

Regulatory Impact Analysis for Adoption of 15A NCAC 18C .1540

Rule Citation: 15A NCAC 18C .1540 (proposed)

Rule Topic: State adoption of federally mandated rule to control Per- and Polyfluoroalkyl substances in public drinking water supplies.

DEQ Division: Division of Water Resources (DWR)

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Impact Summary: State government: Yes (program administration costs)
Local government: Yes (benefits resulting from primacy)
Private Sector: Yes (benefits resulting from primacy)
Substantial Impact: No

Necessity: The Public Water Supply (PWS) Section, which serves as the primacy agency to United States Environmental Protection Agency (EPA), has responsibility to implement and enforce provisions of the federal Safe Drinking Water Act (SDWA). As per publication in the federal register (Vol. 89, NO. 42) on April 26, 2024, new and mandatory EPA requirements exist and await implementation by the PWS Section. The new requirements are intended to control and manage public health risks associated with Per- and Polyfluoroalkyl substances (PFAS).

I. Executive Summary

The primary purpose of this document is to provide fiscal insight related to the adoption and implementation of a state rule to codify new, mandatory federal requirements within the SDWA. The EPA requirements are designed to control and mitigate PFAS substances in public drinking water supplies. The PWS Section of the Division of Water Resources will have responsibility for rule implementation, following the application procedure of obtaining primacy for the rule through a formal agreement with EPA.

The PWS Section maintains a state-wide staff of engineers and other environmental professionals who provide technical support, inspect facilities, and support compliance with the *Rules Governing Public Water Systems* (15A NCAC 18C). To codify the federal PFAS requirements, a new state rule, 15A NCAC 18C .1540, is proposed that will adopt by reference the language and requirements within 40 C.F.R., Part 141, Subpart Z, *Control of Per- and Polyfluoroalkyl Substances (PFAS)*. Adopting the EPA rule into the North Carolina Administrative Code positions the state to manage its implementation via primacy agreement, as opposed to administration at the federal level.

State funds of approximately \$393,000 per year over the next three years will be used to support three full-time positions within the PWS Section to implement and enforce the proposed PFAS rule. Two of the three positions are already filled. Funds have already been set aside to cover costs for all three positions. The regulated community, which includes water systems owned by local government and private sector entities, will incur compliance costs; however, these costs are attributable to the federal action rather than the proposed state rule. As compared to the regulatory baseline, which consists of the default federal implementation of the new PFAS requirements within the SDWA, the proposed state rule will provide unquantifiable benefits to the regulated community in the form of more efficient technical assistance, improvements to system operations, time savings, collaboration on engineering solutions, and a resulting improved likelihood of timely compliance. Improved compliance should, in turn, benefit consumers of public water supplies in the form of reduced exposure to PFAS compounds, with long term benefits to public health.

1. Background

The following excerpts from Volume 89, No. 82 of the Federal Register provide context surrounding the urgency for EPA to begin regulating PFAS in public drinking water: “Per- and polyfluoroalkyl substances (PFAS) are a large class of thousands of synthetic chemicals that have been in use in the United States and around the world since the 1940s (USEPA, 2018a) ... It has been documented that exposure to PFAS are associated with a range of adverse health effects (USEPA, 2021a; USEPA, 2021b; ATSDR, 2021; NASEM, 2022) ... The adverse health effects associated with exposure to such PFAS include (but are not limited to): effects on the liver (e.g., liver cell death), growth and development (e.g., low birth weight), hormone levels, kidney, the immune system (reduced response to vaccines), lipid levels (e.g., high cholesterol), the nervous system, and reproduction, as well as increased risk of certain types of cancer.”

All states must either implement and enforce the federal PFAS rule, or default to enforcement activities administered by EPA. Additionally, all water systems subject to the PFAS rule must comply with its provisions. There are no exceptions, regardless of whether the state or EPA serves as the enforcement authority.

In North Carolina, there is long-standing precedent via primacy agreements that allow the state to implement federal rules and enforce their compliance. For a variety of reasons, continuation of this approach is preferred for adopting the new PFAS rule. The PWS Section has a regional network of engineers and technical staff who routinely interact with our regulated community of over 5,000 public water systems. Staff readily provide technical assistance upon request and/or whenever operational support is needed. The state's regulated water systems work cooperatively with PWS Section staff, and they rely on assistance to help solve problems related to compliance and treatment. Finally, the PWS Section maintains established legal procedures with DEQ's Office of General Counsel and the NC Department of Justice to pursue compliance, if such measures are needed. Given these reasons, there is no advantage to the regulated community for the agency to yield to EPA for implementation and enforcement of its new PFAS regulations.

