

Living Shorelines: State Regulations in Alabama, Mississippi and Florida

What are the regulatory rules for shoreline stabilization in the Gulf of Mexico, especially in Alabama, Mississippi and Florida?

Alabama

In Alabama, shoreline stabilization falls under the jurisdiction of the State Lands Division of the Alabama Department of Conservation and Natural Resources (State Lands) and the Alabama Department of Environmental Management (ADEM).

1. State Lands

State Lands has general regulatory authority over activities on state-owned submerged lands. The regulation relevant to shoreline stabilization is Ala. Admin. Code r. 220-4-.09, "Placement And Configuration Of Piers And Other Improvements On State Submerged Lands." (This subsection concerns only this rule.) The rule applies to new activities and expansion of existing activities, and would include many shoreline stabilization activities.

When State Lands approves an activity it grants a "riparian easement" for it.

To approve an activity State Lands must determine that it is "not contrary to the public interest" and must include the conditions, terms and restrictions necessary to protect the submerged land.

The permittee must compensate State Lands for activities that "limit or preempt general public use." Permissible activities are limited to those that are "water dependent."

The rule requires State Lands to manage state-owned submerged lands "primarily for the maintenance of essentially natural conditions, propagation of fish and wildlife, and traditional recreational uses such as fishing, boating, and swimming."

Navigation remains the ultimate priority. Activi-

ties must "be designed to minimize or eliminate any cutting, removal, or destruction of wetland vegetation" and "minimize or eliminate adverse impacts on fish and wildlife habitat," particularly endangered wildlife habitat.

With some exceptions, including riprap and similar shoreline protection structures, projects must be set back ten feet from the riparian lines of adjacent property owners. Other setbacks may be required if needed "to ensure safety, facilitate enforcement abilities or ensure resource management."

Rule 220-4-.09 implicitly endorses the general principles of living shorelines in subsection (4)(b)6: "To the maximum extent possible, shoreline stabilization should be accomplished by the establishment of appropriate native wetland vegetation. Rip-rap materials, pervious interlocking brick systems, filter mats, and other similar stabilization methods should be utilized in lieu of vertical seawalls wherever feasible."

Because this is one of the criteria that State Lands will use to determine if an activity should be permitted, it is likely that most living shorelines efforts would be approved.

Activities on submerged lands require "[s]atisfactory evidence of sufficient upland interest." Structures and activities must not "unreasonably restrict or infringe upon the riparian rights of adjacent upland riparian owners."

There is a minimum annual fee of \$500 for riparian easements. The fee is adjusted upward annually.

2. ADEM

ADEM has permitting authority over some shoreline stabilization activities as the administering agency for the Alabama Coastal Area Management Program (ACAMP). To approve a permit the agency must determine that a proposed use of the coastal area is consistent with ACAMP. Some of the factors ADEM considers may be relevant to living shorelines, including: whether the use provides regional benefit; whether the use is within a designated Special Management Area (described in the regulation), and is consistent with the priorities of that area; and, if dredge and fill activities affect wetlands, whether the use is water dependent.¹

ADEM favors uses that “eliminate or reduce the impacts to coastal resources.”² Projects that ADEM determines do not have “a significant impact on coastal resources” may be categorically certified to be consistent with ACAMP, via a U.S. Army Corps of Engineers (Corps) nationwide or general permit, and be excused from compliance with ACAMP’s requirements.³

The “conservation, repletion and research activities” of the Mississippi-Alabama Sea Grant Consortium (MASGC) and certain other entities are permissible if consistent with the regulations.⁴ Also permissible is “construction of minor structures, and repairs or additions which will not constitute a substantial improvement and which will not obstruct public access.”⁵

Other state agencies cannot issue permits for uses that may be subject to ACAMP until ADEM issues a certificate of compliance or determines that the use is not subject to ACAMP.⁶ Uses that require a federal license or permit (for instance, from the Corps and/or the U.S. Environmental Protection Agency (EPA) must be reviewed by ADEM for consistency with ACAMP).⁷

Local governments that issue permits or licenses for uses subject to ACAMP may apply to ADEM for local program delegation, which enables the local government to issue the permits or licenses without the applicant having to go to ADEM.⁸

When reviewing a project for consistency, ADEM will consider the extent to which the project adversely impacts, among other things, “[p]ublic access to tidal and submerged lands, navigable waters and beaches or other public recreational resources.”⁹ Dredging and filling might not be allowed near existing natural oyster reefs or submerged grassbeds.

