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 Education

BILL:	SB 66
INTRODUCER:	Senator Cruz and others
SUBJECT:	Drinking Water in Public Schools
DATE:	March 25, 2019
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Bouck	Sikes	ED	**Pre-meeting**
2.			AED	
3.			AP	

I. Summary:

SB 66 requires each school district to filter drinking water at each source for any school built before 1986. Specifically, for such schools the bill requires each school district to:

- Install a barcode on all school drinking water sources.
- Install a filter that meets specified standards to reduce lead at each school water source.
- Post a conspicuous sign near each non-drinking-water source warning that such source should not be used for human consumption.
- Publish on the school district's website information about filters for each drinking water source and actions necessary to comply with requirements.

The bill has a significant, but indeterminate, fiscal impact.

The bill takes effect July 1, 2019.

II. Present Situation:

Lead is a common hazardous contaminant found in the plumbing systems of older homes, businesses and schools. Although rarely found in source water, lead can enter tap water through the corrosion of aging plumbing materials. The three main sources of lead in water found in schools include:[1]

- Lead-containing service lines connected to public water systems, most often in schools built prior to 1950;
- Lead solder used in copper piping systems prior to 1986; and

[1] NSF, *Lead in School Water and Lead Plumbing Pipes*, http://www.nsf.org/consumer-resources/water-quality/faucets-plumbing/lead-schools, (last visited Mar. 16, 2019).

- Lead-containing brass or galvanized pipe and fittings, which includes many products manufactured prior to the mid-1990s.[2]

Lead is a neurotoxin that can accumulate in the body over time with long-lasting effects, particularly for children. Lead in a child's body can slow down growth and development, damage hearing and speech, and lead to learning disabilities. For adults, lead can have detrimental effects on cardiovascular, renal, and reproductive systems and can prompt memory loss. The concentration of lead, total amount consumed, and duration of exposure influence the severity of health effects.[3] Lead in school drinking water is a concern because it is a daily source of water for over 50 million children enrolled in public schools.[4]

Federal Safe Water Requirements

The federal Safe Drinking Water Act (SDWA) was passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. [5] The SWDA authorizes the United States Environmental Protection Agency (EPA) to set standards for drinking water contaminants in public water systems.[6] The SDWA applies to every public water system in the United States, which are regulated by the EPA under the Lead and Copper Rule (LCR),[7] as required by the SDWA.[8]

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[2] In 1986, Congress amended the Safe Drinking Water Act (SWDA), prohibiting the use of pipes, solder or flux that were not "lead free" in public water systems or plumbing providing water for human consumption. At the time "lead free" was defined as solder and flux with no more than 0.2 percent lead and pipes with no more than 8 percent. In 1996 Congress further amended the SWDA, requiring plumbing fittings and fixtures to be in compliance with voluntary lead leaching standards. The amendments also prohibited the sale of any pipe, pipe or plumbing fitting or fixture that is not lead free. United States Environmental Protection Agency, *Use of Lead Free Pipes, Fittings, Fixtures, Solder and Flux for Drinking Water*, https://www.epa.gov/dwstandardsregulations/use-lead-free-pipes-fittings-fixtures-solder-and-flux-drinking-water (last visited Mar. 18, 2019).

[3] United States Government Accountability Office, *Lead Testing of School Drinking Water Would Benefit from Improved Federal Guidance* (July 2018), *available at* https://www.gao.gov/assets/700/692979.pdf, at 5.

[4] *Id.* at 1.

[5] United States Environmental Protection Agency, *Understanding the Safe Drinking Water Act* (June 2004), available at https://www.epa.gov/sites/production/files/2015-04/documents/epa816f04030.pdf, at 1. The SWDA is administered through programs that establish standards and treatment requirements for public water supplies, finance drinking water infrastructure projects, promote water system compliance, and control the underground injection of fluids to protect underground sources of drinking water. https://fas.org/sgp/crs/misc/RL31243.pdf, at 5.

