

Guidebook



The Missouri Clean Marina Guidebook provides resources to assist in meeting program requirements.

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Emergencies

A number of situations may occur in a marina that requires immediate response. Calling 911 may be appropriate in some instances, but additional staff response is also called for in nearly every emergency situation. Without pre-planning, important steps can be overlooked and without a quick reference guide, the best of intentions may not produce the best actions for solving the occasional, but intense problem.

Mandatory

Keep an easily accessible, current emergency contact list, where employees know it is located.

- Include the location of this list in all new employee training and emergency training.
- Click for an example [Emergency Phone Numbers List](#).

Maintain a Material Safety Data Sheet (MSDS) for all products used.

- A material safety data sheet (MSDS) is an important component of product stewardship and occupational safety and health. It is intended to provide workers and emergency personnel with procedures for handling or working with that substance in a safe manner, and includes information such as physical data (melting point, boiling point, flash point, etc.) toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment, and spill-handling procedures.
- These can be found by manufacturer on-line.

Marina is prepared for cleanup of spills up to 5 gallons, and stores spill response equipment in a convenient, readily accessible location.

- A spill response kit should contain at minimum: oil absorbent socks sufficient to contain a 5 gallon spill, oil absorbent mat pads, and disposable bags and ties. These should be stored together in a bucket or other container near areas where oil based liquids are stored, and be easily accessible. Staff should be trained on how to use these products and know where they are located.
- These are available as kits from a variety of companies and can be ordered on-line.
- Keep a copy of the Emergency Contact Phone List in the spill response kit bucket.

Additional

Have at least annual emergency training drills for staff.

- Acquaint all employees with the contents of the emergency procedures (if available) and responsibilities for each situation. Training on how to respond to Fire, Tornado, Severe Storm, Petroleum or chemical spill should be done annually and within the first 6 weeks for all new employees.
- Maintain a log of training with date, attendees and procedure or training performed.
- Click for an example [Employee Training Log](#).

Has an accessible, current, written Emergency Action Plan which includes actions to prepare for and recover from tornado, fire and severe storms.

- The plan should contain specific plans of action and responsibilities of staff.
- Think about your facility and what needs to be done to protect the safety of staff and customers and also what needs to be done to protect the water. (Location and proper use of spill kits, location of emergency shut off valves, Removal of explosive material in case of fire etc.) Make this *your* plan.
- Click for an example [Emergency Action Plan](#)

Spill management is incorporated into new employee training. All employees receive spill management re-training annually.

- This training should include the location and use of the spill response kits. Maintain a log of training with date and attendees.
- Click for an example [Employee Training Log](#).

Provide boater and staff education for:

Boat Fire Extinguishers

- Keep a serviced fire extinguisher available and accessible. For larger boats over 26' more than one fire extinguisher should be on board. Know how to use them.
- Resource: Click for more [Fire Extinguisher Information](#)

Safe Boat Maintenance

- Ensure engines and fluids are cooled before working to avoid burns.
- Keep work area clear of oil and debris.

- Provide ventilation in work area. (The ongoing replacement of stale or noxious air with fresh air.) Open doors and windows and fans are recommended while working with products that create noxious fumes.

Boat Maintenance and Cleaning

Any debris that is on the ground and light enough to be swept away by flowing rainwater or snowmelt can end up in lakes and reservoirs. Sanding dust, paint dust and chips, copper and other heavy metals, and other such solids that are carelessly or inadvertently allowed to drop to the ground while maintaining or repairing a boat by sanding, pressure washing, or other abrasive methods can be swept up by the runoff of the next rainstorm. Oils, grease, solvents, paint drippings, and fuel spilled or dripped onto the ground can also be carried away in the runoff. Unless the runoff is controlled or treated in some manner, all of these pollutants end up in the lake, where they create unsightly surface films or float until they adhere to surfaces like boat hulls or docks. Some of these pollutants flow dissolved in runoff or attached to soil carried by the runoff. When they reach the water, they sink with the soil to the bottom, are eaten by bottom-feeding fish or by filter-feeding shellfish, or settle onto the leaves of aquatic vegetation and clog their pores. Storm water that is treated in some way to remove these pollutants before they can reach the marina basin does not result in these problems.

Use of solvents, paints and varnishes for in-slip boat maintenance can contribute to pollution entering the water. The best way to protect the water is to perform only small maintenance jobs in the slip. Use of a variety of boat cleaners, such as detergents, teak cleaners and fiberglass polishers can also contribute to pollution and nutrients entering the water and should be discouraged and minimized.

Marinas should have designated maintenance areas and educate the boaters of these locations, to prevent wash off going back into the facilities waters and to make sure that sanding is done in an area that traps any material from entering the water as well.

