Maine Pumpout Grant Program
Holding Tank Guidance and Specifications

Holding tanks will only be approved in locations where direct connection to an existing sewer system is not possible.

1. All Holding Tanks

Holding tanks may be buried or above ground but must be easily accessible by a pump truck.

Marine facilities should provide one or more holding tanks having a total storage capacity of not less than 1000 gallons unless specifically authorized by the department*. The basis for providing a minimum of 1000 gallons of storage capacity is as follows:

> 8 hour day X 1 boats/hour X 15 gallons/boat holding tank = 120 gallons per day maximum rate to be pumped during the peak boating season. Assume use is 7 days per week, the maximum volume of waste to any one pumpout holding tank in one week would be 120 X 7 = 840 gallons per week. Tank is oversized as a safety measure.

Alternately, holding tank size shall be determined by the number of slips or moorings for boats greater than 24' in length X 5gal X 7 (days per week). The slip or mooring shall be included in the calculations if there is a mean low water depth of at least 4', and swinging room for a 24' boat, 40' of linear dock face or a finger dock length of at least 20'.

The marina owner should realize that they may have to pump weekly in the height of the boating season as use of the pumpout unit increases.

Venting of the holding tank is absolutely necessary. The location of the vent pipe should be carefully considered. The vent pipe could run up the side of a building or utility pole nearby and should be protected from vandalism and traffic-related damage.

2. Above Ground Tanks and all above ground piping.

A. Must be made of a material impermeable to sewage and odors and protected from vehicular traffic and vandalism.

B. Must have some method to easily evaluate fluid level and remaining capacity either by visual means or must include a sensor and alarm system to signal marina personnel when the tank is approaching its capacity. The use of two (2) level sensors inside the tank is suggested. One sensor would be set at the **eighty percent (80%)** full elevation and be linked to an audio-visual alarm system. The visual alarm should consist of a flashing light situated very conspicuously at or near the holding tank. A second sensor would be set at the **ninety-five percent (95%)** full elevation.

C. Must be inspected on a regular basis for leaks or deterioration.

*Facilities that can demonstrate lower typical use due to size/type vessel that frequent the marina may apply for a waiver from the minimum tank size.

3. Buried Holding Tanks and below ground piping.

Must be installed in conformance with the Maine Subsurface Wastewater Disposal Rules, 10-144 CMR 241.

The following section is an excerpt from the rule but does NOT constitute all the requirements of the rule relevant to the installation of holding tanks.

CMR 241 CHAPTER 20

HOLDING TANKS

SECTION 2000.0 GENERAL

2000.1 Scope: This Chapter governs the approval and installation of holding tanks.

2000.2 Background: Holding tanks are designed to receive and hold the domestic wastewater leaving a structure. This wastewater, in turn, is pumped out and transported to a municipal treatment plant or to an approved land spreading site. The average person may generate 45 to 75 gallons of wastewater per day. Thus, a family of three can expect to fill a 1,500 gallon holding tank every 6 to 10 days. Holding tank pumping is costly and the holding tanks require continuous supervision on the part of the municipality to assure proper maintenance and pumping.

2000.3 General: The following applies to all holding tanks:

(1) Annual pumping required: Every holding tank must be pumped at least once a year, providing the system has been used.

(2) Seasonal conversion not permitted: Holding tanks can not be used to satisfy the requirements for a Seasonal Conversion Permit under Title 30-A MRSA §4215 subsection 2 or a first time system located within the shoreland zoned area of major water courses, except as allowed by local ordinance.

(3) Water use monitoring: The plumbing inspector may require the installation of a water meter to monitor the flow to the holding tank.

(4) Reporting: The owner or agent for the owner of a holding tank shall retain for a period of three years the copies of the pumping records, water use records (if required) and the current agreement between the owner and tank pumper. A copy of these records must be made available to the plumbing inspector upon his/her request.

(5) Holding tank specifications: Newly installed holding tanks must be constructed of the same materials and to the same structural specifications as septic tanks, as specified in Chapter 9. They must be either: a) of monolithic construction (effective May 1, 1999) below the top of the inlet to the holding tank, or b) sealed at the joint with a non-water soluble compound and all holding tanks must have, at a minimum, an 18 inch diameter cleanout cover and a 13 by 17 inch inspection cover over the inlet.

(6) Installation: Holding tank must be installed in accordance with Section 907.0.

(7) Setbacks: Must meet the setback requirements for treatment tanks (Tables 700.2, 700.3, 700.4).

(8) Alarm provisions: The holding tank must have visual and audible alarm devices to assure the tank is always pumped before it is full.

