HUMAN WASTE AND WATERWAYS

Some areas in Michigan use a combined sewer overflow system to handle waste. A combined sewer carries both domestic sewage and stormwater. During high rainfall periods, a combined sewer can become overloaded and overflow to a nearby stream or river, bypassing treatment and entering rivers and lakes.

Maintaining properly functioning sewage systems, and using best practices in sewage handling and sanitation devices is the first step in reducing human health risks and protecting the environment.

MARINE SANITATION DEVICES

Type I: Flow-through device (maceration and disinfection). Maceration is the process of reducing human waste to a more liquid form (slurry). The slurry is removed from vessels by pumping. Marine pump-out systems typically consist of a hose that connects to the MSD on the vessel and a motor that drives the pump that removes the waste.

Type II: Flow-through device (maceration and disinfection). Type II devices provide an advanced form of the same type of treatment and discharge wastes as Type I devices but with lower fecal coliform counts and reduced suspended solids.

Types I and II are usually found on large vessels. Waste is treated with special chemicals to kill bacteria before the waste is discharged. The critical component of Types I and II devices is the “Y” valve. The “Y” valve directs the waste overboard. See diagram above. It must be secured so that the valve cannot be open for discharge into the water. This can be done by placing a lock or non-usable seal on the “Y” valve or by taking the handle off the “Y” valve. If you are unsure about how to properly lock this valve, ask a dock manager or marina operator to board your vessel and demonstrate this.

Type III is the simplest and most common, MSD. It consists of a holding tank and requires only a small storage space and is simple to operate. Type III MSDs have the least impact on the environment, since the waste is discharged on shore into a local sewage treatment facility.