Display signs in designated work areas with rules to prevent wash off of contaminants into the water, including the requirement to clean up any debris on a daily basis.

Consideration should be given to using bottom paints that do not pollute our environment. Frequent underwater hull cleaning can enhance vessel performance and protect it from the elements such as marine growth and corrosion. Underwater hull cleaning should be guided by BMPs that will clean a vessel in such a way as to protect and preserve the bottom while causing minimal impact to the environment.

Most vessel bottom paints contain copper (CU). Copper will leach into the water. This leaching may be toxic to aquatic life. Aggressive hull cleaning methods may cause increased copper released into facility's waters. Make sure your hull cleaner follows the label and

recommendations provided by the paint manufacturers.

Boats can carry invasive species on the hull, in bilges and bait tanks. Aquatic species such as, Zebra Mussels can harm native species, damage structures and shorelines, clog water lines and are very hard to control. We encourage marinas to educate their staff to the crucial role in preventing and detecting aquatic invasive species. They also need to educate boaters on why it is important through the use of simple steps to avoid spreading these aquatic invaders. The key messages are: Inspect, Remove, Dispose and Report any Invasive Species.

Click to access EPA information on [Boat Cleaning- Best Management Practices](#).

Mandatory

Enforce marina rules & regulations regarding boat maintenance & cleaning.

- Have clearly defined rules and regulations on boat maintenance and cleaning available for staff and slip owners. Slip owners should be given a copy when slip is rented.
- Click for [Example Rules and Regulations on Boat Maintenance](#).

Require independent service providers to sign an agreement stating they will comply with environmentally sound practices at the facility.

- Use, or ask your diver to use, non-abrasive scrubbing agents, soft sponges or pieces of carpet to reduce the sloughing of paint and debris.
- Boaters are encouraged to use boat hull cleaning companies and individuals that practice environmentally friendly methods. Ask your service to monitor the work of the divers that they hire or subcontract to ensure they are using BMPs.
- Encourage divers to use different types of pads when necessary to properly maintain a vessel's bottom paint (example: In many cases surfaces close to the waterline are more susceptible to higher growth rates therefore you need to use different pads in order to properly remove marine growth and corrosion. Likewise, a softer pad can be used for the rest of the vessel to maximize hull performance and optimize the lifespan of the paint.)
- Boater should notify hull cleaner as to what type of bottom paint was used and when the bottom was last painted.
- Click for [Example Agreement to Provide Environmentally Friendly Practices](#).

Require significant maintenance & cleaning activities to be done off water.

- Post signage to notify boat owners of designated work areas (if available).
- Areas where abrasive work will be performed should be protected from wind and enclosed if possible.

Prohibit spray painting on the water.

- Spray painting should only be done in designated, enclosed work areas.
- The inside of a building provides the most protected space, but if a large enough interior space is not available, a suitably sized area can be protected with tarps or temporary plastic buildings can be used. Tarps help prevent residue from drifting to non-work areas of the marina and into surface waters.

Never sand, strip, or chip hull paint on or underwater.

- These activities should only be done in designated work areas.

Collect all maintenance debris, paint chips, fiberglass, trash etc. daily and dispose of properly.

- Cleaning maintenance areas immediately after maintenance or repair work is done removes trash, visible paint chips, and other debris before they can be blown or washed into the marina basin. Spent sandblasting grit, boat repair debris, and solid waste should be stored under cover and in a manner that minimizes contact with process or storm water.
- Vacuuming or sweeping is an excellent method of collecting these wastes, especially over paved surfaces. Hosing a maintenance area for cleanup can result in the same pollution that storm water would cause.
- Hazardous materials should be disposed of properly according to the MSDS sheet.

Additional

Maintenance area has an impervious surface covering the ground. (Cement, tarp, etc.)

- This allows for much easier daily clean up and collection, which prevents debris from being washed into the water.

Maintenance area is covered with a roof.

- This keeps rain from washing materials out of the designated area and into the water.

Surround the maintenance area with a berm or retaining wall.

- This reduces pollution in runoff from entering the water.

Conduct all spray painting in an enclosed area.

- This can be a building or in an area surrounded by tarps, away from the water.

Prohibit uncontained pressure cleaning.

- Pressure cleaning should only be performed in a designated area where the debris can be collected and disposed of properly. Most vessel bottom paints contain copper, which is toxic to aquatic life. Care should be taken not to allow runoff from boat cleaning to enter the water.

Recommend nontoxic and legal hull paint to slip holders when applicable.

- Click for guidelines and recommendations on [Selecting a Bottom Paint](#).

Provide Boater and Staff Education for:

Doing only minor maintenance in slips

- Tackle boat projects in the water only if they involve less than 25% of the surface above water line.