(9) Number and size of holding tanks: The installation must have a minimum capacity of at least seven times the daily flow but not less than 1,000 gallons. Multiple tanks must be installed in series.

(10) Water conservation: The plumbing in the structure optimizes water conservation and all water closets meet or exceed ASME standard A112.19.2 (1.6 gallons per flush maximum).

(11) Discontinuance of Holding Tank: Any structure which utilizes a holding tank permitted after July 1, 1974 is required to meet first time criteria for alternate means of subsurface wastewater disposal.

SECTION 2001.0 APPLICATION PROCEDURE

2001.1 Plumbing inspector approval: A holding tank application requires plumbing inspector approval.

2001.2 Application for a holding tank: A completed application for a holding tank (HHE-233) prepared by a Site Evaluator must contain the following:

(1) Owner/Municipality agreement: A completed holding tank agreement (HHE-233) with the necessary owner/municipality statement is required.

SECTION 2002.0 REQUIREMENTS FOR APPROVAL OF ALL PERMANENT HOLDING TANKS

2002.1 LPI Approval: The plumbing inspector may approve the permanent use of a holding tank under the following conditions:

(1) Required by other regulation: A local ordinance of Private and Special Law requires that a holding tank be used for wastewater, or

(2) No practical alternative: Due to site conditions, lot configuration, or other constraints, the installation of a system, in full compliance with this code, is not achievable without the employment of extraordinary measures or extraordinary cost; and

(3) Public sewers not available: Public sewers and/or multi-user systems are, by practical means, not immediately available; and

(4) Water conservation: The plumbing in the structure will be modified for maximum water conservation, and all water closets must meet or exceed ASME A112.19.2 for 1.6 gallons per flush.

(5) Deed Covenant: A deed covenant (HHE-300) is required for any residential structure served by a holding tank. As a minimum, the covenant must include a statement that a holding tank is serving the structure for the disposal of human sewage and wastewater. The aforementioned statement must be a separate stand alone section or paragraph.

SECTION 2003.0 REPLACEMENT HOLDING TANKS

2003.1 LPI Approval: The plumbing inspector may approve the permanent use of a holding tank proposed by a site evaluator to replace a malfunctioning system or an alternative toilet.

(1) Malfunctioning system: The present system poses a threat or a potential threat to ground or surface water quality, to public health or safety, or to the environment; or,

(2) Alternative toilet replacement: An alternative toilet may be replaced by a flush toilet and holding tank if the existing structure is served by pressurized water and a legal gray wastewater system including treatment tank and disposal field.

(3) Application meets all criteria: The application meets all requirements of Section 2002.0.

SECTION 2004.0 FIRST TIME HOLDING TANKS WITH LOCAL ORDINANCE

2004.1 LPI Approval: The plumbing inspector may approve the permanent use of a holding tank for up to 2000 gpd as a first time system provided all the following requirements are met. Holding tanks for flows greater than 2000 gpd must be referred to the Department.

(1) Local ordinance: The municipality has a holding tank ordinance similar to the model ordinance in Appendix A, and has adopted this Section or an ordinance with similar or more strict provisions, a copy of which has been sent to the Department; and

(2) Application meets all criteria: The application meets all requirements of the ordinance and Section 2002.0.

SECTION 2005.0 FIRST TIME HOLDING TANKS WITHOUT LOCAL ORDINANCE

2005.1 Approval criteria: If the municipality has not adopted a holding tank ordinance under Chapter 20 and Appendix A, holding tanks for residential first time use are not allowed. The plumbing inspector may approve the permanent use of a holding tank for nonresidential structures provided all the following requirements are met:

(1) Use: The facility served must not require a license as an eating establishment from the Department.

(2) Design Flow: The flow must not exceed 100 gallons per day or 500 gallons per week. Flows greater than 100 gallons per day or 500 gallons per week are to be referred to the Department.

(3) Application meets all criteria: The application meets all requirements of Section 2002.0.

SECTION 2006.0 TEMPORARY HOLDING TANKS

2006.1 Temporary use: As a temporary means of wastewater disposal during alteration or repair of an existing system, the plumbing inspector may approve the use of a wastewater holding tank or a septic tank temporarily modified to serve as a holding tank for up to 2000 gpd. This use may not exceed 90 days. Temporary holding tanks do not require a holding tank application.

2006.2 Future public sewer connection: As a temporary means of wastewater collection, a local plumbing inspector may permit use of a holding tank by a facility for up to 365 days when physical connection to a public sewer is anticipated as stated in writing by the sanitary district. It is the responsibility of the sanitary district to insure that the holding tank is maintained in a sanitary manner. A holding tank application is not required for this instance. This permit may be extended for an additional 365 days if necessary.