Proposed Draft Regulations
310 CMR 15.000 & 314 CMR 21.00
Title 5 and Watershed Permitting

Water Resource Commission

December 8, 2022

Overview

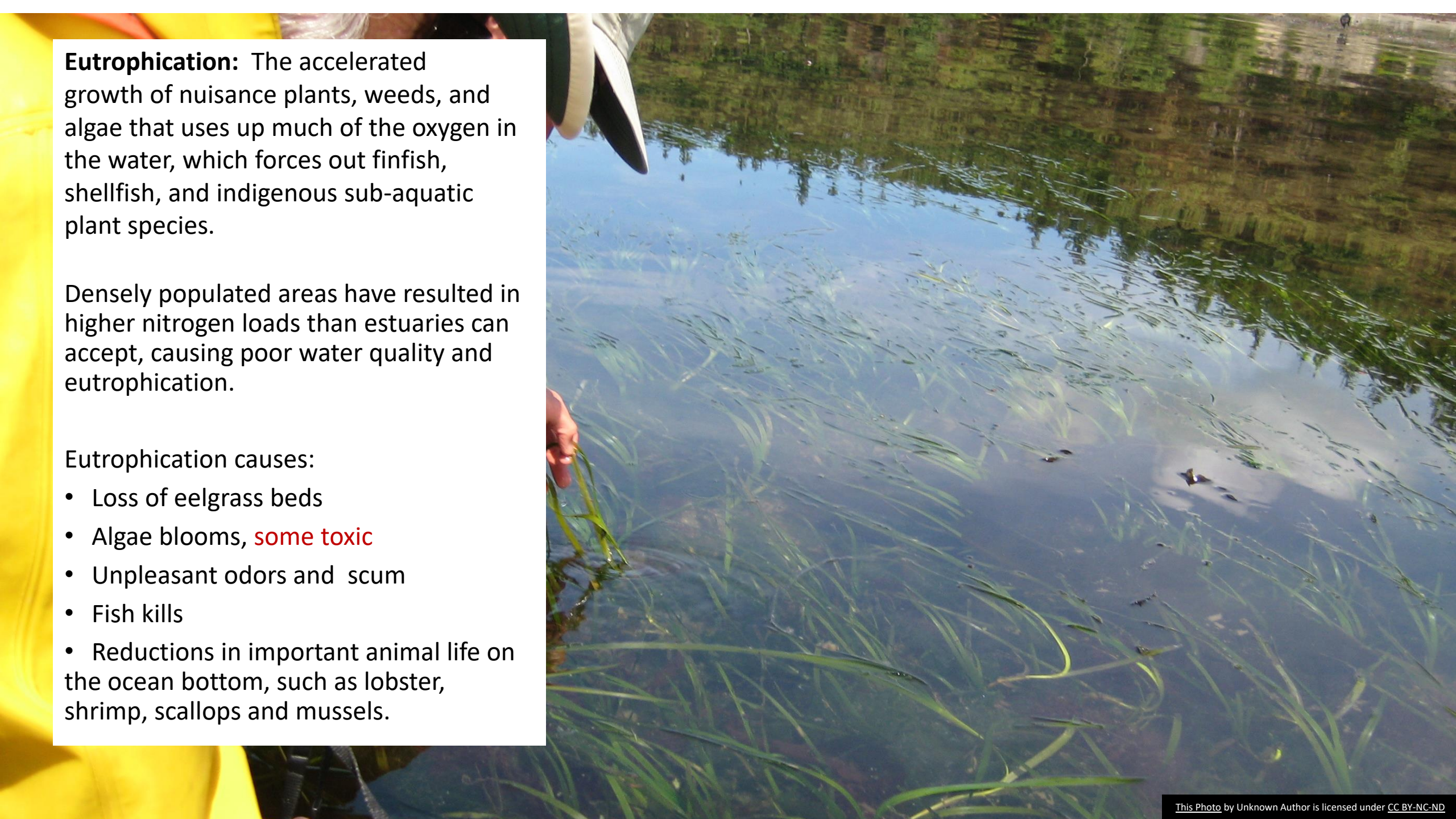
- How did we get here?
- Community Outreach
- Presentation of Proposed Regulatory Framework
  - Nitrogen Sensitive Area (NSA) Designation
    - Establishing New Natural Resource Area NSA
      - NSA Requirements and Exemptions
      - Watershed Permit
- Funding Opportunities
- Public Information Sessions
- Public Comment

Eutrophication: The accelerated growth of nuisance plants, weeds, and algae that uses up much of the oxygen in the water, which forces out finfish, shellfish, and indigenous sub-aquatic plant species.

