

Proposed Nitrogen Sensitive Area/Watershed Permitting Regulatory Framework

MassDEP / Town of Mashpee
July 11, 2022

Meeting Agenda

- Introductions- All
- Meeting Objectives/ Milestones- Millie Garcia-Serrano, MassDEP SERO Regional Director
- Presentation of Proposed Regulatory Framework- MassDEP
 - Nitrogen Sensitive Area (NSA) Designation
 - Establishing New Natural Resource Area NSA
 - Requirements and Exemptions
 - Watershed Permit
 - Application Components, Permit Requirements, Permitting Processes
- Watershed Management Plan Update
 - CWMP Update
 - Anticipated needs for Plan completion/ update
 - Data gaps
- Funding Opportunities - Maria Pinaud/ Gerard Martin, MassDEP
 - SRF Program
 - Other Programs (SNEP, USDA)
- General Discussion/ Opportunity for feedback on proposed regulatory strategy, MassDEP
- Next Steps- Millie Garcia-Serrano, MassDEP

Proposed Regulatory Framework

Background:

- Stakeholder Group NSA Subcommittee met on September 3, 2020, February 23, 2021, & June 3, 2022 to discuss potential changes to Nitrogen Sensitive Area (NSA) provisions of Title 5
- Topics discussed:
 - Expansion of definition of NSA
 - Defining how these areas might be determined
 - New nitrogen requirements for certain NSA areas
 - Compliance options
 - Implementation schedule for new requirements

Proposed Regulatory Framework (cont'd)

- **Current Title 5 regulations**

- Defines 'Drinking Water Protection' Nitrogen Sensitive Areas as:
 - Zone IIs and Interim Wellhead Protection Areas (IWPAs), and
 - Facilities that utilize both on-site septic systems and non-public drinking water supply wells
- Allows designation of nitrogen sensitive embayments through parallel regulatory change processes
- Imposes loading restrictions (440 gpd/acre)

Proposed Regulatory Framework (cont'd)

Proposed Regulatory Framework for Designation of Nitrogen Sensitive Areas:

- Maintains the Drinking Water Protection NSAs
- Establishes new designation of **Natural Resource Area NSAs**

Proposed Regulatory Framework (cont'd)

Natural Resource Area NSAs:

- 1) Any watershed to an embayment or sub-embayment that is the subject of a Nitrogen Total Maximum Daily Load (TMDL) approved by the USEPA pursuant to the federal Clean Water Act **and** an Area Wide Water Quality Management Plan pursuant to Section 208 of the Clean Water Act addressing nitrogen pollution
 - A “TMDL” is an EPA-approved calculation of the maximum amount of a pollutant allowed to enter a waterbody so that the waterbody will meet and continue to meet water quality standards for that particular pollutant. A TMDL determines a pollutant reduction target and allocates load reductions necessary to the sources of the pollutant

Proposed Regulatory Framework (cont'd)

- **Natural Resource Area NSAs:**

- All Cape Cod communities are subject to the “208 Plan” approved by EPA in 2015
- There are currently 30 watersheds across Cape Cod with EPA-approved nitrogen TMDLs
 - **For these watersheds, the NSA designation is effective on the effective date of the final regulations.**

Proposed Regulatory Framework (cont'd)

Natural Resource Area NSAs:

2) Any watershed to an embayment or sub embayment that is the subject of an EPA approved TMDL or determined to be nitrogen sensitive by the Department based on scientific evaluation and adopted through a public process involving public notice, including the scientific and regulatory rationale for the designation, and a 60-day public comment period.

- **For these watersheds, the NSA designation is effective upon completion of the public process and MassDEP's issuance of the final NSA designation.**

Proposed Regulatory Framework (cont'd)

Requirements for Natural Resource Area NSAs:

- TMDL + 208 plan = NSA effective date of regulation promulgation
- TMDL/Scientific Evaluation + Public Process = NSA effective date of designation

Proposed Regulatory Framework (cont'd)

Requirements for Natural Resource Area NSAs:

- Any system serving new construction or an existing facility must incorporate Best Available Nitrogen Reducing Technology within **five (5) years of the effective date of the NSA designation** of the watershed in which they are located.

