

FLORIDA HOUSE OF REPRESENTATIVES

BILL ANALYSIS

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BILL #: [HB 1035](#)

TITLE: Nature-based Coastal Resiliency

SPONSOR(S): Mooney

Committee References

[Natural Resources & Disasters](#)

18 Y, 0 N

COMPANION BILL: [CS/SB 302](#) (Garcia)

LINKED BILLS: None

RELATED BILLS: None

[State Affairs](#)



SUMMARY

Effect of the Bill:

The bill creates several provisions related to using nature-based methods to improve coastal resiliency. Specifically, the bill:

- Requires the Department of Environmental Protection (DEP) to initiate rulemaking to establish a statewide permitting process for such nature-based methods.
- Requires DEP to develop design guidelines and standards for using green or hybrid green-gray infrastructure to address coastal resiliency.
- Requires DEP and local governments to promote public awareness and education of the value of nature-based solutions for coastal resiliency.
- Authorizes structures to be erected for nature-based solutions to improve coastal resiliency in all state preserves.
- Authorizes dredging and filling of submerged lands and placement of living shorelines and seawalls in Biscayne Bay Aquatic Preserve for coastal resiliency purposes.

Fiscal or Economic Impact:

The bill may have a negative, but insignificant, fiscal impact on DEP; however, the fiscal impact should be able to be absorbed within current resources.

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ANALYSIS

EFFECT OF THE BILL:

Statewide Permitting Process

The bill requires the Department of Environmental Protection (DEP), by January 1, 2027, to initiate rulemaking to establish a statewide permitting process for nature-based methods for improving [coastal resilience](#). Specifically, the bill requires these rules to address:

- Criteria and thresholds for permits, including monitoring, inspection, and reporting requirements.
- Procedures for permit application review, including notices, duration and modification of permits, permit transfers, and operational requirements.
- Provisions for emergencies, abandonment and removal of systems, and significant erosion in areas of critical state concern.
- Exemptions and general permits that do not allow significant adverse impacts to occur.
- Improvement of coastal resilience using nature-based solutions, including [living seawalls](#), shoreline and vegetation planting, seagrass planting, wave attenuation devices, [green or hybrid-green gray stormwater](#) infrastructure, beach renourishment, dune and wetland restoration, reinforced dunes, reef restoration, and ecologically sound building materials.
- Protecting and maintaining access to the Florida Intracoastal Waterway marked channel and right-of-way.

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- Incentives for using new strategies and technologies for coastal protection.
- Incentives to encourage local governmental entities to create projects using nature-based solutions for coastal protection through the [Resilient Florida Grant Program](#).
- Guidelines to determine when a nature-based solution project is in the public interest and safety.
- Permitting processes for after designated storm events or disasters to replace failed coastal infrastructure with nature-based or hybrid green-gray infrastructure that follows such guidelines established by DEP under the bill.
- Specific ways local governments can participate in coastal resiliency, including mangrove replanting and hydrological restoration programs; restoration of oyster reefs, salt marshes, seagrass beds, and coral reefs; identification and monitoring of threats to mangroves; and protection of barrier and spoil islands.

Development of Nature-Based Methods Design Guidelines and Standards

The bill requires DEP, by January 1, 2027, to develop design guidelines and standards for optimal combinations of nature-based methods for using green or hybrid green-gray infrastructure to address coastal resiliency, including local mitigation strategies for erosion control, sea level rise, and storm surge.

Public Awareness and Education

The bill requires DEP and local governments to promote public awareness and education of the value of nature-based solutions for coastal resiliency, including the preservation and restoration of wetlands, floodplains, seagrasses, mangroves, and other natural systems along the coastline. (Section [3](#))

State Aquatic Preserves

The bill adds nature-based solutions to improve coastal resiliency to the list of structures that may be erected in aquatic preserves. Specifically, these nature-based solutions include living seawalls, shoreline and vegetation planting, seagrass planting, wave attenuation devices, and green or hybrid green-gray stormwater infrastructure, that are sited to provide the most appropriate benefit. (Section [2](#))

Biscayne Bay Aquatic Preserve

The bill creates an additional exception for when the [Board of Trustees of the Internal Improvement Trust Fund](#) (Board) may authorize [dredging](#) and filling of [submerged lands](#) in the Biscayne Bay Aquatic Preserve. The bill allows minimum dredging and filling of such submerged lands to be authorized for the restoration and enhancement of natural systems, including substrate management for vegetation planting and restoration for mangroves, salt marches, seagrasses, and oyster reefs, in order to enhance the quality and utility of the preserve and coastal resiliency.