Densely populated areas have resulted in higher nitrogen loads than estuaries can accept, causing poor water quality and eutrophication.

Eutrophication causes:

- Loss of eelgrass beds
- Algae blooms, some toxic
- Unpleasant odors and scum
- Fish kills
- Reductions in important animal life on the ocean bottom, such as lobster, shrimp, scallops and mussels.



Many estuaries do not meet the Massachusetts Water Quality Standards

Resulting in an "impaired" listing and

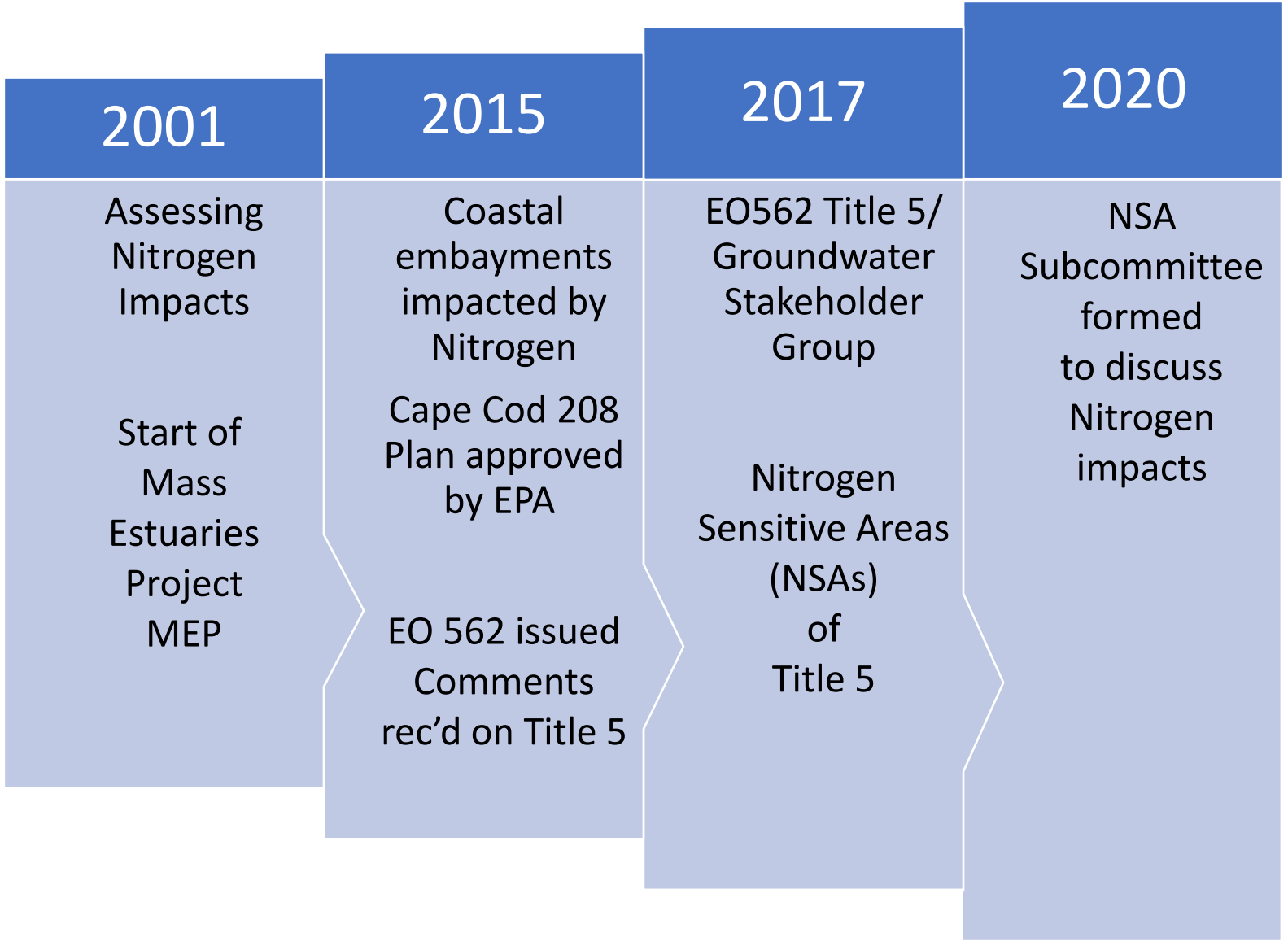
Requiring development of Total Maximum Daily Load (TMDL).

