



**Minnesota  
Pollution  
Control  
Agency**

# Managing Marina Waste

Hazardous Waste Division Fact Sheet #4.24 September 1997

*This fact sheet is intended for marina owners, operators and users. Contacts and telephone numbers for more information are listed on page 8.*

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Marina owners, operators and users conduct many activities in or near bodies of water. Many of these activities could pollute water and land, affecting human and marine life and the environment. In order to protect the "Land of 10,000 Lakes" which we all enjoy, operators of marinas and watercraft need to exercise caution in managing the wastes resulting from operating, servicing and maintaining boats. Following the guidelines and regulations outlined in this fact sheet will help prevent pollution and protect our environment.

## Dealing with Wastes from Boat Operation

### Discharging Sewage

Discharging sewage to waterways is illegal. To encourage proper disposal of sewage, marinas should provide pumpout facilities or dump stations and public restrooms.

Three types of pumpout systems often used by marinas include:

1. Fixed point: Often used by marinas servicing larger boats, these collection systems include one or more centrally located sewage-pumpout stations.

They are often located on a fueling pier so fueling and pumpout operations can be combined. Fixed point systems are common in

Minnesota. If boats in the marina use only small, removable, portable toilets a dump station is satisfactory.

2. Portable or mobile: Considered by many smaller marinas to be the most convenient, accessible and affordable, portable units consist of a pump and a small storage tank. They may also have a discharge hose. Note: Even though they are portable, moving them can be difficult.
3. Dedicated: Usually used by larger marinas servicing live-aboard vessels, dedicated slipside systems provide continuous waste-water collection at a slip through a "hydrant" located on the dock by each slip. Other areas of the marina may be serviced by a fixed-point or portable system.

To encourage proper disposal of sewage, post numerous signs explaining:

- that discharging sewage into the water is prohibited;
- where pumpout services and public restrooms are located; and
- how to use the pumpout facilities.

**TIP:** Having difficulty finding a septic hauler to service your system? Try coordinating with other nearby marinas to set up a regular route.

TIP: Grants to help you purchase sewage-pumping equipment are available from the Department of Natural Resources (DNR). For more information, call the DNR at the number listed on page 8.

## Preventing Bilge-Water Contamination

Prevent contamination of bilge water! Here are some ideas on how to do it (you may have some of your own):

- don't change oil into the bilge;
- fill the gas tank carefully to avoid spills;
- use a funnel when adding oil to the engine and let the oil container drain fully to prevent drips; and
- do regular maintenance to prevent oil leaks, and fix leaks quickly.

TIP: Place an absorbent pillow in the bilge that is designed to pull oil and petroleum products out of the water. These pillows can hold over a gallon of petroleum product and can be wrung out and reused. If the liquid is primarily oil, it can be placed in the container marked "Used Oil." After wringing, place unusable pillows in a container marked "Used Oil Sorbents for Recycling." When the container is full, contact your oil hauler to transport it to a burner permitted to burn this type of sorbent for energy recovery.

If contaminated bilge water spills into a waterway, use a boom to contain and absorb the spill.

## Managing and Disposing of Chemical and Petroleum Wastes

Place each waste in a container that is in good condition — no severe dents or rust in the seam area — and that will not react with the waste. Metal or polyethylene drums are appropriate for most marina wastes. Keep the container closed unless adding or removing waste. Mark each container with a clear description of the contents.

Examples: "Used Oil"  
"Waste Antifreeze"  
"Spent Absorbent Materials"

If storing spent solvents or hazardous paint residues, also mark each container with the words "Hazardous Waste" and the date you first placed waste in the container.

Examples: "Hazardous Waste  
Waste Paint Thinner  
4/24/96"

"Hazardous Waste  
Sandingblasting Waste  
5/7/96"

Store the container on an impermeable surface — a surface that will not allow spilled or leaking materials to penetrate or escape. Coated concrete is a good choice. Coated asphalt is also acceptable. Uncoated asphalt is unacceptable for storing solvents, such as gasoline or paint thinners, because the solvents will dissolve the asphalt.

Seal any floor drains in the storage area to prevent spills from escaping. If wastes are stored outdoors, surround the area with a curb or berm to contain spills. Secure the area from access by unauthorized persons. If you are storing ignitable wastes outdoors, such as paint thinners or other solvents, shade them to prevent container expansion and possible leaks.

To make sure waste is disposed of properly, post numerous signs to direct marina patrons to the proper disposal containers.