The bill also adds living shorelines and seawalls to the means by which the Board may stabilize eroding shorelines in Biscayne Bay. (Section [1](#))

Effective Date

The effective date of the bill is July 1, 2026. (Section [4](#))

RULEMAKING:

The bill requires the Department of Environmental protection to initiate rulemaking for a statewide coastal resiliency permitting process by January 1, 2027.

Lawmaking is a legislative power; however, the Legislature may delegate a portion of such power to executive branch agencies to create rules that have the force of law. To exercise this delegated power, an agency must have a grant of rulemaking authority and a law to implement.

FISCAL OR ECONOMIC IMPACT:**STATE GOVERNMENT:**

The bill may have a negative, but insignificant, negative fiscal impact on DEP associated with developing guidelines and standards for nature-based methods for improving coastal resilience and the rulemaking for the statewide permitting process. However, the fiscal impact should be able to be absorbed within current resources.

RELEVANT INFORMATION**SUBJECT OVERVIEW:****Board of Trustees of the Internal Improvement Trust Fund**

The Board of Trustees of the Internal Improvement Trust Fund (Board) is responsible for the acquisition, administration, management, control, supervision, conservation, protection, and disposition of all lands owned by the state, including all sovereign submerged lands.¹ The Governor and Cabinet (the Attorney General, the Chief Financial Officer, and the Commissioner of Agriculture) comprise the four members of the Board.²

Submerged Lands

Sovereign submerged lands include, but are not limited to, tidal lands, islands, sandbars, shallow banks, and lands waterward of the ordinary or average high-water line that are beneath navigable fresh water or beneath tidally-influenced waters.³ The Board holds title to Florida's sovereign submerged lands.⁴

Aquatic Preserves

The Florida Aquatic Preserve Act of 1975 preserves the state-owned submerged lands in areas with exceptional biological,⁵ aesthetic,⁶ and scientific⁷ value for the benefit of future generations.⁸ Aquatic preserves provide many benefits, including protecting vital coastal and freshwater ecosystems.⁹ The Department of Environmental Protection's (DEP) Office of Resilience and Coastal Protection manages the Aquatic Preserve Program and oversees Florida's 43 aquatic preserves.¹⁰ Florida's 43 aquatic preserves encompass 2.9 million acres of submerged lands.¹¹

For the purposes of maintaining aquatic preserves, current law establishes a number of provisions to which the Board is subject. The Board may not approve any further sale, lease, or transfer of sovereignty submerged lands unless the action is in public interest.¹² The Board may also not approve the waterward relocation or setting of

¹ [S. 253.03\(1\), F.S.](#)

² [S. 253.02\(1\), F.S.](#)

³ Rule 18-21.003(67), F.A.C.; *see also* Department of Environmental Protection, [Submerged Land Management](#) (last visited Jan. 25, 2026).

⁴ Department of Environmental Protection, [Submerged Land Management](#) (last visited Jan. 25, 2026).

⁵ "Biological type" means an area set aside to promote certain forms of animal or plant life or their supporting habitat.

⁶ "Aesthetic type" means an area set aside to maintain certain scenic qualities or amenities.

⁷ "Scientific type" means an area set aside to maintain certain qualities or features which have scientific value or significance.

⁸ See [s. 258.35, F.S.](#) and [s. 258.36, F.S.](#) Section [258.37\(1\), F.S.](#) defines the term "aquatic preserve" as an exceptional area of submerged lands and its associated waters set aside to be maintained in its natural condition.