This is an **environmental problem and economic problem** because it causes a decline in:

- Fishing
- Shellfishing
- Recreational opportunities
- Tourism
- Real Estate Values
- Business

Unaddressed this problem will become worse

Why DEP is Proposing Changes to Title 5 Regulations?

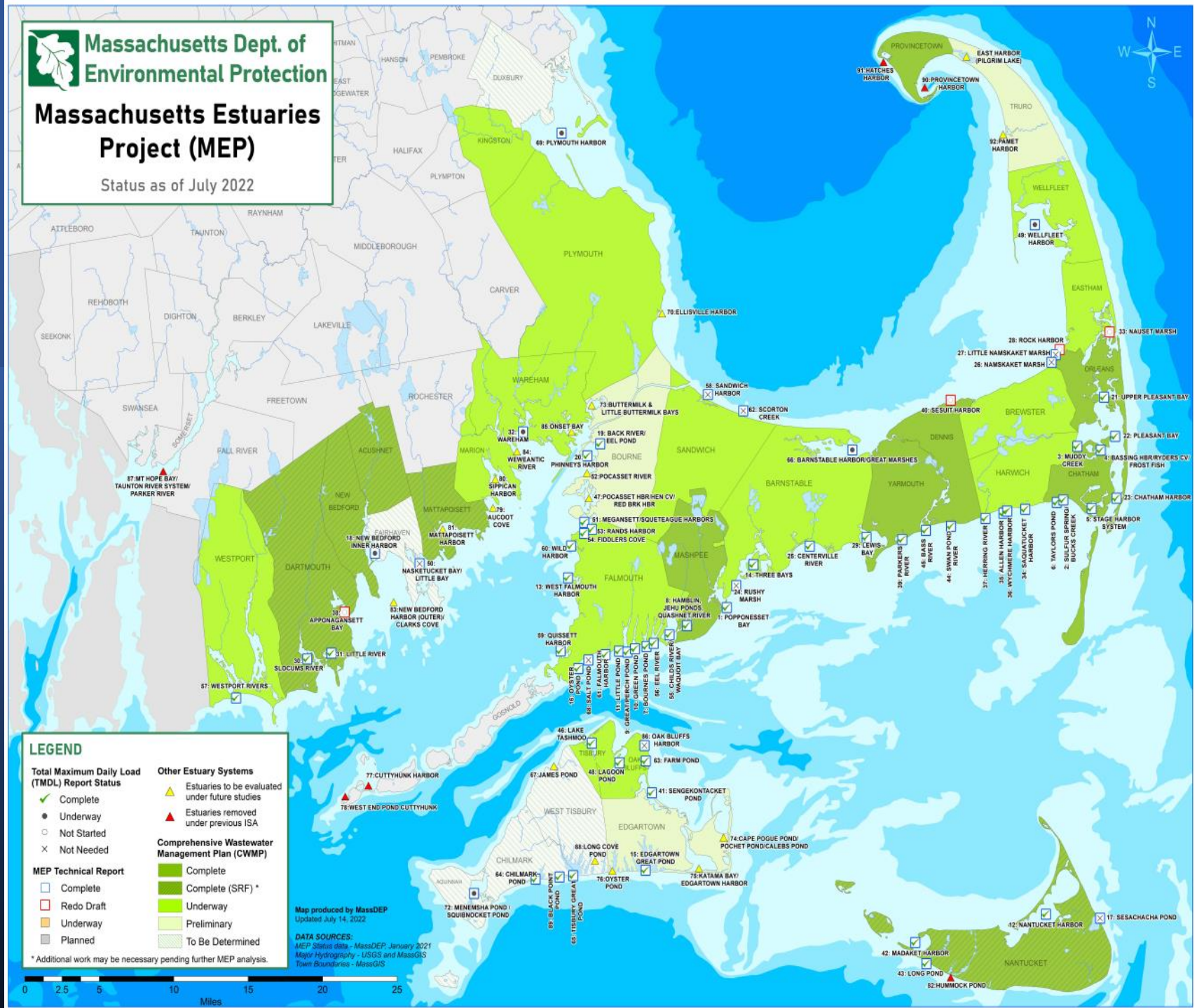


Background

- 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

Cities & Towns Affected by Regulatory Revision



MassDEP Outreach

- June 1, 2022, Regulatory Revisions Announcement Letter & Fact Sheet
- 46 meetings – 32 Cities/Towns and Interested Groups
  - Cape Cod Commission, Buzzards Bay Action Committee, Cape Realtors Association, Cape Cod Health Agents, Island Health Agents, Cape Town Managers Association, EPA, Legislators
- Ongoing Development of Webpage
  - 310 CMR 15.000: Septic Systems ("Title 5") | Mass.gov
    - Table of Contents – Strategy for Nitrogen Impaired Estuaries