Shoreline stabilization activities are addressed specifically in rule 335-8-2-.06, “Shoreline Stabilization and Erosion Mitigation.” The rule seems to anticipate that most people will seek to use hard structures for these projects, as it refers to “[b]ulkheads, the placement of rip-rap, and other structural shoreline armament.”

However, the rule encourages the use of soft approaches by denying a permit for a hard structure if a “non-structural alternative” is available, “including, but not limited to, preservation and restoration of dunes, beaches, wetlands, submersed grassbeds, and shoreline restoration and nourishment and retreat or abandonment.”

Rule 335-8-2-.08, “Construction And Other Activities On Gulf Front Beaches And Dunes,” requires protection of dune systems and vegetation during construction projects located between mean high tide and the construction control line. Similarly, rule 335-8-2-.10 directs that the “siting, construction and operation of energy facilities shall be conducted in a manner which minimizes significant impacts to coastal resources.”

The fee for a permit for a shoreline stabilization project is \$340 for projects less than 200 feet, and \$560 for projects over 200 feet.¹⁰

¹ Ala. Admin. Code r. 335-8-1-.03(2)(a).

² *Id.* r. 335-8-1-.03(3)(c).

³ *Id.* r. 335-8-1-.03(4).

⁴ *Id.* r. 335-8-1-.05(1)(b).

⁵ *Id.* r. 335-8-1-.05(1)(j).

⁶ *Id.* r. 335-8-1-.08(1).

⁷ *Id.* r. 335-8-1-.09.

⁸ *Id.* r. 335-8-1-.12.

⁹ *Id.* r. 335-8-2-.01.

¹⁰ *Id.* r. 335-1-6, Sched. B.

Florida

In Florida, state-owned submerged lands, usually referred to in the regulations as sovereignty submerged lands, fall under the authority of the Board of Trustees of the Internal Improvement Trust Fund (Board). The Board has permitting authority for activities on submerged lands.

The management policies, standards, and criteria for permitting of activities on submerged lands are delineated in Fla. Admin. Code r. 18-21.004. This rule is Florida's counterpart to Ala. Admin. Code r. 220-4-.09 and contains similar provisions.

Under rule 18-21.004, permitted activities on submerged lands must be water-dependent and not contrary to the public interest. The Board may impose any terms, conditions, or restrictions that it deems necessary to protect the submerged land. Submerged lands are to "be managed primarily for the maintenance of essentially natural conditions, propagation of fish and wildlife, and traditional recreational uses such as fishing, boating, and swimming." Activities that would significantly adversely impact submerged lands will not be approved unless there is no reasonable alternative, and mitigation measures will be taken. Activities on submerged lands must be designed "to minimize or eliminate any cutting, removal, or destruction of wetland vegetation." Activities must not create hazards to navigation.

Rule 18-21.004 allows placement of fill material for shoreline stabilization if it is "necessary" for that purpose. However, shoreline stabilization projects "should be accomplished by the establishment of appropriate native wetland vegetation" to the maximum extent possible. For shoreline stabilization, "[r]ip-rap materials, pervious interlocking brick systems, filter mats, and other similar stabilization methods should be utilized in lieu of vertical seawalls wherever feasible."

Under rule 18-21.004 activities on submerged lands must be designed "to minimize or eliminate adverse impacts on fish and wildlife habitat, and

other natural or cultural resources. Special attention and consideration shall be given to endangered and threatened species habitat." Sufficient upland interest is necessary for projects on submerged lands, and the riparian rights of adjacent upland owners must be protected. Most structures must be set back 25 feet from the permit applicants riparian rights lines, but shoreline stabilization structures are exempt from this requirement.

