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 1134
INTRODUCER:	Senator Gruters
SUBJECT:	Outstanding Florida Springs
DATE:	March 24, 2023
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Barriero	Rogers	EN	**Pre-meeting**
2.			CA	
3.			RC	

I. Summary:

SB 1134 amends the statutory list of Outstanding Florida Springs in s. 373.802, F.S., to include Warm Mineral Springs.

II. Present Situation:

Florida's Springs

Because of the thick, water-filled limestone underlying it, Florida has more large springs than any other state.[1] Springs are the window into the health of our groundwater, which is the source of 90 percent of drinking water for the state.[2] Some springs support entire ecosystems with unique plants and animals. In addition, Florida's springs offer many recreational opportunities, such as swimming, kayaking, and diving, and serve as economic drivers for local communities.[3]

Springs can be classified based on several characteristics but are most often classified by the average discharge of water.[4] First magnitude springs are those that discharge 100 cubic feet of

[1] Dep't of Environmental Protection (DEP), *2022 Florida Forever Five-Year Plan: Florida's First Magnitude Springs*,1 (2022), *available at* https://floridadep.gov/sites/default/files/FLDEP_DSL_OES_FF_22_FloridasFirstMagnitudeSprings.pdf#:~:text=Those%20discharging%20an%20average%20of%20100%20cubic%20feet,the%20Floridan%20Aquifer%20arches%20close%20to%20the%20surface.

[2] DEP, *Springs,* https://floridadep.gov/springs (last visited Mar. 21, 2023).

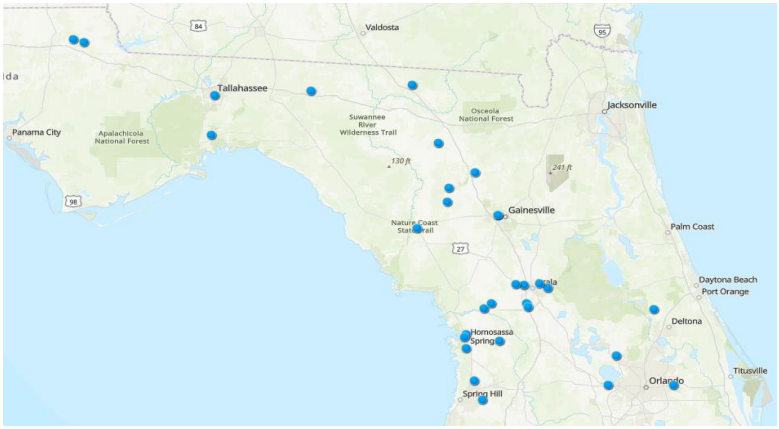
[3] *Id.*

[4] DEP, Florida Geological Survey, *First Magnitude Springs of Florida: Open File Report no. 85*, 6 (2002), *available at* http://publicfiles.dep.state.fl.us/FGS/FGS_Publications/OFR/OFR85.pdf.

water per second or greater.[5] Of Florida's more than 700 springs, 33 are first magnitude, 191 are second magnitude, and 151 third magnitude springs.[6]

Individual springs exhibit variable discharge depending upon rainfall, recharge, and groundwater withdrawals within their recharge areas.[7] One discharge measurement is enough to place a spring into one of the eight magnitude categories. However, springs have dynamic flows. A spring categorized as being a first magnitude spring at one moment in time may not continue to remain in the same category. This can result in a spring being classified as a first magnitude spring at one point in time and a second magnitude at another.[8]

Florida's springs face various complex threats, including decreasing spring flows and excessive nutrients.[9] Spring flows decrease because of declining water levels in the groundwater aquifer that sustains them, and excessive nutrients, mainly nitrate, can lead to algal growth and habit degradation. Florida has invested in many nitrate-reducing capital projects and water-quantity projects to protect and restore springs, as well as the acquisition of land intended to protect the springs.[10] In fiscal year 2020-21, there were 31 springs restoration projects funded.[11] Funding comes partly from DEP's Springs and Watershed Restoration[12] program and the Land Acquisition Trust Fund, which provides for the lesser of 7.6 percent or $50 million for spring restoration, protection, and management projects.[13] Last year, the Legislature appropriated $75 million for springs restoration projects, including $25 million from the general revenue fund and $50 million from the land acquisition trust fund.[14]