Proposed Regulatory Framework

Current Title 5 regulations

- Defines 'Drinking Water Protection' Nitrogen Sensitive Areas (NSAs) as:
  - Zone IIs, Interim Wellhead Protection Areas (IWPAs) and areas with both on-site septic systems and non-public drinking water supply wells
  - Imposes loading restrictions (440 gpd/acre)
    - **These provisions are maintained in Draft Regulations**

Proposed Title 5 regulations

- 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

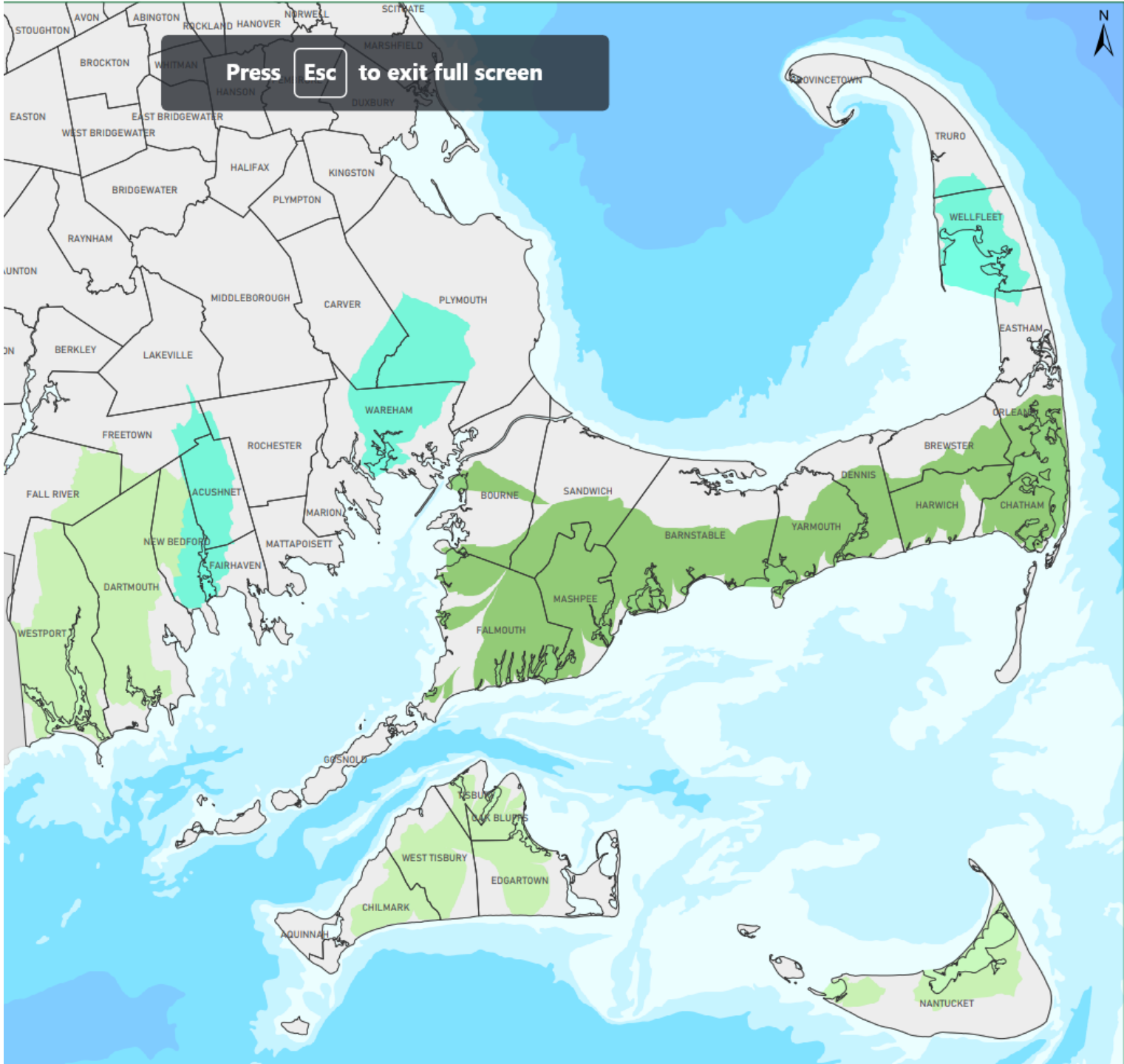
MA Department of Environmental Protection