[6] United States Government Accountability Office, *Lead Testing of School Drinking Water Would Benefit from Improved Federal Guidance* (July 2018), *available at* https://www.gao.gov/assets/700/692979.pdf, at 5. For a given contaminant the act requires the EPA to first establish a maximum contaminant level goal, which is the level at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety. EPA must then set an enforceable maximum contaminant level as close to the maximum contaminant level goal as is feasible, or require water systems to use a treatment technique to prevent known or anticipated adverse effects on the health of persons to the extent feasible.

[7] 40 C.F.R. Sections 141.80-141.91.

[8] Pub. L. No. 93-523, 88 Stat. 1660 (1974). Under the Safe Drinking Water Act, the EPA is authorized to regulate contaminants in public drinking water systems. Since 1974, EPA has implemented its drinking water program under three separate legislative frameworks—first under the initial statute and subsequently under major amendments in 1986 and 1996. United States Government Accountability Office, *Lead Testing of School Drinking Water Would Benefit from Improved Federal Guidance* (July 2018), *available at* https://www.gao.gov/assets/700/692979.pdf, at 2.

In the LCR, the EPA established a maximum contaminant level[9] goal of zero, concluding that there was no established safe level of lead exposure. Instead, the rule established an "action level" of 15 micrograms of lead per liter (15 parts-per-billion (ppb)) of water, a level that EPA believed was generally representative of what could be feasibly achieved at the tap.[10] If more than 10 percent of tap water samples exceed the lead action level of 15 pbb, then water systems are required to take specified treatment actions.[11]

Because the LCR regulates public water systems, it does not directly address individual schools that are served by a public water system. There is no federal law requiring testing of drinking water for lead in schools that receive water from public water systems.[12] States and local jurisdictions may establish their own voluntary or mandatory programs for testing drinking water in schools and child-care facilities.[13]

The most direct oversight of water systems is conducted by state drinking water programs. States can apply to the EPA for "primacy," the authority to implement the SDWA within their jurisdictions, if they can show that they will adopt standards at least as stringent as the EPA's and make sure water systems meet these standards. All states and territories, except Wyoming and the District of Columbia, have received primacy.[14]

Florida Safe Water Requirements

The "Florida Safe Drinking Water Act"[15] (Act) establishes the Florida Department of Environmental Protection (department) as the lead-agency with primary responsibility for the Act, with support by the Department of Health and its units, including county health departments. The Act is intended to: [16]

- Implement the federal Safe Drinking Water Act.[17]
- Encourage cooperation between federal, state, and local agencies, not only in their enforcement role, but also in their service and assistance roles to city and county elected bodies.
- Provide for safe drinking water at all times throughout the state, with due regard for economic factors and efficiency in government.

[9] The maximum contaminant level goal is the maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health of persons would occur, allowing an adequate margin of safety.
[10] United States Government Accountability Office, *Lead Testing of School Drinking Water Would Benefit from Improved Federal Guidance* (July 2018), *available at* https://www.gao.gov/assets/700/692979.pdf, at 6.
[11] United States Environmental Protection Agency, *Basic Information about Lead in Drinking Water*, https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water (last visited Mar. 20, 2019).
[12] United States Government Accountability Office, *Lead Testing of School Drinking Water Would Benefit from Improved Federal Guidance* (July 2018), *available at* https://www.gao.gov/assets/700/692979.pdf, at 2.
[13] United States Environmental Protection Agency, *3Ts for Reducing Lead in Drinking Water Toolkit*, https://www.epa.gov/ground-water-and-drinking-water/3ts-reducing-lead-drinking-water-toolkit (last visited Mar. 21, 2019).
[14] United States Environmental Protection Agency, *Understanding the Safe Drinking Water Act* (June 2004), *available at* https://www.epa.gov/sites/production/files/2015-04/documents/epa816f04030.pdf, at 2.
[15] Section 403.850, F.S. The Act includes ss. 403.850-403.891, F.S.
[16] Section 403.851, F.S.
[17] Pub. L. No. 93-523, S. 433, 93rd Cong. (1974).

