

Chapter 6

Management Measures for Marinas and Recreational Boating

6.1 Introduction

Marinas represent the only source category identified in the § 6217 Guidance that is not explicitly addressed by the existing Ohio NPSMP. As a result, this source has not been a significant focus of nonpoint pollution control efforts to date in the State of Ohio.

Nonpoint pollution associated with marinas and recreational boating can pose a significant threat to the health of aquatic systems. Adverse environmental impacts resulting from poorly designed or operated marinas or other activities closely tied to marinas and recreational boating can include:

- Poorly flushed waterways with dissolved oxygen deficiencies and high concentrations of toxic metals in aquatic organisms.
- Alteration or destruction of wetlands and bottom aquatic habitats.
- Discharge of pollutants directly from boats and boat maintenance activities, or transported in stormwater runoff from parking lots, rooftops, and other impervious surfaces at marinas.
- Shoreline erosion in shallow areas, increased turbidity, and physical destruction of shallow-water habitat from boating operations.
- Increased erosion resulting from impoundment of sand and gravel resources by navigation structures and in navigation channels.
- Increased erosion resulting from offshore or upland disposal of sand and gravel resources dredged from channels and waterways.

In Ohio, Lake Erie provides a vast and diverse resource base that supports a world-class fishery, important industrial and public water supply, and extensive recreational use. Based upon current licensing data, there are a total of 303 licensed marinas located along the 262 miles of Lake Erie coastline, with a total capacity of 37,900 watercraft. While the exact number is unknown, ODNR's Division of Watercraft estimates that hundreds of thousands of recreational boats use Lake Erie's waters each year. Controlling water quality impacts from marinas and recreational boating is critical to the continued vitality of this valuable resource.

6.2 Existing Programs

Several existing federal and state authorities and programs have been established to control nonpoint pollution associated with recreational boating activities and the building and operation of marinas in Ohio. New and existing marinas are subject to a variety of authorities governing land use adjacent to and within waters of the state; pollution control; habitat preservation; and safe and proper use of the state's waterways. A brief summary of these authorities and programs is given below.

6.2.1 Existing Programs—Federal

Marina owners and operators are required to comply with numerous federal statutes relating to environmental impacts associated with marinas. The **Archaeological Resources Preservation Act** requires that marina developers apply for a permit to remove any archaeological resource(s) located on public lands where a marina is to be developed or expanded. The **Endangered Species Act** requires completion of a biological assessment to determine the presence of endangered species before construction activities may commence. Under the **Fish and Wildlife Conservation Act** marina developers may be required to consult with the U.S. Fish and Wildlife Service (USFWS) or NOAA to ensure that the project will not adversely impact fish and wildlife resources. Marina developers must submit plans to the USACE for approval under the **Rivers and Harbors Act of 1899** for construction, excavation, or deposition of materials in or affecting U.S. navigable waters.

The **Clean Vessel Act of 1992** was passed to maintain and improve the water quality in boating waters throughout the United States. The goal of the Act was to evaluate existing conditions for sewage disposal from recreational boats and to implement improvements where needed. Under the Clean Vessel Act, the USFWS is authorized to make grants to coastal states for the construction, renovation, operation, and maintenance of pumpout and dump stations for the disposal of sewage discharged by recreational boaters. In 1998, ODNR and ODH signed the Ohio Cooperative Clean Vessel Act Agreement. Under the terms of the agreement, ODNR will apply for, distribute, and administer the Clean Vessel Act federal financial assistance in Ohio. ODNR will work in conjunction with ODH to accomplish the following four goals under this program:

- Update the Lake Erie comprehensive survey of existing facilities to determine the number and location of pumpout facilities and the need for additional facilities.
- Develop a plan to educate the public and boating community of the existence, locations, and use of pumpout stations and waste reception facilities and to further educate them on the need for the proper disposal of marine waste from recreational vessels.
- Develop an educational plan to improve marina operator knowledge about issues regarding pumpout and dump stations, and marine sanitary waste, and the availability of Clean Vessel Act funds to assist in the installation or replacement of facilities.
- Establish Lake Erie as a “No Discharge Zone.”

A copy of Ohio’s Plan for Proper Disposal of Marine Sewage, along with the Ohio Cooperative Clean Vessel Act Agreement, is provided in Appendix K.

ODNR is presently conducting a survey to update the 1995 Lake Erie marina and recreational boating information base. The Division of Watercraft received a \$177,000 grant in 1999 for the improvement of boat pumpout and dump stations on Lake Erie. This grant will be used to finance construction activities that will improve over 20 facilities on Lake Erie’s coast. Figure 6-1 shows the locations of existing Lake Erie marinas. Similar grants will be applied for in each of the next four years.

6.2.2 Existing Programs—State and Local

Marinas providing boat dockage for seven or more watercraft are licensable establishments in Ohio under state law, and are subject to rules established in the Ohio Administrative Code. The marina regulatory program in Ohio was established in the mid-1970s. Ohio's **Marina Licensing Program**, administered by the ODH, regulates marina construction, operation, and maintenance. The intent of the marina law and regulations is to ensure that Ohioans using recreational watercraft, as well as surrounding areas, will be protected from unsafe drinking water, pollution hazards from improper waste disposal, accident hazards, and other unsanitary conditions.

Marina construction operations are subject to the **Ohio EPA NPDES Program** permitting requirements for earth-disturbing activities greater than 5 acres, and certain transportation-related activities associated with marina operations are covered by the industrial activity stormwater NPDES general permit. Ohio EPA's **Section 401 Water Quality Certification** authority is also used to regulate marina location and construction. The **Submerged Lands Lease Program**, which provides ODNR authority to protect the public trust ownership of Lake Erie's waters and the lands underneath, is another means by which environmental impacts of marina construction can be controlled. The Division of Watercraft's **Boating Laws and Regulations** oversee boating operations and are enforceable by state and local law enforcement jurisdictions. The Division of Watercraft also promotes public education through its **Boating Education Program** and **Boating and The Environment** educational materials.

Other enforceable state controls available to reduce water pollution from marina and recreational boating activities include Ohio EPA's authority under the **Clean Water Act** to enforce water quality standards, and under **RCRA** to regulate the storage, disposal, application, generation, and migration of toxic and hazardous substances; and the Division of Wildlife's authority under the **Stream Litter Law** to prevent stream litter or other discharges that kill or endanger wild animals and stream life.

In Ohio, local governments have been constitutionally (Article XVIII, Section 3, Ohio Constitution) and legislatively (ORC 303; 519) granted the authority and responsibility to plan for and control the development of specific land uses within their respective jurisdictions.

6.3 § 6217 Management Measures

The following management measures are intended to control impacts to water quality and habitat from marina siting, construction (both new and expanding marinas), and operation and maintenance, as well as boat operation and maintenance. These measures are applicable to the following facilities and their associated shore-based services that support recreational boats and boats for hire:

- Any facility that contains ten or more slips, piers where ten or more boats may tie up, or any facility where a boat for hire is docked.
- Boat maintenance or repair yards that are adjacent to the water.
- Any federal, state, or local facility that involves recreational boat maintenance or repair that is on or adjacent to the water.

