Tab 1	**SB 724** by **Boyd**; (Similar to H 01181) Seagrass Restoration Technology Development Initiative

676206 A S RCS EN, Boyd Delete L.24 - 26: 03/14 10:36 AM

Tab 2	**SB 728** by **Garcia**; (Compare to CS/H 00261) Liveries

Tab 3	**SB 880** by **Brodeur**; (Similar to H 01405) Biosolids

725546 D S L RCS EN, Brodeur Delete everything after 03/14 10:36 AM

Tab 4	**SB 910** by **Burton**; (Compare to H 00371) Management and Storage of Surface Waters

Tab 5	**SB 1030** by **Trumbull**; (Identical to H 00691) Recycling of Covered Electronic Devices

461372 A S L RCS EN, Trumbull Delete L.47 - 64: 03/14 10:36 AM

Tab 6	**SB 1170** by **Calatayud (CO-INTRODUCERS) Garcia**; (Compare to H 00111) Flooding and Sea Level Rise Vulnerability Studies

Tab 7	**SB 734** by **Polsky**; (Identical to H 01079) Saltwater Intrusion Vulnerability Assessments

Tab 8	**SB 1072** by **Rodriguez**; (Identical to H 00979) Deepwater Port Dredging

702220 D S L RCS EN, Rodriguez Delete everything after 03/14 10:37 AM

Tab 9	**SB 1266** by **Rodriguez**; (Identical to H 01161) Venomous Reptiles

The Florida Senate

COMMITTEE MEETING EXPANDED AGENDA

ENVIRONMENT AND NATURAL RESOURCES
Senator Rodriguez, Chair
Senator Harrell, Vice Chair

MEETING DATE: Tuesday, March 14, 2023
TIME: 8:30—10:30 a.m.
PLACE: 301 Senate Building

MEMBERS: Senator Rodriguez, Chair; Senator Harrell, Vice Chair; Senators Albritton, Martin, Mayfield, Polsky, Powell, Stewart, and Wright

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
1	**SB 724** Boyd (Similar H 1181)	Seagrass Restoration Technology Development Initiative; Establishing the Seagrass Restoration Technology Development Initiative within the Department of Environmental Protection; providing for funding; requiring the creation of a 10-year Florida Seagrass Restoration Plan; establishing the Initiative Technology Advisory Council as part of the initiative, etc. EN 03/14/2023 Fav/CS AEG AP	Fav/CS Yeas 9 Nays 0
2	**SB 728** Garcia (Compare CS/H 261)	Liveries; Revising safety requirements for liveries and requiring hands-on instruction that meets specified requirements; revising insurance requirements for liveries and renters; authorizing the Fish and Wildlife Conservation Commission to enter into agreements with qualified contractors to perform compliance inspections of liveries; requiring liveries to make facilities and records available for inspection by the qualified contractors within a specified timeframe, etc. EN 03/14/2023 Favorable CM RC	Favorable Yeas 9 Nays 0
3	**SB 880** Brodeur (Similar H 1405)	Biosolids; Authorizing the Department of Environmental Protection, subject to appropriation, to provide grants within the wastewater grant program for projects that convert wastewater residuals to biosolids; prohibiting the department from authorizing land application site permits for Class B biosolids unless a certain demonstration can be made; requiring that department water pollution control financial assistance be administered to provide a specified percentage of available funding to projects that convert wastewater residuals to biosolids, etc. EN 03/14/2023 Fav/CS AEG AP	Fav/CS Yeas 9 Nays 0

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
4	**SB 910** Burton (Compare H 371)	Management and Storage of Surface Waters; Providing an exemption from surface water management and storage regulations for the implementation of certain measures and practices for environmental habitat creation, restoration, and enhancement activities and water quality improvements on specified agricultural lands and government-owned lands; removing requirements for adverse impacts on water resources, certain notification by the department and water management districts, and commencement of activities, etc. EN 03/14/2023 Favorable CA RC	Favorable Yeas 9 Nays 0
5	**SB 1030** Trumbull (Identical H 691, Linked S 1032)	Recycling of Covered Electronic Devices; Establishing the statewide Covered Electronic Device Recovery Program within the Department of Environmental Protection; authorizing the department to use specified funds to administer the program; specifying requirements for a statewide plan for the recycling of covered electronic devices; prohibiting any person from disposing of covered electronic devices except at a permitted reclamation facility beginning on a specified date; requiring the department to deposit any funds received pursuant to the program into the Solid Waste Management Trust Fund to be used for specified purposes, etc. EN 03/14/2023 Fav/CS AEG AP	Fav/CS Yeas 9 Nays 0
6	**SB 1170** Calatayud (Compare H 111)	Flooding and Sea Level Rise Vulnerability Studies; Revising the purposes for which the Department of Environmental Protection may provide grants under the Resilient Florida Grant Program to counties or municipalities; authorizing the department to provide such grants to water management districts for a specified purpose; requiring state-financed constructors to take specified actions before commencing construction of potentially at-risk structures or infrastructure beginning on a specified date, etc. EN 03/14/2023 Favorable AEG FP	Favorable Yeas 9 Nays 0

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
7	**SB 734** Polsky (Identical H 1079)	Saltwater Intrusion Vulnerability Assessments; Authorizing the Department of Environmental Protection to provide grants to coastal counties for saltwater intrusion vulnerability assessments; requiring the department to update the comprehensive statewide flood vulnerability and sea level rise data set and make certain information received from the saltwater intrusion vulnerability assessments available on its website; requiring the department to provide cost-share funding up to a specified amount for awarded grants, etc. EN 03/14/2023 Favorable AEG AP	Favorable Yeas 9 Nays 0
8	**SB 1072** Rodriguez (Identical H 979)	Deepwater Port Dredging; Directing the Department of Environmental Protection to require a specified analysis as a condition of permits issued for maintenance dredging of deepwater ports; requiring a local government to provide notice of its intent to conduct such analysis to certain local governments, etc. EN 03/14/2023 Fav/CS CA RC	Fav/CS Yeas 9 Nays 0
9	**SB 1266** Rodriguez (Identical H 1161)	Venomous Reptiles; Revising the penalty for certain release or escape of venomous reptiles; providing a penalty for specified activities involving venomous reptiles without a special permit or license issued by the Fish and Wildlife Conservation Commission, etc. EN 03/14/2023 Favorable CJ RC	Favorable Yeas 9 Nays 0
	Other Related Meeting Documents		

THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

COMMITTEES:
Banking and Insurance, *Chair*
Agriculture, *Vice Chair*
Appropriations Committee on Agriculture, Environment, and General Government
Finance and Tax
Fiscal Policy
Judiciary
Rules
Transportation

SENATOR JIM BOYD
20th District

March 14, 2023

Senator Ana Maria Rodriguez
325 Knott Building
404 South Monroe Street
Tallahassee, FL 32399

Dear Madame Chair Rodriguez:

Please accept this letter as notification that Leader Albritton will be presenting SB 724: Seagrass Restoration Technology Development Initiative in the Committee on Environment and Natural Resources on Tuesday, March 14, 2023.

Please let me know if you need any additional information.

Sincerely,

Jim Boyd

cc: Nic Ancheta
Ellen Rogers
Kim Bonn

REPLY TO:
❒ 717 Manatee Avenue West, Bradenton, Florida 34205 (941) 742-6445
❒ 418 Senate Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5020

Senate's Website: *www.flsenate.gov*

KATHLEEN PASSIDOMO
President of the Senate

DENNIS BAXLEY
President Pro Tempore

THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

COMMITTEES:
Banking and Insurance, *Chair*
Agriculture, *Vice Chair*
Appropriations Committee on Agriculture, Environment, and General Government
Finance and Tax
Fiscal Policy
Judiciary
Rules
Transportation

SENATOR JIM BOYD
20th District

February 24, 2023

Senator Ana Maria Rodriguez
404 South Monroe Street
325 Knott
Tallahassee, FL 32399

Dear Madame Chair Rodriguez:

I respectfully request Senate Bill 724: Seagrass Restoration Technology Development Initiative, be scheduled for a hearing in the Committee on Environment and Natural Resources, at your earliest convenience.

If I may be of assistance to you on this or any other matter, please do not hesitate to contact me.

Thank you for your consideration of this matter.

Best regards,

Jim Boyd

cc: Ellen Rogers
Kim Bonn

REPLY TO:
❒ 717 Manatee Avenue West, Bradenton, Florida 34205 (941) 742-6445
❒ 418 Senate Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5020

Senate's Website: *www.flsenate.gov*

KATHLEEN PASSIDOMO
President of the Senate

DENNIS BAXLEY
President Pro Tempore

The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

3/14/23
Meeting Date

SB 724
Bill Number or Topic

ENV. & NAT. RESOURCES
Committee

Amendment Barcode (if applicable)

Name TRISH NEELY

Phone 407 377 5777

Address PO Box 1911
Street

Email TRISH@LWVF.org

Orlando FL 32802
City State Zip

Speaking: ☐ For ☐ Against ☐ Information **OR** Waive Speaking: ☒ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without compensation or sponsorship.

☒ I am a registered lobbyist, representing:

☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

LEAGUE OF WOMEN VOTERS FLORIDA

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. 2020-2022JointRules.pdf (flsenate.gov)

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S-001 (08/10/2021)

The Florida Senate

APPEARANCE RECORD

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3/14/23
Meeting Date

Environment + Natural Resources
Committee

SB 724
Bill Number or Topic

Amendment Barcode (if applicable)

Name David Shepp

Phone 863 581-4250

Address 123 South Adams St
Street

Email shepp@thesoutherngroup.com

Tallahassee FL 32301
City State Zip

Speaking: ☑ For ☐ Against ☐ Information **OR** Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without compensation or sponsorship.

☑ I am a registered lobbyist, representing:

Mote Marine Laboratory

☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. 2020-2022JointRules.pdf (flsenate.gov)

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S-001 (08/10/2021)

The Florida Senate

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3/14/23
Meeting Date

SB 1170, 734, 736
Bill Number or Topic

San Envir & Natural resources
Committee

Amendment Barcode (if applicable)

Name Mayor Betty Resch

Phone 561-329-2706

Address 207 So L St
Street

Email mayorResch@gmail.com

Lake Worth Beach
City State Zip

Speaking: ☑ For ☐ Against ☐ Information **OR** Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without compensation or sponsorship.

☐ I am a registered lobbyist, representing:

☑ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

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S-001 (08/10/2021)

The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Environment and Natural Resources

BILL:	CS/SB 724
INTRODUCER:	Environment and Natural Resources Committee and Senator Boyd
SUBJECT:	Seagrass Restoration Technology Development Initiative
DATE:	March 14, 2023 REVISED:

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Barriero	Rogers	EN	**Fav/CS**
2.			AEG	
3.			AP	

Please see Section IX. for Additional Information:

COMMITTEE SUBSTITUTE - Technical Changes

I. Summary:

CS/SB 724 establishes the Seagrass Restoration Technical Development Initiative within the Department of Environmental Protection (DEP), in partnership with Mote Marine Laboratory and the University of Florida, to develop innovative and environmentally sustainable technologies needed to restore coastal seagrass ecosystems.

The bill directs DEP to award funds specifically appropriated by the Legislature to Mote Marine Laboratory, which will function as the initiative's lead administrative component. The initiative must leverage state-appropriated funds with additional funds from private and federal sources.

Mote Marine Laboratory and the University of Florida are required to create a 10-year Florida Seagrass Restoration Plan to implement tools and technologies developed under the initiative.

The bill requires the initiative to submit an annual report with an overview of its accomplishments to date and priorities for subsequent years to the Governor, the Legislature, the Secretary of Environmental Protection, and the executive director of the Fish and Wildlife Conservation Commission.

The bill also establishes the Initiative Technology Advisory Council (TAC) as part of the initiative and specifies the membership of the council. The TAC must meet at least twice a year.

The section of law created in the bill expires on June 30, 2028.

II. Present Situation:

Seagrass

Seagrass is a grass-like flowering plant that lives completely submerged in marine and estuarine waters.[1] Approximately 52 species of seagrass exist worldwide, seven of which are found in Florida's marine waters.[2] There are more than two million acres of seagrass along the state's coastline and within its estuaries.[3] Seagrass performs many important functions, including maintaining water clarity, stabilizing the bottom of aquatic habitats, and providing habitat for marine life and food for marine animals and water birds.[4] Seagrass meadows also serve as important sinks in the global carbon cycle,[5] prevent erosion by stabilizing sediments, and improve water quality by intercepting nutrients and organic matter carried by land runoff.[6]

Seagrass protects smaller marine animals, including juvenile sea bass, snappers, and grunts, from larger predators.[7] Many marine animals consume seagrass as food, including manatees, urchins, conches, and sea turtles. Other animals derive nutrition from eating the algae and small animals living in seagrass leaves. Bottlenose dolphins and a variety of wading and diving birds also use seagrass beds as feeding grounds. Seagrass-based detritus formed by the microbial breakdown of leaves and roots is also an important food source.[8]

Seagrass Loss

Seagrass meadows are among the planet's most threatened habitats, with their known global areal extent having declined by 29% since the late 1800s and losses rapidly accelerating in the last two decades.[9] In Florida, approximately 80 percent of the seagrass coverage in Tampa Bay has been lost, mainly due to human activities.[10]

Seagrass face several threats, including events that reduce water clarity and decrease the amount of light reaching the ecosystem, such as algae blooms, as well as physical damage, such as from dredging or boat propeller scarring.[11] Scarring occurs when boat propellers in shallow water

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[1] Dep't of Environmental Protection (DEP), *Florida Seagrasses*, https://floridadep.gov/rcp/seagrass (last visited Mar. 9, 2023).
[2] *Id.* These species include Cuban shoal grass, turtle grass, manatee grass, star grass, paddle grass, Johnson's seagrass, and widgeon grass. Section 253.04(3)(a)1., F.S.
[3] Florida Fish and Wildlife Conservation Commission (FWC), *Seagrass FAQ*, https://myfwc.com/research/habitat/seagrasses/information/faq/ (last visited Jan. 11, 2022).
[4] *Id.*
[5] Matthew P.J. Oreska, et al., *The greenhouse gas offset potential from seagrass restoration*, 1 (2020), *available at* https://link.springer.com/content/pdf/10.1038/s41598-020-64094-1.pdf.
[6] Nat'l Academy of Sciences, Engineering, and Medicine, *Effective Monitoring to Evaluate Ecological Restoration in the Gulf of Mexico*, 151 (2017), *available at* https://doi.org/10.17226/23476.
[7] DEP, *Florida Seagrasses*.
[8] *Id.*
[9] Nat'l Academy of Sciences, Engineering, and Medicine, *Effective Monitoring to Evaluate Ecological Restoration in the Gulf of Mexico* at 151.
[10] FWC, *Seagrass Restoration*, https://myfwc.com/research/habitat/seagrasses/projects/active/restoration/ (last visited Mar. 10, 2023).
[11] FWC, *Seagrass FAQ*.

impact seagrass roots, stems, and leaves, producing long, narrow furrows devoid of vegetation.[12] The damage caused by prop scars can take years to heal.[13] Abandoned fishing gear can also impact seagrass, creating unique restoration needs.[14] Grounded and derelict vessels can also impact seagrass ecosystems by shading, eroding, and scouring seagrass, and the process of removing these vessels can result in even further harm.[15]

In 2009, the Legislature tasked the Board of Trustees of the Internal Improvement Fund with preserving and regenerating seagrass.[16] It also passed legislation providing that a person operating a vessel outside a lawfully marked channel in a careless manner that causes seagrass scarring within an aquatic preserve commits a noncriminal infraction.[17] In addition, as of 2017, owners of private submerged lands that are adjacent to Outstanding Florida Waters or an aquatic preserve may request that the Florida Fish and Wildlife Conservation Commission (FWC) establish boating-restricted areas to protect any seagrass within their property boundaries from scarring due to propeller dredging.[18]

Seagrass Restoration

The success of seagrass restoration depends on many factors, including the arrangement, genetic diversity, and density of the seagrass, proximity to established mangroves, coral reefs, or existing seagrass meadows, and inclusion of bivalves such as clams or mussels in the ecosystem.[19] The use of donor beds is necessary for seagrass restoration, whether it is the relocation of an entire bed or the removal of random plugs from an existing bed.[20] In addition, because most seagrass species require high levels of light, water quality may limit the depth at which the seagrass can live.[21]

In Florida, several agencies are working to restore seagrass. The Office of Resilience and Coastal Protection (RCP) collaborates with other agencies to improve seagrass protection, augment habitat recovery through proven scientific restoration techniques, and increase public awareness of the importance of seagrass.[22] RCP has employed a variety of seagrass restoration methods throughout the state. For example, RCP's St. Martins Marsh Aquatic Preserve has partnered with the University of Florida's Institute of Food and Agricultural Sciences to stabilize and restore prop scars with sediment tubes. These restoration efforts will be monitored over a three-year period. RCP has conducted other restoration projects in Charlotte Harbor, Indian River Lagoon, Biscayne Bay, the Big Bend, the Florida Keys, St. Joseph Bay, St. Andrews Bay, and Pensacola

[12] DEP, *Seagrass Restoration Efforts*, https://floridadep.gov/rcp/rcp/content/seagrass-restoration-efforts (last visited Mar. 9, 2023).
[13] *Id.*
[14] *Id.*
[15] *Id.*
[16] Ch. 2009-86, s. 3, Laws of Fla.
[17] *Id.* This section is inapplicable to Lake Jackson, Oklawaha River, Wekiva River, and Rainbow Springs aquatic preserves. *Id.*
[18] Ch. 2017-163, s. 8, Laws of Fla.; section 327.46(1)(d), F.S.
[19] Stepahnie R. Valdez, et al., *Positive Ecological Interactions and the Success of Seagrass Restoration*, (2020), *available at* https://www.frontiersin.org/articles/10.3389/fmars.2020.00091/full.
[20] FWC, *Seagrass Restoration*, https://myfwc.com/research/habitat/seagrasses/projects/active/restoration/ (last visited Mar. 10, 2023).
[21] DEP, *Florida Seagrasses*, https://floridadep.gov/rcp/seagrass (last visited Mar. 9, 2023).
[22] DEP, *Seagrass Restoration Efforts*.

Bay—though results have been mixed. RCP continues to monitor these projects and collaborate with other researchers to develop more effective restoration methods.[23]

Other seagrass restoration efforts are ongoing throughout the state. For example, Northwest Florida Aquatic Preserves has been utilizing salvaged seagrass cores from impacted areas from dock pilings in restoration areas.[24] The salvaged material is used to fill propeller scars as well as bare or declining areas and has proven quite successful in the Panhandle estuaries. There have also been efforts to remove derelict vessels from seagrass beds in Lemon Bay Aquatic Preserve. Natural colonization of seagrass from adjacent beds has been successful. In addition, RCP is removing derelict crab traps from seagrass meadows in the Big Bend Seagrasses Aquatic Preserve. Twenty-five sites within this area are being monitored as part of a three-year seagrass restoration grant project to assess natural seagrass regrowth within the impacted area.[25]

RCP is also working with FWC to develop a restoration plan for the nation's only marine plant—Johnson's seagrass (*Halophila johnsonii*)—to be designated as a threatened species under the Endangered Species Act.[26] RCP has identified several areas in Biscayne Bay as potential restoration sites for this species of seagrass. In addition, FWC is developing a tissue-culture technique to seagrass restoration called mircopropagation.[27] Micropropagation is a way to clone plants using buds collected from branches of mature plants. The buds are sterilized and placed in test tubes containing a specific nutrient medium. Compared to standard nursery techniques, micropropagation has the potential to produce more plants in less time. FWC is also developing a new method for planting seagrass. Traditionally, seagrass has been planted by hand, but success with hand-planting has been variable. A new method using a boat with a planting wheel is being developed. This technique will reduce damage to the plantlets during transplantation, increase the planting rate, and cause less disturbance to sediment structure.[28]

Federal studies for seagrass restoration have also been conducted. For example, in 2016, the National Fish and Wildlife Federation (NFWF) began its three-year Roadblocks to Seagrass Recovery project.[29] The project focused on the role of submerged aquatic vegetation (SAV) in the restoration, maintenance, and enhancement of the ecological integrity of coastal bays and estuaries in the Florida Panhandle and Big Bend regions.[30] The project evaluated seagrass in six estuaries—Perdido Bay, Pensacola Bay, Choctawhatchee Bay, Saint Andrew Bay, Saint Joseph Bay, and the Suwannee River Estuary—to assess the status and trends of seagrass, identify stressors preventing or slowing natural recovery of lost seagrass, and provide recommendations for the selection, design, and assessment of restoration projects to enhance seagrass recovery.[31]

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[23] *Id.*
[24] *Id.*
[25] *Id.*
[26] DEP, *Seagrass Restoration Efforts*, https://floridadep.gov/rcp/rcp/content/seagrass-restoration-efforts (last visited Mar. 9, 2023).
[27] FWC, *Seagrass Restoration*, https://myfwc.com/research/habitat/seagrasses/projects/active/restoration/ (last visited Mar. 10, 2023).
[28] *Id.*
[29] NFWF, *Roadblocks to Seagrass Recovery – Final Report*, (2020), *available at* https://myfwc.com/media/24317/roadblocks-final-report.pdf.
[30] *Id.* at 3.
[31] *Id.*

Mote Marine Laboratory

Mote Marine Laboratory (Mote) is a Florida nonprofit organization that was founded in 1955.[32] Today, Mote includes a 10.5-acre campus and aquarium in Sarasota, Florida, with various facilities known as field stations in Key West, eastern Sarasota County, Summerland Key, and Charlotte Harbor.[33]

Mote has more than 20 research programs and 30 Ph.D. scientists studying various aspects of marine science, including marine biogeochemisty and marine biomedical research.[34] Mote's research includes studies of human cancer using marine models, the effects of human-made and natural toxic substances on humans and on the environment, the health of wild fisheries, developing sustainable and successful fish restocking techniques and food production technologies, and the development of ocean technology to better understand the health of the environment.[35] Its programs also focus on understanding the population dynamics of manatees, dolphins, sea turtles, sharks, and coral reefs, and on conservation and restoration efforts related to these species and ecosystems.[36]

Mote also conducts important research on seagrass, including the study of water quality and its impact on seagrass loss in Sarasota Bay and Florida Bay.[37] In 2021, Mote scientists co-authored a peer-reviewed research paper finding that changes in freshwater flows into Florida Bay appear to be associated with loss of seagrass and the rise of microscopic algae that compete with it.[38] The paper concludes that, given projected future climate conditions and anticipated cycles of drought and intensive storms, the likelihood of future seagrass die-offs and picocyanobacterial blooms is high.[39]

University of Florida and Seagrass Research

The University of Florida's Institute of Food and Agricultural Sciences (UF/IFAS) is a federal-state-county partnership with a mission of developing knowledge in agriculture, human and natural resources, and the life sciences.[40] UF/IFAS employs more than 2,000 faculty and staff statewide and has offices in each of Florida's 67 counties.[41]

UF/IFAS's scientists are currently conducting research on seagrass restoration, including methods most likely to lead to successful restoration (genetic diversity, the presence of lucinid

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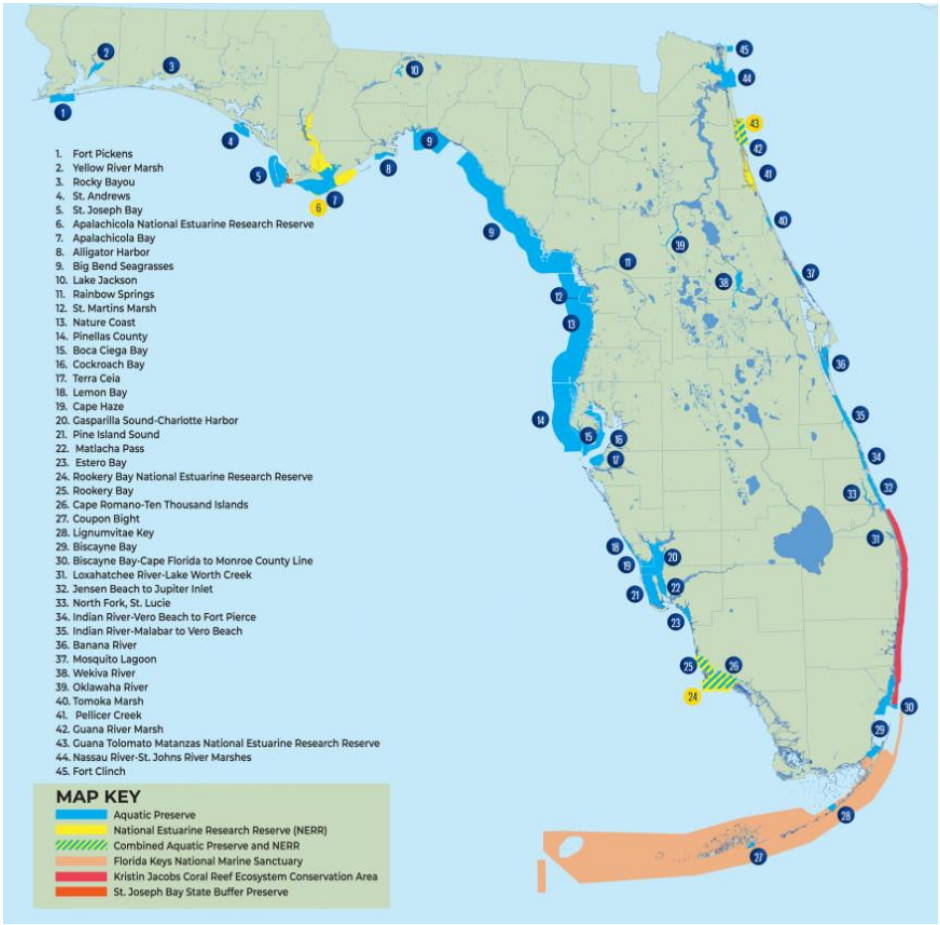
[32] Mote Marine Laboratory and Aquarium (Mote), *Research Programs*, https://mote.org/research-programs (last visited Mar. 11, 2023).
[33] Mote, *Mote Marine Laboratory and Aquarium*, https://mote.org/locations/details/mote-marine-laboratory-aquarium (last visited Mar. 11, 2023); Mote, *Mote Field Stations*, https://mote.org/locations (last visited Mar. 11, 2023).
[34] Mote, *Research Programs*.
[35] Mote, *About Us*, https://mote.org/about-us (last visited Mar. 11, 2023).
[36] *Id.*
[37] Mote, *Innovative Research*, https://mote.org/pages/2021-annual-report-innovative-research-taking-the-pulse-of-our-marine-envir (last visited Mar. 11, 2023).
[38] *Id.*; *see* Patricia M. Gilbert, et al., *Dissolved organic nutrients at the interface of fresh and marine waters: flow regime changes, biogeochemical cascades and picocyanobacterial blooms—the example of Florida Bay, USA*, 1, 20-21 (2021), *available at* https://link.springer.com/content/pdf/10.1007/s10533-021-00760-4.pdf.
[39] *Id.* at 1.
[40] UF/IFAS, *About UF/IFAS*, https://ifas.ufl.edu/about-us/ (last visited Mar. 11, 2023).
[41] *Id.*

clams and small invertebrate herbivores, etc.).[42] Scientists have also studied the use of certain fertilizers on seagrass regrowth.[43]

Aquatic Preserve Program

In 1975, the Legislature enacted the Aquatic Preserve Act to ensure the continuation of aquatic preserves' natural conditions so their aesthetic, biological and scientific values may endure for the enjoyment of future generations.[44] DEP's Office of Resilience and Coastal Protection oversees the management and protection of these aquatic preserves, which act as critical nurseries for fish and other aquatic life.[45] These areas also contain many archaeological sites and are important for recreation, as about two-thirds of Floridians live in counties that border an aquatic preserve.[46]



[42] UF/IFAS, *Reynolds Coastal and Marine Ecology Lab: Research*, https://soils.ifas.ufl.edu/coastal-and-marine-ecology-lab/research/ (last visited Mar. 11, 2023).
[43] UF/IFAS, *An efficient, sustainable fertilizer for seagrass*, https://blogs.ifas.ufl.edu/swsdept/2022/05/19/an-efficient-sustainable-fertilizer-for-seagrass/ (last visited Mar. 11, 2023).
[44] Ch. 75-172, s. 1, Laws of Fla.; section 258.36, F.S.
[45] DEP, *Office of Resilience and Coastal Protection*, https://floridadep.gov/RCP (last visited Mar. 11, 2023); DEP, *Aquatic Preserve Program*, https://floridadep.gov/rcp/aquatic-preserve#:~:text=Aquatic%20preserves%20protect%20Florida%27s%20living%20waters%20to%20ensure,window%20into%20the%20state%27s%20natural%20and%20cultural%20heritage (last visited Mar. 11, 2023).
[46] *Id.*

III. Effect of Proposed Changes:

Section 1 creates s. 403.93344, F.S., to establish the Seagrass Restoration Technology Development Initiative and the Initiative Technology Advisory Council. The bill provides that it is the intent of the Legislature to establish a collaborative and coordinated effort among public and private research entities to develop restoration technologies and approaches to address the loss of seagrass and the cascading ecological and economic impacts that loss to communities in this state.

The bill establishes the Seagrass Restoration Technology Development Initiative within the Department of Environmental Protection (DEP) as a partnership between DEP's Aquatic Reserve Program, Mote Marine Laboratory, and the University of Florida to develop innovative technologies needed to restore coastal seagrass ecosystems by building upon research and restoration efforts in the public and private sectors. The goal of the initiative is to develop, test, and implement innovative, effective, and environmentally sustainable technologies and approaches for restoring coastal seagrass ecosystems.

The bill requires DEP to award funds specifically appropriated by the Legislature to Mote Marine Laboratory, which will function as the lead administrative component to achieve the initiative's goals. Mote Marine Laboratory may, with DEP's approval, use a portion of these funds to facilitate additional engagement with other marine science and technology development organizations to pursue applied research and technology for successful restoration of seagrass ecosystems. Mote Marine Laboratory may not use more than 5 percent of its awarded funds for direct annual initiative administration and coordination costs. The initiative must leverage state-appropriated funds with additional funds from private and federal sources.

Mote Marine Laboratory and the University of Florida are required to create a 10-year Florida Seagrass Restoration Plan to implement tools and technologies developed under the initiative.

The bill provides that, beginning January 15, 2014, and each January thereafter, the initiative must submit a report containing an overview of its accomplishments to date and priorities for subsequent years to the Governor, the Legislature, the Secretary of Environmental Protection, and the executive director of the Fish and Wildlife Conservation Commission.

The bill also establishes the Initiative Technology Advisory Council (TAC) as part of the initiative.[47] The TAC's membership must include marine science, technology development, and natural resource management representatives from this state's aquatic preserves, private organizations, and public or private research institutions. The TAC must meet at least twice a year. The TAC must be co-chaired by the president and chief executive officer of Mote Marine Laboratory and a representative from the University of Florida. The other members must include:

- One member from a private commercial enterprise, appointed by the Governor;
- One member from a public or private university in Florida, appointed by the President of the Senate;

[47] *See* s. 20.03, F.S., defining advisory council as an advisory body created by specific statutory enactment and appointed to function on a continuing basis for the study of the problems arising in a specified functional or program area of state government and to provide recommendations and policy alternatives.

- One member from a non-university public or private marine environmental organization, appointed by the Speaker of the House of Representatives;
- One member from DEP's Aquatic Reserve Program who has expertise in seagrass ecosystems, appointed by the Secretary of Environmental Protection; and
- One member from the Fish and Wildlife Research Institute who has expertise in seagrass, appointed by the executive director of the Fish and Wildlife Conservation Commission.

The bill provides that TAC members must serve staggered two-year terms and may be reappointed. TAC members will not receive compensation; each organization represented must cover all expenses of its respective representative. The section of law created in the bill expires on June 30, 2028.

Section 2 provides an effective date of July 1, 2023.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

Mote Marine Laboratory may have a positive fiscal impact as a result of receiving funding to serve as the lead entity for the Seagrass Restoration Technical Development Initiative.

C. Government Sector Impact:

The Department of Environmental Protection and the University of Florida (UF) may incur costs related to the Seagrass Restoration Technology Development Initiative, including conducting research, creating a seagrass restoration plan, and preparing annual

status reports. UF may also incur costs related to co-chairing the Initiative Technology Advisory Council. Such costs may be offset by the bill's authorization that Mote Marine Laboratory may use funds provided as part of the program to engage other marine science organizations.

VI. Technical Deficiencies:

The provisions of this bill may be inconsistent with s. 20.052, F.S., which provides requirements for the establishment of advisory bodies.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill creates section 403.93344 of the Florida Statutes.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

CS by Environment and Natural Resources on March 14, 2023:
Changed the section number created by this bill from s. 379.2274, F.S., to s. 403.93344, F.S.

B. Amendments:

None.

676206

LEGISLATIVE ACTION

Senate	.	House
Comm: RCS	.	
03/14/2023	.	
	.	
	.	
	.	

The Committee on Environment and Natural Resources (Boyd) recommended the following:

Senate Amendment (with title amendment)

Delete lines 24 - 26

and insert:

Section 1. Section 403.93344, Florida Statutes, is created to read:

403.93344 Seagrass Restoration Technology Development

================ T I T L E A M E N D M E N T ================

And the title is amended as follows:

676206

Delete line 3

and insert:

Development Initiative; creating s. 403.93344, F.S.;

By Senator Boyd

20-01122-23 2023724__

A bill to be entitled

An act relating to the Seagrass Restoration Technology Development Initiative; creating s. 379.2274, F.S.; providing legislative intent; defining terms; establishing the Seagrass Restoration Technology Development Initiative within the Department of Environmental Protection; providing the purpose and goal of the initiative; providing for funding; specifying allowable uses of the funding; requiring the creation of a 10-year Florida Seagrass Restoration Plan; requiring the initiative to submit an annual report by a specified date to the Governor, the Legislature, the Secretary of Environmental Protection, and the executive director of the Fish and Wildlife Conservation Commission; establishing the Initiative Technology Advisory Council as part of the initiative; providing for the meetings, membership, terms of office, and compensation of the advisory council; providing for the expiration of the initiative; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Section 379.2274, Florida Statutes, is created to read:

379.2274 Seagrass Restoration Technology Development Initiative; Initiative Technology Advisory Council.—

(1) It is the intent of the Legislature to establish a collaborative and coordinated effort among public and private

research entities to develop restoration technologies and approaches to address the loss of seagrass and the cascading ecological and economic impacts of that loss to communities in this state.

(2) As used in this section, the term:

(a) "Department" means the Department of Environmental Protection.

(b) "Initiative" means the Seagrass Restoration Technology Development Initiative.

(c) "Program" means the Aquatic Reserve Program within the department's Office of Resilience and Coastal Protection.

(3) The Seagrass Restoration Technology Development Initiative is established within the department as a partnership between the program, Mote Marine Laboratory, and the University of Florida.

(a) The purpose of the initiative is to take the lead in and expedite the development of innovative technologies and approaches that are critically needed to restore coastal seagrass ecosystems by building upon research and restoration efforts in the public and private sectors.

(b) The goal of the initiative is to develop, test, and implement innovative, effective, and environmentally sustainable technologies and approaches for restoring coastal seagrass ecosystems.

(c) The department shall award funds specifically appropriated by the Legislature for the initiative to Mote Marine Laboratory, which shall function as the lead administrative component to achieve the goals of the initiative.

1. Mote Marine Laboratory may, with the concurrence of the

department, use a portion of the awarded funds to facilitate additional engagement with other pertinent marine science and technology development organizations in this state and around the world to pursue applied research and technology for the successful restoration of seagrass ecosystems.

2. Mote Marine Laboratory may not use more than 5 percent of its awarded funds for direct annual initiative administration and coordination costs.

3. The initiative shall leverage state-appropriated funds with additional funds from private and federal sources.

(d) In collaboration with the program, Mote Marine Laboratory and the University of Florida shall create a 10-year Florida Seagrass Restoration Plan to implement tools and technologies developed under the initiative.

(e) Beginning January 15, 2024, and each January 15 thereafter until its expiration, the initiative shall submit a report that contains an overview of its accomplishments to date and priorities for subsequent years to the Governor, the President of the Senate, the Speaker of the House of Representatives, the Secretary of Environmental Protection, and the executive director of the Fish and Wildlife Conservation Commission.

(4) The Initiative Technology Advisory Council, an advisory council as defined in s. 20.03(7), is established as part of the initiative. The advisory council's membership must include marine science, technology development, and natural resource management representatives from this state's aquatic preserves, private organizations, and public or private research institutions. The council shall meet at least twice annually.

