

*MA Watershed Permit
Regulation
Mashpee Sewer Plan*
Impact for Popponesset Beach Residents
Version v4

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Objectives

- Summarize and relay information to Popponesset residents regarding the Watershed Permit Regulation adopted July 2023 (314 CMR 21.00)
 - <https://www.mass.gov/doc/314-cmr-2100-final-draft-regulations-clean/download>
 - What is the impact to Popponesset properties?
- Status updates on the current Sewer system in Mashpee
 - What is the focus of the system?
 - What is the overall sewer plan (and financing)?
 - What is the current and future impact to Popponesset properties?
 - Visa vie Watershed Permit Regulation and 5 year vs. 20 year septic upgrade requirements

Watershed Permit Regulations

MA DEP July 2023

- Adopted MA regulations July 2023
 - Included changes to Title 5 septic regs (also July '23, 310 CMR 15.00), plus new set of rules that:
 - Created Watershed Permits – 20 year Town-State Agreements on Nitrogen reduction efforts
 - Also, allows towns to delay mandatory wide-scale septic upgrades
 - Focused on Cape Cod watersheds (of bays & estuaries) that are impaired by nitrogen pollution
 - Mashpee health agent believes covers all of Mashpee (and neighbor towns w/shared waters)
 - However, maps show 90% of Popponesset outside of area (GW flows to ocean) – EXCEPT Wading Place Road and streets within 4-6 houses off Wading Place (GW flows to Popponesset Bay)— Address Lookup: [Nitrogen Sensitive Areas Address Lookup \(arcgis.com\)](https://arcgis.com)
 - Starting January 2024, all new construction must have an Innovative/Alternative (I/A) septic system
 - Areas of planned sewer phases will be looked at individually
 - Towns have 2 years (July 7, '25) to opt into a Watershed Permit-to DEP. If not, ALL EXISTING SEPTIC SYSTEMS WILL NEED TO BE UPGRADED WITHIN 5 YEARS
 - Excluding ocean watershed – 90% of Popponesset ? Need to confirm – DEP contacted

Watershed Regulations, MA DEP July 2023

- Adopted MA Regulation July 2023
 - Included changes to existing Title 5 septic regs (July 2023), plus set of rules that:
 - Create watershed permits
 - 20 year agreements that allow towns to delay mandatory wide-scale septic upgrades
 - Focused on Cape Cod watershed that have been impaired by nitrogen pollution
 - Mashpee health agent believes covers all of Mashpee
 - However, maps show 90% of Popponesset outside of area, EXCEPT Wading Place Road and streets within 4-6 houses off Wading Place!
 - Starting January 2024, all new construction must have an Innovative/Alternative (I/A) septic system
 - Areas of planned sewer phases will be looked at individually
 - Towns have until July 7, 2025, to opt into and file for a watershed permit. If not, ALL EXISTING SEPTIC SYSTEMS WILL NEED TO BE UPGRADED WITHIN 5 YEARS (July 7, 2030)

