

WATER THREAT LEVEL
LOW

WATERSHEDS: OUTER CAPE
PAMET RIVER



The Problem

For the purposes of the §208 Plan Update, areas of wastewater need are primarily defined by the amount of nitrogen reduction required as defined by the Total Maximum Daily Load (TMDL) and/or Massachusetts Estuaries Project (MEP) technical report. An MEP report has not been completed for the Pamet River watershed.

- **MEP TECHNICAL REPORT STATUS:** Not Being Studied
- **TMDL STATUS:** Not Being Studied
- **TOTAL WASTEWATER FLOW:** 31 million gallons per year (MGY)
- **UNATTENUATED SEPTIC NITROGEN LOAD:** 3,068 kilograms per year (kg/Y)
- **ATTENUATED NITROGEN LOAD:** Not assessed

CONTRIBUTING TOWN

- **TRURO**
- **DISCUSSION:** A portion of the land area in this watershed is within the boundaries of the Cape Cod National Seashore and any nitrogen load that results is not within control of the town.

PAMET RIVER ESTUARY

- **EMBAYMENT AREA:** 47 acres

- **EMBAYMENT VOLUME:** Unknown
- **2012 INTEGRATED LIST STATUS:** Category 4A for fecal coliform
 - Category 4A: TMDL completed
 - www.mass.gov/eea/docs/dep/water/resources/07v5/12list2.pdf

PAMET RIVER WATERSHED

- **ACRES:** 2,647
- **PARCELS:** 770
- **PERCENT RESIDENTIAL PARCELS:** 67%
- **PARCEL DENSITY:** 3.4 acres per parcel (approx.)
- **WASTEWATER TREATMENT FACILITIES:** 0

Freshwater Sources

PONDS

- **NUMBER OF IDENTIFIED SURFACE WATERS:** 4
- **NUMBER OF NAMED FRESHWATER PONDS:** 0
- **PONDS WITH PRELIMINARY TROPHIC CHARACTERIZATION:** 0
- **(LISTED IN APPENDIX 4C, PONDS WITH WATER QUALITY DATA)**
- **2012 INTEGRATED LIST STATUS:** None listed

The Pamet River system is an estuary with shoreline located entirely in the Town of Truro. The River receives tidal flow from Cape Cod Bay with a 9-foot fluctuation. The River extends approximately 2 miles to a flapper valve at the Route 6 overpass and becomes a freshwater drainage area that extends nearly all the way to the Atlantic Ocean. The Pamet River is an interlens discharge area that receives groundwater flow from the Chesquessett Lens to the south and Pamet Lens to the north. The River supports a variety of recreational uses including boating and fin fishing.

WATERSHEDS: OUTER CAPE

PAMET RIVER

■ **DISCUSSION:** The Town of Truro participates in the Pond and Lake Stewardship (PALS) program that has helped establish baseline pond water quality. Truro has also benefited from a Cape Cod Commission ponds assessment funded through Barnstable County.

■ **SMALL VOLUME WELLS:** 6

■ **DISCUSSION:** All residents are served by private wells.

Degree of Impairment and Areas of Need

High density development and the associated impervious areas result in significant amounts of stormwater entering Pamet River. Stormwater runoff transports a variety of pollutants and, if untreated, contributes to decreasing water quality and beach closure occurrences. To address this issue the Pamet River Stormwater Mitigation Project report (2011) identifies 25 ocean outfalls conveying untreated stormwater runoff into

the Harbor. The report provides descriptions and remediation status for a number of the outfalls and has prioritized them in order of need. To date, more than a dozen of the outfalls are in a various state of final design, implementation or have been completed to mitigate stormwater runoff.

As an MEP report has not been developed for Pamet River, wastewater needs are determined based upon other factors, such as Title5 compliance.

The 2012 Integrated list of Impaired Waters lists Pamet River as being a Category 4A impaired water body for fecal coliform.

STREAMS

■ **SIGNIFICANT FRESHWATER STREAM OUTLETS:** 1
■ Pamet River

DRINKING WATER SOURCES

■ **WATER DISTRICTS:** 0
■ **GRAVEL PACKED WELLS:** 0

LOCAL PROGRESS

TRURO

The Town of Truro approved funds for a Comprehensive Wastewater Management Plan (CWMP), acknowledging that protection of private-well drinking water is of paramount importance, and established a water resources oversight committee. The CWMP kicked off in 2012 with a

focus on septic systems and stormwater-runoff and their impact on drinking water and embayment water quality. The planning process seeks to assemble existing data, and develop a GIS program to evaluate land and water data, historic septic-system management information and

key areas for further analysis and characterization. The committee is in the process of reviewing the phase I of the draft water management plan.

Local efforts in these towns are described in more detail in Chapter 6.