

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 1546

INTRODUCER: Senator Stewart

SUBJECT: Statewide Drinking Water Standards

DATE: January 22, 2024

REVISED: _____

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

I. Summary:

SB 1546 requires the Department of Environmental Protection (DEP) to adopt rules that establish a statewide drinking water maximum contaminant level for 1,4-dioxane of less than or equal to 0.35 micrograms per liter. Such rules must require a public water system to test all of its groundwater wells for 1,4-dioxane by January 1, 2025. If such testing detects 1,4-dioxane at levels greater than 0.35 micrograms per liter, the public water system must:

- Develop and submit to DEP for approval a mitigation plan to bring any such concentration to an amount at or below such level, and comply with the new standards within 5 years after such rules are adopted;
- Retest for 1,4-dioxane at a frequency determined by DEP; and
- Make the mitigation plan and the results of any testing publicly available.

If such testing detects 1,4-dioxane at a level of 0.35 micrograms per liter or less, the public water system must:

- Make the results of such testing publicly available; and
- Retest for 1,4-dioxane in the system's groundwater wells within five years.

The bill also requires DEP to provide financial assistance to a public water system for the purpose of updating any infrastructure necessary to meet the standards for 1,4-dioxane. Such assistance must include, at a minimum, 20 percent of the funding necessary to update the infrastructure to meet such standards. The bill requires DEP to establish by rule criteria for determining the needs of a public water system and the amount of funds necessary to meet the applicable requirements when 1,4-dioxane levels exceed state standards (i.e., developing a mitigation plan and retesting).

II. Present Situation:

Federal and State Safe Drinking Water Act

The federal Safe Drinking Water Act regulates drinking water standards for all states.¹ To ensure the standards are met, the U.S. Environmental Protection Agency (EPA) sets the maximum allowable amount of a contaminant in drinking water, known as a maximum contaminant level (MCL).² EPA calculates these standards based on a lifetime of exposure.³ A person would need to drink two liters of water that exceeds the standard every day for 70 years before having an increased chance of adverse health effects.⁴ EPA establishes testing schedules and methods that water systems must follow to monitor for contaminants.⁵ EPA may also develop health advisory levels (HALs) when a chemical is found in drinking water but no MCL has been established.⁶ HALs are non-enforceable and non-regulatory and provide technical information to state agencies and other public health officials on health effects, analytical methods, and treatment technologies associated with drinking water contamination.⁷

The Department of Environmental Protection (DEP) implements the Safe Drinking Water Act in Florida and has adopted EPA regulations and rules.⁸ DEP's rules on drinking water standards, monitoring, and reporting are found within Chapter 62-500 of the Florida Administrative Code. Requirements for public water systems that are not in compliance with established standards are within Chapter 62-560 of the Florida Administrative Code.

DEP issues permits to public water systems⁹ and conducts site inspections to ensure that water quality standards and permit requirements are being met.¹⁰ If a compliance issue is identified, facilities must increase the frequency of their water testing. DEP makes the water-quality test results available to the public. DEP may only require testing for those contaminants for which MCLs have been set by DEP or for which the EPA or DEP has established a correlation between pollutant concentration and human health effects.¹¹

¹ See 42 USC § 300f et seq.

² DEP, *Standards and Facts: Drinking Water*, 1 (2016), available at <https://floridadep.gov/sites/default/files/drinking-water-standards-facts.pdf>.

³ *Id.*

⁴ *Id.*

⁵ *Id.*

⁶ Florida Dep't of Health (DOH), *Chemical Contaminants—HALs and Chemical Fact Sheets*, <https://www.floridahealth.gov/environmental-health/drinking-water/chemicals-hals.html> (last visited Jan. 16, 2024).

⁷ EPA, *Drinking Water Health Advisories for PFAS: Fact Sheet for Communities*, 2 (2022) available at <https://www.epa.gov/system/files/documents/2022-06/drinking-water-ha-pfas-factsheet-communities.pdf>.

⁸ DEP, *Standards and Facts: Drinking Water*, 1 (2016), available at <https://floridadep.gov/sites/default/files/drinking-water-standards-facts.pdf>.

