

IS SEWAGE A PROBLEM?

Raw or poorly treated sewage is harmful to human health and water quality. Typhoid, hepatitis, cholera, gastroenteritis, and other waterborne diseases may infect people who swim in contaminated waters. People may also become ill by eating shellfish contaminated with viruses and other microorganisms contained in sewage discharge.

Sewage is also harmful to water quality. Because the microorganisms in sewage need oxygen, any effluent discharged to waterways reduces the amount of oxygen available to fish and other forms of aquatic life. Furthermore, the heavy nutrient load in sewage promotes excessive algal growth. As the algae multiply, they prevent life-sustaining sunlight from reaching subsurface vegetation. When the algae die, they are decomposed by bacteria which further reduce levels of dissolved oxygen.

WHAT CAN YOU DO?

HOLDING TANKS

Install a holding tank. Visit the New Jersey Clean Marina website at www.njcleanmarina.org to obtain information about installing a sewage holding tank.

Use good plumbing to control holding tank odor. Fiberglass and metal tanks are highly impermeable, as are specially labeled flexible "sanitation hoses" and PVC piping. Hose runs should be as short and as straight as possible. Wherever practical, use rigid pipe

below the level of the holding tank and in other areas where sewage tends to accumulate. Keep the number of connections to a minimum and ensure that seals are tight.

What Does the Law Say?

According to federal and state law, it is illegal to discharge raw sewage into the water.

All vessels with installed toilets must have a Marine Sanitation Device (MSD):

- Type I systems mechanically cut solids and disinfect waste before they are discharged into the water. The treated discharge must meet a standard for bacteria count and must not contain visible solids. Type I Systems must bear a U.S. Coast Guard certification label.
- Type II systems treat sewage to a higher standard and generally require more space and energy. Type II systems must also have a Coast Guard certification label.
- Type III systems do not discharge sewage. Holding tanks are the most common Type III system. Incinerating systems are another option. A Coast Guard label is not required.

Vessels 65 feet and under may have any of these three types of MSDs. Vessels over 65 feet must have a Type II or III system.

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HOLDING TANKS (Cont'd.)

Use enzyme-based products in your holding tank to further control odor. Enzymatic products use biological processes, rather than harsh chemicals, to break down sewage. Be sure to pump and rinse your holding tank prior to initial use of an enzyme product if you have used chemical-based odor control additives in the past.

Chemical residues may interfere with the effectiveness of enzyme-based products. Avoid holding tank products that contain quaternary ammonium compounds (QACS) and formaldehyde. These products may disrupt sewage treatment plants.

TYPE I AND II MSDS

Maintain your Type I or II MSD. Establish a regular maintenance schedule based on your owner's manual to determine when chemicals need to be added, electrodes need to be cleaned, etc.

Do not discharge your Type I or II MSD while in a marina, in a swimming area, over an oyster bar, or in a poorly flushed area.

> Effluent from legal Type I and Type II systems contain nutrients and possibly toxic chemicals. It may contain pathogens as well.



Use onshore restrooms when in port.

PUMPOUT LOCATIONS

Use the NJ Boater's Pumpout Guide to identify a pumpout location near you. For an interactive mapping version of the Pumpout Guide, visit http://ims.rutgers.edu/Pumpout/ Additional information is available by visiting www.NJfishandwildlife.com/cvahome.htm

NO DISCHARGE ZONES

State law prohibits the discharge of sewage in designated No Discharge Zones. When boating within the state's No Discharge Zones, all pathways for discharge of raw sewage must be secured.

The following waterbodies have been designated No Discharge Zones: Navesink River, Shrewsbury River, Shark River, Manasquan River and Barnegat Bay (southern entrance to the Point Pleasant Canal south to Beach Haven Inlet).

> For more information about the Clean Marina Program visit www.njcleanmarina.org

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