(a) The council shall be co-chaired by the president and chief executive officer of Mote Marine Laboratory and a representative from the University of Florida and shall be composed of the following members:

1. One member from a private commercial enterprise, appointed by the Governor.

2. One member from a public or private university in this state, appointed by the President of the Senate.

3. One member from a non-university public or private marine environmental organization, appointed by the Speaker of the House of Representatives.

4. One member from the program who has expertise in seagrass ecosystems, appointed by the Secretary of Environmental Protection.

5. One member from the Fish and Wildlife Research Institute who has expertise in seagrass, appointed by the executive director of the Fish and Wildlife Conservation Commission.

(b) Council members shall serve staggered 2-year terms and may be reappointed.

(c) Council members shall serve without compensation, and each organization represented shall cover all expenses of its respective representative.

(5) This section expires June 30, 2028.

Section 2. This act shall take effect July 1, 2023.

The Florida Senate

Committee Agenda Request

To: Senator Ana Maria Rodriguez, Chair
Committee on Environment and Natural Resources

Subject: Committee Agenda Request

Date: February 27, 2023

I respectfully request that **Senate Bill #728**, relating to Liveries, be placed on the:

☒ committee agenda at your earliest possible convenience.

☐ next committee agenda.

Senator Ileana Garcia
Florida Senate, District 36

File signed original with committee office

S-020 (03/2004)

The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

3-14-23
Meeting Date

EN & NR
Committee

728
Bill Number or Topic

Amendment Barcode (if applicable)

Name Peggy Mathews

Phone 850 566-6779

Address 1530 Big Sky Way
Street

Email mathewsph@AOL.com

Tall FL 32317
City State Zip

Speaking: ☐ For ☐ Against ☒ Information **OR** Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without compensation or sponsorship.

☒ I am a registered lobbyist, representing: American Watercraft Association

☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. 2020-2022JointRules.pdf (flsenate.gov)

This form is part of the public record for this meeting.

S-001 (08/10/2021)

The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to
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3/14/23
Meeting Date

Env+Nat Resources
Committee

728
Bill Number or Topic

Amendment Barcode (if applicable)

Name Lisa Henning

Phone 850-766-8868

Address 242 office Plaza Dr
Street

Email fgdlegislative@aol.com

Tallahassee FL 32301
City State Zip

Speaking: ☐ For ☐ Against ☐ Information **OR** Waive Speaking: ☑ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without compensation or sponsorship.

☑ I am a registered lobbyist, representing:

☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

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This form is part of the public record for this meeting.

S-001 (08/10/2021)

The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

3/14/23
Meeting Date

ENV. & Nat. Resources
Committee

728
Bill Number or Topic

Amendment Barcode (if applicable)

Name JEFF SHARKEY

Phone 850 224 1660

Address 106 E College Ave
Street

TLH FL 32301
City State Zip

Email

Speaking: ☐ For ☐ Against ☐ Information **OR** Waive Speaking: ☑ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without compensation or sponsorship.

☑ I am a registered lobbyist, representing:
AT THE HELM TRAINING

☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. 2020-2022JointRules.pdf (flsenate.gov)

This form is part of the public record for this meeting.

S-001 (08/10/2021)

The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Environment and Natural Resources

BILL:	SB 728
INTRODUCER:	Senator Garcia
SUBJECT:	Liveries
DATE:	March 13, 2023
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Carroll	Rogers	EN	**Favorable**
2.			CM	
3.			RC	

I. Summary:

SB 728 specifies that a livery's pre-rental or pre-ride instruction must be hands-on. The instruction must include education on safety, regulatory, informational, or navigation markers in the geographic vicinity, and on the prohibition against boating under the influence.

The bill exempts a renter or lessee and livery from the pre-rental or pre-ride instruction requirement if the renter or lessee retains a professional captain with an active U.S. Coast Guard license, as required by the agreement between the livery and the renter or lessee.

The bill allows a livery to limit insurance covering the renter if the renter or lessee has a boating certification authorized by statute or if the renter or lessee hires a professional captain.

The bill allows the Florida Fish and Wildlife Conservation Commission (FWC) to enter into agreements with qualified contractors to inspect liveries for compliance with statutory requirements.

II. Present Situation:

Fish and Wildlife Conservation Commission

The Fish and Wildlife Conservation Commission (FWC) is responsible for regulating, managing, protecting, and conserving the state's fish and wildlife resources.[1] FWC is governed by a board of seven members who are appointed by the Governor and confirmed by the Florida Senate.[2] Under Article IV, Section 9 of the Florida Constitution, FWC has the authority to exercise the regulatory and executive powers of the state with respect to wild animal life, fresh water aquatic life, and marine life.

[1] FLA. CONST. art. IV, s. 9.
[2] *Id.*; *see also* s. 379.102(1), F.S.

Chapter 327, F.S., concerning vessel safety is enforced by FWC's Division of Law Enforcement and its officers, county sheriffs and deputies, municipal police officers, and any other law enforcement officer.[3] The Division of Law Enforcement manages the state's waterways to ensure boating safety for Florida residents and visitors.[4] This includes enforcing boating rules and regulations, coordinating boating safety campaigns and education, managing public waters and access to the waters, conducting boating accident investigations, identifying and removing derelict vessels, and investigating vessel theft and title fraud.[5]

Boating Safety Education

A person operating a vessel powered by a motor of 10 horsepower or greater must possess photographic identification and a Florida boating safety identification card; a state-issued identification card or driver license indicating possession of the boating safety identification card; or photographic identification and a temporary certificate issued or approved by FWC, an International Certificate of Competency, a boating safety card or certificate from another state or U.S. territory, or a Canadian Pleasure Craft Operator Card.[6] A person is exempt from this requirement if he or she:

- Was born before January 1, 1988;[7]
- Is or has been licensed by the U.S. Coast Guard;
- Operates a vessel only on a private lake or pond;
- Is accompanied by an adult who meets boating safety requirements and who is attendant to the operation of the vessel and responsible for safe operation of the vessel;
- Is a nonresident who possesses photographic identification and proof of completion of a boating safety education course or examination that meets or exceeds the minimum requirements established by the National Association of State Boating Law Administrators;
- Is operating a vessel within 90 days after purchase and possesses the bill of sale; or
- Is exempted by FWC rule.[8]

A Florida boating safety identification card is issued after successful completion of a boating safety education course approved by FWC.[9] The card is valid for a person's life.[10] A temporary certificate requires passing an FWC-approved examination and is valid for 90 days after the date of issuance.[11] An FWC-approved boating safety education course or temporary certificate examination must contain information regarding:

---

[3] Section 327.70(1), F.S.; *see* s. 943.10(1), F.S., which defines "law enforcement officer" as any person who is elected, appointed, or employed full time by any municipality or the state or any political subdivision thereof; who is vested with authority to bear arms and make arrests; and whose primary responsibility is the prevention and detection of crime or the enforcement of the penal, criminal, traffic, or highway laws of the state. The definition also includes all certified supervisory and command personnel whose duties include, in whole or in part, the supervision, training, guidance, and management responsibilities of full-time law enforcement officers, part-time law enforcement officers, or auxiliary law enforcement officers but does not include support personnel employed by the employing agency.
[4] Fish and Wildlife Conservation Commission (FWC), *Boating*, https://myfwc.com/boating/ (last visited March 6, 2023).
[5] FWC, *Law Enforcement*, https://myfwc.com/about/inside-fwc/le/ (last visited March 6, 2023). *See* s. 327.70(1) and (4), F.S.
[6] Section 327.395(1), (2), F.S.
[7] Section 327.395(1), F.S.
[8] Section 327.395(6), F.S.
[9] Section 327.395(3), F.S.
[10] Section 327.395(5), F.S.
[11] Section 327.395(3), (5), F.S.

- Diving vessels, awareness of divers in the water, divers-down warning devices, and navigation around divers;
- The danger associated with:
  - A passenger riding on a vessel area not designed and designated for seating,
  - A passenger falling overboard,
  - Operating a vessel near a person in the water,
  - Starting a vessel with the engine in gear, and
  - Leaving the vessel running when a passenger is boarding or disembarking; and
- The proper use and lifesaving benefits of an engine cutoff switch for motorboats and personal watercraft.[12]

Regulation of Liveries

A livery is defined as a person who advertises and offers a livery vessel[13] for use by another in exchange for any type of consideration, when the livery does not also provide the lessee or renter with a captain, crew, or any type of staff or personnel to operate, oversee, maintain, or manage the vessel.[14] The statute specifies two exemptions from the definition:
- Vessel owners who do not advertise their vessel for use by another for consideration and who loan or offer the vessel to a person they know; and
- A public or private school or postsecondary institution located in the state.[15]

A livery may not offer a vessel for lease or rent without obtaining an annual, no-cost livery permit from FWC.[16] To qualify for the issuance or renewal of the permit, a livery must:
- Provide FWC with a list of all vessels available for lease or rent;
- Have valid insurance;
- Have enough U.S. Coast Guard-approved lawful personal flotation devices on site to accommodate the capacity of all available vessels;
- Have enough safety equipment required by statute and the Code of Federal Regulations on site to equip all available vessels; and
- Display boating safety information in a place visible to the renting public.

If the information required to qualify for the permit changes before the annual renewal of the permit, a livery must provide the updated information to FWC within 10 days of the change.[17]

Regarding boating safety, the law prohibits a livery from knowingly leasing or renting a vessel to any person:
- When the number of persons intending to use the vessel exceeds the maximum safety load for the vessel;
- When the horsepower of the motor exceeds the capacity of the vessel;

[12] Section 327.395(4), F.S.
[13] A livery vessel is defined as a vessel that is leased, rented, or chartered to another for consideration. Section 327.02(24), F.S.
[14] Section 327.54(1), F.S.
[15] *Id.*
[16] Section 327.54(2), F.S.
[17] *Id.*

- When the vessel does not contain required safety equipment;
- When the vessel is not seaworthy, is derelict, or is at risk of becoming derelict;
- Unless the livery provides pre-rental or pre-ride instruction that reviews, at a minimum:
  - The operational characteristics of the livery vessel,
  - Safe vessel operation and right-of-way,
  - The responsibility of the vessel operator for the safe and proper operation of the vessel,
  - Local characteristics of the waterway, and
  - Emergency procedures;
- Unless the livery displays boating safety information in a place visible to the renting public; and
- Unless the livery has a written agreement with the renter or lessee.[18]

A livery also may not knowingly lease or rent a vessel to a person who is required to have a boating safety identification card or other boating safety certificate unless the person presents the card or certificate and photographic identification to the livery.[19]A person must be 18 years or more to rent a livery vessel other than a human-powered vessel.[20] Liveries must notify law enforcement if a vessel is unnecessarily overdue by more than four hours or if an accident occurs.[21]

Liveries must also obtain and carry in full force and effect a policy from a licensed insurance carrier in the state, which insures the livery and the renter against any accident, loss, injury, property damage, or other casualty caused by or resulting from the operation of the livery vessel. The policy must cover at least $500,000 per person and $1 million per event. Proof of insurance must be available for inspection where vessels are rented or leased. The insurance requirement only applies to human-powered vessels.[22]

A livery is required to make its facilities and records available for inspection upon request of law enforcement within 24 hours of receiving notice.[23]

The Boating Safety Act of 2022

The Legislature passed the Boating Safety Act of 2022 in part to increase protections for individuals who rent or lease livery vessels.[24] The Act provided the current statutory definition of a livery as a person who advertises and offers a livery vessel for use by another in exchange for any type of consideration, when the livery does not also provide a captain, crew, or any type of staff or personnel to operate, oversee, maintain, or manage the vessel. It also required liveries to obtain a no-cost, annual livery permit, as well as an insurance policy that insures both the livery and the renter. The Act added additional components to FWC-approved boating safety education courses and temporary certificate examinations.[25]

[18] Section 327.54(3), F.S.
[19] Section 327.54(4), F.S.; *See generally* s. 327.395, F.S.
[20] Section 327.54(6), F.S.
[21] Section 327.54(5) and (9), F.S.
[22] Section 327.54(7), F.S.
[23] Section 327.54(10), F.S.
[24] Chapter 2022-197, Laws of Fla.
[25] *Id.*

III. Effect of Proposed Changes:

Section 1 amends s. 327.54, F.S., to specify that a livery's pre-rental or pre-ride instruction must be hands-on. The bill requires that the instruction include education on any safety, regulatory, informational, or navigation markers in the geographic vicinity, as well as notice of the prohibition against boating under the influence.

The bill provides that if a renter or lessee retains a professional captain who holds an active U.S. Coast Guard license to command the livery vessel as required by the agreement between the livery and the renter or lessee, and the livery confirms that the captain has been retained, the renter or lessee and the livery will be exempt from the pre-rental or pre-ride instruction requirement.

The bill allows a livery to limit insurance covering the renter if the renter or lessee:

- Has a Florida boating safety identification card issued by the Florida Fish and Wildlife Conservation Commission (FWC), a temporary certificate, or another authorized form of boating certification; or
- Hires a professional captain who holds an active U.S. Coast Guard license.

To enhance enforcement efforts, the bill allows FWC to enter into agreements with qualified contractors to perform inspections of liveries to ensure compliance with statutory requirements. The inspections may be performed by an authorized agent working under the supervision of a qualified contractor. The bill requires the qualified contractor to provide a copy of a written, signed inspection report to the livery upon completion of the inspection and to FWC within 30 days of the inspection. FWC may develop the contents of the inspection report.

The bill requires that a livery must make the statement form attesting to pre-rental or pre-ride instruction and the written agreement between the livery and the renter or lessee available for inspection by an authorized agent of FWC. The bill further requires that a livery make its facilities and records available for inspection by an authorized agent of FWC no later than 24 hours after receiving notice from the authorized agent.

The bill makes technical changes.

Section 2 provides an effective date of July 1, 2023.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

E. Other Constitutional Issues:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

None.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends section 327.54 of the Florida Statutes.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.

By Senator Garcia

36-00399B-23 2023728__

A bill to be entitled

An act relating to liveries; amending s. 327.54, F.S.; revising safety requirements for liveries and requiring hands-on instruction that meets specified requirements; providing an exemption from certain safety requirements when a renter hires a professional captain; revising insurance requirements for liveries and renters; authorizing the Fish and Wildlife Conservation Commission to enter into agreements with qualified contractors to perform compliance inspections of liveries; providing requirements for such contracted inspections; requiring liveries to make facilities and records available for inspection by the qualified contractors within a specified timeframe; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Section 327.54, Florida Statutes, is amended to read:

327.54 Liveries; safety regulations; penalty.—

(1) As used in this section, the term:

(a) "Advertise" means to describe or draw attention to a vessel and its availability for lease or rental in any medium for the purpose of promoting the lease or rental of the vessel.

(b) "Conviction" means any judicial disposition other than acquittal or dismissal.

(c) "Livery" means a person who advertises and offers a livery vessel for use by another in exchange for any type of

consideration when such person does not also provide the lessee or renter with a captain, a crew, or any type of staff or personnel to operate, oversee, maintain, or manage the vessel. The owner of a vessel who does not advertise his or her vessel for use by another for consideration and who loans or offers his or her vessel for use to another known to him or her either for consideration or without consideration is not a livery. A public or private school or postsecondary institution located within this state is not a livery. A vessel rented or leased by a livery is a livery vessel as defined in s. 327.02.

(d) "Seaworthy" means the vessel and all of its parts and equipment, including, but not limited to, engines, bilge pumps, and kill switches, are functional and reasonably fit for their intended purpose.

(2) A livery may not offer a vessel for lease or rent without first being issued a no-cost livery permit by the commission. The permit must be renewed annually. To qualify for issuance or renewal of a livery permit, an applicant must provide the commission with a list of all vessels offered by the livery for lease or rent by another, have valid insurance pursuant to subsection (8) ~~(7)~~, have an amount of United States Coast Guard-approved lawful personal floatation devices on site sufficient to accommodate the capacity of all vessels offered by the livery for rent or lease by another, have on site all safety equipment required by s. 327.50 and the Code of Federal Regulations sufficient to equip all vessels offered by the livery for rent or lease by another, and display the information required by paragraph (3)(f). If, before the annual renewal of the permit, the information required by this subsection changes,

the livery must provide the commission with the updated information within 10 days after the change.

(a) The commission may adopt rules to implement this subsection.

(b) A person who violates this subsection commits a misdemeanor of the first degree, punishable as provided in s. 775.082 or s. 775.083.

(3) A livery may not knowingly lease or rent a vessel to any person:

(a) When the number of persons intending to use the vessel exceeds the number considered to constitute a maximum safety load for the vessel as specified on the authorized persons capacity plate of the vessel.

(b) When the horsepower of the motor exceeds the capacity of the vessel.

(c) When the vessel does not contain the safety equipment required under s. 327.50.

(d) When the vessel is not seaworthy, is a derelict vessel as defined in s. 823.11, or is at risk of becoming derelict as provided in s. 327.4107.

(e) Unless the livery provides <u>hands-on</u> pre-rental or pre-ride instruction in compliance with rules established by the commission.

1. The instruction must include, but need not be limited to:

a. Operational characteristics of the vessel to be rented.

b. Safe vessel operation and vessel right-of-way.

c. The responsibility of the vessel operator for the safe and proper operation of the vessel.

d. Local characteristics of the waterway where the vessel will be operated, such as navigational hazards, the presence of boating-restricted areas, ~~and~~ water depths, and education on any safety, regulatory, informational, or navigation markers in the geographic vicinity.

e. Emergency procedures, such as appropriate responses to capsizing, falls overboard, taking on water, and vessel accidents.

f. A notice of the prohibition against boating under the influence pursuant to s. 327.35.

2. Any person receiving instruction in the safe handling of livery vessels pursuant to this paragraph must provide the livery with a written statement attesting to each component of the instruction.

a. The commission shall establish by rule the content of the statement form.

b. The statement form must be signed by the individual providing the instruction.

c. The livery shall maintain the statement form for no less than 90 days and, upon request, make the form available for inspection by law enforcement or an authorized agent of the commission pursuant to subsection (10).

(f) Unless the livery displays boating safety information in a place visible to the renting public. The commission shall prescribe by rule, pursuant to chapter 120, the contents and size of the boating safety information to be displayed.

(g) Unless the livery has a written agreement with the renter or lessee. The written agreement must include the name, address, and date of birth for the renter and the number of

people aboard the vessel, as well as the time the vessel is required to be returned to the livery or another specified location and an emergency contact name, address, and telephone number. The livery shall maintain each agreement for no less than 1 year and, upon request, make each agreement available for inspection by law enforcement or an authorized agent of the commission pursuant to subsection (10).

(4) If a renter or lessee retains a professional captain who holds an active license issued by the United States Coast Guard to command the vessel as required by an agreement between the livery and the renter or lessee, and the livery confirms that a professional captain has been retained, the renter or lessee and the livery are not subject to paragraph (3)(e).

(5) A livery may not knowingly lease or rent a vessel to a person who is required to comply with s. 327.395 unless such person presents to the livery the documentation required by s. 327.395(2) for the operation of a vessel or meets the exemption provided under s. 327.395(6)(f).

(6) ~~(5)~~ If a vessel rented or leased by a livery is unnecessarily overdue more than 4 hours after the contracted vessel rental time has expired, the livery must notify law enforcement.

(7) ~~(6)~~ A livery may not knowingly lease or rent a livery vessel, other than a human-powered vessel, to any person who is under 18 years of age.

(8) ~~(7)~~ A livery may not lease or rent or offer to lease or rent any livery vessel unless the livery first obtains and carries in full force and effect a policy from a licensed insurance carrier in this state which insures the livery and the

renter against any accident, loss, injury, property damage, or other casualty caused by or resulting from the operation of the livery vessel. The insurance policy must provide coverage of at least $500,000 per person and $1 million per event. The livery shall have proof of such insurance available for inspection at the location where livery vessels are being leased or rented, or offered for lease or rent, and shall provide to each renter the insurance carrier's name and address and the insurance policy number. A livery may choose to limit insurance covering the renter if the renter or lessee meets one of the following requirements:

(a) Has a Florida boating safety identification card issued by the commission, a temporary certificate, or another form of boating certification authorized pursuant to s. 327.395.

(b) Hires a professional captain who holds an active license issued by the United States Coast Guard.

This subsection does not apply to human-powered vessels.

(9) ~~(8)~~ Notwithstanding the person's age or any exemptions provided in s. 327.395, any person delivering instruction regarding the safe operation of vessels or hands-on pre-rental or pre-ride instruction in accordance with subsection (3) must have successfully completed a boating safety education course approved by the National Association of State Boating Law Administrators and this state.

(10) To enhance enforcement efforts, the commission may enter into agreements with qualified contractors to perform inspections of liveries to ensure compliance with this section. Inspections may be performed by an authorized agent working

under the supervision of a qualified contractor. The qualified contractor shall provide a copy of a written, signed inspection report to the livery upon completion of the inspection and to the commission within 30 days after the inspection. The commission may develop the contents of the inspection report.

(11) ~~(9)~~ If a vessel rented or leased by a livery is involved in an accident, the livery must report the accident to the division.

(12) ~~(10)~~ A livery shall make its facilities and records available for inspection upon request by law enforcement or an authorized agent of the commission pursuant to subsection (10) no later than 24 hours after receiving notice from law enforcement or an authorized agent of the commission.

(13)(a) ~~(11)(a)~~ Any person convicted of violating this section, other than subsection (2), who has not been convicted of a violation of this section within the past 3 years commits a misdemeanor of the second degree, punishable as provided in s. 775.082 or s. 775.083.

(b) Unless the stricter penalties in paragraph (c) apply, a person who violates this section, other than subsection (2), within 3 years after a previous conviction of a violation of this section commits a misdemeanor of the first degree, punishable as provided in s. 775.082 or s. 775.083, with a minimum mandatory fine of $500.

(c) A person who violates this section, other than subsection (2), within 5 years after two previous convictions for a violation of this section commits a misdemeanor of the first degree, punishable as provided in s. 775.082 or s. 775.083, with a minimum mandatory fine of $1,000.

(14)~~(12)~~ A person who commits more than one violation of this section, other than subsection (2), within a 3-year period may not act as a livery during a 90-day period immediately after being charged with that violation. The commission may revoke or refuse to issue a permit under subsection (2) based on repeated violations of this section.

Section 2. This act shall take effect July 1, 2023.

THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

COMMITTEES:
Appropriations Committee on Agriculture, Environment, and General Government, *Chair*
Health Policy, *Vice Chair*
Appropriations
Appropriations Committee on Health and Human Services
Children, Families, and Elder Affairs
Community Affairs
Regulated Industries
Rules

JOINT COMMITTEE:
Joint Legislative Auditing Committee

SENATOR JASON BRODEUR
10th District

February 27, 2023

The Honorable Ana Maria Rodriguez
Chair, Committee on Environment and Natural Resources
314 Senate Building
404 South Monroe Street
Tallahassee, FL 32399-1100

Dear Chair Rodriguez,

I respectfully request that **Senate Bill 880**, **Biosolids**, be placed on the agenda of the Environment and Natural Resources Committee meeting to be considered at your earliest convenience.

If you have any questions or concerns, please do not hesitate to reach out to me or my office.

Sincerely,

Jason Brodeur

Senator Jason Brodeur – District 10

CC: Ellen Rogers – Staff Director
Kim Bonn – Committee Administrative Assistant

REPLY TO:
❒ 110 Timberlachen Circle, Suite 1012, Lake Mary, Florida 32746 (407) 333-1802
❒ 405 Senate Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5010

Senate's Website: *www.flsenate.gov*

KATHLEEN PASSIDOMO
President of the Senate

DENNIS BAXLEY
President Pro Tempore

The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

3-14-23
Meeting Date

Env + Natural Resources
Committee

SB 880
Bill Number or Topic

Amendment Barcode (if applicable)

Name John November

Phone 904-525-3042

Address 2029 Third St N
Street

Jacksonville Beach FL 32250
City State Zip

Email

Speaking: ☑ For ☐ Against ☐ Information **OR** Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☑ I am appearing without compensation or sponsorship.

☐ I am a registered lobbyist, representing:

☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. 2020-2022JointRules.pdf (flsenate.gov)

This form is part of the public record for this meeting.

S-001 (08/10/2021)

The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

March 14, 2023
Meeting Date

Environment + NR
Committee

SB 880
Bill Number or Topic

Amendment Barcode (if applicable)

Name Eric Draper Public Trust for Conservation

Phone 850 251 1301

Address 3627 Dexter Dr
Street

Email Wericdraper@gmail.com

Tallahassee FL 32312
City State Zip

Speaking: ☑ For ☐ Against ☐ Information **OR** Waive Speaking: ☑ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☑ I am appearing without compensation or sponsorship.

☐ I am a registered lobbyist, representing:

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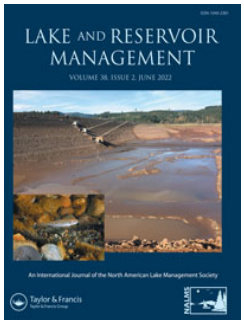
This form is part of the public record for this meeting.

S-001 (08/10/2021)



Lake and Reservoir Management

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Trends in phosphorus fluxes are driven by intensification of biosolids applications in the Upper St. Johns River Basin (Florida, United States)

Andy Canion, Victoria Hoge, John Hendrickson, Thomas Jobes & Dean Dobberfuhl

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LAKE AND RESERVOIR MANAGEMENT
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Trends in phosphorus fluxes are driven by intensification of biosolids applications in the Upper St. Johns River Basin (Florida, United States)

Andy Canion, Victoria Hoge, John Hendrickson, Thomas Jobes and Dean Dobberfuhl

St. Johns River Water Management District, Palatka, FL, USA

ABSTRACT

Canion A, Hoge V, Hendrickson J, Jobes T, Dobberfuhl D. 2022. Trends in phosphorus fluxes are driven by intensification of biosolids applications in the Upper St. Johns River Basin (Florida, United States). Lake Reserv Manage. XX:XX–XX.

Biosolids are beneficially used in agricultural production, but the potential for nutrient enrichment, primarily phosphorus (P), in runoff water remains a concern. This study provides strong correlative evidence that intensified Class B biosolids applications led to increases in total P (TP) and total nitrogen (TN) fluxes in the Upper St. Johns River Basin (USJRB). In 2013, new state regulations resulted in the elimination of Class B biosolids applications in 3 watersheds encompassing most of southern Florida. Most of the applications from these watersheds were shifted into the USJRB, which received 78% of statewide Class B biosolids applications by 2019. Weighted regressions on time, discharge, and season (WRTDS) were used to evaluate the relationship between long-term (1995–2020) trends in tributary TP and TN concentrations and fluxes and the timing and magnitude of biosolids applications in 8 USJRB watersheds. No significant land use change occurred that could account for water quality trends. Flow-normalized concentrations and fluxes were generally stable from 1995 to 2012, but after intensification of applications in 2013, significant increases occurred in 6 and 4 watersheds for TP and TN, respectively. P fluxes increased by 0.9–16.4 metric tons (MT; 40–200%) and N fluxes increased by 1.6–19.7 MT (5–20%). The magnitude of P and N flux increases were between 0.5% and 2.0% of land-applied biosolids P and N, which suggests that small losses of P and N from the landscape were required to produce the observed trends.

KEYWORDS

Biosolids; phosphorus loading; St. Johns River; weighted regressions on time, discharge, and season (WRTDS)

The use of treated municipal sewage sludge, or biosolids, for fertilizer and land reclamation is a beneficial use option for material that might otherwise be disposed of through landfilling or incineration. Biosolids contain high concentrations of the essential plant macronutrients nitrogen (N) and phosphorus (P), as well as organic carbon that improves soil physical and biological quality (Brown et al. 2011, Nicholson et al. 2018). Approximately 50% of the biosolids generated in the United States are applied to soils for agronomic, silvicultural, or land reclamation purposes, with this proportion increasing over time (NEBRA 2007, USEPA 2019). Approximately 80% of the biosolids generated annually in Florida are land applied, with 50% applied as highly treated Class A materials that are marketed as organic fertilizer and soil amendments, and the remaining 30% applied as Class B biosolids, which are transported directly from the generating facility to permitted land application sites after pathogen and vector attraction reduction. The majority of the Class B land application occurs on pastureland or hay crops (FDEP 2019).

The federal rule (USEPA 1993) for land application of biosolids bases application for agronomic purposes on the plant available nitrogen (PAN) requirement (USEPA 1994). Because of the relatively low N:P mass ratio of Class B biosolids (between 2:1 and 3:1) compared to the typical crop requirement for pasture grasses of (10:1), land application based on PAN requirements supplies P in excess of crop requirements (Kelling et al. 1977, Maguire et al. 2000, Shober and Sims 2003, USEPA 2015, Mackowiak et al. 2017). Recognizing the potential for P enrichment in runoff and groundwater, many states have added some form of P management to biosolids

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regulations (Lu et al. 2012). A widely used approach is to require the use of a P index to assess risk of runoff and leaching losses, consistent with NRCS Code 590 guidelines (USDA-NRCS 2012). However, if application based on PAN is allowed under lower P index ratings, this approach may still not limit application of P in excess of crop nutrient demand, resulting in soil P enrichment.

Research on pastures and cropland soils with long-term biosolids applications has documented labile P enrichment to levels of environmental concern, which may persist for many years after applications have ceased (Cogger et al. 2001, Schroder et al. 2008, Cogger et al. 2013, Withers et al. 2016, Lemming et al. 2019). The presence of P-sorbing minerals (e.g., Fe, Al, Ca), either present in soils or introduced at wastewater facilities, is a primary driver of the lability of P in biosolids, and the extent to which these minerals control water-extractable P (WEP) concentrations can predict leaching and runoff losses (Maguire et al. 2001, Elliott et al. 2002, Penn and Sims 2002, Brandt et al. 2004, Shober et al. 2006, Chinault and O'Connor 2008, White et al. 2010, Silveira et al. 2019). Limited research on runoff at the field and small watershed scale has shown that biosolids fertilization can result in significantly elevated runoff P concentrations; however, effects may not be observed until multiple years of application, suggesting exhaustion of soil P storage capacity is required before water quality effects are observed (Grey and Henry 2002, Richards et al. 2004, Tian et al. 2006, Wagner et al. 2014).

Although overapplication of P was recognized early in the use of biosolids for fertilization (O'Connor et al. 2005), studies of biosolids P export from fields to receiving waters are limited. In this study, we investigate the relationship between Class B biosolids applications and water quality of the Upper St. Johns River Basin (USJRB) in Florida. In 2010, new state biosolids rules (FDEP 2021) led to the elimination of land application of Class B biosolids in the Lake Okeechobee, St. Lucie River, and Caloosahatchee River watersheds of south and central Florida. By 2013, Class B biosolids applications shifted from these watersheds into the adjacent USJRB, resulting in a 3-fold increase of total applications within the basin. The USJRB has continued to receive a large proportion of statewide Class B biosolids applications, with 67,000 dry metric tons (78% of statewide total applications) applied in 2019 (Canion et al. 2021).

The primary objective of the study was to compare the timing and intensity of Class B applications to long-term (1995–2020) trends in total phosphorus (TP) and total nitrogen (TN) concentrations and fluxes in 8 pasture-dominated, small-to-medium (20–600 km^2) watersheds with varying intensity and cumulative history of biosolids applications. Streamflow and water quality data were analyzed using the weighted regressions on time, discharge, and season (WRTDS) method (Hirsch et al. 2010), which allows for trend estimation independent of interannual hydrologic variability. The study is unique in that it assesses long-term water quality trends in multiple adjacent watersheds, spanning a period before and after large increases in biosolids applications, and suggests a direct link between intensive biosolids applications and nutrient export at the watershed scale.

Methods

Study area

The USJRB is a 4600 km^2 subwatershed of the St. Johns River, located in east central Florida (Figure 1). The Upper St. Johns River is characterized by an expansive headwater marsh, a large floodplain, and several shallow, riverine lakes. The area receives approximately 130 cm of rainfall annually, with 70% of rainfall occurring during wet, summer months (May–Oct). The headwater (southern) portion of the basin includes the USJRB Project, a 670 km^2 flood control and wetland restoration project cooperatively constructed by the St. Johns River Water Management District (SJRWMD) and the US Army Corps of Engineers (USACE) and managed by the SJRWMD.

Eight tributaries of the USJRB were selected for the present study. These tributaries flow from a small ridge on the western side of the USJRB. Seven tributaries flow into the USJRB project area and one enters the St. Johns River upstream of Lake Winder (Figure 1). The dominant land use in these watersheds is pastureland for beef

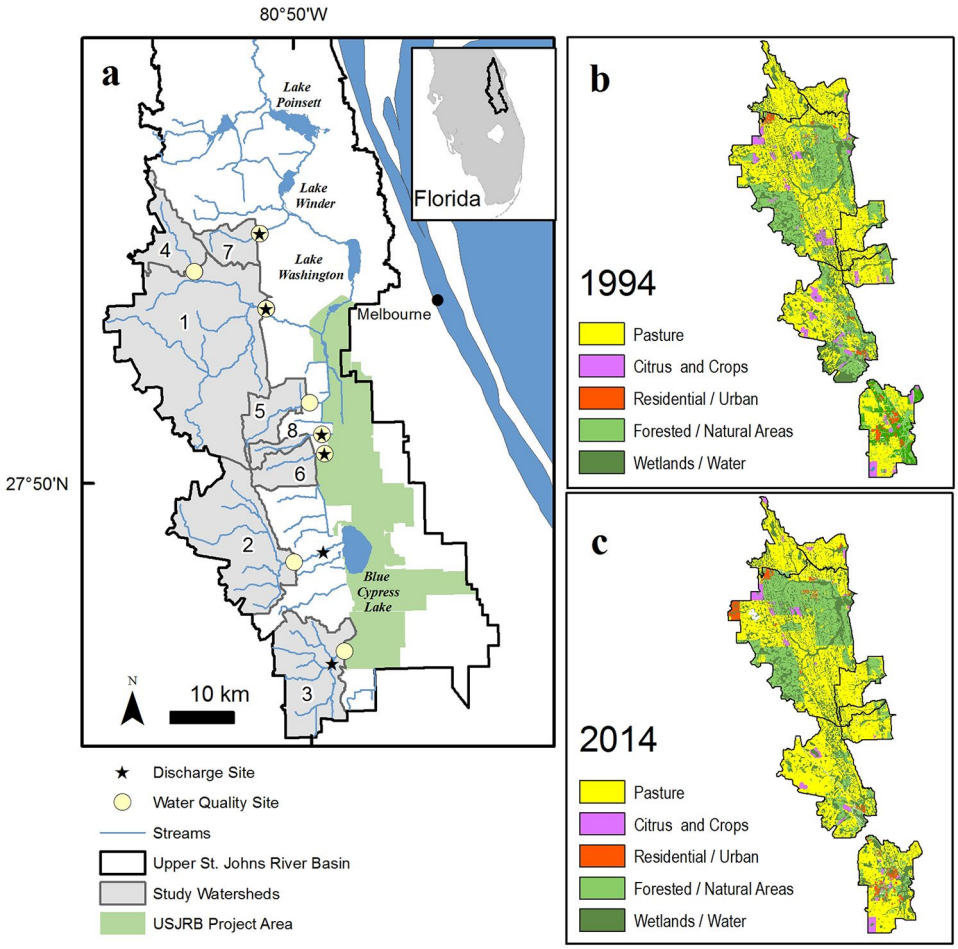

Figure 1. Overview of study watersheds and land use. (a) Study watersheds, including locations of water quality and discharge sites: (1) Jane Green Creek, (2) Blue Cypress Creek, (3) Ft. Drum Creek, (4) Crabgrass Creek, (5) Tenmile Creek, (6) Sixmile Creek, (7) Pennywash Creek, (8) South Wolf Creek. (b, c) Land use classification for study watersheds in 1994 and 2014.

Table 1. Total area and land use comparison between 1994 and 2014 for the 8 study watersheds.

Watershed	Total area (km^2)	Land use (%)											
		Pasture		Citrus		Other agriculture		Residential & urban		Forested & natural areas		Water & wetlands	
		1994	2014	1994	2014	1994	2014	1994	2014	1994	2014	1994	2014
Jane Green Creek	625	43	42	2	1	2	<0.1	1	2	26	29	26	26
Blue Cypress Creek	257	41	61	1	1	4	2	2	2	22	11	30	23
Ft. Drum Creek	178	40	55	3	3	3	1	6	6	27	14	21	21
Crabgrass Creek	80	77	71	0	0	0	2	<0.1	1	2	3	21	23
Tenmile Creek	66	68	70	<0.1	<0.1	0	0	1	1	13	12	18	17
Sixmile Creek	55	59	72	2	1	4	0	1	1	18	12	16	14
Pennywash Creek	50	78	78	2	2	0	1	<0.1	1	2	1	18	17
South Wolf Creek	21	71	75	0	0	0	0	1	1	7	6	21	18

cattle, and they have experienced varying amounts of biosolids applications spatially and temporally. The proportion of pastureland use in these watersheds (40–78%) did not change meaningfully from 1994 to 2014 based on land use analyses (Table 1; SJRWMD 1994, 2014). Other forms of agriculture and residential or urban development were minor (<6%) components of land use in these watersheds, and the remaining area (20–55%) was dominated by natural forested areas and wetlands.