For more information on storing hazardous wastes, request Minnesota Pollution Control Agency (MPCA) Fact Sheet #1.04, *Label and Store Hazardous Wastes Correctly*.

## Storing Lead-Acid Batteries

Marinas who accept lead-acid batteries from patrons for recycling must store them on an impermeable surface, such as coated concrete or asphalt. If stored outdoors, the surface must also be curbed to contain leaks, and covered to prevent snow and rain from entering. There are a number of plastic tubs designed for battery storage — some hold only a few batteries. Check with your supplier for purchase information.

Send spent batteries with a battery hauler for recycling. For more information on battery storage, request MPCA fact sheet #4.06, *Managing Spent Lead-Acid Batteries*.

## Managing Solid Waste

Litter not only ruins the beauty of the state waters and the environment, it can also injure and kill aquatic life. Encourage marina patrons to collect their trash and return it to shore by providing solid waste disposal service as part of the lease agreement. Post appropriate signs to prevent disposal of hazardous wastes in the solid waste containers.

## Dealing With Wastes From Boat Maintenance

### Washing Boats Above the Water Line

Always choose water-based biodegradable cleaners rather than detergents containing ammonia or sodium hypochlorite, chlorinated solvents, petroleum distillates or lye. If use of a chemical cleaner is unavoidable, use the smallest amount you can that will do the job. Read labels carefully and handle products according to instructions. Collect spills and residues and dispose of them appropriately; use of chemical cleaners will often result in a hazardous waste. When washing the interior, plug drain holes (scuppers) to keep chemicals from contaminating bilge water.

Wash the hull above the water line by hand. Removing the boat from the water will make it easier to capture the debris for proper disposal—debris should not be allowed to pollute the water. Do not scrape the hull while the boat is in the water.

### Steam or Pressure Cleaning

Do not perform pressure washing over the water. Use just enough pressure and cleaning agent to remove marine growth but not remove the paint. Again, choose water-based biodegradable cleaners. Do not allow harmful cleaners or solvents to escape into the lake or river. If possible, collect run-off from pressure washing, filter, and reuse the water.

## Sanding and Stripping

Sanding, sandblasting, scraping and stripping boat bottoms usually produces wastes that are toxic to fish, animals and humans. Work indoors over a surface that will allow you to contain and collect the resulting waste. If you cannot work indoors, choose a day that is not windy and use tarps and drop cloths to contain and collect the waste.

When sanding or scraping, use a vacuum sander and place a large tarp or drop cloth under the boat to catch paint scrapings and dust. If you cannot use a drop cloth, sweep up the scrapings and residue.

When stripping paint, minimize the amount of waste generated by using only as much stripping chemical as you need. Surrounding the immediate work area with plastic will minimize evaporation and allow the chemical to better penetrate the paint. If you are working with strippers and solvents in an enclosed area with little or no ventilation, you will need to wear a respirator rated to filter out solvents in order to protect your health.

Waste from sanding and stripping operations is usually hazardous and must be collected for disposal. Place it in a closed container marked with the date, the words "Hazardous Waste" and a clear description of the waste, for example, "Waste Paint Scrapings." Contact a hazardous waste hauler for disposal.

## Spray Painting and Use of Anti-Fouling Agents

Anti-fouling paints work by releasing toxic chemicals from the paint into the surrounding water. In general, the more effective the paint, the more toxic its ingredients. When using or removing anti-fouling agents, remember they are regulated as pesticides and must be registered by the U.S. Environmental Protection Agency and the Minnesota Department of Agriculture for use in Minnesota.

When performing boat maintenance, be sure to use the right paint for the job. Double-check with your marine professional to see if there are alternatives, and choose the most environmentally friendly one.

Buy only as much as you need and use it up. Reuse paint thinners from cleaning brushes for thinning paints, if needed. If possible, paint indoors in a well-ventilated area using a high-volume, low-pressure paint gun for greatest paint transfer. Keep all paints, thinners, brush cleaners, etc., away from the water and dispose of them properly. Most waste paints and thinners are hazardous wastes and must be stored according to the requirements outlined in the "Managing and Disposing of Chemical and Petroleum Wastes" section of this fact sheet, and disposed of through a hazardous waste hauler.