- Public or commercial boat ramps.
- Any residential or planned community marina with ten or more slips.
- Any mooring field where ten or more boats are moored.

6.4 § 6217 Management Measures: Siting and Design

6.4.1 Marina Flushing Management Measure

Site and design marinas such that tides and/or currents will aid in flushing of the site or renew its water regularly.

Applicability

This management measure applies to new and expanding marinas in the § 6217 management area.

Existing Programs and Enforceable Policies and Mechanisms

Maintaining water quality within a marina basin depends primarily on flushing as determined by water circulation within the basin. If a marina is not properly flushed, pollutants will concentrate to unacceptable levels in the water or sediments, resulting in impacts to biological resources. In non-tidal coastal waters, such as Lake Erie, wind drives water circulation, producing cells that can have a flushing effect within a marina. Several hours of consistent wind are required for full development of wind-driven currents. In many situations wind-driven currents will provide adequate flushing of marina basins. Variations in winds, water current, precipitation, and water levels create substantial variability in the condition of sheltered waters that are poorly flushed. Generally, the summer months bring conditions of low precipitation and the smallest number of significant water level and current changes. This contributes to poor flushing of all sheltered areas along Lake Erie: Sandusky Bay, Put-in-Bay, and all harbors and small estuaries. Degraded water quality has been measured in such areas during these months of peak recreational boating usage.

Consideration of marina flushing in the siting and design of new marinas in Ohio is included as part of the agency review process invoked under ODNR's **Submerged Lands Lease Program**; and the Ohio EPA's **Section 401 Water Quality Certification and Clean Water Act** programs (Table 6-1). ODNR has authority under the Submerged Lands Lease Program to deny an application for a submerged land lease if it is felt that the proposed project will have negative environmental impacts upon water quality. Without the required submerged land lease, a property owner cannot by law place any material into Lake Erie. In addition, applicants for an Ohio EPA water quality certification seeking to site a marina in waters of the state must demonstrate that the creation of the marina will not prevent or interfere with the attainment or maintenance of applicable water quality standards for those waters affected. Projects requiring a Section 401 Water Quality Certification are subject to a water quality antidegradation review by Ohio EPA as part of the certification process.

6.4.2 Water Quality Assessment Management Measure

Assess water quality as part of marina siting and design.

Applicability

This management measure applies to new and expanding marinas in the § 6217 management area.

Existing Programs and Enforceable Policies and Mechanisms

Existing programs that support the implementation of this management measure are the same as those listed under Siting and Design Management Measure for Marina Flushing. The assessment of water quality as part of marina siting and design criteria is implemented under the authority of ODNR's **Submerged Lands Lease Program**, and the Ohio EPA's **Section 401 Water Quality Certification and Clean Water Act** programs. See Table 6-1 for a synopsis of the Ohio programs applicable to the implementation of this management measure.

6.4.3 Habitat Assessment Management Measure

Site and design marinas to protect against adverse effects on shellfish resources, wetlands, submerged aquatic vegetation, or other important riparian and aquatic habitat areas as designated by local, State, or Federal governments.

Applicability

This management measure applies to new and expanding marinas where site changes may affect wetlands, shellfish beds, submerged aquatic vegetation, or other important habitats throughout the § 6217 management area.

Existing Programs and Enforceable Policies and Mechanisms

Marina owners and operators are required to comply with numerous federal and state statutes relating to environmental impacts on important habitat areas associated with the construction or expansion of marinas in Ohio's § 6217 management area. An assessment of the impacts of proposed marina projects on important aquatic habitat areas may be required under the **Archaeological Resources Preservation Act**, the **Endangered Species Act**, and the **Fish and Wildlife Conservation Act**. Also, marina developers must submit plans to the USACE for approval under the **Rivers and Harbors Act of 1899** for construction, excavation or deposition of materials in or affecting U.S. navigable waters, and under **Section 404, Clean Water Act** for projects affecting wetland areas. Existing state programs which support the implementation of this management measure include ODNR's **Submerged Lands Lease Program**, and the Ohio EPA's **Section 401 Water Quality Certification and Clean Water Act** water quality programs. A listing of applicable existing programs that implement provisions of this management measure is provided in Table 6-2. Section 6.2 of this document provides a more detailed description of these programs.

6.4.4 Shoreline Stabilization Management Measure

Where shoreline erosion is a nonpoint source pollution problem, shorelines should be stabilized. Vegetative methods are strongly preferred unless structural methods are more cost-effective, considering the severity of wave and wind erosion, offshore bathymetry, and the potential adverse impact on other shorelines and offshore areas.

Applicability

This management measure applies to new and expanding marinas where site changes may result in shoreline erosion in the § 6217 management area.

Existing Programs and Enforceable Policies and Mechanisms

Erosion along the Ohio shore of Lake Erie is a serious problem. Each year, nearly 1.6 million tons of material is eroded along Ohio's lakeshore. Much of that material is fine-grained sediment that disperses in the lake, increasing water turbidity and sedimentation.

Installation of erosion control measures typically requires a permit from the USACE pursuant to the **Rivers and Harbors Act of 1899** and **Section 404 Clean Water Act**, a **Section 401 Water Quality Certification** from Ohio EPA, and a **Submerged Land Lease** if any erosion control measure extends into the waters or onto the lands underlying the waters of Lake Erie. Therefore, several factors are considered during a comprehensive and coordinated review by ODNR and Ohio EPA; these include impacts on water quality, fish, and wildlife, and public uses such as navigation, water commerce, and recreation.

See Table 6-3 for a summary of existing programs in the State of Ohio that are applicable to the implementation of this management measure.

6.4.5 Stormwater Runoff Management Measure

Implement effective runoff control strategies which include the use of pollution prevention activities and the proper design of hull maintenance areas.

Reduce the average annual loadings of total suspended solids (TSS) in runoff from hull maintenance areas by 80 percent. For the purposes of this measure, an 80 percent reduction of TSS is to be determined on an average annual basis.

Applicability

This management measure applies to new and expanding marinas and to existing marinas for at least the hull maintenance areas. If boat bottom scraping, sanding, or painting is done in areas other than those designated as hull maintenance areas, the management measure applies to those areas as well. This measure is not applicable to runoff that enters the marina property from upland sources.

Existing Programs and Enforceable Policies and Mechanisms

Consideration of the effects of runoff in the siting and design of new marinas in Ohio is included as part of the agency review process invoked under ODNR's **Submerged Lands Lease Program**. ODNR has authority under the Submerged Lands Lease Program to deny an application for a submerged land lease if it is felt that the proposed project will have negative

environmental impacts on water quality. Without the required submerged land lease, a property owner cannot by law place any material into Lake Erie. ODNR's Division of Soil and Water Conservation, Ohio EPA, and NRCS have defined recommended practices for stormwater management, land development, and urban stream protection for the State of Ohio which are set forth in ODNR's *Rainwater and Land Development*. For post-construction stormwater runoff control, recommended practices aimed at maintaining post-development runoff rates and loadings similar to pre-development rates and loadings include the establishment of forested buffer strips, grass filter strips, infiltration trenches, and water quality ponds. Planning and design criteria for these recommended practices are provided in the manual to assist the site designer and plan reviewer in tailoring runoff control practices to fit specific site conditions. In addition, state authority to enforce the control of urban runoff and pollutants from development sites can be invoked by Ohio EPA through citation for violations of the State's Water Quality Standards under the **Clean Water Act**. Ohio EPA also administers the state regulations that require stormwater permits for construction under the **NPDES Permit Program** for all construction sites greater than 5 acres and for the industrial activity stormwater NPDES general permits. Locally, municipalities, townships, and counties all have authority to regulate stormwater and land development through **Local Ordinances**. See Table 6-4 for a listing of programs that apply to the implementation of this management measure in Ohio.