Compilation of Class B biosolids application data

Within Florida, Class B biosolids are tracked and quantified through a permitting process

administered by the Florida Department of Environmental Protection (FDEP). Application of Class B biosolids occurs primarily on pastureland and hay crops. Permitted Class B application sites are required to report all applications annually by field in dry US tons, as well as total pounds of N and P applied. Acres of application are also provided by field, allowing application rates by field to be calculated. Records of Class B land applications were compiled from the FDEP OCULUS permitting website (FDEP 2020) and hard-copy records stored at FDEP facilities. Digitized field locations were obtained from FDEP or digitized from paper maps and stored in a geographic information system (GIS). Using a GIS, every field was assigned to a watershed using the SJRMWD 1:24,000 detailed drainage basin layer (SJRWMD 2019). Total annual land-applied N and P and mean application rates were calculated by field and watershed between 1995 and 2019 for available data.

Streamflow and water quality data

Water quality data were obtained for 8 sites within the SJRWMD ambient water quality monitoring network for the period of record from 1995 to 2020 (Figure 1). Samples were collected using FDEP standard operating procedures (FDEP 2017) and analyzed at the SJRWMD laboratory or an accredited laboratory using US Environmental Protection Agency (USEPA) approved analytical methods. The ambient monitoring sites were located at watershed outlets and sampled at fixed monthly intervals irrespective of flow conditions. Six of the ambient water quality sites had co-located gauging stations. The Blue Cypress Creek water quality site excluded approximately 7% of the Blue Cypress Creek watershed as measured from the discharge site; however, no biosolids applications were reported downstream of this water quality site. Daily discharge datasets were obtained from the US Geological Survey (USGS) National Water Information System database (USGS 2016). Discharges for the 2 ungauged sites (Crabgrass Creek and Tenmile Creek) were estimated from previously calibrated Hydrologic Simulation Program-Fortran (HSPF) models (Cera et al. 2012, Jobes et al. 2021). HSPF model data were used to fill discharge values at South Wolf Creek between 2009 and 2020.

WRTDS analysis of trends in TP and TN concentration and flux

Long-term trends in TP and TN concentration and flux (defined as the mass of a constituent that passes a particular point in a stream over a specified time) were analyzed at ambient monitoring sites using the weighted regressions on time, discharge, and season (WRTDS) method (Hirsch et al. 2010). The WRTDS method has been recently used to evaluate long-term trends in constituent concentration and flux in riverine systems and is a flexible and robust tool for water quality trend analysis (Choquette et al. 2019, Murphy and Sprague 2019, Rumsey et al. 2021). The method used long-term records of water quality data (>20 yr) and daily discharge measurements to estimate daily concentration and flux values. Daily concentration values were modeled as

$$\ln(c) = \beta_0 + \beta_1 t + \beta_2 \ln(Q) + \beta_3 \sin(2\pi t) + \beta_4 \cos(2\pi t) + \varepsilon \quad (1)$$

where ln is the natural logarithm, c is concentration, Q is daily mean discharge, t is time in decimal years, β_i are fitted coefficients, and ε is unexplained variance. The sin and cos terms introduced seasonal variation into the model. The WRTDS model was fitted using locally weighted regression; that is, local coefficients were fitted with weighted subsets of the full calibration dataset. Weights were assigned based on distance in time, streamflow, and season between the observation and calibration point. The model structure provided the flexibility to capture the evolution of the river system over time, including changes in the concentration vs. discharge relationship, changes in seasonal patterns, and long-term linear trends.

WRTDS models were fitted for TP and TN concentration and flux at the ambient monitoring sites using the EGRET package (v 3.0.2) in the R software environment (Hirsch and De Cicco 2015, R Core Team 2019). The model parameters (i.e., half-window values for calibration point weights in the time, discharge, and seasonal

dimensions) were tested across a range of values, but no significant improvement in model fit was observed as compared to the default values. Model suitability was determined by examination of residuals, comparison of observed vs. modeled daily values, and the flux bias statistic. The flux bias statistic was calculated as

$$B = (P - O)/P \quad (2)$$

where B is the flux bias statistic, P is the sum of the estimated fluxes on all sampled days, and O is the sum of the measured fluxes on all sampled days.

Annual flow-normalized estimates of mean concentration and total flux were calculated from the WRTDS models using the EGRET package. Flow normalization allows for evaluation of trends in concentration and flux after normalizing for interannual hydrologic variability and provides a more perceptible trend due to watershed activities, particularly when wet or dry periods may have obscured trends near the end of a trend analysis period (Hirsch and De Cicco 2015, Rowland et al. 2021). The flow-normalized concentration and flux calculated by the EGRET package are not equivalent to the commonly used flow-weighted concentration and flux. The block bootstrap resampling method developed by Hirsch et al. (2015) was implemented using the EGRETci R package (v 2.0.3) to estimate 95% confidence intervals on annual flow-normalized concentrations and fluxes. The significance level and confidence intervals for trends in fluxes between years were also evaluated using the bootstrap algorithms within the EGRETci package.

Results

Temporal trends in Class B biosolids land application

An increasing trend was observed in the study watersheds for both the total area of application

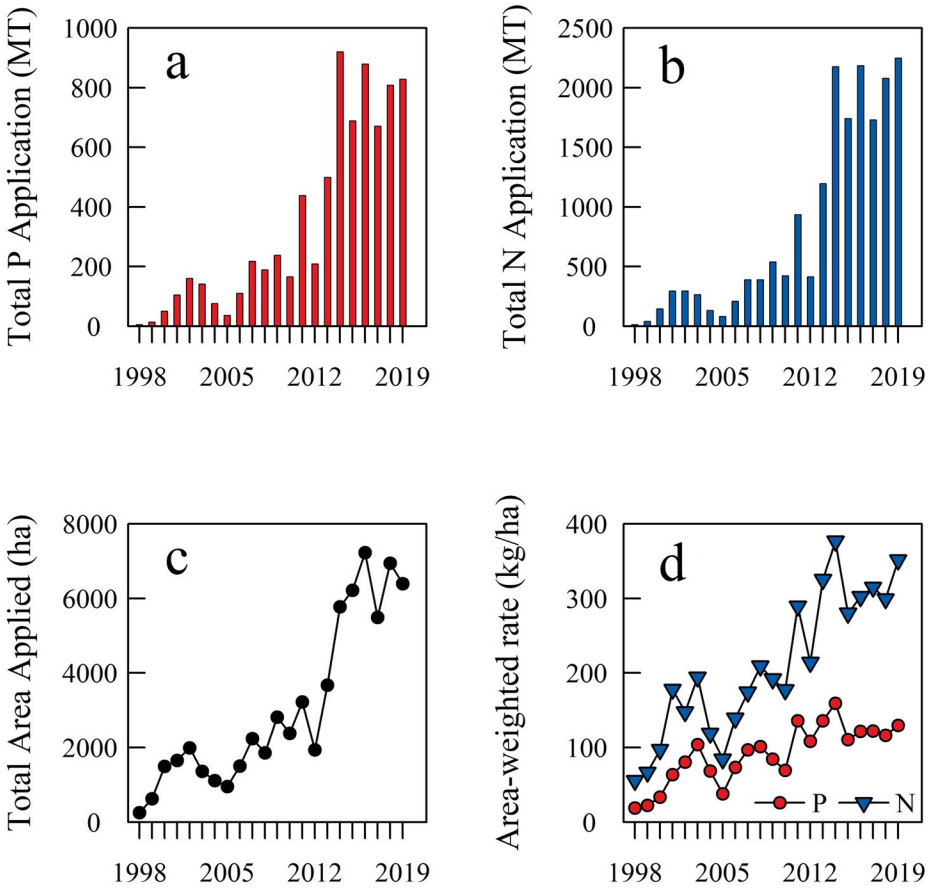

Figure 2. Patterns in biosolids applications within the study watersheds from 1998 to 2019. (a) Total application of P from biosolids. (b) Total application of N from biosolids. (c) Total area of fields with biosolids applications. (d) Area-weighted average application rate of P and N from biosolids applications.

and application rate of Class B biosolids, based on permit reporting data (Figure 2). Applications were documented beginning in 2000, and although some prior applications were known to have occurred, records were incomplete. A substantial increase in total land-applied P and N and total area of application were observed beginning in 2013, concurrent with the implementation of new statewide biosolids rules limiting applications in neighboring watersheds. Between 2000 and 2012, annual application totals averaged 165 metric tons (MT) P and 347 MT N. Annual totals increased to an average of 757 MT P and 1908 MT N between 2013 and 2019. Area-weighted mean application rates for P and N were calculated by multiplying reported applications rates for each field by its proportion of the total application area and summing across all fields. Annual application rates for P increased from 80 kg/ha to 128 kg/ha after 2013, and area-weighted application rates for N increased from 170 kg/ha to 322 kg/ha.

Relationship between TP and TN concentrations and biosolids applications

Analysis of long-term (25 yr) ambient water quality monitoring data generally revealed stable or decreasing TP and TN concentrations prior to intensification of biosolids applications in 2013 (Figures 3 and 4). Annual mean TP values increased by 26–160% (mean increase 45%) after 2013 in all study watersheds except Blue Cypress and Ft. Drum creeks. Ft. Drum Creek received a negligible amount of biosolids applications over the study period. Blue Cypress Creek received consistent biosolids applications between 2006 and 2019, but they were among the lowest per watershed area and did not show substantial increases after 2013. The degree to which TP concentration increased was related to the intensity of application (i.e., kg/ha of watershed). Tenmile Creek approximately doubled in annual mean concentration (0.16 to 0.4 mg/L) and was the watershed that received the highest application of biosolids per area of watershed (25–30 kg/ha). Increases in TN concentrations following increases in biosolids applications were not as widely observed as for TP and were of a lower magnitude (Figure 4). Only Tenmile and South Wolf creeks showed clear increases of 20–30% in TN concentration after 2013.

TP trends were supported by the WRTDS models of flow-normalized concentration (Figure 3). Annual flow-normalized concentrations closely followed observed annual means, indicating that changes within the watershed, rather than hydrologic variability, were likely responsible for patterns in concentrations. Flow-normalized TP concentrations began to trend upward in 2010–2011 in Jane Green, Crabgrass, Tenmile, and Pennywash creeks, corresponding to increasing applications prior to 2013 in these watersheds. Trends in TN were also supported by flow-normalized estimates from the WRTDS models (Figure 4). Small but increasing trends in flow-normalized TN were observed at Jane Green and Pennywash creeks that were not apparent from annual means alone.

Trends in TP and TN flux

Trends in TP and TN flux were evaluated within each watershed using the WRTDS bootstrap test. Across all models, the flux bias statistic was between 0.002 and 0.056 for TP and between −0.042 and 0.044 for TN. These results indicate that reasonable assessments of trends in flow-normalized flux may be made, as values between −0.1 and 0.1 indicate less than 10% bias in the long-term mean flux (Hirsch and De Cicco 2015). Based on the observations of trends biosolids applications, 3 time periods were chosen to test for trends in flux: 1995–2004 (limited applications), 2005–2012 (increasing application in some watersheds), and 2013–2019 (intensive application). For the time period between 1995 and 2004, only Blue Cypress Creek had significant increases in TP and TN flux, and between 2005 and 2012, the only significant upward trend was in TP at Jane Green Creek (Table 2). In contrast, 6 of the study watersheds had significant trends in TP flux during the intensive application period (2013–2019), between 0.9 and 16.4 MT. Four watersheds also exhibited significant increases in TN flux (1.6–19.7 MT) during the intensive application period. It is important to note that increases in TP flux were proportionally much higher (40–200%) than increases in TN

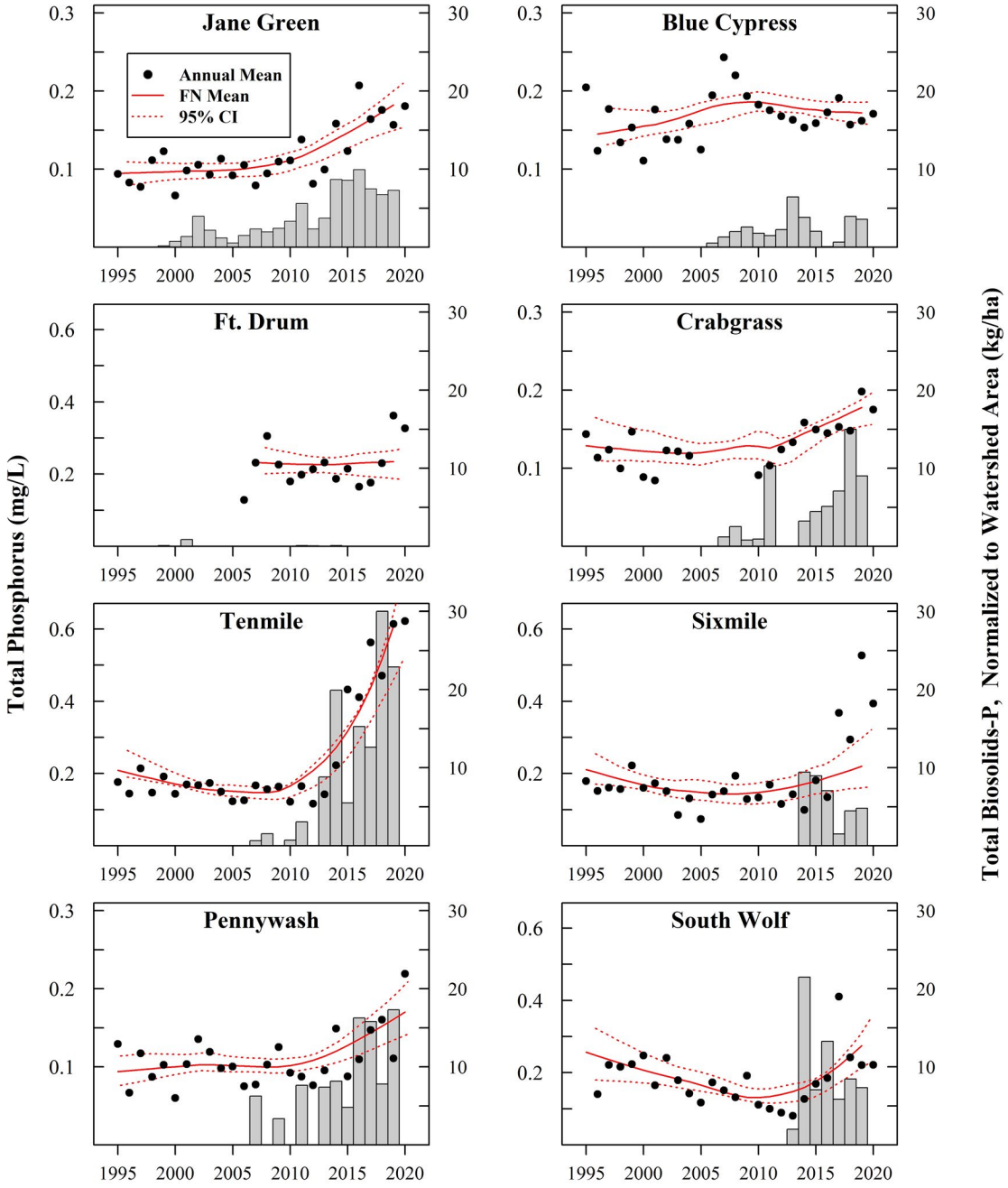

Figure 3. Time series of observed total phosphorus (TP), model concentrations, and Class B biosolids P application. Gray bars indicate the total annual P applications from biosolids, normalized to the total watershed area. Black points are the observed annual mean values. Red solid and dashed lines are the annual flow-normalized TP concentrations and 95% confidence intervals, respectively, from the WRTDS models. Note the difference in scale for TP between panels. FN Mean = flow-normalized mean.

flux (5–20%). The total increase in TP flux between 2013 and 2019 for watersheds with statistically significant trends was 36 MT, with approximately 30 MT accounted for by Jane Green and Tenmile creeks.

A plot of the annual excess P export (i.e., annual increase in flux normalized to watershed area) vs. Class B biosolids P and N application was used to estimate how much loss of biosolids P from fields would be required to cause the observed increases in flux (Figure 5). For watersheds with significant trends in flux, approximately 0.5% loss of biosolids P would be needed to produce the observed TP fluxes in all watersheds except Tenmile Creek. For Tenmile Creek, 2% export of Class B biosolids P would be required to produce the observed increases in TP flux. Similarly, for TN flux, between 0.2 and

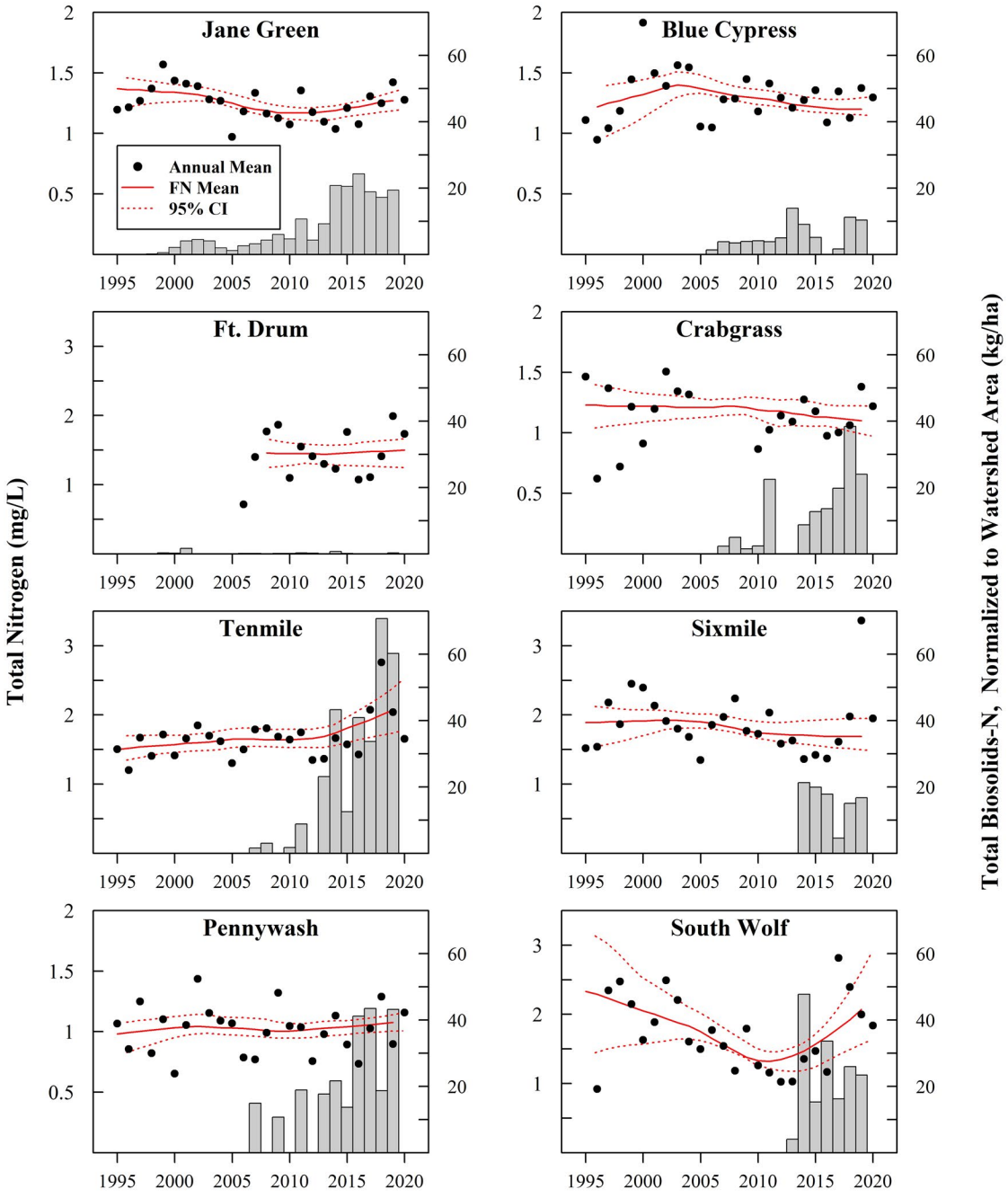

Figure 4. Time series of observed total phosphorus (TN), model concentrations, and Class B biosolids N application. Gray bars indicate the total annual N applications from biosolids, normalized to the total watershed area. Black points are the observed annual mean values. Red solid and dashed lines are the annual flow-normalized TN concentrations and 95% confidence intervals, respectively, from the WRTDS models. Note the difference in scale for TN between panels. FN Mean = flow-normalized mean.

1.0% of annual applications would need to be exported to produce the observed trends.

Discussion

In the present study, significant increases in TP, and to a lesser extent TN, concentrations and fluxes were consistent with the timing and magnitude of increases in Class B biosolids applications in multiple tributary watersheds of the Upper St. Johns River. The focusing of 70–80% of all Class B biosolids applications from the state of Florida into a small number of adjacent watersheds serves as an extreme example of biosolids applications but nevertheless illustrates the potential environmental consequences. The observed export of 36 MT of P from the study watersheds will likely affect the designated use

Table 2. Class B biosolids application and trends in flow-normalized fluxes for time periods 1995–2004, 2005–2012, and 2013–2019.

a)	P land application (MT)			Trend in flow-normalized TP flux (MT)		
	1995–2004	2005–2012	2013–2019	1995–2004	2005–2012	2013–2019
Jane Green Creek	628	1291	3369	2.4	**7.2** *	**15.3** **
Blue Cypress Creek	ND	308	527	**2.7** *	1.6	−2
Ft. Drum Creek	19	5	3	–	−0.5	0.5
Crabgrass Creek	ND	123	343	−0.05	0.8	**1.2** *
Tenmile Creek	ND	39	753	**−2.5** *	2	**16.4** **
Sixmile Creek	ND	0	198	–	0.4	**1.2** *
Pennywash Creek	ND	77	345	0.1	0.6	**1.7** *
South Wolf Creek	ND	0	136	**−0.8** *	−0.3	**0.9** *
b)	N land application (MT)			Trend in flow-normalized TN flux (MT)		
	1995–2004	2005–2012	2013–2019	1995–2004	2005–2012	2013–2019
Jane Green Creek	1147	2403	8388	−8.9	−7.5	**19.7** **
Blue Cypress Creek	ND	660	1326	**19.8** **	5.4	−3.3
Ft. Drum Creek	40	21	22	–	−0.2	3.3
Crabgrass Creek	ND	264	918	−1.1	4	−1.3
Tenmile Creek	ND	100	1862	−1.7	−3.5	**6.8** *
Sixmile Creek	ND	0	523	–	−0.3	1.1
Pennywash Creek	ND	198	890	0.07	−2.1	**1.6** *
South Wolf Creek	ND	0	347	**−3.2** *	**−2.7** *	**4.3** **

Trends were evaluated using the WRTDS bootstrap method ($n = 200$). a) Total biosolids P application by watershed and flow-normalized TP trend. b) Total biosolids N application by watershed and flow-normalized TN trend. ND = no data. Bold values are significant: * P value < 0.05, ** P value < 0.01.

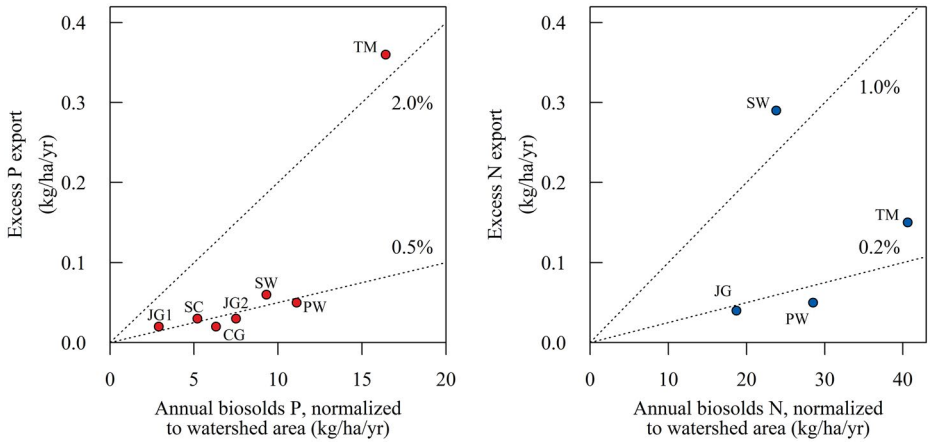

Figure 5. Watershed-scale relationship between Class B biosolids application and increase in P and N export. Average annual biosolids P and N application is shown on the x-axis and the excess export (i.e., annual increase in flux normalized to watershed area) is shown on the y-axis. Dotted lines are shown as a reference for percent export. Watershed abbreviations: JG (Jane Green), CG (Crabgrass), TM (Tenmile), SC (Sixmile), PW (Pennywash), SW (South Wolf). Data points are from 2013 to 2019, except for TP from Jane Green Creek, which includes 2 time periods with significant trends: JG1 (2005–2012) and JG2 (2013–2019).

of USJRB waters, including in some of the downstream river lakes where total maximum daily loads (TMDLs) have been established that require between 27 and 51 MT of P load reduction (Gao 2006).

Evaluation of alternative explanations for the increases in P flux in the study watersheds yields no support. Changes in land use could not explain changes in water quality; the study watersheds were dominated by pasture and natural areas and experienced very little land use change over the 25 yr study period. Likewise, changes in cattle density on pastureland were not likely responsible for any changes in export. The 2 counties (Osceola and Brevard) in which the upper St. Johns study watersheds were located saw a drop in total cattle numbers from 129,000 to 118,000 between 2012 and 2019 (USDA 2019). Previous work found little evidence for changes in erosion as a contributor to TP trends, as orthophosphate (PO_4^-) was the predominant form of P and there was no evidence for increased export of total suspended solids (Canion et al. 2021). Significant trends in TN flux were observed

in 4 watersheds, but were of a smaller relative magnitude compared to TP. The limited export of N is consistent with application of biosolids at rates in line with agronomic N requirements, and any excess nitrogen may have been removed through denitrification (potentially enhanced by organic carbon addition from biosolids) in saturated soils and riparian wetlands.

Class B biosolids are frequently applied based on plant available N (PAN) requirements, leading to application of P in excess of crop requirements (Shober and Sims 2003). Regulations during the study period in Florida allowed application based on crop PAN needs when P Index values were of low or medium risk for movement offsite; however, this approach to Class B biosolids management promotes excessive application of P to fields until soil accumulation of P results in a high-risk P Index rating. In the present study, applications of total P from biosolids were between 100 and 200 kg/ha during the most intensive periods of application. Even with an assumption that only 50% of applied P is available for plant uptake (O'Connor et al. 2004, O'Connor and Elliot 2006), P was applied at rates of 50–100 kg/ha, which is between 3- and 8-fold greater than the recommended fertilization rate of 12–19 kg/ha for the most common pasture grass, bahiagrass (*Paspalum notatum* Flugge; Mylavarapu et al. 2021). Furthermore, P fertilization is only recommended for grazed bahiagrass in Florida if soil test (Mehlich-3) values of P are less than 25 mg/kg and plant tissue P content is less than 0.15%.

Excess reactive P from biosolids can accumulate in soils and may be lost to surface waters through leaching and runoff. Short-term leaching and runoff of Class B biosolids P were strongly correlated to the water-extractable P (WEP) content of biosolids in soil box rainfall simulations (Elliott et al. 2005, Alleoni et al. 2008). Biosolids produced using biological P removal (BPR) during treatment have higher WEP and are most susceptible to leaching and runoff losses, whereas biosolids with added iron (Fe) or aluminum (Al) have a high fraction of less labile, mineral-bound P and are more likely to accumulate in soils where they may leach more slowly. In soil box rainfall simulations with the 6 most prevalent biosolid sources applied in the USJRB, between 1.1 and 9.2% of P was lost due to runoff and leaching after 3 rain events (Silveira et al. 2019). Leaching was the primary pathway because soils of the study area are sandy and have low P-sorbing capacity, and the WEP content was the primary driver of the extent of leaching. A 1–9% loss of P due to runoff and leaching is within the range of percent export calculated at the watershed scale in the present study (Figure 5). These results indicate that initial runoff and leaching after application are of sufficient mass to account for the observed trends in flux and that P runoff and leaching losses generally considered negligible may in fact lead to water quality impacts.

Although immediate leaching and runoff losses are sufficient to account for a response of TP concentrations to biosolids applications, the accumulation and long-term fate of less reactive P from biosolids is less well understood (Elliott and O'Connor 2007). Many leaching and runoff studies have been in short-duration lab studies using the upper A horizon from soils with no history of biosolids application (Elliott et al. 2002, Alleoni et al. 2008, Silveira et al. 2019). Although long-term, in-field studies have demonstrated that repeated application of biosolids can significantly increase soil test P (i.e., Bray-1, Mehlich-1, or Mehlich-3 P) and WEP in surface soils (Maguire et al. 2000, Cogger et al. 2001, Schroder et al. 2008), these studies do not address the potential for P mobilization and migration into deeper soil horizons or transport via shallow groundwater. Many of the sandy soils in Florida have a limited capacity to store P via stable complexes with Fe and Al, and P may migrate into deeper soil horizons (E, Bh) after saturation of surface soils (Graetz and Nair 1995). Additionally, low redox conditions under high water table conditions may seasonally release Fe-bound P, allowing P movement in shallow groundwater (Bhadha et al. 2011).

The response of nutrient export by watersheds can be controlled by intensity of applications and soil characteristics, as well as by hydrologic factors operating at the watershed scale. The watersheds of this study are characterized by seasonally high water tables (all less than 50 cm in the

summer, with many areas less than 25 cm) and extensive isolated, depressional wetlands. In areas with the highest water tables, permanent drainage ditches are used to keep fields dry, and in other areas ranchers have connected the isolated wetlands with shallow ditches to facilitate drainage during rain events. Previous work in nearby watersheds has confirmed overland flow as the dominant source of P to these isolated wetlands (Bhadha et al. 2010), suggesting that required application setbacks may not be sufficient to limit P transport to surface waters. Drainage ditches and swales within fields that flow ephemerally may efficiently transport runoff P into wetlands and streams, even though they may not be considered a surface outlet for nutrient management purposes. The degree of hydrologic alteration and spatial pattern of applications may contribute to the observed variation in the percent of applied biosolids P that is exported and warrants further investigation.

Preliminary results from this study, as well as input from academic, agricultural, and wastewater industry experts, were presented to an FDEP-led technical advisory committee in 2018–2019, which culminated in updates to Florida's Class B biosolids rules (FDEP 2021) in 2021. For Class B biosolids, the new rules will require the calculation of both N-based and P-based application rates and will require application based on the use of the most restrictive nutrient. Additionally, nutrient management guidelines will require application rates to be adjusted based on water-extractable P and soil P storage capacity (Nair and Harris 2004), and the new rules prohibit application if the seasonal high water table is less than 15 cm (6 inches) from the soil surface, unless a water quality monitoring plan is implemented.

Conclusions

This study provides strong correlational evidence for the export of P from land-applied Class B biosolids following intensification of applications in the USJRB. Application of P in excess of agronomic demands and the cumulative effect of focusing applications into the USJRB after elimination of applications in south Florida were important factors leading to widespread increases in P export. The magnitude of trends in TP flux suggests that only small losses of biosolids P (<2% annually) are required to cause nutrient enrichment, and factors specific to the soils and hydrology of the USJRB, including low P storage capacity, high water tables, and drainage alterations, increased the potential for P export. The new state regulations for Class B applications are expected to reduce the influence from overapplication of P. However, mobilization of accumulated soil P over longer time scales may continue to cause P enrichment in streams, and there is a need to better understand legacy impacts from sites with high cumulative applications.

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The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Environment and Natural Resources

BILL:	CS/SB 880
INTRODUCER:	Environment and Natural Resources Committee and Senator Brodeur
SUBJECT:	Biosolids
DATE:	March 14, 2023
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Carroll	Rogers	EN	**Fav/CS**
2.			AEG	
3.			AP	

Please see Section IX. for Additional Information:

COMMITTEE SUBSTITUTE - Substantial Changes

I. Summary:

CS/SB 880 creates the biosolids grant program. Subject to the appropriation of funds by the Legislature, the Department of Environmental Protection (DEP) may provide grants to local governmental entities for projects that construct, upgrade, expand, or retrofit domestic facilities that convert wastewater residuals to Class AA biosolids.

The bill requires prioritization of projects based on their economic and market feasibility and environmental benefit. The bill specifies how grant funds will be distributed and requires a 50 percent local match for certain projects.

The bill prohibits DEP from authorizing a land application site permit for Class B biosolids within the subwatershed of a waterbody listed as impaired for either nitrogen or phosphorus or within an adjoining upstream subwatershed containing surface waters that flow to an impaired waterbody unless the applicant affirmatively demonstrates that the phosphorus and nitrogen in the biosolids will not add to the nutrient load in the impaired subwatershed. DEP must publish updated maps designating the subwatersheds of waterbodies protected under this prohibition.

The bill provides that new or renewed Class B biosolids land application site permits issued after July 1, 2023 must meet statutory biosolids management requirements by July 1, 2024. All permits for biosolid land application sites must meet the requirements by July 1, 2025.