OR

- Community(ies) operate under a Watershed Permit

Proposed Regulatory Framework (cont'd)

Requirements for Natural Resource Area NSAs:

- Best Available Nitrogen Reducing Technology is an alternative system certified by MassDEP for general use pursuant to Title 5 which has the lowest effluent Total Nitrogen performance value. An alternative system granted provisional or pilot approval by MassDEP may also be utilized as long as such system has a Total Nitrogen performance value less than or equal to the lowest alternative system certified for general use by the Department.

Proposed Regulatory Framework (cont'd)

Exemption from Enhanced Treatment Requirements for Natural Resource Area NSAs:

Watersheds with Watershed Permits:

- If communities obtain a watershed permit that covers an area that would be subject to new “NSA” regulations, the Title 5 NSA requirement to install Best Available Nitrogen Reducing Technology in 5 years would **not** become effective for that area

Proposed Regulatory Framework (cont'd)

Watershed Permit:

- 20-year permit instead of the traditional five-year permit
- Issued to Local Government Unit, Regional Local Government Unit, Multiple local Government Unit (thru Intermunicipal agreement)
- Provide communities the opportunity to employ a greater range of solutions to address their water quality needs, including alternative or innovative approaches
- Utilizes an adaptive management approach, requiring permittees to monitor, evaluate and report results, and adjust and modify the strategies and practices as needed to address conditions that are causing the water quality impairments
- Watershed Permit is based on a Town approved “Watershed Management Plan”

Proposed Regulatory Framework (cont'd)

Watershed Management Plan:

- A long-term plan to address an existing water quality impairment to restore and protect water quality.
- Based on a Comprehensive or Targeted Watershed Management Plan
- For watersheds where a TMDL has been established, the Watershed Management Plan must achieve compliance with the Water Quality Standards required by the TMDL and demonstrate that at a minimum, 75% of the necessary pollutant reduction levels will be achieved within 20 years.
 - Unless MassDEP determines an alternative schedule is appropriate based on watershed-specific issues

Proposed Regulatory Framework (cont'd)

Watershed Permit Application:

- Estimated load reductions needed to meet the threshold concentration(s) at the sentinel station(s) for the selected Conventional Control Technologies and Alternative Control Approaches or Technologies
- An implementation schedule, not to exceed 20 years, currently envisioned by the applicant(s), including a designated set of activities that will occur in the first 5-year block of time, and the results of which will enable the permittee to revise the implementation plans for the next 5-year period as necessary to meet load reduction requirements as specified
- Core Sewer Area and the service areas prioritized for wastewater collection and treatment after accounting for implementation of the selected Alternative Control Approaches and Technologies

Proposed Regulatory Framework (cont'd)

Watershed Permit Application:

- If Alternative Control Approaches and Technologies are proposed, a contingency plan for a back-up Conventional Control Technology will be provided in the event that the Alternative Control Approaches and Technologies selected do not function as predicted
- The proposed approach to control 100% of all future pollutant loads to ensure that loads will always stay below the applicable threshold levels
- Cost estimates for the infrastructure and programs associated with the proposed actions, if available

Proposed Regulatory Framework (cont'd)

Standard Watershed Permit Provisions:

- The proposed activities, implementation schedule for such activities, and facilities set forth in the applicant's Watershed Management Plan shall be enforceable requirements, incorporated in a Watershed Permit
- Annual report submittal
- 5- year evaluation and review
- Public notice requirement and public meeting requirement for a permittee(s) to terminate permit coverage
- Any permits issued by the Department that comprise a component of the implementation activities or are applicable to the pollutant discharges in the watershed shall be incorporated by reference into the Watershed Permit (i.e., Groundwater Discharge Permit)

Proposed Regulatory Framework (cont'd)

Watershed Permit Issuance Process:

- Public notice of the Watershed Permit
 - MEPA Environmental Monitor
 - Newspaper circulated in the area that will be affected by the Watershed Permit.
 - MassDEP's webpage
- Comment period of at least 60 days
- A public hearing will be held if requested by the applicant, or if the Department determines a public hearing to be in the public interest

Proposed Regulatory Framework (cont'd)

Watershed Permit Modification/Suspension/Revocation:

- The Department shall process a Watershed Permit modification, suspension or revocation in the same manner as an application for a Watershed Permit
 - The Department may revise a schedule in a Watershed Permit at the request of a permittee if the Department determines that good and valid cause, for which the permittee is not at fault, exists for such revision, and in such cases the provision for public notice and hearing shall not apply

Proposed Regulatory Framework (cont'd)

Watershed Permit Termination:

- Any one or more of the permittees may terminate coverage under this Permit by providing written notice to the Department at least sixty (60) days in advance of the date such termination is to take effect
- Such notice will include public notice of a public hearing to be held at least thirty (30) days prior to the termination date
- Such notice will be published in the Environmental Monitor and in a newspaper circulated within the area affected by the Watershed Permit at least thirty (30) days prior to the hearing

Proposed Regulatory Framework (cont'd)

Watershed Permit Termination:

- New systems installed after the date of termination/revocation would have to install Best Available Nitrogen Reducing Technology and existing systems would have to install such technology within 5 years from the effective date of the new NSA regulations or 2 years of the date of termination/revocation, whichever is longer

SRF's Community Septic Management Program (CSMP) Loan Model

- The Massachusetts Clean Water Trust (Trust) dedicates **\$5 million** a year to offer **2%** interest rate loans to communities to fund their CSMP programs that provide loans to homeowners to replace their failed septic systems.
- Over the past 5 years the CSMP has made 29 loans totaling \$14.2 million at an average loan amount of \$450,000. Additionally, the CWSRF has financed Barnstable County's septic loan program, which now operates as its own revolving fund.

About the CSMP

- The program operates on a rolling application basis and communities apply for financing when there is demand from homeowners.
- Homeowners apply to the town for financing and the town draws down funds as needed from the Trust.
- The loan to the community is secured with a general obligation pledge of the communities and receives the traditional debt authorization at the local level.
- The loan to the homeowner is secured with a betterment agreement between the community and the homeowner, to which the Trust is not a party.