Natural Resource Area Nitrogen Sensitive Areas

Status as of November 2022

LEGEND

- Watersheds with final total nitrogen TMDLs that MassDEP will automatically designate as Natural Resource Area NSAs upon promulgation of the proposed Title 5 amendments
- Watersheds with final total nitrogen TMDLs that MassDEP may designate as Natural Resource Area NSAs in the future, after promulgation of the proposed Title 5 amendments
- Watersheds with currently accepted MEP reports, but not final total nitrogen TMDLs, that MassDEP may designate as Natural Resource Area NSAs in the future, after promulgation of the proposed Title 5 amendments



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 MassDEP based on scientific evaluation and adopted through a public process involving public notice, including the scientific and regulatory rational for the designation, and a 60-day public comment period

MA Department of Environmental Protection

Natural Resource Area Nitrogen Sensitive Areas

Status as of November 2022

LEGEND

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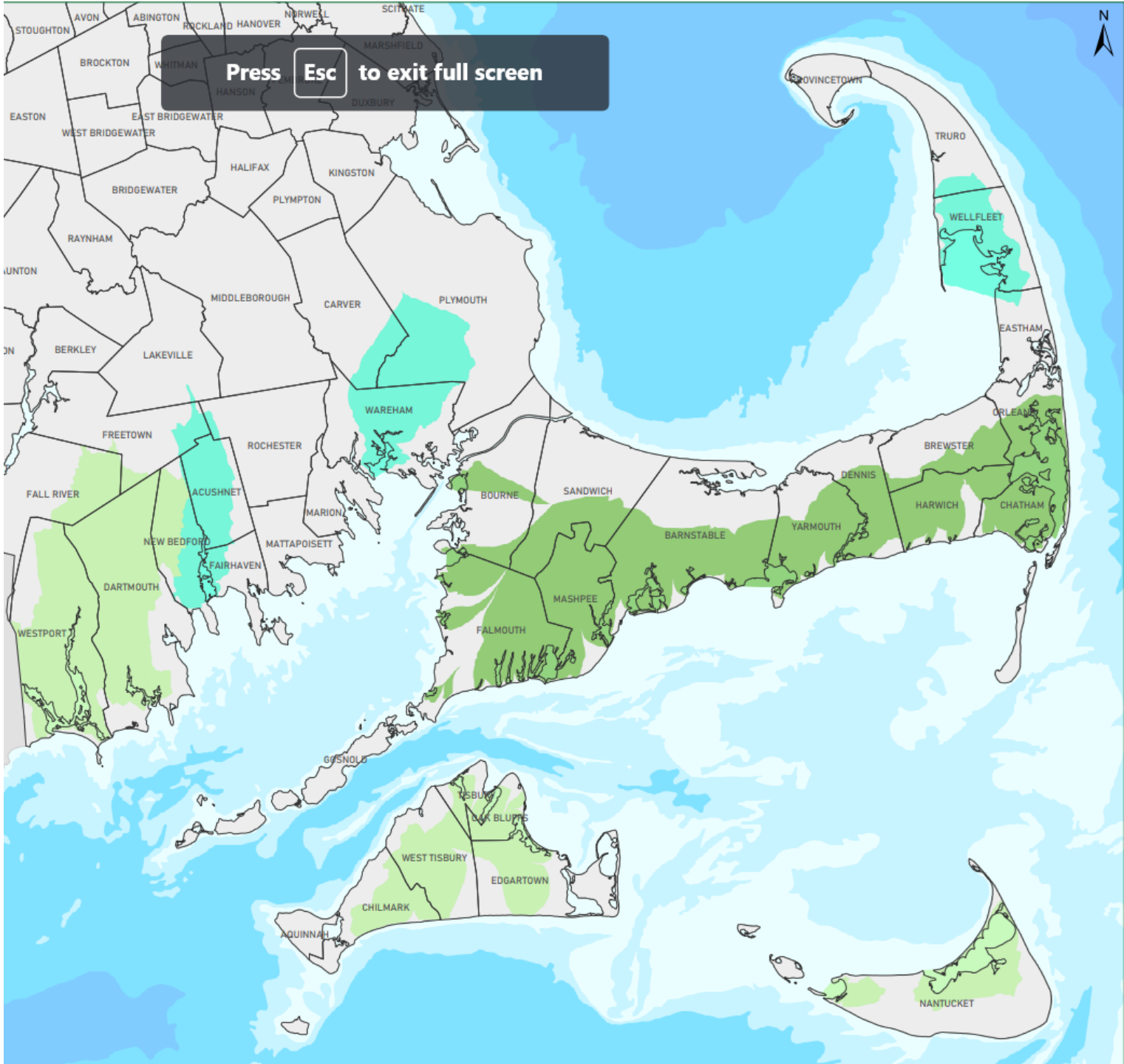