II. Present Situation:

Water Quality and Nutrients

Phosphorus and nitrogen are naturally present in water and are essential nutrients for the healthy growth of plant and animal life.[1] The correct balance of both nutrients is necessary for a healthy ecosystem; however, excessive nitrogen and phosphorus can cause significant water quality problems.[2]

Phosphorus and nitrogen are derived from natural and human-made sources.[3] Human-made sources include sewage disposal systems (wastewater treatment facilities and septic systems), overflows of storm and sanitary sewers (untreated sewage), agricultural production and irrigation practices, and stormwater runoff.[4] Excessive nutrient loads may result in harmful algal blooms, nuisance aquatic weeds, and the alteration of the natural community of plants and animals.[5]

Impaired Waters

Under section 303(d) of the federal Clean Water Act, states must establish water quality standards for waters within their borders and then develop a list of impaired waters that do not meet the established water quality standards and a list of threatened waters that may not meet water quality standards in the following reporting cycle.[6]

Due to limited funds and the wide variety of surface waters in Florida, the Department of Environmental Protection (DEP) has sorted those waters into 29 major watersheds, or basins, and further organized them into five basin groups for assessment purposes.[7] If DEP determines that any waters are impaired, the waterbody or segment must be placed on the verified list of impaired waters and a total maximum daily load (TMDL) must be calculated.[8] A waterbody or segment may be removed from the list at any time during the TMDL process if it attains water quality criteria.[9] If DEP determines that a waterbody is impaired, but further study is needed to determine the causative pollutants or other factors contributing to impairment before the

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[1] U.S. Environmental Protection Agency, *The Issue*, https://www.epa.gov/nutrientpollution/issue (last visited Feb. 10, 2023).
[2] *Id.*
[3] *Id.*
[4] U.S. Environmental Protection Agency (EPA), *Sources and Solutions*, https://www.epa.gov/nutrientpollution/sources-and-solutions (last visited Feb 10, 2023).
[5] EPA, *The Issue*, https://www.epa.gov/nutrientpollution/issue (last visited Feb. 10, 2023).
[6] EPA, *Overview of Identifying and Restoring Impaired Waters under Section 303(d) of the CWA*, https://www.epa.gov/tmdl/overview-identifying-and-restoring-impaired-waters-under-section-303d-cwa (last visited Feb. 24, 2023); 40 C.F.R. 130.7. Following the development of the list of impaired waters, states must develop a total maximum daily load for every pollutant/waterbody combination on the list. A total maximum daily load is a scientific determination of the maximum amount of a given pollutant that can be absorbed by a waterbody and still meet water quality standards. DEP, *Total Maximum Daily Loads Program*, https://floridadep.gov/dear/water-quality-evaluation-tmdl/content/total-maximum-daily-loads-tmdl-program (last visited Feb. 10, 2023).
[7] DEP, *Assessment Lists*, https://floridadep.gov/dear/watershed-assessment-section/content/assessment-lists (last visited Feb. 24, 2023).
[8] *Id.*; DEP, *Verified List Waterbody Ids (WBIDs)*, https://geodata.dep.state.fl.us/datasets/FDEP::verified-list-waterbody-ids-wbids/about (last visited Feb. 24, 2023); and s. 403.067(4), F.S.
[9] Section 403.067(5), F.S.

waterbody is placed on the verified list, the waterbody or segment will be placed on the statewide comprehensive study list.[10]

Biosolids

The proper treatment and disposal or reuse of domestic wastewater is an important part of protecting Florida's water resources. The majority of Florida's domestic wastewater is controlled and treated by centralized treatment facilities regulated by DEP. Florida has approximately 2,000 permitted domestic wastewater treatment facilities.[11]

When domestic wastewater is treated, solid, semisolid, or liquid residue known as biosolids[12] accumulates in the wastewater treatment plant and must be removed periodically to keep the plant operating properly.[13] Biosolids also include products and treated material from biosolids treatment facilities and septage management facilities regulated by DEP.[14] The collected residue is high in organic content and contains moderate amounts of nutrients.[15]

According to DEP's estimates in 2019, wastewater treatment facilities produce about 340,000 dry tons of biosolids each year.[16] Biosolids can be disposed of in several ways: transfer to another facility, placement in a landfill, distribution and marketing as fertilizer, incineration, bioenergy, and land application to pasture or agricultural lands.[17] In 2019, about one-third of the total amount of biosolids produced was used for land application[18] and is subject to regulatory requirements established by DEP to protect public health and the environment.[19]

Land application of biosolids involves spreading biosolids on the soil surface or incorporating or injecting biosolids into the soil at a permitted site.[20] This practice provides nutrients and organic matter to the soil on agricultural land, golf courses, forests, parks, mine reclamation sites, and other disturbed lands. Composted and treated biosolids are used by landscapers and nurseries, and by homeowners for their lawns and home gardens.[21]

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[10] Section 403.067(2), F.S.; ch. 62-303.150, F.A.C.
[11] DEP, *General Facts and Statistics about Wastewater in Florida*, https://floridadep.gov/water/domestic-wastewater/content/general-facts-and-statistics-about-wastewater-florida (last visited Feb. 10, 2023).
[12] Biosolids are the solid, semisolid, or liquid residue generated during the treatment of domestic wastewater in a domestic wastewater treatment facility and include products and treated material from biosolids treatment facilities and septage management facilities. The term does not include the treated effluent or reclaimed water from a domestic wastewater treatment facility, solids removed from pump stations and lift stations, screenings and grit removed from the preliminary treatment components of domestic wastewater treatment facilities, or ash generated during the incineration of biosolids. Section 373.4595, F.S.
[13] DEP, *Domestic Wastewater Biosolids*, https://floridadep.gov/water/domestic-wastewater/content/domestic-wastewater-biosolids (last visited Mar. 7, 2023).
[14] Fla. Admin. Code R. 62-640.200(6).
[15] DEP, *Domestic Wastewater Biosolids*.
[16] DEP, *Biosolids in Florida*, 5 (2019), *available at* https://www.florida-stormwater.org/assets/MemberServices/Conference/AC19/02%20-%20Frick%20Tom.pdf#:~:text=Biosolids%20and%20Management%20in%20Florida%20Estimated%20Total%20Production,two-thirds%20are%20beneficially%20used%20and%20onethird%20is%20landfilled (last visited Mar. 7, 2023).
[17] *Id*. at 4.
[18] *Id*. at 5.
[19] Fla. Admin. Code R. 62-640.
[20] EPA, *Land Application of Biosolids*, https://www.epa.gov/biosolids/land-application-biosolids (last visited Mar. 8, 2023).
[21] *Id*.

A recent study in the Upper St. Johns River Basin compared the timing and intensity of Class B land applications of biosolids to long-term trends in total phosphorus and total nitrogen concentrations and fluxes in eight pasture-dominated, small-to-medium watersheds with varying intensity and cumulative history of land application of biosolids.[22] The study showed strong correlative evidence that intensified land applications of Class B biosolids caused increases in the total phosphorus and total nitrogen fluxes in the Upper St. Johns River Basin.[23]

U.S. Composting Council

The U.S. Composting Council works to advance compost manufacturing, compost utilization, and organics recycling to benefit its members, society, and the environment.[24] The Seal of Testing Assurance Program was created in 2000 to create national lab standards for composting.[25] The program intends to provide clear and consistent information to compost producers and buyers regarding compost testing results, components, and recommended directions for use.

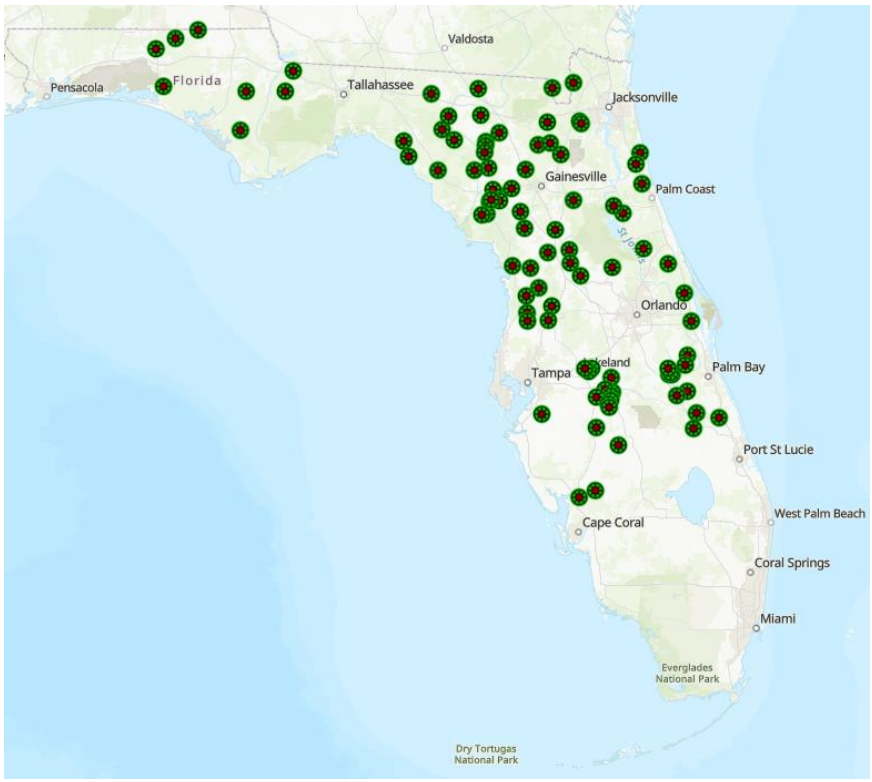
Regulation of Biosolids in Florida

DEP regulates three classes of biosolids for beneficial use: Class AA, Class A, and Class B biosolids.[26] The classes are categorized based on treatment and quality, with Class AA biosolids receiving the highest level of treatment, and Class B receiving the lowest.[27] Treatment of biosolids must reduce pathogens, the attractiveness of the biosolids for pests like insects and rodents, and the amount of toxic metals in the biosolids.[28]

Class AA biosolids can be distributed and marketed like other commercial fertilizers with few further restrictions.[29] Typically, Class B biosolids are used in land application and the map on the following page shows current permitted Class B biosolids land application sites.[30] At the time of land application, there must be a minimum unsaturated soil depth of two feet between the depth of biosolids placement and the water table level.[31] Biosolids may not be applied on soils where the seasonal high-water table is less than six inches from the intended depth of biosolids placement, unless a nutrient management plan and water quality monitoring plan provide

[22] Andy Canion, et al., *Trends in phosphorus fluxes are driven by intensification of biosolids applications in the Upper St. Johns River Basin (Florida, United States)*, Lake and Reservoir Management, 2 (2022) (on file with the Senate Committee on Environment and Natural Resources).
[23] *Id.* at 1.
[24] U.S. Composting Council, *Mission Statement*, https://www.compostingcouncil.org/ (last visited Mar. 14, 2023).
[25] U.S. Composting Council, *Seal of Testing Assurance Program for Compost Manufacturers*, https://www.compostingcouncil.org/page/CompostManufacturersSTA (last visited Mar. 14, 2023).
[26] Chapter 62-640.200, F.A.C.
[27] *Id.*; DEP, *Domestic Wastewater Biosolids*.
[28] Chapter 62-640.200, F.A.C.
[29] DEP, *Domestic Wastewater Biosolids*; National Biosolids Data Project, *Florida Biosolids*, https://www.biosolidsdata.org/florida (last visited Mar. 8, 2023); ch. 62-640.850, F.A.C.
[30] DEP, *Biosolids in Florida* at 4; DEP, *Domestic Wastewater Biosolids*; DEP, *Wastewater Facility Regulation (WAFR) Map – Residual Application Sites*, https://www.arcgis.com/apps/mapviewer/index.html?layers=70300d6abaa5463e83091786599d06dd (last visited Mar. 8, 2023).
[31] Section 403.0855(3), F.S.

reasonable assurances that the land application of biosolids at the site will not cause or contribute to a violation of surface water quality standards or groundwater standards.[32]



Biosolids are regulated under Rule 62-640 of the Florida Administrative Code. The rules provide minimum requirements, including monitoring and reporting requirements, for the treatment, management, use, and disposal of biosolids. The rules are applicable to wastewater treatment facilities, appliers, and distributors[33] and include permit requirements for both treatment facilities and biosolids application sites.[34]

Each permit application for a biosolids land application site must include a site-specific nutrient management plan (NMP) that establishes the specific rates of application and procedures.[35] Biosolids may only be applied to sites that are permitted by DEP and have a valid NMP.[36] Biosolids must be applied at rates established in accordance with the NMP and may be applied to a site only if all concentrations of minerals do not exceed ceiling and cumulative concentrations determined by rule.[37]

Once a facility or site is permitted, it is subject to monitoring, record-keeping, reporting, and notification requirements.[38] The requirements are site-specific and can be increased or reduced by DEP based on the quality or quantity of wastewater or biosolids treated; historical variations in biosolids characteristics; industrial wastewater or sludge contributions to the facility; the use, land application, or disposal of the biosolids; the water quality of surface and ground water and the hydrogeology of the area; wastewater or biosolids treatment processes; and the compliance history of the facility or application site.[39]

[32] *Id.*
[33] Fla. Admin. Code R. 62-640.100.
[34] Fla. Admin. Code R. 62-640.300.
[35] Fla. Admin. Code R. 62-640.500.
[36] *Id.*
[37] Fla. Admin. Code R. 62-640.700.
[38] Fla. Admin. Code R. 62-640.650.
[39] *Id.*

Bans on the Land Application of Biosolids

Section 373.4595, F.S., sets out the statutory guidelines for the Northern Everglades and Estuaries Protection Program. This statute is designed to protect and promote the hydrology of Lake Okeechobee and the Caloosahatchee and St. Lucie rivers and their estuaries. As part of those protections, the Legislature banned the disposal of domestic wastewater biosolids within the Lake Okeechobee, Caloosahatchee River, and St. Lucie River watersheds unless the applicant can affirmatively demonstrate that the nutrients in the biosolids will not add to nutrient loadings in the watershed.[40] The prohibition against land application in these watersheds does not apply to Class AA biosolids that are distributed as fertilizer products in accordance with Rule 62-640.850 of the Florida Administrative Code.[41] This ban resulted in increases in land application of Class B biosolids in the northern part of the state, particularly in the Upper St. Johns River Basin, which received 78 percent of statewide Class B biosolids applications by 2019.[42]

The land application of Class A and Class B biosolids is also prohibited within priority focus areas in effect for Outstanding Florida Springs if the land application is not in accordance with an NMP that has been approved by DEP.[43] The NMP must establish the rate at which all biosolids, soil amendments, and nutrient sources at the land application site can be applied to the land for crop production, while minimizing the amount of pollutants and nutrients discharged into groundwater and waters of the states.[44]

A municipality or county may regulate the land application of Class A or Class B biosolids if the regulation was adopted before November 1, 2019. Such regulations are valid until repealed by the municipality or county.[45]

III. Effect of Proposed Changes:

The bill contains whereas clauses that acknowledge the following:

- The Legislature encourages the highest levels of treatment, quality, and use for biosolids, and
- The Legislature encourages the beneficial use of biosolids in a manner that will foster public acceptance, as well as innovative and alternative uses for biosolids.

Section 1 creates s. 403.0674, F.S., to create the biosolids grant program within the Department of Environmental Protection (DEP). The bill provides that, subject to the appropriation of funds by the Legislature, DEP may provide grants to counties and municipalities in the state to support projects to construct, upgrade, expand, or retrofit domestic facilities that convert wastewater residuals to Class AA biosolids. An applicant must be a county or municipal governmental entity; however, applicants are encouraged to form public-private partnership with private utilities and firms.

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[40] Chapter 2016-1, Laws of Florida; *see* s. 373.4595, F.S.
[41] *Id*.
[42] Andy Canion, et al., *Trends in phosphorus fluxes are driven by intensification of biosolids applications in the Upper St. Johns River Basin (Florida, United States)* at 1.
[43] Section 373.811(4), F.S.
[44] *Id*.
[45] Section 403.0855, F.S.

The bill directs DEP to prioritize grant funding for projects by considering each project's economic and market feasibility, as well as the environmental benefit that a project may provide. To evaluate a project's economic and market feasibility, the bill directs DEP to review a detailed cost-benefit analysis which includes the project's overall economic impact and both current and future market potential, including current or prospective buyers or users of the project's Class AA biosolids.

To evaluate the environmental benefit of a project, the bill directs DEP to review an analysis of how the project's Class AA biosolids are projected to minimize the migration of nutrients and other pollutants that degrade water quality.

The bill requires DEP to administer the grant program so that, of the funds made available each year under the grant program:

- At least 33 percent is reserved for projects that convert wastewater residuals into composted Class AA biosolids that meet the requirements of the U.S. Compost Council's Seal of Testing Assurance Program as being fully stabilized.
- At least 33 percent is reserved for projects that convert wastewater residuals into both Class AA biosolids and a solution of ammonia nitrogen, a valuable alternative to synthetic nitrogen fertilizers.
- At least 10 percent is reserved for projects within an area designated as a rural area of opportunity.

The bill permits DEP to reallocate the reserved funds to other projects that are prioritized based on DEP's evaluation if DEP does not receive sufficient project applications.

The bill directs DEP to require that each project grant have a minimum of a 50 percent funding match from local, state, federal, or private funds. DEP may waive, in whole or in part, the match requirement for proposed projects within an area designated as a rural area of opportunity.

Section 2 amends s. 403.0855, F.S., to prohibit DEP from authorizing a land application site permit for Class B biosolids within the subwatershed of a waterbody or waterbody segment listed as impaired for either nitrogen or phosphorus or within an adjoining upstream subwatershed containing surface waters that flow to a waterbody designated as impaired for either nitrogen or phosphorus unless the applicant affirmatively demonstrates that the phosphorus and nitrogen in the biosolids will not add to the nutrient load in the impaired subwatershed.

The demonstration must be based on achieving a net balance between nutrient imports relative to exports on the permitted land application site. Exports may include only nutrients removed from the subwatershed through products generated on the permitted land application site. Beginning November 1, 2023, and each November 1 thereafter, DEP must publish updated maps designating the subwatersheds of waterbodies protected under this subsection.

The bill provides that new or renewed Class B biosolid land application site permits issued after July 1, 2023, must meet statutory biosolids management requirements by July 1, 2024. All permits for biosolid land application sites must meet the requirements by July 1, 2025.

Section 3 provides an effective date of July 1, 2023.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

E. Other Constitutional Issues:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

Any private person or entity involved in biosolids disposal will likely experience a negative fiscal impact due to the restriction of biosolids land application. These impacts may be offset by the grant program.

C. Government Sector Impact:

Any county or municipal governmental entity involved in biosolids disposal will likely experience a negative fiscal impact due to the restriction of biosolids land application. These impacts may be offset by the grant program.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill creates section 403.0674 of the Florida Statutes.

This bill substantially amends section 403.0855 of the Florida Statutes.

IX. Additional Information:

A. Committee Substitute – Statement of Substantial Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

CS by Environment and Natural Resources on March 14, 2023:

- Removes allocations from the wastewater grant program and the Clean Water State Revolving Fund for projects that convert wastewater residuals to Class A and Class AA biosolids to create a separate biosolids grant program for projects to construct, upgrade, expand, or retrofit domestic facilities that convert wastewater residuals to Class AA biosolids.
- Requires that an applicant for a biosolids grant must be a county or municipal governmental entity.
- Encourages applicants to form public-private partnerships with private utilities and firms.
- Provides for prioritization for projects based on each project's economic and market feasibility and environmental benefit.
- Assigns specific percentages of funds to certain projects and allows the Department of Environmental Protection (DEP) to reallocate those funds if DEP does not receive sufficient applications.
- Requires each project grant to have a minimum of a 50 percent funding match from local, state, federal, or private funds and allows DEP to waive the match requirement for proposed projects within a rural area of opportunity.
- Specifies that DEP may not authorize a land application site permit for Class B biosolids within the subwatershed of a waterbody or waterbody segment or an upstream subwatershed that is listed as impaired for either nitrogen or phosphorus pursuant to s. 403.067, F.S.
- Delays the date by which DEP must publish updated maps designating the subwatershed of protected waterbodies by four months.
- Changes the issuance date after which new or renewed Class B biosolids land application site permits must meet biosolids management requirements.

B. Amendments:

None.

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LEGISLATIVE ACTION

Senate	.	House
Comm: RCS	.	
03/14/2023	.	
	.	
	.	
	.	

The Committee on Environment and Natural Resources (Brodeur) recommended the following:

Senate Amendment (with title amendment)

Delete everything after the enacting clause and insert:

Section 1. Section 403.0674, Florida Statutes, is created to read:

403.0674 Biosolids grant program.—A biosolids grant program is established within the Department of Environmental Protection.

(1) Subject to the appropriation of funds by the

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Legislature, the department may provide grants to counties and municipalities in this state to support projects to construct, upgrade, expand, or retrofit domestic facilities that convert wastewater residuals to Class AA biosolids. An applicant for a biosolids grant must be a county or municipal governmental entity; however, applicants are encouraged to form public-private partnerships with private utilities and firms.

(2) In allocating grant funds, the department shall prioritize projects by considering each project's economic and market feasibility, as well as the environmental benefit that a project may provide.

(a) To evaluate a project's economic and market feasibility, the department shall review a detailed cost-benefit analysis for the project which includes the project's overall economic impact and both current and future market potential, including current or prospective buyers or users of the project's Class AA biosolids.

(b) To evaluate the environmental benefit of a project, the department shall review an analysis of how the project's Class AA biosolids are projected to minimize the migration of nutrients and other pollutants that degrade water quality.

(3) The department shall administer the grant program so that, of the funds made available each year under this section:

(a) At least 33 percent is reserved for projects that convert wastewater residuals into composted Class AA biosolids that meet the requirements of the United States Compost Council's Seal of Testing Assurance Program as being fully stabilized.

(b) At least 33 percent is reserved for projects that

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convert wastewater residuals into both Class AA biosolids and a solution of ammonia nitrogen, a valuable alternative to synthetic nitrogen fertilizers.

(c) At least 10 percent is reserved for projects within an area designated as a rural area of opportunity under s. 288.0656.

(4) If the department does not receive sufficient applications for projects described in subsection (3), the department may reallocate the reserved funds to other projects that are prioritized based on the department's evaluation of projects under subsection (2).

(5)(a) Except as provided in paragraph (b), the department shall require that each project grant have a minimum of a 50 percent funding match from local, state, federal, or private funds.

(b) The department may waive, in whole or in part, the match requirement in paragraph (a) for proposed projects within an area designated as a rural area of opportunity under s. 288.0656.

Section 2. Subsections (7) and (8) are added to section 403.0855, Florida Statutes, to read:

403.0855 Biosolids management.—

(7) The department may not authorize a land application site permit for Class B biosolids within the subwatershed of a waterbody or waterbody segment listed as impaired for either nitrogen or phosphorus pursuant to s. 403.067 or within an adjoining upstream subwatershed containing surface waters that flow to a waterbody listed as impaired for either nitrogen or phosphorus pursuant to s. 403.067 unless the applicant

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affirmatively demonstrates that the phosphorus and nitrogen in the biosolids will not add to the nutrient load in the impaired subwatershed. This demonstration must be based on achieving a net balance between nutrient imports relative to exports on the permitted land application site. Exports may include only nutrients removed from the subwatershed through products generated on the permitted land application site. Beginning November 1, 2023, and each November 1 thereafter, the department shall publish updated maps designating the subwatersheds of water bodies protected under this subsection.

(8) New or renewed Class B biosolid land application site permits issued after November 1, 2023, must meet the requirements of this section by July 1, 2024. All permits for biosolid land application sites must meet the requirements of this section by July 1, 2025.

Section 3. This act shall take effect July 1, 2023.

================ T I T L E A M E N D M E N T ================

And the title is amended as follows:

Delete everything before the enacting clause and insert:

A bill to be entitled

An act relating to biosolids; creating s. 403.0674, F.S.; establishing a biosolids grant program within the Department of Environmental Protection; authorizing the department, subject to appropriation, to provide biosolid grants for certain projects that convert wastewater residuals to Class AA biosolids; providing applicant requirements; providing for the

prioritization of projects; providing for the administration of the grant program; authorizing the department to waive requirements for certain projects; amending s. 403.0855, F.S.; prohibiting the department from authorizing land application site permits for Class B biosolids unless a certain demonstration can be made; requiring the department to publish and annually update maps of protected subwatersheds; requiring land application site permits to meet certain requirements by specified dates; providing an effective date.

WHEREAS, the Legislature encourages the highest levels of treatment, quality, and use for biosolids, and

WHEREAS, the Legislature encourages the beneficial use of biosolids in a manner that will foster public acceptance and innovative and alternative uses for biosolids, NOW, THEREFORE,

By Senator Brodeur

10-01091-23 2023880__

A bill to be entitled

An act relating to biosolids; amending s. 403.0673, F.S.; authorizing the Department of Environmental Protection, subject to appropriation, to provide grants within the wastewater grant program for projects that convert wastewater residuals to biosolids; providing for the prioritization of such projects; amending s. 403.0855, F.S.; prohibiting the department from authorizing land application site permits for Class B biosolids unless a certain demonstration can be made; requiring the department to publish and annually update maps of protected subwatersheds; requiring land application site permits to meet certain requirements by specified dates; amending s. 403.1835, F.S.; requiring that department water pollution control financial assistance be administered to provide a specified percentage of available funding to projects that convert wastewater residuals to biosolids; providing an effective date.

WHEREAS, the Legislature encourages the highest levels of treatment, quality, and use for biosolids, and

WHEREAS, the Legislature encourages the beneficial use of biosolids in a manner that will foster public acceptance, as well as innovative and alternative uses for biosolids, NOW, THEREFORE,

Be It Enacted by the Legislature of the State of Florida:

Section 1. Present subsections (4) and (5) of section 403.0673, Florida Statutes, are redesignated as subsections (5) and (6), respectively, a new subsection (4) is added to that section, and subsection (2) of that section is amended, to read:

403.0673 Wastewater grant program.—A wastewater grant program is established within the Department of Environmental Protection.

(2) In allocating ~~such~~ funds pursuant to subsection (1), priority must be given to projects that subsidize the connection of onsite sewage treatment and disposal systems to wastewater treatment facilities. First priority must be given to subsidize the connection of onsite sewage treatment and disposal systems to existing infrastructure. Second priority must be given to any expansion of a collection or transmission system that promotes efficiency by planning the installation of wastewater transmission facilities to be constructed concurrently with other construction projects occurring within or along a transportation facility right-of-way. Third priority must be given to all other connections of onsite sewage treatment and disposal systems to wastewater treatment facilities. The department shall consider the estimated reduction in nutrient load per project; project readiness; the cost-effectiveness of the project; the overall environmental benefit of a project; the location of a project; the availability of local matching funds; and projected water savings or quantity improvements associated with a project.

(4) Subject to the appropriation of funds by the Legislature, the department may provide grants throughout this state for projects that convert wastewater residuals to class A

and class AA biosolids. In allocating such grants, the department shall prioritize projects by considering the cost-effectiveness of a project and the overall environmental benefit of a project.

Section 2. Subsections (7) and (8) are added to section 403.0855, Florida Statutes, to read:

403.0855 Biosolids management.—

(7) The department may not authorize a land application site permit for a Class B biosolid within the subwatershed of a waterbody designated as impaired for either nitrogen or phosphorus or within an adjoining upstream subwatershed containing surface waters that flow to a waterbody designated as impaired for either nitrogen or phosphorus unless the applicant affirmatively demonstrates that the phosphorus and nitrogen in the biosolids will not add to the nutrient load in the impaired subwatershed. This demonstration must be based on achieving a net balance between nutrient imports relative to exports on the permitted land application site. Exports may include only nutrients removed from the subwatershed through products generated on the permitted land application site. Beginning August 1, 2023, and each August 1 thereafter, the department shall publish updated maps designating the subwatersheds of waterbodies protected under this subsection.

(8) New or renewed Class B biosolid land application site permits issued after July 1, 2023, must meet the requirements of this section by July 1, 2024. All permits for biosolid land application sites must meet the requirements of this section by July 1, 2025.

Section 3. Paragraph (e) is added to subsection (3) of

section 403.1835, Florida Statutes, to read:

403.1835 Water pollution control financial assistance.—

(3) The department may provide financial assistance through any program authorized under 33 U.S.C. s. 1383, as amended, including, but not limited to, making grants and loans, providing loan guarantees, purchasing loan insurance or other credit enhancements, and buying or refinancing local debt. This financial assistance must be administered in accordance with this section and applicable federal authorities.

(e) The department shall administer financial assistance so that at least 15 percent of the funding made available each year under this section is reserved for projects that convert wastewater residuals to Class A and Class AA biosolids during the year such funding is reserved.

Section 4. This act shall take effect July 1, 2023.

THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

SENATOR COLLEEN BURTON
12th District

COMMITTEES:
Health Policy, *Chair*
Judiciary, *Vice Chair*
Appropriations Committee on Education
Appropriations Committee on Health and Human Services
Banking and Insurance
Fiscal Policy
Rules
Transportation

JOINT COMMITTEE:
Joint Administrative Procedures Committee

March 1, 2023

The Honorable Ana Maria Rodriguez
Committee on Environment and Natural Resources
325 Knott Building
404 South Monroe Street
Tallahassee, FL 32399

Chair Rodriguez,

I respectfully request SB 910: Management and Storage of surface Waters be put on the Committee on Environment and Natural Resources agenda at your earliest convenience.

Thank you for your consideration.

Regards,

Colleen Burton

Colleen Burton
State Senator, District 12

CC: Ellen Rogers, Staff Director
Kim Bonn, Administrative Assistant

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KATHLEEN PASSIDOMO
President of the Senate

DENNIS BAXLEY
President Pro Tempore

The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Environment and Natural Resources

BILL:	SB 910
INTRODUCER:	Senator Burton
SUBJECT:	Management and Storage of Surface Waters
DATE:	March 13, 2023
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Carroll	Rogers	EN	**Favorable**
2.			CA	
3.			RC	

I. Summary:

SB 910 adds exemptions to the management and storage of surface waters statutes for measures or practices implemented primarily for environmental habitat creation or enhancement activities on lands specifically classified as agricultural or government-owned lands. The bill removes language that limits this exemption to measures or practices determined to have a minimal or insignificant individual and cumulative adverse impact on the water resources of the state.

The bill provides that the measures or practices stated above may alter the topography of the land, including activities and improvements that divert the flow of surface waters or impact wetlands on the land, if the activities result in a net increase in wetland resource functions. They must be planned, designed, and implemented to result in a wetland habitat that resembles the characteristics of a functional wetland habitat in the same region. If the measures or practices result in a violation of water quality standards, they will not qualify for the exemption.

The bill removes language requiring the Department of Environmental Protection (DEP) or the water management districts (WMDs) to notify in writing whether the proposed activity qualifies for the exemption within 30 days after receipt of an exemption request. The bill also removes language requiring provision of the written notice prior to commencement of the activity.

The bill requires the owner of the property where the measures or practices will be implemented, or their designee, to provide written notification to DEP or the WMD within 30 days before commencing work. If the measures or practices will implement a mitigation bank or an offsite regional mitigation area, the property owner must show DEP or the WMD evidence of the required permit.

A property owner is not authorized to use mitigation to offset impacts except through compliance with statutes governing mitigation banks and offsite regional mitigation and the rules adopted pursuant to those statutes.

II. Present Situation:

Management and Storage of Surface Waters

The Department of Environmental Protection (DEP) and the water management districts (WMDs) are responsible for regulating the management and storage of surface waters in the state and are authorized to require the related permits and impose conditions on those permits.[1] This is the state environmental resource permit (ERP) program.[2] The statutes governing surface water management control the construction, operation, or alteration of any stormwater management system, dam, impoundment, reservoir, or appurtenant work.[3] Thus, DEP and the WMDs collectively regulate virtually every type of artificial or natural structure or construction used to connect to, draw water from, drain water into, or be placed in or across surface water. This includes all structures and constructions that have an effect on surface water, including dredging, filling, and activities that create canals, ditches, culverts, impoundments, fill roads, buildings, and other impervious surfaces.[4] ERPs are required for activities that impact wetlands as well. Wetlands are defined as areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soils.[5]

In 2018, the state assumed the administration of the federal dredge and fill permitting program under section 404 of the federal Clean Water Act.[6] Though projects within state waters require both an ERP and a state 404 permit, state assumption of the 404 program eliminated duplicative review because most review requirements overlap between the two programs.[7] Generally, a section 404 permit is not needed if discharges of dredged or fill material are associated with normal farming, ranching, or silviculture activities such as plowing, cultivating, minor drainage, and harvesting for the production of food, fiber, and forest products or upland soil and water conservation practices.[8]

Florida Statutes provide exemptions from the laws governing the management and storage of surface waters for agriculture activities.[9] The laws may not affect the right of any person engaged in agriculture, silviculture, floriculture, or horticulture to alter the topography of any tract of land.[10] This exemption includes alterations that may impede or divert the flow of surface waters or adversely impact wetlands when the purpose of such alteration is not to impede or divert the flow of surface waters or to adversely impact wetlands.[11] If there is a dispute as to the

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[1] The Institute of Food and Agricultural Sciences (IFAS), *2021 Handbook of Florida Water Regulation: Management and Storage of Surface Waters*, https://edis.ifas.ufl.edu/publication/FE605 (last visited Mar. 8, 2023); s. 373.413, F.S.
[2] South Florida Water Management District, *Environmental Resource Permits*, https://www.sfwmd.gov/doing-business-with-us/permits/environmental-resource-permits (last visited Mar. 10, 2023).
[3] *Id.*
[4] IFAS, *Handbook of Florida Water Regulations*; s. 373.403, F.S.
[5] Section 373.019(27), F.S.
[6] DEP, *State 404 Program*, https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/state-404-program (last visited Mar. 10, 2023).
[7] *Id.*
[8] U.S. Environmental Protection Agency (EPA), *Exemptions to Permit Requirements under CWA Section 404*, https://www.epa.gov/cwa-404/exemptions-permit-requirements-under-cwa-section-404 (last visited Mar. 10, 2023).
[9] Section 373.406(2), (9), F.S.
[10] Section 373.406(2), F.S.
[11] *Id.*

applicability of the exemption, a WMD or landowner may request the Department of Agricultural and Consumer Services to make a binding determination as to whether an existing or proposed activity qualifies for the exemption.[12]

Construction, operation, or maintenance of any agricultural closed system is also exempt, except for laws concerning the taking and discharging of water for filling, replenishing, and maintaining the water level in any such agricultural closed system.[13]

Implementation of measures for environmental restoration or water quality improvement on agricultural lands is also exempt where the measures or practices are determined by DEP or a WMD, on a case-by-case basis, to have a minimal or insignificant individual and cumulative adverse impact on water resources.[14] Within 30 days following receipt of a written notice requesting an exemption, DEP or a WMD must provide written notice of the determination that the proposed activity does or does not qualify for the exemption.[15]

Agricultural Lands

Agricultural lands in the state are classified annually by county property appraisers.[16] Only lands that are used primarily for bona fide agricultural purposes shall be classified as agricultural.[17] Bona fide agricultural purposes are good faith commercial agricultural uses of the land. In determining whether the use of land for agricultural purposes is bona fide, the property appraiser may consider:

- The length of time the land has been so used;
- Whether the use has been continuous;
- The purchase price paid;
- Size, as it relates to specific agricultural use, but a minimum acreage may not be required for agricultural assessment;
- Whether an indicated effort has been made to care sufficiently for the land in accordance with accepted commercial agricultural practices, including fertilizing, liming, tilling, mowing, and reforesting;
- Whether the land is under lease and, if so, the length, terms, and conditions of the lease; and
- Other factors as applicable.[18]

Water Quality and Nutrients

Phosphorus and nitrogen are naturally present in water and are essential nutrients for the healthy growth of plant and animal life.[19] The correct balance of both nutrients is necessary for a healthy

[12] Section 373.407, F.S.
[13] Section 373.406(3), F.S. A closed system is any reservoir or works located entirely within agricultural lands owned or controlled by the user and which requires water only for the filling, replenishing, and maintaining the water level thereof. Section 373.403(6), F.S.
[14] Section 373.406(9), F.S.
[15] *Id.*
[16] Section 193.461(1), F.S.
[17] Section 193.461(3), F.S.
[18] *Id.*
[19] EPA, *The Issue*, https://www.epa.gov/nutrientpollution/issue (last visited Feb. 10, 2023).

ecosystem; however, excessive nitrogen and phosphorus can cause significant water quality problems.[20]

Phosphorus and nitrogen are derived from natural and human-made sources.[21] Human-made sources include sewage disposal systems (wastewater treatment facilities and septic systems), overflows of storm and sanitary sewers (untreated sewage), agricultural production and irrigation practices, and stormwater runoff.[22] Excessive nutrient loads may result in harmful algal blooms, nuisance aquatic weeds, and the alteration of the natural community of plants and animals.[23]

Under section 303(d) of the federal Clean Water Act, states must establish water quality standards for waters within their borders and then develop a list of impaired waters that do not meet the established water quality standards and a list of threatened waters that may not meet water quality standards in the following reporting cycle.[24]

Mitigation Banking

Generally, mitigation banking is a practice in which an environmental enhancement and preservation project is conducted by a public agency or private entity to provide mitigation for unavoidable wetland impacts within a defined mitigation service area.[25] Offsite regional mitigation is mitigation on an area of land off the site of a permitted activity, where an applicant proposes to mitigate the adverse impacts of only the applicant's specific activity as a requirement of the permit, which provides regional ecological value and which is not a mitigation bank.[26] In mitigation banking, the bank is the site itself, and the currency sold by the banker to the impact permittee is a credit, representing the wetland ecological value equivalent to the complete restoration of one acre.[27] The number of potential credits permitted for the bank, and the credit debits required for impact permits, are determined by the permitting agencies.[28]

Creation of a mitigation bank in Florida requires both a permit from DEP or a WMD, and federal approval of a mitigation bank instrument from several agencies led by the U.S. Army Corps of Engineers (USACE), in a joint state/federal interagency review team.[29] Through this process,

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[20] *Id.*
[21] *Id.*
[22] EPA, *Sources and Solutions*, https://www.epa.gov/nutrientpollution/sources-and-solutions (last visited Feb 10, 2023).
[23] EPA, *The Issue*, https://www.epa.gov/nutrientpollution/issue (last visited Feb. 10, 2023).
[24] EPA, *Overview of Identifying and Restoring Impaired Waters under Section 303(d) of the CWA*, https://www.epa.gov/tmdl/overview-identifying-and-restoring-impaired-waters-under-section-303d-cwa (last visited Feb. 24, 2023); 40 C.F.R. 130.7. Following the development of the list of impaired waters, states must develop a total maximum daily load for every pollutant/waterbody combination on the list. A total maximum daily load is a scientific determination of the maximum amount of a given pollutant that can be absorbed by a waterbody and still meet water quality standards. DEP, *Total Maximum Daily Loads Program*, https://floridadep.gov/dear/water-quality-evaluation-tmdl/content/total-maximum-daily-loads-tmdl-program (last visited Feb. 10, 2023).
[25] DEP, *Mitigation and Mitigation Banking*, https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/mitigation-and-mitigation-banking (last visited Mar. 8, 2023).
[26] Section 373.403, F.S.
[27] DEP, *Mitigation and Mitigation Banking*.
[28] *Id.*
[29] DEP, *Mitigation Banking Rule and Procedure Synopsis*, https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/mitigation-banking-rule-and (last visited Mar. 8, 2023).

depending on agency approval, a mitigation bank may provide mitigation for permittees under both the federal and state permitting programs.[30]

Requirements for permitting mitigation banks differ between mitigation bank instruments issued by the USACE and state permits issued by DEP or the WMDs. Under the federal process, a mitigation banking instrument serves as the legal document for the establishment, operation, and use of a mitigation bank.[31] They are approved by an interagency review team, through procedures involving public notice and comment.[32] Mitigation banking instruments must include certain detailed elements, such as a comprehensive mitigation plan including financial assurances, and a credit release schedule that is tied to the achievement of specific milestones.[33]

Under Florida law, to obtain a mitigation bank permit, the applicant must provide reasonable assurance that the mitigation bank will:

- Improve ecological conditions of the regional watershed;
- Provide viable and sustainable ecological and hydrological functions for the proposed mitigation service area;
- Be effectively managed in perpetuity;
- Not destroy areas with high ecological value;
- Achieve mitigation success; and
- Be adjacent to lands that will not adversely affect the long-term viability of the mitigation bank due to unsuitable land uses or conditions.[34]

The applicant must also provide reasonable assurance that:

- Any surface water management system that will be constructed, altered, operated, maintained, abandoned, or removed within a mitigation bank will meet the requirements of part IV of ch. 373, F.S., which regulates management and storage of surface waters, and rules adopted thereunder;
- The applicant has sufficient legal or equitable interest in the property to ensure perpetual protection and management of the land within a mitigation bank; and
- The applicant can meet the financial responsibility requirements prescribed for mitigation banks.[35]

III. Effect of Proposed Changes:

Section 1 amends s. 373.406, F.S., concerning exemptions to statutes governing the management and storage of surface waters, to add exemptions for the implementation of measures or practices for the primary purpose of environmental habitat creation or enhancement activities on lands specifically classified as agricultural pursuant to statute or government-owned lands.

