

Thurston County

Pollution Prevention at Marinas

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Introduction

This progress report examines the hazardous waste technical assistance and regulatory compliance activities of the Thurston County Health Department (TCHD) Business Pollution Prevention Program over the late spring of 1997 and half of 1998. Specifically, this report examines hazardous materials/waste activities conducted at the eleven marinas (Figure 1). Two of the marinas are located adjacent to a Boatyard that are under a National Pollution Discharge Elimination System permit from the Department of Ecology (DOE). During the planning stage, meetings with DOE concluded that the permitted Boatyards with marinas would have a joint TCHD and DOE inspection.

Concurrent to the marina campaign within Thurston County, Ecology was proceeding with a similar campaign throughout the state. Ecology convened an external advisory workgroup in the fall of 1997. Thruston County was part of this group. The advisory work group met on three separate occasions and debated the environmental issues to be covered during the campaign. The advisory workgroup decided on bilgewater, fueling, hazardous waste, used oil, solid waste, sewage, spill response, and exotic species as the the environmental topics to be addressed during Ecology's campaign. Thurston County further defined the initial technical assistance program at marinas, to include more areas of concern that were addressed by the advisory group. Thurston County used the same checklist as Ecology to allow a consistent gathering and handling of data throughout the state.

Marina and boating activities are one of many sources of pollution that impact our waters. All activities that deal with engines and fuels do cause pollution. In order to minimize their environmental impact, boaters need to be more aware of the effects of certain practices such as pumping out an oil bilge, "topping off" the fuel tank, in-water sanding and varnishing and using toxic cleaning and maintenance products. However, boater education will do little without adequate waste management facilities and policies that encourage pollution prevention at marinas.

Background

In 1992, the Nonpoint Source Pollution Ordinance (Article VI of the Thurston County Sanitary Code) was adopted by the Thurston County Board of Health. This ordinance applies to controlling the discharge of small amounts of hazardous waste into the environment. In terms of hazardous waste rules, the ordinance sets standards for managing household hazardous waste, small quantity generator hazardous wastes, and petroleum wastes. Specifically, these wastes cannot be dumped in the trash or on the ground, put down the drain or burned. Through this local law, the Health Department has authority to investigate reports of improper storage or disposal and take appropriate actions to ensure hazardous wastes are properly managed. This law is also used in technical assistance settings to assist local businesses and help homeowners understand their responsibilities.

In 1995, a watershed plan for the Budd-Deschutes River Watershed was adopted by local jurisdictions. Within this plan, a recommendation was made that Thurston County Environmental Health Department should conduct a Moderate risk waste (MRW) inventory of all marinas in Budd Inlet. This recommendation led to the 1997-1998 marina technical assistance campaign.

Moderate risk waste is a term used to describe a type of hazardous waste generated by businesses in amounts less than 220 pounds per month. Moderate risk waste is a concern because it can harm human health and the environment. It can be acutely toxic, corrosive, flammable, or cause long-term health problems such as cancer. Moderate risk wastes can be released into the environment and affect public health through the use of products containing hazardous substances, or from the disposal of those products into the garbage, sanitary waste systems (sewer systems and septic tanks), storm drains, or onto the ground. Moderate risk waste is not subject to state or federal hazardous waste requirements.

Methodology

The Health Department initially solicited the Washington Department of Revenue for a list of Thurston County marinas and boatyards using the appropriate Standard Industrial Classification (SIC) codes. The phone book also was searched for those businesses that may not have been on the SIC list. In all, the Health Department found seven marinas, two yacht clubs and two boatyards in Thurston County. The Department then offered, through a targeted mailing, a free, non-regulatory voluntary technical assistance visit to take place prior to the mandatory compliance audit. The purpose of the technical visit was to provide information on waste reduction, recycling, disposal options, and other recommendations to assist businesses in complying with the ordinance. All the marina and yacht club inspections were done under the non-regulatory phase.

A Notice of Compliance was issued to each business after the regulatory audit. If a business met compliance standards, they were issued a Certificate of Environmental Achievement recognizing them for their efforts in protecting the environment.

In June and July of 1997, a hazardous waste specialist from the Health Department visited each business on an appointment-only basis. During the site visit, the waste specialist examined the management practice for each waste stream that was generated at the facility. A standardized checklist made formed by Ecology was used to record how each business was managing their waste streams.

The areas of concern were broken down into seven categories so consistency was achieved throughout each visit.

