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208 Area Wide Water Quality Management Plan Update Subregional Meetings

Agenda - Meeting 3

Meeting Goals:

- Define the process for convening towns within a watershed to reach agreement for a watershed approach to water quality.
- Illustrate and further develop the adaptive management / watershed permitting approach
- Understand the resources available to watersheds and municipalities, the impacts on homeowners, and affordability

1:00	Welcome & Review of 208 Goals
1:15	Introductions, Agenda Overview & Goals of Today's Meeting
1:30	Scenario Planning • Sub-regional scenarios
2:15	Regulatory, Legal, and Institutional • Define the process by which we will convene towns within a watershed to formalize an enforceable agreement • Explore collaboration options using scenarios • Nitrogen allocation • Special Review Procedure for Targeted Watershed Planning • Adaptive management approach & watershed permitting
3:15	Break
3:30	 Implementation Description and discussion of Financial Model Demonstration of user interface – Impact Analysis on Homeowners Range of revenue options and funding sources
4:30	Role of the Commission and 208 Process tools
5:00	Adjourn

Lower Cape Sub Regional Group



MEETING 3

Standing Sub Regional Meeting Topics

Regulatory, Scenario Legal, **Implementation** Planning Institutional Challenges & opportunities Adaptive One representative Mtg. 1 associated with permitting the watershed management plans watershed scenario All shared Tools to support Mtg. 2 watersheds & TBL Monitoring intermunicipal cooperation model **Subregional scenarios** Financing & Structures for permitting Mtg. 3 & TBL model affordability

Standing Sub Regional Meeting Topics

Scenario Planning Regulatory, Legal, Institutional

Implementation

Meeting 3 Goals:

- Define the process for convening towns within a watershed to reach agreement for a watershed approach to water quality.
- Illustrate and further develop the adaptive management/watershed permitting approach
- Understand the resources available to watersheds and municipalities, the impacts on homeowners, and affordability

Scenario Planning

LOWER CAPE



Prevention

Reduction

Remediation

PRB

Regulatory, Legal, and Institutional

LOWER CAPE

CWMP Joint MEPA/CCC Review:

Projects Requiring Environmental Impact Report (EIR)

APPLICANT files:

- MEPA Environmental Notification Form (ENF)
- CCC DRI application



within 20-day MEPA comment period:

CCC and **MEPA** hold joint public hearing





MEPA issues certificate on ENF, scope of review. CCC sends comment letter with recommended scope for review to MFPA

APPLICANT files Draft Environmental Impact Report (DEIR).



within 30-day MEPA comment period:

joint public hearing



"Subregional Working Group - Lower Cape - Workshop 3"

PROPOSED SPECIAL REVIEW PROCEDURE

FOR ALL "PROJECTS" UNDER THE 208 PLAN

- Consultation with CCC
 - -> Review 208 requirements and provide decision support tools
- WATERSHED ASSOCIATIONS ARE FORMED
 - -> Designated by the Secretary as Citizens Advisory Committee
 - Watershed Association/ Citizens Advisory Committee

10 members appointed by the Secretary:

- 1. Elected
- 2. Appointed
- 3. WOAC
- 4. JBCC or National Seashore
- 5. CCC

- 6. Business
- 7. Real Estate
- 8. Environmental
- 9. Alternative Technology
- 10. Proponent

PROPOSED SPECIAL REVIEW PROCEDURE

FOR ALL "PROJECTS" UNDER THE 208 PLAN

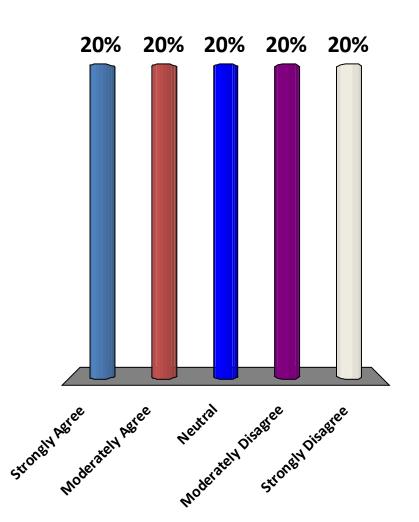
- Consultation with CCC
 - -> Review 208 requirements and provide decision support tools
- WATERSHED ASSOCIATIONS ARE FORMED
 - -> Designated by the Secretary as Citizens Advisory Committee
- 3. WATERSHED MANAGEMENT PLAN DEVELOPED (N, Phos, CECs, etc.)
 - -> TWMP, CWMP, Nutrient Remediation Projects
 - -> Submitted to MEPA/CCC under SRP
- PUBLIC HEARING PROCESS
- 5. FINAL REVIEW DOCUMENT (one document compliance with MEPA and 208 considered the MEPA FEIR and CCC DRI)
- 6. SECRETARY ISSUES CERTIFICATE OF FEIR ADEQUACY & CCC ISSUES DRI APPROVAL

ALLOCATING NITROGEN



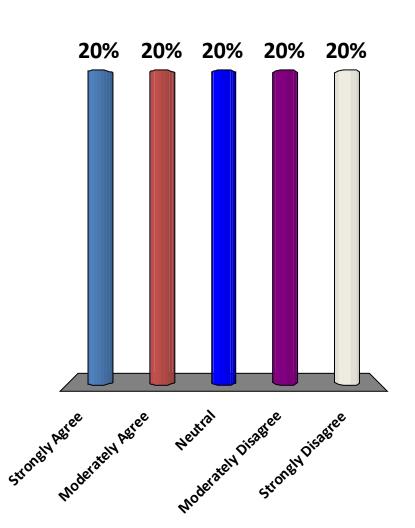
HOW STRONGLY DO YOU BELIEVE THAT THE FOLLOWING FACTOR SHOULD BE A FACTOR FOR NITROGEN ALLOCATION: WATER USAGE

- 0 Strongly Agree
- 1 Moderately Agree
- 2 Neutral
- 3 Moderately Disagree
- 4 Strongly Disagree



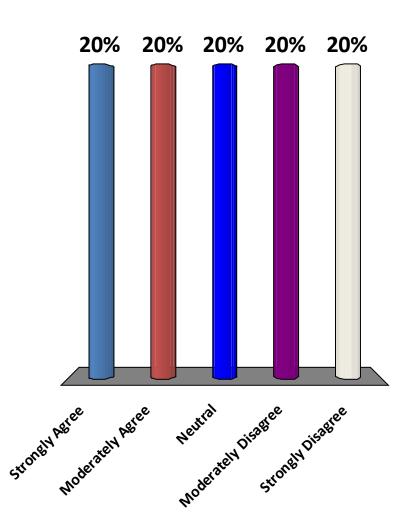
HOW STRONGLY DO YOU BELIEVE THAT THE FOLLOWING FACTOR SHOULD BE A FACTOR FOR NITROGEN ALLOCATION: A METHODOLOGY THAT EVALUATES ATTENUATION

- 0 Strongly Agree
- 1 Moderately Agree
- 2 Neutral
- 3 Moderately Disagree
- 4 Strongly Disagree



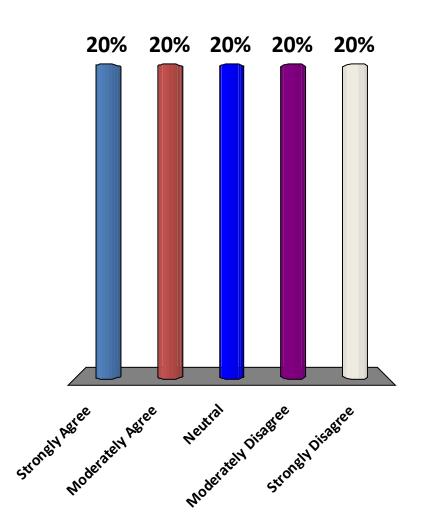
HOW STRONGLY DO YOU BELIEVE THAT THE FOLLOWING FACTOR SHOULD BE A FACTOR FOR NITROGEN ALLOCATION: **POPULATION**

- 0 Strongly Agree
- 1 Moderately Agree
- 2 Neutral
- 3 Moderately Disagree
- 4 Strongly Disagree



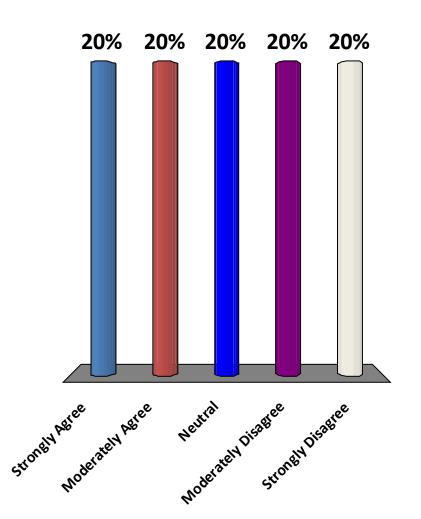
HOW STRONGLY DO YOU BELIEVE THAT THE FOLLOWING FACTOR SHOULD BE A FACTOR FOR NITROGEN ALLOCATION: **SEASONALITY**

- 0 Strongly Agree
- 1 Moderately Agree
- 2 Neutral
- 3 Moderately Disagree
- 4 Strongly Disagree



SHOULD **GROWTH MANAGEMENT PLANS** BE A FACTOR IN NITROGEN ALLOCATION?

