

Environmental Justice Screening Form

Project Name	Town of Truro Comprehensive Watershed Management Plan
Anticipated Date of MEPA Filing	03/31/2026
Proponent Name	Town of Truro, MA
Contact Information (e.g., consultant)	Julia Kollmer, Julia.Kollmer@ghd.com
Public website for project or other physical location where project materials can be obtained (if available)	Wastewater & Watershed Management Truro, MA
Municipality and Zip Code for Project (if known)	Truro, MA (various zip codes)
Project Type* (list all that apply)	Wastewater - CWMP
Is the project site within a mapped 100-year FEMA flood plain? Y/N/unknown	Portions of Truro are within the 100-year FEMA flood plain, as shown in the attached Figure 4.2 from Appendix A of CWMP.
Estimated GHG emissions of conditioned spaces (click here for GHG Estimation tool)	See attached excerpt from Section 6.2 of the Draft CWMP.

Project Description

1. Provide a brief project description, including overall size of the project site and square footage of proposed buildings and structures if known. The Town of Truro (The Project Area) is a coastal community straddling the arm of Cape Cod. The Town is bounded on the north by Provincetown, south by Wellfleet, and to the west and east by Cape Cod Bay and the Atlantic Ocean respectively. The purpose of the CWMP is to present a comprehensive nitrogen management strategy to mitigate nitrogen-related water quality impairments, restore marine habitats, and protect drinking water resources in Truro. To accomplish this, the CWMP presents a Recommended Plan that employs alternative nitrogen management technologies that are anticipated to be more cost-effective, and a Contingency Plan, that relies only on strategies that have General Use approval from MassDEP. The Recommended Plan integrates multiple technologies including stormwater best management practices, fertilizer management, onsite nitrogen-reducing septic systems (currently in Provisional Use Status), cluster wastewater treatment systems, and permeable reactive barriers. An Adaptive Management Approach enables the program to be adjusted over time based on the performance of the technologies selected for implementation or pilot studies. The Recommended Plan includes a cluster wastewater treatment system that is proposed to treat wastewater from approximately 34 homes. The structures associated with the cluster system are anticipated to be less than 0.2 acres.
2. List anticipated MEPA review thresholds (301 CMR 11.03) (if known) The Recommended Plan is not anticipated to exceed any MEPA Mandatory Review Thresholds.

3. List all anticipated state, local and federal permits needed for the project (if known)	
Agency	Agency Permits / Actions
Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA)	CWMP approval.
Massachusetts Department of Environmental Protection (MassDEP)	WP68: Treatment Works Approval for New/Modified Facility associated with Groundwater Discharge Non-Industrial or Reclaimed Water Use Permits – for new pump stations proposed for the project and connection to Provincetown collection system and WWTF. Notice of Intent (NOI) Wetlands Protection Act (WPA) Form 3 (as applicable) and Truro Conservation Commission approvals (as applicable for work within the 100-foot buffer to a wetland (310 CMR 10.00). Emergency Engine and Emergency Turbine Compliance – required for all new emergency or standby engines with a rated power output equal to or greater than 37 kW or emergency turbine with a rated power output less than one megawatt constructed, substantially reconstructed, or altered after March 23, 2006. Underground Injection Control (UIC) permit for the Permeable Reactive Barrier. WP 83: Hydrogeologic Evaluation Report WP 79: Individual Groundwater Discharge Permit WP 95: Watershed Permit Application
Massachusetts Office of Coastal Zone Management (CZM)	Federal Consistency Review.
Massachusetts Division of Fisheries & Wildlife	Natural Heritage & Endangered Species Program (NHESP), MES (321 CMR 10.00) and/or WP (310 CMR 10.00) for work below the mean high-water line, in a fish run, or in a priority or estimated habitat.
Massachusetts Historical Commission (MHC)	Consultation/review for any collection system components and pump stations to be constructed outside of road right-of-way.
Cape Cod Commission	Section 208 Plan Update Consistency Approval
Town of Truro	Building permits for the construction of structures recommended in the CWMP. Wastewater Department sewer connection permitting. Chapter 277 Stormwater Management Rules and Regulations. Article III. Construction and Post-Construction Stormwater Management. Conservation Commission Approvals Planning Board Approvals Zoning Board Approvals
4. Identify EJ populations and characteristics (Minority, Income, English Isolation) within 5 miles of project site (can attach map identifying 5-mile radius from EJ Maps Viewer in lieu of narrative)	
Per the EJ Maps Viewer, the following EJ Populations are within the Project Area: <u>Block Group 1, Census Tract 102.08</u> Criteria: Income – Minority Population 8% Median household income: \$47,554 (56% of MA median household income). Households with language isolation: 0%. Total population: 892 individuals in 297 households. <u>Block Group 5, Census Tract 101</u> Criteria: Income – Minority Population 18% Median household income: \$54,688 (65% of MA median household income).	