In Florida, lead is monitored by the LCR and state rules.[18] The Inorganics Monitoring Rule[19] requires specified public water systems[20] to monitor for lead at each point of entry to its distribution system. In other words, after the water leaves the treatment plant, but before it reaches the water system's first customer.[21] The LCR also requires that public water systems notify the department that they have complied with their obligation to notify consumers of the results of lead and copper sampling.[22]

Florida law does not require schools to test or filter drinking water.[23] However, Florida regulations do require that any school with an on-site potable water system must be in proper working order and comply with the Florida Safe Drinking Water Act, which requires sampling and testing of the water supply.[24]

Florida School District Actions Relating to Lead in Water

Recent examples of Florida school districts testing for lead and taking remedial actions include the:

- Hillsborough County School District, which tested more than 1,780 individual drinking or cooking water sources, prioritizing older schools. Remediation actions include replacing the fixture, adding water filters, or other plumbing projects.[25]
- Polk County School District, which implemented a testing program in 2016,[26] and prioritized testing for schools built before 1986. If results were above the action level, a correction plan was implemented, which included a flushing protocol with follow-up testing, bottled water, installation of NSF-approved lead contaminant filters, and new plumbing.[27]

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[18] Florida Department of Environmental Protection, *Monitoring Lead and Copper in Florida Drinking Water*, https://floridadep.gov/water/source-drinking-water/content/monitoring-lead-and-copper-florida-drinking-water (last visited Mar. 16, 2019).
[19] Rule 62-550.513, F.A.C.
[20] Sections 403.852(3), (17), and (18).
[21] Florida Department of Environmental Protection, *Monitoring Lead and Copper in Florida Drinking Water*, https://floridadep.gov/water/source-drinking-water/content/monitoring-lead-and-copper-florida-drinking-water (last visited Mar. 16, 2019).
[22] *Id.*
[23] Nationwide, an estimated 43 percent of school districts, serving 35 million students, tested for lead in school drinking water in 2016 or 2017, according to GAO's nationwide survey of school districts. An estimated 41 percent of school districts, serving 12 million students, had not tested for lead. GAO's survey showed that, among school districts that did test, an estimated 37 percent found elevated lead (lead at levels above their selected threshold for taking remedial action.). U.S. Government Accountability Office, *Lead Testing of School Drinking Water Would Benefit from Improved Federal Guidance*, https://www.gao.gov/products/GAO-18-382 (last visited Mar. 20, 2019).
[24] Florida Department of Education, *State Requirements for Educational Facilities* (2014), *available at* http://www.fldoe.org/core/fileparse.php/7738/urlt/srefrule14.pdf, at 62.
[25] Hillsborough County Public Schools, *Water Testing FAQ*, https://www.sdhc.k12.fl.us/doc/2012/maintenance/resources/watertesting-faq/ (last visited Mar. 21, 2019). The testing revealed 1.5 percent of fixtures required remediation. Florida Department of Health, *Florida Department of Health in Hillsborough County Applauds School District's Lead Testing Efforts*, http://hillsborough.floridahealth.gov/newsroom/2018/08/lead-testing-efforts.html (last visited Mar. 21, 2019).
[26] https://www.pcsb.org/site/handlers/filedownload.ashx?moduleinstanceid=39444&dataid=51816&FileName=water-treatment-brochure-v8-marksandbleed.pdf.
[27] Polk County Schools, *Water Quality Assessment*, https://polkschoolsfl.com/leadinformationcenter/ (last visited Mar. 21, 2019).

Filtering Water for Lead

Point-of-use (POU) and point-of-entry (POE) devices are different types of treatment options. A POU is installed at each outlet, while a POE is installed where the water enters the building. POE devices are typically used by public water system under the SDWA, which are required to meet the federal and state regulations for drinking water, including additional water quality monitoring. In addition, POE devices are not effective in removing lead that comes from plumbing materials within the school.[28]

Point-of-use (POU) units are commercially available and can be effective in removing lead. There are a number of POU cartridge filter units available that effectively remove lead.[29] They can be relatively inexpensive ($65 to $250) or more expensive ($250 to $500)[30] and their effectiveness varies. Filters need routine maintenance (e.g., cartridge filter units need to be replaced periodically) to remain effective.[31]

The American National Standards Institute and NSF Standards

The American National Standards Institute (ANSI) is a private, non-profit organization that administers and coordinates the U.S. voluntary standards and conformity assessment system. Founded in 1918, the ANSI works in close collaboration with stakeholders from industry and government to identify and develop standards.[32]

The National Sanitation Foundation (NSF)[33] is an independent, not-for-profit ANSI-accredited organization that facilitates development of consensus-based national standards for the safety, health and performance of food, water and consumer products. This includes developing standards for drinking water treatment products, including plumbing supplies, and testing these products to ensure their compliance with NSF and other consensus-based standards.[34]

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[28] United States Environmental Protection Agency, *3Ts: Training, Testing, Taking Action, Module 6: Remediation and Establishing Routine Practices, Remediation Options* (Oct. 2018), *available at* https://www.epa.gov/sites/production/files/2018-09/documents/module_6_remediation_options_508.pdf, at 2.