- 0 Strongly Agree
- 1 Moderately Agree
- 2 Neutral
- 3 Moderately Disagree
- 4 Strongly Disagree



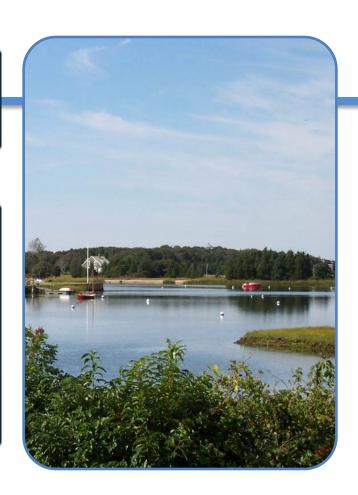
REQUIREMENTS OF CLEAN WATER ACT / EPA

208 plan requirement:

 State must designate one or more waste management agency (WMA)

WMA must be able to:

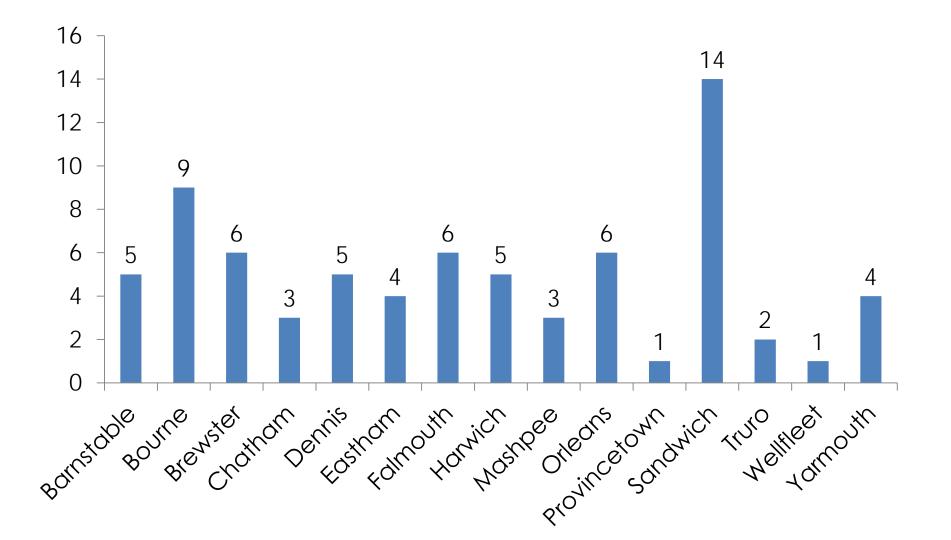
- Carry out plan
- Manage waste treatment
- Design & construct new, existing works
- Accept/utilize grants
- Raise revenues
- Incur indebtedness
- Assure each town pays its costs



WHAT EXISTING ENTITIES OR ORGANIZATIONS COULD ACT AS A WMA?

- The 15 Towns
- Bourne Recreation Authority
- Bourne Water District
- Buzzards Bay Water District
- North Sagamore Water District
- Barnstable Fire District
- Centerville-Osterville-Marstons Mills Water District
- Cotuit Fire District
- Hyannis Fire District
- West Barnstable Fire District
- Mashpee Water District
- Dennis Water District
- Sandwich Water District
- Tri-Town Septage Treatment, Orleans Brewster Eastham Ground Water Protection District

HOW MANY AGREEMENTS MIGHT BE NECESSARY?



Intermunicipal Agreements

Federal/Municipal public-public partnerships

Independent Water and Sewer Districts

Water Pollution Abatement Districts

Independent Authority

Regional Health District

How could each model be applied to Nauset Marsh?

INTERMUNICIPAL AGREEMENTS

What is it?

Written agreement between municipalities to perform services or activities

Authority:

M.G.L. c. 40 § 4A

What it does:

Allows towns to contract with each other/other government units (RPA, water/sewer com)

Types:

- Formal contract
- 2. Joint service agreement
- 3. Service exchange arrangements

- Modified authority enables
 Board of Selectmen rather than
 Town Mtg.
- Max. 25 years
- Establishes maximum financial liability of parties
- Components:
 - Purpose, term of agreement
 - Method of financing
 - Responsibilities
 - Costs of services
 - Indemnification
 - Insurance
 - Alternative dispute resolution
 - Personnel property

FEDERAL/MUNICIPAL PUBLIC-PUBLIC PARTNERSHIPS

What is it?

Shared service agreement

Authority:

Section 331 National Defense Authorization Act - United States Code 10, c. 137 §1226

What it does:

Authorizes DoD Secretary to enter into intergovermental support agreements with state/local governments

Examples:

Towns may seek to utilize capacity from wastewater facility on Joint Base Cape Cod

- Must serve best interest of the state/local government and military
- Provides mutual benefits not achieved on own
- Benefit may be monetary or in- kind
- May be entered into on sole source basis
- May be for a term not to exceed 5 years
- Towns enter into partnership agreement with JBCC

INDEPENDENT WATER AND SEWER DISTRICTS

What is it?

Independent public instrumentality for establishing shared water/sewer systems

Authority:

M.G.L. c. 40N§§ 1-25

What it does:

One or more municipalities may join to form a regional water and sewer district

Requirement:

Town meeting vote required to establish/operate

- Special unpaid district planning board for two or more towns forms to study advisability, construction and operating costs, methods of financing, issues report
- May submit proposed agreement for town meeting vote which shows:
 - Number, composition method of selection of members of board
 - Municipalities to be within district
 - Method of apportioning expenses
 - Terms by which town is admitted or separated from district
 - Detailed procedure for preparation/adoption of budget

WATER POLLUTION ABATEMENT DISTRICTS

What is it?

District designated by Mass DEP for one or more towns (or designated parts) established for the "prompt and efficient abatement of water pollution"

Authority:

Massachusetts Clean Waters Act (M.G.L. c. 21, §§28-30, 32, 35, 36).

What it does:

Creates district responsible for abatement plan

Types:

- 1. Town voted district
- 2. DEP voted district

- Adopt bylaws/regulations
- Acquire, dispose of and encumber real/personal property
- Construct, operate and maintain water pollution abatement facilities
- Apportion assessments on the member municipalities
- Issue bonds and notes, raise revenues to carry out the purposes of the district
- Member municipalities may then impose assessments on residents, corporations and other users in the district
- If town fails to pay its share, state may pay it for them out of other funds appropriated to that town

INDEPENDENT PUBLIC AUTHORITY

What is it?

Could create separate legislative entity

Authority:

Mass. Legislature

What it could do:

Create construct that provides for funding mechanisms outside town meeting

What it could potentially do:

- Plan, build, finance, own and operate certain wastewater collection treatment, disposal and septage management assets and programs
- Research, develop, own and operate non-traditional wastewater treatment assets and programs
- Provide services for residential WW systems
- Plan and protect drinking water resources on Cape Cod through protection plans and policies
- Develop and enforce policies and procedures governing customer metering, billing and collection systems

REGIONAL HEALTH DISTRICT

What is it?

Regional Board of Health

Authority:

M.G.L. c. 111 §27B

What it does:

Has all the powers and duties of boards of health/health department of a town Includes wastewater regulatory powers of Board of Health

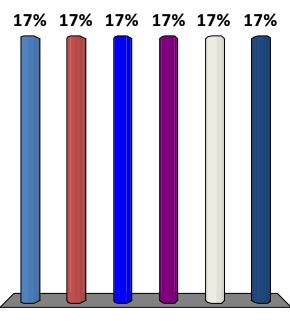
Who may belong:

One or more towns

- Can form by votes of two or more boards of health and their respective town meeting to delegate some/all of its legal authority to regional board
- Estimate budget each
 December, assessor then
 includes this amount in the tax
 levies each Board may order
 treasurer to pay town's share of
 cost/expense of the district
- Reimbursement from Commonwealth for "initial capital outlays"
- Subj. to appropriation Requires matching funds from town
- HB 3822 proposes removal of town meeting requirement

WHAT AGREEMENT MODEL DO YOU BELIEVE WOULD BE MOST APPLICABLE IN NAUSET MARSH?