Environmentally safe cleaning and painting

- Drape vessel with tarps to catch wastes from small projects.
- Cover the water between boat and dock with tarps for small projects done on the water.
- Never sand your boat in the water.
- Plug scuppers to contain dust and debris.
- Ventilate your space to prevent the accumulation of flammable or noxious fumes
- Mix all solvents, paints and varnishes over a tarp or on land.
- Avoid cleaners that contain ammonia, lye, sodium hypochlorite, chlorine or petroleum distillates.
- Carefully read labels to ensure the products are phosphate free and nontoxic. Use products in moderation, since more of the cleaner product does not automatically mean your topside is cleaner.
- Do not sand in a heavy breeze.
- Do not sand with steel wool.

Spill avoidance

- Remove oil, debris and clutter from your immediate work area.
- Keep oil absorbents handy.
- Keep all open containers of liquids (e.g. paints, solvents, fuel) that could spill to the water, scuppers or storm drains in secondary containment. Unattended open containers of these types of liquids should be prohibited.

Encourage divers to use least abrasive pads for type of growth

- Properly functioning anti-fouling paint will repel all hard growth and requires only occasional light wiping with a soft cloth to remove slime. Aggressive cleaning of anti-fouling paint using tools such as scrubbing pads and powered rotary brushes will shorten the effective life of the paint significantly, and should never be used. Aggressive cleaning of this nature increases the amount of copper entering the water column and sediment. The boat should be hauled and recoated with fresh anti-fouling paint before this style of cleaning is ever required.
- Remember:
NO Scrapers (metal/plastic/wood)NO Abrasives (sandpaper/cleanser/soft scrub)
NO Scotchbrite®/3M® pads
NO Powered Rotary Brushes
USE soft cloth or fleece mitt only

Regularly scheduled maintenance using BMP's

- Keep engines well-tuned. Routinely check for engine fuel leaks, and use a drip pan under engines.
- Schedule regular hull cleaning and maintenance to reduce the build-up of hard growth and eliminate the need for hard scrubbing. Regularly scheduled gentle cleaning will also increase the effectiveness of the antifouling hull paint and extend its useful life.
- Ensure hull paint is properly applied and maintained to protect the hull from fouling organisms and thus improve your boat's performance.
- Wait 90 days after applying new bottom paint before underwater cleaning.
- Repair paint bonding problems at haul out to avoid further chipping and flaking of paint in the water.

Invasive Species management

- Boats can carry invasive species on the hull, in bilges and bait tanks. Aquatic species such as, [Zebra Mussels](#) can harm native aquatic life, damage structures and shorelines, clog water lines and are very hard to control. We encourage marinas to educate their staff to the crucial role in preventing and detecting aquatic invasive species. They also need to educate boaters on why it is important through the use of simple steps to avoid spreading these aquatic invaders. The key messages are; Inspect, Remove, Dispose and Report any Invasive Species.
- To prevent the spread of [Zebra Mussels](#), download and provide copies of the Zebra Mussels Invasive Species Fact Sheet for boaters to your staff and tenants.
- To learn more about [Invasive Species, click HERE](#)

Marina Operations

Materials, supplies, vehicles and equipment stored outdoors and exposed to rain and runoff can result in storm water pollution. It is not always feasible to store everything indoors or under cover, so marinas and residents must take steps to reduce contaminants from these types of storages to the maximum extent practicable. Steps to accomplish this include keeping these items in designated areas that are paved to allow for periodic sweeping, sloped or bermed to limit run-off, and located away from water bodies and/or storm drains.

Spills while fueling and conducting day to day activities can be minimized by providing staff training and boater education of Best Management Practices.

Mandatory

Requires that all fueling occurs at designated fuel station/area

- No fueling in the boat slip, parking area or boat launch area.

Prohibit unattended, open containers of paints and other maintenance supplies on the dock.

- Keep all open containers, even while in use on the boat or on land in a secondary containment.

Store liquid marina supplies indoors or in covered, watertight containers.

- Household hazardous materials must be stored in leak proof, closed and labeled containers in a covered area, and maintenance and inspection of all storage containers and storage areas need to be conducted on a routine basis.
- All materials used on the day to day basis should be stored indoors or in covered containers to reduce the possibility of pollution.

Use absorbent materials or other environmentally friendly methods to clean liquid spills. Do not rinse spills into the water.

- Keep an oil spill response kit in handy locations near areas where oily spill may occur. The kit should contain oil absorbent socks to contain the spill and oil absorbent mat pads as well as disposable bags and ties.
- Keep absorbent materials handy to clean non-oil based solvents and other liquids.

Require boaters to practice pollution prevention as a condition of their contract.