⁹ Department of Environmental Protection, [Florida Aquatic Preserves](#) (last visited Jan. 25, 2026).

¹⁰ Department of Environmental Protection, [Office of Resilience and Coastal Protection](#) (last visited Jan. 25, 2026).

¹¹ Department of Environmental Protection, [Florida Aquatic Preserves](#) (last visited Jan. 25, 2026). Four aquatic preserves are inland near springs and rivers. *See* Department of Environmental Protection, [Office of Resilience and Coastal Protection: Resilience and Coastal Protection Programs](#) (last visited Jan. 13, 2026).

¹² [S. 258.42\(1\)\(a\), F.S.](#) "Public interest" means demonstrable environmental, social, and economic benefits which would accrue to the public at large as a result of a proposed action, and which would clearly exceed all demonstrable environmental, social, and economic costs of the proposed action. In determining the public interest in a request for use, sale, lease, or transfer of interest in sovereignty lands or severance of materials from sovereignty lands, the Board shall consider the ultimate project and purpose to be served by said use, sale, lease, or transfer of lands or materials. Rule 18-20.003(46), F.A.C.

bulkhead lines waterward of the line of mean high water within the preserve except when public road and bridge construction projects have no reasonable alternative and it is shown to not be contrary to the public interest.¹³

Additionally, current law limits when the Board may approve any further dredging or filling of submerged lands in aquatic preserves, only allowing this to occur in specified circumstances, such as:

- Dredging and spoiling as may be authorized for public navigation projects.
- Dredging and spoiling as may be authorized for the creation and maintenance of marinas, piers, and docks and their attendant navigation channels.
- Other alteration of physical conditions as may, in the opinion of the trustees, be necessary to enhance the quality or utility of the preserve or the public health generally.
- Other maintenance dredging as may be required for existing navigation channels.
- Reasonable improvements as may be necessary for public utility installation or expansion.
- Installation and maintenance of oil and gas transportation facilities, provided such facilities are properly marked with marine aids to navigation as prescribed by federal law.¹⁴

Current law also prohibits structures being erected within a preserve, except in certain circumstances. Such circumstances include:

- Private residential docks for reasonable ingress or egress of riparian owners.
- Private residential multislip docks located within a reasonable distance of a publicly maintained navigation channel, or a natural channel of adequate depth and width to allow operation of the watercraft for which the docking facility is designed without the craft having an adverse impact on marine resources.
- Commercial docking facilities shown to be consistent with the use or management criteria of the preserve, if the facilities are located within a reasonable distance of a publicly maintained navigation channel, or a natural channel of adequate depth and width to allow operation of the watercraft for which the docking facility is designed without the craft having an adverse impact on marine resources.
- Structures for shore protection, including restoration of seawalls at their previous location or upland of or within 18 inches waterward of their previous location, approved navigational aids, or public utility crossings.¹⁵

Biscayne Bay Aquatic Preserve

Current law designates Biscayne Bay, located in Miami-Dade and Monroe counties, as an aquatic preserve.¹⁶ Established in 1974, the Biscayne Bay Aquatic Preserve encompasses 64,607 acres of submerged lands extending the length of Biscayne Bay from the headwaters of the Oleta River south to Card Sound near Key Largo.¹⁷ The preserve excludes the waters of Biscayne Bay National Park.¹⁸ The preserve allows for a number of recreational activities, such as boating, fishing, and swimming, and hosts approximately 16 million visitors annually.¹⁹

Dredging

Dredging is the removal of sediments and debris from the bottom of lakes, rivers, harbors, and other water bodies.²⁰ The goal of most dredging is to maintain or deepen navigation channels, anchorages, or berthing areas for the safe passage of boats and ships.²¹ Dredging may also be done to reduce the exposure of fish, wildlife, and people to contaminants and to prevent the spread of contaminants to other areas of the water body.²² The federal Clean Water Act and the Marine Protection, Research, and Sanctuaries Act (known as MPRSA or Ocean

¹³ [S. 258.42\(2\), F.S.](#)

¹⁴ [S. 258.42\(3\)\(a\), F.S.](#)

¹⁵ [S. 258.42\(3\)\(e\), F.S.](#)

¹⁶ [S. 258.397\(1\), F.S.](#)

¹⁷ Department of Environmental Protection, [Aquatic Preserves: Biscayne Bay Aquatic Preserve](#) (last visited Jan. 25, 2026).