- * Bilgewater Management and Fueling Practices
- * Hazardous Waste
- * Used Oil
 - Solid Waste
 - Sewage
- * Spill Prevention and Response
- * Exotic Species

If existing waste management practices were not in compliance with the ordinance, the Department identified actions necessary for the business to meet compliance standards. The specialist also recommended appropriate, but voluntary, Best Management Practices (BMPs).

Best Management Practices (BMPs)

Best management practices (BMPs) are common sense initiatives and low cost management solutions. It is always cheaper and easier to clean up pollution at the source. Pollution prevention practiced in marinas is important to promote an abundance of aquatic life and a healthy boating environment. Marina sources of pollutants (antifouling paints, gray water, sewage and detergents) are diffuse and/or intermittent. Because of this, marinas are by their very nature, considered non-point sources, not subject to permitting requirements. This is why BMPs are the control mechanism of choice. Implementation of BMPs is typically voluntary and can be completed over time. But, BMPs cannot work if nobody knows about them. Marina staff should be trained about BMPs and know how to recognize those practices of tenants and marine contractors that cause water-borne pollution. Plumes of discolored water, piles of treated wood sawdust on the floats and oil sheens from bilges have no place in the marina. The in-water hull cleaning of vessels painted with antifouling paints and the use of a tidal grid for anything other than changing propellers, zincs or for conducting emergency repairs should not be permitted.

BMPs fall into two categories: *source control* and *treatment*. Source control BMPs are measures which prevent pollutants from coming into contact with ground water or surface waters. Typical source control measures for marinas include the use of tarpaulins when boaters are doing maintenance and painting, berms for hazardous wastes and

storage areas, covers, sweeping or vacuuming, drip pans, and waste segregation. Source control BMPs rely heavily on the diligence and cooperation of operators and boaters in following management practices. Source-control BMPs need to be especially monitored when allowing independent contractors and boat owners to work on their own boats. Most BMPs at marinas are source control.

Treatment BMPs at marinas are measures that reduce toxicity or volume of a waste *after* it has been generated. Examples include oil/water separators for stormwater in parking lots or boat haul-out facilities, or remediating contaminated sediments. Treatment BMPs are more expensive and labor intensive than source control measures.

Results

Bilge Water Discharge/Management

1. Provide notice that the discharge of contaminated bilge is illegal.
2. Make information available on bilge pumpout services.
3. Make supplies and equipment accessible for removing oil and fuel from bilge water. Oil absorbent pads, diapers, and pillows are made of a special material that repels water but absorbs oil.
4. Do NOT discharge oil contaminated bilge or drain onto the boat launch. If a bilge is severely contaminated with oil, use a pumpout service.
5. Dispose of oil soaked absorbents as a household hazardous waste if possible. Otherwise, wrap in newspaper, place in a plastic bag, and place into the garbage.
6. Do not use detergents or bilge cleaners.
7. Keep bilge area as dry as possible.
8. Do not drain oil into bilge.
9. Fit a tray underneath the engine to collect drips and drops.
10. Fix all fuel and oil leaks in a timely fashion.
11. Provide suction oil changers or pumps that attach to a drill head for your tenants use.
12. Advise tenants to turn off automatic bilge pumps and use them only when there is water in the bilge.
13. Recommend the installation of a manual override switch for bilge pumps.
14. Recommend the purchase of a hydrocarbon sensitive bilge pump.

Fuel Dock Operation and Maintenance

1. Locate and design fuel stations so spills can be contained.
2. Make absorbent pads and instructions for use readily available.
3. Don't soap your spills, use absorbents. Detergents disperse spills, but do not eliminate them.
4. Install automatic back-pressure shutoffs on all fuel nozzles.
5. Never leave fuel nozzles unattended.
6. Do not allow fuel nozzles to be blocked in an open position.
7. Ask boaters to not "top off" fuel tanks.
8. Use vent cups to capture fuel "burps" from air vents.
9. Provide information about vent whistles and fuel/air separators.
10. Request that boaters install fuel/air separators on their fuel tank vents or consider requiring it in your tenant lease agreement.
11. Clear the fuel nozzle of residual fuel prior to transferring back to the pump.
12. Do not allow self service on a gravity feed fueling system. Automatic shutoff nozzles may not work on these types of systems.
13. Take extra care in fueling personal watercraft (jet skis). These craft are not stable in water and are very prone to spills while fueling. Consider installing a personal watercraft fueling dock if a lot of jet skis use your marina.