- Provide boaters with a list of rules and regulations to prevent pollution. Include helpful tips for a variety of practices, such as how to deal with oil and fuel spills, how and where to dispose of wastes and materials, proper boat cleaning procedures, etc. Include any tools or services that you provide to help them, such as oil/fuel absorbent pads, pet

waste bags, etc. Click for an [example of Boater Best Management Practices to prevent pollution.](#)

- See “Boat Cleaning and Maintenance” (section 2) for more tips.
- Click for [Proper Fueling Instructions.](#)

Maintain employee training records.

- Maintain a log of training with date, attendees and procedure or training performed.
- Click for an example [Employee Training Log.](#)

Require immediate cleanup of oil, chemical, pesticide, fertilizer and soil spills.

- Oil, chemicals and pesticides can be toxic to aquatic organisms, and fertilizer and soil can cause nutrient (algae causing) pollution. Take a survey of these types of items and be prepared to clean them up should a spill occur. Clean-up kits and materials should be readily available and staff should be aware of their locations.

Educate Customers of Top Best Management Practices.

- Click [HERE](#) for the Top BMP list

Additional

Require that pets are not allowed to run unleashed in the marina.

- It is difficult to control or know where pet waste occurs if pets are running loose.

Require pet owners to clean up after their pets.

- Pet waste can runoff into the water and cause bacterial pollution including dangerous e-coli. Pet waste also contributes to excess nutrients in the water, which promotes algae growth.

Supply disposal bags for pet owners.

- There are a variety of companies who offer pet waste disposal kits. Several are available on-line.

Train staff on stormwater pollution prevention.

- Click to access EPA information on [Stormwater Runoff Management.](#)
- Maintain training logs with name, date and practice covered. Include training on proper cleaning and maintenance,

Incorporate BMP land use and maintain shoreline vegetation.

- Plant grass between impervious area and the shoreline.
- Incorporate grassed swales, porous pavement, buffer area and catch basins where feasible.
- Click for more information on [BMP Land Use](#). Refer especially to pages 6 -8.

Use native plants and mulch in vegetated area.

- Be sure to choose types of plants that are appropriate for the conditions where they are planted. Native plants can tolerate local weather conditions much better than annuals. Native plants have much deeper root systems and do a better job of absorbing excess nutrients and potential toxins. Their deeper root systems also make them less susceptible to washing out and help hold the soil together therefore reducing sediment loss and erosion.
- Mulching plants helps them tolerate dry conditions better.

Provide covered trash and recycling bins for customers and visiting boaters.

- Covered trash receptacles do not fill up with water when it rains, do not lose their contents to strong winds, and are less likely to be invaded by scavenging mammals and birds. A loose cover also acts as an indicator that a receptacle is full. The best overflow prevention is frequent emptying by marina staff.
- Recycling of nonhazardous solid waste such as scrap metal, plastic, aluminum, glass, wood pallets, alkaline batteries, paper, fishing line and nets, and cardboard is recommended wherever feasible.
- Recyclable hazardous solid waste such as used lead-acid batteries and used oil filters, should be stored on an impervious surface, under cover, and sent to or picked up by an approved recyclable materials handler.
- Click to access more information on [Solid Waste Management](#).

Berm off trash and recycling areas to prevent leaks from entering the waters.

- Runoff from trash and recycle bins can contain a variety of pollutants. Even in covered bins liquids can leak through and end up in the water. Adding a Berm or retaining wall helps filter and slow down this potential runoff.

Have a predetermined procedure for approaching polluters.

- Always approach them in a friendly and helpful manner. Offer assistance rather than condemning bad behavior.

- Have written rules about pollution that you can provide to them. Offer information and resources for a better way to deal with the issue. This is a perfect opportunity to offer personal service, education and relationship building.

Provide an oil/water separation service to filter bilge water.

- Bilge water often contains oil and its direct discharge would result in undesirable transfer of waste oil to the marine environment. There are several products available on the market that separates the oil from the oil bilge water. Many of these are available on-line.

Stock non-toxic cleaning products, bilge pads, and other eco-friendly items in store and showcase them prominently.

- “Nontoxic” and “phosphate-free” cleaners are available and friendlier to the environment than products with toxic components.
- Products that carry safety warnings about the harm they can cause to people can harm the environment as well.
- Although “biodegradable” sounds good, it does not mean that a product is nontoxic. Biodegradable products are those which can be broken down by bacteria, other organisms, or natural processes. The degradation of “biodegradable” products in water uses dissolved oxygen, and therefore these products can lower dissolved oxygen levels.

Provide free absorbent pads for boaters to use in case of spill.