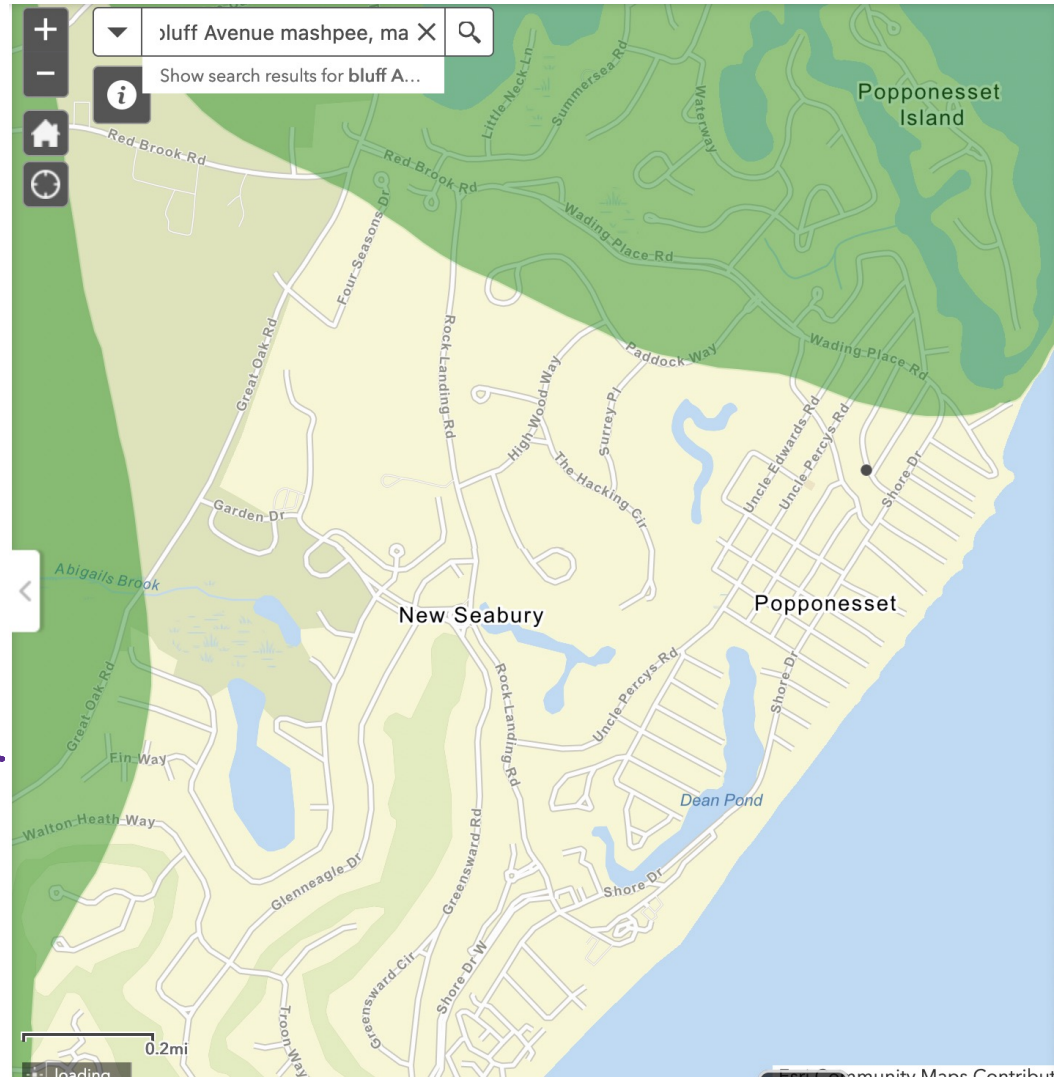
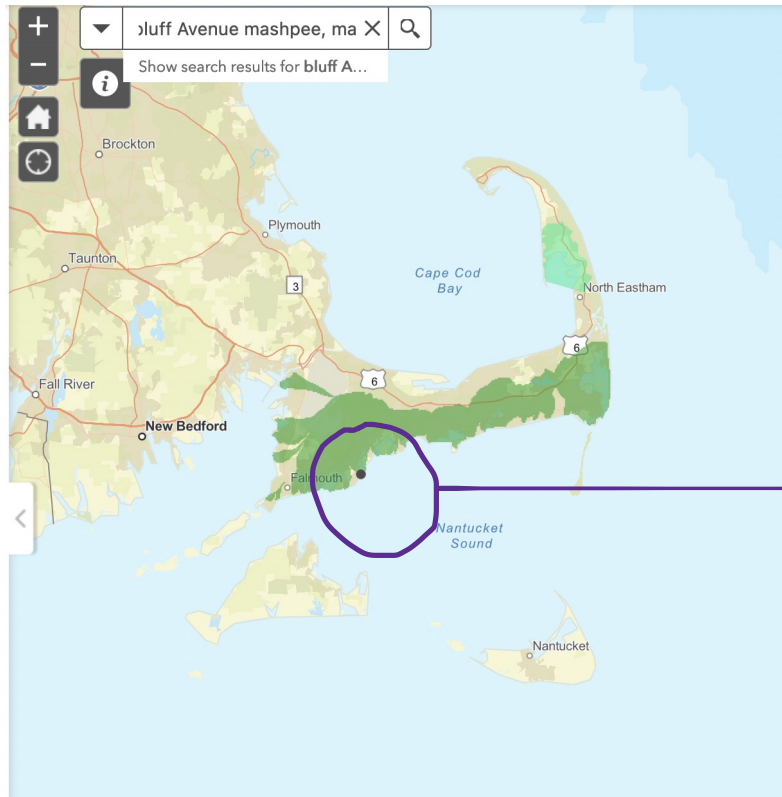
Where is Mashpee on filing Watershed Permit?

