

SEWAGE FACILITIES

Applicability

This section applies to new, expanding, or existing marinas.

Background

As mentioned earlier in this guidebook, pollutants tend to concentrate within marina basins due to their sheltered environment. Of particular concern is the illegal discharge of untreated sewage from boats. The nutrients found in sewage can result in excessive plant and algal blooms within the marina basin. In severe cases, the decomposition of raw sewage within the marina basin may result in fish kills.

As the sewage is broken down by bacteria, the bacteria consume oxygen that is dissolved in the water column. This is the same oxygen that fish require. Additionally, raw sewage contains disease-causing bacteria and viruses which are a threat to swimmers and others coming into direct contact with the water. Every year there are a number of beach closures along Indiana's Lake Michigan beachfront due to elevated *E. coli* levels (an indicator of sewage contamination).



Wahala Beach in Lake County

While the potential volume of sewage that could be released from boats is relatively small as compared with sewer overflows, the concentration of the sewage is much higher. There is no dilution of the sewage with water from bathing, dishwashing, or clothes washing. Marine heads use little or no water.

Existing Federal and State Laws

A marina located on the state's navigable waters and its public freshwater lakes must provide a pumpout that is in good order and is readily accessible to marina patrons unless the marina obtains an exemption from the Indiana Department of Natural Resources (IDNR) Division of Law Enforcement. IDNR may issue an exemption based on whether a marina is designed to service exclusively boats that are not required or likely to be equipped with a marine sanitation device or if the marina has entered into a binding agreement with another marina or similar facility to provide pumpout services. This exemption is valid for five (5) years at which point the marina must reapply for the exemption. If a marina is interested in obtaining an exemption it should contact IDNR at (317) 232-4011 for more information. To install and manage a pumpout station the marina must obtain either:

1. Permission from the local publicly owned treatment works (POTW) to connect to an existing sanitary sewer line owned/operated by the POTW;

SEWAGE FACILITIES

2. Approval from the Indiana Department of Environmental Management (IDEM) to construct a new sanitary sewer line and permission from the local POTW to connect the new sanitary sewer line to the POTW;
3. Approval from IDEM to construct a new sanitary sewer line and a wastewater treatment plant (in which case both construction permits and possibly an NPDES permit would be needed, depending on what would be done with the treated water from the wastewater treatment plant);



A boater uses a pumpout station at the Washington Park Marina.

4. A permit from the Indiana State Department of Health under 410 IAC 6-10 for the construction of a commercial on-site wastewater disposal facility;
5. A contract with a septic waste hauler and off-site disposal facility to manage the sewage; or
6. An alternative written approval for wastewater disposal from an authorized governmental agency (312 IAC 6-4-3) (312 IAC 11-4-1).

The Clean Vessel Act, which is administered by the U.S. Fish and Wildlife Service, makes grant dollars available to private and public marinas for the installation and restoration of boat sewage pumpout stations and portable toilet dump stations. IDEM has been awarded a grant from the U.S. Fish and Wildlife Service to implement the Clean Vessel Act Pumpout Program. Pumpout stations are used to dispose of highly concentrated human waste collected aboard boats. Under this program, marinas are reimbursed up to 75 percent of pumpout construction costs.



SEWAGE FACILITIES

Best Management Practices

U.S. EPA recommends the following best management practices for sewage facility management and maintenance.

- Install pumpout facilities and dump stations that meet the marina's needs. There are three types of onshore sewage collection systems—fixed point, portable/mobile and dedicated slipside systems.
 1. Fixed point systems are stationary systems. The boat that needs service can move to the pumpout station. A hose is connected to the sanitation device fitting and a pump or vacuum system moves the waste material into an onshore holding device or into the sewer system. A fixed point system should be centrally located and have free and easy access for boats to maneuver.
 2. Portable systems are good for smaller, more difficult-to-maneuver marinas. They may or may not have a holding tank attached to them. Since these systems are portable, they can be pushed to the boat needing service instead of having the boat come to the dedicated pumpout station. Some boaters find this more convenient. The mobile systems are able to move about the marina. An empty mobile station is easier to maneuver than a full one. You must consider returning the mobile system to an area where it can be pumped out and whether it is feasible to move when full. These systems also require more hands-on cleaning activities.
 3. Dedicated slip side systems provide continuous wastewater collection at select slips within the marina. These are good systems if enough slips can be dedicated to their use. These systems have a direct connection to the boat and a below-dock gravity drained sewer system. It utilizes a vacuum-type pumpout system.