- 0 Intermunicipal Agreements
- 1 Federal/Municipal Public-Public Partnership
- 2 Independent Water and Sewer District
- 3 Water Pollution Abatement District
- 4 Independent Authority
- 5 Regional Health District



Internuncipal Agreements

Internuncipal Agreements

Independent Water Pollution Abatem...

Regional Health District

Implementation

FINANCE & AFFORDABILITY

FINANCE MODEL COMPONENTS

Affordability Module

Revenue Module

Finance Module

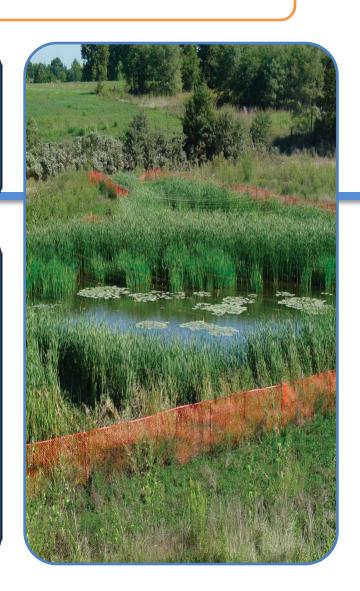
AFFORDABILITY MODULE

PURPOSE:

 Establish existing wastewater liability by watershed and by town and the resulting household burden to achieve TMDLs

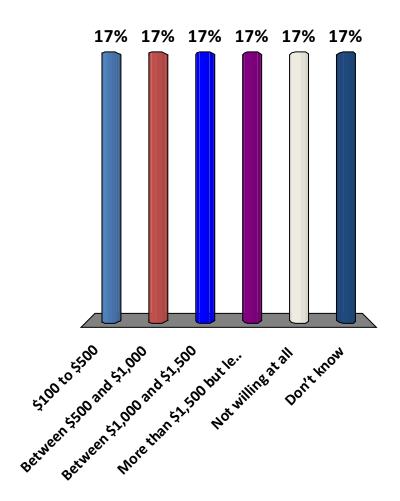
This module can...

- Identify traditional EPA affordability criteria
- Establish town financial capability to finance wastewater costs
- Identify wastewater payments by other communities as a benchmark



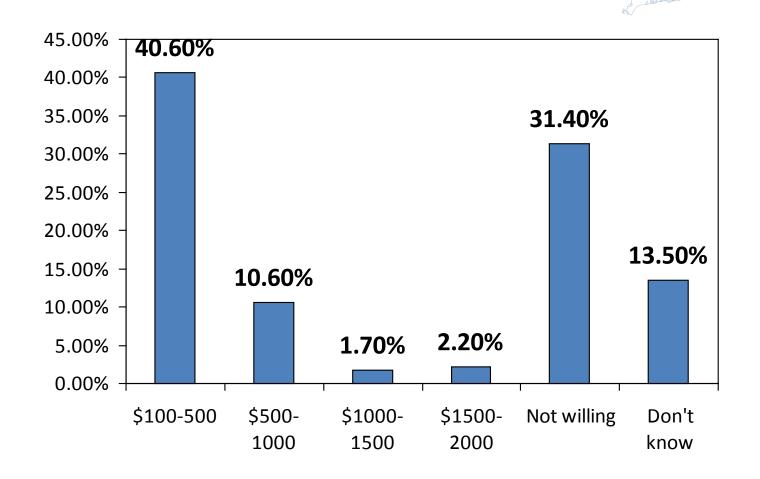
HOW MUCH WOULD YOU BE WILLING TO PAY PER YEAR TO IMPROVE WATER QUALITY?

- 0 \$100 to \$500
- 1 Between \$500 and \$1,000
- 2 Between \$1,000 and \$1,500
- 3 More than \$1,500 but less than \$2,000
- 4 Not willing at all
- 5 Don't know



CAPE WIDE SURVEY RESULTS

How Much Would You Be Willing To Pay Per Year To Improve Water Quality?

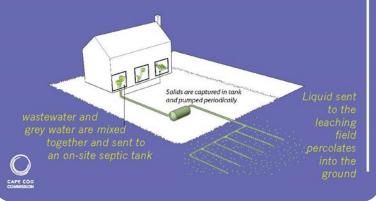


AFFORDABILITY BASELINE

SEPTIC SYSTEMS

A septic system for collecting waste typically consists of a septic tank, and a leaching field, connected by pipes. Solid waste is collected in a buried tank and pumped out, and disposed of, at regular intervals. The remaining liquid percolates into the ground through the leaching trench or field.

Bacteria in the septic system changes the composition of the waste as it travels through the system.



AVERAGE YEARLY COST for the construction And maintenance of a septic system (based on a 20 year lifespan)

\$750

REVENUE MODULE



PURPOSE:

Provide macro level revenue sources to finance Cape wide wastewater solutions.

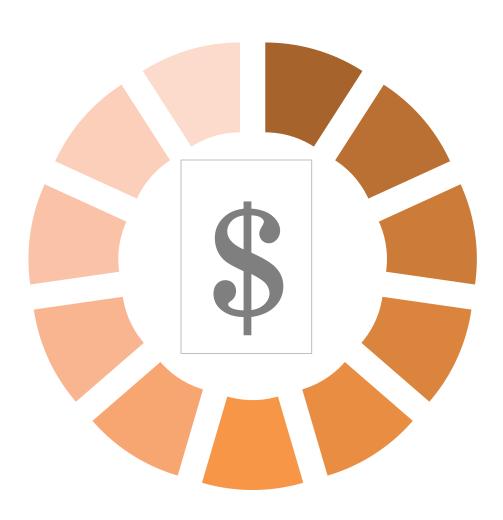
This module can...

Provide revenue sources to finance watershed, a combination of watersheds, and town wastewater solutions.

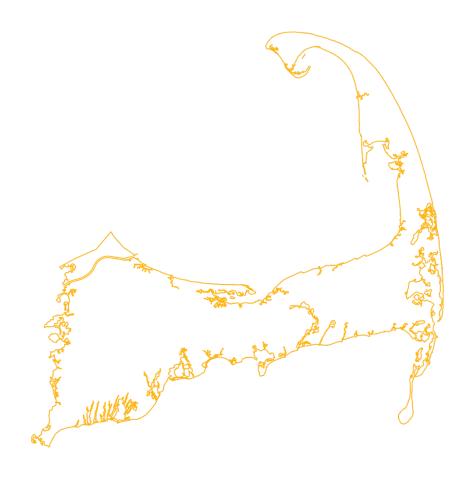
The initial macro-level revenue plan consists of:

- **Funding**
 - Federal Construction Grant
 - State Financing (Multiple Revenue Sources)
 - Local Financing, with 0-2% **SRF Financing**

POSSIBLE REVENUE SOURCES



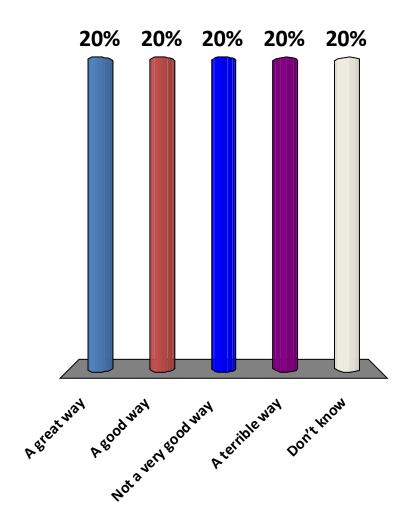
SOURCES POLLED FROM CAPE WIDE SURVEY



MOTOR FUEL TAX: 5 CENTS/GALLON

A state-wide five cent increase would generate approximately \$138.5 million in revenue annually

- 0 A great way
- 1 A good way
- 2 Not a very good way
- 3 A terrible way
- 4 Don't know



CAPE WIDE SURVEY RESULTS MOTOR FUEL TAX: 5 CENTS/GALLON



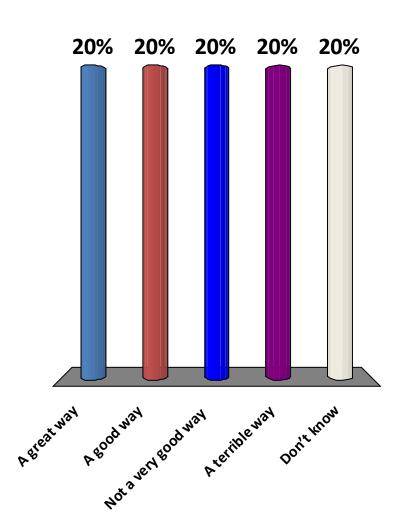
13.7%

of people thought this was a good or great way to fund wastewater projects.