- Mashpee intends to file for the Watershed permit, allowing 20 year grace period for forced upgrades to current Title 5 septic to I/A systems
 - If approved for permit, the 5-year timeline for septic upgrades jumps to 20 years provided the town keeps to a timeline for sewers and other nitrogen reducing projects and monitoring water quality of bays
 - What is the overall timeline for the sewer project that impacts the Watershed Permit?
- The Watershed Permit DOES NOT override the requirement for installation of a I/A systems.
 - For new and replacement systems

Watershed Maps for Popponneset-New Seabury (Highwood Section)

Suggests that Only Wading Place Road, portions of Uncle Edwards, Uncle Percys, Bluff, Cordwood, Strawberry and Shore are in the Watershed map area

NOTE: Mary Oleksak confirmed that all of Mashpee is covered in the Watershed area, not as indicated in these maps.



Watershed Permit Action Items

- Review current Regulations with Mashpee Board of Health to:
 - Confirm correct understanding of the Watershed Regulations as summarized
 - Status of the request to MA state for a Watershed Permit by Town of Mashpee
 - Clarification of the Watershed Map showing only a small portion of Popponesset in the current map.
 - Other?

Mashpee Sewer Project

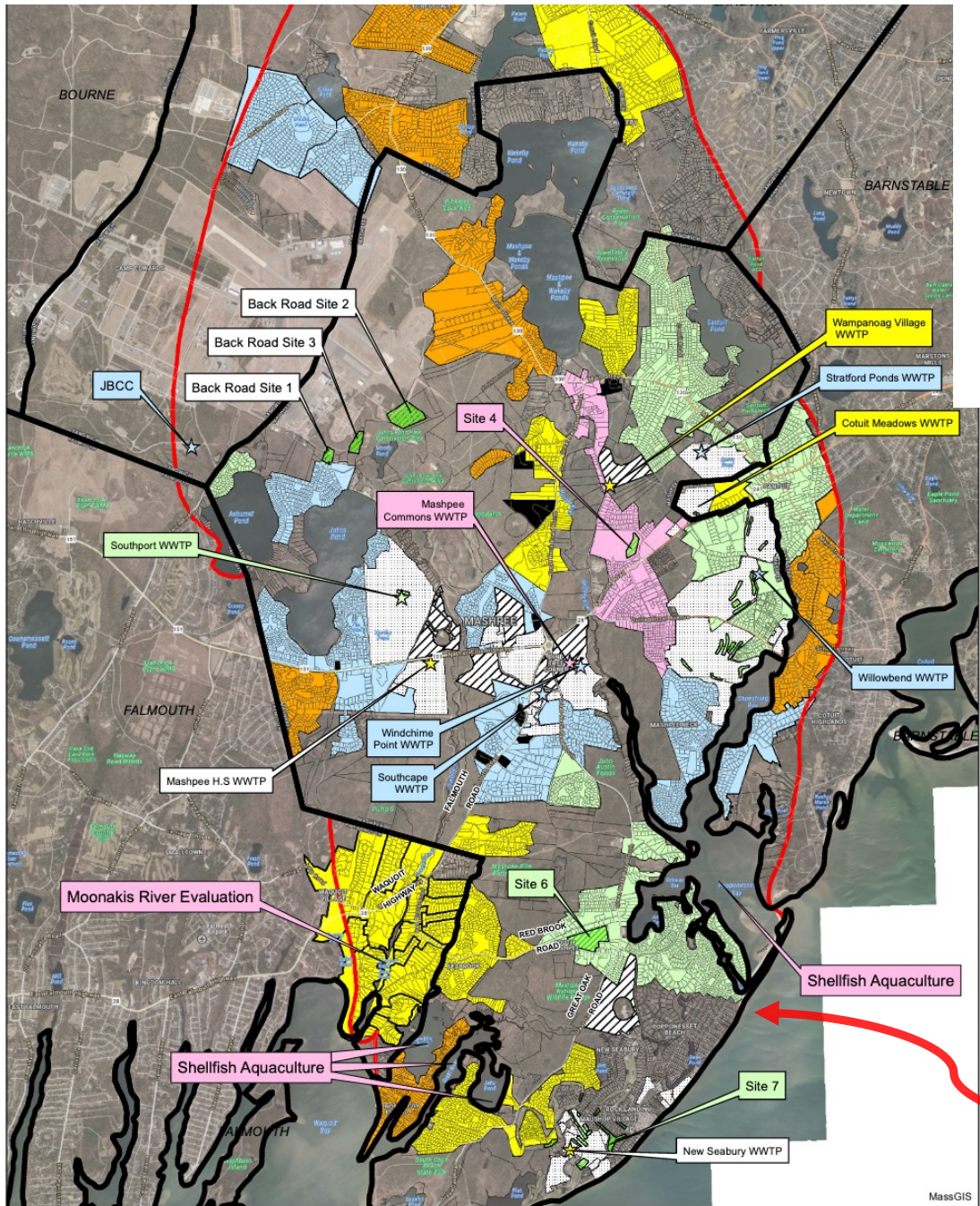
- Objective of Poppy Working Group initiative is to:
 - Provide updated information to Popponesset homeowners on the Mashpee Town Sewer project
 - What is the impact for the Popponesset homeowners?
 - Is Popponesset in the current/future sewer plans?
 - If not, then why?
 - Raise the level of consideration of Popponesset homeowners regarding the sewer initiatives at the town level