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ National Oceanic and Atmospheric Administration, National Ocean Service, [What is Dredging?](#) (last visited Jan. 24, 2026).

²¹ *Id.*

²² *Id.*

Dumping Act) govern the disposal of dredged sediment.²³ In Florida, the Environmental Resource Permit (ERP) regulates activities involving the alteration of surface water flows, including dredging and filling in wetlands and other surface waters.²⁴

DEP's Beaches, Inlets, and Ports Program (BIPP) processes ERPs for navigational dredging of deepwater ports and inlets.²⁵ The ERP review ensures that dredging activities do not degrade water quality (such as through the loss of wetlands, improper in-water construction techniques, or discharge of inadequately treated water from dredged material disposal sites) or damage marine resources (including corals, seagrasses, mangroves, or habitat for manatees or marine turtles).²⁶

Green & Gray Stormwater Infrastructure

Gray infrastructure is traditional stormwater infrastructure, such as gutters and collection systems, designed to move stormwater away from the built environment to a centralized storage and release system, while green infrastructure mimics nature and is designed to capture rainwater where it falls.²⁷ Green infrastructure uses nature-based retention and detention measures, such as rain gardens and pervious pavement, to infiltrate, evaporate, detain, filter, or store stormwater runoff closer to the source.²⁸ Green stormwater infrastructure provides a number of environmental, social, and economic benefits, including:

- Reducing water pollution and improving quality of ground and surface waters.
- Protecting and enhancing aquatic and wildlife habitats.
- Improving the aesthetics of communities.
- Reducing the long-term costs of stormwater management.²⁹

Green infrastructure practices can also be integrated into existing features of the built environment to support both stormwater needs.³⁰

Coastal Resiliency

Coastal resilience refers to the capacity of ocean shorelines to adapt to and resist the effects of climate change, including more-frequent intense storms and sea-level rise, so human and wildlife communities can continue to thrive.³¹ Resilient coasts support wildlife habitats and protect human infrastructure.³² Resilient coasts include:

- Healthy, absorbent marsh systems that soak up storm surge and offer habitat for wildlife.
- Dynamic, deep beaches that move with the tides and create buffers for coastal communities.
- Free-flowing rivers, without derelict dams, that allow migratory fish to reach breeding grounds.

²³ See 33 U.S.C. §1251 et seq. for the Clean Water Act and 16 USC § 1431 et seq. and 33 USC §1401 et seq. for the Marine Protection, Research, and Sanctuaries Act. The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. See U.S. Environmental Protection Agency, [Summary of the Clean Water Act](#) (last visited Jan. 25, 2026). The Marine Protection, Research, and Sanctuaries Act regulates the disposition of material into the ocean and prohibits the dumping of material into the ocean that would unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities. U.S. Environmental Protection Agency, [Marine Protection, Research and Sanctuaries Act \(MPRSA\) and Federal Facilities](#) (last visited Jan. 25, 2026).

²⁴ Department of Environmental Protection, [Environmental Resource Permitting Coordination, Assistance, Portals](#) (last visited Jan. 25, 2026).

²⁵ Department of Environmental Protection, [Beaches, Inlets and Ports Program](#) (last visited Jan. 25, 2026).

²⁶ *Id.*

²⁷ U.S. Environmental Protection Agency, [Why You Should Consider Green Stormwater Infrastructure for Your Community](#) (last visited Jan. 25, 2026).

²⁸ See University of Florida Institute of Food and Agricultural Sciences, [Green Stormwater Infrastructure \(GSI\)](#) (last visited Jan. 13, 2026) and Department of Environmental Protection, [What is GSI?](#) (last visited Jan. 13, 2026).