Construction or replacement of shoreline stabilization structures on submerged lands requires written authorization from the Board.¹¹

The Board's regulations explicitly favor the use of soft alternatives for shoreline stabilization in sovereignty lands that are part of aquatic preserves.¹²

Under Fla. Admin. Code Ann. r. 28-34.003, no development permits in the city of North Key Largo Beach can be issued for projects that will "adversely affect those conditions and characteristics which promote shoreline stabilization, storm surge abatement, water quality maintenance, wildlife and marine resource habitats, and marine productivity."

Monroe County, which contains the Florida Keys, has its own shoreline stabilization permitting regulation in the Florida Administrative Code. Rule 62-312.440, which applies to the Outstanding Florida Waters¹³ in the county, prohibits the use of vertical seawalls and mandates the use of native vegetation unless the landowner can show that vegetation will not prevent erosion. Riprap and other sloping revetments may be allowed if they meet certain conditions. This regulation is enforced by the Florida Department of Environmental Protection (FDEP).

Chapter 62B-41 of the Florida Administrative Code, administered by FDEP, governs permits for coastal construction, including coastal armoring, that takes place on the state's sovereign submerged lands.

"Armoring" is defined as "a manmade structure designed to either prevent erosion of the upland property or protect eligible structures from the effects of coastal wave and current action. Armor-

¹¹ Fla. Admin. Code Ann. r. 18-21.005.

¹² *Id.* r. 18-20.004(2)(d)(4).

¹³ *Id.* r. 62-302.700 (describes heightened protection for waters designated as Outstanding Florida Waters).

ing includes certain rigid coastal structures such as geotextile bags or tubes, seawalls, revetments, bulkheads, retaining walls, or similar structures but does not include jetties, groins or other construction whose purpose is to add sand to the coastal system, alter the natural coastal currents or stabilize the mouths of inlets.”¹⁴

Rule 62B-41.005 contains the criteria FDEP uses when considering applications for coastal construction permits. These criteria are harmonious with living shoreline principles. The rule declares FDEP’s policy to be “to prevent further degradation of, and to promote restoration of existing degraded portions of, the coastal system by means of the regulation of coastal construction.” Whenever possible, coastal protection is to be achieved using “flexible coastal structures,” which are defined in rule 62B-41.002 as “structures characterized by their frangible design or construction and ability to become freely assimilated into the coastal system by natural coastal processes.”

Structures that “interfere with the natural long-shore and onshore/offshore movement of sediments” are prohibited unless there will be a net positive benefit for the coastal system. Coastal armoring will be allowed as a “last resort” and is subject to stringent conditions. However, “minor reconstruction” of existing hard structures are exempt from those conditions. FDEP has the authority to order an existing hard structure to be redesigned or relocated if it interferes with sand movement so as to cause a significant adverse impact to the coastal system or adjacent properties. FDEP may order a structure removed if it is “dangerous to human life, health or welfare.” FDEP can order changes to a proposed construction project if the project has the potential to adversely impact the coastal system.

Rule 62B-41.007 describes the design, siting and

other requirements for FDEP permit approval of a coastal construction project. The rule is intended “to minimize any expected adverse impact to the coastal system, marine turtles and adjacent property and structures” and provides specific requirements in accordance with that goal.

Rule 62B-41.008 describes the FDEP’s permit application requirements and procedure.

Mississippi

Most shoreline stabilization activities in Mississippi will fall under the jurisdiction of the Department of Marine Resources (DMR) and/or the Commission on Marine Resources (CMR), depending on the location and nature of the activity.