Springs Restoration Projects 2020-2021

[5] DEP, *2022 Florida Forever Five-Year Plan: Florida's First Magnitude Springs* at 1.
[6] DEP, Florida Geological Survey, *Springs of Florida Bulletin no. 66*, 9 (2004), *available at* http://publicfiles.dep.state.fl.us/FGS/FGS_Publications/B/B66.pdf
[7] *Id.* at 8.
[8] *Id.*
[9] DEP, *Springs*, https://floridadep.gov/springs (last visited Mar. 21, 2023).
[10] *Id.*
[11] DEP, *Springs Restoration Projects 2020-21*, https://fdep.maps.arcgis.com/apps/MapJournal/index.html?appid=1783539ce99e463f9a073c2d305902cd (last visited Mar. 22, 2023).
[12] DEP, *Springs and Watershed Restoration Program*, https://floridadep.gov/springs/restoration-funding (last visited Mar. 23, 2023).
[13] Section 375.041(3)(b)2., F.S.
[14] Ch. 2022-156, s. 5, Laws of Fla. (line item 1657).

Outstanding Florida Springs

In 2016, the Florida Legislature enacted the Florida Springs and Aquifer Protection Act (the Act) and identified 30 Outstanding Florida Springs (OFSs) that require additional protections to ensure their conservation and restoration for future generations.[15] These springs are a unique part of the state's scenic beauty, provide critical habitat, and have immeasurable natural, recreational, and economic value.[16] OFSs are defined by statute and include all historic first magnitude springs, including their associated spring runs, as determined by DEP using the most recent Florida Geological Survey springs bulletin, and the following additional springs, including their associated spring runs:

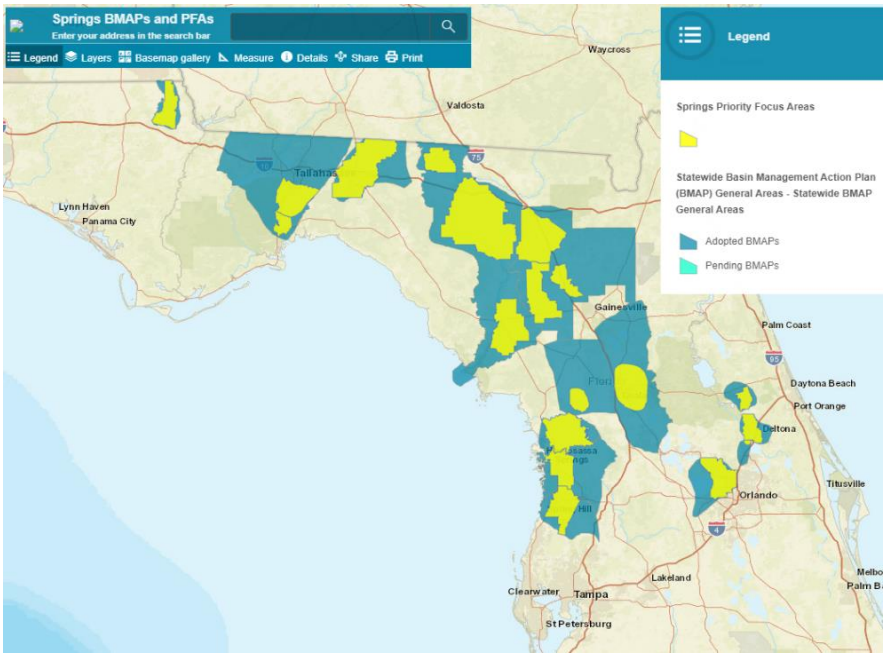
- De Leon Springs;
- Peacock Springs;
- Poe Springs;
- Rock Springs;
- Wekiwa Springs; and
- Gemini Springs.[17]

The Act requires DEP to assess the water quality in the OFSs. Based on these assessments, DEP determined that most of these springs are impaired.[18] For these impaired springs, DEP must adopt (or re-adopt) a basin management action plan (BMAP)[19] to implement all the protections of the Act, including:

- Prioritized lists of restoration projects along with planning level estimates for cost, schedule, and nutrient load reduction;
- Phased milestones (5-year, 10-year, and 15-year) to achieve water quality restoration targets in 20 years;
- Estimated nutrient pollutant loads, allocated to each source or category of sources;
- Completed remediation plans for onsite sewage treatment and disposal systems (OSTDS), commonly referred to as "septic systems," where septic loading accounts for at least 20 percent of the estimated nutrient input;[20] and
- Delineated "priority focus areas" where certain activities are prohibited. [21]