6.4.6 Fueling Station Design Management Measure

Design fueling stations to allow for ease in cleanup of spills.

Applicability

This management measure applies to new and expanding marinas in the § 6217 management area where fueling stations are to be added or moved.

Existing Programs and Enforceable Policies and Mechanisms

Review of fueling station design of new and expanding marinas in Ohio is included as part of the agency review process invoked under ODNR's **Submerged Lands Lease Program**. ODNR has authority under the Submerged Lands Lease Program to deny an application for a submerged land lease if it is felt that the proposed project will have negative environmental impacts on water quality. Without the required submerged land lease, a property owner cannot by law place any material into Lake Erie. Commercial marine fuel station design is governed under the **Ohio Fire Code**, adopted standard NFPA 30-A of the National Fire Protection Association. Commercial marine fuel station design is also regulated by the industrial activity stormwater NPDES general permit. Table 6-5 provides a summary of those programs in Ohio that implement the provisions of this management measure.

6.4.7 Sewage Facility Management Measure

Install pumpout, dump station, and restroom facilities where needed at new and expanding marinas to reduce the release of sewage to surface waters. Design these facilities to allow ease of access and post signage to promote use by the boating public.

Applicability

This management measure applies to new and expanding marinas in the § 6217 management area where adequate marine sewage collection facilities do not exist. Marinas that do not provide services for vessels that have marine sanitation devices (MSDs) do not need to have pumpouts, although dump stations for portable toilets and restroom facilities should be available. This measure does not address direct discharges from vessels covered under CWA Section 312.

Existing Programs and Enforceable Policies and Mechanisms

Efforts to promote the installation, maintenance, and usage of adequate sewage facilities to reduce the release of sewage into marina waters are carried out in Ohio through programs administered by both ODH and ODNR (Table 6-6). New marinas providing boat dockage for seven or more watercraft and existing marinas that expand substantially are subject to licensing requirements in Ohio under state law. Ohio's **Marina Licensing Program**, administered by the ODH, regulates marina construction, operation, and maintenance. The regulations assure that such marinas will provide adequate sanitary facilities for the watercraft and they will be constructed, located, maintained, and operated in a proper manner so as not to create a nuisance or cause a health hazard. In addition to ODH's licensing program, Ohio has received financial assistance under the **Clean Vessel Act**. With this funding, ODNR's Division of Watercraft has established a plan to promote the installation and usage of adequate sewage facilities at all of Ohio's Lake Erie marinas. Efforts are currently underway to update the Lake Erie comprehensive survey of existing facilities to determine the number and location of all pumpout facilities and dump stations along Lake Erie's coastline, and to determine the need for installing new facilities or upgrading existing facilities.

6.5 § 6217 Management Measures: Marina and Boat Operation and Maintenance

6.5.1 Solid Waste Management Measure

Properly dispose of solid waste produced by the operation, cleaning, maintenance, and repair of boats to limit entry of solid wastes to surface waters.

Applicability

This management measure applies to new and expanding marinas in the § 6217 management area and does not apply to existing facilities.

Existing Programs and Enforceable Policies and Mechanisms

Several existing programs in Ohio ensure the implementation of the provisions of this management measure (Table 6-7). Ohio's **Marina Licensing Program** require marina owners and operators to provide for the proper storage and disposal of all wastes generated at the marina. In addition, leasing conditions established under **ODNR's Submerged Lands Lease Program** can be imposed to require the proper storage and disposal of solid wastes produced by marina operations. The Division of Watercraft also promotes public education

on clean boating through its **Boating Education Program** and **Boating and The Environment** educational materials.

Other enforceable state controls available to reduce water pollution from marina and recreational boating activities include Ohio EPA's authority under the **Clean Water Act** to enforce water quality standards, and under **RCRA** to regulate the storage, disposal, application, generation, and migration of toxic and hazardous substances. The Division of Wildlife uses its authority under the **Stream Litter Law** to prevent stream litter or other discharges that kill or endanger wild animals and stream life, and the Division of Watercraft's **Boating Laws and Regulations** regulate boating operations and are enforceable by state and local law enforcement jurisdictions.

6.5.2 Fish Waste Management Measure

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

Applicability

This management measure applies to new and expanding marinas in the § 6217 management area where fish waste is determined to be a source of water pollution.

Existing Programs and Enforceable Policies and Mechanisms

Ohio promotes the proper management and disposal of fish wastes through provisions of its **Marina Licensing Program**, which requires proper waste disposal and nuisance abatement. Leasing conditions can also be imposed under the **Submerged Lands Lease Program** to ensure proper fish waste management by marinas that are located where fish waste is determined to be a source of water pollution. Other enforceable state controls available to reduce water pollution from fish wastes include Ohio EPA's authority under the **Clean Water Act** to enforce water quality standards, and the Division of Wildlife's authority under the **Stream Litter Law** to prevent stream litter or other discharges that kill or endanger wild animals and stream life. Table 6-8 provides a summary listing of Ohio programs applicable to the implementation of this management measure.

6.5.3 Liquid Material Management Measure

Provide and maintain appropriate storage, transfer, containment, and disposal facilities for liquid material, such as oil, harmful solvents, antifreeze, and paints, and encourage recycling of these materials.

Applicability

This management measure applies to marinas in the § 6217 management area where liquid materials used in the maintenance, repair, or operation of boats are stored.

Existing Programs and Enforceable Policies and Mechanisms

Existing programs that support the implementation of the provisions of this management measure are the same as those listed under Marina and Boat Operation and Maintenance Management Measure for Solid Waste, and are summarized in Table 6-9.

6.5.4 Petroleum Control Management Measure

Reduce the amount of fuel and oil from boat bilges and fuel tank air vents entering marina and surface waters.

Applicability

This management measure applies to boats that have inboard fuel tanks.

Existing Programs and Enforceable Policies and Mechanisms

Several existing programs in Ohio can be invoked to implement the provisions of this management measure (Table 6-10). Ohio's **Marina Licensing Program** requires marina owners and operators to provide for the proper storage and disposal of all wastes generated at the marina, including wastes associated with fueling operations. In addition, leasing conditions established under **ODNR's Submerged Lands Lease Program** can impose fueling system features designed to prevent releases during fueling operations. The Division of Watercraft also promotes public education on clean boating practices through its **Boating Education Program** and **Boating and The Environment** educational materials, and Ohio EPA's **Office of Pollution Prevention** has published a fact sheet entitled "Pollution Prevention for Marinas" that describes BMPs for fueling activities.