Households with language isolation: 12%.

5. Identify any municipality or census tract meeting the definition of “vulnerable health EJ criteria” in the [DPH EJ Tool](#) located in whole or in part within a 1 mile radius of the project site

Per the EJ Maps Viewer, there are no census tracts with Vulnerable Health EJ criteria within a 1-mile radius of the project site.

6. Identify potential short-term and long-term environmental and public health impacts that may affect EJ Populations and any anticipated mitigation

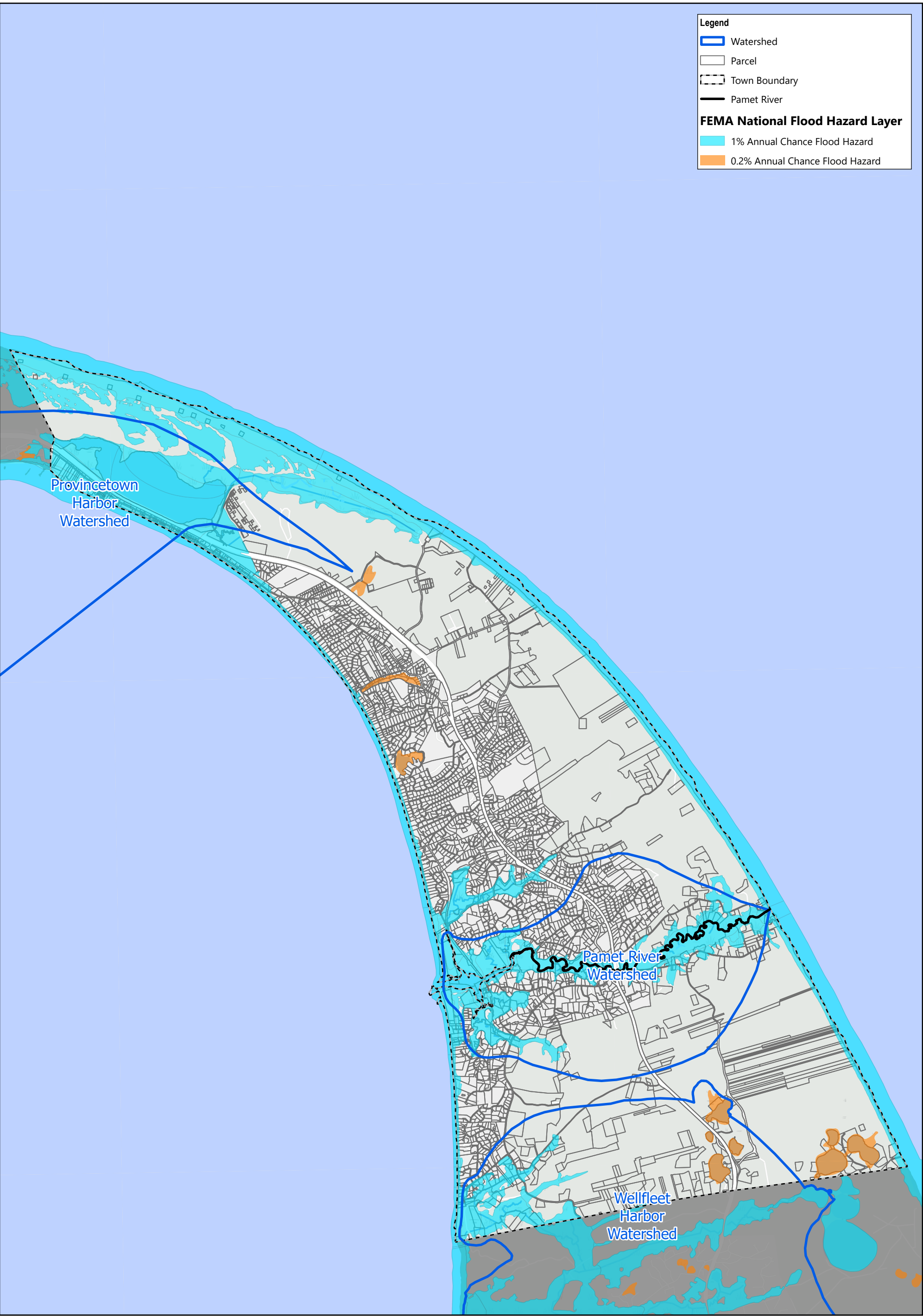
The short-term temporary project construction impacts will have a much greater public health impact of improvement to water quality; therefore, improving the environment and economy associated with improved water quality. See attached excerpt from Section 9.4.3 of the Draft CWMP.