Focus of the Mashpee Sewer Project

- To reduce nitrogen load to the rivers, bays and ponds from domestic homes to meet State of MA requirements
 - Popponesset Bay, Mashpee-Wakebe Pond and Santuit Pond water sheds only
- Does not include nitrogen leach directly into the ocean
 - Popponesset area groundwater flows directly into the ocean, presently town and state accept Popponesset groundwater flows to the ocean. (Need to verify)
 - Consider if Popponesset wishes to protect groundwater from nitrogen for ocean water quality in the future, or added to Mashpee's Groundwater Overlay District?

Mashpee Sewer Project Phase Plan

Sewer Map Key (Phase)



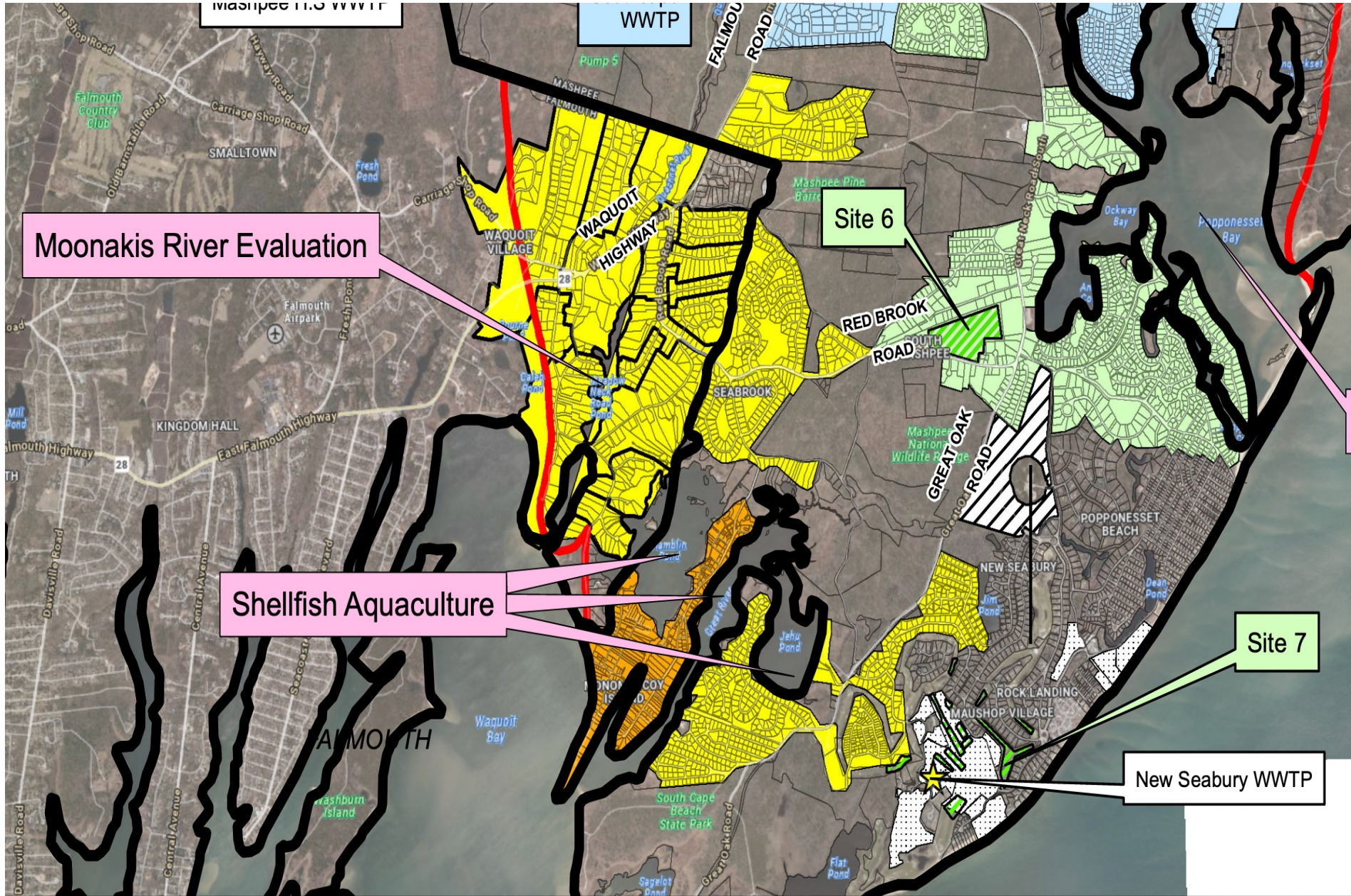
LEGEND

- | | | | |
|------------------------|-----------------------------------|-----------------------------|---------|
| Town Boundaries | Wastewater WWTP (Color per Phase) | Implementation Phase | Phase 3 |
| I/A | Existing Private Sewer | | Phase 1 |
| Planning Area Boundary | Proposed Private Sewer | Phase 2 | Phase 5 |
| Parcel Boundary | Proposed Treatment/Discharge Site | | |

Popponesset and Bright Coves, Poppy Island

- Green area is Phase 3
- Grey area not yet assigned a Phase

Detail--Mashpee Sewer Project Map by Phase



Overview of Mashpee Sewer Project, con't