Other enforceable state controls available to reduce water pollution from marina and recreational boating activities include Ohio EPA's authority under the **Clean Water Act** to enforce water quality standards, Ohio EPA's authority under **RCRA** to regulate the storage, disposal, application, generation, and migration of toxic and hazardous substances, and the Division of Wildlife's authority under the **Stream Litter Law** to prevent stream litter or other discharges that kill or endanger wild animals and stream life.

6.5.5 Boat Cleaning Management Measure

For boats that are in the water, perform cleaning operations to minimize, to the extent practicable, the release to surface waters of (a) harmful cleaners and solvents and (b) paint from in-water hull cleaning.

Applicability

This management measure applies to marinas in the § 6217 management area where boat topsides are cleaned and where hull scrubbing in the water has been shown to result in water or sediment quality problems.

Existing Programs and Enforceable Policies and Mechanisms

Several existing programs address the release of harmful substances to surface waters resulting from boat cleaning operations at Ohio's marinas (Table 6-11). Ohio's **Marina**

Licensing Program requires marina owners and operators to provide for the proper storage and disposal of all wastes generated at the marina, including wastes associated with boat cleaning operations. In addition, leasing conditions established under **ODNR's Submerged Lands Lease Program** can impose design conditions on proposed boat cleaning and hull maintenance activities. The Division of Watercraft also promotes public education on clean boating practices through its **Boating Education Program** and **Boating and The Environment** educational materials, and Ohio EPA's **Office of Pollution Prevention** has published a fact sheet entitled "Pollution Prevention for Marinas" that describes BMPs for environmentally sound hull maintenance activities.

Other enforceable state controls available to reduce water pollution from marina and recreational boating activities include Ohio EPA's authority under the **Clean Water Act** to enforce water quality standards, Ohio EPA's authority under **RCRA** to regulate the storage, disposal, application, generation, and migration of toxic and hazardous substances, and the Division of Wildlife's authority under the **Stream Litter Law** to prevent stream litter or other discharges that kill or endanger wild animals and stream life.

6.5.6 Public Education Management Measure

Public education/outreach/training programs should be instituted for boaters, as well as marina owners and operators, to prevent improper disposal of polluting material.

Applicability

This management measure applies to all environmental control authorities in the § 6217 management area where marinas are located.

Existing Programs and Enforceable Policies and Mechanisms

Public education, outreach, and training programs are provided to Ohio boaters primarily through ODNR's Division of Watercraft (Table 6-12). With funding provided through the **Clean Vessel Act**, the Division has developed an education plan designed to educate and inform the boating community about water quality issues related to marine sanitary waste, the benefits of proper sanitary waste disposal, location of existing facilities, proper use of pumpout and dump stations, and Ohio's initiatives to improve the health of Lake Erie. The Division of Watercraft also conducts boating education courses to promote safe boating practices. In addition, the Division conducts boating seminars throughout the state aimed at educating the public and promoting the preservation of Ohio's water quality.

The Ohio EPA **Office of Pollution Prevention** has also joined the effort to educate boaters on environmentally sound boating practices through the publication of a fact sheet entitled "Pollution Prevention for Marinas." This publication provides strategies for marina owners and operators, as well as boaters, to reduce pollution generated by boating activities on Ohio's waterways.

6.5.7 Maintenance of Sewage Facilities Management Measure

Ensure that sewage pumpout facilities are maintained in operational condition and encourage their use.

Applicability

This management measure applies to marinas in the § 6217 management area where marine sewage disposal facilities exist.

Existing Programs and Enforceable Policies and Mechanisms

Maintenance of sewage pumpout facilities at Ohio's marinas is regulated through ODH's **Marina Licensing Program**. The licensing regulations require marina license holders to maintain and operate their marina's sewage disposal system in accordance with applicable standards of the Ohio EPA. Leasing conditions established under **ODNR's Submerged Lands Lease Program** can impose sewage system design and maintenance standards on new and expanding marina operations. Financial assistance may also be provided to marina owners/operators through the **Clean Vessel Act** for maintenance of sewage pumpout facilities and for implementation of measures to promote their use.

See Table 6-13 for a summary listing of Ohio programs applicable to this management measure.

6.5.8 Boat Operation Management Measure

Restrict boating activities where necessary to decrease turbidity and physical destruction of shallow-water habitat.

Applicability

This management measure applies only to boating and is intended by EPA to be applied to non-marina surface waters where evidence indicates that boating activities are impacting shallow-water habitats. The potential for such impacts exists in Ohio, and this management measure applies throughout the § 6217 management area.

Existing Programs and Enforceable Policies and Mechanisms

Boating operation activities in Ohio are regulated through the Division of Watercraft's **Boating Laws and Regulations** (Table 6-14). Enforcement of boating operation regulations is maintained by local law enforcement. The Division of Watercraft also promotes public education on environmentally safe boating practices through its **Boating Education Program** and its **Boating and The Environment** educational materials.

6.6 Strategies and Recommendations

Over the past two years, several public participation processes were put in place to assess nonpoint sources of pollution in the coastal area and throughout the state. In September 1997, ODNR convened six committees to assess coastal nonpoint problems, including marinas. Several discussions were held with representatives from the ODH, Division of Watercraft, Division of Soil and Water Conservation, and the marina industry. Subsequently, ODNR initiated a statewide nonpoint source planning process creating ten work groups. The work group addressing lake issues developed recommendations relevant to controlling nonpoint source pollution for marinas and recreational boating, and other agencies have used public meetings to identify strategic issues and obtain customer input. A good example of this is

ODNR's Division of Watercraft, which held 18 public meetings throughout the state in an effort to determine the public's highest priorities and issues related to Ohio's boating public.

The work from the coastal and statewide work groups, as well as public input received by other agencies, has been integrated here. What follows is a brief summary of the major marina and recreational boating pollution issues affecting coastal waters. Recommendations are presented for the resolution of these issues and program priorities.

Nonpoint pollution associated with marinas and recreational boating can pose a significant threat to the health of aquatic systems. Adverse environmental impacts resulting from poorly planned or operated marinas or other activities closely tied to marinas and recreational boating can include:

- Poorly flushed waterways with dissolved oxygen deficiencies and high concentrations of toxic metals in aquatic organisms.
- Alteration or destruction of wetlands and bottom aquatic habitats.
- Discharge of pollutants directly from boats, from boat maintenance activities, or transported in stormwater runoff from parking lots, roofs, and other impervious surfaces at the marina.
- Shoreline erosion in shallow areas, increased turbidity, and physical destruction of shallow-water habitat from boating operations.
- Increased erosion resulting from impoundment of sand and gravel resources by navigation structures and in navigation channels.
- Increased erosion resulting from offshore or upland disposal of sand and gravel resources dredged from channels and waterways.

Federal, state, and local programs currently provide both regulatory and voluntary measures to control nonpoint pollution from marinas and recreational boating in Ohio. To improve these efforts, Ohio plans to (a) utilize more effectively existing federal and state authorities and programs to address nonpoint pollution issues, (b) increase interagency and program coordination through a variety of mechanisms, and (c) increase public participation by establishing a Nonpoint Source Advisory group.

