OHIO LEGISLATIVE SERVICE COMMISSION

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Office of Research and Drafting

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S.B. 143
134th General Assembly

Fiscal Note & Local Impact Statement

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Version: As Introduced

Primary Sponsor: Sen. O'Brien

Local Impact Statement Procedure Required: No

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Highlights

- The Ohio Environmental Protection Agency (Ohio EPA) may experience an increase in administrative costs to develop new rules associated with the regulation of aluminum levels in drinking water. Additionally, since the requirement to develop these rules will trigger enforcement duties, including monitoring, there could be an increase in the number of enforcement actions filed annually. Such increases would likely be absorbed by existing resources.
- Once the new rules regulating aluminum in drinking water go into effect, certain public water systems (PWS) may be required to implement mitigation efforts at the direction of the Ohio EPA. Costs will depend on the type of mitigation required.

Detailed Analysis

The bill requires the Director of Environmental Protection (Ohio EPA) to adopt a maximum contaminant level for aluminum in drinking water.

Background

The U.S. EPA has established National Primary Drinking Water Regulations (NPDWRs) that set mandatory water quality standards for drinking water contaminants. These are enforceable standards called "maximum contaminant levels" (MCLs) to protect the public against consumption of drinking water contaminants that present a risk to human health. An MCL is the maximum allowable amount of a contaminant in drinking water which is delivered to the consumer.[1]

[1] https://www.epa.gov/sdwa/secondary-drinking-water-standards-guidance-nuisance-chemicals.

In addition, the U.S. EPA has established nonmandatory water quality standards for 15 contaminants, including aluminum. The U.S. EPA does not enforce these "secondary maximum contaminant levels" (SMCLs). They are established as guidelines to assist public water systems (PWS) in managing their drinking water for aesthetic considerations, such as taste, color, and odor. These contaminants are not considered to present a risk to human health at the SMCL. Secondary contaminants may cause the water to appear cloudy or colored, or to taste or smell bad.

In Ohio, aluminum is considered to be a secondary contaminant in drinking water with a maximum level (SMCL, mg/L) between the ranges of 0.05 to 0.2 mg/L. The Ohio EPA does not require monitoring or reporting on this particular contaminant by PWS. Therefore, it is unknown how many water systems currently test outside of the recommended range for aluminum.

Ohio's nearly 4,800 public water systems provide drinking water to 11 million people daily and range in size from large municipalities to small churches and restaurants relying on a single well. Of the 4,721 PWS in Ohio (as of 2020), 4,389 (93%) use ground water (wells) and the remaining 332 (7%) use surface water (lakes or rivers). Sources of aluminum can be found in rock and soil which may leach into a water source. Drinking water may also be affected by residual impacts from the municipal feeding of alum (aluminum sulfate) or as sodium aluminate from clarification or precipitation softening.[2]

Operation of the bill

The bill requires the Ohio EPA Director to adopt rules establishing a maximum contaminant level for aluminum in drinking water of not more than 0.2 milligrams per liter. The rules must not be less stringent than an MCL or health advisory established by the U.S. EPA. The enacted rules must be reviewed annually. Current standards for aluminum in drinking water is .05 to 0.2 mg/L (Ohio Administrative Code 3745-82), but are not currently monitored or enforced due to their status as a secondary contaminant. The bill will effectively remove aluminum's designation as a secondary contaminant and make it subject to monitoring and reporting requirements. The bill defines "aluminum" to mean any form of aluminum, aluminum ion, or aluminum compound including, but not limited to, aluminum hydroxide, aluminum sulfate, and aluminum chloride.

State and local fiscal impacts

The Ohio EPA may experience an increase in administrative costs to develop new rules associated with the regulation of aluminum levels in drinking water. Additionally, since the requirement to develop these rules will trigger enforcement duties, including monitoring, there could be an increase in the number of enforcement actions filed annually. Such increases would likely be absorbed by existing staff resources.

Until these new rules are adopted by the Ohio EPA, it is unknown how many public water systems could be impacted. Since aluminum is currently considered to be a secondary contaminant, the Ohio EPA does not require monitoring or reporting. It is unknown how many systems currently test for aluminum or how many of those may test higher than the amounts proposed in the bill. Additionally, it appears that mitigation solutions may depend upon the source of the contaminant. Once the new rules are enacted, certain public water systems may

[2] https://www.wqa.org/portals/0/technical/technical%20fact%20sheets/2014_aluminum.pdf.

be required to implement mitigation efforts at the direction of the Ohio EPA. Costs will depend on the type of mitigation required and could be significant if capital improvements are needed.

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