- Oil-Only Absorbent Pads are designed to control and clean up spills in small areas. They repel water and absorb only petroleum-based fluids to ensure efficiency in your cleanup operation. Oil-Only Pads can be used indoors around machinery to catch leaks, drips and spills or use them outdoors to soak up oil sheens off the surface of water.

Use alternative to coal tar sealant in parking lot or paved areas.

- Coal-tar based sealers contain a large amount of polycyclic aromatic hydrocarbons, also called PAHs. Some PAHs are carcinogenic and can harm aquatic organisms. These chemicals wash off during rain events and enter the water. Some studies show that PAHs may elevate the risk of cancer in humans.
- Click for [Choosing Alternatives to Coal Tar Sealants](#)
- Untreated asphalt is the most environmentally friendly alternative, but there are certain variables that you need to get right with asphalt-based sealant. Choose a company with expertise and experience in asphalt based sealant application and get informed. There are some sealants on the market which do not contain PAHs. They may contain other

dangerous chemicals and should be studied and used with caution in a marina environment where runoff into the lake is immediate and unavoidable.

- Tip: A vegetative buffer between the parking area and the lake helps to filter some of the toxins.

Clean parking lots using dry methods or methods in which wash water is recovered.

- Routine sweeping and collection of debris is the best way to clean parking and other paved areas. If impervious areas are washed with water the debris will runoff into the water.

Provides Boater and Staff Education for:

Proper storage and disposal of materials

- Boaters must properly manage and dispose of all wastes and materials. (Where are your trash receptacles? How do you want boaters to handle their household hazardous waste? Do you offer recycling?)

Emergency Spill Response

- Boaters should report oil and fuel spills to the marina office immediately. (Do you provide absorbent materials and containment booms for boaters? Are they available on the docks or fueling area?)

Household Hazardous Waste disposal site locations

- Do you have onsite collection sites for household hazardous waste? If not, where is the nearest appropriate site to your marina?

Proper fueling procedures

- Click for information on basic [Proper Fueling Procedures.](#)
- Click for a list of [Boater Best Management Practices for Petroleum Containment](#)

Hazardous Materials

Improper handling of hazardous materials can cause harm to human health and the environment, and can result in serious penalties and expensive clean-up costs if contaminations occur.

Mandatory

Keep a Hazardous Materials Management Plan and disposal records on file. Maintain disposal records for a minimum of 3 years.

- Keep a list of hazardous materials used at the marina on file.
- Have an Emergency Contact List handy in case of spills.
- Know who to contact for proper disposal and keep disposal records on file for at least 3 years.

Have a designated emergency coordinator and trained personnel who handle hazardous materials in proper management procedures.

- Designate an emergency coordinator and train personnel who handle hazardous materials in proper management procedures and emergency response in case of a fire or spill.

Utilize approved hazardous materials hauler for legal disposal.

- Use an approved hauler to dispose of all hazardous materials.

Store, manage and dispose of hazardous materials & waste legally and inform boaters as to proper disposal of hazardous waste.

- Hazardous wastes generated by recreational boaters are considered household hazardous waste. Dispose of household hazardous waste in properly marked containers if provided by the marina or at the nearest appropriate site.

Store hazardous materials off the grounds and covered with an impervious surface

- Store on a pallet under cover (i.e. roof, tarp, plastic etc.)

Keep hazardous material containers and drums in good condition and closed securely.

- Make sure containers are free of rust and lids are tightly closed.

Clean up and dispose of spills and leaks promptly and properly.

- Follow MSDS sheets for proper disposal.

Provide spill control material and empty containers for emergency clean up in a convenient, readily accessible location.

- Store spill response equipment (spill kit) in convenient, readily accessible locations.
- Store your spill equipment in a bucket which can also be used for clean-up.

Segregate material to ensure that only materials that are hazardous are handled as such.

- Clearly label containers and tanks in order to avoid mixing incompatible materials.

Petroleum Containment

Petroleum in or on the water is very harmful, if not fatal, to aquatic life. Benzene is an ingredient in gasoline which can cause cancer and oil contains zinc, phosphorus, and sulphur. Petroleum products introduced into the environment in small incremental discharges can cumulate and create significant environmental consequences. A million gallons of water can be contaminated by only one gallon of fuel. Once petroleum is introduced into the water, it may float, evaporate, become suspended, or settle at the water's bottom. Floating petroleum is particularly noxious because it reduces light penetration and the exchange of oxygen at the water's surface. Floating oil will affect thousands of species of plants, animals, and microbes by contaminating the upper portion of the water. The micro layer, because of its abundance of life, attracts many predators and birds and if polluted may poison the entire aquatic food web.