Hazardous Waste

1. Make it a marina policy that throwing hazardous waste such as used oil, antifreeze, paints, solvents, varnishes and automotive batteries into the garbage is prohibited.
2. Post information on how and where to manage these wastes including Ecology's toll free number 1-800-RECYCLE, the location and hours of county run household hazardous waste collection facilities, and dates and locations of county sponsored hazardous waste collection events.
3. Actively help your tenants to manage these wastes properly. Consider operating a collection facility for hazardous wastes.
4. If operating a collection facility is feasible, it must be coordinated with the county or city Moderate Risk Waste contact (see Appendix B).

Waste Oil and Oil Spills

1. Specify how waste oil is to be managed/recycled in your moorage agreement.
2. Provide receptacles for waste oil recycling or information on waste oil collection sites near your marina by calling 1-800-RECYCLE.
3. Post information identifying oils acceptable for recycling and wastes that will contaminate used oil and prevent it from being recycled.
4. Monitor the use of your oil collection facility, keep it locked after business hours, and maintain a contributor list.
5. Test your waste oil collection tank(s) for chloride contamination on a regular basis with a commercially available screening test.

6. Collect oil in smaller volumes and test it prior to transferring into a larger collection tank. If tests show contamination, isolate that volume and do not add any more oil.
7. Once your collection tank is full and tests “clean” lock it up until your waste oil contractor arrives.
8. Advise tenants to puncture and drain oil filters. Provide receptacles for recycling.
9. Provide containment booms and oil absorbent materials in case of a spill.
10. Post the proper information for reporting spills.

Solid Waste

1. Make it a marina policy that throwing garbage into the water or on the land is prohibited.
2. Provide adequate trash containers for tenants to use.
3. Marinas of a at least 30 moorage slips should provide recycling opportunities for aluminum, glass, newspaper, tin, and plastic or as many of these as possible.

Sewage Management

1. Provide notice that the discharging of sewage is illegal and prohibit the discharge of sewage in your moorage agreement.
2. Provide sewate pumpout as a free-of-charge service or make it part of the standard moorage fee. Especially effectice for liveaboards is rebating part of the moorage fee for demonstrated, consistent use of the pumpout.
3. Post the location and operational hours for nearby pumpout facilities and list mobil pumpout services.
4. Provide clear instructions in pumpout use. Include a prohibition against disposal of hazardous materials.
5. Talk to livaboards who have obviously not moved their vessels to the pumpout facility in a very long time.
6. Provide clean, adequate shore-side facilities and encourage tenants to use them for showering and laundry.
7. Encourage tenants to use biodegradable, phosphate-free detergents on vessels.
8. Minimize food wastes thrown overboard by providing adequate garabage service.
9. Encourage tenants to conserve water and use water saving devices.
10. Prohibit the dumping or abandoning of pet wastes in your tenant lese agreement.
11. Remind boaters and vistors no to harvest shellfish in marinas.

Spill Prevention and Response

1. Identify areas and materials with the highest probability for spills and provide education and training to staff and tenants for prevention.
2. Develop a clearly understood spill response plan.
3. Provide containment booms and oil absorbent materials in case of a spill.
4. Post the proper information for reporting spills.
5. When a spill occurs, stop the spill or leakage at the source.

6. Report the spill immediately to the U.S. Coast Guard National Response Center at 1-800-424-8802 and the Department of Ecology at 1-800-OILS-911 or 1-800-258-5990.
7. Contain the material. Recover what you can, then wait for the Coast Guard or the Department of Ecology to respond.

Exotic Species

1. Remove any visible vegetation from items that were in the water including, boat, motor, and trailer.
2. Flush engine cooling system, live wells, bait tanks, bilges with hot water.
3. Rinse any other areas that get wet such as water collected in trailer frames, safety light compartments, boat decking and lower portions of the motor cooling system.
4. Water hotter than 110 degrees will kill veligers, and will kill adults.
5. Air dry boat and equipment for five days before using in uninfested waters. If gear or surface feels gritty, young mussels may have attached. They should be scraped off into bags and thrown into the garbage.

Recommendations

BMPs should be incorporated into the moorage agreement. Marine contractors should read the BMPs and then sign a clean worker contract. Proof of insurance, business license, and an environmental deposit should be required. If a tenant or contractor refuses to follow the marina's BMPs, termination of their lease or barring a contractor from the marina may be necessary.

Fact sheets
Boat houses
Collections Events
Live a boards