²⁹ Department of Environmental Protection, [What is GSI?](#) (last visited Jan. 25, 2026).

³⁰ See U.S. Environmental Protection Agency, [Why You Should Consider Green Stormwater Infrastructure for Your Community](#) (last visited Jan. 25, 2026).

³¹ U.S. Fish and Wildlife Service, [What is Coastal Resilience?](#) (last visited Jan. 25, 2026).

³² *Id.*

- Offshore oyster reefs or living shorelines that dampen wave energy and protect from beach erosion.³³

Nature-based solutions to improve coastal resiliency involve the intentional use of natural and nature-based features, like beaches, dunes, islands, marshes and mangroves, coral and oyster reefs, either alone or in combination with traditional gray infrastructure, like cement walls buried inside of sand dunes, to reduce risks to coastal hazards.³⁴ Mangroves and salt marshes capture the moving sediments and help to reduce waves, while offshore coral reefs act as breakwaters and create the rock and sand to build islands and beaches.³⁵

Living Shorelines and Seawalls

Living shorelines are a nature-based approach to coastal protection and shoreline stabilization, using natural elements such as ecosystems, vegetation, stone, or organic materials to increase coastal resilience and adapt to sea level rise.³⁶ When protecting coastlines, a living shoreline approach represents an alternative to traditional hard armoring approaches, such as seawalls and bulkheads.³⁷ When constructed correctly, a living shoreline provides erosion control and maintains coastal processes, such as reducing wave energy and storm impacts, improving water quality, and providing critical fish and wildlife habitat.³⁸ Additionally, nature-based approaches to coastal protection can be incorporated or combined with traditional infrastructure to create effective protections.³⁹

Living shorelines provide a number of ecological and structural benefits, including:

- Increased wildlife access in critical habitat areas.
- Acting as a natural buffer that reduces coastal erosion by absorbing wave energy.
- Decreases in harmful nutrients/pollutants entering coastal waters.⁴⁰

The image below shows examples of green and gray infrastructure that supports shoreline stabilization.⁴¹

³³ *Id.*

³⁴ National Oceanic and Atmospheric Administration, National Centers for Coastal Ocean Science, [Restoration and Nature-Based Solutions](#) (last visited Jan. 25, 2026).

³⁵ Coastal Resilience, *Natural Solutions* (last visited Jan. 25, 2026).

³⁶ National Oceanic and Atmospheric Administration, Habitat Blueprint, [Living Shorelines](#) (last visited Jan. 25, 2026).

³⁷ National Oceanic and Atmospheric Administration, [Living Shorelines Provide Nature-Based Approach to Coastal Protection](#) (last visited Jan. 25, 2026).

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ Department of Environmental Protection, [Resilient Florida Program - Living Shorelines](#) (last visited Jan. 25, 2026).

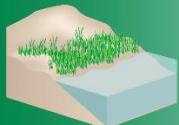
⁴¹ National Oceanic and Atmospheric Administration, Habitat Blueprint, [Living Shorelines](#) (last visited Jan. 13, 2026).

HOW GREEN OR GRAY SHOULD YOUR SHORELINE SOLUTION BE?

GREEN - SOFTER TECHNIQUES

GRAY - HARDER TECHNIQUES

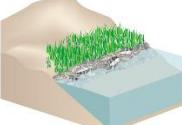
Living Shorelines



VEGETATION ONLY -
Provides a buffer to upland areas and breaks small waves. Suitable for low wave energy environments.



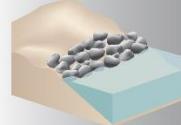
EDGING -
Added structure holds the toe of existing or vegetated slope in place. Suitable for most areas except high wave energy environments.



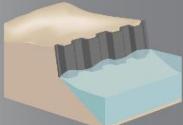
SILLS -
Parallel to vegetated shoreline, reduces wave energy, and prevents erosion. Suitable for most areas except high wave energy environments.



BREAKWATER -
(vegetation optional) - Offshore structures intended to break waves, reducing the force of wave action, and encourage sediment accretion. Suitable for most areas.



