



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 yet been completed for the Sesuit Harbor watershed and a Total Maximum Daily Load (TMDL) has not been established.

- **MEP TECHNICAL REPORT STATUS:** Data Collection Phase
- **TMDL STATUS:** In Progress
- **WASTEWATER FLOW:** 95 MGY (million gal per year)
- **UNATTENUATED SEPTIC NITROGEN LOAD:** 9,424 Kg/Y (kilograms per year)
- **ATTENUATED NITROGEN LOAD:** Not assessed

CONTRIBUTING TOWN

- **DENNIS**

SESUIT HARBOR ESTUARY

- **EMBAYMENT AREA:** 30 acres
- **EMBAYMENT VOLUME:** Unknown
- **2012 INTEGRATED LIST STATUS:** Category 4a for fecal coliform

- Category 4a: TMDL is completed
- www.mass.gov/eea/docs/dep/water/resources/07v5/12list2.pdf

SESUIT HARBOR WATERSHED

- **ACRES:** 1,644
- **PARCELS:** 1,589
- **% DEVELOPED RESIDENTIAL PARCELS:** 83%
- **PARCEL DENSITY:** 1 acres per parcel (approx.)
- **WASTEWATER TREATMENT FACILITIES:** 0

Freshwater Sources

PONDS

- **IDENTIFIED SURFACE WATERS:** 4
- **NUMBER OF NAMED FRESHWATER PONDS:** 4
- **PONDS WITH PRELIMINARY TROPHIC CHARACTERIZATION:** 2
(Listed In Appendix 4C, Ponds With Water Quality Data)
- **2012 INTEGRATED LIST STATUS:** 1
 - Scargo Lake: 3 (No uses assessed)

The Sesuit Harbor system is a modified estuary with shoreline located entirely in the Town of Dennis. The entrance to the harbor is armored and the lower portion of the estuary is heavily used for recreational and commercial fishing. Sesuit Creek is a marsh-dominated tributary to Sesuit Harbor. The estuary supports a variety of recreational uses including boating, swimming, shell fishing and fin fishing.

STREAMS

- **SIGNIFICANT FRESHWATER STREAM OUTLETS: 1**
 - Sesuit Creek
 - Qualitative data unavailable
 - 2012 Integrated List Status: Category 4a for fecal coliform (TMDL is complete)

DRINKING WATER SOURCES

- **WATER DISTRICTS: 1**
 - Dennis Water District
- **GRAVEL PACKED WELLS: 0**
- **SMALL VOLUME TRANSIENT WELLS: 0**

Degree of Impairment

Since there is no evidence of water quality impairment at this time, wastewater needs are determined based upon other factors, such as Title5 compliance.

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

LOCAL PROGRESS

Dennis

The Town of Dennis contributes 100% of the nitrogen load to the Sesuit Harbor watershed. To date, the town has submitted a Needs Assessment (2005) listing areas of concern (AOCs) for drinking and wastewater related infrastructure. Dennis identified the AOCs through an analysis of factors including onsite septic system failures

and site constraints, shellfish closure areas and, as a Massachusetts Estuaries Project (MEP) report for Sesuit Harbor has not been published, possible MEP nitrogen loading.

Local efforts in Dennis are described in Chapter 6.