Proposed Regulatory Framework (cont'd)

NSAs designation requires reduction in nitrogen migrating to impaired estuaries:

Option 1: Systems serving new construction/existing facilities must incorporate **Best Available Nitrogen Reducing Technology** within 5 years of the effective date of the NSA designation

OR

Option 2: Community(ies) operate under a **Watershed Permit**

Proposed Regulatory Framework (cont'd)

Best Available Nitrogen Reducing Technology:

- 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 MassDEP

Proposed Regulatory Framework (cont'd)

Timing for implementing requirements for Natural Resource Area NSAs:

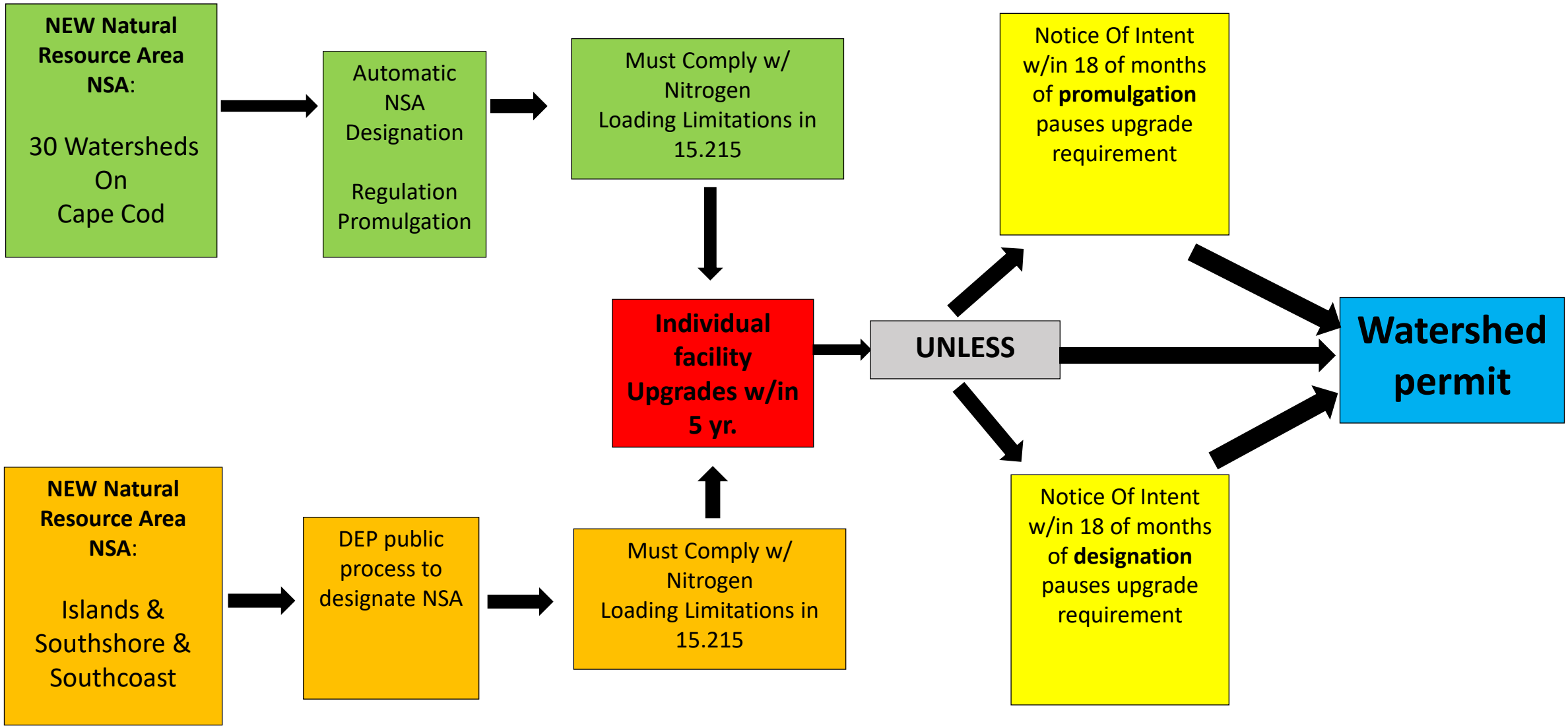
- TMDL + 208 plan = NSA effective date of regulation promulgation
- TMDL/Scientific Evaluation + Public Process = NSA effective date of designation