⁹ “Public water system” means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances if such system has at least 15 service connections or regularly serves at least 25 individuals daily at least 60 days of the year. A public water system is either a community or noncommunity water system and includes: (a) any collection, treatment, storage, and distribution facility or facilities under control of the operator of such system and used primarily in connection with such system; and (b) any collection or pretreatment storage facility or facilities not under control of the operator of such system but used primarily in connection with such system. Section 403.852(2), F.S.

¹⁰ DEP, *Standards and Facts: Drinking Water*, 1 (2016), available at <https://floridadep.gov/sites/default/files/drinking-water-standards-facts.pdf>.

¹¹ Section 403.853(7), F.S.

State drinking water regulations apply to all public water systems, unless the system:

- Consists of distribution and storage facilities only and does not have any collection or treatment facilities;
- Obtains all of its water from, but is not owned or operated by, a public water system to which such regulations apply;
- Does not sell water to any person; and
- Is not a carrier which conveys passengers in interstate commerce.¹²

Drinking Water State Revolving Loan Fund

The Drinking Water State Revolving Loan Fund is a federal-state partnership through which a permanent drinking water infrastructure revolving loan fund has been created in every state.¹³ The federal government provides capitalization grants to states, and states provide a 20 percent match. The principal objective of the fund is to facilitate compliance with national primary drinking water regulations and advance the public health protection objectives of the Safe Drinking Water Act. States are required to give priority for the use of revolving loan funds to:

- Address the most serious risks to human health;
- Ensure compliance with the requirements of the Safe Drinking Water Act; and
- Assist systems most in need on a per household basis according to state affordability criteria.¹⁴

States have the option of taking a variety of set-asides which help fund state programs and activities to ensure safe drinking water.¹⁵ In total, states may take approximately 31 percent of their capitalization grant in set-asides. There are four types of set-asides:

- Four percent, \$400,000, or 1/5th percent of the current valuation of the fund for revolving fund program administration
- Two percent for technical assistance to small systems (systems serving 10,000 or fewer persons);
- Ten percent for state program management;
- Fifteen percent for local assistance and other state programs.¹⁶

After taking the set-asides, states then place the balance of their capitalization grant, together with the state match, into a dedicated revolving loan fund. This revolving fund provides loans and other authorized assistance to water systems for eligible infrastructure projects. As water systems repay their loans, the repayments and interest flow back into the dedicated revolving fund. These funds may be used to make additional loans.¹⁷

¹² Section 403.853(2), F.S.

¹³ See 42 USC §300j-12.; EPA, *How the Drinking Water State Revolving Fund Works*, <https://www.epa.gov/dwsrf/how-drinking-water-state-revolving-fund-works#tab-1> (last visited Jan. 20, 2024).

¹⁴ *Id.*

¹⁵ EPA, *How the Drinking Water State Revolving Fund Works*, <https://www.epa.gov/dwsrf/how-drinking-water-state-revolving-fund-works#tab-1> (last visited Jan. 20, 2024).

¹⁶ *Id.*

¹⁷ *Id.*

There are six categories of projects that are eligible to receive revolving loan funds:

- Treatment: Projects to install or upgrade facilities to improve drinking water quality to comply with SDWA regulations;
- Transmission and distribution: Rehabilitation, replacement, or installation of pipes to improve water pressure to safe levels or to prevent contamination caused by leaky or broken pipes;
- Source: Rehabilitation of wells or development of eligible sources to replace contaminated sources;
- Storage: Installation or upgrade of finished water storage tanks to prevent microbiological contamination from entering the distribution system;
- Consolidation: Interconnecting two or more water systems; and
- Creation of new systems: Constructing a new system to serve homes with contaminated individual wells or consolidate existing systems into a new regional water system.¹⁸

Florida's revolving loan fund was created to provide infrastructure financing, technical assistance, and source water protection programs to assist public drinking water systems in achieving and maintaining compliance with the state and federal Safe Drinking Water Act.¹⁹ DEP may make loans, grants, and deposits to:

- Community water systems;
- For-profit, privately owned, or investor-owned water systems;
- Nonprofit, transient, noncommunity water systems; and
- Nonprofit, *nontransient*, noncommunity water systems to assist them in planning, designing, and constructing public water systems.²⁰