Portable toilet dump station

SEWAGE FACILITIES

- Along with these three sewage collection systems, a dump station should be available for boaters who have portable toilets. Dump stations can be considered a satisfactory disposal facility and may be fundable with funds from the Clean Vessel Act.



Washington Park Marina in Michigan City provides dockside pumpout services.

- Provide pumpout service at convenient times and at reasonable costs. Having the pumpout station open at the same times as the fueling station allows for patrons to fuel and dump during the same trip. Have extra staff available before and after weekends to meet your patrons' needs. Consider discounts to patrons who fuel at your dock, or incorporate it into the slip fees.
- Keep pumpout stations clean and easily accessible. While offering free or inexpensive pumpouts are likely to attract customers, having pumpouts that look dirty, are full of clutter and are difficult to use are a sure deterrent. Keep the equipment clean and free of debris. Post instructions near the station and offer training on its operation.
- Consider having marina staff do pumpouts. This service is appreciated by patrons and, if added to free pumpouts, would attract many customers to your slips.
- Provide portable dump stations near small slips and launch ramps. Most smaller boats (less than 26 feet in length) do not have marine sanitation devices on board. Many marinas allow transient boaters to launch from their ramps. Many of these transient boats do not have marine sanitation devices. These boaters utilize portable units that can be carried on shore for dumping into toilets. To further encourage boaters to properly dispose of their waste, dump stations should be kept clean and located in an area that is convenient to the ramp area. Public launch ramps should offer a dump station where feasible.
- Federal law prohibits the discharge of untreated waters into all territorial waters and inland waters of the nation. These areas are considered no discharge zones. On Indiana's boundaries of Lake Michigan and its navigable tributaries in the Indiana Lake Michigan Coastal Area Type I and II marine sanitation devices may lawfully be used. For additional information regarding waterways on which Type I and II marine sanitation

SEWAGE FACILITIES

devices may lawfully be used, see www.IN.gov/legislative/register/20070214-IR-312070082NRA.xml.pdf. The marina can seek designation as a no discharge area if certain conditions are met and the marina works with the state to petition U.S. EPA. To be considered for a no discharge zone classification the marina must meet one of three criteria:

1. There must be adequate restroom facilities for patrons and convenient and low/no cost pump-out services for both marina slip holders and transient boaters;
2. There are drinking water intakes nearby; or
3. The waters around the marina warrant greater environmental protection.



This bath house and public restroom is located at Washington Park Marina.

For more information on the designation process please read U.S. EPA document EPA-842-B-94-004, *Protecting Coastal Waters from Vessel and Marina Discharges*. This document is available from U.S. EPA's publication website at www.epa.gov/nscep/index.html.



This dog walk area has educational signage, pet waste collection bags, a garbage can and even a fire hydrant!

SEWAGE FACILITIES



Resident waterfowl droppings can contribute to high levels of bacteria and viruses in the receiving waterbody.

ercise their dogs or put in park benches to encourage the owner to use the space. The area should be grassy and away from storm drains. Offer a supply of cleanup bags and a refuse container with a lid on it. Educate your patrons on the issues with pet waste and ask them to clean up after their pet.

- Avoid feeding wild birds, including ducks, geese and/or seagulls, in the marina. This encourages birds to flock to the marina and become long-term residents. The birds' waste can contaminate water and create a mess on boats and walkways.

- Provide convenient and clean public restrooms. Most boaters would prefer to use clean, well-lit restrooms than the portable unit located on the boat. If the restrooms are easy to access by boat and boaters, the potential for overboard discharge of untreated sewage is lessened.
- Establish practices to control pet waste problems. Provide a special area away from the shoreline for pets to be taken for walks. Install fenced dog parks to allow patrons to ex-