that the project addresses other lesser impacting alternatives. There are four options an applicant can use to address mitigation: Wetland construction in upland areas, wetland restoration that re-establishes impacted wetlands, protection of wetland and associated uplands through a conservation easement. For the fourth option, where the applicants must document that the other three options are not available first is the Aquatic Resource

Mitigation Fund (ARM Fund). Established in 2006, the ARM Fund provides for payment into one of nine service areas in lieu of the other three options.

With the increase in frequency and severity in extreme weather events, New Hampshire is seeing increased road washouts from undersized culverts and increased erosion and damage from storm events. Climate change is real, serious, and substantially anthropogenic and is responsible for the many of the changing environmental conditions that put our New Hampshire's residents, communities, and sensitive natural resources and wildlife and their habitats at risk. Working with local, state and federal partners and within our intra-agency programs to address climate change issues is more important than ever. As a FEMA study shows, a dollar spent on [impact] mitigation saves society an average of \$4. https://c.ymcdn.com/sites/www.nibs.org/resource/resmgr/MMC/hms_vol1.pdf.

Overall Goal Statement and Time Frame

NHDES has identified overall goals (or “desired outcomes”) related to wetland resources in the state. These outcomes are separated into environmentally based outcomes and programmatic-based outcomes that were used to guide the work to be accomplished under the Plan.

Environmentally-Based Outcomes:

- Wetland complexes of high ecological value and high-functioning wetlands are afforded adequate protections.
- Blocks of un-fragmented habitat are protected or connected to other habitats, protected land, or stream and wildlife corridors.
- Land development practices avoid and minimize cumulative and indirect impacts to wetland and aquatic resources.
- Natural stream flow regimes are maintained and stream crossings allow aquatic resources to stay connected.
- Streams and wetlands have adequate protective buffers.

Programmatic-Based Outcomes:

- Wetland permit processes will be integrated with other land resources permits and water quality related permitting.
- Wetland protection efforts are well funded and wetland resources are protected and maintained to provide ecosystem services (reduce flooding, improve water quality, provide habitat and recreation opportunities) and the economic benefits they provide.
- There is a broad base of stewardship and public understanding of the multiple benefits of the functions and values of wetlands and aquatic resources. There will be a coordinated message from state and federal agencies, local governments, citizen volunteers and nongovernmental organizations.

- Wetland compliance and enforcement efforts are well funded, consistent and responsive.
- New Hampshire’s wetlands are assessed for their condition on a regular basis consistent with the NH Wetland Monitoring Strategy and 305(b) reporting, once indicators and thresholds are developed.
- Environmentally-based outcomes and measures are identified and are used for annual status and trends reporting and to influence proposed regulation, policy, and decision making.
- Resource management decisions are based on sound science and balance competing interests.

Core Elements of the New Hampshire Wetland Program Plan

NHDES identified four core program elements for the wetland planning process which are as follows:

1. Regulation and Enforcement
2. Restoration and Protection
3. Data / Monitoring and Assessment / Water Quality Standards
4. Outreach and Education / Local Capacity Building

These elements were used to focus the discussion and help to set priorities for action. Each element was assessed to identify strengths and weaknesses. A prioritization process was used to identify the most important elements to initially focus on. However, it was acknowledged that all elements are important. Suggested actions and activities to pursue over time were identified and listed in the following pages by each element.

CORE ELEMENT #1: REGULATION AND ENFORCEMENT

Goals:

- Avoid and minimize wetland loss, preserve wetland functions, 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.
- Develop a process that moves beyond the complaint-driven enforcement process to a proactive landscape-level investigation to deter violations.

Objectives:

- Continue to develop strong regulatory program by strengthening regulations, policies, and guidance documents, and developing and operating under consistent application procedures.
- Maintain consistency and coordination in order to create strategies to execute strong compliance and enforcement actions.

Action (a): Improve and strengthen enforcement efforts							
Activity	2011	2012	2013	2014	2015	2016	2017
1. Coordinate / consolidate complaint protocols.							
a. Review existing procedures.	In Progress	In Progress	Completed				
b. Review existing databases.	In Progress	In Progress	Completed				
2. Develop a systematic approach on a watershed scale to address Land Resources Management Program and water quality complaints:							
a. Pool agency money / resources to field-check complaints.				In Progress	Completed		
b. Develop a consistent and coordinated system to address complaints.				In Progress	Completed		