- Currently in the middle of building Phase 1 of the project
 - When complete, expected to meet 13% of nitrogen removal goals for restoring water quality in Popponesset Bay
 - Includes building the first treatment plant (adjacent to the town dump)
 - Building a collection system that will connect 439 homes north and south of Rt. 28, on time and budget
 - Anticipate treatment plant operational in May 2025, and fully finished in July 2025
 - First batch of homes can connect January-April 2025. Some of Phase 1a homes will not be ready to go on-line until November 2026. Town entered bidding process for Ph 1a in Mid March.

Overview of Mashpee Sewer Project-Con't

- Phase 2 aims to connect an additional 1288 homes farther north and south of Rt. 28
 - Also install more equipment and build discharge beds at the treatment plan
 - November 2023 Town Meeting approved \$7.5M for designing Ph 2
 - Aims to reduce nitrogen loading to Popponesset Bay by an additional 29%. (Ph 1+2 = 42% of nitrogen loading)
- Northern part will include 12.6 miles of pipes, 5 pumping stations, and connect 747 parcels
 - Cost estimated at \$50.8M, reduce watershed nitrogen by an additional 20%
- Southern part will include 7 miles of pipes, 3 pumping stations, and connect 393 parcels
 - Cost estimated at \$31.2M and reduce nitrogen by an additional 9%