DEP may provide loan guarantees, purchase loan insurance, and refinance local debt through the issue of new loans for projects approved by DEP.²¹ Public water systems may pledge any revenues or other adequate security available to them to repay any funds borrowed.²² DEP may also provide financial assistance to financially disadvantaged communities for the purpose of planning, designing, and constructing public water systems.²³ Such assistance may include the forgiveness of loan principal.²⁴ To the extent not allowed by federal law, DEP may not provide financial assistance for projects primarily intended to serve future growth.²⁵

DEP must administer loans so that amounts credited to the Drinking Water State Revolving Loan Fund in any fiscal year are reserved for the following purposes:

- At least 15 percent for qualifying small public water systems; and
- Up to 15 percent for qualifying financially disadvantaged communities.²⁶

¹⁸ EPA, *Drinking Water State Revolving Fund Eligibilities*, <https://www.epa.gov/dwsrf/dwsrf-eligibilities> (last visited Jan. 22, 2024).

¹⁹ Section 403.8532(1), F.S.

²⁰ Section 403.8532(3), F.S.

²¹ *Id.*

²² *Id.*

²³ Section 403.8532(6)(a), F.S.

²⁴ *Id.*

²⁵ Section 403.8532(7), F.S.

²⁶ Section 403.8532(3)(a), F.S.

The total amount of money loaned to any public water system during a fiscal year must be no more than 25 percent of the total funds available for making loans during that year.²⁷ The minimum amount of a loan is \$75,000.²⁸

DEP's rules governing the Drinking Water State Revolving Loan Fund are found within Chapter 62-552 of the Florida Administrative Code.

1,4-Dioxane

1,4-dioxane is a man-made chemical widely used in laboratory and manufacturing processes and has been a byproduct of chemicals used in personal care products, laundry detergents, and food.²⁹ It has also been used as a stabilizer for chlorinated solvents and in the production of medicines and glues. 1,4-dioxane is found in paints, lacquers, dyes, waxes, greases, cosmetics, detergents, and other consumer products. It is also found in food from packaging material, in some food supplements, and on crops treated with pesticides containing 1,4-dioxane.³⁰ 1,4-dioxane is released into the environment in places where it is produced and used, contaminating the air, groundwater, and soil.³¹ While 1,4-dioxane does not accumulate in plants or animals over time, it normally does not break down in groundwater.³²

1,4-dioxane has been identified as a contaminant of emerging concern and as a likely human carcinogen.³³ Exposure to 1,4-dioxane can cause nausea, drowsiness, headache, irritation of the eyes, nose, and throat, liver and kidney damage, and death. People can be exposed to this chemical by:

- Drinking contaminated tap water;
- Breathing it in after it has been released into the air during bathing or laundering clothes with contaminated water;
- Getting it on their skin from contaminated soil;
- Eating contaminated foods.³⁴

Regulations and Guidance

DEP enforces state regulated levels for 1,4-dioxane in groundwater, surface water, and soil pursuant to Chapters 62-780 and 62-777 of the Florida Administrative Code as follows:³⁵

²⁷ Section 403.8532(8), F.S.

²⁸ *Id.*

²⁹ DOH, *1,4-Dioxane*, 1 (2021), available at <https://www.floridahealth.gov/environmental-health/hazardous-waste-sites/contaminant-facts/documents/final-faq-14dx.pdf#:~:text=The%20current%20EPA%20Health%20Advisory%20Level%20%28HAL%29%20for,added%20to%20ap%20proximately%20150%20million%20gallons%20of%20water.>

³⁰ *Id.*

³¹ *Id.*

³² *Id.*

³³ *Id.*

³⁴ *Id.*

³⁵ DOH, *1,4-Dioxane*, 2 (2021), available at <https://www.floridahealth.gov/environmental-health/hazardous-waste-sites/contaminant-facts/documents/final-faq-14dx.pdf#:~:text=The%20current%20EPA%20Health%20Advisory%20Level%20%28HAL%29%20for,added%20to%20ap%20proximately%20150%20million%20gallons%20of%20water.>