[15] DEP, *Springs*, https://floridadep.gov/springs/ (last visited Mar. 13, 2023).
[16] DEP, *Protect and Restore Springs*, https://floridadep.gov/springs/protect-restore (last visited Mar. 13, 2023).
[17] Section 373.802(4), F.S.
[18] DEP, *Protect and Restore Springs.*
[19] A BMAP is a framework for water quality restoration that contains local and state commitments to reduce pollutant loading through current and future projects and strategies. DEP, *Basin Management Action Plans (BMAPS)*, https://floridadep.gov/dear/water-quality-restoration/content/basin-management-action-plans-bmaps#:~:text=A%20basin%20management%20action%20plan%20%28BMAP%29%20is%20a,loading%20through%20current%20and%20future%20projects%20and%20strategies (last visited Mar. 22, 2023).
[20] Although OSTDS remediation plans were first only required for springs, in 2020, the requirement was expanded to BMAPs statewide as part of the Clean Waterways Act. *See* Chapters 2016-1, s. 27 and 2020-150, s. 13, Laws of Fla. Notably, OSTDS remediation plans for springs are only required within the priority focus areas, whereas the laws governing BMAPs require OSTDS remediation plans more generally within the entire BMAP.
[21] DEP, *Protect and Restore Springs*, https://floridadep.gov/springs/protect-restore (last visited Mar. 22, 2023).

A "priority focus area" is the area or areas of a basin where the Floridan Aquifer[22] is generally most vulnerable to pollutant inputs where there is a known connectivity between groundwater pathways and an OFS, as determined by DEP in consultation with the appropriate water management districts and delineated in a BMAP.[23]



The activities prohibited within priority focus areas include:

- New domestic wastewater disposal facilities with permitted capacities of 100,000 gallons per day or more, except for those facilities that meet an advanced wastewater treatment standard of no more than 3 mg/l total nitrogen, on an annual permitted basis, or a more stringent treatment standard if necessary to attain a total daily maximum load;
- New OSTDSs on lots of less than one acre, if the addition of the specific systems conflicts with an OSTDS remediation plan incorporated into a BMAP;
- New facilities for the disposal of hazardous waste;
- The land application of Class A or Class B domestic wastewater biosolids not in accordance with a DEP-approved nutrient management plan; and
- New agriculture operations that do not implement best management practices, measures necessary to achieve pollution reduction levels established by DEP, or groundwater monitoring plans.[24]

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[22] The Floridan Aquifer is the largest aquifer in the southeastern United States and one of the most productive aquifer systems in the world. The aquifer underlies an area of about 100,000 square miles that includes all of Florida and extends into parts of Alabama, Georgia and South Carolina, as well as parts of the Atlantic Ocean and the Gulf of Mexico. St. Johns River Water Management District, *Florida's aquifers*, https://www.sjrwmd.com/water-supply/aquifer/#:~:text=Aquifer%20facts%201%20More%20than%2090%20percent%20of,2%2C000%20feet%20below%20land%20surface.%20...%20More%20items (last visited Mar. 22, 2023).

[23] Section 373.802(5), F.S.; DEP, *Map of Priority Focus Areas in BMAPs*, https://fdep.maps.arcgis.com/apps/View/index.html?appid=1afdd97c67584c06840019241becde74 (last visited Mar. 22, 2023) (map of priority focus areas).

[24] Section 373.811, F.S.

There have been recent legal challenges to DEP's development of BMAPs for OFSs. In *Sierra Club v. Department of Environmental Protection*, the court held that DEP failed to comply with ss. 403.067(6)(b) and 373.801(1)(b), F.S., in creating the BMAPs because the BMAPs failed to include an identification of each *specific* point source or category of nonpoint sources and an estimated allocation of the pollutant for each point source or category of nonpoint sources.[25] Instead, the BMAPs included pie charts that only showed current estimated nitrogen loading in the various springsheds by source and allocations to entire basins, not to any point or nonpoint source.[26]

Warm Mineral Springs

Warm Mineral Springs, located in southern Sarasota County, Florida, is a warm, highly mineralized, inland spring.[27] Since 1946, a bathing spa has been in operation at the spring, attracting vacationers and health enthusiasts. During the winter months, the warm water attracts manatees to the adjoining spring run and provides vital habitat for these mammals. Well-preserved late Pleistocene to early Holocene-age human and animal bones, artifacts, and plant remains have been found in and around the spring, and indicate the surrounding sinkhole formed more than 12,000 years ago.[28]