Pertinent Laws and Regulations

Federal Water Pollution Control Act (Clean Water Act)

The federal Water Pollution Control Act (Clean Water Act) prohibits the discharge of oil or oily waste into or upon the navigable water of the United States or the waters of the contiguous zone if such discharge causes a film or sheen upon, or discoloration of, the surface of the water, or causes a sludge or emulsion beneath the surface of the water. Violators risk significant monetary penalties and major violations are punishable by imprisonment.

The Clean Water Act (33 CFR 153.305) also prohibits the use of soaps or other dispersing agents to dissipate oil on the water or in the bilge without Coast Guard Authorization. Soaps, emulsifiers, and dispersants cause the petroleum to sink in the water and mix with sediments where they remain for years. Also, the soaps themselves are pollutants. You may be fined up to \$25,000 per incident for the unauthorized use of soap or other dispersing agents on the water or in the bilge.

Stormwater Permit

A marina or boatyard must have a storm water permit to perform fueling activities of any kind (dispensed from either aboveground or underground storage tanks), mechanical or engine repair activities, or boat maintenance activities (scraping, sanding, and power washing).

Underground Storage Tanks

A regulated underground storage tank (UST) with more than 2,000 gallons in capacity and more than 10% of its volume below the ground surface containing motor fuel, non-petroleum hazardous substances or heating oil, must have spill, overfill, and corrosion protection. A UST

must also have a verifiable leak detection method and a current registration. Also required are routine testing for cathodic protection, investigation of suspended releases, routine inspection of spill catchment basins, dispenser sumps and piping sumps, permits for repairs, and various record-keeping regarding testing, leak detection, and repairs.

Mandatory

Conducts or attends emergency spill response procedures training.

- Review plans and response procedures with all employees at the beginning of each boating season and provide additional training for newly hired untrained staff.
- Train employees in the use of containment measures.
- Run emergency response drills annually.
- Emergency spill response plan should include:
 - Fuel spill
 - Holding or water tank filled with gas
 - Spill at the storage area: used oil, antifreeze, solvents, etc.
 - Fire
 - Health emergency
 - Weather emergency: Tornado, snow or ice storm, etc.
- Training may include going over written procedures describing actions to be taken under given circumstances. Procedures should be clear, concise, and easy to use during an emergency, e.g., use a large type size. Each emergency response plan should contain the following information:

Where:

- In the very front of the plan, insert a laminated 11 by 17-inch site plan of the facility showing valves, pipes, tanks, structures, roads, hydrants, docks, power and fuel shutoffs, hazardous material storage locations, and telephones.
- Describe where response material is located.

Who:

- Identify who is responsible for taking what action, e.g., deploying equipment, contacting emergency agencies, etc.
- Designate one person on the marina staff as the official spokesperson for the facility.
- Include a list of emergency numbers.

What:

- State the actions to take during emergencies that could reasonably occur and identify what equipment should be deployed. Include information about the types of equipment on site and their characteristics and capabilities.
- Describe the type, amount, and location of materials stored on site, e.g., petroleum and hazardous materials.

How:

- Explain how the equipment is used and discarded.

When:

- Indicate when to call for assistance.
- Update the plans annually to include any new technology or equipment and to confirm phone numbers.
- Share your information with your local fire department about your emergency response plans and equipment.

Has a Prepared Spill Prevention Control and Counter measure plan (if required; gasoline storage tanks with capacity exceeding 1,320 gallons)

- Learn more about SPCC Plans [here](#).
- The plan must include:
 - A site plan that depicts the marina layout and drainage patterns,
 - A list of all storage tanks and areas,
 - All quantities of oil that could be released with predicted rate and path of flow,
 - The procedures for receiving oil from supplier, transfer of oil within the marina, end point uses of the oil, and waste oil disposal,
 - The effects of a spill at the marina, including fire hazards, employee evacuation, customer/neighbor considerations,
 - The capacity for a secondary containment. If secondary containment is not practical, (i.e. fuel dock), you must explain why and provide a strong spill contingency plan, describing commitment of manpower, equipment, and materials to control and remove harmful quantity of discharged oil,
 - The countermeasure to contain, cleanup, and mitigate the effects of an oil spill,
 - A notification list,
 - The marina security for prevention of internal sabotage, external vandalism,
 - The employee training for spill prevention, oil handling, and spill clean-up. Only oil handling personnel must be trained in operation and maintenance of equipment to prevent oil discharge. Discharge prevention briefings for oil handling personnel must occur at least once a year.

Regularly inspect/repair fuel transfer equipment

- Inspect transfer equipment regularly and fix all leaks immediately. Maintain transfer equipment and hoses in good working order. Replace hoses, pipes, and tanks before they leak. Hard connect delivery nozzles. Hang nozzles vertically when not in use so that fuel remaining in hoses does not drain out.