EARMARK A PORTION OF EXPECTED GAMING PROCEEDS

If 25% of the revenue was targeted as a new environmental grant fund it could annually generate over \$115 million.

- 0 A great way
- 1 A good way
- 2 Not a very good way
- 3 A terrible way
- 4 Don't know



CAPE WIDE SURVEY RESULTS EARMARK A PORTION OF EXPECTED GAMING PROCEEDS



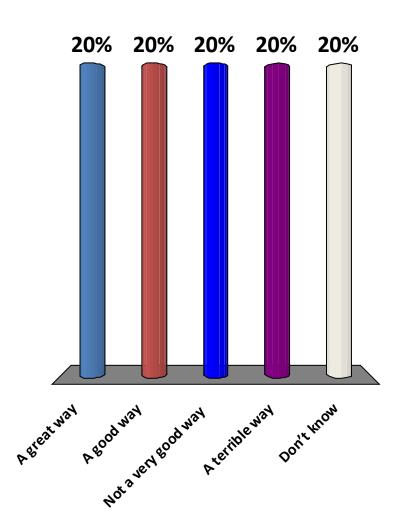
71.1%

of people thought this was a good or great way to fund wastewater projects.

EARMARK A PORTION OF AN INTERNET SALES TAX

Extending the sales tax would produce approximately \$335 million in new revenue to the Commonwealth.

- 0 A great way
- 1 A good way
- 2 Not a very good way
- 3 A terrible way
- 4 Don't know



CAPE WIDE SURVEY RESULTS EARMARK A PORTION OF AN INTERNET SALES TAX



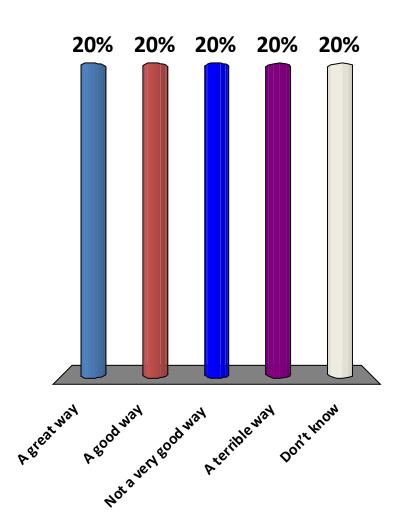
32.2%

of people thought this was a good or great way to fund wastewater projects.

REDEDICATING LOCAL OPTION MEAL AND ROOM OCCUPANCY TAX

Excise taxes would result in annually collecting approximately \$18.8 million.

- 0 A great way
- 1 A good way
- 2 Not a very good way
- 3 A terrible way
- 4 Don't know



CAPE WIDE SURVEY RESULTS REDEDICATING LOCAL OPTION MEAL AND ROOM OCCUPANCY TAX



42%

of people thought this was a good or great way to fund wastewater projects.

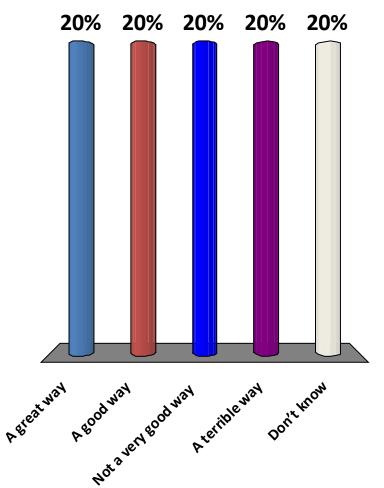
ADDITIONAL POSSIBLE REVENUE SOURCES



SEPTIC SYSTEM INSTALLATION TAX (\$200), PUMP-OUT TAX (\$20)

There are about 686,000 septic systems in MA (approximately 120,000 of which are on Cape Cod). Statewide annual revenue total would be approximately \$3.9 million.

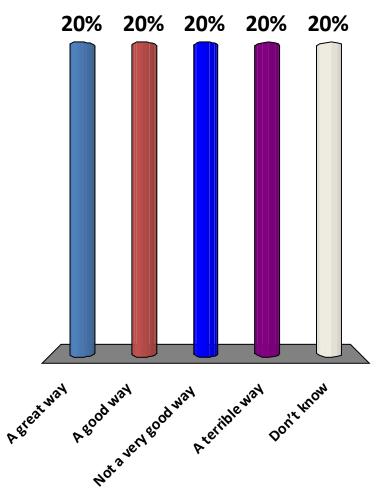
- 0 A great way
- 1 A good way
- 2 Not a very good way
- 3 A terrible way
- 4 Don't know



EMBARKATION EXCISE TAX: FFRRY TAX

1,499,853 yearly Cape Cod ferry passengers. For each additional \$0.50 excise tax added to each ticket, approximately \$749,927 in revenue would be generated.

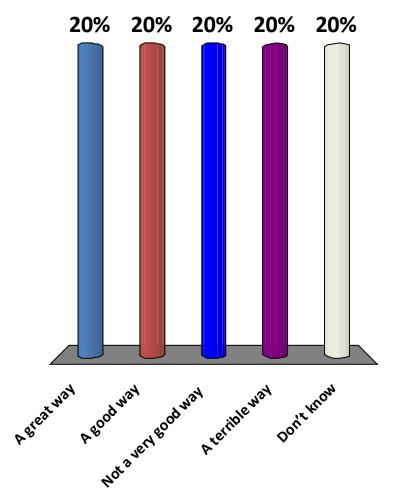
- 0 A great way
- 1 A good way
- 2 Not a very good way
- 3 A terrible way
- 4 Don't know



EMBARKATION EXCISE TAX: FLIGHT TAX

184,804 yearly flight passengers. If a \$1.50 excise tax were added to each ticket purchased, a total revenue of \$277,206 would be annually generated.

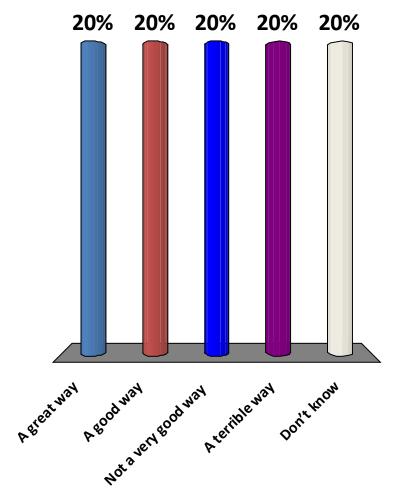
- 0 A great way
- 1 A good way
- 2 Not a very good way
- 3 A terrible way
- 4 Don't know



MA EXCISE TAX: MILLAGE ON WATER CONSUMPTION OF 1-3 MILLS/GALLON

A 1 mill charge would result in annual revenue of \$81.9 million based upon annual household water usage of 65 gallons per person per day.

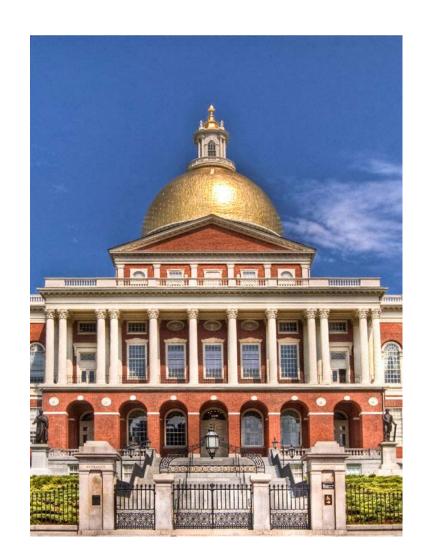
- 0 A great way
- 1 A good way
- 2 Not a very good way
- 3 A terrible way
- 4 Don't know



POSSIBLE REVENUE SOURCES

What's already happening?

- Environmental Bond Bill
- Southeast New England
 Coastal Watershed
 Restoration Program:
 Funding available for FY14
- Water Infrastructure Bill : Principal Forgiveness



FINANCE MODULE

PURPOSE:

 Identify costs to a town, watershed, or region by engineer solution.

This module can...