6.6.1 Existing Authorities and Programs

Clean Vessel Act

ODNR, through the Division of Watercraft, is responsible for applying for, distributing, and administering the Clean Vessel Act federal financial assistance in Ohio. To obtain federal funding, Watercraft developed *Ohio's Plan for Proper Disposal of Marine Sewage* and established four goals for the program and corresponding strategies to accomplish them.

One goal is to conduct a statewide comprehensive survey of existing facilities to obtain baseline information on the number and location of pumpout facilities and additional data for determining the need for additional facilities. ODNR will conduct an update of the Lake Erie Access Project to update the SCORP data from 1990. ODNR is also incorporating aerial digital photos of Lake Erie's shore into ODNR's GIS. After the inventory is complete, the

data will be entered into the GIS. ODNR will then be able to produce detailed maps of Lake Erie's shore with all marinas and pumpout/dump stations geographically located. Additional surveys will be conducted to verify and refine the number of boats on Lake Erie that have Type III MSDs or portable toilets. ODNR will use this information to better assess current distribution of marine waste facilities and determine areas of need.

A second goal is to develop an education plan to educate the public and the boating community on the existence, locations, and use of pumpout stations and waste reception facilities, and further educate them on the need for the proper disposal of marine waste from recreational vessels. To accomplish this, Watercraft will include information encouraging the use of pumpout/dump stations in any of its newly printed brochures and literature and begin designing a new boater's facility guide. This new brochure will contain information on locations of pumpouts and dump stations and fees, where appropriate. Also, an educational brochure, geared toward boat owners and marina operators, will be developed specifically for the Clean Vessel Act program. Lake Erie Watercraft officers, who conduct adult education on boating safety and other programs for boat clubs and other boating interest groups, will incorporate the Clean Vessel Act program needs into their presentations and programs. Additionally, boating constituency groups that partner with Watercraft, such as the USCG Auxiliary, U.S. Power Squadron, and Lake Erie Marine Trades Association, will be provided information to help spread the word and encourage use of waste facilities.

A third goal is to develop an education plan to improve marina operator knowledge about pumpout/dump and marine sanitary waste issues, and the availability of Clean Vessel Act funds to assist in the installation or replacement of facilities. Watercraft will coordinate efforts between division staff, volunteers, and ODH to conduct personal visits to marinas and distribute the Clean Vessel Act brochure. This effort will be performed along with the facility inventory being conducted by ODNR. Existing facilities will be reviewed and any needs noted. All marinas and boat launch areas will be provided an opportunity to apply for cost share funds to improve or install pumpout and waste reception facilities. Currently, grants are being processed from 1999 to install or upgrade pumpout facilities at 21 marinas on Lake Erie.

The final goal is to establish Lake Erie as a No Discharge Zone. Whereas Ohio currently has laws prohibiting overboard discharge on all inland waterways, in this effort, ODNR will work with the USEPA and surrounding states that have already established their Great Lakes as No Discharge Zones. The Division of Watercraft created a work group to analyze current state and federal regulations concerning the discharge of sewage and gray water from recreational vessels in Ohio. It recommended the development of a future master plan to implement a No Discharge Zone on Lake Erie by 2003, resulting in all Ohio waterways being free from overboard discharge. *Ohio's Plan for Proper Disposal of Marine Sewage* will be updated by April 2000. With this information and another round of Clean Vessel Act grants that will begin in autumn of 1999, Ohio will be able to document whether facilities on Lake Erie are adequate for boaters to use.

Section 401/404 and Antidegradation Permits

Enhanced review and enforcement of Ohio's Section 401 Water Quality Certification and Antidegradation Permit Programs are integral to prevent further water quality degradation and to improve conditions in Ohio's impaired, threatened, and critical coastal waters.

Revising the state agency review process under the Section 401/404 Permit Program to allow for review of proposed projects during project planning and design, rather than after the project plan/design is complete, should serve to increase compliance with program requirements and reduce impacts on water resources. In addition, development of specific criteria and regional conditions to be considered in the Section 401/404 and antidegradation review processes will provide for additional water quality protection in designated critical areas. Enhancing the review and enforcement functions for the existing requirements of these programs will require a commitment by Ohio to increase Ohio EPA staffing and funding in these two program areas.

Ohio is currently making a concerted effort to incorporate a better, more technical understanding of river morphology into our existing water resource protection strategies, recognizing that morphologically sound riparian systems are better able to purify water flowing through them and they are more resilient to pollutant loads. Work is now being done to establish the correlation of channel type with stream quality to improve stream assessment work. Natural channel stability concepts are being incorporated into channel modification projects for the purpose of restoration. In addition, Ohio is incorporating a better understanding of river form and process into its water resource protection strategies, regulatory requirements, and design standards. Standards are being developed to facilitate the process of incorporating natural channel design into hydromodification projects. State agencies will use these standards when reviewing and approving permits and making recommendations for mitigating stream alterations. ODNR has drafted a Stream Mitigation Policy to provide guidance to project reviewers in making recommendations.

6.6.2 Agency and Program Coordination

Coastal Consistency

The federal CZMA requires that any federal action or project that is reasonably likely to affect any land or water use or natural resource of the coastal area, regardless of location, be consistent with approved state coastal management programs. Therefore, federal agency actions and federally permitted, licensed, or funded projects are required to be consistent with Ohio's coastal management policies. In addition, under the state's coastal management law, ORC 1506.03, no project or activity directly affecting the coastal area that is proposed by or subject to the approval of any agency of the state shall be implemented or approved until the Director of ODNR has determined that it is consistent with the policies in the OCMP document. The consistency review process will be used to ensure maximum effectiveness of governmental authorities in eliminating or minimizing nonpoint source pollution from such projects and activities.

It is the responsibility of the project proponent to determine if the project affects Ohio's coastal area and is subject to consistency requirements. Project proponents must identify and obtain all necessary authorizations and permits, notify ODNR of all approvals that have been obtained, and certify that the project is consistent with Ohio's coastal management policies.

The OCMP, operating within ODNR's Division of REALM, will then initiate any additional public notice and comment process deemed necessary and conduct the state's consistency review of the proposal. Consistency reviews incorporate ODNR's interdisciplinary environmental review and consultation with other agencies with responsibilities in the coastal

area. The OCMP will solicit comments from appropriate agencies and incorporate appropriate comments and recommendations into findings that will support the ODNR director's agreement or disagreement with the consistency determination.

The Statewide NPSMP has also incorporated the concept of consistency into its process to ensure federal activities do not conflict with the state's program. Ohio will develop several approaches to use the consistency provision, including developing an NPSMP summary highlighting major areas of Ohio's NPSMP, identifying any agency involved with federal assistance programs or development projects that may have any effect on nonpoint source pollution management programs and sending them the summary, and scheduling meetings with appropriate agencies to discuss Ohio's NPSMP and coordination with the respective agencies' programs and activities.

Integrated Reviews and Early Consultation

The OCMP has identified a suite of enforceable authorities and enhancement policies that assist state and local government in protecting, restoring, managing, and developing coastal resources. Another goal of the OCMP, not inconsistent with the application of these authorities, is simplifying and consolidating the regulation of activities in the coastal area.