Action (b) Increase field presence (“Watershed Circuit Rider”)							
Activity	2011	2012	2013	2014	2015	2016	2017
1. Develop a strategy to integrate field presence and field enforcement processes across multiple programs (Wetlands, Shoreland, AoT, Subsurface, Water Quality).				In Progress	Completed		
2. Develop a strategy for cross-training of Watershed Management Bureau staff on Land Resources Management Program jurisdiction.			In Progress	In Progress	Completed		
3. Develop a strategy for cross-training for Land Resources Management Program staff on Clean Water Act jurisdiction (that the Watershed Management Bureau currently handles).					Not Started	X	X
Action (c): Simplify and consolidate permit process							
Activity	2011	2012	2013	2014	2015	2016	2017
1. Identify opportunities to streamline internal processes.		In Progress	In Progress	Completed	In Progress	X	X
2. Identify opportunities to streamline permit procedures and forms.	In Progress	Completed	In Progress	In Progress	In Progress	X	X
3. Work towards implementation of e-filing.						X	X
4. Pursue strategic program enhancements such as improving internal and external accessibility to GIS data layers and address indirect impacts.		In Progress	In Progress	In Progress	In Progress	X	X
5. Continue to use LEAN processes to improve the wetlands permit process.	In Progress	X	X				
Action (d): Implement changes to improve wetland protection							
Activity	2011	2012	2013	2014	2015	2016	2017
1. Identify opportunities to strengthen and clarify statute.				In Progress	Completed	X	X
2. Identify opportunities to strengthen and clarify rules.		In Progress	In Progress	In Progress	In Progress	X	X
3. Pursue implementation for integrated permit option for land development permit.							X
4. Expand approaches to define and address indirect and cumulative impacts of landscape change.					In Progress	X	X

CORE ELEMENT #2: RESTORATION AND PROTECTION

Goal: Prioritize and implement protection and restoration of aquatic resources of high ecological value and function that are connected to other habitats and that are sustainable.

Objectives:

- Continue to develop a strong ARM Fund Program to maximize efficiency, mitigate impacts to valuable wetlands and aquatic resources, and continue use of funds for ecologically significant and sustainable projects.
- Develop tools for NHDES and natural resource professionals to use to better assess wetlands pre- and post-restoration.

Action (a): Develop new and use existing tools and science to inform regulatory decisions							
Activity	2011	2012	2013	2014	2015	2016	2017
1. Incorporate the Wildlife Action Plan (WAP) and other science-based documents into application review.	Completed				In Progress	X	X
2. Identify priority wetland-wildlife habitats for protection where enhanced buffers would be required.						X	X
3. Evaluate the need for buffer protection associated with water quality, flood control, and other functions and values.				In Progress	In Progress	X	X
4. Evaluate methodologies for modeling vernal pool locations and work with Fish and Game to develop vernal pool prediction model that maximizes accuracy (WAP strategy) into permitting review.			Completed				
5. Utilize and adapt existing tools to inventory and assess existing stream crossings.					X	X	X

Action (b) Continue development of ARM Fund Program to maximize efficiency of program / use of funds for ecologically sustainable projects							
Activity	2011	2012	2013	2014	2015	2016	2017
1. Promote high quality protection / restoration projects through criteria development, prioritization, and dissemination of information to towns, land trusts, partners etc.		Completed	Completed				
2. Explore the feasibility to change the mitigation threshold.		In Progress	In Progress	Completed			
3. Develop a strategy for watershed-based plans that identify protection and restoration priorities for the ARM Program.		Completed		X	X	X	X
4. Continue revisions to the application process and ranking criteria to accommodate range of protection and restoration activities.		In Progress	In Progress	Completed and Ongoing	X		
5. Continue application announcement and review to improve efficiency for NHDES and the ARM selection committee.		In Progress	In Progress	Completed			
6. Develop coordinated approach for aquatic resource protection with other existing programs.				In Progress	In Progress	X	X
7. Identify a method to prioritize stream restoration and protection projects.					X	X	X
Action (c): Mitigate impacts to wetlands and aquatic resources							
Activity	2011	2012	2013	2014	2015	2016	2017
8. Assist NH Fish and Game to protect and mitigate significant regulated wildlife resources and assist with update and implementation of NH Wildlife Action Plan (WAP).					X	X	X
9. Participate in WAP revisions to incorporate change species list, climate change, and stream program improvements.					X		
Action (d): Use data to inform regulatory decisions related to mitigation							
Activity	2011	2012	2013	2014	2015	2016	2017
1. Continue development of aquatic resource mitigation program (ARM Program).	In Progress	In Progress	In Progress	In Progress	In Progress	X	X
2. Incorporate wetland monitoring and assessment information in regulatory decision-making.							X
Action (e): Build capacity at the local level to enhance protection efforts							
Activity	2011	2012	2013	2014	2015	2016	2017
1. Develop a strategy to address buffers through local and state processes.					In Progress	X	X
2. Identify opportunities for conservation through land trusts, local commissions, and state and regional opportunities.				Completed and Ongoing	X	X	X

CORE ELEMENT #3: DATA / MONITORING AND ASSESSMENT / WATER QUALITY STANDARDS

Goal: Develop methods for monitoring and assessing wetland functions and condition. Assessment methods for wetland condition will facilitate development of numeric water quality criteria for 305(b) / 303(d) reporting and use in other programs.