Warm Mineral Springs is a third magnitude spring, which is defined as having discharge less than 10 cubic feet per second (though discharge measurements for Warm Mineral Springs has occasionally exceeded this amount).[29] Discharge at Warm Mineral Springs decreased from about 11–12 cubic feet per second in the 1940s to 6–9 cubic feet per second in the 1970s, and remained at about that level for the duration of the period of record.[30] This pattern of decrease until about the 1970s is consistent with the trend of water withdrawals and changes in the potentiometric surface of the Upper Floridan aquifer in the region.[31]

DEP has determined that Warm Mineral Springs is impaired and not attaining water quality standards.[32] However, further study is needed to determine the causative pollutants or other factors contributing to impairment. For this reason, it has been placed on the statewide comprehensive study list.[33]

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[25] *Sierra Club v. DEP*, No. 1D21-1667, *2 (Fla. 1st DCA 2023).
[26] *Id.* at *5.
[27] U.S. Geological Survey (USGS), *Discharge, water temperature, and water quality of Warm Mineral Springs, Sarasota County, Florida: A retrospective analysis*, 1 (2016), *available at* https://pubs.usgs.gov/of/2016/1166/ofr20161166.pdf.
[28] *Id.*
[29] *Id.* at 2, 8.
[30] *Id.* at 27.
[31] *Id.*
[32] DEP, *Comprehensive Study List*, row 810 (2022), *available at* https://floridadep.gov/dear/watershed-assessment-section/documents/comprehensive-study-list.
[33] A waterbody is placed on the study list when one or more water quality parameters do not meet applicable water quality criteria, which indicates that the waterbody does not fully support its designated use; however, additional data or information is needed to determine attainment of the designated use. The listing determination is based on prescribed analytical protocols and minimum data sufficiency requirements as defined by Florida's water quality standards and Impaired Waters Rule. DEP, *Impaired Waters Listing Process*, https://floridadep.gov/dear/water-quality-assessment/content/impaired-waters-listing-process (last visited Mar. 23, 2023).

Minimum Flows and Levels (MFLs)

MFLs are established for waterbodies in order to prevent significant harm to the water resources or ecology of an area as a result of water withdrawals.[34] MFLs are typically determined based on evaluations of natural seasonal fluctuations in water flows or levels, nonconsumptive uses, and environmental values associated with coastal, estuarine, riverine, spring, aquatic, wetlands ecology, and other pertinent information associated with the water resource.[35]

While the DEP has the authority to adopt MFLs, WMDs have the primary responsibility for MFL adoption. WMDs submit annual MFL priority lists and schedules to DEP for the establishment of MFLs for surface watercourses, aquifers, and surface waters within the district.[36] MFLs are calculated using the best information available[37] and are considered rules by the WMDs and are subject to Chapter 120, F.S., challenges.[38] MFLs are subject to independent scientific peer review at the election of the DEP, a WMD, or, if requested, by a third party.[39]

WMDs or DEP are required to adopt MFLs for OFSs. If the WMD or DEP fails to do so, it must adopt a MFL by emergency rule.[40] For OFSs identified on a WMD's priority list which have the potential to be affected by withdrawals in an adjacent WMD, the adjacent WMD and DEP must collaboratively develop and implement a recovery or prevention strategy for an OFS not meeting an adopted MFL.[41]

III. Effect of Proposed Changes:

Section 1 amends s. 373.802, F.S., which provides a definition for "Outstanding Florida Spring" and identifies which springs are included in this term. The bill adds Warm Mineral Springs to the list of Outstanding Florida Springs.

Section 2 reenacts, s. 373.042, regarding minimum flows and water levels, for the purpose of incorporating the amendment made by this act to s. 373.802, F.S., in a reference thereto.

Section 3 provides that the act will take effect upon becoming a law.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

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[34] *See* section 373.042, F.S.; *see also* DEP, *Minimum Flows and Minimum Water Levels and Reservations*, https://floridadep.gov/water-policy/water-policy/content/minimum-flows-and-minimum-water-levels-and-reservations#Minimum%20Flows%20and%20Minimum%20Water%20Levels%20(MFLs) (last visited Mar. 22, 2023).
[35] Fla. Admin. Code R. 62-40.473(1).
[36] Section 373.042(3), F.S.
[37] Section 373.042(1), F.S.
[38] Section 373.042(5) and (7), F.S.
[39] Section 373.042(6)(a), F.S.
[40] Section 373.042(2), F.S.
[41] Section 373.042(2)(b), F.S.

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 and water management districts may incur costs related to establishing minimum flows and water levels for Warm Mineral Springs.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends section 373.802 of the Florida Statutes.

This bill reenacts section 373.042 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.