Achieving coastal nonpoint pollution control objectives for marinas, new marina developments, and other hydrologic and habitat modifications relies on a two-pronged approach. First, integrating review and approval processes among ODNR, Ohio EPA, and other state agencies assures consistency while improving the predictability of decision making for persons and entities affected by the program. Second, encouraging *early consultation* or *pre-application coordination* informs a project sponsor of any potential concerns and authorities of the State of Ohio that bear on the proposed project or activity. This can speed up approval processes, including the consistency review process, when applicable, while incorporating any necessary nonpoint source pollution control measures that may be necessary.

There are a number of enforceable authorities that can be integrated as applicable through coordination among agencies networked in the OCMP for marinas and hydrologic and habitat modifications. These include leasing or permitting activities on Lake Erie submerged lands (ODNR); Section 401 water quality certification (Ohio EPA); NPDES stormwater discharge permitting (Ohio EPA); enforcing Ohio's Antidegradation Policy in water quality standards (Ohio EPA); regulating erosion control structures (ODNR); regulating mineral extraction in Lake Erie (ODNR); reviewing petitioned drainage improvements (ODNR); regulating dams, dikes, and levees (ODNR); and regulating marina and boat dockage developments (ODH). These authorities are described in detail in Chapter 5 of the OCMP document.

Using this two-pronged approach, the OCMP first identifies which authorities are applicable to a project or activity and then determines if early consultation would be beneficial or practicable. The project review within and among agencies networked in the OCMP is conducted in a coordinated process as appropriate. The CNPCP Coordinator will assist the review process by determining how to incorporate nonpoint source management measures in the project while helping complete the project review processes in a timely and efficient manner.

Coastal Nonpoint Pollution Control Program Position

The Division of Soil and Water Conservation plans to create a CNPCP Coordinator position. This person will be located at ODNR's Coastal Services Center in the Lake Erie area and will be responsible for the development and implementation of Ohio's CNPCP. Job duties will include coordinating activities of other ODNR divisions and agencies; developing policies and implementing mechanisms into new and existing regulatory authorities and non-regulatory programs; working with the public, local officials, and non-governmental organizations to increase the awareness of nonpoint source pollution issues and prevention strategies; ensuring compliance of Ohio's CNPCP with federal management measures and consistency requirements; and coordinating with Ohio's Statewide NPSMP.

6.6.3 Public Participation

Statewide Nonpoint Source Management Program

As discussed earlier, ODNR initiated a statewide nonpoint source planning process to upgrade its Statewide NPSMP. Based on input received from a series of public meetings and briefings held in 1997–1998, ten work groups were created to address nonpoint source pollution issues as they related to the sources of pollution, program management, and resource protection. The work groups that addressed lakes developed several recommendations that were applicable to Lake Erie marinas and recreational boating (Objective 2 in the table below). Additionally, numerous recommendations for septic system pollution, agriculture, urban development, and stream restoration have been incorporated into other portions of the CNPCP.

One of the more important recommendations from the Statewide NPSMP is the creation of a Nonpoint Source Advisory group. Such a group would serve a variety of functions, including evaluating the Ohio NPSMP annually, providing guidance and oversight of the NPSMP, and reviewing, analyzing, and recommending actions from the Upgrade. Moreover, it will be recommended that at least one member of the Nonpoint Source Advisory group be from Ohio's Coastal Resources Advisory Council to ensure there is a direct link in citizen participation between statewide and coastal nonpoint pollution control efforts.

The following recommendations were derived from coastal and statewide nonpoint source work groups. Although several recommendations are being implemented or are under consideration, taken as a whole they do not, at this time, represent policy adopted by the State of Ohio. Further evaluation and consensus building will be undertaken to allow Ohio to develop a comprehensive implementation agenda.

Objective 1

Use the Clean Vessel Act to plan for and implement measures for proper disposal of marine sewage.

Objective 1 Recommendation	Measure(s) of Success	Resource(s) Needed	Responsible Organization(s)	Time Frame Beginning
Conduct survey of existing facilities to obtain baseline information on number and location of pumpout facilities and marinas, and integrate survey data into ODNR's GIS.	Establishing database and incorporating aerial digital photos into GIS	Staff time ODH survey information ODNR SCORP data	ODNR (lead division Watercraft plus sister divisions) ODH	Year 1
Develop public education plan to inform public on existence, location, and use of pumpout facilities and need to utilize them.	Increased usage of these facilities	Staff time Funding to revise existing and create new brochures	ODNR Division of Watercraft ODH	Year 1
Develop education plan for marina operators to improve knowledge about marine sanitary waste issues and availability of Clean Vessel Act funds to build or improve facilities.	Increased number of applicants for Clean Vessel Act funding	Staff time Funding Volunteers	ODNR Division of Watercraft ODH	Year 1
Establish Lake Erie as No Discharge Zone.	Establishing Lake Erie as No Discharge Zone	Staff time	ODNR Division of Watercraft	Year 4

Objective 2

Strengthen regulations to control direct discharges and habitat alteration.

Objective 2 Recommendation	Measure(s) of Success	Resource(s) Needed	Responsible Organization(s)	Time Frame Beginning
Improve enforcement of existing nonpoint regulations for septic systems, stream litter and wildlife protection (e.g., ORC 743.25, 1531.29, 3767.32, 3745-1-051533.59).	Improved septic system installation and maintenance programs Increased application of ORC 1531	Increased funding for county health departments	Local health and water supply departments Local litter prevention ODNR Division of Wildlife	Years 2-5

Objective 2 Recommendation	Measure(s) of Success	Resource(s) Needed	Responsible Organization(s)	Time Frame Beginning
Improve enforcement of existing boat and lake shoreline regulations.	Improved shoreline habitat as measured by buffer lengths and percent of total miles	Some increase in local inspection staffing	Local zoning and planning agencies Local health departments Lake associations Conservancy districts ODNR Division of Watercraft	Years 2-5
Develop model zoning and regulations (discharge of untreated stormwater, septic tank discharge, and mandatory setbacks).	Prepare document and distribute Educate and train Public I/E	State staff or contract funds	ODNR ODH Regional, City, and County Planning Organizations Conservancy districts	Years 3-4
Establish higher standards in pollution control from two-cycle engines, outboard motors, holding tank pump out, marina fueling docks.	Distribute standards	Staff	USEPA ODNR Division of Watercraft	Year 6
Establish standards for shoreline and nearshore disposal of sand and gravel dredged during maintenance of marinas.	Adoption of standards for disposal of materials	Federal and state cooperation and coordination	ODNR USACE Ohio EPA	Years 3-4
Create CNPCP Coordinator position located in coastal area to integrate NPS objectives into local authorities, organizations, and public.	Position filled and functioning	Section 6217 Funds	ODNR Division of Soil and Water Conservation and REALM	Year 1

Objective 3

Increase interagency and program coordination to protect critical areas.