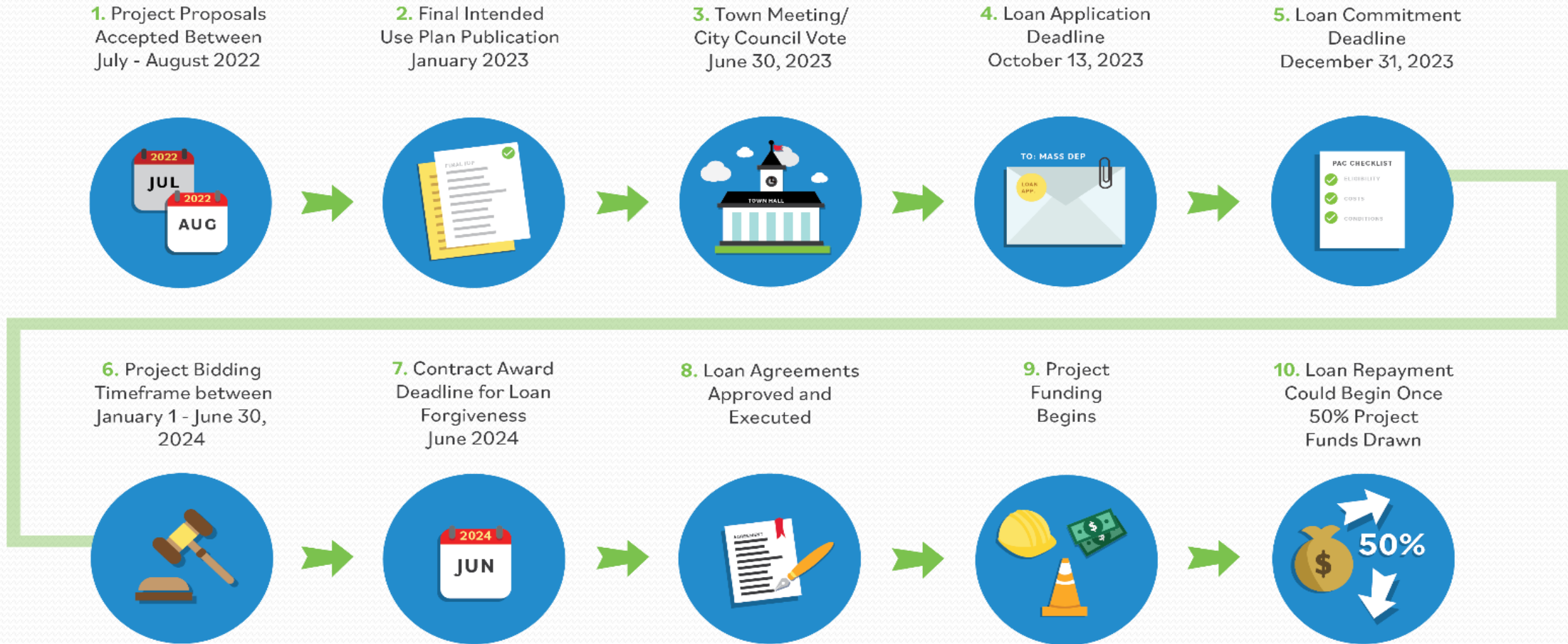
About the CSMP

- Since the loan to the homeowner is secured with a betterment agreement, Massachusetts General Law governs that agreement and the interest rates that can be charged.
 - *The interest charged by the community to the homeowner can be used to cover administrative expenses and to make new loans, which Barnstable County and others have done.*
- The draws made against the loan by the community operate under the Trust's interim loan program and accrue no interest and no fees.
- In most instances, the loan is put into repayment within two years or sooner if all the funds have been drawn or if the community decides they are finished with the program.

The Trust and MassDEP look forward to working with all Cape towns in developing solutions that work for the towns and do so at the lowest cost possible.

State Revolving Fund Loan Process

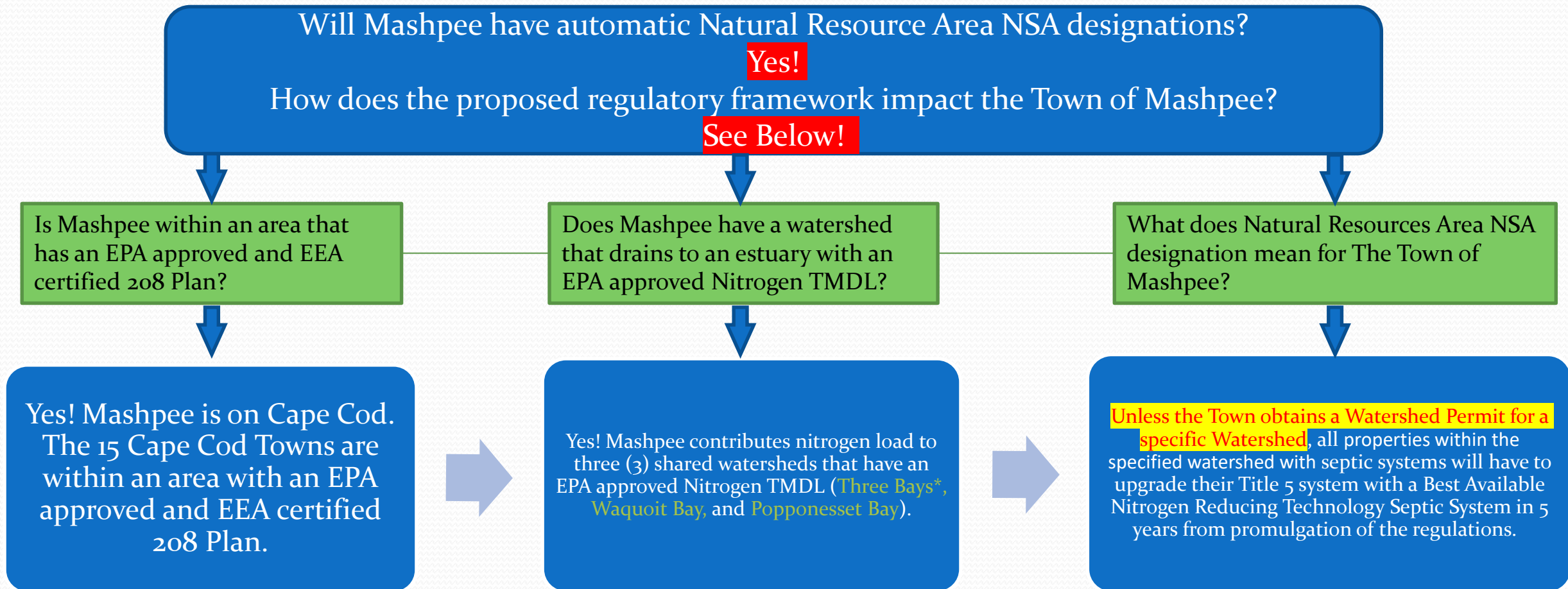
The SRF financing process can take up to two years, depending on the community and project, from the initial project proposal to funding being disbursed. MassDEP staff will provide assistance to the community from application submission to project completion.