The bill removes language that limits this exemption to measures or practices that are determined by the Department of Environmental Protection (DEP) or the water management district

[30] *Id.*
[31] 33 C.F.R. s. 332.2.
[32] 33 C.F.R. s. 332.8; 40 C.F.R. s. 230.98.
[33] *See generally* 33 C.F.R. s. 332.8(d)(6); *see also* 40 C.F.R. s. 230.98(d)(6).
[34] Section 373.4136(1), F.S.
[35] *Id.*; Fla. Admin. Code R. 62-342.400.

(WMD), on a case-by-case basis, to have a minimal or insignificant individual and cumulative adverse impact on the water resources of the state.

The bill provides that the measures or practices stated above may alter the topography of the land, including activities and improvements that divert the flow of surface waters or impact wetlands on the land, if the activities or improvements result in a net increase in wetland resource functions. The activities or improvements must be planned, designed, and implemented to result in a wetland habitat that resembles the characteristics of a functional wetland habitat in the same region, such as an herbaceous or forested wetland. The implementation of measures or practices that result in a permanent net loss of wetland functions or a violation of water quality standards do not qualify for an exemption pursuant to this subsection.

The bill removes language requiring DEP or the WMD to provide written notification as to whether the proposed activity qualifies for the exemption within 30 days after receipt of a written notice requesting the exemption. The bill also deletes language prohibiting activity under the exemption from commencing until DEP or the WMD has provided written notice that the activity qualifies for the exemption.

The bill replaces the language in the paragraph above with a provision requiring the owner of the property where the measures or practices will be implemented, or their designee, to provide written notification to DEP or the WMD within 30 days before commencing work pursuant to this subsection. The bill provides that if the measures or practices under this subsection are performed to implement a mitigation bank or an offsite regional mitigation area, before commencing such activities, the property owner must confirm compliance with statutes governing mitigation banks and offsite regional mitigation and the rules adopted pursuant to those statutes by providing DEP or the WMD with evidence of a permit issued pursuant to those statutes.

The bill provides that this subsection does not authorize a property owner to use mitigation to offset impacts except through compliance with statutes governing mitigation banks and offsite regional mitigation and the rules adopted pursuant to those statutes.

Section 2 provides an effective date of July 1, 2023.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

E. Other Constitutional Issues:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

None.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends section 373.406 of the Florida Statutes.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.

By Senator Burton

12-01113A-23 2023910__

A bill to be entitled

An act relating to management and storage of surface waters; amending s. 373.406, F.S.; providing an exemption from surface water management and storage regulations for the implementation of certain measures and practices for environmental habitat creation, restoration, and enhancement activities and water quality improvements on specified agricultural lands and government-owned lands; providing a condition and requirements for the measures and practices; requiring property owners or their designees to provide written notifications that meet certain requirements to the water management district or Department of Environmental Protection before commencing work; removing requirements for adverse impacts on water resources, certain notification by the department and water management districts, and commencement of activities; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Subsection (9) of section 373.406, Florida Statutes, is amended to read:

373.406 Exemptions.—The following exemptions shall apply:

(9) Implementation of measures or practices for ~~having~~ the primary purpose of environmental habitat creation, restoration, or enhancement activities or water quality improvements ~~improvement~~ on lands classified as agricultural pursuant to s. 193.461 or government-owned lands are exempt from regulation

under this part ~~where these measures or practices are determined by the district or department, on a case-by-case basis, to have minimal or insignificant individual and cumulative adverse impact on the water resources of the state~~.

(a) The measures or practices may alter the topography of the land, including activities and improvements that divert the flow of surface waters or impact wetlands on the land, if the activities or improvements result in a net increase in wetland resource functions. The activities or improvements must be planned, designed, and implemented to result in a wetland habitat that resembles the characteristics of a functional wetland habitat in the same region, such as a herbaceous or forested wetland. The implementation of measures or practices that result in a permanent net loss of wetland functions or a violation of water quality standards do not qualify for an exemption pursuant to this subsection.

(b) The owner of the property where the measures or practices will be implemented, or their designee, ~~the district or department~~ shall provide written notification to the water management district or the department ~~as to whether the proposed activity qualifies for the exemption~~ within 30 days before commencing work pursuant to this subsection. If the measures or practices under this subsection are performed to implement a mitigation bank or an offsite regional mitigation area, before commencing such activities, the property owner must confirm compliance with ss. 373.4135 and 373.4136 and the rules adopted pursuant to those sections by providing to the water management district or department evidence of a permit issued pursuant to those sections. This subsection does not authorize a property

owner to use mitigation to offset impacts except through compliance with ss. 373.4135 and 373.4136 and the rules adopted pursuant to those sections ~~after receipt of a written notice requesting the exemption. No activity under this exemption shall commence until the district or department has provided written notice that the activity qualifies for the exemption~~.

Section 2. This act shall take effect July 1, 2023.

THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

COMMITTEES:
Commerce and Tourism, *Chair*
Appropriations Committee on Transportation, Tourism, and Economic Development, *Vice Chair*
Appropriations Committee on Agriculture, Environment, and General Government
Banking and Insurance
Fiscal Policy
Judiciary
Transportation

SELECT COMMITTEE:
Select Committee on Resiliency

SENATOR JAY TRUMBULL
2nd District

March 14, 2023

Re: SB 1030

Dear Chair Rodriguez,

I am respectfully requesting that Leader Albritton be allowed to present my bill, Senate Bill 1030 related to Recycling of Covered Electronics, in your committee on Environment and Natural Resources.

I appreciate your consideration of this request. If there are any questions or concerns, please do not hesitate to call my office at (850) 487-5002.

Thank you,

Senator Jay Trumbull
District 2

REPLY TO:
❒ 840 West 11th Street, Panama City, Florida 32401 (850) 747-5454
❒ 320 Senate Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5002

Senate's Website: *www.flsenate.gov*

KATHLEEN PASSIDOMO
President of the Senate

DENNIS BAXLEY
President Pro Tempore

The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

3/14/23
Meeting Date

S E+NR
Committee

SB 1030
Bill Number or Topic

Amendment Barcode (if applicable)

Name KEYNA CORY

Phone 850 681 1065

Address 730 E. PARK AVE
Street

Email Keynacory@paconsultants.com

TALLAHASSEE FL 32301
City State Zip

Speaking: ☐ For ☒ Against ☐ Information **OR** Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without compensation or sponsorship.

☒ I am a registered lobbyist, representing:
NATIONAL WASTE & RECYCLING ASSN - FL CHAPTER

☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. 2020-2022JointRules.pdf (flsenate.gov)

This form is part of the public record for this meeting.

S-001 (08/10/2021)

The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to Senate professional staff conducting the meeting

3/14/23
Meeting Date

Environment and Natural Resources
Committee

SB 1030
Bill Number or Topic

Amendment Barcode (if applicable)

Name Jonathan Rees

Phone (850) 570-0043

Address 311 East Park Avenue
Street

Email JREES@smithbryanandmyers.com

Tallahassee FL 32301
City State Zip

Speaking: ☐ For ☐ Against ☐ Information **OR** Waive Speaking: ☒ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without compensation or sponsorship.

☒ I am a registered lobbyist, representing:
Stream Recycling

☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. 2020-2022JointRules.pdf (flsenate.gov)

This form is part of the public record for this meeting.

S-001 (08/10/2021)

The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Environment and Natural Resources

BILL:	CS/SB 1030
INTRODUCER:	Environment and Natural Resources Committee and Senator Trumbull
SUBJECT:	Recycling of Covered Electronic Devices
DATE:	March 14, 2023 REVISED:

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Barriero	Rogers	EN	**Fav/CS**
2.			AEG	
3.			AP	

Please see Section IX. for Additional Information:

COMMITTEE SUBSTITUTE - Substantial Changes

I. Summary:

CS/SB 1030 creates the Statewide Covered Electronic Device Recovery Program within the Department of Environmental Protection (DEP). The purpose of the program is to create a statewide plan for the recycling of covered electronic devices, including:

- Computers, computer monitors, and portable computers;
- Printers, scanners, and fax machines;
- Stereos and radios;
- DVD players;
- Telephones, including mobile phones;
- Televisions;
- Small household appliances; and
- Computer peripherals.

The bill requires DEP to consider the following when creating the statewide plan:

- Existing collection and consolidation infrastructure for collecting covered electronic devices;
- Convenience standards for each county or solid waste authority;
- County population statistics and data of residents; and
- Administrative costs and other authorized expenses necessary to prevent the disposal of covered electronic devices in landfills.

The bill provides that, by January 1, 2025, each county must submit to DEP a plan for ensuring the county will appropriately dispose of covered electronic devices at a permitted reclamation facility. Effective January 1, 2026, any person who owns or operates an industrial, institutional, or commercial facility must dispose of that facility's covered electronic devices in a permitted reclamation facility. Effective January 1, 2028, it will be unlawful for any person to dispose of covered electronic devices in this state except at a permitted reclamation facility. Any person in violation of these requirements will be liable for damages and subject to civil penalties pursuant to s. 403.141, F.S., which imposes a penalty of not more than $15,000 per offense.

In addition, the bill directs DEP to adopt rules to implement the Statewide Covered Electronic Device Recovery Program. The rules must include:

- Criteria and procedures for obtaining a reclamation facility permit;
- Standards for reclamation facilities and associated collection centers and standards for the storage of covered electronic devices; and
- Requirements for the collection of data on the amounts of precious metals recovered through the program.

II. Present Situation:

Recycling Electronic Devices

Electronic products are made from valuable resources and materials, including metals, plastics, and glass, all of which require energy to mine and manufacture.[1] Recycling consumer electronics reduces the amount of raw materials mined and energy used to produce new products, as well as the packaging used to transport them.[2]

According to a 2006 estimate by the United States Geological Survey (USGS), recycling one million laptops saves the energy equivalent to the electricity used by more than 3,500 homes in a year.[3] In addition, for every million cell phones recycled, 35,000 pounds of copper, 772 pounds of silver, 75 pounds of gold, and 33 pounds of palladium can be recovered.[4] These recovered materials can be used in new products.[5]

Some electronic devices contain cathode ray tubes (CRTs). CRT displays were widely used in televisions and computer monitors before being replaced by flat panel displays.[6] While some CRT displays are still in use today, very few new CRTs are being produced as electronics manufacturers follow demand for flat panel displays. As consumers and businesses replace their CRT monitors and televisions, electronics recyclers receive the discarded CRT products. Unfortunately, the market for recycled CRT glass has become limited and costly, making CRT

[1] Environmental Protection Agency (EPA), *Electronics Donation and Recycling*, https://www.epa.gov/recycle/electronics-donation-and-recycling (last visited Mar. 7, 2023).
[2] EPA, *Secret Life of a Smart Phone*, https://www.epa.gov/sites/default/files/2015-06/smartphone_infographic_700.jpg (last visited Mar. 7, 2023).
[3] *Id.*
[4] *Id.*; USGS, *Recycled Cell Phones – A Treasure Trove of Valuable Metals, available at* https://pubs.usgs.gov/fs/2006/3097/fs2006-3097.pdf.
[5] EPA, *Secret Life of a Smart Phone*.
[6] DEP, *Electronics Waste*, https://floridadep.gov/waste/permitting-compliance-assistance/content/electronics-waste (last visited Mar. 7, 2023).

glass recycling a challenge to electronic scrap recyclers. As a result, some electronics recyclers and many second-hand stores such as Goodwill and the Salvation Army no longer accept CRT products.[7]

Certified Electronics Recyclers

The Environmental Protection Agency (EPA) recommends using certified electronics recyclers to manage unwanted used electronics.[8] Electronics recyclers can become certified by demonstrating to an accredited, independent third-party auditor that they meet specific standards to safely recycle and manage electronics. There are two accredited certification standards: the Responsible Recycling Standard for Electronics Recyclers and the e-Stewards Standard for Responsible Recycling and Reuse of Electronic Equipment. Both programs advance best management practices and provide a way to assess the environmental, worker health and safety, and security practices of entities managing used electronics. Once certified, continual oversight by the independent accredited certifying body holds the recycler to the particular standard.[9]

Rare-Earth Metals

Rare-earth metals are a set of 17 elements, including scandium, yttrium, and praseodymium. While rare-earth metals are abundant in the earth's crust, they appear in low concentrations in minerals and are difficult to separate from other elements, which is what makes them rare.[10] These metals are valued for their conductive and magnetic properties[11] and have a wide variety of applications, ranging from magnets, lasers, GPS satellites, computer components, lighting, X-ray and MRI scanning systems, and other electronics.[12] In addition to the electronics sector, the U.S. defense industry relies heavily on rare earth elements to produce weapon guidance systems, jet engines, sonar devices, and laser weapons.[13]

There are two primary methods for rare-earth mining, both of which release toxic chemicals into the environment.[14] Recycling rare-earth metals is one alternative to mining. Adding recycled rare-earth metals as a new source to the supply chain is expected to reduce environmental contamination and energy costs associated with their primary mining and separations.[15]

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[7] *Id.*
[8] EPA, *Certified Electronics Recyclers*, https://www.epa.gov/smm-electronics/certified-electronics-recyclers (last visited Mar. 7, 2023).
[9] EPA, *Certified Electronics Recyclers*, https://www.epa.gov/smm-electronics/certified-electronics-recyclers (last visited Mar. 7, 2023).
[10] Harvard International Review, *Not So "Green" Technology: The Complicated Legacy of Rare Earth Mining* (2021), https://hir.harvard.edu/not-so-green-technology-the-complicated-legacy-of-rare-earth-mining/ (last visited Mar. 8, 2023).
[11] Felix K. Chang, Foreign Policy Research Institute, *China's Rare Earth Metals Consolidation and Market Power*, (2022), https://www.fpri.org/article/2022/03/chinas-rare-earth-metals-consolidation-and-market-power/.
[12] Earth.org, *How Rare-Earth Mining Has Devastated China's Environment*, (2020), https://earth.org/rare-earth-mining-has-devastated-chinas-environment/#:~:text=In%202018%2C%20China%20produced%20120%20000%20metric%20tons,as%20Inner%20Mongolia%20and%20as%20west%20as%20Sichuan; U.S. Senate Republican Policy Committee, *Policy Papers: Protecting America's Supply of Rare Earth Elements*, (2020), https://www.rpc.senate.gov/policy-papers/protecting-americas-supply-of-rare-earth-elements (last visited Mar. 8, 2023).
[13] *Id.*
[14] Harvard International Review, *Not So "Green" Technology: The Complicated Legacy of Rare Earth Mining*.
[15] U.S. Dep't of Energy, *Rare Earth Recycling* (2017), https://www.energy.gov/science/bes/articles/rare-earth-recycling.

Additionally, a new domestic source of these metals would be a positive contribution to U.S. technology at competitive prices.[16]
Though the cost of re-separation and purification may be a limitation on recycling rare-earth metals,[17] some companies are already using this technology.[18] For example, Apple's iPhone 12 is made from 98 percent reused rare-earth metals.[19]

Demand for rare-earth metals is projected to spike in coming years as governments, organizations, and individuals increasingly invest in clean energy.[20] An electric car requires six times the mineral inputs of a conventional car, and a wind plant requires nine times more minerals than a gas-fired plant. With current estimates, demand for rare-earth metals could increase six-fold by 2040.[21]

China is the largest producer of rare-earth metals,[22] accounting for 85 percent of the global supply in 2016.[23] China's dominance in this market has raised concerns about the risk of supply chain disruption if rare-earth metal exports from China slow or cease.[24] In 2022, the U.S. imported an estimated $200 million of rare-earth compounds and metals, a 25 percent increase from 2021.[25] The vast majority—74 percent—of these imports came from China.[26]

Electronic Waste Regulations and the CRT Rule

While Florida has no laws or regulations that apply specifically to discarded electronic products, chapter 403, F.S., regulates the management of devices and lamps containing mercury.[27] Section 403.7186(2), F.S., prohibits the incineration or disposal of mercury-containing devices in a landfill. Grants are available for local governments and other public and private entities to develop and operate mercury recycling programs.[28]

In addition, the Department of Environmental Protection (DEP) has provided guidelines for the disposal of electronics.[29] These guidelines are based on the CRT rule[30] issued by EPA in 2006

[16] *Id.*
[17] *Id.*
[18] Harvard International Review, *Not So "Green" Technology: The Complicated Legacy of Rare Earth Mining* (2021), https://hir.harvard.edu/not-so-green-technology-the-complicated-legacy-of-rare-earth-mining/ (last visited Mar. 8, 2023).
[19] *Id.*
[20] *Id.*
[21] *Id.*
[22] U.S. Senate Republican Policy Committee, *Policy Papers: Protecting America's Supply of Rare Earth Elements*.
[23] Harvard International Review, *Not So "Green" Technology: The Complicated Legacy of Rare Earth Mining*.
[24] U.S. Senate Republican Policy Committee, *Policy Papers: Protecting America's Supply of Rare Earth Elements.* For example, China abruptly stopped exports of rare earth elements to Japan during a diplomatic clash in 2010 over the fate of a Chinese fishing boat captain. *Id.*
[25] United States Geological Survey (USGS), *Mineral Commodity Summaries: Rare Earths*, 1 (2023), *available at* https://pubs.usgs.gov/periodicals/mcs2023/mcs2023-rare-earths.pdf.
[26] *Id.*
[27] Section 403.7186, F.S.
[28] Section 403.7186(5)(a), F.S.
[29] DEP, *Regulatory Guidelines for the Management of Unwanted Electronic Products*, 1 (2008), *available at* https://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=2.403165.1]&[profile=DWM%20Historical%20Repository].
[30] 40 CFR ss. 260, 261, and 271.

and adopted by DEP in 2008.[31] The CRT rule divides electronic products into two groups: products that contain a CRT, such as televisions and computer monitors, and products that do not contain a CRT, such as desktop and portable computers, flat panel televisions and computer monitors, and cellular phones.[32] Used CRTs discarded by households are considered "household hazardous waste" and are exempt from hazardous waste regulations.[33] The CRT Rule is intended to encourage recycling and reuse of CRTs and CRT glass. The rule streamlines management requirements for recycling of used CRTs and glass removed from CRTs by excluding these materials from hazardous waste regulation if certain conditions are met.[34]

III. Effect of Proposed Changes:

The bill contains whereas clauses stating the following:

- China presents the broadest, most active and persistent cyber espionage threat to the United States Government and private sector networks;
- The technology products and services most vulnerable to malicious foreign exploitation are sold by companies that the Chinese Government influences through whole or partial ownership, direct funding, or members placed in high-ranking company positions; and
- It is the intent of the Legislature to incentivize and provide the necessary infrastructure to recycle electronic and technology products in the state in order to reduce our economic reliance on such products made in China.

Section 1 establishes the Statewide Covered Electronic Device Recovery Program within the Department of Environmental Protection (DEP). The purpose of the program is to create a statewide plan for the recycling of covered electronic devices. Covered electronic devices include:

- Computers;
- Computer monitors,
- Portable computers;
- Printers;
- Fax machines;
- Scanners;
- Stereos and radios;
- DVD players;
- Telephones, including mobile phones;
- Televisions;
- Small household appliances, including, but not limited to, coffee pots, toasters, toaster ovens, blenders, and microwaves;
- Computer peripherals, including, but not limited to, mice, keyboards, and speakers.

[31] DEP, *Regulatory Guidelines for the Management of Unwanted Electronic Products*, 1.
[32] *Id.*
[33] 40 CFR 261.4(b)(1). *See also* EPA, *Frequent Questions About the Regulation of Used Cathode Ray Tubes (CRTs) and CRT Glass*, no. 18, https://www.epa.gov/hw/frequent-questions-about-regulation-used-cathode-ray-tubes-crts-and-crt-glass#2 (last visited Mar. 7, 2023).
[34] *Id.*

Covered electronic devices do not include a device that is:

- A part of a motor vehicle or any component part of a motor vehicle assembled by or for a vehicle manufacturer or franchised dealer, including, but not limited to, replacement parts for use in a motor vehicle;
- A part of a larger piece of equipment designed and intended for use in an industrial, commercial, or medical setting, including, but not limited to, diagnostic, monitoring, or control equipment; or
- Contained within a clothes washer or dryer, refrigerator or freezer, microwave oven, conventional oven, dishwasher, room air conditioner, dehumidifier, or air purifier.

The bill requires DEP to consider the following when creating the statewide plan:

- Existing collection and consolidation infrastructure for collecting covered electronic devices;
- Convenience standards for each county or solid waste authority;
- County population statistics and data of residents; and
- Administrative costs and other authorized expenses necessary to prevent the disposal of covered electronic devices in landfills.

The bill provides that, by January 1, 2025, each county must submit to DEP a plan for ensuring the county will appropriately dispose of covered electronic devices at a permitted reclamation facility.

The bill also provides that, effective January 1, 2026, any person who owns or operates an industrial, institutional, or commercial facility must dispose of that facility's covered electronic devices in a permitted reclamation facility. Effective January 1, 2028, it will be unlawful for any person to dispose of covered electronic devices in this state except at a permitted reclamation facility. Any person in violation of these requirements will be liable for damages and subject to civil penalties pursuant to s. 403.141, F.S., which imposes a penalty of not more than $15,000 per offense.

The bill directs DEP to adopt rules by July 1, 2024, to implement the Statewide Covered Electronic Device Recovery Program. The rules must include:

- Criteria and procedures for obtaining a reclamation facility permit;
- Standards for reclamation facilities and associated collection centers and standards for the storage of covered electronic devices; and
- Requirements for the collection of data on the amounts of precious metals recovered through the program.

Section 2 provides an effective date of July 1, 2023.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

The county/municipality mandates provision of Art. VII, s. 18(a) of the Florida Constitution may apply to this bill because local governments may be required to expend funds to develop plans to ensure the county will appropriately dispose of covered electronic devices at a permitted reclamation facility. However, the law would have an

insignificant fiscal impact. Therefore, an exception from Art. VII, s. 18(a) of the Florida Constitution likely applies.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

The Department of Environmental Protection may incur costs to develop the Statewide Covered Electronic Device Recovery Program and rules to implement the program. In addition, counties may incur costs to develop plans to ensure the county will appropriately dispose of covered electronic devices at a permitted reclamation facility. Local governments may also be required to expend funds related to enforcing the civil penalties under with this bill.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill creates the section 403.71853 of the Florida Statutes.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

CS by Environment and Natural Resources on March 14, 2023:
Expanded the bill's definition of "covered electronic device" to include telephones, (including mobile phones) and the following additional devices:

- Printers;
- Fax machines;
- Scanners;
- Stereos;
- DVD Players;
- Radios;
- Small household appliances, including, but not limited to, coffee pots, toasters, toaster ovens, blenders, and microwaves; and
- Computer peripherals, including, but not limited to, mice, keyboards, and speakers.

It also removed the requirement that a device's screen size be greater than four inches to be considered a covered electronic device.

B. Amendments:

None.

461372

LEGISLATIVE ACTION

Senate	.	House
Comm: RCS	.	
03/14/2023	.	
	.	
	.	
	.	

The Committee on Environment and Natural Resources (Trumbull) recommended the following:

Senate Amendment

Delete lines 47 - 64
and insert:
(a) "Covered electronic device":
1. Includes all of the following electronic devices, whether the device has a cathode-ray tube or flat panel based on any technology:
a. Computers.
b. Portable computers.

461372

c. Computer monitors.
d. Printers.
e. Fax machines.
f. Scanners.
g. Stereos.
h. DVD players.
i. Radios.
j. Telephones, including mobile phones.
k. Televisions.
l. Small household appliances, including, but not limited to, coffee pots, toasters, toaster ovens, blenders, and microwaves.
m. Computer peripherals, including, but not limited to, mice, keyboards, and speakers.
2. Does not include electronic devices that are:
a. Part of a motor vehicle or any component part of a motor vehicle assembled by or for a vehicle manufacturer or franchised dealer, including, but not limited to, replacement parts for use in a motor vehicle;
b. Functionally or physically a part of a larger piece of equipment designed and intended for use in an industrial, commercial, or medical setting, including, but not limited to, diagnostic, monitoring, or control equipment; or
c. Contained within a clothes washer, clothes dryer, refrigerator, freezer, refrigerator and freezer, microwave oven, conventional oven or range, dishwasher, room air conditioner, dehumidifier, or air purifier.

By Senator Trumbull

2-00483A-23 20231030__

A bill to be entitled

An act relating to the recycling of covered electronic devices; creating s. 403.71853, F.S.; defining terms; establishing the statewide Covered Electronic Device Recovery Program within the Department of Environmental Protection; authorizing the department to use specified funds to administer the program; specifying requirements for a statewide plan for the recycling of covered electronic devices; requiring counties to submit a specified plan for the disposal of covered electronic devices by a specified date; requiring the owners or operators of certain facilities to dispose of such facilities' covered electronic devices in a permitted reclamation facility beginning on a specified date; prohibiting any person from disposing of covered electronic devices except at a permitted reclamation facility beginning on a specified date; providing civil penalties; authorizing such penalties to be waived under certain conditions; providing applicability; requiring the department to deposit any funds received pursuant to the program into the Solid Waste Management Trust Fund to be used for specified purposes; requiring the department to adopt rules by a specified date which meet certain requirements; providing an effective date.

WHEREAS, it is recognized that China presents the broadest, most active and persistent cyber espionage threat to the United States Government and private sector networks, and

WHEREAS, the technology products and services most vulnerable to malicious foreign exploitation are sold by companies that the Chinese Government influences through whole or partial ownership, direct funding, or members placed in high-ranking company positions, and

WHEREAS, it is the intent of the Legislature to incentivize and provide the necessary infrastructure to recycle electronic and technology products in the state in order to reduce our economic reliance on such products made in China, NOW, THEREFORE,

Be It Enacted by the Legislature of the State of Florida:

Section 1. Section 403.71853, Florida Statutes, is created to read:

403.71853 Recycling of covered electronic devices.—

(1) DEFINITIONS.—As used in this section, the term:

(a) "Covered electronic device" means a computer, portable computer, computer monitor, or television, whether it has a cathode ray tube or flat panel based on any technology, with a screen size greater than 4 inches measured diagonally. The term does not include an electronic device that is:

1. A part of a motor vehicle or any component part of a motor vehicle assembled by or for a vehicle manufacturer or franchised dealer, including, but not limited to, replacement parts for use in a motor vehicle;

2. Functionally or physically a part of a larger piece of equipment designed and intended for use in an industrial, commercial, or medical setting, including, but not limited to,

diagnostic, monitoring, or control equipment;

3. Contained within a clothes washer, clothes dryer, refrigerator, refrigerator and freezer, microwave oven, conventional oven or range, dishwasher, room air conditioner, dehumidifier, or air purifier; or

4. A telephone of any type.

(b) "Reclamation facility" means a site permitted by the department where equipment is used to handle, process, disassemble, dismantle, shred, recapture, or store recoverable materials. The term includes, but is not limited to, composting or remediation facilities.

(2) STATEWIDE COVERED ELECTRONIC DEVICE RECOVERY PROGRAM.—The statewide Covered Electronic Device Recovery Program is established within the Department of Environmental Protection. The department may use funds from the Solid Waste Management Trust Fund to administer the program. The purpose of the program is to create a statewide plan for the recycling of covered electronic devices. In creating the statewide plan, the department must consider all of the following:

(a) Existing collection and consolidation infrastructure for collecting covered electronic devices.

(b) Convenience standards for each county or solid waste authority serving one or more counties.

(c) County population statistics and data of residents.

(d) Administrative costs and other authorized expenses necessary to prevent the disposal of covered electric devices in landfills.

(3) COMPLIANCE TIMELINE.—

(a) By January 1, 2025, each county must submit a plan to

the department for ensuring the county will appropriately dispose of covered electronic devices at a permitted reclamation facility.

(b) Effective January 1, 2026, any person who owns or operates an industrial, institutional, or commercial facility in this state shall dispose of that facility's covered electronic devices in a permitted reclamation facility.

(c) Effective January 1, 2028, it is unlawful for any person to dispose of covered electronic devices in this state except at a permitted reclamation facility.

(4) CIVIL PENALTY.—A person who engages in an unlawful act as provided in this section or who violates the rules of the department adopted pursuant to this section is liable for damages and subject to civil penalties under s. 403.141. The penalty may be waived if the person has previously taken appropriate corrective action to remedy the actual damages, if any, caused by the unlawful act or rule violation. Section 403.161 does not apply to this section.

(5) PROGRAM FUNDS.—The department shall deposit any funds received pursuant to this section into the Solid Waste Management Trust Fund and shall account for such funds separately within the fund. The funds may be used upon appropriation to provide grants to local governments and other public and private entities to develop and operate regional covered electronic device recycling programs and for administrative costs and other authorized expenses necessary to carry out the responsibilities of this section.

(6) RULES.—By July 1, 2024, the department shall adopt rules to carry out this section. Such rules must include all of

the following:

(a) Criteria and procedures for obtaining a reclamation facility permit.

(b) Standards for reclamation facilities and associated collection centers and standards for the storage of covered electronic devices.

(c) Requirements for the collection of data on the amounts of precious metals recovered through the program.

Section 2. This act shall take effect July 1, 2023.

THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

SENATOR Alexis M. Calatayud
38th District

COMMITTEES:
Community Affairs, Chair
Appropriations Committee on Education
Appropriations Committee of Health and Human Services
Education Pre-K 12
Fiscal Policy
Health Policy
Military and Veterans Affairs, Space and Domestic Security
Select Committee on Resiliency

March 3rd, 2023

Honorable Senator Ana Maria Rodriguez
Chair
Committee on Environment and Natural Resources

Honorable Chair Rodriguez,

I respectfully request SB 1170 Flooding and Sea Level Rise Vulnerability Studies be placed on the next committee agenda.

The bill revises the purposes for which the Department of Environmental Protection may provide grants under the Resilient Florida Grant Program to counties or municipalities; authorizing the department to provide such grants to water management districts for a specified purpose; requiring state-financed constructors to take specified actions before commencing construction of potentially at-risk structures or infrastructure beginning on a specified date.

Sincerely,

Alexis M. Calatayud

Senator Alexis M. Calatayud
Florida Senate, District 39

CC: Ellen Rogers, Staff Director
Kim Bonn, Committee Administrative Assistant

REPLY TO:
❒ 11011 SW 101st St, STE 5101, Miami Florida 33176 (305) 596-3002
❒ 324 Senate Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5038

Senate's Website: *www.flsenate.gov*

Kathleen Passidomo
President of the Senate

Dennis Baxley
President Pro Tempore

The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to
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3/14
Meeting Date

~~HB 1170~~ Env & Nat Resources
Committee

1170
Bill Number or Topic

Amendment Barcode (if applicable)

Name Ellyn Bogdanoff

Phone 954 364-6005

Address 1 E Broad Blvd
Street

Email

FLT FL 33301
City State Zip

Speaking: ☑ For ☐ Against ☐ Information **OR** Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without compensation or sponsorship.

☑ I am a registered lobbyist, representing: American Flood Coalition

☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. 2020-2022JointRules.pdf (flsenate.gov)

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S-001 (08/10/2021)

3/14/2023
Meeting Date

The Florida Senate
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1170
Bill Number or Topic

Committee

Amendment Barcode (if applicable)

Name Kate Wesner

Phone 561-722-3659

Address 159 Cat Rock Lane
Street
Jupiter FL 33458
City State Zip

Email Kate@medicalcoalition.org

Speaking: ☐ For ☐ Against ☐ Information **OR** Waive Speaking: ☑ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without compensation or sponsorship.

☑ I am a registered lobbyist, representing: American Heart Coalition Action

☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. 2020-2022JointRules.pdf (flsenate.gov)

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S-001 (08/10/2021)

The Florida Senate

APPEARANCE RECORD

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3/14/22
Meeting Date

SB 1170, 734, 724
Bill Number or Topic

San Envir & Natural Resources
Committee

Amendment Barcode (if applicable)

Name Mayor Betty Resch

Phone 561-329-2706

Address 207 So L St
Street

Email mayorResch@gmail.com

Lake Worth Beach
City State Zip

Speaking: ☑ For ☐ Against ☐ Information **OR** Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without compensation or sponsorship.

☐ I am a registered lobbyist, representing:

☑ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. 2020-2022JointRules.pdf (flsenate.gov)

This form is part of the public record for this meeting.

S-001 (08/10/2021)

The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Environment and Natural Resources

BILL:	SB 1170
INTRODUCER:	Senators Calatayud and Garcia
SUBJECT:	Flooding and Sea Level Rise Vulnerability Studies
DATE:	March 13, 2023
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Barriero	Rogers	EN	**Favorable**
2.			AEG	
3.			FP	

I. Summary:

SB 1170 amends the Resilient Florida Program to authorize the Department of Environmental Protection (DEP) to provide grants to counties or municipalities for feasibility studies and the cost of permitting for innovative measures that reduce the impact of flooding and sea level rise and focus on nature-based solutions. The bill authorizes water management districts, in support of local government adaptation planning, to receive grants under the Resilient Florida Grant Program for the purpose of supporting the Florida Flood Hub for Applied Research and Innovation and DEP for data creation and collection, modeling, and the implementation of statewide standards.

The bill substantially expands the geographical area where a sea level impact projection (SLIP) study is required and changes the types of structures that this requirement applies to. Currently, a SLIP study must be conducted before beginning construction of a new coastal structure within the coastal building zone. The bill amends this requirement by providing that, beginning July 1, 2024, a SLIP study must be conducted before beginning construction of a "potentially at-risk structure or infrastructure" in an area at risk due to sea level rise, regardless of whether it is within the coastal building zone.

The bill directs DEP to update its SLIP study rules to provide for the changes required under this bill. In addition to the requirements for the existing rule, the revised rules must include a requirement that state-financed constructors assess the risk of flooding, inundation, and wave action damage to potentially at-risk structures or infrastructure and provide a list of flood mitigation strategies for consideration as part of the structure or infrastructure's design.

II. Present Situation:

Flooding and Sea Level Rise

Given Florida's flat topography[1] and extreme rainfall events, flooding has been an issue throughout the state's history.[2] The effects of climate change—including sea level rise, increased storm intensity, and increased frequency and severity of extreme rainfall events—have increased flooding in inland and coastal areas.[3]

Sea level rise is a direct effect of climate change, resulting from a combination of thermal expansion of warming ocean waters and the addition of water mass into the ocean, largely associated with the loss of ice from glaciers and ice sheets.[4] The global mean sea level has risen about 8–9 inches since 1880, and the rate of rise is accelerating: 0.06 inches per year throughout most of the twentieth century, 0.14 inches per year from 2006–2015, and 0.24 inches per year from 2018–2019.[5] In 2021, global sea levels set a new record high—3.8 inches above 1993 levels.[6]

The latest projections from the National Oceanic and Atmospheric Administration (NOAA) estimate that an average of two feet sea level rise can be expected over the next 50 years.[7] All coastal areas of Florida will be affected under this scenario.[8] Miami-Dade and Monroe Counties, including the Florida Keys, are projected to be most impacted.[9] Even under a more conservative scenario of one-foot sea level rise, three of Monroe County's four medical facilities, 65 percent of Monroe's schools, and 71 percent of emergency shelters will be below sea level.[10] More than 81 miles of roadway from Miami-Dade through Palm Beach County would also be below sea level under the one-foot sea level rise scenario.[11]

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[1] The Florida coastline has an average elevation of approximately 15 to 20 feet above mean sea level (MSL) with barrier islands typically at elevation zero to five feet above MSL. The southern portion of the state (south of Lake Okeechobee) is typically lower than 15 feet MSL. U.S. Army Corps of Engineers, *South Atlantic Coastal Study: Florida Appendix*, 3-26 (2022), *available at* https://www.sad.usace.army.mil/Portals/60/siteimages/SACS/SACS_FL_Appendix_508_20220812.pdf?ver=XGRM8v-69_bdLAFPXEmlOg%3d%3d.