7. Identify project benefits, including “Environmental Benefits” as defined in 301 CMR 11.02, that may improve environmental conditions or public health of the EJ population

The primary benefit of this project is improved water quality through improved nitrogen management. This will benefit the entire community by enhancing environmental health and supporting a stronger local economy. The project will increase access to clean natural resources—including estuarine, freshwater, and groundwater systems—thereby promoting greater use and enjoyment of recreational areas such as waterways, freshwater ponds, and public bathing beaches.

8. Describe how the community can request a meeting to discuss the project, and how the community can request oral language interpretation services at the meeting . Specify how to request other accommodations, including meetings after business hours and at locations near public transportation.

A meeting request can be made through the Town of Truro’s Health Department. Please include accommodations needed as part of the meeting request.



6.2 Base Case and Recommended Plan Greenhouse Gas Evaluation

In accordance with the MEPA Greenhouse Gas Emissions Policy and Protocol, a Base Case (existing onsite septic systems) and Recommended Case (Recommended Plan) Greenhouse Gas (GHG) evaluation was conducted. Because existing software used to calculate GHG emissions and energy consumption, such as the USEPA Energy Star tool, uses building area to calculate emissions, an alternative approach was developed for this largely decentralized plan.

The GHG evaluation uses septic system and centralized system CO₂ emissions estimates developed by the Intergovernmental Panel on Climate Change (IPCC), following methodology outlined in the 2023 New York State Greenhouse Gas Emissions Sectoral Report #4.

The IPCC estimates that centralized systems emit 108.9 kg of CO₂ equivalent per capita per year, and individual onsite septic systems generate 353.3 kg CO₂ equivalent per capita per year. Methane is generated by microorganisms decomposing organic material in wastewater under the largely anaerobic conditions in a septic system. A wastewater treatment facility relies more on aerobic treatment methods and uses methane capture mitigate the amount of emissions produced. According to the 2025 Truro Housing profile prepared by the Cape Cod Commission, there are approximately 1,675 year-round residents in 1,053 households, making the average household size 1.6 people. This data was used to estimate CO₂ emissions for the Base Case (wherein all residents are served by septic systems) and The Recommended Case (wherein a variety of technologies are implemented in accordance with the Recommended Plan described in Section 5). Tables 6.7 and 6.8 summarize the findings of the analysis.

Table 6.7 Base Case GHG Emissions Estimate

Base Case Infrastructure	Population Served	Estimated Emissions (tons CO ₂ per year)
Traditional Onsite Septic Systems	1,675 (all residents)	652
Total	1675	652