- Compile a financial plan that can be adapted to meet EPA affordability criteria
- Account for existing and new costs:
 - Wastewater
 - Capital Replacement

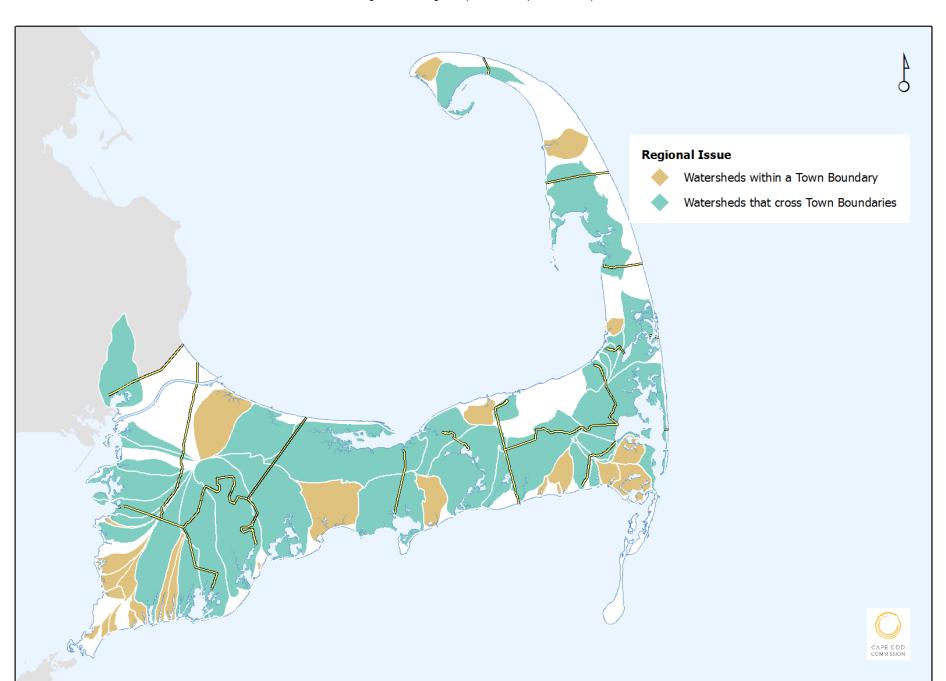


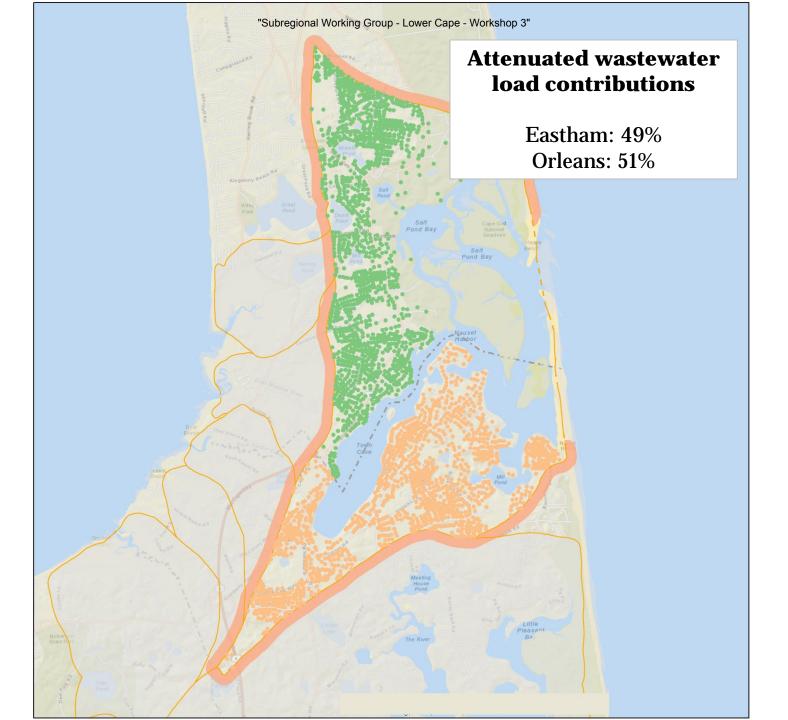
All materials and resources for the Lower Cape Sub Regional Group will be available on the Cape Cod Commission website:

Lower Cape Sub Regional Group



MEETING 3





Lower Cape Sub Regional Group



MEETING 3

Cape Cod 208 Area Water Quality Planning Lower Cape Sub Regional Group

Meeting Three
May 14, 2014
1 PM - 5 PM
Chatham Community Center
702 Main St, Chatham, MA 02633

Meeting Summary Prepared by the Consensus Building Institute

I. ACTION ITEMS

Working Group

- Provide feedback on the Consensus Building Institute's draft meeting summary
- Submit ideas and feedback regarding the proposed Special Review Process

Consensus Building Institute

- Draft meeting summary
- Contact Working Group about next steps

Cape Cod Commission

- Make the full 208 Plan draft available
- Send date and details of July Tabletop exercise to the Working Group

II. WELCOME AND REVIEW OF 208 PLANNING GOALS

Ms. Stacie Smith, Facilitator from the Consensus Building Institute, welcomed the group members to the third meeting of the Lower Cape Sub Regional Group, briefly reviewed the meeting agenda, objectives, and meeting ground rules; led introductions; asked the group to send her feedback on the meeting notes; and emphasized that this meeting would require a high level of input from the group. She also introduced the Working Group to keypad polling, emphasizing that it was being used to get a sense of the group's opinions, not to make decisions.

Mr. Paul Niedzwiecki, Cape Cod Commission Executive Director, reviewed the timeline of the 208 Process with the Working Group. The initial 208 draft is due to MassDEP on June 1st. The Commission will hold a tabletop exercise in July to provide the working groups with a hands-on method to test out the models and collaborative tools. After integrating comments received by Mass DEP and any input from the July session, the Commission will release the draft 208 Plan on August 1st, and the public will have 90 days to comment on the draft. The Commission will then have 60 days from November 1st to January 1st to review the comments and submit a

revised proposal to the DEP. He also thanked the towns for their support of the Commission in their town meetings and congratulated Eastham and Orleans for moving their water quality plans forward.

Mr. Niedzwiecki described the meeting topics. Similar to the first two meetings, this third meeting covered the three overarching topics: scenario planning; regulatory, legal, and institutional interactions; and implementation. For the scenario planning discussion, the group would review the sub-regional watershed scenarios. He noted that the TBL tool was not ready to be used today, but would be tested during the July exercise. During the regulatory, legal, and institutional interactions discussion, the group would provide input on a draft Special Review Process, review possible models for collaboration and discuss how those mechanisms do or do not meet the needs of the Cape towns. Finally, the group would learn about and discuss the affordability, revenue, and financial models supporting the 208 Plan.

Meeting three goals included:

Define the process for convening towns within a watershed to reach agreement for a
watershed approach to water quality.
Illustrate and further develop the adaptive management / watershed permitting approach
Understand the resources available to watersheds and municipalities, the impacts on homeowners, and affordability

III. SCENARIO PLANNING: Subregional Scenarios

Mr. Niedzwiecki presented a map of the Cape's 57 watersheds using the 208 Scenario Viewer, showing several scenarios, which used traditional and nontraditional approaches to manage nitrogen in the watersheds. Maps associated with each scenario illustrated the geographic extent of the scenario footprints (see presentation¹). The first scenario represented a maximum collection footprint of a sewer system, assuming treatment within the watersheds. This approach does not benefit from economies of scale. The second scenario showed a centralized scenario with credit given for fertilizer and stormwater reduction with a reduced footprint area. The third scenario showed an array of nontraditional approaches for different areas of the Cape. Mr. Niedzwiecki pointed out specific technologies for the Lower Cape that were identified by screening parcels and matching landscape characteristics with specific technologies. The EPA and DEP are vetting the alternative technologies, and are likely to come up with a short list of options. Mr. Niedzwiecki also showed a map that included the approved Orleans Comprehensive Wastewater Management Plan (CWMP) footprint as an approach to meeting TMDLs.

¹ http://watersheds.capecodcommission.org/index.php/watersheds/lower-cape/regional-stakeholder-group-lower-cape

IV. REGULATORY, LEGAL, AND INSTITUTIONAL INTERACTIONS: Structures for Permitting

Kristy Senatori, Deputy Director at the Cape Cod Commission, introduced the Regulatory, Legal, and Institutional interactions segment of the agenda. She commented that the objectives during meeting three were to discuss which models could be used for the 208 process and apply the collaboration models discussed last time to the watershed.

Ms. Senatori noted that filing a CWMP through a joint Cape Cod Commission and Massachusetts Environmental Protection Act (MEPA) review currently presents a barrier to nitrogen management plans, as the review process is lengthy and imperfect (see presentation for full process²). After reviewing the current filing process, Ms. Senatori reviewed a new, streamlined six-step "special review" process, through which all 208 projects could be submitted.