Supervise Fueling: Environmental Recommendations

- Always have a trained employee at the fuel dock to oversee or assist with fueling.
- Train employees to have absorbent material on hand during fueling in case of backsplash or vent line overflow.
- Instruct fuel dock personnel to listen to filler pipes to anticipate when tanks are nearly full.
- Instruct personnel to slow the fuel flow at the start and finish of fueling.

Supervise fueling: Safety Recommendations

- Instruct boaters to:
 - Stop all engines and auxiliaries
 - Shut off all electricity, open flames, and heat sources
 - Extinguish all cigarettes, cigars, and pipes
 - Close all doors, hatches, and ports
 - Maintain nozzle contact with fill pipe to prevent static spark
 - Inspect bilge after fueling for leakage or fuel odors
 - Run bilge blowers after fueling for at least 4 minutes before starting engine
- Always have a trained employee at the fuel dock to oversee or assist with fueling.
- Train dock staff to carefully observe fueling practices; make sure fuel is not mistakenly put into the holding tank or water tank.

Prohibits the use of detergents and emulsifiers on fuel spills.

- Learn more about petroleum control, detergents and emulsifiers [here](#). Use absorbent pads or booms instead.

Be prepared for a fire.

- Be sure hydrants are available for fighting fires throughout your facility.
- Install smoke detectors in ship store.
- Provide and maintain adequate, readily accessible, and clearly marked fire extinguishers throughout the marina, especially near fueling stations.
- Inspect and test all firefighting equipment and systems regularly. Test fire extinguishers annually.
- Train personnel on fire safety and response: who to call, location of hydrants, use of portable extinguishers, etc.

- Invite the local fire marshal to visit your marina annually to train employees. These annual visits will also help the fire department to become familiar with your facility.

Additional

Provides a fueling manual for employees

- [See example fuel manual.](#)

Provides Boater/Employee Education for:

1. [Proper fueling procedures, including filling fuel containers](#)
2. [Appropriate engine maintenance](#)
3. Appropriate use of oil absorbent materials (see product instructions)
4. Appropriate bilge pumping-bilge containing oil or other fluids should not be discharged into the water.

Wastewater

Use of marine sanitation holding tanks in an improper manner can result in sewage entering the water. Both improperly installed marine sanitation devices and improper disposal practices are illegal. Sewage from boats is more concentrated than that from either combined sewer overflows or sewage treatment plants because marine sanitation systems use little water for flushing.

Improper boat discharges can result in degraded water quality, loss of recreational opportunities and negative aesthetic qualities for all citizens who enjoy our waterways.

Mandatory

Enforces existing local, state, and federal regulations pertaining to wastewater systems and the illegal discharge of boat sewage in writing

- Improper discharge of wastewater can be included in writing in slip rental contract.

Inspects and maintains the pumpout regularly

- View EPA's [Maintenance of Sewage Facilities](#)

If participant of [Clean Vessel Act](#), has appropriate signage displayed

- Signage can be acquired through the Missouri Department of Conservation by contacting

Marlyn L. Miller
Fisheries Programs Supervisor
Marlyn.Miller@mdc.mo.gov
573-522-4115 #3164

Prohibits dumping of waste into water

Requires all boats with wastewater storage capacity to disable Y valves if applicable

- Under federal law, if a boat has a Y valve allowing direct overboard discharge of untreated waste, it must be closed while operating in all inland and coastal waters. It is suggested you use a non-releasable wire tie, lock, or remove the valve handle to secure the device.

Additional

Provides mobile pump-out service

Posts and makes available local pump out locations

- Post a list of pump out locations. You may want to include hours and fees.

Requires manifest for pump out of storage facilities

- Pump out companies can provide you with a manifest that shows effluent were properly discharged at a wastewater treatment plant.

Provides boater education on proper wastewater disposal

- Provide [education](#) in marina publications/signage/contracts.

Installs adequate signage at pump out location

- Signage could include [universal pump out symbol](#), hours of operation, and contact information

Solid Waste

Solid waste can collect at marinas and boat ramp sites and enter surface waters if litter is not continuously picked up, if trash receptacles are not provided or conveniently located and/or insufficient attention is given to controlling waste produced during boat operation, cleaning, maintenance and repair activities.

Marinas that appear clean are more attractive to customers. Substantial cleanup costs can be replaced by small initial investments in trash collection and preventive practices. Providing sufficient waste receptacles, separating waste into classes of recyclables and preventing litter are all accepted practices and are part of customer service and environmentally friendly management at marinas and yacht clubs.