Objective 3 Recommendation	Measure(s) of Success	Resource(s) Needed	Responsible Organization(s)	Time Frame Beginning
Create CNPCP Coordinator position located in coastal area.	Position filled and functioning	Section 6217 Funds	ODNR-Division of Soil and Water Conservation and REALM	Year 1

Objective 3 Recommendation	Measure(s) of Success	Resource(s) Needed	Responsible Organization(s)	Time Frame Beginning
Create statewide Nonpoint Source Advisory group that includes representation of CRAC to ensure linkage between statewide and coastal nonpoint pollution control efforts.	Advisory board in place and functioning	Staff time	Ohio EPA ODNR	Years 1-2
Develop consistency process for the Statewide NPSMP.	Identify appropriate federal agencies and programs Meet with appropriate agencies	Staff time State and federal cooperation and coordination	Ohio EPA ODNR	Years 1-2
Integrate review processes of agencies networked in OCMP.	Management measures incorporated into projects Reduced review time	Facilitation or technical assistance with process improvement	ODNR Division of REALM and Soil and Water Conservation Ohio EPA Other OCMP-networked agencies	Years 1-2

Table 6-1. Marinas and Recreational Boating Siting and Design Management Measures—Marina Flushing and Water Quality Assessment

Program	Legislation	Regulation/ Program	Applicable Measures	Status	Implementing Agency	Enforcement Authority	Evaluation Measures
Submerged Lands Lease Program	ORC 1506	OAC 1501-6	Requires a Lease for All Uses of Submerged Lands	Regulatory	ODNR	Lease Conditions; Revocation or Denial	
	Clean Water Act Section 401		Water Quality Certification Requirements	Regulatory	Ohio EPA	Citation	
Section 319	ORC 6111	OAC 3745-1	Water Quality Standards, Antidegradation Rule	Regulatory	Ohio EPA	Citation	

Table 6-2. Marinas and Recreational Boating Siting and Design Management Measure—Habitat Assessment

Program	Legislation	Regulation/ Program	Applicable Measures	Status	Implementing Agency	Enforcement Authority	Evaluation Measures
Submerged Lands Lease Program	ORC 1506	OAC 1501-6	Requires a Lease for All Uses of Submerged Lands; Special Management Area Designation	Regulatory	ODNR	Lease Conditions; Revocation or Denial	
	Clean Water Act Section 401/404		Water Quality Certification Wetlands Permitting	Regulatory	USACE		
Section 319	ORC 6111	OAC 3745-1	Water Quality Standards, Antidegradation Rule	Regulatory	Ohio EPA		
	Archaeological Resources Preservation Act of 1979		Permits Req'd for Excavation or Removal of Archaeological Resources on Public Lands	Regulatory	DOI		
	Endangered Species Act		Preservation of Habitat of Endangered Species	Regulatory	FWS/NOAA		
	Fish & Wildlife Conservation Act		Fish & Wildlife Impacts Considered on Projects >10 Acres	Regulatory	FWS/NOAA		
	Rivers and Harbors Act of 1899 Section 10		Channel Dredging/ Engineering	Regulatory	USACE		

Table 6-3. Marinas and Recreational Boating Siting and Design Management Measure—Shoreline Stabilization

Program	Legislation	Regulation/ Program	Applicable Measures	Status	Implementing Agency	Enforcement Authority	Evaluation Measures
Submerged Lands Lease Program	ORC 1506	OAC 1501-6	Requires a Lease for All Uses of Submerged Lands	Regulatory	ODNR	Lease Conditions; Revocation or Denial	
	Rivers And Harbors Act of 1899 Section 10		Construction in or Affecting U.S. Navigable Waters	Regulatory	USACE		
	Clean Water Act Section 401/404		Water Quality Certification Wetlands Permitting	Regulatory	Ohio EPA		

Table 6-4. Marinas and Recreational Boating Siting and Design Management Measure—Stormwater Runoff

Program	Legislation	Regulation/ Program	Applicable Measures	Status	Implementing Agency	Enforcement Authority	Evaluation Measures
Submerged Lands Lease Program	ORC 1506	OAC 1501-6	Requires a Lease for All Uses of Submerged Lands	Regulatory	ODNR	Lease Conditions; Revocation or Denial	
	Clean Water Act Section 319, ORC 6111	OAC 3745-1	Water Quality Standards, Antidegradation Rule; NPDES Permit (Stormwater) Required for Construction Involving Area >5 Acres	Regulatory	Ohio EPA		
ODNR Stormwater Program	ORC 1511	OAC 1501:15	Construction Site and Stormwater Quality Standards; Education, Tech. Assistance	Voluntary	DSWC, NRCS		
Local Authorities	ORC 307.79 (Counties) ORC 505.75 (Townships)		Authority to Adopt Zoning, Building Codes and Standards	Regulatory			

Table 6-5. Marinas and Recreational Boating Siting and Design Management Measure—Fueling Station Design

Program	Legislation	Regulation/ Program	Applicable Measures	Status	Implementing Agency	Enforcement Authority	Evaluation Measures
Submerged Lands Lease Program	ORC 1506	OAC 1501-6	Requires a Lease for All Uses of Submerged Lands	Regulatory	ODNR	Lease Conditions; Revocation or Denial	
Ohio Fire Code	ORC 1301:7	OAC 3737-82	NFPA Standard 30A Marine Fuel Station Design	Regulatory	OSFM	Citation	

Table 6-6. Marinas and Recreational Boating Siting and Design Management Measure—Sewage Facility

Program	Legislation	Regulation/ Program	Applicable Measures	Status	Implementing Agency	Enforcement Authority	Evaluation Measures
Marina Licensing Program	ORC 3733.21-.30	OAC 3701-35	Requires Plan Approval for Construction/Alteration/Substantial Increase All Marinas >7 Moorings	Regulatory	ODH		
	Clean Vessel Act		Cost Assist. to State for Marina Sewage Improvement Program, and to Marina Owners for Pump-Out/Dump Stations Const./Renov./Oper./ Maint. Info. and Educ. Programs	Voluntary	ODNR, ODH		

Table 6-7. Marina and Boat Operation and Maintenance Management Measure—Solid Waste

Program	Legislation	Regulation/ Program	Applicable Measures	Status	Implementing Agency	Enforcement Authority	Evaluation Measures
Marina Licensing Program	ORC 3733.21-.30	OAC 3701-35	Requires Plan Approval for Construction/Alteration/Substantial Increase All Marinas >7 Moorings	Regulatory	ODH		
Submerged Lands Lease Program	ORC 1506	OAC 1501-6	Requires a Lease for All Uses of Submerged Lands	Regulatory	ODNR	Lease Conditions; Revocation or Denial	
Boating Education Program and Boating and the Environment Program			Best Management Practices for Boating	Voluntary	ODNR Division of Watercraft		
	Clean Water Act ORC 6111	OAC 3745-1	Water Quality Standards	Regulatory	Ohio EPA		
	Resource Conservation and Recovery Act Subtitle D (Solid Waste Management) ORC 3734 Subtitle C (Hazardous Waste Management)	OAC 3745-27-05 OAC 3745-50	Regulates Disposal of Solid & Hazardous Wastes	Regulatory	Ohio EPA		
	Stream Litter Law ORC 1531		Prohibits Placement of Litter Of Any Kind In Any Watercourse	Regulatory	ODNR	Citation	
Boating Laws and Regulations	ORC 1547.61		Adoption of Rules with Reference to the Operation of Vessels on Any Waters	Regulatory	ODNR Division of Watercraft		