[2] Florida Office of Economic and Demographic Research (EDR), *Annual Assessment of Flooding and Sea Level Rise*, 2 (2023), *available at* http://edr.state.fl.us/Content/natural-resources/2023_AnnualAssessmentFloodingandSeaLevelRise_Chapter6.pdf.

[3] National Aeronautics and Space Administration (NASA), *The Effects of Climate Change*, https://climate.nasa.gov/effects/ (last visited Mar. 6, 2023).

[4] National Oceanic and Atmospheric Administration (NOAA) et al., *Global and Regional Sea Level Rise Scenarios for the U.S.*, (2022) *available at* https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report.html;

[5] NOAA, *Climate Change: Global Sea Level*, https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level (last visited Mar. 6, 2023).

[6] *Id.*

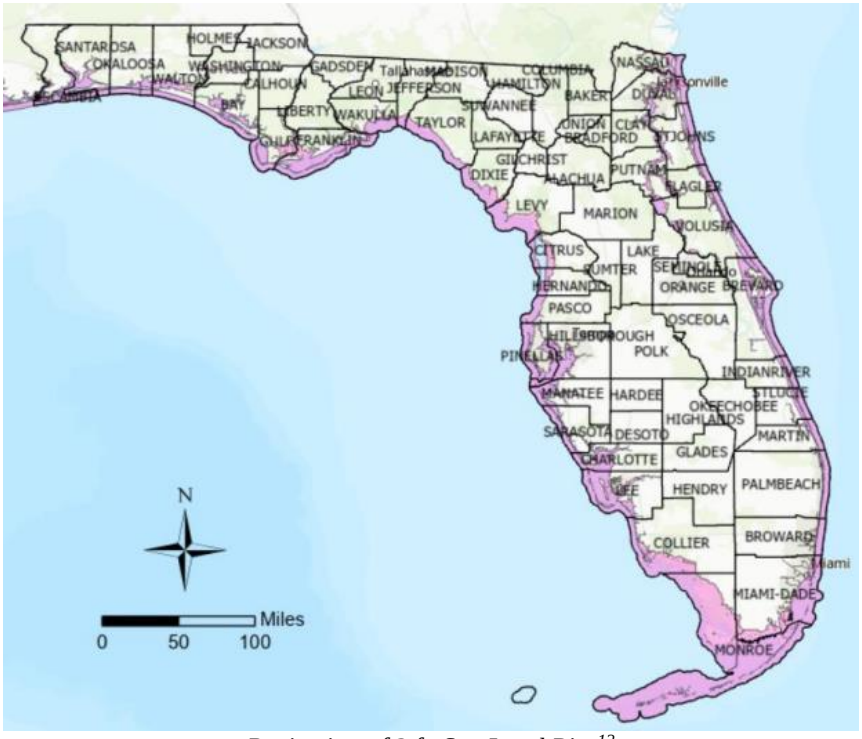
[7] EDR, *Annual Assessment of Flooding and Sea Level Rise* at 20; NOAA, *Global and Regional Sea Level Rise Scenarios for the U.S.*, (2022) *available at* https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report.html;

[8] EDR, *Annual Assessment of Flooding and Sea Level Rise* at 21.

[9] *Id.* at 21.

[10] *Id.* at 38.

[11] *Id.* at 39.



Projection of 2 ft. Sea Level Rise[12]

Over 5 million structures are estimated to be affected by flooding under a two-foot sea level rise scenario. The estimated value of these at-risk properties exceeds $576 billion.[13]

Analyses of medical facilities, schools, and fire stations located in the two-foot sea level rise impact area indicate that the actual number of structures that may be completely or partially inundated are few.[14] However, in low-lying areas, and especially on barrier islands, the submergence of the connecting routes to residential areas may greatly impact the continued use and occupation of these structures. In these cases, some neighborhoods may be disconnected from the services that this type of infrastructure provides. In addition, infrastructure on the barrier islands may be cut off from the mainland.[15]

Due to its porous geology, economic and property value, and the potential impact of various flooding hazards, southeast Florida is the area most at risk from sea level rise.[16] The effects of sea level rise are already apparent in this region and pose a threat to lives, livelihoods, economies, and the environment.[17] Physical impacts of sea level rise include coastal inundation and erosion, increased frequency of flooding in vulnerable coastal and inland areas due to

[12] *Id.* at 21.
[13] *Id.* at 24, 25.
[14] *Id.* at 27. For example, accessibility to 53 medical facilities in the coastal areas of Florida may be disrupted; eight school buildings may be partially or completely inundated; and at least seven fire stations in the coastal areas from Jacksonville to Apalachicola may be partially or completely inundated. *Id.* at 31.
[15] *Id.*
[16] EDR, *Annual Assessment of Flooding and Sea Level Rise* at 2.
[17] Sea Level Rise Ad Hoc Work Group, Southeast Florida Regional Climate Change Compact (SFRCCC), *Unified Sea Level Rise Projection: Southeast Florida*, 5 (2019), *available at* https://southeastfloridaclimatecompact.org/wp-content/uploads/2020/04/Sea-Level-Rise-Projection-Guidance-Report_FINAL_02212020.pdf.

impairment of the region's largely gravity-driven stormwater infrastructure system, reduced soil infiltration capacity, and saltwater intrusion of drinking-water supply. Moreover, the impacts of surge from tropical storms or hurricanes are exacerbated by sea level rise. Increased pollution and contamination from flooding degrades natural resources critical to the region's economy. Sea level rise can also result in displacement, decrease in property values and tax base, increases in insurance costs, loss of services, and impairment of infrastructure such as roads and septic systems.[18]

Sea Level Rise Projections

Entities from the international to the local level use scientific data and modeling to create projections of future sea level rise for planning and decision-making. The National Oceanic and Atmospheric Administration (NOAA) operates tide gauges along the nation's coasts and satellites that measure changes in sea level. In 2017 and 2022, NOAA published sea level rise projections for the U.S.[19] NOAA's projections include observation-based extrapolations and five scenarios ranging from "low" to "high."[20] Interactive maps have been developed to depict local conditions under each NOAA scenario.[21]

Resilience and Nature-Based Solutions

Resilience is the ability of a community to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions.[22] Resilience planning includes preparing for hazard events, risk mitigation, and post-event recovery and should be proactive, continuous, and integrated into other community goals and plans.[23]

Nature-based solutions (NBSs) are an important part of resilience planning. NBSs use natural features and processes to combat climate change, reduce flood risks, improve water quality, protect coastal property, restore and protect wetlands, and stabilize shorelines.[24] Examples of NBSs include:

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[18] Sea Level Rise Ad Hoc Work Group, Southeast Florida Regional Climate Change Compact (SFRCCC), *Unified Sea Level Rise Projection: Southeast Florida*, 5 (2019), *available at* https://southeastfloridaclimatecompact.org/wp-content/uploads/2020/04/Sea-Level-Rise-Projection-Guidance-Report_FINAL_02212020.pdf.

[19] NOAA, *Global and Regional Sea Level Rise Scenarios for the United States*, (2017), *available at* https://tidesandcurrents.noaa.gov/publications/techrpt83_Global_and_Regional_SLR_Scenarios_for_the_US_final.pdf; NOAA, *Global and Regional Sea Level Rise Scenarios for the United States*, (2022), *available at* https://aambpublicoceanservice.blob.core.windows.net/oceanserviceprod/hazards/sealevelrise/noaa-nos-techrpt01-global-regional-SLR-scenarios-US.pdf.

[20] NOAA, *Global and Regional Sea Level Rise Scenarios for the United States*, 15 (2022). The 2017 projections also included an "extreme" scenario, which has been removed from the 2022 report. *See* NOAA, *Global and Regional Sea Level Rise Scenarios for the United States*, 23 (2017).

[21] University of Florida, *Florida Sea Level Scenario Sketch Planning Tool*, https://sls.geoplan.ufl.edu/viewer/ (last visited Mar. 9, 2023).

[22] Federal Emergency Management Agency (FEMA), *National Risk Index: Community Resilience*, https://hazards.fema.gov/nri/community-resilience (last visited Mar. 8, 2023).

[23] National Institute of Standards and Technology, U.S. Dep't of Commerce, *Community Resilience Planning Guide for Buildings and Infrastructure Systems*, 1 (2016), *available at* https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1190v1.pdf.

[24] FEMA, *FEMA Resources for Climate Resilience*, 5 (2021), *available at* https://www.fema.gov/sites/default/files/documents/fema_resources-climate-resilience.pdf.

- Living shorelines, which stabilize a shore by combining living components, such as plants, with structural elements, such as rock or sand. Living shorelines can slow waves, reduce erosion, and protect coastal property.
- Oyster reefs. Oysters are often referred to as "ecosystem engineers" because of their tendency to attach to hard surfaces and create large reefs made of thousands of individuals. In addition to offering shelter and food to coastal species, oyster reefs buffer coasts from waves and filter surrounding waters.
- Dunes, which often have dune grasses or other vegetation and serve as a barrier between the water's edge and inland areas.[25]

Statewide Resilience Programs

The Florida Legislature has established several statewide resilience programs, including the Resilient Florida Grant Program, the Comprehensive Statewide Flood Vulnerability and Sea Level Rise Data Set, and the Statewide Flooding and Sea Level Rise Resilience Plan.

The Resilient Florida Grant Program provides grants to counties or municipalities for community resilience planning, including vulnerability assessments, plan development, and projects to adapt critical assets.[26] In the programs first two years, 263 implementation projects have been awarded a total of nearly $954 million.[27] Vulnerability assessments funded through this program must encompass the entire county or municipality; use the most recent publicly available Digital Elevation Model and dynamic modeling techniques, if available; and analyze the vulnerability of and risks to critical assets,[28] including regionally significant assets.[29] In addition, vulnerability assessments must include, where applicable:

- Peril of flood comprehensive plan amendments that address the requirements of s. 163.3178(2)(f), F.S.,[30] if the county or municipality is subject to, but has not complied with, such requirements;
- The depth of tidal flooding, current and future storm surge flooding, rainfall-induced flooding (including for a 100-year and 500-year storm), and compound flooding or the combination of tidal, storm surge, and rainfall-induced flooding; and
- The following scenarios and standards:

[25] FEMA, *Types of Nature-Based Solutions*, https://www.fema.gov/emergency-managers/risk-management/nature-based-solutions/types (last visited Mar. 8, 2023).
[26] Section 380.093(2)(a), F.S. "Critical asset" is defined to include broad lists of assets relating to transportation, critical infrastructure, emergency facilities, natural resources, and historical and cultural resources.
[27] This figure includes $270 million of state funding for the Statewide Flooding and Sea Level Resilience Plan. DEP, *Presentation to the Florida Senate Committee on Environment and Natural Resources* (Feb. 23, 2023), *available at* https://www.flsenate.gov/Committees/Show/SSHR/MeetingPacket/5700/10150_MeetingPacket_5700_2.23.23.pdf.
[28] Critical assets include transportation assets and evacuation routes (airports, bridges, bus terminals, major roadways, etc.), critical infrastructure (wastewater and stormwater treatment facilities, drinking water facilities, solid and hazardous waste facilities, etc.), critical community and emergency facilities (schools, correctional facilities, fire stations, hospitals, etc.), and natural, cultural, and historical resources (conservation lands, parks, shorelines, wetlands, etc.). Section 380.093(2)(a), F.S.
[29] Section 380.093(3)(c), F.S. Regionally significant assets are critical assets that support the needs of communities spanning multiple geopolitical jurisdictions. Section 380.093(2)(d), F.S.
[30] This section provides that, in communities abutting the Gulf of Mexico or Atlantic Ocean or other coastal areas defined by statute, a local government's comprehensive plan must include a coastal management element. Sections 163.3178(2) and 163.3177(6)(g), F.S. This element must contain a redevelopment component that outlines the principles that must be used to eliminate inappropriate and unsafe development in the coastal areas when opportunities arise. Section 163.3178(2)(f), F.S.

- All analyses in the North American Vertical Datum of 1988;[31]
- At least two local sea level rise scenarios, which must include the 2017 NOAA intermediate-low and intermediate-high sea level rise projections;
- At least two planning horizons that include planning horizons for the years 2040 and 2070; and
- Local sea level data that has been interpolated between the two closest NOAA tide gauges.[32]

The Comprehensive Statewide Flood Vulnerability and Sea Level Rise Data Set and Assessment will provide information necessary to determine the risks to inland and coastal communities.[33] By July 1, 2023, DEP must develop a data set providing statewide sea level rise projections and information necessary to determine the risks of flooding and sea level rise to inland and coastal communities. By July 1, 2024, DEP must develop a statewide assessment (using the statewide data set) identifying vulnerable infrastructure, geographic areas, and communities. The statewide assessment must include an inventory of critical assets and be updated every five years.[34]

The Statewide Flooding and Sea Level Rise Resilience Plan consists of ranked projects that address risks of flooding and sea level rise to coastal and inland communities.[35] Examples of projects include construction of living shorelines, seawalls, and pump stations, elevation projects, and infrastructure hardening.[36] Counties, municipalities, water management districts, regional water supply authorities, and other entities may submit to DEP an annual list of proposed projects. Each project must have a minimum 50 percent cost share, unless the project assists or is within a financially disadvantaged community.[37] DEP ranks the projects using a four-tier scoring system.[38] DEP has adopted rules to implement s. 380.093, F.S., relating to the Statewide Flooding and Sea Level Rise Resilience Plan and project submittal requirements. These rules can be found in Chapter 62S-8 of the Florida Administrative Code.[39] In December 2022, DEP submitted the FY 23-24 Statewide Flooding and Sea Level Rise Resilience Plan totaling nearly $408 million over the next three years.[40]

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[31] A vertical datum is a surface of zero elevation to which heights of various points are referenced. Traditionally, vertical datums have used classical survey methods to measure height differences (i.e. geodetic leveling) to best fit the surface of the earth. The current vertical datum for the contiguous United States and Alaska is the North American Vertical Datum of 1988. NOAA, *National Geodetic Survey: Vertical Datums*, https://www.ngs.noaa.gov/datums/vertical/#:~:text=TABLE%201%3A%20Current%20Vertical%20Datums%20for%20United%20States,%20%202002-present%20%201%20more%20rows%20 (last visited Mar. 9, 2023).

[32] Section 380.093(3)(d)

[33] Section 380.093(4), F.S.; DEP, *Resilient Florida Program – Statewide Assessment*, https://floridadep.gov/rcp/resilient-florida-program/content/resilient-florida-program-statewide-assessment (last visited Mar. 9, 2023).

[34] *Id. See also* DEP, *Resilient Florida Program – Statewide Assessment*, https://floridadep.gov/rcp/resilient-florida-program/content/resilient-florida-program-statewide-assessment (last visited Mar. 7, 2023).

[35] Section 380.093(5), F.S.

[36] DEP, *2022-2023 Statewide Flooding and Sea Level Rise Resilience Plan*, *available at* https://floridadep.gov/sites/default/files/FY22.23%20Statewide%20Flooding%20and%20Sea%20Level%20Rise%20Resilience%20Plan_0.pdf.

[37] Section 380.093(5)(e), F.S. A financially disadvantaged small community is a municipality with a population of 10,000 or fewer, or a county with a population of 50,000 or fewer, where the per capita annual income is less than the state's per capita annual income. *Id.*

[38] Section 380.093(5)(h), F.S.

[39] Fla. Admin. Code Chapter 62S-8, *available at* https://floridadep.gov/sites/default/files/Final%20Rule%20Language_0.pdf.

[40] DEP and Florida Statewide Office of Resilience, *2022 Flood Resilience and Mitigation Efforts Across Florida*, 9, *available at*

DEP may also provide funding for regional resilience entities to assist local governments with planning for the resilience needs of communities and coordinating intergovernmental solutions to mitigate adverse impacts of flooding and sea level rise.[41] To date, $4 million has been appropriated to regional resilience entities.[42]

In 2022, the Statewide Office of Resilience was created within the Executive Office of the Governor for the purpose of reviewing all flood resilience and mitigation activities in the state and coordinating flood resilience and mitigation efforts with federal, state, and local governmental entities and other stakeholders. The office's Chief Resilience Officer and DEP worked together to provide the Governor and Legislature with a report on flood resilience and mitigation efforts across Florida. The report includes:

- A list of local governments that are required to comply with the requirements of s. 163.3178(2)(f), F.S.,[43] but are not in compliance, as reported by the Department of Economic Opportunity;
- A list of local governments that have completed vulnerability assessments in compliance with the requirements of the Resilient Florida grant program in s. 380.093(3), F.S.;[44]
- An overview of the geographic distribution of entities with funded projects in the Statewide Flooding and Sea Level Rise Resilience Plan;[45] and
- A statewide inventory of basin-level flooding assessments and other related basin-level planning efforts self-reported by water management districts or special districts authorized to submit projects pursuant to s. 380.093(5), F.S.[46]

Florida Flood Hub for Applied Research and Innovation

The Florida Flood Hub for Applied Research and Innovation was established within the University of South Florida College of Marine Science to coordinate efforts between the academic and research institutions of the state.[47] The Florida Flood Hub is tasked with, among other things, organizing existing data needs for a comprehensive statewide flood vulnerability and sea level rise analysis and performing gap analyses to determine data needs; developing

https://floridadep.gov/sites/default/files/2022%20Flood%20Resilience%20and%20Mitigation%20Efforts%20Report%20Only_0.pdf

[41] Section 380.093(6), F.S.

[42] DEP, *Presentation to the Florida Senate Committee on Environment and Natural Resources*, 18 (Feb. 23, 2023), *available at* https://www.flsenate.gov/Committees/Show/SSHR/MeetingPacket/5700/10150_MeetingPacket_5700_2.23.23.pdf.

[43] Section 163.3178(2)(f), F.S., requires local coastal governments to include a redevelopment component within their comprehensive plans' coastal management element, which outlines the principles that must be used to eliminate inappropriate and unsafe development in the coastal areas when opportunities arise. *See* DEP and Florida Statewide Office of Resilience, *2022 Flood Resilience and Mitigation Efforts Across Florida*, 2, *available at* https://floridadep.gov/sites/default/files/2022%20Flood%20Resilience%20and%20Mitigation%20Efforts%20Report%20Only_0.pdf; Letter from Department of Economic Opportunity to DEP, 1-2 (Nov. 9, 2022), *available at* https://floridadep.gov/DEO_PoF_Letter2022.

[44] DEP and Florida Statewide Office of Resilience, *2022 Flood Resilience and Mitigation Efforts Across Florida*, 3, *available at* https://floridadep.gov/sites/default/files/2022%20Flood%20Resilience%20and%20Mitigation%20Efforts%20Report%20Only_0.pdf

[45] *Id.* at 7-9.

[46] *Id.* at 10-12.

[47] Section 380.0933(1), F.S.

statewide open source hydrologic models for physically based flood frequency estimation and real-time forecasting of flood; establishing community-based programs to improve flood monitoring and prediction along major waterways; and providing tidal and storm surge flooding data to counties and municipalities for vulnerability assessments.[48]

Sea Level Impact Projection (SLIP) Studies

SLIP studies analyze the potential impact of sea level rise and other coastal hazards on state-funded coastal construction projects.[49] These studies are critical to understanding the safety and economic impacts of sea level rise and coastal flooding.[50]

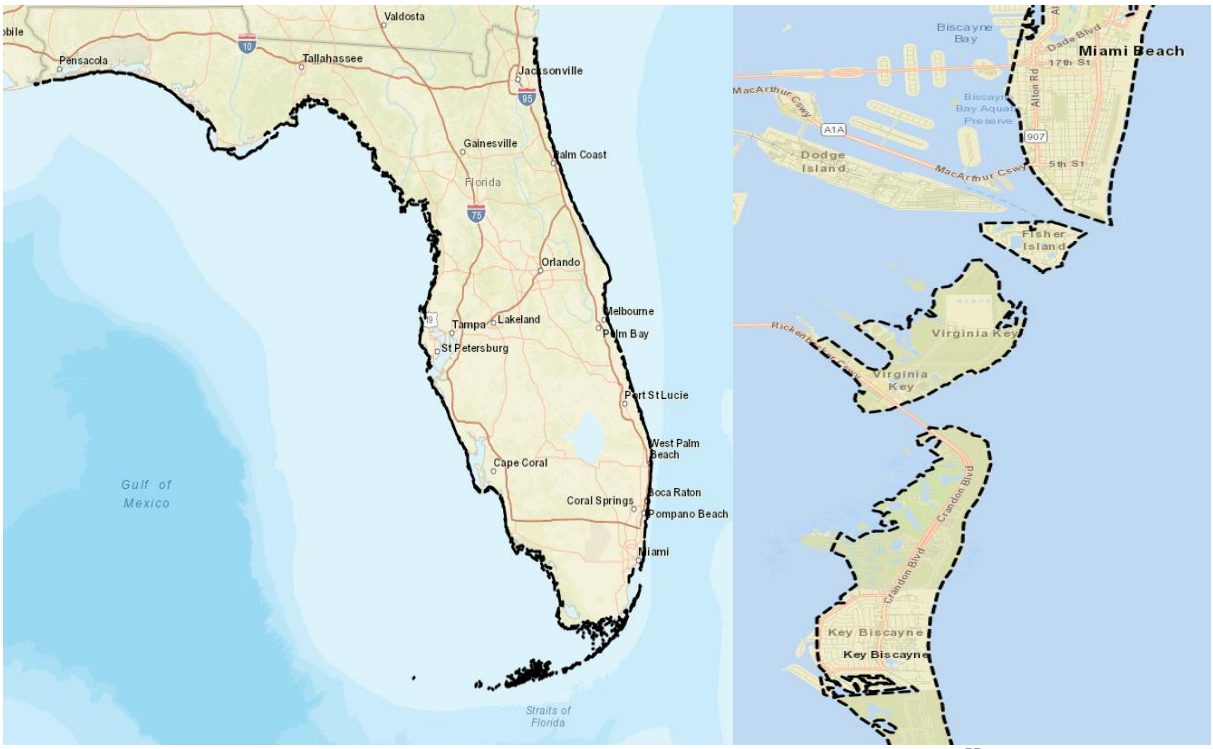
State-financed constructors[51] must conduct a SLIP study before commencing construction of a new coastal structure within the coastal building zone.[52] Coastal structures include major structures and nonhabitable major structures:

- Major structure means houses, mobile homes, apartment buildings, condominiums, motels, hotels, restaurants, towers, other types of residential, commercial, or public buildings, and other construction having the potential for substantial impact on coastal zones.[53]
- Nonhabitable major structure means swimming pools; parking garages; pipelines; piers; canals, lakes, ditches, drainage structures, and other water retention structures; water and sewage treatment plants; electrical power plants, and all related structures or facilities, transmission lines, distribution lines, transformer pads, vaults, and substations; roads, bridges, streets, and highways; and underground storage tanks.

SLIP studies are only required within the coastal building zone. The coastal building zone includes:

- The land area from the seasonal high-water line landward to a line 1,500 feet landward from the coastal construction control line (CCCL) as established pursuant to s. 161.053, F.S., and, for those coastal areas fronting on the Gulf of Mexico, Atlantic Ocean, Florida Bay, or Straits of Florida and not included under s. 161.053, F.S., the land area seaward of the most landward velocity zone (V-zone) line as established by the Federal Emergency Management Agency and shown on flood insurance rate maps;
- On coastal barrier islands, it includes the land area from the seasonal high-water line to a line 5,000 feet landward from the CCCL or the entire island, whichever is less; and
- All land area in the Florida Keys located within Monroe County.[54]

[48] Section 380.0933(2) and (3), F.S.
[49] DEP, *Slip Studies*, https://floridadep-slip.org/AboutSLIPStudies.aspx (last visited Mar. 6, 2023).
[50] *Id.*
[51] "State-financed constructor" is defined as a public entity that commissions or manages a construction project using funds appropriated from the state. Section 161.551(1)(d), F.S.
[52] Section 161.551, F.S.; Fla. Admin. Code R. 62S-7.011(1).
[53] Section 161.54(6)(a), F.S.
[54] Fla. Admin. Code R. 62S-7.010; section 161.54(1), F.S.



Coastal Building Zone for Florida and parts of Miami-Dade County[55]

At a minimum, a SLIP study must include:[56]

- A systematic, interdisciplinary, and scientifically accepted approach in the natural sciences and construction design in conducting the study;
- Alternatives for the coastal structure's design and siting, including discussion of how such alternatives would affect the potential public safety and environmental impacts assessed in the study, as well as the risks and costs associated with maintaining, repairing, and constructing the coastal structure; and
- An assessment of the flooding, inundation, and wave action damage risks relating to the coastal structure over its expected life or 50 years, whichever is less. This assessment must:
  - Take into account potential sea-level rise and increased storm risk during the expected life of the coastal structure or 50 years, whichever is less;
  - Provide scientific and engineering evidence of the risk to the coastal structure and methods used to mitigate, adapt to, or reduce this risk;
  - Use available scientific research and generally accepted industry practices;
  - Provide the mean average annual chance of substantial flood damage over the expected life of the coastal structure or 50 years, whichever is less; and
  - Analyze potential public safety and environmental impacts resulting from damage to the coastal structure including, but not limited to, leakage of pollutants, electrocution and explosion hazards, and hazards resulting from floating or flying structural debris.[57]

[55] DEP, *SLIP Tool*, https://floridadep-slip.org/Map.aspx (last visited Mar. 9, 2023).
[56] Section 161.551(3), F.S.
[57] Section 161.551(3), F.S.

"Substantial flood damage" as used in this section means flood, inundation, or wave action damage resulting from a single event, such as a flood or tropical weather system, where such damage exceeds 25 percent of the market value of the coastal structure at the time of the event.[58]

The SLIP study must be submitted to DEP and published on DEP's website before construction can commence.[59] If a state-financed constructor begins construction of a coastal structure without first submitting a SLIP study, DEP is authorized to institute a civil action for injunctive relief to cease further construction of the coastal structure and recovery of all or a portion of state funds expended on the coastal structure.[60] DEP is required to maintain a copy of all SLIP studies on its website for 10 years.[61]

DEP has adopted Chapter 62S-7 of the Florida Administrative Code, which implements s. 161.551, F.S., and provides for the requirements for state-financed constructors, SLIP study standards, and the implementation and enforcement of SLIP study requirements. These rules went into effect July 1, 2022. In addition, DEP created a SLIP Study Tool that provides an interactive map with information on coastal flooding spatial data and details on current SLIP studies.[62]

III. Effect of Proposed Changes:

Section 1 authorizes the Department of Environmental Protection (DEP) to provide Resilient Florida Program grants to counties or municipalities for feasibility studies and the cost of permitting for innovative measures that reduce the impact of flooding and sea level rise and focus on nature-based solutions. The bill provides that water management districts are eligible to receive grants under the Resilient Florida Program for the purpose of supporting the Florida Flood Hub for Applied Research and Innovation and DEP through data creation and collection, modeling, and the implementation of statewide standards.

Section 2 substantially revises the existing sea level impact projection (SLIP) study requirements under s. 161.551, F.S. The bill redesignates the statute from s. 161.551, F.S., in the chapter of law dealing with beach and shore preservation to s. 380.0937, F.S., in the chapter of law addressing land and water management.

The bill substantially expands the geographical area where SLIP studies are required and changes the types of structures that this requirement applies to. Currently, a SLIP study must be conducted before a state-financed constructor begins construction of a new coastal structure within the coastal building zone. The bill amends this requirement by providing that, beginning July 1, 2024, a SLIP study must be conducted before a state-financed constructor begins construction of a certain critical assets (called "potentially at-risk structure or infrastructure") in an "area at risk due to sea level rise."

[58] Section 161.551(1)(e), F.S.
[59] Section 161.551(6)(a), F.S.
[60] Section 161.551(4), F.S.
[61] Section 161.551(6)(a), F.S.
[62] DEP, *SLIP Studies*, https://floridadep-slip.org/AboutSLIPStudies.aspx (last visited Mar. 8, 2023); DEP, *SLIP Map*, https://floridadep-slip.org/Map.aspx (last visited Mar. 8, 2023).

The bill defines "area at risk due to sea level rise" as any location projected to be below the threshold for tidal flooding within the next 50 years by adding sea level rise using the highest of the sea level rise projections required under s. 380.093(3)(d)3.b., F.S.[63] For the purposes of this definition, the threshold for tidal flooding is two feet above the mean higher high water.[64] The bill defines "potentially at-risk structure or infrastructure" to mean certain types of critical assets when those assets are within an area at risk due to sea level rise. The types of critical assets for which a slip study would be required include:

- Transportation assets and evacuation routes, including airports, bridges, bus terminals, ports, major roadways, marinas, rail facilities, and railroad bridges;
- Critical infrastructure, including wastewater treatment facilities and lift stations, stormwater treatment facilities and pump stations, drinking water facilities, water utility conveyance systems, electric production and supply facilities, solid and hazardous waste facilities, military installations, communications facilities, and disaster debris management sites;
- Critical community and emergency facilities, including schools, colleges, universities, community centers, correctional facilities, disaster recovery centers, emergency medical service facilities, emergency operation centers, fire stations, health care facilities, hospitals, law enforcement facilities, local government facilities, logistical staging areas, affordable public housing, risk shelter inventory, and state government facilities; and
- Historical or cultural assets.

The bill will require DEP to update its SLIP rules. The bill retains existing rule requirements with the following changes. The bill:

- Replaces the phrase "mean average annual change of substantial flood damage" with "estimated probability of significant flood damage" in the context of the assessment; and
- Adds a requirement that the state-financed constructor provide a list of flood mitigation strategies evaluated as part of the design of the potentially at-risk structure or infrastructure and identify appropriate flood mitigation strategies for consideration as part of the potentially at-risk structure or infrastructure design.

The bill revises the definition of "substantial flood damage" to "significant flood damage." The bill adds the term erosion as a type of damage covered in the definition and clarifies that the damage can result from a "discrete or compound natural hazard event" rather than a single event. Under the bill, the damage must exceed:

- Twenty-five percent of the "replacement cost" (existing law uses market value) of the potentially at-risk structure or infrastructure at the time of the event; or
- A defined threshold established by DEP, in coordination with the Department of Transportation and water management districts, for a potentially at-risk structure or infrastructure for which replacement cost is not an appropriate metric, such as roadways. The threshold must be established by July 1, 2024.

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[63] This section requires vulnerability assessments to provide at least two local sea level rise scenarios, which must include the 2017 National Oceanic and Atmospheric Administration (NOAA) intermediate-low and intermediate-high sea level rise projections. Section 380.093(3)(d)3.b., F.S.

[64] Higher high water means the higher of the two high waters of a tidal day where the tide is of the semidiurnal or mixed type. NOAA, *NOAA Shoreline: Glossary*, https://shoreline.noaa.gov/glossary.html#partg (last visited Mar. 9, 2023). An area has a semidiurnal tidal cycle if it experiences two high and two low tides of approximately equal size every lunar day. Many areas on the eastern coast of North America experience these tidal cycles. NOAA, *Tides and Water Levels*, https://oceanservice.noaa.gov/education/tutorial_tides/tides07_cycles.html (last visited Mar. 9, 2023).

Section 3 provides an effective date of July 1, 2023.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

The Department of Environmental Protection may incur costs to develop rules regarding when a state-financed constructor must conduct a sea level impact projection (SLIP) study. State-financed constructors may also incur costs to conduct additional SLIP studies.

VI. Technical Deficiencies:

None.

VII. Related Issues:

It is unclear what would happen with the existing SLIP study program between the effective date of the bill and July 1, 2024. It is likely that the program would need to be suspended as the rules would no longer be consistent with the Florida Statutes.

VIII. Statutes Affected:

This bill substantially amends section 380.093 of the Florida Statutes.

This bill repeals section 161.551 of the Florida Statutes and replaces it with a new section 380.0937 of the Florida Statutes.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.

By Senator Calatayud

38-00767A-23 20231170__

A bill to be entitled

An act relating to flooding and sea level rise vulnerability studies; amending s. 380.093, F.S.; revising the purposes for which the Department of Environmental Protection may provide grants under the Resilient Florida Grant Program to counties or municipalities; authorizing the department to provide such grants to water management districts for a specified purpose; providing for the prioritization of such grants; transferring, renumbering, and amending s. 161.551, F.S.; defining and redefining terms; requiring state-financed constructors to take specified actions before commencing construction of potentially at-risk structures or infrastructure beginning on a specified date; revising requirements for the sea level impact projection study standard the department is required to develop by rule; conforming provisions to changes made by the act; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Paragraph (b) of subsection (3) of section 380.093, Florida Statutes, is amended to read:

380.093 Resilient Florida Grant Program; comprehensive statewide flood vulnerability and sea level rise data set and assessment; Statewide Flooding and Sea Level Rise Resilience Plan; regional resilience entities.—

(3) RESILIENT FLORIDA GRANT PROGRAM.—

(b) Subject to appropriation, the department may provide grants to all of the following entities:

1. A county or municipality to fund:

a.~~1.~~ The costs of community resilience planning and necessary data collection for such planning, including comprehensive plan amendments and necessary corresponding analyses that address the requirements of s. 163.3178(2)(f).

b.~~2.~~ Vulnerability assessments that identify or address risks of inland or coastal flooding and sea level rise.

c.~~3.~~ The development of projects, plans, and policies that allow communities to prepare for threats from flooding and sea level rise.

d.~~4.~~ Preconstruction activities for projects to be submitted for inclusion in the Statewide Flooding and Sea Level Rise Resilience Plan that are located in a municipality that has a population of 10,000 or fewer or a county that has a population of 50,000 or fewer, according to the most recent April 1 population estimates posted on the Office of Economic and Demographic Research's website.

e. Feasibility studies and the cost of permitting for innovative measures that reduce the impact of flooding and sea level rise and focus on nature-based solutions.

2. In support of local government adaptation planning, a water management district as identified in s. 373.069, either directly or through contracted services. Such grants must be used for the express purpose of supporting the Florida Flood Hub for Applied Research and Innovation and the department in implementing this section through data creation and collection, modeling, and the implementation of statewide standards.

Priority must be given to filling critical data gaps identified by the Florida Flood Hub for Applied Research and Innovation under s. 380.0933(2)(a).

Section 2. Section 161.551, Florida Statutes, is transferred, renumbered as section 380.0937, Florida Statutes, and amended to read:

380.0937 ~~161.551~~ Public financing of construction projects within areas at risk due to sea level rise ~~the coastal building zone~~.—

(1) As used in this section, the term:

(a) "Area at risk due to sea level rise" means any location projected to be below the threshold for tidal flooding within the next 50 years by adding sea level rise using the highest of the sea level rise projections required by s. 380.093(3)(d)3.b. For purposes of this paragraph, the threshold for tidal flooding is 2 feet above mean higher high water.

(b) "Department" means the Department of Environmental Protection.

(c) ~~(a)~~ "Potentially at-risk ~~Coastal~~ structure or infrastructure" means any of the following when within an area at risk due to sea level rise:

1. A critical asset as defined in s. 380.093(2)(a)1., 2., or 3.

2. A historical or cultural asset ~~a major structure or nonhabitable major structure within the coastal building zone~~.

(d) ~~(b)~~ "Public entity" means the state or any of its political subdivisions, or any municipality, county, agency, special district, authority, or other public body corporate of the state which is demonstrated to perform a public function or

to serve a governmental purpose that could properly be performed or served by an appropriate governmental unit.

(f) ~~(c)~~ "SLIP study" means a sea level impact projection study as established by the department pursuant to subsection (3).

(g) ~~(d)~~ "State-financed constructor" means a public entity that commissions or manages a construction project using funds appropriated from the state.