The six steps include:

- 1. A consultation with the Commission to review 208 requirements and get support in using decision support tools
- 2. Forming Watershed Associations, which would be designated by the Secretary of the Executive Office of Energy and Environmental Affairs (EOEEA) as Citizen Advisory Committees. The Secretary would appoint/approve 10 members to the associations. Suggestions for those to be included::
 - a. An elected member
 - b. An appointed member
 - c. Water Quality Advisory Committee (WQAC) member
 - d. Joint Base Cape Cod (JBCC) or National Seashore member
 - e. Cape Cod Commission representative
 - f. Business member
 - g. Real Estate member
 - h. Environmental member
 - i. Alternative technology member
 - j. The project proponent
- 3. Developing a watershed management plan for submission to MEPA and the Commission under the Special Review Procedure (SRP). These plans could cover nitrogen, phosphorus, contaminants of emerging concern (CECs), and other water quality issues addressed through Targeted Watershed Management Plans (TWMPs), CWMPs, and Nutrient Remediation Projects.
- 4. A public hearing process
- 5. The submission of a single Final Review Document in compliance with both MEPA and

² http://watersheds.capecodcommission.org/index.php/watersheds/lower-cape/regional-stakeholder-group-lower-cape

- 208 requirements, considered the MEPA Final Environmental Impact Review (FEIR) and the Commission's Development Impact Review (DRI).
- 6. The issuance of a certificate of FEIR adequacy the Secretary and DRI approval from the Commission

Mr. Niedzwiecki emphasized that this process would be modeled after current successful projects. If implemented, it could represent a significant improvement of the permitting process. It allows the Commission to advise projects, can handle multiple water quality issues, provides an opportunity to access state funds, and allows for quick consensus and action on small projects and targeted watershed plans. A similar process, which Falmouth went through, was approved in 30 days. This SRP process would also include an adaptive management component.

Members provided the following feedback and questions about the SRP process. Responses from Ms. Senatori, Mr. Niedzwiecki, or other Commission staff are *italicized*.

- Would a Watershed Association have an advisory role? Yes.
- Could the proponent be from more than one town? Yes, how to structure this is part of what we need to determine on the institutional side. This would help start the intermunicipal conversation.
- Since Orleans' management program is already approved how does it fit into this
 process? The goal is to find an easier path. If the town wanted to revise its CWMP, for
 example, the town could choose to use this process or continue with the old process. The
 goal is to find a process that is more efficient, more flexible, yet still provides regulatory
 comfort.
- How do inter-municipal agreements/memorandum of understanding fit into this approach? This is the feedback we want to hear from you to get your ideas. We will run through some scenarios involving this later.
- It might be hard to develop a watershed management plan (WMP) without cross-town work. Yes, it would be difficult to get past step 2 without agreement.
- Falmouth had a CWMP, right? *No, it had a facilities plan. The Commission views*Falmouth, Barnstable, and Provincetown as having facilities plans. (It was later noted that Falmouth does have a CWMP, recently approved by the Commission and MEPA.)
- Given that Orleans has an approved CWMP, we have a daunting list of requirements to satisfy the DRI. This is difficult to manage. Is there a way to streamline that process, or would we have to go back through this review? According to the current process, you would need to follow all those steps. For this new review process, we are trying to ease up the comprehensive nature of these plans to allow for local flexibility.
- What is the source of funding for a Watershed Association? This still needs to be determined. There is a spectrum of possibilities, including enterprise accounts among towns or the association itself raising revenue with a fiscal agent. The funding depends on the scale of the project.
- I am skeptical of the Watershed Association approach. The towns are different and have different problems. It would be fine for planning but would not work for implementation and funding. Watershed lines can also change. The Commission has noted your point. The Watershed Association is also a flexible entity. For some projects, it could just be an association of citizens with no sharing of fiscal responsibility between towns.
- How could you force a town to follow and fund a plan? Could the Secretary force a town to do this? Yes, but one town could not tell another town what to do.
- How will proposition 2 ½ come into play here? We will want to consider the constraints of Proposition 2 ½.
- Are funding and project authority normally separate? It depends on how you define the roles of the agency. Many towns are moving forward, so the problem is not getting the towns to move forward. We need more support for our efforts and town cooperation.
- Instead of the Secretary enforcing this, could towns enforce it? *Enforcement mechanisms exist, but the current ones are not great. Communities do not need to be told what to do, but they do need help collaborating and sharing resources.*

- I do not see streamlining in the SRP until the 5th or 6th step. Watershed Associations have been helpful, but they have not always included all stakeholders. Maybe this could work as a regional process, since the TMDLS and CWMPs have already told each town what its responsibility is. *The Watershed Associations are built on interactions that are already happening and will help towns connect.*
- Enforcement will still be the impetus that makes the towns act.
- We need to be realistic about the effectiveness of this approach. I agree with you about the current problems, which is why we need to have this discussion. We want to have a regional conversation about priorities and define a common plan for agreement. At the moment, there are agreements to talk among the towns but no detailed work between them. This is a framework for discussion.
- The SRP should use a different term than 'plan.' Yes, finding the correct terminology is important.
- In Herring River, we have Memorandums of Understanding (MOUs) among multiple towns. The shared benefit has motivated the final MOUs, but it has taken a couple of years to do this. Yes, we should allocate resources based off of incentives to boost efficiencies.

Mr. Niedzwiecki introduced the Working Group to different criteria for allocating nitrogen responsibility among towns. Nitrogen allocation is an important challenge in moving forward with watershed and inter-municipal planning. The MEP has examined this issue but reports are not available for all watersheds yet. Accordingly, towns need to agree on approaches for measuring nitrogen loads. The group used TurningPoint polling to respond to the question: "How strongly do you believe the following should be a factor for nitrogen allocation."

The factors and responses from the group were:

Water Usage

Strongly Agree: 39%Moderately Agree: 36%

Neutral: 21%

Moderately Disagree: 4% Strongly Disagree: 0%

A methodology that evaluates attenuation

Strongly Agree: 39%Moderately Agree: 36%

o Neutral: 14%

Moderately Disagree: 4%Strongly Disagree: 7%

Population

Strongly Agree: 50%

Moderately Agree: 29%

Neutral: 7%

Moderately Disagree: 4%Strongly Disagree: 11%

Seasonality

Strongly Agree: 29%Moderately Agree: 29%

o Neutral: 14%

Moderately Disagree: 11%Strongly Disagree: 18%

 Growth Management Plans: How could new development affect water management decisions, especially since growth and its impacts on nitrogen contribution is not equally important everyone.

Strongly Agree: 55%Moderately Agree: 24%

Neutral: 3%

Moderately Disagree: 10% Strongly Disagree: 7%

Members provided the following feedback and questions about nitrogen allocation. Responses from Mr. Niedzwiecki or other Commission staff are *italicized*.

- Define water usage. It is flow-through; water inflow and outflow are both measured.
- Attenuation is a moot point since it is already in the TMDLs, right? *It could still be a consideration, and new algorithms and calculations for this may need to be developed.*
- How was population determined? It is the year-round population.
- What does seasonality mean? The percentage of the population that is seasonal.
- What do you mean by growth management? If a town puts a plan in place to reduce future nitrogen contributions from growth, how should that impact their nitrogen allocation?
- People might agree that growth is an important factor but disagree about the algorithms underlying it.

The type of use should be a factor. For example, areas zoned to restaurants and as
communities release different amounts of nitrogen and should be treated differently.
Yes, water usage should take zoning into account. For some areas, seasonality also
comes into play for places like schools. We could highlight schools as venues to pilot
alternative technologies.
Eastham still needs to catch up in this process.
The Pleasant Bay Alliance did an approach like this previously. If we are not using TMDLS
do we need to figure out attenuation? Yes, we are looking at flow through factors to do
this; this is an easier aspect of the process.
How do we give credit for towns, like Orleans, that are service areas for the Lower and
Outer Cape. Other towns receive economic benefits from towns like this taking the
burden of providing services for them. That is a good point.
For high-density lodging, there are normally only high levels of output during the
summertime, so we could consider looking at factors like bedrooms per house and
capacity.

Ms. Smith emphasized that as the Working Group begins to think about creatively collaborating these types of issues will be at the center of the process. Mr. Niedzwiecki added that the group will have a chance to explore these kinds of issues further at the Tabletop exercise in July.

Mr. Niedzwiecki reviewed the requirements of the Clean Water Act and the 208 Plan. The state must designate one or more waste management agencies (WMA) that can implement the plan, manage waste treatment, design and construct new or existing infrastructure, accept or utilize grants, raise revenues, incur indebtedness, and assure each town pays its costs. There are several existing entities on the Cape that have the authority to fulfill this role, including the fifteen towns and established fire and water districts (see PowerPoint for complete list³). Mr. Niedzwiecki showed the large number of agreements that would be needed if each watershed had its own agreement. Thus, setting up watershed-level agreements among towns might be difficult. De minimis classifications (exempting Towns with very small contributions) could potentially shrink the number of shared watersheds, and management areas could be consolidated by the body of water ultimately impacted. New entities could also be set up to manage this collaboration.