Activities on public trust tidelands and submerged lands are regulated by CMR under the Public Trust Tidelands Act, Miss. Code tit. 29, ch. 15. “Tidelands” are defined as “those lands which are daily covered and uncovered by water by the action of the tides, up to the mean line of the ordinary high tides.”¹⁵ “Submerged lands” are defined as “lands which remain covered by waters, where the tides ebb and flow, at ordinary low tides.”¹⁶ These lands may be leased.¹⁷ Lease fees are waived for “public projects of any federal, state or local governmental entity which serve a higher public purpose of promoting the conservation, reclamation, preservation of the tidelands and submerged lands, public use for fishing, recreation or navigation, or the enhancement of public access to such lands.”¹⁸

Activities on coastal wetlands are regulated by CMR under the Coastal Wetlands Protection Act, Miss. Code tit. 49, ch. 27. “Coastal wetlands” are defined as “all publicly owned lands subject to the ebb and flow of the tide; which are below the watermark of ordinary high tide; all publicly owned accretions above the watermark of ordinary high tide

¹⁴ *Id.* r. 62B-41.002(4).

¹⁵ Miss. Code § 29-15-1(h).

¹⁶ *Id.* § 29-15-1(g).

¹⁷ *Id.* § 29-15-9.

¹⁸ *Id.* § 29-15-13.

and all publicly owned submerged water-bottoms below the watermark of ordinary high tide” including flora and fauna.¹⁹ Regulated activities under the Act include dredging, filling, killing or injuring plants or animals, and the erection of structures that materially affect the ebb and flow of the tide.²⁰ Permits from CMR are required for these activities.²¹ However, the routine maintenance of bulkheads that existed at the time the Act was passed is not subject to the Act.²²

Permit application requirements are described in Miss. Code §§ 49-27-11 through –19. When deciding whether to grant a permit, CMR is to consider the policy described in Miss. Code § 49-27-3, which is “to favor the preservation of the natural state of the coastal wetlands and their ecosystems and to

prevent the despoliation and destruction of them, except where a specific alteration of specific coastal wetlands would serve a higher public interest in compliance with the public purposes of the public trust in which coastal wetlands are held.”²³

CMR may include permit conditions to further this policy.²⁴ Performing unpermitted activities in coastal wetlands may incur financial and criminal penalties and liability to restore affected wetlands.²⁵

The DMR serves as the lead agency for the Mississippi Coastal Program, which, among other things, provides for a “one-stop permitting” process for coastal activities.²⁶ The permit application and supporting documents are available on DMR’s website at http://www.dmr.state.ms.us/Coastal-Ecology/permitting/mississippi_coastal_zone_wetland.htm.

¹⁹ Miss. Code § 49-27-5(a).

²⁰ *Id.* § 49-27-5(c).

²¹ *Id.* § 49-27-9.

²² *Id.* § 49-27-7(f).

²³ *Id.* § 49-27-23.

²⁴ *Id.* § 49-27-29.

²⁵ *Id.* § 49-27-55, 49-27-57.

²⁶ *Id.* § 57-15-6(4).

What are the existing regulations for seawalls (bulkheads, riprap)?

Alabama

1. State Lands

As noted in the shoreline stabilization section above, the State Lands Division of the Department of Conservation and Natural Resources regulates activities on state-owned submerged lands under Ala. Admin. Code r. 220-4-.09, “Placement And Configuration Of Piers And Other Improvements On State Submerged Lands.” The regulatory principles described above apply to seawalls as well as other types of shoreline stabilization. The state has consented to the placement of riprap “at or within ten feet waterward of the mean high tide line in tidally-influenced waters.”

The state consents to replacement of existing bulkheads or seawalls “at or within two feet waterward of the mean high water line for tidally-influenced waters or at the mean low water line for non-tidal streams.” New bulkheads or seawalls must be located “at or landward of the mean high tide line for tidal waters and at or landward of the mean low water line for non-tidal streams or water bodies.”

2. ADEM

ADEM regulates seawalls under the ACAMP. The material in the shoreline stabilization section above applies to seawalls as well as other shoreline stabilization activities. Maintenance and repair of seawalls constructed before August 14, 1979, is considered a permissible use. As noted, rule 335-8-2-.06 declares that hard structures like seawalls will be permitted only if softer alternatives are unfeasible. That rule also forbids placement of fill material in wetlands or submersed grassbeds without special authorization; requires placement of the structure above the mean high tide line and landward of wetlands; and requires the structure to be designed so that the normal hydrologic regime is maintained in wetland areas.