(e) "Significant ~~Substantial~~ flood damage" means flood, erosion, inundation, or wave action damage resulting from a discrete or compound natural hazard ~~single~~ event, such as a flood or tropical weather system, where such damage exceeds:

1. Twenty-five ~~25~~ percent of the replacement cost ~~market value~~ of the potentially at-risk ~~coastal~~ structure or infrastructure at the time of the event; or

2. A defined threshold established by the department by rule, in coordination with the Department of Transportation and water management districts, for a potentially at-risk structure or infrastructure for which replacement cost is not an appropriate metric, such as roadways. The threshold must be established by July 1, 2024.

(2) Beginning July 1, 2024 ~~1 year after the date the rule developed by the department pursuant to subsection (3) is finalized and is otherwise in effect~~, a state-financed constructor may not commence construction of a potentially at-risk ~~coastal~~ structure or infrastructure without:

(a) Conducting a SLIP study that meets the requirements established by the department;

(b) Submitting the study to the department; and

(c) Receiving notification from the department that the study was received and that it has been published on the department's website pursuant to paragraph (6)(a) for at least 30 days. The state-financed constructor is solely responsible for ensuring that the study submitted to the department for publication meets the requirements under subsection (3).

(3) The department shall develop by rule a standard by which a state-financed constructor must conduct a SLIP study and may require that a professional engineer sign off on the study. The rule ~~must be effective 1 year after the date it is finalized and~~ applies only to projects not yet commenced as of the date the rule is finalized. The rule may not apply retroactively to projects that commenced before the date the rule is finalized. At a minimum, the standard must require that a state-financed constructor do all of the following:

(a) Use a systematic, interdisciplinary, and scientifically accepted approach in the natural sciences and construction design in conducting the study.

(b) Assess the flooding, inundation, and wave action damage risks relating to the potentially at-risk ~~coastal~~ structure or infrastructure over its expected life or 50 years, whichever is less.

1. The assessment must take into account potential relative local sea level ~~sea-level~~ rise and increased storm risk during the expected life of the potentially at-risk ~~coastal~~ structure or infrastructure or 50 years, whichever is less, and, to the extent possible, account for the contribution of sea level ~~sea-level~~ rise versus land subsidence to the relative local sea level ~~sea-level~~ rise.

2. The assessment must provide scientific and engineering evidence of the risk to the potentially at-risk ~~coastal~~ structure or infrastructure and methods used to mitigate, adapt to, or reduce this risk.

3. The assessment must use and consider available scientific research and generally accepted industry practices.

4. The assessment must provide an estimated probability of significant ~~the mean average annual chance of substantial~~ flood damage to the potentially at-risk structure or infrastructure over the expected life of the ~~coastal~~ structure or infrastructure or 50 years, whichever is less.

5. The assessment must analyze potential public safety and environmental impacts resulting from damage to the potentially at-risk ~~coastal~~ structure or infrastructure, including, but not limited to, leakage of pollutants, electrocution and explosion hazards, and hazards resulting from floating or flying structural debris.

(c) Provide alternatives for the ~~coastal structure's~~ design and siting of the potentially at-risk structure or infrastructure~~,~~ and analyze how such alternatives would impact the risks specified in subparagraph (b)5. as well as the risk and cost associated with maintaining, repairing, and constructing the potentially at-risk ~~coastal~~ structure or infrastructure.

(d) Provide a list of flood mitigation strategies evaluated as part of the design of the potentially at-risk structure or infrastructure and identify appropriate flood mitigation strategies for consideration as part of the potentially at-risk structure or infrastructure design.

If multiple potentially at-risk ~~coastal~~ structures or infrastructure are to be built concurrently within one project, a state-financed constructor may conduct and submit one SLIP study for the entire project for publication by the department.

(4) If a state-financed constructor commences construction of a potentially at-risk ~~coastal~~ structure or infrastructure but has not complied with the SLIP study requirement under subsection (2), the department may institute a civil action in a court of competent jurisdiction to:

(a) Seek injunctive relief to cease further construction of the potentially at-risk ~~coastal~~ structure or infrastructure or to enforce compliance with this section or with rules adopted by the department pursuant to this section.

(b) If the potentially at-risk ~~coastal~~ structure or infrastructure has been completed or has been substantially completed, seek recovery of all or a portion of state funds expended on the potentially at-risk ~~coastal~~ structure or infrastructure.

(5) This section does not ~~may not be construed to~~ create a cause of action for damages or otherwise authorize the imposition of penalties by a public entity for failure to implement what is contained in the SLIP study.

(6) The department:

(a) Shall publish and maintain a copy of each SLIP study ~~all SLIP studies~~ submitted pursuant to this section on its website for at least 10 years after the date the department receives the study ~~receipt~~. However, any portion of a study containing information that is exempt from s. 119.07(1) and s.

24(a), Art. I of the State Constitution must be redacted by the department before publication.

(b) Shall adopt rules as necessary to administer this section.

(7) The department may enforce the requirements of this section.

Section 3. This act shall take effect July 1, 2023.

THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

COMMITTEES:
Governmental Oversight and Accountability, *Vice Chair*
Appropriations
Appropriations Committee on Agriculture, Environment, and General Government
Appropriations Committee on Transportation, Tourism, and Economic Development
Criminal Justice
Environment and Natural Resources
Ethics and Elections

SELECT COMMITTEE:
Select Committee on Resiliency

SENATOR TINA SCOTT POLSKY
30th District

February 24, 2023

Chair Ana Maria Rodriguez
Committee on Environment and Natural Resources
325 Knott Building
404 S. Monroe Street
Tallahassee, FL 32399-1100

Chair Rodriguez,

I respectfully request that you place SB 734, relating to Saltwater Intrusion Vulnerability Assessments, on the agenda of the Committee on Environment and Natural Resources, at your earliest convenience.

Should you have any questions or concerns, please feel free to contact me or my office. Thank you in advance for your consideration.

Kindest Regards,

Senator Tina S. Polsky
Florida Senate, District 30

cc: Ellen Rogers, Staff Director
Kim Bonn, Administrative Assistant

REPLY TO:
❒ 5301 North Federal Highway, Suite 135, Boca Raton, Florida 33487 (561) 443-8170
❒ 220 Senate Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5030

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KATHLEEN PASSIDOMO
President of the Senate

DENNIS BAXLEY
President Pro Tempore

The Florida Senate

APPEARANCE RECORD

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3/14/22
Meeting Date

SB 1170, 734, 736
Bill Number or Topic

Sen Envir & Natural resources
Committee

Amendment Barcode (if applicable)

Name MAYOR Betty Resch

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LAKE WORTH Beach
City State Zip

Speaking: ☑ For ☐ Against ☐ Information **OR** Waive Speaking: ☐ In Support ☐ Against

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This form is part of the public record for this meeting.

S-001 (08/10/2021)

The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Environment and Natural Resources

BILL:	SB 734
INTRODUCER:	Senator Polsky
SUBJECT:	Saltwater Intrusion Vulnerability Assessments
DATE:	March 13, 2023
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Barriero	Rogers	EN	**Favorable**
2.			AEG	
3.			AP	

I. Summary:

SB 734 amends the Resilient Florida Grant Program to authorize the Department of Environmental Protection (DEP) to provide grants to coastal counties to conduct vulnerability assessments analyzing the effects of saltwater intrusion on their water supplies and the counties' preparedness to respond to such threats, including water utility infrastructure, wellfield protection, and freshwater supply management. Each vulnerability assessment must include:

- The county's primary water utilities;
- Maps of the county's freshwater wellfields and latest saltwater intrusion impact lines;
- Projections of saltwater intrusion over the next decade; and
- An analysis of the costs necessary to relocate freshwater wellfields anticipated to be impacted.

The bill requires DEP to use the information from counties' saltwater intrusion vulnerability assessments to update the Comprehensive Statewide Flood Vulnerability and Sea Level Rise Data Set. DEP must also make any appropriate information from the vulnerability assessments available to the public on its website.

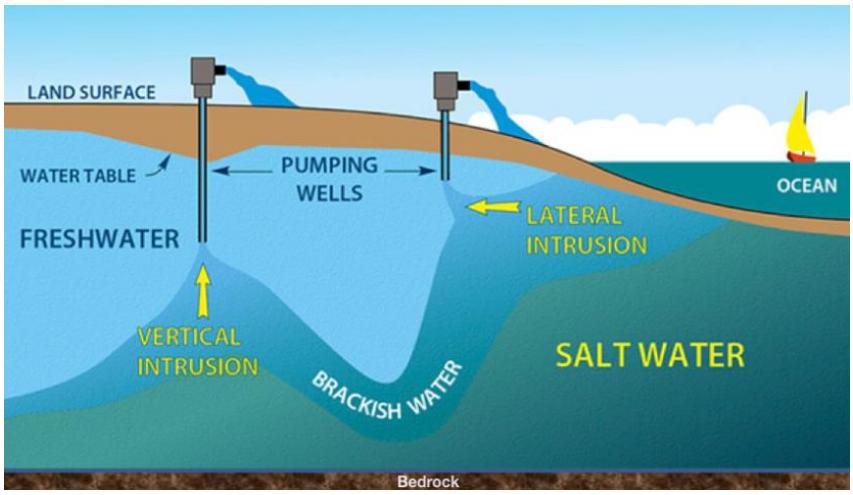
The bill requires DEP to provide 50 percent cost-share funding, up to $250,000, for each grant awarded. A county with a population of 50,000 or less is not required to contribute to the cost share.

II. Present Situation:

Saltwater Intrusion

Drinking water in Florida comes primarily from water found within underground layers of water-bearing rock or sand called aquifers.[1] Aquifers are composed of different types of sediments and rocks, such as gravel, sandstone, and limestone.[2] Groundwater enters an aquifer as precipitation seeps through the soil and can move through the aquifer and resurface through springs and wells.[3] Fresh and salt water fill the holes in the rock, with freshwater generally filling the uppermost part of aquifers and saltwater found at greater depths.[4] Where aquifer layers meet the ocean (referred to as the freshwater/saltwater interface),[5] there is the risk of saltwater moving inland and polluting the freshwater aquifers.[6]

Under natural conditions, the seaward movement of freshwater prevents seawater from encroaching coastal aquifers.[7] An interface between freshwater and seawater is maintained with denser seawater underlying freshwater. When groundwater is pumped from a coastal aquifer, lowered water levels can cause seawater to be drawn toward the freshwater zones of the aquifer. The intruding seawater decreases the freshwater storage in the aquifers. Without treatment, this groundwater does not conform to drinking water or agricultural water quality standards.[8]



[1] *See* South Florida Water Management District (SFWMD), *Saltwater Intrusion in Coastal Aquifers*, https://storymaps.arcgis.com/stories/3731671833e34567b783e9b881a8b36e (last visited Mar. 6, 2023); *see also* St. Johns River Water Management District (SJRWMD), *Florida's Aquifers,* https://www.sjrwmd.com/water-supply/aquifer/ (last visited Mar. 6, 2023).
[2] National Geographic, *Aquifers*, https://education.nationalgeographic.org/resource/aquifers/ (last visited Mar. 6, 2023).
[3] *Id.*
[4] SJRWMD, *Florida's Aquifers,* https://www.sjrwmd.com/water-supply/aquifer/ (last visited Mar. 6, 2023).
[5] *Id.*
[6] SFWMD, *Saltwater Intrusion in Coastal Aquifers*, https://storymaps.arcgis.com/stories/3731671833e34567b783e9b881a8b36e (last visited Mar. 6, 2023).
[7] U.S. Geological Survey (USGS), *Sustainable Groundwater: Seawater Intrusion*, https://ca.water.usgs.gov/sustainable-groundwater-management/seawater-intrusion-california.html (last visited Mar. 6, 2023).
[8] USGS, *Sustainable Groundwater: Seawater Intrusion*, https://ca.water.usgs.gov/sustainable-groundwater-management/seawater-intrusion-california.html (last visited Mar. 6, 2023). Brett A. Buzzanga, Old Dominion University, *Precipitation and Sea Level Rise Impacts on Groundwater Levels in Virginia Beach, Virginia*, 12 (Fall 2017), *available at* https://www.researchgate.net/publication/328225012_Precipitation_and_Sea_Level_Rise_Impacts_on_Groundwater_Levels_in_Virginia_Beach_Virginia/download.

Saltwater intrusion can occur in various ways, including lateral encroachment from coastal waters and vertical movement of saltwater near discharging wells.[9] It can be caused by drilling wells too deep, excessive groundwater pumping, sea level rise, severe drought, and other factors.[10] Sources include infiltration from tidal marshes, estuaries, and bays, encroachment from the ocean, leakage from unprotected canals, upward leakage from deeper aquifers, and movement of residual saltwater.[11] Rising sea levels also push saltwater upstream in tidal rivers and streams, raise coastal ground water tables, and push saltwater further inland.[12]

Saltwater intrusion is problematic for several reasons. For example, potable water is necessary for drinking, irrigation, and most industrial uses.[13] When an aquifer is contaminated by saltwater, it must either be treated to remove the salt—a costly process—or another source of freshwater must be found.[14] Public water supply utilities may shut down a well if it becomes too salty.[15] Utilities with wellfields near the freshwater/saltwater interface that do not have an inland wellfield, have not developed alternative water supply sources, and have limited ability during a drought to meet user needs through interconnects with other utilities are considered more vulnerable.[16]

Saltwater intrusion can also cause flooding.[17] Because saltwater is denser than freshwater, an aquifer can become stratified with a layer of freshwater on top of a layer of denser saltwater below. When sea level rise acts upon an aquifer like this, it can cause the freshwater layer to rise in response. This can cause flooding as the top of the water, called the water table, gets closer to ground surface.[18]

In addition, saltwater intrusion can cause a decline in forest and agricultural productivity. Saltwater degrades coastal wetlands and barrier islands, which buffer inland areas from storm surge, by killing less salt-tolerant species and leaving behind "ghost forests" or wetland areas

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[9] USGS, *Saltwater Intrusion*, https://www.usgs.gov/mission-areas/water-resources/science/saltwater-intrusion (last visited Mar. 6, 2023).
[10] University of Pennsylvania, The Water Center, *Salt Intrusion: A Threat to Source Water Quality*, https://watercenter.sas.upenn.edu/salt-intrusion-a-threat-to-source-water-quality/ (last visited Mar. 6, 2023); USGS, *Saltwater Intrusion*, https://www.usgs.gov/mission-areas/water-resources/science/saltwater-intrusion (last visited Mar. 6, 2023); SJRWMD, *Florida's Aquifers,* https://www.sjrwmd.com/water-supply/aquifer/ (last visited Mar. 6, 2023).
[11] SFWMD, *Saltwater Intrusion in Coastal Aquifers*, https://storymaps.arcgis.com/stories/3731671833e34567b783e9b881a8b36e (last visited Mar. 6, 2023).
[12] Dep't of Emergency Management, *Enhanced State Hazard Mitigation Plan*, 107-108 (2018), *available at* https://www.floridadisaster.org/globalassets/dem/mitigation/mitigate-fl--shmp/shmp-2018-full_final_approved.6.11.2018.pdf.
[13] *Id.; see also* Scott Jasechko et al., *Groundwater Level Observations in 250,000 Coastal US Wells Reveal Scope of Potential Seawater Intrusion*, 11 NATURE COMMUNICATIONS 3229 (2020), *available at* https://www.nature.com/articles/s41467-020-17038-2.
[14] SFWMD, *Saltwater Intrusion in Coastal Aquifers*, https://storymaps.arcgis.com/stories/3731671833e34567b783e9b881a8b36e (last visited Mar. 6, 2023).
[15] *Id.;* USGS, *Saltwater Intrusion*, https://www.usgs.gov/mission-areas/water-resources/science/saltwater-intrusion (last visited Mar. 6, 2023).
[16] SFWMD, *Saltwater Intrusion in Coastal Aquifers*, https://storymaps.arcgis.com/stories/3731671833e34567b783e9b881a8b36e (last visited Mar. 6, 2023).
[17] *Id.*
[18] *Id.*

with only standing dead trees.[19] Over time, saltwater intrusion, along with rising sea levels, convert these diverse wetland ecosystems into grass marshes and eventually into open water. The loss in forest and agricultural productivity due to increased soil salinity results in decreased ecosystem diversity and habitat for birds, fish, and the animals that prey on them.[20]

Coastal counties with the following characteristics are particularly susceptible to lateral saltwater intrusion:[21]

- Proximity to the ocean, inlets, and lagoons;
- A large number of coastal wellfields;
- Low land surface elevations (less than 10 feet above mean sea level);
- Drainage canals that lower the water table, reducing the water pressure exerted against the saltwater interface;
- Canals without coastal water control structures to inhibit inland movement of seawater;
- Rising sea levels.[22]

Several assessments have been prepared regarding the impact of sea level rise on water resources. For example, the South Florida Water Management District has evaluated saltwater intrusion in the surficial aquifer system of the Big Cypress Basin and southwest Florida[23] and mapped the saltwater interface in coastal aquifers within St. Lucie, Martin, Palm Beach, Broward, Collier, and Lee counties.[24] The U.S. Geological Survey conducts saltwater interface mapping for Miami-Dade and Monroe counties.[25] At least one evaluation of Florida's saltwater intrusion monitoring network has been performed.[26] The Northwest Florida Water Management District has commissioned a report evaluating saltwater intrusion in the Floridan Aquifer in Walton, Okaloosa, and Santa Rosa counties.[27]

Statewide Resilience Programs

The Legislature has established several statewide resilience programs, including:

- The Resilient Florida Grant Program, which provides grants to counties or municipalities for community resilience planning, including vulnerability assessments, plan development, and

[19] U.S. Dep't of Agriculture, Climate Hubs, *Saltwater Intrusion*, https://www.climatehubs.usda.gov/taxonomy/term/399 (last visited Mar. 6, 2023).
[20] *Id.*
[21] *See* SFWMD, *Saltwater Intrusion in Coastal Aquifers*, https://storymaps.arcgis.com/stories/3731671833e34567b783e9b881a8b36e (last visited Mar. 6, 2023).
[22] *Id.*
[23] USGS, *Saltwater Intrusion in the Surficial Aquifer System of the Big Cypress Basin, Southwest Florida, and a Proposed Plan for Improved Salinity Monitoring: U.S. Geological Survey Open-File Report 2013-1088* (2013), *available at* http://pubs.usgs.gov/of/2013/1088/ (last visited Mar. 6, 2023).
[24] SFWMD, *Saltwater Interface Monitoring and Mapping Program, Technical Publication WS-58*, 1 (2020), *available at* https://www.sfwmd.gov/sites/default/files/documents/ws-58_swi_mapping_report_final.pdf (last visited Mar. 6, 2023).
[25] *Id.*
[26] Scott T. Prinos, *Saltwater Intrusion Monitoring in Florida*, 79 FLORIDA SCIENTIST 4, 269 (Fall 2016), *available at* https://www.jstor.org/stable/44113190.
[27] HydroGeoLogic, Inc., *Saltwater Intrusion in the Floridan Aquifer in Walton, Okaloosa and Santa Rosa Counties, Florida, Eastern Model Domain, Final Report* (Sept. 2007), *available at* https://nwfwater.com/content/download/19030/127812/2007_09_HGL_R2_ED_model_final.pdf (Mar. 6, 2023).

projects to adapt critical assets.[28] In the programs first two years, 263 implementation projects have been awarded a total of nearly $954 million.[29]

- The Comprehensive Statewide Flood Vulnerability and Sea Level Rise Data Set and Assessment.[30] By July 1, 2023, DEP must develop a data set providing statewide sea level rise projections and information necessary to determine the risks of flooding and sea level rise to inland and coastal communities. By July 1, 2024, DEP must develop a statewide assessment (using the statewide data set) identifying vulnerable infrastructure, geographic areas, and communities. The statewide assessment must include an inventory of critical assets and be updated every five years.[31]
- The Statewide Flooding and Sea Level Rise Resilience Plan, which consists of ranked projects that address risks of flooding and sea level rise to coastal and inland communities.[32] Examples of projects include construction of living shorelines, seawalls, and pump stations, elevation projects, and infrastructure hardening.[33] Counties, municipalities, water management districts, regional water supply authorities, and other entities may submit to DEP an annual list of proposed projects. Each project must have a minimum 50 percent cost share, unless the project assists or is within a financially disadvantaged community.[34] DEP ranks the projects using a four-tier scoring system.[35] DEP has adopted rules to implement s. 380.093, F.S., relating to the Statewide Flooding and Sea Level Rise Resilience Plan and project submittal requirements. These rules can be found in chapter 62S-8 of the Florida Administrative Code.[36] In December 2022, DEP submitted the FY 23-24 Statewide Flooding and Sea Level Rise Resilience Plan totaling nearly $408 million over the next three years.[37]
- The Florida Flood Hub for Applied Research and Innovation,[38] which was established within the University of South Florida College of Marine Science to coordinate efforts between the academic and research institutions of the state.[39] The Florida Flood Hub is tasked with, among other things, organizing existing data needs for comprehensive statewide flood

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[28] Section 380.093(2)(a), F.S. "Critical asset" is defined to include broad lists of assets relating to transportation, critical infrastructure, emergency facilities, natural resources, and historical and cultural resources.
[29] This figure includes $270 million of state funding for the Statewide Flooding and Sea Level Resilience Plan. DEP, *Presentation to the Florida Senate Committee on Environment and Natural Resources* (Feb. 23, 2023), *available at* https://www.flsenate.gov/Committees/Show/SSHR/MeetingPacket/5700/10150_MeetingPacket_5700_2.23.23.pdf.
[30] Section 380.093(4), F.S.
[31] *Id. See also* DEP, *Resilient Florida Program – Statewide Assessment*, https://floridadep.gov/rcp/resilient-florida-program/content/resilient-florida-program-statewide-assessment (last visited Mar. 7, 2023).
[32] Section 380.093(5), F.S.
[33] DEP, *2022-2023 Statewide Flooding and Sea Level Rise Resilience Plan*, *available at* https://floridadep.gov/sites/default/files/FY22.23%20Statewide%20Flooding%20and%20Sea%20Level%20Rise%20Resilience%20Plan_0.pdf.
[34] Section 380.093(5)(e), F.S. A financially disadvantaged small community is a municipality with a population of 10,000 or fewer, or a county with a population of 50,000 or fewer, where the per capita annual income is less than the state's per capita annual income. *Id.*
[35] Section 380.093(5)(h), F.S.
[36] Fla. Admin. Code Chapter 62S-8, *available at* https://floridadep.gov/sites/default/files/Final%20Rule%20Language_0.pdf.
[37] DEP and Florida Statewide Office of Resilience, *2022 Flood Resilience and Mitigation Efforts Across Florida*, 9, *available at* https://floridadep.gov/sites/default/files/2022%20Flood%20Resilience%20and%20Mitigation%20Efforts%20Report%20Only_0.pdf
[38] See University of South Florida College of Marine Science, *Florida Flood Hub for Applied Research and Innovation: Overview*, https://www.usf.edu/marine-science/research/florida-flood-hub-for-applied-research-and-innovation/ (last visited Mar. 7, 2023).
[39] Section 380.0933(1), F.S.

vulnerability and sea level rise analyses and performing gap analyses to determine data needs; developing statewide open source hydrologic models for physically based flood frequency estimation and real-time forecasting of flood; establishing community-based programs to improve flood monitoring and prediction along major waterways; and providing tidal and storm surge flooding data to counties and municipalities for vulnerability assessments.[40]

DEP may also provide funding for regional resilience entities to assist local governments with planning for the resilience needs of communities and coordinating intergovernmental solutions to mitigate adverse impacts of flooding and sea level rise.[41] To date, $4 million has been appropriated to regional resilience entities.[42]

In 2022, the Statewide Office of Resilience was created within the Executive Office of the Governor for the purpose of reviewing all flood resilience and mitigation activities in the state and coordinating flood resilience and mitigation efforts with federal, state, and local governmental entities and other stakeholders. The office's Chief Resilience Officer and DEP worked together to provide the Governor and Legislature with a report on flood resilience and mitigation efforts across Florida. The report includes:

- A list of local governments that are required to comply with the requirements of s. 163.3178(2)(f), F.S.,[43] but are not in compliance, as reported by the Department of Economic Opportunity;
- A list of local governments that have completed vulnerability assessments in compliance with the requirements of the Resilient Florida grant program in s. 380.093(3), F.S.;[44]
- An overview of the geographic distribution of entities with funded projects in the Statewide Flooding and Sea Level Rise Resilience Plan;[45] and
- A statewide inventory of basin-level flooding assessments and other related basin-level planning efforts self-reported by water management districts or special districts authorized to submit projects pursuant to s. 380.093(5), F.S.[46]

[40] Section 380.0933(2) and (3), F.S.
[41] Section 380.093(6), F.S.
[42] DEP, *Presentation to the Florida Senate Committee on Environment and Natural Resources*, 18 (Feb. 23, 2023), *available at* https://www.flsenate.gov/Committees/Show/SSHR/MeetingPacket/5700/10150_MeetingPacket_5700_2.23.23.pdf.
[43] Section 163.3178(2)(f), F.S., requires local coastal governments to include a redevelopment component within their comprehensive plans' coastal management element, which outlines the principles that must be used to eliminate inappropriate and unsafe development in the coastal areas when opportunities arise. *See* DEP and Florida Statewide Office of Resilience, *2022 Flood Resilience and Mitigation Efforts Across Florida*, 2, *available at* https://floridadep.gov/sites/default/files/2022%20Flood%20Resilience%20and%20Mitigation%20Efforts%20Report%20Only_0.pdf; Letter from Department of Economic Opportunity to DEP, 1-2 (Nov. 9, 2022), *available at* https://floridadep.gov/DEO_PoF_Letter2022.
[44] DEP and Florida Statewide Office of Resilience, *2022 Flood Resilience and Mitigation Efforts Across Florida*, 3, *available at* https://floridadep.gov/sites/default/files/2022%20Flood%20Resilience%20and%20Mitigation%20Efforts%20Report%20Only_0.pdf
[45] *Id.* at 7-9.
[46] *Id.* at 10-12.

Coastal Counties

Florida has 35 coastal counties.[47]

The following seven coastal counties have populations less than 50,000 as of April 2022:[48]

- Gulf (15,938)
- Franklin (12,729)
- Wakulla (35,169)
- Jefferson (14,923)
- Taylor (21,375)
- Dixie (16,988)
- Levy (44,288)

III. Effect of Proposed Changes:

Section 1 amends the Resilient Florida Grant Program, s. 380.093, F.S., to authorize the Department of Environmental Protection (DEP), beginning July 1, 2024, to provide grants to coastal counties to conduct vulnerability assessments analyzing the effects of saltwater intrusion on their water supplies and preparedness to respond to such threats, including water utility infrastructure, wellfield protection, and freshwater supply management.

[47] DEP, *Map of Florida's Coastal Counties*, https://floridadep.gov/rcp/fcmp/documents/map-floridas-coastal-counties and https://floridadep.gov/sites/default/files/CPI-coastal-Florida-map.pdf (last visited Mar. 6, 2023).
[48] Office of Economic and Demographic Research, *Florida Population Estimates by County and Municipality as of April 1, 2022*, *available at* http://edr.state.fl.us/Content/population-demographics/data/2022_Pop_Estimates.pdf (last visited Mar. 6, 2023).

Each vulnerability assessment must include all of the following information:

- The county's primary water utilities;
- Current maps of the county's freshwater wellfields and latest saltwater intrusion impact lines;
- Projections of saltwater intrusion over the next decade, including specific wells that may be impacted during that timeframe; and
- An analysis of the costs necessary to relocate freshwater wellfields that are anticipated to be impacted, including current projects that are underway to relocate the freshwater wellfields.

The bill requires DEP to use the information from the vulnerability assessments to update its Comprehensive Statewide Flood Vulnerability and Sea Level Rise Data Set. DEP must also make any appropriate information from the assessment available to the public on its website.

The bill also requires DEP to provide 50 percent cost-share funding, up to $250,000, for each grant awarded under this section of the Resilient Florida Grant Program. A county with a population of 50,000 or less is not required to contribute to the cost share.

Section 2 provides that the act will take effect upon becoming a law.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

The Department of Environmental Protection (DEP) may incur costs related to updating its comprehensive statewide flood vulnerability and sea level rise data set with the information provided by counties in their saltwater intrusion vulnerability assessments. DEP may also incur costs related to making such information available to the public on its website.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends s. 380.093 of the Florida Statutes.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.

By Senator Polsky

30-00018-23 2023734__

A bill to be entitled

An act relating to saltwater intrusion vulnerability assessments; amending s. 380.093, F.S.; authorizing the Department of Environmental Protection to provide grants to coastal counties for saltwater intrusion vulnerability assessments; specifying the purpose of and requirements for the assessments; requiring the department to update the comprehensive statewide flood vulnerability and sea level rise data set and make certain information received from the saltwater intrusion vulnerability assessments available on its website; requiring the department to provide cost-share funding up to a specified amount for awarded grants; specifying that certain counties are not required to contribute to the cost-share funding; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Paragraph (b) of subsection (3) of section 380.093, Florida Statutes, is amended, and paragraph (e) is added to that subsection, to read:

380.093 Resilient Florida Grant Program; comprehensive statewide flood vulnerability and sea level rise data set and assessment; Statewide Flooding and Sea Level Rise Resilience Plan; regional resilience entities.—

(3) RESILIENT FLORIDA GRANT PROGRAM.—

(b) Subject to appropriation, the department may provide grants to a county or municipality to fund:

1. The costs of community resilience planning and necessary data collection for such planning, including comprehensive plan amendments and necessary corresponding analyses that address the requirements of s. 163.3178(2)(f).

2. Vulnerability assessments that identify or address risks of inland or coastal flooding and sea level rise.

3. The development of projects, plans, and policies that allow communities to prepare for threats from flooding and sea level rise.

4. Preconstruction activities for projects to be submitted for inclusion in the Statewide Flooding and Sea Level Rise Resilience Plan which ~~that~~ are located in a municipality that has a population of 10,000 or less ~~fewer~~ or a county that has a population of 50,000 or less ~~fewer~~, according to the most recent April 1 population estimates posted on the Office of Economic and Demographic Research's website.

5. For coastal counties, saltwater intrusion vulnerability assessments pursuant to paragraph (e).

(e) Under the Resilient Florida Grant Program, beginning July 1, 2024, the department may provide grants to coastal counties to conduct vulnerability assessments analyzing the effects of saltwater intrusion on a county's water supply and the preparedness of the county to respond to such a threat, including water utility infrastructure, wellfield protection, and freshwater supply management.

1. Each saltwater vulnerability assessment must include all of the following information:

a. The county's primary water utilities.

b. Current maps of the county's freshwater wellfields and

latest saltwater intrusion impact lines.

c. Projections of saltwater intrusion over the next decade, including specific wells that may be impacted during that timeframe.

d. An analysis of the costs necessary to relocate freshwater wellfields anticipated to be impacted, including current projects that are underway to relocate the freshwater wellfields.

2. The department shall use the information contained in the county's vulnerability assessment to update its comprehensive statewide flood vulnerability and sea level rise data set under subsection (4).

3. The department shall make available to the public, on the department's website, any appropriate information from the vulnerability assessment it receives from coastal counties pursuant to this paragraph.

4. The department shall provide 50 percent cost-share funding, up to $250,000, for each grant awarded under this paragraph. A county with a population of 50,000 or less is not required to contribute to the cost share.

Section 2. This act shall take effect upon becoming a law.

The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

DUPLICATE

03/13/2023
Meeting Date

Environment and Natur
Committee

SB 1072
Bill Number or Topic

Amendment Barcode (if applicable)

Name Michael Rubin

Phone 850-443-0722

Address 502 East Jefferson Street
Street

Email mike.rubin@flaports.org

Tallahassee FL 32301
City *State* *Zip*

Speaking: ☐ For ☑ Against ☐ Information **OR** Waive Speaking: ☐ In Support ☐ Against

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While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. 2020-2022JointRules.pdf (flsenate.gov)

This form is part of the public record for this meeting.

S-001 (08/10/2021)

The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Environment and Natural Resources

BILL:	CS/SB 1072
INTRODUCER:	Environment and Natural Resources Committee and Senator Rodriguez
SUBJECT:	Deepwater Port Dredging
DATE:	March 14, 2023 REVISED:

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Carroll	Rogers	EN	**Fav/CS**
2.			CA	
3.			RC	

Please see Section IX. for Additional Information:

COMMITTEE SUBSTITUTE - Substantial Changes

I. Summary:

CS/SB 1072 provides that, as a condition of a permit issued for beach restoration projects or maintenance dredging of deepwater ports, the Department of Environmental Protection (DEP) must require that any analysis to determine the adverse impacts of the activity on the natural habitat be conducted by an independent contractor selected by the local government in a manner prescribed by DEP.

The bill provides that the independent contractor for the analysis may not be associated with any project of the contractor performing the activity for the local government. The bill directs the local government to provide written notice of its intent to conduct an analysis to adjacent local governments that may be impacted by the activity.

II. Present Situation:

Florida's Deepwater Ports

Florida is a top maritime trade state and is home to the world's leading cruise ports.[1] There are 16 deepwater ports, or seaports, in Florida: Port Canaveral, Port Citrus, Port Everglades, the Port of Fernandina, The Port of Fort Pierce, Jaxport, the Port of Key West, Port Manatee, Port Miami, the Port of Palm Beach, Port Putnam, Port Panama City, the Port of Pensacola, the Port of Port

[1] Florida Seaport Transportation and Economic Development Council (FSTED Council), *2022-2023 Seaport Mission Plan*, 2 (2022), *available at* https://flaports.org/wp-content/uploads/Florida-Seaports-Mission-Plan-2023_FINAL-2-27_web.pdf

St. Joe, the Port of St. Petersburg, and the Port of Tampa Bay.[2] In 2022, 10 of these deepwater ports handled cargo, and eight handled passenger movements by cruise ship, ferry, and/or day-cruise vessel.[3] In total, the ports handled a record 112.5 million tons of cargo.[4] According to the Florida Seaport Transportation and Economic Development council, the ports contribute approximately $117.6 billion to the state's economy, or 13.3 percent of Florida' gross domestic product, and directly or indirectly support approximately 900,000 jobs in the state.[5]

Dredging

Dredging is the removal of material from the bottom of lakes, rivers, harbors and other water bodies. Most dredging is done to maintain or deepen navigation channels, anchorages or berthing areas for the safe passage of boats and ships. The disposal of dredged sediment is regulated under the Clean Water Act (CWA),[6] the Marine Protection, Research, and Sanctuaries Act (MPRSA or Ocean Dumping Act),[7] and Florida Environmental Resource Permit (ERP) program.[8]

DEP's Beaches, Inlets, and Ports Program (BIPP) processes ERPs for navigational dredging of deepwater ports.[9] The ERP review ensures that such construction 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).[10] According to DEP, maintenance dredging is generally authorized as part of the original ERP. A separate maintenance permit is rarely required.

Beach Restoration

Florida has 825 miles of sandy coastline fronting the Atlantic Ocean, the Gulf of Mexico, and the Straits of Florida.[11] Beaches are one of Florida's most valuable natural resources and are vital to maintaining the health of the state's economy and environment. The Florida Beach and Shore Preservation Act provides three interrelated programs that DEP administers to protect the state's sandy beaches: the Coastal Construction Control Line Program, the Beach Management Funding Assistance Program, and BIPP.[12]

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[2] Section 311.09(1), F.S.; The Florida Department of Economic Opportunity (DEO), *Deepwater Ports*, https://floridajobs.org/community-planning-and-development/programs/community-planning-table-of-contents/deepwater-ports (last visited Mar. 9, 2023).
[3] FSTED Council, *2022-2023 Seaport Mission Plan* at 5.
[4] *Id.* at 25.
[5] *Id.* at 4.
[6] 33 U.S.C. §1251 et seq.
[7] 16 USC § 1431 et seq. and 33 USC §1401 et seq.
[8] *See* ss. 403.021(9), 403.061(27) and 403.816, F.S.
[9] DEP, *Beaches, Inlets and Ports Program*, https://floridadep.gov/rcp/beaches-inlets-ports (last visited Mar. 14, 2023).
[10] *Id.*
[11] DEP, *Beaches*, https://floridadep.gov/rcp/beaches (last visited Mar. 14, 2023).
[12] *Id.*; Sections 161.011-161.45, F.S.

Beach erosion is a statewide problem and beach restoration/nourishment projects are used to restore affected coastal habitat.[13] Beach restoration projects require a joint coastal permit through the BIPP. A joint coastal permit is a consolidation of coastal construction permits, ERPs, and sovereign submerged lands authorizations.[14] Projects that require a joint coastal permit include:

- Construction of erosion control structures;
- Public fishing piers;
- Maintenance of inlets and inlet-related structures; and
- Dredging navigation channels when dredged material will be disposed of onto the beach or in the nearshore area.[15]

III. Effect of Proposed Changes:

Section 1 amends s. 403.816, F.S., to provide that, as a condition of a permit issued for beach restoration projects or maintenance dredging of deepwater ports, the Department of Environmental Protection (DEP) must require that any analysis to determine the adverse impacts of the activity on the natural habitat be conducted by an independent contractor selected by the local government in a manner prescribed by DEP.

