

# Chepachet Village Wastewater Improvements

An incentivized, decentralized approach to wastewater management in a rural village.



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## Project Partners

Southeast New England Program  
Rhode Island Infrastructure Bank  
Rhode Island Department of Environmental Management  
Glocester Business Association  
Glocester Economic Development Commission

## Introduction

Chepachet Village is the civic, economic and historic center of the Town of Glocester. There is currently no public water or sewer infrastructure in the Village. Many existing structures in the Village are situated on small lots where it is impossible to site drinking water wells and onsite wastewater systems that meet current regulations for separation.

Using RIDEM wastewater permit data, the Town identified known/suspected cesspools and holding tanks which are likely discharge points as the frequency of required pump outs is unlikely to be met by all property owners.

Of the buildings in the Village that have cesspools, several have leached into the Chepachet River, posing significant surface water quality concerns. The Chepachet River flows into the Blackstone River and Narragansett Bay. The longer loading rate of the soil coupled with a high water table in the Village significantly limits the types of wastewater systems available and the longevity of existing systems. The entire Village of Chepachet is situated on the Branch River Aquifer, therefore the protection of this aquifer for existing and future groundwater supply is essential.



## Objectives

1. Fund and construct as many wastewater upgrades as financially feasible in Chepachet Village.
2. Establish an innovative, third party management entity to ensure the long term viability of these wastewater investments.
3. Improve groundwater quality and reduce the number of properties using point of entry systems on drinking water wells.
4. Restore the surface water quality of the Chepachet River.

## Short Term Implementation

This program will develop a tiered financial incentive program to offset the costs of wastewater upgrades, prioritizing cesspools, holding tanks, on-site wastewater treatment systems (OWTS) in public well radius, OWTS within 200' of the River, and constrained properties necessitating shared systems. Additional incentive will be provided for upgrading to A/I nitrogen reducing systems. A condition of the financial incentive will be membership in the wastewater management district for the long term operation and maintenance of the system, memorialized in a recorded deed restriction.

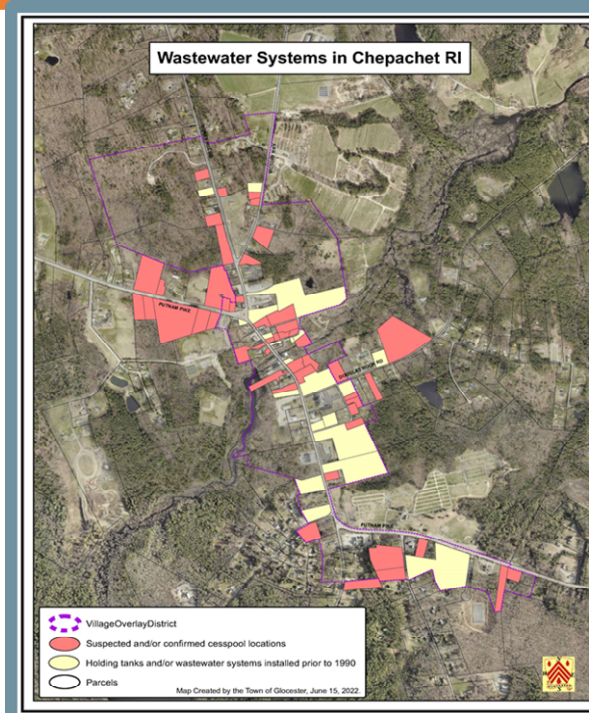
## Long Term Implementation

The long term implementation goal of this project is to establish a system where the Town defines the Responsible Management Entity (RME) area, membership and provides or facilitates direct financial incentive for actively participating in the RME while the ongoing operation and maintenance of the RME exists entirely outside of the local government. The Town will explore avenues by which the operation and maintenance of wastewater treatment could be entirely privatized and establish a model that could be replicated by smaller, rural communities.

## Village Revitalization

The Town adopted the Chepachet Village Revitalization Plan in 2021. The plan builds on all previous planning efforts to develop a targeted revitalization plan for Chepachet Village to create a five-year implementation and investment plan to identify opportunities for scattered site affordable housing integrated within mixed-use development, preserve historic resources, strengthen and expand small businesses, improve recreational resources, improve buildings and infrastructure, implement creative re-use of property, increase tourism, address environmental challenges and develop infill recommendations. This plan assesses current properties, envisions improvements and sets a roadmap to target investments in Chepachet Village.

**One of major obstacles to plan implementation in general identified is the lack of public sewer infrastructure and remaining cesspools in Chepachet Village.**



## Climate Change

Cesspools are considered harmful to the environment and to public health. They do little to contain the spread of wastewater from seeping into drinking water wells and rivers. Heavy rains, one of the primary climate change vulnerabilities identified in Glocester will cause these cesspools to overflow more frequently polluting drinking water and deteriorating riverine water quality. It is anticipated that these heavy rain events will only continue to amplify in intensity. If these wastewater issues are not addressed, the pollutants entering the Chepachet River and flowing downstream to the coastal waters will only increase as in the future as the impacts of climate change intensify.

Addressing these wastewater issues now will not only restore the surface water quality of the Chepachet River but will also improve the drinking water quality in the Village.



## Conclusion

Water quality is a complex issue that faces many communities throughout the SNEP region and water quality as it relates to wastewater management is particularly relevant to rural municipalities. This program can provide a toolkit for rural wastewater management in the SNEP region for not only developing holistic, yet localized solutions but outlining a path to implementation that is manageable and financially feasible for smaller municipalities. The cumulative impact of replicable localized solutions can have broad reverberations, catalyzing regionwide environmental restoration.