Groundwater	Surface Water	Soil	
		Residential	Commercial
3.2 µg/L	120 µg/L	23 mg/kg	38 mg/kg

µg/L = microgram per liter (parts per billion)

mg/kg = milligram per kilogram (parts per million)

EPA has not established a drinking water MCL for 1,4-dioxane. However, EPA and DOH have set a drinking water HAL of 0.35 micrograms per liter (µg/L).³⁶ There is no required routine sampling of public or private drinking water wells for this chemical.³⁷

III. Effect of Proposed Changes:

Section 1 amends s. 403.851, F.S., regarding the declaration of policy and intent of the Florida Safe Drinking Water Act. Currently, this statute provides that it is the policy of the state that citizens of Florida be assured of the availability of safe drinking water. The bill amends this language to provide that it is the policy of the state that the *residents of this state be protected from harmful toxins in drinking water* and be assured of the availability of safe drinking water.

Section 2 amends s. 403.853, F.S., regarding drinking water standards. The bill requires the Department of Environmental Protection (DEP) to adopt and implement rules that establish a statewide drinking water maximum contaminant level for 1,4-dioxane of less than or equal to 0.35 micrograms per liter. Such rules must require a public water system to test all of the system’s groundwater wells for 1,4-dioxane by January 1, 2025. If such testing detects 1,4-dioxane at levels greater than 0.35 micrograms per liter, the public water system must:

- Develop and submit to DEP for approval a mitigation plan to bring any such concentration to an amount at or below such level, and comply with the new standards within 5 years after such rules are adopted. The mitigation plan may include installing any required infrastructure to meet such requirements;
- Retest for 1,4-dioxane in the system’s groundwater wells at a frequency determined by DEP; and
- Make the mitigation plan submitted to and approved by DEP and the results of any testing publicly available.

If such testing detects 1,4-dioxane at a level of 0.35 micrograms per liter or less, the public water system must:

- Make the results of such testing publicly available; and
- Retest for 1,4-dioxane in the system’s groundwater wells within five years after the previous test.

Section 3 amends s. 403.8532, F.S., regarding the drinking water state revolving loan fund. The bill requires DEP to provide financial assistance to a public water system for the purpose of

³⁶ DOH, *1,4-Dioxane Fact Sheet 1* (2016), available at <https://www.floridahealth.gov/environmental-health/drinking-water/documents/dioxanefs2016updated.pdf>.

³⁷ *Id.*

updating any infrastructure necessary to meet the standards for 1,4-dioxane under s. 403.853(3)(b), F.S., as amended by this bill. The bill provides that such assistance must include, at a minimum, 20 percent of the funding necessary to update the infrastructure to meet such standards.

The bill requires DEP to establish by rule criteria for determining the needs of a public water system and the amount of funds necessary to meet the requirements of s. 403.853(3)(b)2., F.S., as amended by this bill.

Section 4 provides an effective date of July 1, 2024.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

Article VII, section 18 of the Florida Constitution provides in part that a county or municipality may not be bound by a general law requiring a county or municipality to spend funds or take an action that requires the expenditure of funds unless certain specified exemptions or exceptions are met. The county and municipality mandate provisions of Article VII, section 18 of the Florida Constitution may apply because the bill requires the Department of Environmental Protection to adopt rules requiring public water systems to expend funds to comply with the statewide standards for 1,4-dioxane. Accordingly, the bill must be found to fulfill an important state interest and have a 2/3 vote of the membership of each house.

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 and implement rules establishing the maximum contaminant level (MCL) for 1,4-dioxane. Public water systems may incur costs to test their system's groundwater wells, develop a mitigation plan, if necessary, and otherwise comply with the MCL for 1,4-dioxane.

VI. Technical Deficiencies:

None.

VII. Related Issues:

The bill provides that the Department of Environmental Protection (DEP) must adopt and implement rules requiring public water systems to test their groundwater wells by January 1, 2025, six months from the effective date of this bill. DEP and public water systems may benefit from having more time to comply with the bill's requirements.

VIII. Statutes Affected:

This bill substantially amends the following sections of the Florida Statutes: 403.851, 403.853, and 403.8532.

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.