The Working Group provided the following feedback and questions about WMAs. Responses from Mr. Niedzwiecki or other Commission staff are *italicized*.

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³ http://watersheds.capecodcommission.org/index.php/watersheds/lower-cape/regional-stakeholder-group-lower-cape

- Towns can be MWAs? Yes. They have characteristics that align them with the act, though authority varies between towns.
- It is important to note that the Tri-town Septic District could potentially be a MWA but would need some modifications in order to meet all of the requirements.
- What number of these watersheds overlap with National Seashore land? This could have an impact. It is likely a substantial amount, probably more than 14.
- It seems to me that the number of agreements that need to be made is function of the numbering of bordering towns, not shared watersheds. Yes, if there is one agreement covering all the watersheds shared by two towns, this could bring the number of agreements down. The framework of an intermunicpal agreement might be able to clarify responsibility.
- Would the Commission be willing to take a role in prioritizing the 57 watersheds in taking a holistic approach? This could be helpful. These questions will become easier at the end of the process. The towns might need time to plan, and the Commission could facilitate discussions but has no authority to mandate this.

Ms. Senatori reviewed the different collaborative models to serve the needs of the Clean Water Act and carry out the 208 process, and led the group through a discussion of how each model could be applied to Nauset Marsh (see meeting PowerPoint for more information about the models⁴).

Working Group members had the following questions and comments about the financial modules. Responses from Ms. Senatori and Mr. Niedzwiecki are *italicized*.

<u>Intermunicipal agreement</u>:

- We have talked about this before, but there are different requirements for town
 meetings across the Cape. The state changed the legislation, so all plans do not have to
 go through town meetings. There can be a disconnect among towns with different
 structures.
- These are a good opportunity, since we are all pretty familiar and comfortable with this approach.
- What would be the relationship look like between a Watershed Association and an Intermunicpal Agreement? A Watershed Association would work as the watershed citizen advisory committee.
- What role would the National Park Service have in these agreements? The state cannot be a signing party for intermunicipal agreements between towns, but could sign in with a federal/municipal partnership.

Federal/Municipal Public-Public Partnerships

⁴ http://watersheds.capecodcommission.org/index.php/watersheds/lower-cape/regional-stakeholder-group-lower-cape

• Are these limited to 5 years? They are not necessarily limited to 5 years.

Independent Water and Sewer districts

- The Nauset Regional School district provides a guideline of how this could work. It makes its own budget and allocates costs to the towns. Towns can challenge the budget but not change it. Municipalities could potentially face additional fees. Yes, similarly, water districts normally do a good job. In Barnstable the district had not raised rates in 10 years but was shifting the cost to the town.
- There could be controversy about them following a separate budget when millions of dollars are involved. Are they good for a tax paying public? They tend to have high service quality, but it is a good point. At many times, their meetings not well attended.
- These are also less understood by the public, and might be hard to set up.
- These are common across the country, and engineers know how to set these up easily. It would be simple to find or contract an advisor. We do also have experience in this state, just not in this area. Most people on sewer systems in Massachusetts are on regional systems.
- I want to emphasize the issues of attendance and participation. The problem is people do not come to meetings for these. *Yes, attendance and transparency is important.*
- Chapter 40N allows for the establishment of sewer commissions. They have bonding power, can make betterment assessments, and set rates. Their bonding is off town books, so doesn't add to the capital debt. These could be a good solution.
- Would only the people in the agreement pay? It depends. It would have authority to raise rates and issues bonds to regional users, and/or to generate money from the general tax levy, and could get grants as well.

- Those models have defined legal boundaries. People at the boundaries could wage legal battles to get in and out of these districts, especially given the imprecise nature of the watershed.
- This could make it harder to spread expenses across whole towns.
- What about towns that have already made significant contributions to fixing the nitrogen problem? How would this be accounted for? This is a complicated issue, and there are several options.
- It is not complicated; under 40N towns are completely repaid for both planning and construction expenses.

Water Pollution and Abatement District

- Mr. Niedzwiecki clarified that these are similar to independent water and sewer districts but generally targeted at particular water pollution problem. The state can designate these on its own, though this has never happened. These have been adopted by several communities on their own. The state can intercept town funds to pay for a district's costs, though it cannot raise taxes.
- When asked to provide an example, the Commission reminded the group that the one mentioned at the last meeting, Merrimack Valley, Lawrence District, has worked well.

Independent Authority

• Ms. Senatori suggested skipping over this model, since it was not a good fit for Cape Cod.

Regional Health District

• Mr. Niedzwiecki noted that these are commonly used for dealing with Title 5 health concerns.

The Working Group used TurningPoint to expresses its preference for the models. Using the key pads, each participant selected what they saw as the most promising model. The poll concluded that 75% of the group favored intermunicpal agreements, 14% favored federal/municipal public-public partnerships, 11% favored independent water and sewer districts, and 0% favored water pollution and abatement districts, independent authorities, or regional health districts.

V. IMPLEMENTATION: Financing and Affordability

Mr. Niedzwiecki introduced the Working Group to three modules of a financial model for understanding the financial components of the 208 Plan, noting that the Commission has worked for over six months to create an extensive model that can predict household costs associated with the different watershed scenarios. The goal was to develop a model applicable to the entire Cape but divisible at the town level. The three modules developed analyze affordability, what the Cape can afford; revenue, where the Cape can find money; and finance, how can the Cape best spread the costs.

Mr. Niedzwiecki reviewed the affordability module. The module can identify traditional EPA affordability criteria, establish town financial capability to finance wastewater costs, and identify wastewater payments by other communities as a benchmark. The EPA suggests 2% of median regional household income as the tax rate for wastewater, though the Commission believes this rate is not feasible for Cape Cod. It also wants to avoid situations where communities that have already invested in mitigation programs do not benefit. Mr. Niedzwiecki also emphasized that many people on the Cape think they spend nothing on wastewater at the moment, but the actual yearly cost of septic system maintenance and construction per Cape household is around \$750. Towns need to educate their citizens that this is the current affordability baseline, as this could shift perspectives on the affordability of wastewater programs.

Mr. Niedzwiecki polled the Working Group on "How much would you be willing to pay per year to improve water quality?" The results showed:

- \$100 to \$500: 19% of the group
- Between \$500 to \$1,000: 29% of the group
- Between \$1,000 and \$1,500: 14% of the group
- More than \$1,500 but less than \$2,000: 33% of the group
- Not willing at all: 0% of the group
- Don't know: 5% of the group

For comparison, Mr. Niedzwiecki showed the results for the Cape residents as a whole:

- \$100 to \$500: 40.6%
- Between \$500 to \$1,000: 10.6%
- Between \$1,000 and \$1,500: 1.7%
- More than \$1,500 but less than \$2,000: 2.2%
- Not willing at all: 31.4%
- Don't know: 13.5%

Members provided the following feedback and questions about the affordability module. Responses from Mr. Niedzwiecki or other Commission staff are *italicized*.

- Does the module include the operating cost for the appropriate number of years? Yes, this is based off of engineering solutions. The Commission hopes to demonstrate this at the exercise in July.
- Does this model account for tax-deductible expenses? *No.* Some of the expenses would be tax deductible.
- It is interesting that this group seems ready to pay more to improve water quality. How do you bring the rest of the Cape up to this level? *Hopefully, the finance model will help do this.*
- The biggest issue is convincing people that wastewater is another utility, to be paid monthly just like their cable bill. This needs to be changed.
- Are there people who feel like there is a problem but still are not willing to pay? 25% of

people we talked to for the poll were part of some water quality meeting group, so many people recognize that wastewater is an issue, but most people do not think they are contributing to the problem. We need to educate people that everyone is part of the problem.

- Since 13% of those polled do not know if they would pay, this could be substantial group to sway. Also, if you merge our group's answers into one category of willing to pay between \$100 to \$1,000, our results are fairly close to those of the Cape as a whole. It is great that 50% to agree on this, but the towns need two thirds to get legislation passed.
- If you break down the costs on a monthly or weekly basis, it would look more manageable. Yes, though this can still be a significant increase in property taxes in low tax areas.

Mr. Niedzwiecki explained the revenue module, which is meant to provide macro level revenue sources to finance Cape wide waster solutions and is capable of analyzing revenue sources to finance a watershed, a combination of watersheds, and town wastewater solutions. The Commission is initially aiming to fund 25% of the costs with federal grants, 25% with multiple state revenue sources, and 50% locally with 0-2% SRF financing, with the possibility of principal forgiveness up to 25%.

Mr. Niedzwiecki walked the group through several possible revenue sources for funding nitrogen mitigation programs and collected input from the group through key-pad polling. The results for the percentage of the Cape as a whole who thought a source was a good or great way to fund wastewater projects was also shown when available.