The bill provides that the independent contractor for the analysis may not be associated with any project of the contractor performing the activity for the local government. The bill directs the local government to provide written notice of its intent to conduct an analysis to adjacent local governments that may be impacted by the activity.

Section 2 provides an effective date of July 1, 2023.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

[13] DEP, *Beaches*.
[14] DEP, *Beaches, Inlets and Ports Program*.
[15] DEP, *Beaches*.

E. Other Constitutional Issues:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

None.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends section 403.816 of the Florida Statutes.

IX. Additional Information:

A. Committee Substitute – Statement of Substantial Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

CS by Environment and Natural Resources on March 14, 2023:

- Broadens the scope of the permit condition so that it applies to permits for maintenance dredging of deepwater ports and beach restoration projects.
- Directs the Department of Environmental Protection to require that any analysis to determine the adverse impacts of the permitted activity on the natural habitat be conducted by an independent contractor.
- Provides that this permit condition will not apply to permits issued before July 1, 2024.

B. Amendments:

None.

LEGISLATIVE ACTION

Senate	.	House
Comm: RCS	.	
03/14/2023	.	
	.	
	.	
	.	

The Committee on Environment and Natural Resources (Rodriguez) recommended the following:

Senate Amendment (with title amendment)

Delete everything after the enacting clause
and insert:

Section 1. Subsection (3) of section 403.816, Florida Statutes, is redesignated as subsection (4), and a new subsection (3) is added to that section, to read:

403.816 Permits for maintenance dredging of deepwater ports and beach restoration projects.—

(3) As a condition of a permit issued for a project


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pursuant to this section, the department shall require that any analysis to determine the adverse impacts of the activity on the natural habitat be conducted by an independent contractor selected by the local government in a manner prescribed by the department. The independent contractor for the analysis may not be associated with any project of the contractor performing the activity for the local government. The local government shall provide written notice of its intent to conduct an analysis to adjacent local governments that may be impacted by the activity. This subsection does not apply to permits issued before July 1, 2024.

Section 2. This act shall take effect July 1, 2023.

================ T I T L E A M E N D M E N T ================

And the title is amended as follows:

Delete everything before the enacting clause and insert:

A bill to be entitled

An act relating to dredging and beach restoration projects; amending s. 403.816, F.S.; directing the Department of Environmental Protection to require, as a condition of permits issued for certain dredging and beach restoration projects, that any adverse impact analysis conducted for the activity meet certain requirements; requiring a local government to provide notice of its intent to conduct an analysis to certain adjacent local governments; providing applicability; providing an effective date.

By Senator Rodriguez

40-01402-23 20231072__

A bill to be entitled

An act relating to deepwater port dredging; amending s. 403.816, F.S.; directing the Department of Environmental Protection to require a specified analysis as a condition of permits issued for maintenance dredging of deepwater ports; providing requirements for conducting the analysis; requiring a local government to provide notice of its intent to conduct such analysis to certain local governments; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Present subsection (3) of section 403.816, Florida Statutes, is redesignated as subsection (4), and a new subsection (3) is added to that section to read:

403.816 Permits for maintenance dredging of deepwater ports and beach restoration projects.—

(3) As a condition of a permit issued for maintenance dredging of deepwater ports pursuant to this section, the department shall require a habitat equivalency analysis to determine the adverse impacts of the dredging activity on the natural habitat. The analysis must be conducted by an independent contractor selected by the local government in a manner prescribed by the department. The independent contractor for the analysis may not be associated with any project of the contractor performing the dredging activity for the local government. The local government shall provide written notice of its intent to conduct a habitat equivalency analysis to adjacent

local governments that may be impacted by the dredging activity.

Section 2. This act shall take effect July 1, 2023.

Florida Fish and Wildlife Conservation Commission

Legislative Affairs Office • (850) 487-3795

620 South Meridian Street • Tallahassee, FL 32399-1600

Venomous reptiles are highly regulated in the state of Florida. The venomous reptile permit issued by The Florida Fish and Wildlife Conservation Commission (FWC) authorizes venomous reptiles for personal possession and exhibition based on the family of venomous reptiles the permittee is approved for and costs $100 dollars. FWC recognizes the following five families of venomous reptiles: Elapidae, Colubridae, Viperidae, Heloderma, and Hydrophiidae (sea snakes/kraits).

To qualify for a venomous reptile permit, a person must meet the application and experience requirements listed in Rule 68A-6.017, F.A.C. Applicants must be at least 18 years of age and must not have been convicted of:

- Any violation of venomous reptile, reptile of concern, conditional species, prohibited species, or captive wildlife regulations involving unsafe housing of wildlife or that could potentially endanger the public;
- Any violation involving the illegal commercialization of wildlife;
- Any violation involving cruelty to animals; **or**
- Any violation involving importation of wildlife within three (3) years of the date of application.

Additionally, applicants must demonstrate no less than one year of substantial practical experience (to consist of no less than 1,000 hours) in the care, feeding, handling and husbandry of the species or other species within the same biological family that are similar in characteristics and care to the species for which the permit is sought. Applicants must include a description of the specific experience acquired, the dates the experience was obtained and the specific location(s) where acquired. Applicants are also required to provide two references from individuals having firsthand knowledge of their stated experience. These references must be from persons licensed by FWC for venomous reptiles of the same family for which the applicant is seeking authorization or a representative of a professional organization or governmental institution which deals directly with venomous reptiles. Applicants may provide additional documentation which may include records of prior permits for the keeping of venomous reptiles, employment records, etc.[1]

Additionally, applicants must specify the location of the facility at which the venomous reptiles shall be maintained and, prior to issuance of the permit, the facility must be inspected and approved by FWC staff.

Additional permits are required for the importation of nonnative venomous reptiles and the sale of all venomous reptiles. Anyone wishing to sell venomous reptiles must obtain an Exhibition and/or Public Sale License (ESC). The ESC license costs $50. Furthermore, anyone exhibiting venomous reptiles must obtain a $10,000 bond per section 379.374, F.S.

[1] If the applicant is unable to document such experience, they may take a written exam. The applicant must score 80 percent on the written exam for the particular species or family and documentation of not less than 500 hours of substantial practical experience to substitute for the one year/1,000-hour requirement.

The Florida Senate

APPEARANCE RECORD

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3/14/23
Meeting Date

ENR
Committee

SB 1266 - Venomous Rep.
Bill Number or Topic

Amendment Barcode (if applicable)

Name Jess Melkun

Phone 850-363-9072

Address 620 S. Meridian
Street

Email jessica.melkun@myfwc.com

Tallahassee FL 32399
City State Zip

Speaking: ☐ For ☐ Against ☐ Information **OR** Waive Speaking: ☒ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without compensation or sponsorship.

☒ I am a registered lobbyist, representing:
FWC

☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. 2020-2022JointRules.pdf (flsenate.gov)

This form is part of the public record for this meeting.

S-001 (08/10/2021)

The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Environment and Natural Resources

BILL:	SB 1266
INTRODUCER:	Senator Rodriguez
SUBJECT:	Venomous Reptiles
DATE:	March 13, 2023
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Carroll	Rogers	EN	**Favorable**
2.			CJ	
3.			RC	

I. Summary:

SB 1266 revises the penalties for the release or escape of certain reptiles. The bill provides, by revision or addition, the following violations:

- A violation of the rules or orders of the Florida Fish and Wildlife Conservation Commission (FWC) that require housing of wildlife in a safe manner when the violation results in an escape of wildlife other than any venomous reptiles is a Level Two violation. If this results in the escape of any venomous reptiles that would be a Level Three violation;
- Knowingly releasing a nonnative reptile of concern or allowing a nonnative reptile of concern to escape through gross negligence is a Level Three violation;
- Knowingly releasing any venomous reptile or allowing any venomous reptile to escape through gross negligence a Level Four Violation;
- Knowingly purchasing, selling, attempting to sell, offering to sell, conspiring to sell, bartering, exchanging, trading, or importing for sale or use, any venomous reptile species without having first obtained a special permit or license from FWC is a Level Four violation.

II. Present Situation:

Fish and Wildlife Conservation Commission

The Florida Fish and Wildlife Conservation Commission (FWC) is responsible for regulating, managing, protecting, and conserving the state's fish and wildlife resources.[1] FWC is governed by a board of seven members who are appointed by the Governor and confirmed by the Florida Senate.[2] Under Article IV, Section 9 of the Florida Constitution, FWC has the authority to exercise the regulatory and executive powers of the state with respect to wild animal life, fresh water aquatic life, and marine life.

[1] FLA. CONST. art. IV, s. 9.
[2] *Id.*; *see also* s. 379.102(1), F.S.

Nonnative Reptiles in Florida

Many nonnative species in Florida do not cause problems in the state, however some can become invasive.[3] Invasive species are nonnative species that cause harm to the economy, environment, or human health.[4] In many cases, invasive species may threaten native species, biodiversity, ecosystem services, recreation, water resources, agricultural and forest production, cultural resources, economies and property values, public safety, and infrastructure.[5]

Nonnative reptiles in Florida include many species of crocodilians, turtles, snakes, geckos, iguanas and relatives, monitors, skinks and girdled lizards, and whiptails and wall lizards.[6] Scientists estimated in 2015 that there were at least 63 established species of nonnative reptiles and amphibians in Florida, including 48 species of lizards, 4 frogs, 5 turtles, 5 snakes, and 1 crocodilian.[7]

Early invasive reptiles in Florida included small-bodied lizards and frogs that were early-maturing insectivores and were strongly associated with people and disturbed habitats.[8] These were mostly introduced through cargo and included the Cuban tree frog, brown anole, northern curly-tailed lizard, and Mediterranean gecko. Newer invasive reptiles tend to be large-bodied lizards and snakes. They are relatively early-maturing prolific breeders, are predators of vertebrate prey, and they thrive in a wide range of habitats. These newer invasive reptiles were mostly introduced through the pet trade and include the Burmese python, black spiny-tailed iguana, Argentine black and white tegu, and Nile monitor.[9]

Native Venomous Reptiles in Florida

There are six venomous reptiles – all snakes – native to Florida.[10] These snakes are the pygmy rattlesnake, eastern diamondback rattlesnake, timber (or canebrake) rattlesnake, cottonmouth, copperhead, and eastern coral snake. Distributions of these snakes in Florida are as follows:

- Cottonmouths and eastern diamondback rattlesnakes are found throughout the state;
- Pygmy rattlesnakes are distributed throughout the state except for the Florida Keys;
- Eastern coral snakes are found throughout the state except for the southern Keys; and
- Timber rattlesnakes and copperheads are only found in parts of the Panhandle.[11]

[3] FWC, *Florida's Nonnative Fish and Wildlife*, https://myfwc.com/wildlifehabitats/nonnatives/ (last visited Mar. 9, 2023).
[4] U.S. Forest Service, *Invasive Species*, https://www.fs.usda.gov/managing-land/invasive-species (last visited Mar. 9, 2023).
[5] *Id.*
[6] FWC, *Nonnative Reptiles*, https://myfwc.com/wildlifehabitats/nonnatives/reptiles/ (last visited Mar. 9, 2023).
[7] Frank Mazzotti and Rebecca Harvey, The University of Florida's Institute of Flood and Agricultural Sciences (IFAS), *The Invasion of Exotic Reptiles and Amphibians in Florida*, https://edis.ifas.ufl.edu/publication/UW365 (last visited Mar. 9, 2023).
[8] *Id.*
[9] *Id.*
[10] University of Florida, Institute of Food and Agricultural Sciences, *Dealing with Snakes*, https://ufwildlife.ifas.ufl.edu/venomous_snake_identification.shtml (last visited Mar. 11, 2023).
[11] *Id.*

Florida Regulations of Captive Reptiles

Under Florida statute, no person may capture, keep, possess, or exhibit any poisonous or venomous reptile or reptile of concern without first having obtained a special permit or license from FWC.[12] It is unlawful for any person, whether licensed or not, to capture, keep, possess, or exhibit any venomous reptile or reptile of concern in any manner not approved as safe, secure, and proper. FWC may inspect venomous reptiles or reptiles of concern that are held in captivity to determine whether they are safely and properly penned. If they are not safely and properly penned, the situation must be corrected within 30 days or the violator risks license or permit revocation.

The Florida statutes prohibits keeping, possessing, importing into the state, selling, bartering, trading, or breeding the following species except for educational, research, eradication, or control purposes:

- Burmese or Indian python (*Python molurus*),
- Reticulated python (*Python reticulatus*),
- Northern African python (*Python sebae*),
- Southern African python (*Python natalensis*),
- Amethystine or scrub python (*Morelia amethystinus*),
- Green Anaconda (*Eunectes murinus*),
- Nile monitor (*Varanus niloticus*),
- Green iguana (*Iguana iguana*),
- Tegu lizard (any species of the genera *Salvator* or *Tupinambis*), and
- Any other reptile FWC designates as a conditional or prohibited species.[13]

A person who holds a permit issued before July 1, 2010 to legally possess one of the species listed above may possess such reptile for the remainder of its life.[14] If the reptile outlives the person, the reptile may be legally transferred to another entity holding a permit authorizing possession of the reptile for the remainder of its life.[15]

If FWC designates a species of reptile as a conditional or prohibited species after July 1, 2010, FWC may authorize the personal possession of that newly designated species by those licensed to possess it before the effective date of the species' designation.[16]

Currently, FWC does not list reptiles of concern, and former reptiles of concern have been listed as prohibited species since April 29, 2021.[17] The conditional nonnative species list only contains one reptile, the red-eared slider (*Trachemys scripta elegans*).[18]

[12] Section 379.372(1), F.S.
[13] Section 379.372(2), F.S.
[14] *Id.*
[15] *Id.*
[16] *Id.*
[17] FWC, *Reptiles of Concern*, https://myfwc.com/license/captive-wildlife/reptiles-of-concern/ (last visited Mar. 9, 2023).
[18] FWC, *Conditional Nonnative Species List*, https://myfwc.com/wildlifehabitats/nonnatives/conditional-species-list/ (last visited Mar. 9, 2023).

Venomous Reptile Permit

The venomous reptile permit issued by FWC authorizes personal possession and exhibition of the venomous reptile family for which the permittee is approved.[19] The permit costs $100. To qualify for a venomous reptile permit, an applicant must meet certain experience requirements, must be at least 18 years old, and must not have been convicted of:

- A violation of captive wildlife regulations;
- A violation involving the illegal commercialization of wildlife;
- A violation involving cruelty to animals; or
- A violation involving importation of animals within three years of the date of application.

Applicants must also demonstrate no less than one year of substantial practical experience in the care, feeding, handling, and husbandry of the species or other species within the same biological family that are similar in characteristics and care to the species for which the permit is sought. Applicants must also provide two references from individuals with firsthand knowledge of their experience. The individuals must be licensed by FWC for venomous reptiles of the same family for which the applicant is seeking authorization or must be a representative of a professional organization or governmental institution which deals directly with venomous reptiles.

Additional permits are required for the importation of nonnative venomous reptiles and the sale of all venomous reptiles.[20]

Nonnative and Captive Wildlife Penalties

Level One Violations

A person commits a Level One violation if he or she violates any of the following provisions:

- FWC rules or orders requiring free permits or other authorizations to possess captive wildlife;
- FWC rules or orders relating to the filing of reports or other documents required of persons who are licensed to possess captive wildlife; or
- FWC rules or orders requiring permits to possess captive wildlife for which a fee is charged, when the person being charged was issued the permit and it expired less than 1 year prior to the violation.[21]

Any person cited for a Level One violation commits a noncriminal infraction and shall be cited to appear before county court. The violator will be fined $50 if he or she has not previously been found guilty of a Level One violation and $250 if he or she has previously been found guilty of a Level One violation.[22]

Level Two Violations

A person commits a Level Two violation if he or she violates any of the following provisions:

[19] FWC, *Venomous Reptile Fact Sheet*, 1 (2023) (On file with the Senate Committee on Environment and Natural Resources).
[20] *Id.*
[21] Section 379.4015(1), F.S.
[22] *Id.*

- Unless otherwise stated under Level One violations, FWC rules or orders that require a person to pay a fee to obtain a permit to possess captive wildlife or that require the maintenance of records relating to captive wildlife;
- FWC rules or orders relating to captive wildlife not specified under Level One or Level Three violations;
- FWC rules or orders that require housing of wildlife in a safe manner when a violation results in an escape of wildlife other than Class I wildlife;[23]
- FWC rules or orders relating to either conditional species or prohibited species;
- Section 379.372, F.S., relating to capturing, keeping, possessing, transporting, or exhibiting venomous reptiles, reptiles of concern, conditional reptiles, or prohibited reptiles;
- Section 379.373, F.S., relating to requiring a license or permit to capture, keep, possess, or exhibit venomous reptiles or reptiles of concern;
- Section 379.374, F.S., relating to bonding requirements for public exhibits of venomous reptiles;
- Section 379.305, F.S., relating to FWC rules and regulations preventing the escape of venomous reptiles or reptiles of concern;
- Section 379.304, or 379.3761, F.S., relating to the exhibition or sale of wildlife; or
- Section 379.3762, F.S., relating to personal possession of wildlife.[24]

[23] Class I wildlife is a defined list of species that present a real or potential threat to human safety. Possession of Class I wildlife requires a license and species may not be possessed as a personal pet. There are substantial experience, cage, and proof of commercial activity requirements that must be met before a license to possess Class I wildlife will be issued. FWC, *Class I Wildlife*, https://myfwc.com/license/captive-wildlife/class-i/ (last visited Mar. 9, 2023).
[24] Section 379.4015(2), F.S.

Level Two Violation	Degree of Offense	Fine or Incarceration	License Restrictions
Has not been convicted of a Level Two (or higher) violation within the past three years	2nd Degree Misdemeanor	Max: $500 or Max: 60 days	None
Convicted of a Level Two violation within three years of a previous conviction of a Level Two (or higher) violation	1st Degree Misdemeanor	Mandatory Min: $250; Max: $1,000 Max: one year	None
Convicted of a Level Two (or higher) violation within five years of any two previous convictions of Level Two (or higher) violations	1st Degree Misdemeanor	Mandatory Min: $500; Max: $1,000 Max: one year	Suspension of license for one year
Convicted of a Level Two violation within ten years of any three previous convictions of Level Two (or higher) violations	1st Degree Misdemeanor	Mandatory Min: $750; Max: $1,000 Max: one year	Suspension of license for three years

In addition to the above penalties, a person who commits a Level Two violation that is a violation of s. 379.372, F.S., relating to capturing, keeping, possessing, transporting, or exhibiting venomous reptiles, reptiles of concern, conditional reptiles, or prohibited reptiles, or rules or orders relating to wild animals identified as conditional or prohibited shall receive a minimum mandatory fine of $100 and immediately surrender the wildlife for which the violation was issued unless the person lawfully obtains a permit for possession.[25]

Level Three Violations

A person commits a Level Three violation if he or she violates any of the following provisions:

- FWC rules or orders that require housing of wildlife in a safe manner when a violation results in an escape of Class I wildlife;
- FWC rules or orders related to captive wildlife when the violation results in serious bodily injury to another person by captive wildlife consisting of substantial risk of death, serious personal disfigurement, or protracted loss or impairment of the function of any bodily member or organ;
- FWC rules or orders relating to the use of gasoline or other chemical or gaseous substances on wildlife;

[25] *Id.*

- FWC rules or orders prohibiting the release of wildlife for which only conditional possession is allowed;
- FWC rules or orders prohibiting knowingly entering false information on an application for a license or permit to possess wildlife in captivity;
- FWC rules or orders relating to the illegal importation and possession of nonnative marine plants and animals;
- FWC rules or orders relating to the importation, possession, or release of fish and wildlife for which possession is prohibited;
- Section 379.231, F.S., relating to illegal importation or release of nonnative wildlife; or
- Section 379.305, F.S., relating to release or escape of nonnative venomous reptiles or reptiles of concern.[26]

Level Three Violation	Degree of Offense	Fine or Incarceration	License Restrictions
Has not been convicted of a Level Three (or higher) violation within the past 10 years	1st Degree Misdemeanor	Max: $1,000 Max: one year	None
Convicted of a Level Three violation within ten years of a previous conviction of a Level Three (or higher) violation	1st Degree Misdemeanor	Mandatory Min: $750; Max: $1,000 Max: one year	Permanent revocation of license or permit

Level Four Violations

A person commits a Level Four violation if he or she violates any Level Three provision after the permanent revocation of a license or permit.[27] A Level Four violation is a third degree felony, punishable by a fine of no more than $5,000 or no more than a 5-year imprisonment.

Civil Penalties

In addition to other applicable penalties, FWC may impose a civil penalty of not more than $5,000 for each animal, unless otherwise authorized.[28] For all related violations attributable to each specific violator, the total civil penalty may not exceed $10,000 for each assessment for each animal. In determining the amount of the civil penalty, FWC may consider:

- A violator's history of noncompliance for any previous violation of chapter 379, F.S., relating to FWC, or FWC rules or orders;
- The direct economic benefit gained by the violator from the violation; and
- The costs incurred by FWC related to the escape, recovery, and care of the wildlife for which the violation was issued.

[26] Section 379.4015(3), F.S.
[27] Section 379.4015(4), F.S.
[28] Section 379.4015(6), F.S.

The civil penalty assessed for a violation may not exceed $5,000 for each animal unless:

- The violator has a history of noncompliance;
- The economic benefit of the violation exceeds $5,000; or
- The costs incurred by FWC related to the escape, recovery, and care of the wildlife for which the violation was issued exceeds $5,000.[29]

III. Effect of Proposed Changes:

Section 1 amends s. 379.305, F.S., to revise the Level Three violation to penalize a person who knowingly releases any nonnative reptile of concern or who through gross negligence allows any nonnative reptile of concern to escape, making it a Level Four violation for the same actions involving any venomous reptile. The bill would not require the Level Three violation to include release to the wild.

The bill adds that a person who knowingly purchases, sells, attempts to sell, offers to sell, conspires to sell, barters, exchanges, trades, or imports for sale or use, any venomous reptile species without having first obtained a special permit or license from the Florida Fish and Wildlife Conservation Commission (FWC) commits a Level Four violation.

Section 2 amends s. 379.4015, F.S., to provide that a person commits a Level Two violation if he or she violates FWC rules or orders relating to captive wildlife not specified as a Level Four violation. The bill adds that a person commits a Level Two violation if he or she violates FWC rules or orders that require housing wildlife in a safe manner when violation results in an escape of wildlife other than venomous reptiles.

The bill adds that a person commits a Level Three violation if he or she violates FWC rules or orders that require housing wildlife in a safe manner when a violation results in an escape of venomous reptiles.

The bill provides that a person commits a Level Three violation if he or she violates s. 379.305, F.S., only relating to release or escape of nonnative reptiles of concern, removing venomous reptiles to conform to Section 1 of the bill.

The bill adds that a person commits a Level Four violation if he or she violates s. 379.305(3), F.S., relating to release or escape of venomous reptiles, and s. 379.305(4), F.S., relating to purchase, sale, attempt to sell, offer for sale, conspiracy to sell, barter, exchange, trade, or import for sale or use of any species of venomous reptile.

Section 3 provides an effective date of July 1, 2023.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

[29] *Id.*

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

E. Other Constitutional Issues:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

None.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends sections 379.305 and 379.4015 of the Florida Statutes.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.

By Senator Rodriguez

40-01109A-23 20231266__

A bill to be entitled

An act relating to venomous reptiles; amending s. 379.305, F.S.; revising the penalty for certain release or escape of venomous reptiles; providing a penalty for specified activities involving venomous reptiles without a special permit or license issued by the Fish and Wildlife Conservation Commission; amending s. 379.4015, F.S.; conforming provisions to changes made by the act; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Subsection (2) of section 379.305, Florida Statutes, is amended, and subsections (3) and (4) are added to that section, to read:

379.305 Rules and regulations; penalties.—

(2) A person who knowingly releases a nonnative ~~venomous reptile or~~ reptile of concern ~~to the wild~~ or who through gross negligence allows a nonnative ~~venomous reptile or~~ reptile of concern to escape commits a Level Three violation, punishable as provided in s. 379.4015.

(3) A person who knowingly releases a venomous reptile or who through gross negligence allows a venomous reptile to escape commits a Level Four violation, punishable as provided in s. 379.4015.

(4) A person who knowingly purchases, sells, attempts to sell, offers to sell, conspires to sell, barters, exchanges, trades, or imports for sale or use, any venomous reptile species without having first obtained a special permit or license from

the commission as provided in s. 379.372 commits a Level Four violation, punishable as provided in s. 379.4015.

Section 2. Paragraph (a) of subsection (2), paragraph (a) of subsection (3), and subsection (4) of section 379.4015, Florida Statutes, are amended to read:

379.4015 Nonnative and captive wildlife penalties.—

(2) LEVEL TWO.—Unless otherwise provided by law, the following classifications and penalties apply:

(a) A person commits a Level Two violation if he or she violates any of the following provisions:

1. Unless otherwise stated in subsection (1), rules or orders of the commission that require a person to pay a fee to obtain a permit to possess captive wildlife or that require the maintenance of records relating to captive wildlife.

2. Rules or orders of the commission relating to captive wildlife not specified in subsection (1), ~~or~~ subsection (3), or subsection (4).

3. Rules or orders of the commission that require housing of wildlife in a safe manner when a violation results in an escape of wildlife other than Class I wildlife or venomous reptiles.

4. Rules or orders of the commission relating to wild animal life identified by commission rule as either conditional species or prohibited species.

5. Section 379.372, relating to capturing, keeping, possessing, transporting, or exhibiting venomous reptiles, reptiles of concern, conditional reptiles, or prohibited reptiles.

6. Section 379.373, relating to requiring a license or

permit for the capturing, keeping, possessing, or exhibiting of venomous reptiles or reptiles of concern.

7. Section 379.374, relating to bonding requirements for public exhibits of venomous reptiles.

8. Section 379.305, relating to commission rules and regulations to prevent the escape of venomous reptiles or reptiles of concern.

9. Section 379.304, relating to exhibition or sale of wildlife.

10. Section 379.3761, relating to exhibition or sale of wildlife.

11. Section 379.3762, relating to personal possession of wildlife.

(3) LEVEL THREE.—Unless otherwise provided by law, the following classifications and penalties apply:

(a) A person commits a Level Three violation if he or she violates any of the following provisions:

1. Rules or orders of the commission that require housing of wildlife in a safe manner when a violation results in an escape of Class I wildlife or venomous reptiles.

2. Rules or orders of the commission related to captive wildlife when the violation results in serious bodily injury to another person by captive wildlife that consists of a physical condition that creates a substantial risk of death, serious personal disfigurement, or protracted loss or impairment of the function of any bodily member or organ.

3. Rules or orders of the commission relating to the use of gasoline or other chemical or gaseous substances on wildlife.

4. Rules or orders of the commission prohibiting the

release of wildlife for which only conditional possession is allowed.

5. Rules or orders of the commission prohibiting knowingly entering false information on an application for a license or permit when the license or permit is to possess wildlife in captivity.

6. Rules or orders of the commission relating to the illegal importation and possession of nonnative marine plants and animals.

7. Rules or orders of the commission relating to the importation, possession, or release of fish and wildlife for which possession is prohibited.

8. Section 379.231, relating to illegal importation or release of nonnative wildlife.

9. Section 379.305, relating to release or escape of nonnative ~~venomous reptiles or~~ reptiles of concern.

(4) LEVEL FOUR.—Unless otherwise provided by law, the following classifications and penalties apply:

(a) A person commits a Level Four violation if he or she violates any Level Three provision after the permanent revocation of a license or permit.

(b) A person who commits any offense classified as a Level Four violation commits a felony of the third degree, punishable as provided in s. 775.082 or s. 775.083.

(c) A person commits a Level Four violation if he or she violates any of the following provisions:

1. Section 379.305(3), relating to release or escape of venomous reptiles.

2. Section 379.305(4), relating to purchase, sale, attempt

to sell, offer for sale, conspiracy to sell, barter, exchange, trade, or import for sale or use of any species of venomous reptile.

Section 3. This act shall take effect July 1, 2023.

CourtSmart Tag Report

Room: SB 301 **Case No.:** **Type:**
Caption: Senate Committee on Environment and Natural Resources **Judge:**

Started: 3/14/2023 8:30:46 AM
Ends: 3/14/2023 9:32:31 AM **Length: 01:01:46**

8:30:46 AM Chair calls meeting to order
8:30:52 AM Roll call by CAA
8:31:04 AM Quorum present
8:31:07 AM Pledge of Allegiance
8:31:29 AM Chair makes opening comments
8:31:45 AM Tab 8 - SB 1072 by Chair Rodriguez
8:31:57 AM Chair given to Vice Chair Harrell
8:32:14 AM Senator Rodriguez presents SB 1072
8:32:54 AM No questions
8:33:00 AM Appearance cards:
8:33:03 AM Michael Rubin speaking against bill
8:34:56 AM Late filed amendment 702220 taken up without objection
8:35:11 AM Senator Rodriguez presents amendment
8:35:44 AM Questions on amendment:
8:35:50 AM Senator Powell
8:36:00 AM Senator Rodriguez
8:36:18 AM No appearance cards on amendment
8:36:25 AM No debate
8:36:30 AM Senator Rodriguez waives close
8:36:37 AM Amendment passed
8:36:41 AM Back on bill as amended
8:36:46 AM No questions
8:36:49 AM No further appearance cards
8:37:01 AM Debate:
8:37:10 AM Senator Mayfield
8:38:05 AM Senator Rodriguez closes on bill as amended
8:38:19 AM Roll call CS/SB 1072
8:38:32 AM CS/SB 1072 reported favorably
8:38:44 AM Tab 9 - SB 1266 by Senator Rodriguez
8:38:52 AM Senator Rodriguez explains bill
8:39:15 AM No questions
8:39:20 AM Appearance cards:
8:39:23 AM Jess Melkin, FWC waives in support
8:39:40 AM Debate:
8:39:44 AM Senator Mayfield
8:40:28 AM Vice Chair Harrell
8:40:50 AM Senator Rodriguez closes on bill
8:41:06 AM Roll call on SB 1266
8:41:20 AM SB 1266 reported favorably
8:41:36 AM Tab 7 - SB 734 by Senator Polsky
8:42:04 AM Senator Polsky explains bill
8:43:17 AM Questions:
8:43:21 AM Vice Chair Harrell
8:43:36 AM Senator Polsky
8:43:45 AM No Appearance forms
8:43:52 AM No debate
8:44:11 AM Senator Polsky waives close
8:44:16 AM Roll call SB 734
8:44:29 AM SB 734 passes favorably
8:44:45 AM Tab 1 - SB 724 by Senator Boyd presented by Senator Albritton
8:45:02 AM Senator Albritton presents bill
8:46:23 AM Questions:

8:46:26 AM Vice Chair Harrell
8:47:02 AM Senator Albritton
8:47:17 AM Vice Chair Harrell
8:47:24 AM Amendment 676206 taken up
8:47:32 AM Senator Albritton explains amendment
8:47:40 AM No questions on amendment
8:47:48 AM No debate on amendment
8:47:52 AM Senator waives close on amendment
8:47:59 AM Amendment passes
8:48:03 AM Back on bill as amended
8:48:11 AM Appearance cards:
8:48:15 AM Mayor Betty Rosch, Lake Worth Beach speaking in support
8:49:07 AM David Shepp, Mote Marine Laboratory speaks in support
8:49:54 AM Vice Chair Harrell with question
8:50:12 AM Mr. Shepp responds
8:50:29 AM Trish Nezey, League of Women Voters waiving in support
8:50:46 AM Debate:
8:50:49 AM Senator Stewart
8:51:18 AM Senator Mayfield
8:53:22 AM Vice Chair Harrell
8:54:25 AM Senator Albritton closes on bill
8:56:16 AM Roll call on CS/SB 724
8:56:27 AM CS/SB 724 reported favorably
8:56:40 AM Chair passed back to Chair Rodriguez
8:56:49 AM Tab 2 - SB 728 by Senator Garcia
8:56:59 AM Senator Garcia presents bill
8:59:14 AM No questions
8:59:19 AM Appearance forms:
8:59:23 AM Peggy Mathews, American Watercraft Association speaking for information
9:00:39 AM Senator Martin with question
9:00:47 AM Ms. Mathews in response
9:01:39 AM Vice Chair Harrell with question
9:01:49 AM Ms. Mathews in response
9:02:24 AM Vice Chair Harrell follow up question
9:02:30 AM Ms. Mathews responds
9:03:29 AM Lisa Hening waiving in support
9:03:36 AM Jeff Sharkey, At The Helm Training waiving in support
9:03:43 AM No debate
9:03:48 AM Senator Garcia closes on bill
9:05:13 AM Roll call on SB 728
9:05:25 AM SB 728 reported favorably
9:05:35 AM Tab 6 - SB 1170 by Senator Calatayud
9:05:51 AM Senator Calatayud presents bill
9:08:11 AM No questions
9:08:18 AM Appearance forms:
9:08:24 AM Ellyn Bogdanoff, American Flood Coalition waives in support
9:08:31 AM Mayor Betty Rosch, Lake Worth Beach waives in support
9:08:43 AM Kate Wesner, American Flood Coalition waiving in support
9:08:52 AM No debate
9:08:56 AM Senator Calatayud closes on bill
9:09:33 AM Roll call on SB 1170
9:09:44 AM SB 1170 reported favorably
9:09:54 AM Tab 4 - SB 910 by Senator Burton
9:10:05 AM Senator Burton explains the bill
9:11:56 AM Questions:
9:12:00 AM Senator Powell
9:12:09 AM Senator Burton
9:12:46 AM Senator Powell
9:13:11 AM Senator Burton
9:13:31 AM Senator Powell
9:13:35 AM Back and forth in questions
9:14:19 AM No Appearance forms

9:14:25 AM Debate:
9:14:28 AM Senator Mayfield
9:15:30 AM Senator Burton closes on bill
9:15:51 AM Roll call on SB 910
9:16:03 AM SB 910 reported favorably
9:16:10 AM Tab 3 - SB 880 by Senator Brodeur
9:16:21 AM Senator Brodeur explains bill
9:17:14 AM Take up late filed amendment 725546, taken up without objection
9:17:40 AM Senator Brodeur explains amendment
9:18:32 AM Questions on amendment:
9:18:35 AM Senator Stewart
9:18:57 AM Senator Brodeur
9:19:30 AM Senator Powell
9:19:42 AM Senator Brodeur
9:20:03 AM No appearance forms on amendment
9:20:14 AM Senator Brodeur closes on amendment
9:20:52 AM Amendment adopted
9:20:56 AM Back on bill as amended
9:21:03 AM Appearance forms on bill as amended:
9:21:07 AM John November, The Public Trust for Conservation speaking for the bill
9:22:45 AM Eric Draper, The Public Trust for Conservation waiving in support
9:22:56 AM Debate on bill as amended:
9:23:00 AM Senator Wright
9:23:18 AM Senator Mayfield
9:24:40 AM Senator Brodeur closes on bill as amended
9:26:00 AM Roll call on CS/SB 880
9:26:12 AM CS/SB 880 reported favorably
9:26:22 AM Tab 5 - SB 1030 by Senator Trumbull presented by Senator Albritton
9:26:38 AM Senator Albritton explains bill
9:27:27 AM No questions
9:27:33 AM Take up late filed amendment 461372
9:27:39 AM No objection, amendment introduced
9:27:48 AM Senator Albritton explains amendment
9:27:54 AM No questions
9:28:02 AM Senator Albritton waives closes
9:28:08 AM Amendment adopted
9:28:11 AM Back on bill as amended
9:28:16 AM Appearance forms on bill as amended
9:28:19 AM Keyna Cory, National Waste and Recycling Assn. FL Chapter speaking against bill
9:30:18 AM Senator Martin with questions
9:30:26 AM Ms. Cory responds
9:30:33 AM Jonathan Rees, Stream Recycling waiving in support
9:30:44 AM Debate on bill as amended:
9:30:51 AM Vice Chair Harrell
9:31:37 AM Senator Albritton waives close
9:31:44 AM Roll call CS/SB 1030
9:31:53 AM CS/SB 1030 reported favorably
9:32:08 AM Vote after Chair Rodriguez on SB 734, affirmative
9:32:20 AM Senator Powell moves to adjourn
9:32:21 AM Meeting adjourned