Proposed Regulatory Framework (cont'd)

Exemption from Enhanced Treatment Requirements for Natural Resource Area NSAs:

- 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** apply
- If a community submits a Notice of Intent (NOI) within 18 months of designation as an NSA, the 5 year installation requirement is tolled

How do Title 5 Revisions and Watershed Permit Work Together?



Proposed Regulatory Framework (cont'd)

Watershed Permit:

- 20-year voluntary permit instead of the traditional five-year permit
- Issued to Local Government Unit, Regional Local Government Unit, Multiple local Government Unit (through Intermunicipal agreement)
- Provides 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, requires monitor, evaluation, reporting of results, and modification of the approach as needed to address conditions that are causing the water quality impairments
- Watershed Permit is based on a Town approved **Watershed Management Plan**

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 with a TMDL, the plan must be designed to achieve compliance with the Water Quality Standards in the TMDL and demonstrate ≥ 75% pollutant reduction within 20 years
  - MassDEP may determine an alternative schedule is appropriate based on watershed-specific issues

Proposed Regulatory Framework (cont'd)

Watershed Permit Issuance Process:

- Public Notice of the watershed Permit Application
  - MEPA Environmental Monitor
  - Newspaper circulated in the area of the Watershed Permit
  - MassDEP's webpage
- Comment Period of at least 60 days
- A public hearing if requested by permittee or deemed necessary by MassDEP

Proposed Regulatory Framework (cont'd)

Watershed Permit Modification/Suspension/Revocation/Termination:

- MassDEP will process permit modifications, suspensions or revocations in the same manner as an application for a Watershed Permit
    - If the permit is revoked, the Best Available Nitrogen Reducing Technology requirement applies to systems in the NSA
- MassDEP may approve revisions to the schedule under certain circumstances (public notice is not required)
- Permittees may terminate permits by providing advanced written notice to MassDEP following same process as the application
- Upon termination or revocation, the Best Available Nitrogen Reducing Technology requirement applies to the individual systems in the NSA

Proposed Regulation Changes: Comparison of Title 5 and Watershed Permitting

	Title 5 Nitrogen Sensitive Area Regs	Watershed Permitting Regs
Requirements	• Mandatory upgrade of septic system to innovative/alternative technology	• Implementation of Comprehensive Plan to reduce nitrogen loading to meet specific water quality target
Implementation Period	• Within 5 years of designation (unless Notice of Intent is filed under watershed permitting, then timeframe is paused)	• 20 years
Participant (who pays?)	• Individual septic system owner	• Community (municipality, region, etc.)
Type of Participation	• Mandatory	• Voluntary
Funding Sources	• Community Septic Management Loan Program	• SRF Funding/ Clean Water Trust • Cape Cod and Islands Water Protection Fund • Other State and Federal sources (e.g., SNEP grants)
Effectiveness at Reducing Nitrogen to Target Levels	• Might not be sufficient to meet water quality goals, leaving watershed nitrogen impacts insufficiently addressed • Will likely require further action in the future	• Can use various ways to reduce nitrogen • Quantitative approach to efficiently estimate and reduce nitrogen loads to meet water quality goals

Proposed Regulation Changes: Comparison of Title 5 and Watershed Permitting

	Title 5 Nitrogen Sensitive Area Regs	Watershed Permitting Regs
Feasibility	• Concerns w/ cost, supplies, contractors, and 5 year implementation	• More time • Wider distribution of costs • Adaptive management increases feasibility • May use non-conventional methods
Flexibility	• Strict approach due to short timeframe and limited to use of IA technology	• More flexible, tailored (to community interests and needs) and holistic approach • Allows multiple solutions to be implemented
Potential benefits	• Localized improvements • Potentially estuary/embayment area	• Tailored to entire community • Greater potential for overall nitrogen load reduction leading to broader watershed improvement • Can address more than nitrogen
Who bears the burden	• Individual septic system owners must upgrade • Municipality must approve all upgrades and enforce (with DEP assistance, if needed)	• Spread across the entire community • May lead to community-wide tax/rate increases