Overview of Mashpee Sewer Project-Con't

- Total cost of Phase 2 at \$96M (2026 dollars)
 - Includes additional equipment and expansion of the treatment plant
 - Likely cost an additional \$14.1M
 - Phase 2 design should be finished by 1Q 2025, construction to begin summer 2025

Overview of Mashpee Sewer Project-Con't

- Mashpee proposing Article 4 at the May 11, 2024 town meeting, contingent on passage of a Proposition 2 ½ debt exclusion
 - All homeowners will see an increase in taxes for the sewer system regardless of whether they are connected
 - Unclear if user fee will be included for those houses connected to functioning sewer.
 - Sentiment of Sewer Commission and Selectpersons is NOT to assess an additional betterment for using the sewer system
 - Connection to the system will be mandatory for houses in the designated areas
- ***If the Town doesn't vote to approve the Waste Water plans, then the Town will be in violation and there will be an immediate need to install IA systems Town wide.***

Overview of Mashpee Sewer Project-Con't

Possible debt relief for town

- Phase 2 on the MA Dept. Environmental Protection Intended Use Plan for 2024
 - Mashpee to receive \$50M loan for the project, but the town needs to appropriate the funds before June 2024
- Cape and Islands Water Protection Fund notified towns to expect a 12% subsidy for projects authorized in 2024
 - Trust is adopting a new procedure to increase the principal forgiveness to 25%
- In addition, there is a 3.3% principal forgiveness from the MA Clean Water Trust
 - Overall, the town can see 28.3% of the project covered by external sources
 - 71.7% of the debt to be paid for by Mashpee Taxpayers
 - New funding sources could become available if Mashpee were designated an “environmental justice community”

Overview of Mashpee Sewer Project-Con't

Discussion regarding betterments to pay for sewer use

- Summarized from Mashpee Enterprise, April 5, 2024
- Discussion among Sewer Commission members, Select Board and Town Manager
 - Levy a tax increase for all Mashpee residents to cover costs after debt exclusion
 - Estimated at \$75 per average house value (\$772,000)
 - Would not begin until Fiscal 2029
 - Calculations based on:
 - State of MA approves 0% revolving fund loan request
 - Cape and islands Water Protection Fund provides 25% principal debt relief
 - Mass Clean Water Trust furnishes 3.3% forgiveness
 - Town reserves uncommitted WIIF and Water Stabilization fund revenues for sewerage
 - Property tax increase is based solely on the debt service not covered by these revenue streams

Overview of Mashpee Sewer Project-Con't

Discussion regarding betterments to pay for sewer use

- Discussion regarding “Betterments” (usually paid for by those where sewers are provided)
 - Betterments are temporary taxes that would impact anyone directly connecting to the sewer
 - Betterments are a tax with a deadline (vs. raising tax rate which never goes away!)
 - Select board members urged against betterments as a financial hardship to those connected
 - Betterments applied unequally across the town is unequitable and pits neighbors against neighbors
 - Unclear if there would be an annual user fee (Water in plus water out) for those connected to the system

Overview of Mashpee Sewer Project-Con't

- Where is Popponesset in the Mashpee Sewer project?
 - Not yet on the radar—because the nitrogen reduction is focused on the flow From Zone/Phase 1 and 2 areas--to the the bays and estuaries in Mashpee
 - Popponesset septic effluent deemed to flow directly to the ocean
 - The Mashpee (and other Cape towns) nitrogen reduction focus is not on the ocean waters even though we experience algal blooms due to excess nitrogen
 - Consider changes to Mashpee Groundwater Protection Overlay in the future?
- Consideration of cost of a mandated I/A system vs. cost of sewerage Popponesset
 - Some Popponesset homes are within the watershed maps for mandated septic upgrades, but not part of any sewer plan
 - What is the anticipated timeframe with or without Watershed permit?
 - What are the costs to the town vs. nitrogen reduction as important to the town and environment agencies goals/requirements?
 - Potential issues with sewer pipes installed on Popponesset private roads?
 - Who is responsible? Who would pay? Would roads need to be upgraded to town standards? Would roads become public?