Bulkheads and similar structures may not be constructed on Gulf beaches or primary dunes un-

less they are landward of the construction control line, are necessary to protect an existing or previously permitted structure, and no other non-structural alternative (including retreat) is feasible.

The fee for a permit for a seawall is \$340 for a project less than 200 feet, and \$560 for a project over 200 feet.²⁷

Florida

The information about Fla. Admin. Code r. 18-21.004 provided in the shoreline stabilization section applies to seawalls as well. As discussed above, the rule explicitly favors the use of soft alternatives instead of vertical seawalls. The rule exempts seawalls, bulkheads, and riprap from the general 25-foot setback requirement.

Rule 18-21.005 describes the form of Board authorization necessary for the construction or repair of seawalls, bulkheads, and riprap. Most activities require written consent from the Board, although maintenance that complies with certain requirements does not.

Construction of seawalls waterward of the mean high water line in designated Florida Aquatic Preserves is prohibited except for public road and bridge projects when there is no alternative.²⁸

The Florida Keys Area of Critical State Concern in Monroe County has special regulations for seawalls in that area, detailed in rule 28-20.025(24). Under this rule, seawalls may be used for erosion control, but only if it is demonstrated that riprap and vegetation are inadequate. No seawalls are permitted in identified turtle nesting areas.

The City of Apalachicola, located in the Apalachicola Bay Area of Critical State Concern in Franklin County, has “Conservation Elements” in its comprehensive plan that prohibit the use of vertical seawalls without riprap reinforcement along natural water body shorelines.²⁹ In addition, the city is obligated to “encourage the removal of existing seawalls

²⁷ Ala. Admin. Code r. 335-1-6, Sched. B.

²⁸ Fla. Admin. Code r. 18-20.004(1)(c).

²⁹ *Id.* r. 28-22.205(2)(c), (e).

when the opportunity presents itself” and to accomplish restoration “by replacing existing, deteriorating seawalls with sloped shorelines or rip rap which will be vegetated where technically feasible.”³⁰

The FDEP regulates dredging and filling activities, including those associated with seawalls. Most dredging and filling requires an FDEP permit. Rule 62-312.050 exempts certain seawall construction, maintenance, and restoration activities from the permit requirement. Rules 62-312.060 and 62-312.070 give the permit application procedure for non-exempted activities. Rule 62-312.440 provides the criteria for dredge and fill permits in the Outstanding Florida Waters in Monroe County, including the preference for vegetation over hard structures and riprap. FDEP has issued a general dredge and fill permit for riprap installed at the toe of an existing vertical seawall.³¹

Chapter 62B-41 of the Florida Administrative Code governs activities on the state’s sovereign submerged lands. The discussion in the shoreline stabilization section above applies to this section. Rule 62B-41.007 provides design requirements for seawalls and bulkheads, including that they be designed “so as not to increase the potential for flooding impacts to upland structures from wave run up and overtopping of the structure during the authorized design storm.”

Mississippi

The information concerning shoreline stabilization provided above applies to seawalls, bulkheads, and riprap as well.

In addition, Miss. Code tit. 65, ch. 33 provides for local government authority to erect seawalls and other hard structures to protect roads from storms.

What are the existing regulations for living shorelines (oyster reefs, wave attenuation devices, vegetative planting)?

Alabama

Oyster reefs

The taking of oysters is regulated by the Marine Resources Division of the Department of Conservation and Natural Resources under Alabama Code §§ 9-12-20 to –67 and Alabama Administrative Code ch. 220-3. For the most part, the Marine Resources oystering regulations concern permit requirements, bag limits, seasons, and other subjects that are not related to living shorelines.

The state generally encourages oystering but also offers some legal protection for oyster reefs. Oyster reefs are legally protected from disturbance by nets, seines, and trawls.³² Under ACAMP it is forbid-

den to dredge or fill “in close proximity to existing natural oyster reefs...except in association with the approved creation or enhancement of oyster reefs or artificial fish attracting structures”³³ or to locate a marina in close proximity to existing public oyster reefs.³⁴

The owners of lands fronting waters in which oysters may be grown have the right to plant and gather oysters out to 600 yards from the low water mark.³⁵ However, the submerged lands are owned by the state and held in trust for its citizens. Private parties who do not own waterfront land but who nonetheless want to cultivate oysters may lease submerged lands from the state for that purpose.³⁶ The lessee must survey and mark the lease, and file a plat

³⁰ Fla. Admin. Code r. 28-22.205(2)(c), (e).

