

GLOSSARY OF TERMS

Betterment: A charge assessed by a municipality under Massachusetts General Laws Chapter 80 to property owners whose properties receive a benefit from a public improvement, such as the construction or extension of sewer.

Clean Water Act: Federal law that regulates pollution discharges into surface waters and establishes water quality standards to protect rivers, lakes, and coastal waters.

Clean Water State Revolving Fund (CWSRF): Financing program providing low-interest loans for wastewater, stormwater, and water quality improvement projects to help meet Clean Water Act requirements.

Comprehensive Wastewater Management Plan: A long-term municipal planning process to manage wastewater and meet environmental regulations, particularly related to nitrogen pollution in coastal waters, including identification of areas not suitable for long-term reliance on on-site wastewater systems.

Decommissioning: Abandonment or elimination of (in this case) an existing septic system.

Dwelling Unit: A room or enclosed floor space used, or to be used, as a habitable unit for one family or household, with facilities for sleeping, cooking and sanitation.

Easement: A legal right to use another's land for a specific limited purpose. Sewer easements give the town the right to access the property for the installation and maintenance of sewer lines.

Emerging Contaminants: Pollutants not fully removed by septic systems that may enter groundwater and affect water quality.

Eutrophication: The process by which excess nutrients cause increased plant and algae growth, leading to degraded water quality.

Force Main: A pressurized sewer pipe that conveys wastewater in a situation where gravity sewage flow is not possible. Pumps push the sewage through the pipe from lower to higher elevations.

Gravity Sewer System: Gravity sewer systems consist of a network of underground sewer pipes that rely on gravity (a higher elevation to a lower elevation) to convey wastewater.

Grinder Pump: A grinder pump receives wastewater from a home or business and pumps it into a low-pressure or gravity sewer line. As its name suggests, the grinder pump macerates the solids present in the wastewater to a slurry in the manner of a kitchen sink garbage grinder.

Harmful Algal Blooms (HABs): Rapid growth of algae that degrades water quality by reducing oxygen levels, blocking sunlight, and releasing toxins harmful to aquatic life and human health.

GLOSSARY OF TERMS (CONTINUED)

Innovative/Alternative (I/A): A type of advanced septic system that includes components to reduce the amount of excess nutrients (typically nitrogen) from wastewater that are discharged to the groundwater.

Low Pressure Sewer System: A low pressure sewer system uses small-diameter pipes and grinder pumps to transmit the flow from a lower elevation to a higher elevation. These low-pressure pipes can be installed in shallower trenches, which is also beneficial for narrow roadway installation. The grinder pump unit, which is installed adjacent to each home, collects all the wastewater from the home and grinds it into slurry to be pushed through the smaller diameter pipe.

Massachusetts Estuary Project (MEP): Regional study of coastal embayments that examined nitrogen pollution and its impact on water quality, including contributions from on-site wastewater systems.

Nantucket Harbor Shimmo Sewer Extension: Sewer infrastructure project constructed in 2019 to provide off-site wastewater service to the Shimmo area, identified in the Town's 2004 and 2014 Comprehensive Wastewater Management Plans and implemented as the first Needs Area sewer project.

Needs Area: Areas identified in the Town's Comprehensive Wastewater Management Plan where long-term reliance on septic systems is not sustainable and off-site wastewater solutions are recommended.

Per- and Polyfluoroalkyl Substances (PFAS): Group of manufactured chemicals that septic systems do not fully remove, allowing them to enter groundwater where they can remain for long periods and raise water quality and health concerns.

Pump Station: A station with pumps to mechanically lift wastewater from a lower elevation to a higher elevation.

Sewer Capacity Fee: Fee assessed by the Town for new sewer connections or property changes that increase the potential flow to the municipal sewer system. The fee helps recover the cost of providing sewer system capacity and is calculated based on projected wastewater flow. Payment is required before a sewer connection permit is issued and may be paid upfront or apportioned over time.

Sewer Master Plan: A town planning document that builds on the CWMP to determine how future wastewater flows will connect to and be conveyed through the existing sewer collection system, providing guidance for sewer extensions, routing, and system capacity to support future development and wastewater needs.

Sewer Connection Permit Application Fee: A fee assessed by the Town for each dwelling that connects to the town sewer, which covers the cost to review the plans for and inspect the installation of each new connection.

GLOSSARY OF TERMS (CONTINUED)

Stub: The portion of each dwelling's sewer service connection that is constructed by the Town's contractor in the roads/traveled right-of-way's. The sewer stub extends from the mainline sewer to the edge of the road/traveled right-of-way and is where each individual property owner's on-lot sewer connection will connect to from each dwelling.

Title 5: The State Environmental Code, the department's regulation for the siting, construction, inspection, upgrade and expansion of on-site sewage treatment and disposal systems and for the transport and disposal of septage.

Turbidity: Measure of how cloudy or murky water is due to suspended particles, which can reduce water clarity and affect aquatic life and water quality.

Watershed: The area of land where all rainfall and groundwater flow to the same waterbody. The Somerset Needs Area lies within both the Hummock Pond and Miacomet Pond watersheds.

Watershed Protection Zone/District: For waterbodies identified in a Massachusetts Estuaries Project (MEP) report, the Watershed Protection Zone is the same area as the watershed and is established to protect water quality. These watershed boundaries were adopted by the Town as Watershed Protection Districts, such as the Hummock Pond Watershed Protection District.

Wastewater Treatment Facility (WWTF): A facility containing a series of physical, chemical and biological processes by which pollutants are removed from wastewater prior to discharge to either ground water or surface water.

Zone II Wellhead Protection Area (WPA): The land area that provides groundwater to a public drinking water well and is protected to prevent contamination.