Objective: Ensure that wetlands are treated as “waters of the state” within NHDES programs.

Action (a): Establish regulatory background for Wetland monitoring in NH							
Activity	2011	2012	2013	2014	2015	2016	2017
1. Develop a wetland monitoring strategy.		In Progress	Completed				
2. Develop a strategy to establish wetland-specific water quality standards and identify their potential application.		In Progress	In Progress	In Progress	In Progress / to be Completed		
3. Test strategy to establish thresholds and adopt numeric criteria representing wetland-specific biological parameters to protect or restore designated uses.				In Progress	In Progress	X	X
Action (b) Develop GIS-based wetland catalog system capable of update							
Activity	2011	2012	2013	2014	2015	2016	2017
1. Explore the feasibility of using existing town GIS maps to complement wetland base-map.		In Progress	In Progress	Completed			
2. Update NWI wetland maps to inform existing models and tools, including wetland monitoring and assessment and the wetlands permitting and ARM Fund programs.						X	X

Action (c): Provide foundation for a wetland monitoring Level II assessment							
Activity	2011	2012	2013	2014	2015	2016	2017
1. Test USA RAM, NH Method, and existing state specific RAMs, and EIA to develop protocols for Level 2 wetlands monitoring for wetland condition.		In Progress	In Progress	In Progress	In Progress	X	X
2. Test and implement a Floristic Quality Assessment (FQA), develop a rapid FQA, incorporate FQA as an assessment tool, or develop Index of Biological Integrity (IBI).		In Progress		In Progress	In Progress	X	X
3. Apply Level 3 protocols to assist in adaptation and validation of Level 2 methods.				In Progress	In Progress	X	X
4. Train NHDES staff and natural resource professionals in tools and protocols once developed.				In Progress	In Progress	X	X
Action (d): Develop metrics and field protocols for wetland restoration and protection							
Activity	2011	2012	2013	2014	2015	2016	2017
1. Strategize on development of a professional restoration workgroup.						X	X
2. Identify restoration opportunities and methods to monitor and review data pertaining to restoration projects.						X	X
3. Identify protocols reviewing recent science and climate change information.						X	X

CORE ELEMENT #4: OUTREACH AND EDUCATION / LOCAL CAPACITY BUILDING

Goals:

- Partner with volunteers to create and disseminate education / outreach materials that result in accomplish environmental outcomes.
- Inform local decision makers so they can then make good decisions.
- Provide education / outreach materials to better educate the legislature.

Objective: Improve public understanding of wetlands value and understand wetland permitting process.

Action (a): Coordinate wetland message into other Water Division outreach							
Activity	2011	2012	2013	2014	2015	2016	2017
1. Develop wetlands message and outreach tools (fact sheets, presentations, etc.) focused on important functions and values (wildlife, flood protection, and water quality).				Vernal Pool Webpage and Keys Completed	Vernal Pool Documentation Form Completed	X	X
2. Develop NHDES Water Division Outreach Steering Committee (with other stakeholders such as Fish and Game).						X	X

Action (b): Enhance and integrate outreach, education and technical assistance to municipal officials, conservation commissions, and watershed organizations (and land use planning commissions)

Activity	2011	2012	2013	2014	2015	2016	2017
1. Strategize on creating on-line training in wetland outreach and assessment tools.							X
2. Pursue / leverage partnerships for education / outreach: a. Pursue agreements and training with EPA and other partners to help education / outreach.				Partner Meetings Held	Partner Meetings Held		X
3. Coordinate with other state partner outreach teams.							X
4. Coordinate with Public Affairs Division of Fish and Game to provide tools to get message out, Discover Wild NH Day, Fairs, Teach the teacher, Fish and Game train within program.							X

Action (d): Influence and inform local decision making

Activity	2011	2012	2013	2014	2015	2016	2017
1. Educate the public on wetland / riparian functions, water quality, and ways to minimize and avoid impacts.						X	X
2. Distribute information to municipalities related to wetland outreach efforts, assessment tools, and reporting on the ecological integrity of wetlands (including NWCA).						X	X