- A 5 cent/gallon motor fuel tax
 - o A great way: 12 %.
 - o A good way: 25%
 - Not a very good way: 46%
 - o A terrible way: 17%
 - o I don't know: 0%
 - Cape wide good or great results: 13.7%
- Earmarking a portion of expected gaming proceeds
 - A great way: 38%
 - o A good way: 21%
 - Not a very good way: 38%
 - A terrible way: 4%
 - o I don't know: 0%
 - Cape wide good or great results: 71.1%
- Earmarking a portion of internet sales
 - o A great way: 23%
 - o A good way: 27%
 - Not a very good way: 18%

A terrible way: 27%

o I don't know: 5%

Cape wide good or great results: 32.2%

Rededicating local option meal and room occupancy tax

A great way: 39%A good way: 35%

Not a very good way: 17%

A terrible way: 9%I don't know: 0%

Cape wide good or great results: 42%

- Septic system installation tax (\$200), pump-out tax (\$20)
 - A great way: 26%A good way: 35%

Not a very good way: 17%

A terrible way: 22%

I don't know: 0%

Embarkation excise tax for ferry service

A great way: 37%A good way: 32%

Not a very good way: 26%

A terrible way: 5%I don't know: 0%

Embarkation excise tax for flights

A great way: 50%A good way: 41%

Not a very good way: 9%

A terrible way: 0%I don't know: 0%

MA Excise Tax: Millage on water consumption of 1-3mills/gallon

A great way: 77%A good way: 23%

Not a very good way: 0%

A terrible way: 0%I don't know: 0%

Mr. Niedzwiecki noted that some of the revenue sources, such as gaming proceeds and the Internet tax, were not politically viable in the foreseeable future, but the Commission is trying to explore every possible source of revenue and would appreciate feedback from the Working Group. Mr. Niedzwiecki also reviewed existing and possible new funding sources in progress. The Environmental Bond Bill has allocated approximately \$4 million, but these would sit under the total bond cap, so the governor would need to be engaged to move on these. Southeast New England Coastal Watershed Restoration Program (SNECWRP), sponsored by the EPA, will

provide \$2 million in federal funds to the region (about \$500,000 to the Cape) in 2014 for nitrogen remediation, and next year the budget should expand to \$5 million. This is the first allocation of federal funds for dealing with nitrogen on the Cape and mirrors funds that go to other areas like Chesapeake Bay. Finally, the Water Infrastructure Bill in the state house will likely move ahead and could move SRF funds beyond 0% to allow for principle forgiveness. Information about the progress of this bill will be made available on the Commission's website. More information about all potential and current funding sources is available on the meeting presentation PowerPoint⁵.

Members had the following comments and questions about potential funding sources. Responses from Mr. Niedzwiecki or other Commission staff are *italicized*.

- Would the motor fuel tax be statewide? Yes.
- I do not think the motor fuel tax is a good idea.
- How can we get people outside of the state to pay? Part of the theory behind the fuel tax is that it will target out of state people who drive to the Cape.
- Could we cut out part of the current gas tax for nitrogen mediation projects on the Cape? Potentially, though there is a lot of demand for those funds to pay for road improvements.
- Would local option meal and room taxes be new? It would increase the current tax or
 possibly redirect funds to wastewater from the tax. However, Barnstable recently
 redirected this revenue, so it can be difficult to protect the funds.
- It is a good way to get large summer visitors to pay some of our costs. We could possibly implement a special tax in some areas, though we do not want to hurt business. Yes, the Chamber of Commerce does not like this tax.
- The septic system installation and pumping tax should be separated into two different taxes. Yes, a pumping tax creates negative incentives.
- We should consider options to shift the burden of costs to visitors, and figure out how to share revenue on a town-wide basis. *Towns could look into residential exemptions*.
- Towns could charge a higher tax for the fast ferry.
- How much would the millage tax on water cost? It would cost most homes about \$12/year.
- Would the millage tax just target the Cape? No, the tax and revenues would both be statewide. The Cape would have to work to get a larger share of the revenue. It should advertise this as an approach to deal with polluted water bodies.
- Why was the millage tax not officially recommended earlier? There were likely special
 interests involved in the process, though it was not aggressively dismissed, so it could
 still be a viable option.

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⁵ http://watersheds.capecodcommission.org/index.php/watersheds/lower-cape/regional-stakeholder-group-lower-cape

- Has there been any recent discussion about extending the 0% loan? No, and while this should be easy to do, the process should be started soon.
- The Cape should find the most accessible things it can tax, which are often far away from use factors. This seems more like an exercise in legislation. Yes, but this exercise tells us about the revenue sources people are more likely to support. The Commission wants to consider all options to help the Cape.

Mr. Niedzwiecki presented the finance module. The finance module identifies costs to a town, watershed, or region by engineering solution, establishing existing wastewater liability by watershed and by town and the resulting household burden to achieve TMDLs, and compiles a financial plan that can be adapted to meet EPA affordability criteria, accounting for existing and new wastewater and capital replacement costs.

Mr. Niedzwiecki and Jennifer Clinton, special projects coordinator at the Cape Cod Commission, presented the user interface of the financial model. Users input technologies at quantified levels to determine construction, monitoring, and upkeep costs; the county might be the best entity to conduct monitoring and manage data to maximize economies of scale. The costs can then be allocated on a user fee, watershed, or town basis. Credit can be put into the model to account for off-Cape contributions from state and federal sources. The user can look at the affordability of the plan using an index with a bar set at 2% of median household income or set a customizable affordability level, since the 2% level may be too high. The aim of the tool is to prove decision support to make agreement easier. Working Group members will have the chance to go through the model and scenario planning during the tabletop exercise.

Working Group members had the following comments and questions about the financial model and related issues. Responses from Mr. Niedzwiecki or other Commission staff are *italicized*.

- How does this take different levels of treatment by wastewater plants into account? This is a simple version of the model. The full version takes multiple engineering considerations into account and takes SRA into account.
- Does it take hybrid systems into account? Yes, it can work with any watershed scenario.
- How does the model take commercial nitrogen production into account? It deals with it on a percentage basis, as it is hard to get exact figures. There are ongoing discussions about how to handle this.
- Is the affordability number related to this model? *EPA sets the affordability level at 2% of the median household income. Here, there is both town and watershed data, which are different. Users can set their own affordability point with the red line.*
- Thank you for choosing this model. It is very helpful to Eastham.

VI. PUBLIC COMMENTS

The public had the following comments and questions. Responses from Mr. Niedzwiecki or other Commission staff are *italicized*.

- Will we be able to look at the whole 208 Draft? Yes.
- In Eastham, we need to look at all of this material and modeling tools. The Commission will work on condensing this information into usable forms for the implementation phase.

APPENDIX ONE: MEETING PARTICIPANTS

	Name	Title
Local Elected	Jason Klump	Brewster Planning Board
Official	Florence Seldin	Chatham Selectman
	Peter McDowell	Dennis Water District Commissioner
	Larry Ballantine	Harwich Selectman
	Sims McGrath	Orleans Selectman
	David Dunford	Orleans Selectman
Appointed/Comm ittee	Russell Schell Paula Miller	Brewster Wastewater Committee
	Charles Harris	Eastham, Chair, Water Management Committee
	Joan Kozar	Harwich Planning Board
	Judith Bruce Robert Donath	Orleans, Former Wastewater Committee
Town Staff	Robert Duncanson	Chatham, Program manger of CWMP
	Heinz Proft	Harwich, Natural Resources Director
	George Meservey	Orleans Planning Director
Environmental	Carole Ridley	Coordinator, Pleasant Bay Alliance
and Civic Groups	John Payson	Chatham Concerned Taxpayers
	Sandy Bayne	Eastham, Orleans Ponds Coalition
	Michael Lach	Harwich Land Trust
	Brooke Williams	Harwich Civic Association
	Lynn Bruneau Judy Scanlon	Orleans Conservation Trust
	Jeff Eagles	Orleans Citizens Peer Review Group
	Charles Ketchuck	Orleans Water Alliance
	Jim Anderson, alternate for Jim McCauley	Orleans Pond Coalition
Federal and State Partners	Sophia Fox	Aquatic Ecologist, Cape Cod National Seashore, National Park Service
	Brian Dudley	Mass Department of Environmental Protection

	Karen Simpson	U.S. Environmental Protection Agency
Other	Lori Rouche	Orleans

Audrey Beene Tom Bryan Mike Domenica Mark Fiegel Mike Giggey Alan McClennen Fran McClennen Petra McDoncok Dan Milz Ed Nash Gina Patia June Robertson

Len Short