Mandatory

Disposes of Solid Waste in accordance with all local, state, and federal laws and regulations

- [Federal Solid Waste Disposal Act](#)
- [Missouri Solid Waste Management Law](#)
- [Missouri Department of Natural Resource Division of Solid Waste Management](#)

Places trashcans and dumpsters in convenient locations

Keeps litter picked up on a daily basis

Covers trashcans and dumpsters and keep plugged

Conducts periodic inspections of trash storage areas

Additional

Provides recycling containers

- Recycling service can be provided by local business [Tantone Industry](#). Tantone Industries offers a weekly recycle pick up service for Branson and Hollister area businesses. For \$25 per month, [Tantone's recycling service](#) will come to your business once a week and pick up your recycling. Recycling is not only good for the environment, but also reduces the amount of your trash costs.

Provides recycling for batteries

- Recycling used batteries is an important part of being an environmentally responsible boat owner. Batteries contain toxic materials that can enter the environment if they are disposed of improperly. A number of local businesses recycle batteries free of charge or offer payment. You can help prevent batteries from entering our waterways by providing a place to drop off batteries convenient to your boaters to ensure they are disposed of properly.

Provides recycling for fishing line

- Enroll in the [Monofilament Recycling Recovering Program](#), to protect birdlife from your monofilament recycling containment utilize the [bin modification](#)

Provides trash bags to boaters

- By providing trash bags to boater you encourage proper containment of waste and reduce litter. Trash bags with educational information provided on them also have an advantage in educating your boaters on issues that are important to your business.

Provides education to boaters for proper disposal of garbage, recyclables, and other wastes.

- Disseminate information through slip rental contract, postings at marina, fact sheet/handouts, printing in newsletters or electronic mailings that informs boaters about your marinas garbage and recycling locations/programs and encourage boaters to properly dispose of their wastes.

Provide education to boaters on the proper disposal of batteries

- Educate and encourage boaters to recycle/dispose of properly batteries through slip rental contract, postings at marina, fact sheet/handouts, printing in newsletters or electronic mailings.

Liquid Wastes

Dirty oil can be recycled, cleaned and used again. Recycled used motor oil can reduce the threat of its entrance into storm drains and pollution of groundwater and water bodies and/or it being poured onto the ground or tossed into trash receptacles and polluting the soil. Adequate storage and disposal facilities are important if the used oil and variety of other liquid materials boater use and store on their vessels are to be kept out of the environment.

Used Motor oil is a hazardous waste and may never be put in the trash, poured down the drain or dumped on the ground. You may have heard it before; a single quart of motor oil spilled in the water can create an oil slick two acres in size, killing marine organisms and fouling docks, lines and watercraft. Proper management/disposal of used oil is essential to keeping marina grounds and waters clean. Your maintenance of an adequate collection and storage facility is key to your boaters' successful participation in used oil and other waste collection efforts. In addition to the immediate benefits of cleaner grounds, collection of used oil benefits us by reducing our need for virgin oil, because recyclers can re-refine oil to be used again as oil and other lubrication products, or clean it and blend it into fuel oil.

Mandatory

MSDS Sheets are available

- Locate and print MSDS sheets from [MSDS Solution Center](#)

All storage units have secondary containment for petroleum products

All liquids are labeled and sealed

Maintains an oil spill response plan and has containment/clean up supplies available

Trains marina staff in oil clean up response

Slip lease agreements contain language requiring the proper disposal of liquid waste

Additional

Educates boaters on proper disposal of Household Chemical Waste

- Disseminate information through slip rental contract, postings at marina, fact sheet/handouts, printing in newsletters or electronic mailings
- Missouri Department of Natural Resources-[Household Hazardous Waste](#) [City of Branson-Recycle Center](#)

Posts a list of local Household Waste Collection Sites

- Household Chemical Waste Recycling Centers
[Southwest Missouri Solid Waste Management District](#)

Uses eco-friendly cleaning and materials whenever possible

Provides a waste oil collection site

- [Setting Up a Used Waste Oil Collection Site](#)

Maintains a log of all waste oil collected from vessels within your facility

- If your facility collects waste oil, keep quantity information provided to you by disposal company along with a log of how much oil collected during maintenance of vessels.

Accepts used oil filters at the oil collection sites

- By accepting oil filters you can ensure proper disposal of those collected.

Provides education to boaters on proper oil changing techniques and disposal of used oil and filters

Fish Waste

The amount of fish waste disposed into a small enclosed basin such as a marina or yacht club can exceed that which exists naturally in the water at any one time. In sufficient quantities where water circulation is restricted, the decomposition of this fish waste can deplete the water of dissolved oxygen, leading to water quality degradation and fish kills. It is therefore necessary to promote sound fish waste

management through a combination of fish-cleaning restrictions, public education and proper disposal of fish waste.

Mandatory

Provides education to boaters on importance of "No Bait Dumping"

Additional

Provides designated fish cleaning station

Provides "No Bait Dumping" Stickers if selling bait