## Maintaining and Washing Engine Parts

Purchasing or renting a parts-washing unit is a practical way to keep solvents and grease out of the environment. If this is not feasible, or if a part cannot be removed from the engine, remove as much residue as you can by brushing or blowing off the part and contain the residue. Then use a solvent sparingly on a rag. Do not spray solvents onto the engine and let them drip into the bilge. If solvent must go to the bilge, pull the boat from the water, drain the bilge completely, then do solvent work. Drain the solvent from the bilge and collect it for proper disposal. Keeping your engine well-tuned will reduce fuel consumption by using fuel more efficiently, and will discharge fewer pollutants into waterways.

## Air Quality Issues

Marina operators should track use of volatile organic compounds (VOCs). VOCs are found in solvents, petroleum distillates, antifreeze, paints, varnishes, and thinners. If a marina uses less than 200 gallons of VOCs in a 12-month period, an Air Quality permit is not required. Marinas that perform spray-painting operations may need to do further calculations to determine whether or not they need a permit. For more information, call the Air Quality Small Business Hot Line, (see page 8).

## More Tips To Help You Prevent Pollution

- Inspect rubber fuel lines regularly; replace before they break.
- Use engine cleaners only when absolutely necessary.
- When changing oil, wipe up spills immediately and catch all used oil in a container for onshore recycling.
- Drain old antifreeze into a container for onshore recycling.
- If using a bilge pillow to remove oil, replace it periodically and place it with other oil-soaked sorbents destined to be burned for energy recovery.

## Preventing And Responding To Spills And Run-Off

### Preventing Spills

Do your best to prevent spills! Here are some ideas on how to do that (you may have some good ideas of your own):

- Do regular preventative maintenance on tanks and fuel lines.
- Train marina employees in proper hazardous material, hazardous waste and tank management.
- In slip leases, include a clause that allows marina employees to enter and pump out a boat that is in danger of sinking.
- Keep hazardous product and waste containers closed when not in use.
- Don't try to fill gasoline tanks to the very top.
- Post signs or provide information on spill prevention and clean-up methods to marina patrons.
- Designing a new marina or upgrading your facility? Design fueling stations with spill containment equipment, and incorporate spill prevention and containment equipment wherever possible throughout the facility. Place well-marked cabinets containing clean-up materials where they will be easily accessible in case of a spill. Include a copy of your clean-up plan in the cabinet.

## Responding to Spills

Even with the best care and training, accidental spills will happen. Be prepared to contain and clean them up as quickly as possible.

If a spill happens at your marina:

1. Contain the spill.
2. Call the Minnesota Duty Officer at (800) 422-0798 or (612) 649-5451.
3. Clean up the spill.

One of the best ways to reduce pollution from spills is to develop a Spill Contingency Plan for fuel storage and distribution areas. If your marina either stores more than 10,000 gallons at one time OR pumps more than 10,000 gallons of petroleum products in a month, a contingency plan is required by state statute (Minn. Stat. § 115E.045, subd. 1 and 2.) and must include:

1. The name, business and home phone number(s) of the person(s) having authority to implement the plan.
2. Local emergency telephone numbers, such as fire department, ambulance, police or sheriff or other first responders IF you cannot call them by dialing 911.
3. "Spill potential" information: If a bulk truck comes to your marina to fill petroleum tanks or remove waste, you must list the maximum potential discharge (the capacity of the largest truck). If you store petroleum products or wastes in aboveground or underground tanks, list the number and size of the tanks and the kind of spill prevention and containment for each. For example, do aboveground tanks have secondary containment? Do you have signs posted showing what and how much each tank holds? Do you have a way to ensure that drivers do not try to pump more product in the tank than it will hold (overfill protection)? If everything that could go wrong did, what is the largest quantity of petroleum that could spill at your marina?
4. The telephone numbers for the Minnesota State Duty Officer. Call the 24-hour number to report

a spill: (800) 422-0798 in Greater Minnesota or (612) 649-5451 in the Metropolitan Area.

5. Documentation and evidence that you have enough employees and equipment to respond to a spill.
6. A description of the training employees have received in handling hazardous materials and responding to emergencies, such as spills.
7. The action marina employees will take to respond to different types of spills.

If you are required to have a contingency plan, you must keep a copy on file at your marina and notify the Minnesota Department of Public Safety at this address when the plan is complete:

Minnesota Department of Public Safety  
Division of Emergency Management  
Attn: Mr. James D. Franklin  
Room B-5, Capitol Building  
75 Constitution Avenue  
St. Paul, Minnesota 55155

The MPCA may also request a copy of your contingency plan.

Update the plan every three years, or after:

- a change in marina operation or ownership;
- a change in personnel responsible for implementing or carrying out the plan; or
- a release requiring implementation of the plan.