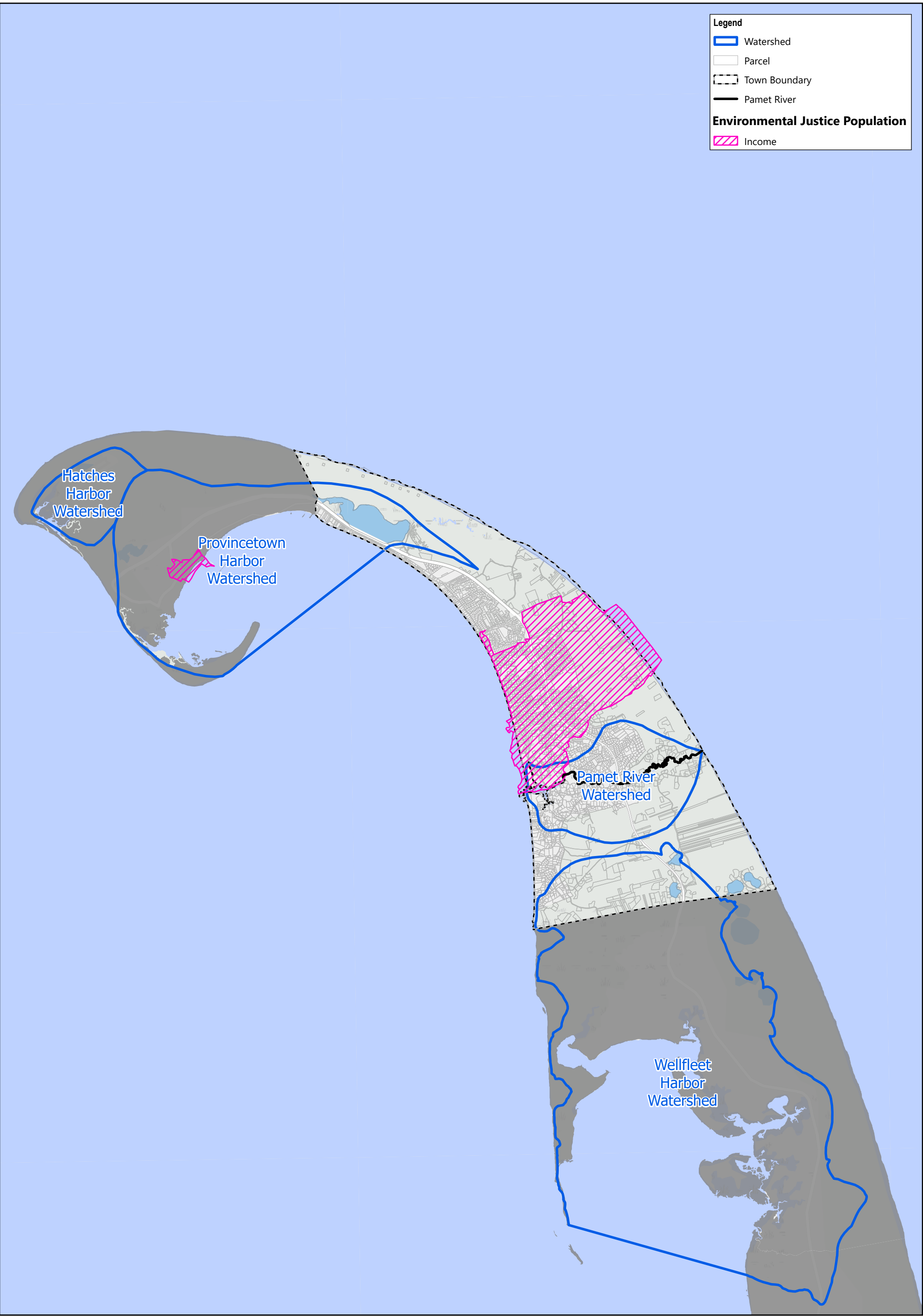
Table 6.8 Recommended Case GHG Emissions Estimate –Wastewater Management Strategies

Recommended Case Components	Year Round Population Served (Wastewater Infrastructure)	Estimated Emissions (tons CO ₂ per year)
Traditional or Nitrogen-Reducing Septic Systems ¹	1,625 (all residents)	631
Cluster System (34 properties) ²	54	7
Total	1675	638
Notes:		
1. It is anticipated that major generation sources are similar for both conventional and nitrogen-reducing system types. Should more data become available, GHG emissions analyses can be updated in Watershed Management Plan Updates.		
2. The proposed cluster system is classified as a centralized system.		

6.3 Opportunities for Energy Generation and Recovery

6.3.1 Solar Photovoltaic (PV) Systems

Solar PV arrays can be used by facilities with adequate space to produce renewable energy onsite. Arrays can be ground-mounted or roof-mounted depending on the orientation of the facility's building and available roof space. South facing roofs with minimal shadow interference provide the most ideal conditions for a roof-mounted solar array. A



various non-traditional methods into the plan as they demonstrate feasibility and effectiveness. This Adaptive Management approach will enable the Recommended Plan to be adjusted based on the monitoring results of the environmental and economic impacts associated with implementation of the Recommended Plan. Coordination with MassDEP will occur through the Adaptive Management process.