[29] Environmental Protection Agency, *3Ts: Training, Testing, Taking Action: Module 6: remediation and Establishing Routing Practices—Remediation Options* (Oct. 2018), available at https://www.epa.gov/sites/production/files/2018-09/documents/module_6_remediation_options_508.pdf, at 2.

[30] Alachua County Schools recently began installing water filters at all schools in the district. The school district installed Omnipure K5615_KK filters that are NSF/ANSI-53 rated, with a maximum life of one year. The cost of such installation for all schools was $30,000, which compares to an estimated cost of $300,000 to test each school individually for lead contaminants. The Gainesville Sun, *Alachua County schools install filters to remove lead* (Oct. 15, 2018), https://www.gainesville.com/news/20181015/alachua-county-schools-install-filters-to-remove-lead (last visited Mar. 21, 2019).

[31] Environmental Protection Agency, *3Ts: Training, Testing, Taking Action: Module 6: remediation and Establishing Routing Practices—Remediation Options* (Oct. 2018), available at https://www.epa.gov/sites/production/files/2018-09/documents/module_6_remediation_options_508.pdf, at 2.

[32] American National Standards Institute, *What is ANSI? An Overview, available at* https://share.ansi.org/Shared%20Documents/News%20and%20Publications/Brochures/WhatIsANSI_brochure.pdf at 1.

[33] NSF International was founded as the National Sanitation Foundation in 1944, but changed its name to NSF International in 1990 with expansion of services beyond sanitation and into global markets. The letters NSF do not represent any specific words today. NSF, *Mission, Values, and History* http://www.nsf.org/about-nsf/mission-values-history (last visited Mar. 18, 2019).

[34] NSF, *Lead in School Water and Lead Plumbing Pipes*, http://www.nsf.org/consumer-resources/water-quality/faucets-plumbing/lead-schools (last visited Mar. 18, 2019).

In the 1970s, NSF led the development standards for materials and products that treat or come in contact with drinking water, including water filters used in homes and businesses. They include:

- NSF Standard 53 (NSF-53) *Drinking Water Treatment Units - Health Effects* is the nationally recognized standard for evaluating and certifying drinking water treatment systems for the reduction of contaminants from drinking water.[35] NSF-53 establishes the minimum requirements for the certification of POU/POE filtration systems designed to reduce specific health-related contaminants, including lead, that may be present in drinking water.[36]
- NSF/ANSI Standard 61 (NSF-61) *Drinking Water System Components – Health Effects* relates to plumbing products and water treatment and establishes requirements for the control of equipment that may introduce lead drinking water because of the materials used in the product.[37] The products and materials covered include, but are not limited to: process media (e.g., carbon or sand), protective materials (e.g., coatings, liners), joining and sealing materials (e.g., welding materials, gaskets), pipes and related products (e.g., pipes, tanks, fittings), and mechanical devices used in distribution systems (e.g., valves, chlorinators, POE drinking water systems).[38]

III. Effect of Proposed Changes:

SB 66 requires each school district to filter drinking water at each source for any school built before 1986. Specifically, for such schools the bill requires each school district to:

- Install a barcode on all school drinking water sources.
- Install a filter that meets specified standards to reduce lead at each school water source.
- Post a conspicuous sign near each non-drinking-water source warning that such source should not be used for human consumption.
- Publish on the school district's website information about filters for each drinking water source and actions necessary to comply with requirements.