³¹ *Id.* rs. 62-312.804, 62-341.431.

³² Ala. Admin. Code r. 220-3-.01.

³³ *Id.* r. 335-8-2-.02.

³⁴ *Id.* r. 335-8-2-.04.

³⁵ Ala. Code § 9-12-22.

³⁶ *Id.* § 9-12-24.

with Marine Resources.³⁷

The state provides for the perpetuation of oyster reefs by requiring oyster harvesters to replant on public reefs, beds, or bottoms 50 percent of the shells they take.³⁸ The Department of Conservation and Natural Resources is required to replant all the shell it collects.

Wave attenuation devices

The term “wave attenuation device” is not found in any Alabama statutes or regulations. For regulatory purposes the state would probably consider such a device to be a breakwater.

Like shoreline stabilization mechanisms, breakwaters are regulated by State Lands and ADEM under Alabama Administrative Code r. 220-4-.09 and the general principles of that regulation, described above, apply. In addition, open water marinas constructed in the coastal area cannot have breakwaters that significantly interfere with the normal ebb and flow of the tide.³⁹

Breakwaters may not be constructed unless they are necessary to protect an existing navigational channel or a use of regional benefit; there are no other feasible non-structural alternatives; and there

are no significant impacts to adjacent shorelines.⁴⁰

Vegetative planting

The state has authorized coastal municipalities to undertake beach vegetation projects to maintain or restore the beach and provide storm protection.⁴¹ A municipality seeking to undertake such a project must notify the public, obtain a permit from State Lands, obtain the necessary property rights, and record a plat.⁴²

As noted above, in its shoreline stabilization and erosion mitigation regulations the state has expressed a preference for soft alternatives such as vegetative planting over the use of hard structures.⁴³

Submersed grassbeds are considered a “coastal resource” under ACAMP, and thus receive the program’s protections.⁴⁴ No dredging or filling may take place in close proximity to existing submersed grassbeds.⁴⁵ Pile-supported structures (piers, docks, etc.) must be constructed such that impacts to submersed grassbeds are minimized.⁴⁶

Builders of new motels, hotels, condominiums, or other multi-unit dwellings must include a “Beach and Dune Enhancement Plan,” which includes planting of vegetation, in their permit applications.⁴⁷

³⁷ Ala. Code § 9-12-32.

³⁸ *Id.* § 9-12-42.

³⁹ Ala. Admin. Code r. 335-8-2-.04

⁴⁰ *Id.* r. 220-4-09.

⁴¹ Ala. Code § 11-47-251.

⁴² *Id.* § 11-47-252.

⁴³ Ala. Admin. Code rs. 220-4-.09, 335-8-2-.06.

⁴⁴ *Id.* r. 335-8-1-.02.

⁴⁵ *Id.* r. 335-8-2-.02.

⁴⁶ *Id.* r. 335-8-2-.05.

⁴⁷ *Id.* r. 335-8-2-.08.

Florida

As above, the general provisions of Fla. Admin. Code r. 18-21.004 apply to these activities as they do to shoreline stabilization and the construction of hard structures.

Oyster reefs

An activity involving oyster reefs may come under the jurisdiction of one or more agencies including the Board of Trustees of the Internal Improvement Trust Fund, which regulates activities on sovereign submerged lands, including leases; the Fish and Wildlife Conservation Commission, which regulates the harvesting of oysters; and FDEP, which regulates dredging and filling.