General Discussion/ Feedback on Proposed Strategy



Proposed Regulatory Framework: Mashpee

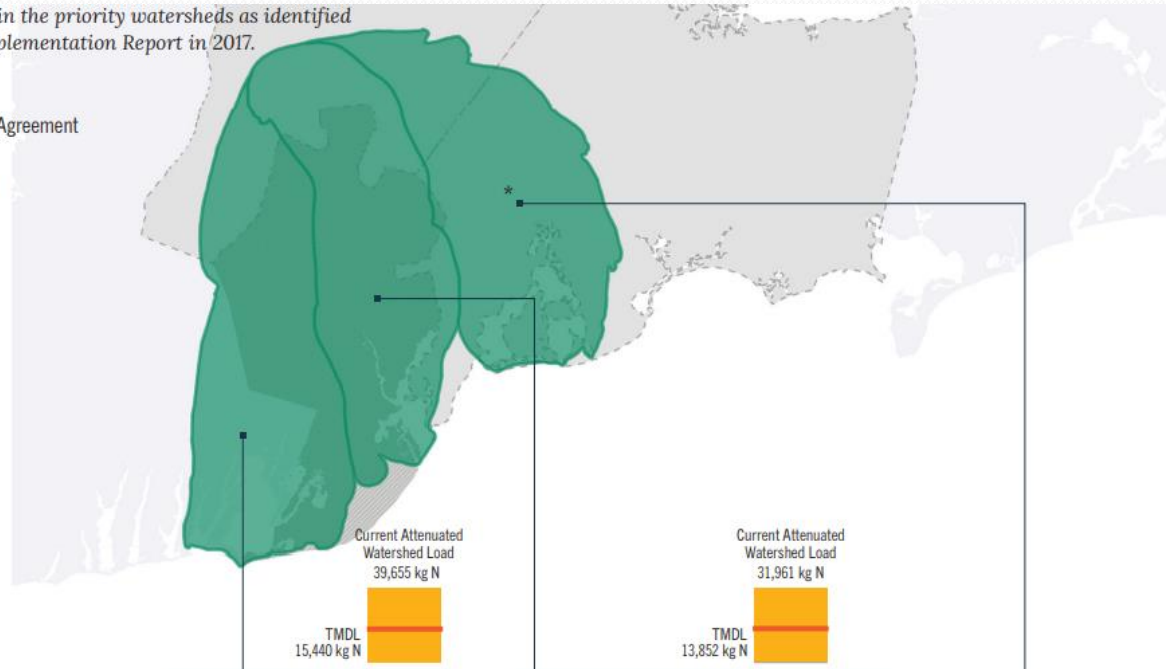


*Mashpee contributes less than 1% of nitrogen load allocation to the Three Bays Watershed.

Watershed Management Plan Update

Plans and permits in the priority watersheds as identified by the 208 Plan Implementation Report in 2017.

-  Town of Mashpee
-  Town(s) with Joint Agreement or Plan in Place
-  Priority Watershed
-  Watershed



Waquoit Bay

- Plan In Place**
Mashpee CWMP (2014)
- Agreement In Place**
- Consistency Determination**
208 Consistency Determination - Phase 1 (2017)
- Permits Issued**

Popponesset Bay

- Plan In Place**
Mashpee CWMP (2014)
- Agreement In Place**
Popponesset Bay IMA (2017)
- Consistency Determination**
208 Consistency Determination - Phase 1 (2017)
- Permits Issued**

*Three Bays watershed, <1% nitrogen allocation for Mashpee

MassDEP Next Steps

- **Communication to Towns and Stakeholders** ✓
 - June 1, 2022, Regulatory Revisions Announcement Letter & Fact Sheet ✓
 - Scheduling of MassDEP/ Town meetings- ongoing
 - Development of informational Webpage ✓
 - [310 CMR 15.000: Septic Systems \("Title 5"\) | Mass.gov](#)
 - Table of Contents – Strategy for Nitrogen Impaired Estuaries
- Development of Regulatory Revision- ongoing
- Development of Funding Guidance- ongoing

Points of Contact

- Comments on Proposed Framework
Email: Marybeth.Chubb@mass.gov
- Communication with Towns and Stakeholders
 - Cape/Islands/Southeastern MA Technical One-on-One Meeting Scheduling
Email: Millie.Garcia-Serrano@mass.gov
Email: Jennifer.Viveiros@mass.gov
- Information on Funding
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Thank you!