Table 6-8. Marina and Boat Operation and Maintenance Management Measure—Fish Waste

Program	Legislation	Regulation/ Program	Applicable Measures	Status	Implementing Agency	Enforcement Authority	Evaluation Measures
Marina Licensing Program	ORC 3733.21-.30	OAC 3701-35	Requires Plan Approval for Construction/Alteration/Substantial Increase All Marinas >7 Moorings	Regulatory	ODH		
Submerged Lands Lease Program	ORC 1506	OAC 1501-6	Requires a Lease for All Uses of Submerged Lands	Regulatory	ODNR	Lease Conditions; Revocation or Denial	
	Clean Water Act ORC 6111	OAC 3745-1	Water Quality Standards	Regulatory	Ohio EPA		
	Stream Litter Law ORC 1531		Prohibits Placement of Litter Of Any Kind In Any Watercourse	Regulatory	ODNR	Citation	

Table 6-9. Marina and Boat Operation and Maintenance Management Measure—Liquid Material

Program	Legislation	Regulation/ Program	Applicable Measures	Status	Implementing Agency	Enforcement Authority	Evaluation Measures
Marina Licensing Program	ORC 3733.21-.30	OAC 3701-35	Requires Plan Approval for Construction/Alteration/Substantial Increase All Marinas >7 Moorings	Regulatory	ODH		
Submerged Lands Lease Program	ORC 1506	OAC 1501-6	Requires a Lease for All Uses of Submerged Lands	Regulatory	ODNR	Lease Conditions; Revocation or Denial	
Boating Education Program and Boating and the Environment Program			Best Management Practices for Boating	Voluntary	ODNR Division of Watercraft		
	Clean Water Act ORC 6111	OAC 3745-1	Water Quality Standards	Regulatory	Ohio EPA		
	Resource Conservation and Recovery Act Subtitle D (Solid Waste Management) ORC 3734 Subtitle C (Hazardous Waste Management)	OAC 3745-27-05 OAC 3745-50	Regulates Disposal of Solid & Hazardous Wastes	Regulatory	Ohio EPA		
	Stream Litter Law ORC 1531		Prohibits Placement of Litter Of Any Kind In Any Watercourse	Regulatory	ODNR	Citation	
Boating Laws and Regulations	ORC 1547.61		Adoption of Rules with Reference to the Operation of Vessels on Any Waters	Regulatory	ODNR Division of Watercraft		

Table 6-10. Marina and Boat Operation and Maintenance Management Measure—Petroleum Control

Program	Legislation	Regulation/ Program	Applicable Measures	Status	Implementing Agency	Enforcement Authority	Evaluation Measures
Marina Licensing Program	ORC 3733.21-.30	OAC 3701-35	Requires Plan Approval for Construction/Alteration/ Substantial Increase All Marinas >7 Moorings	Regulatory	ODH		
Submerged Lands Lease Program	ORC 1506	OAC 1501-6	Requires a Lease for All Uses of Submerged Lands	Regulatory	ODNR	Lease Conditions; Revocation or Denial	
Boating Education Program and Boating and the Environment Program			Best Management Practices for Boating	Voluntary	ODNR Division of Watercraft		
	Clean Water Act ORC 6111	OAC 3745-1	Water Quality Standards	Regulatory	Ohio EPA		
	Resource Conservation and Recovery Act Subtitle D (Solid Waste Management) ORC 3734 Subtitle C (Hazardous Waste Management)	OAC 3745-27-05 OAC 3745-50	Regulates Disposal of Solid & Hazardous Wastes	Regulatory	Ohio EPA		
	Stream Litter Law ORC 1531		Prohibits Placement of Litter Of Any Kind In Any Watercourse	Regulatory	ODNR	Citation	

Table 6-11. Marina and Boat Operation and Maintenance Management Measure—Boat Cleaning

Program	Legislation	Regulation/ Program	Applicable Measures	Status	Implementing Agency	Enforcement Authority	Evaluation Measures
Marina Licensing Program	ORC 3733.21-.30	OAC 3701-35	Requires Plan Approval for Construction/Alteration/ Substantial Increase All Marinas >7 Moorings	Regulatory	ODH		
Submerged Lands Lease Program	ORC 1506	OAC 1501-6	Requires a Lease for All Uses of Submerged Lands	Regulatory	ODNR	Lease Conditions; Revocation or Denial	
Boating Education Program and Boating and the Environment Program			Best Management Practices for Boating	Voluntary	ODNR Division of Watercraft		
	Clean Water Act ORC 6111	OAC 3745-1	Water Quality Standards	Regulatory	Ohio EPA		
	Resource Conservation and Recovery Act Subtitle D (Solid Waste Management) ORC 3734 Subtitle C (Hazardous Waste Management)	OAC 3745-27-05 OAC 3745-50	Regulates Disposal of Solid & Hazardous Wastes	Regulatory	Ohio EPA		
	Stream Litter Law ORC 1531		Prohibits Placement of Litter Of Any Kind In Any Watercourse	Regulatory	ODNR	Citation	

Table 6-12. Marina and Boat Operation and Maintenance Management Measure—Public Education

Program	Legislation	Regulation/ Program	Applicable Measures	Status	Implementing Agency	Enforcement Authority	Evaluation Measures
	Clean Vessel Act of 1992		Funding for Public Education Program	Voluntary	ODNR, ODH		
Boating Education Program			Courses Regarding Safe Boating Practices	Voluntary	ODNR Division of Watercraft		
Pollution Prevention Program			Pollution Prevention Goals and Objectives; Education Publications	Voluntary	Ohio EPA OPP, Public Interest Center		

Table 6-13. Marina and Boat Operation and Maintenance Management Measure—Maintenance of Sewage Facilities

Program	Legislation	Regulation/ Program	Applicable Measures	Status	Implementing Agency	Enforcement Authority	Evaluation Measures
Marina Licensing Program	ORC 3733.21-.30	OAC 3701-35	Requires Plan Approval for Construction/Alteration/Substantial Increase All Marinas >7 Moorings	Regulatory	ODH		
Submerged Lands Lease Program	ORC 1506	OAC 1501-6	Requires a Lease for All Uses of Submerged Lands	Regulatory	ODNR	Lease Conditions; Revocation or Denial	
	Clean Vessel Act		Cost Assist. to Marina Owners for Pump-Out/ Dump Stations Const./ Renov./Oper./Maint. Info. and Educ. Programs	Voluntary	ODH		

Table 6-14. Marina and Boat Operation and Maintenance Management Measure—Boat Operation

Program	Legislation	Regulation/ Program	Applicable Measures	Status	Implementing Agency	Enforcement Authority	Evaluation Measures
Boating Laws and Regulations	ORC 1547.61		Adoption of Rules with Reference to the Operation of Vessels on Any Waters	Regulatory	ODNR Division of Watercraft		
Boating Education Program and Boating and the Environment Program			Best Management Practices for Boating	Voluntary	ODNR Division of Watercraft		