Even if this level of contingency plan is not required of your marina, it is still important to have a written plan of action to follow in case of a spill. If you need help with your plan, call the MPCA Emergency Response Team, (see page 8).

Train your employees so they know how to implement this plan. Practice periodically by simulating and cleaning up a spill. Make sure they know where to find clean-up materials, how to use them, and where to place spent materials. If cleanup could involve the

use of booms, make sure employees know how to use them. Practice hooking them up, tying them off, deploying them, etc. After practice, dry them out well to prevent mold and mildew before storing in a watertight container.

Keep sorbent materials available in areas that are at higher risk for spills. Use a drip pan to catch and contain a spill. If the spill hits a solid surface, first try to recover as much liquid as possible with a squeegee and shovel or dust pan. (If you are cleaning up ignitable liquids, be sure to use a non-sparking shovel, such as brass or plastic.) Use absorbent pads or granulated material to soak up the rest.

For larger spills or spills on water, use booms to contain and absorb the spill. Do not spray dispersants on fuel spills — dispersants are illegal in Minnesota. Several marinas may wish to coordinate resources to manage larger spills. Nearby fire departments may also be able to assist with containment and interception.

Store spill clean-up materials in a closed, leak-proof container until they can be picked up by a waste handler. Report all spills to the Minnesota Duty Officer.

If maintenance activities must be performed outdoors, use vacuum sanders, vacuums and tarps to keep debris off the ground and to collect any debris that inadvertently falls to the ground. Remove and apply paint on calm days to avoid scattering debris and paint particles.

Areas not used for maintenance activities should be designed to minimize run-off. This can be done by placing filter strips around parking areas and/or using grass-covered ditches to carry storm water. For more information, call the MPCA Stormwater/Wetlands Unit, (see page 8).

## **Preventing Storm Water Run-Off**

Marinas fall under Standard Industrial Classification code 4493 and are required to obtain a National Pollutant Discharge Elimination System (NPDES) General Storm Water Permit for Industrial Activity from the MPCA.

Marina parking and hull-maintenance areas are sources of pollutants, including suspended solids, toxic metals, oils and greases. To prevent these toxic pollutants from entering waterways, provide roofed areas over a sealed concrete surface for boat maintenance activities. Also provide a way to collect any water that accumulates in this area. Collected water can be filtered to remove pollutants, then discharged, with permission, to your local wastewater treatment plant.

**Table 1: Phone Contacts for More Information**

For Information About:	Call:	At:
To Report Spills	Minnesota Duty Officer (24-hour number)	(800) 422-0798 (Greater Minnesota) (612) 649-5451 (Metro Area & outside Minnesota)
Spills, Planning For and Cleaning Up	MPCA Emergency Response Unit	(800) 296-6300 (612) 297-8573
Hazardous Waste Fact Sheets	MPCA Hazardous Waste Division	(800) 657-3724 (612) 297-8363
Biodegradable Cleaners	Your Local Marina/Supplier	
Grants for Sewage-Pumpout Equipment	Department of Natural Resources	(800) 766-6000 (612) 297-2798
Stormwater Run-Off Permit (NPDES)	MPCA Stormwater/Wetlands Unit	(800) 296-6300 (612) 296-6798
Waterway Regulations	Department of Natural Resources	(800) 766-6000 (612) 296-0905
Air Quality Permit Calculations	MPCA Air Quality Small Business Hot Line	(800) 657-3938 (612) 282-6143
Anti-Fouling Paint Regulations	Department of Agriculture	(612) 296-4292
Hazardous Waste Management and Disposal	MPCA Business Assistance Unit  Your Metro County <ul style="list-style-type: none"> <li>Anoka</li> <li>Carver</li> <li>Dakota</li> <li>Hennepin</li> <li>Ramsey</li> <li>Scott</li> <li>Washington</li> </ul>	(800) 657-3724 (612) 297-8363  (612) 422-7093 (612) 361-1800 (612) 891-7011 (612) 348-8100 (612) 773-4466 (612) 496-8473 (612) 430-6655

*This fact sheet has been produced by the MPCA Hazardous Waste Division in cooperation with:*

- *Metropolitan County Hazardous Waste Staff*
- *Minnesota Department of Agriculture*
- *Minnesota Department of Natural Resources*
- *MPCA Air Quality Division*
- *MPCA Water Quality Division*
- *North Central Marine Association*