REVENTMENT -
Lays over the slope of the shoreline and protects it from erosion and waves. Suitable for sites with existing hardened shoreline structures.



BULKHEAD -
Vertical wall parallel to the shoreline intended to hold soil in place. Suitable for high energy settings and sites with existing hard shoreline structures.

Coastal Structures

Living Shorelines	Coastal Structures
VEGETATION ONLY - Provides a buffer to upland areas and breaks small waves. Suitable for low wave energy environments.	BULKHEAD - Vertical wall parallel to the shoreline intended to hold soil in place. Suitable for high energy settings and sites with existing hard shoreline structures.
EDGING - Added structure holds the toe of existing or vegetated slope in place. Suitable for most areas except high wave energy environments.	REVENTMENT - Lays over the slope of the shoreline and protects it from erosion and waves. Suitable for sites with existing hardened shoreline structures.
SILLS - Parallel to vegetated shoreline, reduces wave energy, and prevents erosion. Suitable for most areas except high wave energy environments.	BREAKWATER - (vegetation optional) - Offshore structures intended to break waves, reducing the force of wave action, and encourage sediment accretion. Suitable for most areas.

A living seawall is designed to encourage underwater habitats and usually consists of naturalistic concrete, rock, and/or shell structures designed to attract fish, oysters, and other living things, absorb wave energy without causing erosion, and improve aesthetics.⁴² Living seawalls are an eco-engineering tool to reintroduce biodiversity in highly urbanized coastal environments where hardened structures dominate and full habitat restoration may not be feasible.⁴³

Resilient Florida Grant Program

The Resilient Florida Program, established in 2021, ensures a coordinated approach to Florida's coastal and inland resilience and enhances efforts to protect inland waterways, coastlines, and shores through the Resilient Florida Grant Program.⁴⁴ DEP's Office of Resilience and Coastal Protection administers the Resilient Florida Program.⁴⁵

Counties, municipalities, special districts with specific responsibilities, and regional resilience entities may receive Resilient Florida Grants to address the impacts of flooding and sea level rise.⁴⁶ DEP reviews all projects that meet the requirements outlined in [s. 380.093\(5\), F.S.](#) for inclusion in the Statewide Flooding and Sea Level Rise Resilience Plan and allocates points to each project, with total points awarded determining the project's rank.⁴⁷ DEP uses a four-tiered ranking system to evaluate project proposals and allocate points, based on criteria such as risk of flooding and sea level rise to critical assets, frequency of flooding or erosion in the project's impact area, funding considerations, and use of innovative technologies.⁴⁸

⁴² Mote Marine Laboratory and Aquarium, [Mote Scientists to Study Sarasota's New 'Living Seawall'](#) (last visited Jan. 25, 2026).

⁴³ Sarasota Bay Estuary Program, [Longboat Key Bayfront Park Living Seawall](#) (last visited Jan. 25, 2026).

⁴⁴ [S. 380.093\(1\), F.S.](#) See also Department of Environmental Protection, [Resilient Florida Program](#) (last visited Jan. 25, 2026).

⁴⁵ Department of Environmental Protection, [Office of Resilience and Coastal Protection](#) (last visited Jan. 25, 2026).

⁴⁶ [S.380.093\(3\)\(b\), F.S.](#) and [s. 380.093\(5\)\(d\), F.S.](#); see also Department of Environmental Protection, [Resilient Florida Grants](#) (last visited Jan. 25, 2026).

⁴⁷ Rule 62S-8.003(1), F.A.C.; see also [380.093\(5\)\(g\), F.S.](#)

⁴⁸ Department of Environmental Protection, [Resilient Florida Program Implementation Scoring Criteria Guidance 2025](#), 3-8 (last visited Jan. 25, 2026).

BILL HISTORY

COMMITTEE REFERENCE	ACTION	DATE	STAFF DIRECTOR/ POLICY CHIEF	ANALYSIS PREPARED BY
Natural Resources & Disasters	18 Y, 0 N	1/28/2026	Skinner	Jones
Subcommittee				
State Affairs Committee				