The Board may not sell or convey submerged lands if the sale would result in the destruction of oyster beds.⁴⁸

The construction and location of utility cables, pipes, and similar structures in Florida aquatic preserves may disturb oyster bars only minimally.⁴⁹ Water bottoms may be leased for oyster cultivation.⁵⁰ Oyster and clam aquaculture on leased sovereign submerged lands cannot take place where there are natural oyster beds.⁵¹

Wave attenuation devices

As is the case with Alabama, the term “wave attenuation device” does not appear in the Florida

statutes or regulations, and such a device would probably be considered a “breakwater” - the FDEP has defined a “breakwater” as “a structure which has the effect of protecting shoreline areas, harbors, inlets or basins from the forces of currents and wave action.”⁵²

Breakwaters must be set back 25 feet inside the owner’s riparian boundary.⁵³ Placement of breakwaters requires authorization from the Board.⁵⁴ If dredging and filling is necessary, a permit must be obtained from FDEP as well.⁵⁵

Breakwaters or other wave attenuation devices are ineligible for funding under the Florida Artificial Reef Program.⁵⁶

Vegetative planting

Shoreline stabilization in the Outstanding Florida Waters in Monroe County must be accomplished by the use of native aquatic vegetation unless the person who applies for the necessary dredge and fill permit can show that vegetation cannot do the job.⁵⁷

The FDEP has issued a general permit for single-family dwellings and associated minor structures seaward of the CCCL, with conditions that include protection of native vegetation.⁵⁸

The FDEP will grant a coastal construction permit only if associated beach/dune vegetation is native, salt-resistant vegetation that is suitable for beach and dune stabilization.⁵⁹

⁴⁸ Fla. Stat. § 253.12(4).

⁴⁹ Fla. Admin. Code r. 18-20.004(3)(c).

⁵⁰ Fla. Stat. § 597.010.

⁵¹ Fla. Admin. Code r. 62-341.601(2)(a).

⁵² *Id.* r. 62B-41.002(6).

⁵³ *Id.* r. 18-21.004(3)(d).

⁵⁴ *Id.* r. 18-21.005.

⁵⁵ *Id.* r. 62-312.060(1).

⁵⁶ *Id.* r. 68E-9.004(2).

⁵⁷ *Id.* r. 62-312.440(1)(b).

⁵⁸ *Id.* r. 62B-34.070(5).

⁵⁹ *Id.* r. 62B-41.007(2)(1).

Mississippi

Oyster reefs

Management of oyster reefs in Mississippi is under the jurisdiction of DMR and CMR.⁶⁰ The applicable laws are found in Miss. Code tit. 49, ch. 15. As is the case in other states, oysters and oyster reefs in state waters are the property of the state.⁶¹ Riparian landowners have the exclusive right to cultivate oysters out to 750 yards in front of their land, but do not have exclusive rights to natural oyster reefs.⁶² CMR has authority to lease water bottoms for oyster cultivation.⁶³

Miss. Code § 49-15-37 directs DMR to take various steps to cultivate and improve public oyster reefs. CMR is to “acquire and replant shells, seed oysters and other materials, when funding is avail-

able, for the purpose of growing oysters.”⁶⁴

Shells of oysters taken from the state’s natural reefs remain the property of the state and must be returned to CMR, who must spread the shells on existing reefs.⁶⁵ Planting and replanting of shells is to be coordinated by the Gulf Coast Research Laboratory.⁶⁶

Wave attenuation devices

There is no additional Mississippi regulatory material concerning breakwaters beyond what is covered in the shoreline stabilization section above.

Vegetative planting

There is no additional Mississippi regulatory material concerning vegetative planting beyond what is covered in the shoreline stabilization section above.

⁶⁰ *Miss. Code § 49-15-36.*

⁶¹ *Id.* § 49-15-5, 49-15-7.

⁶² *Id.* § 49-15-9.

⁶³ *Id.* § 49-15-27.

⁶⁴ *Id.* § 49-15-38(2).

⁶⁵ *Id.*

⁶⁶ *Id.* § 49-15-38(4).



MASGP-07-027

This publication was supported by the National Sea Grant College Program of the U.S. Department of Commerce’s National Oceanic and Atmospheric Administration under NOAA Grant NA06OAR4170078 and the Mississippi-Alabama Sea Grant Consortium.