Funding Resources for Septic Systems and Watershed Projects

- **Recent Funding from the Economic Development Bill:** $15M

- **Information for funding Homeowners can obtain:**
  - Community Septic Management Loan Program

- **Information for funding sources Communities can obtain:**
  - Cape Cod and Islands Water Protection Fund
  - EPA list of funding sources for watershed protection and restoration
  - EOHED - MassWorks Infrastructure Program
  - DHCD - Community Development Block Grant Grant
  - MassDEP SFY 2023 Water Quality Monitoring Grant Program
  - Southeast New England Program (SNEP) Watershed Implementation Grants
  - State Revolving Fund Loan Program/Clean Water Trust
  - USDA Natural Resources Conservation

Public Information Sessions and Public Comment Schedule

Public Information Sessions

- November 15th 6:00 pm Zoom Webinar
- November 16th 12:00 pm Zoom Webinar
- Both sessions recorded and the links posted online: 310 CMR 15.000: Septic Systems ("Title 5") | Mass.gov , and 314 CMR 21.00: Watershed Permit Regulations | Mass.gov

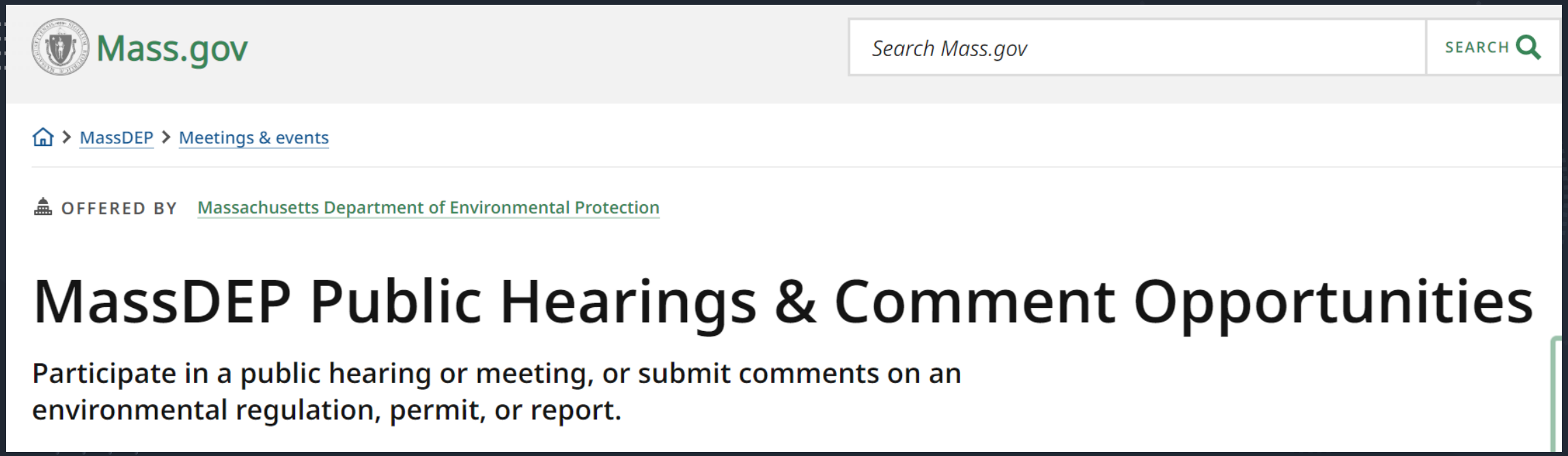
Public Hearing Schedule

- November 30th 6:00 pm DEP Lakeville Office Hybrid Meeting
- December 1st 1:00 pm Zoom Meeting
- December 5th 6:00 pm Barnstable Town Hall Hybrid Meeting
- All three hearings recorded and posted online: 310 CMR 15.000: Septic Systems ("Title 5") | Mass.gov , and 314 CMR 21.00: Watershed Permit Regulations | Mass.gov

Proposed Regs and Public Hearing Sessions

Go to:

https://www.mass.gov/service-details/massdep-public-hearings-comment-opportunities



Proposed Regulation Schedule

Public comment period open until 5:00 pm December 16th, 2022

Need Water Resource Commission approval on 314 CMR 21.00: Watershed Permit Regulations

Watershed Permit Regulations and Title 5 Amendments to be promulgated early 2023

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Thank you!