The bill creates s. 1012.29, F.S., to recognize that:

- The adverse health effects of lead exposure in children and adults are well documented and no safe blood lead level in children has been identified;
- Lead accumulates in the body and can be ingested from various sources, including water sources used for drinking, food preparation, or cooking; and
- All sources of lead should be controlled or eliminated to prevent childhood lead poisoning.

The bill defines a "drinking water source" as any water source used for drinking, food preparation, or cooking, and requires that for each district school[39] built before 1986, the school district must:

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[35] NSF, *Certified Product Listings for Lead Reduction*, http://info.nsf.org/Certified/DWTU/listings_leadreduction.asp?ProductFunction=053|Lead+Reduction&ProductFunction=058|Lead+Reduction&ProductType;=&submit2=Search (last visited Mar. 19, 2019).
[36] NSF, *Residential Drinking Water Treatment Standards*, http://www.nsf.org/services/by-industry/water-wastewater/residential-water-treatment/residential-drinking-water-treatment-standards (last visited Mar. 19, 2019).
[37] NSF, *Lead in School Water and Lead Plumbing Pipes*, http://www.nsf.org/consumer-resources/water-quality/faucets-plumbing/lead-schools (last visited Mar. 18, 2019).
[38] NSF, *NSF/ANSI-61-2016, available at* https://www.nsf.org/newsroom_pdf/NSF-ANSI_61_watemarked.pdf, at 1.
[39] The bill refers to "district schools." However, chapter 1013, which governs educational facilities, does not define a "district school," but instead defines an "educational facility" as "the buildings and equipment, structures, and special educational use

- Identify and install a barcode on all drinking water sources in such school.
- Install a filter that reduces lead in drinking water on each drinking water source and, at a minimum, maintain each filter in a manner consistent with the manufacturer's recommendations. The filter or all of the filter's component parts must meet the National Sanitation Foundation/American National Standards Institute Standard 53: Drinking Water Treatment Units-Health Effects or Standard 61: Drinking Water System Components-Health Effects, as appropriate.
- Post a conspicuous sign near each school water source that is not a drinking water source. The sign must include wording and an image that clearly communicate that water from the source should not be used for human consumption, food preparation, or cooking.
- Publish on the school district's website a list of drinking water sources at such schools. At a minimum, the list must include for each drinking water source all of the following:
  - The date on which the current filter was installed.
  - The date on which the current filter is scheduled to be replaced.
  - The barcode identification number associated with the source.
  - Any actions necessary to comply with the requirements of this section which have been completed or are pending.

The bill requires point-of-use water filtration devices on specified drinking water sources, but does not amend the Florida Safe Drinking Water Act, and does not require a school district to have water at district schools tested for lead. Such filters may lower the risk of students and school personnel ingesting lead through drinking water. The bill may also increase public awareness of the risks of lead in drinking water, specifically in schools.

The bill takes effect July 1, 2019.

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.

areas that are built, installed, or established to serve primarily the educational purposes and secondarily the social and recreational purposes of the community and which may lawfully be used as authorized by the Florida Statutes and approved by boards." Florida Department of Education, *DOE Agency Analysis of SB 66* (Nov. 28, 2018), at 5.

E. Other Constitutional Issues:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

Manufacturers of filters to reduce lead in drinking water may realize increased revenues from school districts purchasing filters to comply with the bill's requirements.[40]

C. Government Sector Impact:

According to the Department of Education, there are approximately 1,751 schools currently in operation that were built prior to 1987. This count does not include buildings that are not part of a school campus, such as maintenance buildings and bus barns. School districts with schools built prior to 1986 would incur expenditures associated with the following requirements:

- Installing barcodes on all drinking water sources in all schools built before 1986.
- Installing approved filters on all drinking water sources in schools built before 1986 and replacing the filters at regular intervals to meet certain specifications and standards.
- Publishing and updating specified information on the school district's website.
- Posting of signage on all water sources that are not for human consumption that are found in schools that were built before 1986.

The costs are indeterminable and would vary by school district, depending on the number of schools that were built prior to 1986 and the availability of district staff to perform work associated with the tracking, filter installation and posting requirements. [41]

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill creates section 1013.29 of the Florida Statutes.

[40] Florida Department of Education, *2019 Agency Analysis of SB 66* (Nov. 28, 2018), at 4.
[41] *Id.* at 3.

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.