9.4.3 Planned Mitigation Measures: Environmental Justice

The Recommended Plan intersects several EJ parcels as noted in Section 8. Temporary negative impacts from construction may affect EJ communities, and construction impact mitigation measures will be implemented to minimize impacts to EJ populations and the rest of the community. Table 9.2 summarizes the mitigation measures anticipated during implementation of the Recommended Plan.

Table 9.2 *Mitigation Measures Summary Table*

Category	Proposed Mitigation Measure	Implementation	Preliminary Schedule
General Construction – Site Access/Public Safety Impact	The site(s) shall be secured to prevent unauthorized entry to the construction site, and to protect existing and adjacent facilities and properties. Supplemental lighting, signs, railings, and construction barriers shall be used as necessary to provide safety to employees, construction workers, visitors, and the general public during the construction process in accordance with OSHA and other applicable regulations. Police details and detours will be implemented in accordance with Traffic Control Plans included with the Project Contract Documents.	Contractor	During Construction
General Construction – Stormwater	Provisions for stormwater management and erosion control shall be managed in accordance with the approved SWPPP and NPDES General Permit, which may be required for cluster system construction.	Contractor	During construction
General Construction – Construction Debris	The site(s) will be maintained free of waste materials, debris, and trash following each day of work. Waste and other debris will be collected and disposed of off-site periodically. At no time during construction will the dumping of spoil material, waste, trees, brush, or other debris be allowed into any stream corridor, any wetland, any surface waters, or any unspecified location. The permanent or unspecified alteration of stream flow lines is not allowed during construction. Recycling of waste and construction debris will likely be mandated as well and should always be considered during construction.	Contractor	During Construction
General Construction – Noise and Dust Control	Normal construction hours will be between 7 a.m. and 5 p.m. during normal business days. No work will be allowed on Holidays, and the Contractor will be required to provide adequate dust control measures during construction.	Contractor	During construction
Wastewater Facilities Construction Mitigation – Resource Areas	As necessary, appropriate Notice of Intent documents and Request for Determinations will be filed relative to work proposed with buffer areas or resource areas. Orders of Conditions, as received, will be incorporated into the Construction Documents.	Town / Contractor	Permitting prior to construction; mitigation during construction through compliance with Order of Conditions.

Category	Proposed Mitigation Measure	Implementation	Preliminary Schedule
Wastewater Facilities Construction Mitigation – Flooding	To the extent practicable, facilities will be located out of flood hazard zones. Because pump stations are typically located in low lying areas to maximize gravity sewer service, additional provisions for coastal resiliency and flood protection will need to be made to mitigate impacts. During construction, management of dewatering and protection from storms will be required.	Town / Contractor	During design and construction
Wastewater Facilities Construction Mitigation – Aesthetics	New pump stations with superstructures will compliment and be consistent with neighborhood aesthetics as appropriate. Vegetative screens will be employed, if determined necessary, for aesthetic reasons.	Town / Contractor	During design and implemented during construction
Wastewater Facilities Construction Mitigation – Archaeological	Development of a Post Discoveries Review Plan (if necessary). Work will be halted if archaeological resources are uncovered during construction.	Town / Contractor	Plan development prior to bidding; implementation during construction
Wastewater Facilities Construction Mitigation – General	A Resident Representative will be employed to ensure that the project area is kept clean and that mitigation measures are met.	Town	During construction
Adaptive Management – TMDL Compliance	Implementation of an Adaptive Management process which will consider the performance of the demonstration projects and incorporate cost-effective non-traditional methods into the plan once they demonstrate feasibility. A Quality Assurance Project Plan (QAPP) will be developed for monitoring programs associated with each strategy. Milestone reports will be developed to summarize ongoing water quality monitoring results, and the Plan will be adjusted accordingly.	Town	Pre- and post-construction/ implementation

Funding of these projects and mitigation measures is all anticipated to come from Town Funding and to be supported by various grant and loan opportunities including Natural Resources Conservation Service (NRCS), the Massachusetts State Revolving Fund (SRF) program, Southeast New England Program (SNEP) Grants, Cape and Islands Water Protection Trust, Coastal Zone Management (CZM) grants, and additional funding sources. Mitigation measure costs for the outlined mitigations measures have been incorporated into the project cost estimates outlined in Section 5.

10. Scope and Limitations

This report has been prepared by GHD for Town of Truro and may only be used and relied on by Town of Truro for the purpose agreed between GHD and Town of Truro as set out in section of this report.

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