The water systems in the state that are subject to the proposed new rule will be a subset of the total number of regulated systems, as the PFAS regulations only apply to community and non-transient non-community systems that have their own source of raw water. Some of these systems have already started sampling for PFAS. Additionally, the state has collected PFAS samples and evaluated data from hundreds of water systems to determine geographical areas of interest and to compile metrics predicting the number of water systems with potential PFAS concerns. PFAS sampling efforts have been focused within the NC DEQ for the past several years, as the agency has pursued strategies to protect public health and to proactively identify resources to assist with PFAS remediation.

The PWS Section acknowledges that there will be financial impacts of the new federal regulations, but these are not the direct result of the state rule proposed by this document. Associated costs to comply with federal PFAS requirements will exist regardless of whether the state or EPA implements the regulations. Also, it should be noted that funding provided by EPA exists in sufficient quantities for the PWS Section to implement the new PFAS regulations. Therefore, the Section does not intend to request legislative appropriations or other funding sources to support the state's implementation efforts.

2. Impact on State Government

As discussed previously, the PWS Section will continue to support staff with the responsibility of implementing and enforcing the new PFAS regulations. To accomplish this, the Section will rely on: (i) existing regional office technical staff, and (ii) a newly formed PFAS compliance team within the Central Office. It is likely that the only fiscal impacts directly attributable to the proposed state rule will be to the PWS Section as incremental changes to staff and processes are initiated to support implementation. These impacts are discussed below:

Regional Office Staff Positions

The PWS Section has engineers and other technical positions distributed in seven regional offices across the state. Primary responsibilities of regional office staff are to inspect water systems, provide technical assistance, and to support compliance. Given the fact that activities associated with the new PFAS rule will impact only a subset of water systems, there is currently sufficient staff resources to absorb activities associated with the new rule. Therefore, although existing staff resources may be allocated differently, no new regional positions will be required. PWS Regional office staff have historically been fully funded through EPA's Drinking Water State Revolving Fund (DWSRF). We believe the new PFAS rule will have no significant fiscal impact on regional office operations.

Central Office Staff Positions

The PWS Section recently created a PFAS compliance team, in anticipation of the new regulatory requirements by EPA. The team includes three technical professionals: an advanced Engineer III (65024018), an Engineer I (65028299), and a time-limited (3 year) Environmental Program Consultant. The Engineer III position is fully funded and has been filled. The Engineer I position is also funded and has been filled. The proposed Environmental Consultant position has been approved and is awaiting posting.

The estimated annualized cost to maintain each of these positions is itemized below. Salary costs were estimated assuming the range midpoint of each grade, as per the salary schedule available from the North Carolina Office of State Human Resources (OSHR). Total compensation, which accounts for fringes and benefits, was derived from the OSHR online calculator tool.

- Engineer III (NC20): \$144,354 per year (based at a 10-year service level)
- Engineer I (NC16): \$120,195 per year (based at a 10-year service level)
- Environmental Program Consultant (NC18): \$128,557 per year (based at a 3-year service level, as this position is time-limited)

All three positions cited above are fully funded through set-asides of the DWSRF, which has sufficient resources to maintain these positions. No additional financial support will be necessary. However, it should be realized that using DWSRF grant proceeds to support these positions will result in an opportunity cost to the state, as grant set-asides that are not utilized for program support are transferred to the North Carolina Division of Water Infrastructure, where they are used to provide low-interest loans for infrastructure improvement.

Note that the only alternative to the approach described above is for the PWS Section to forgo primacy from EPA. This would be a departure from the historic precedent of regulation in the state (at least with respect to the Safe Drinking Water Act); it would not result in cost savings for the state; and it would ultimately result in negative consequences to the state's public water systems. Declining primacy means that EPA would assume all compliance, enforcement, and associated activities, and administer such activities from the federal level. Currently, the state's

water systems and the PWS Section enjoy a beneficial relationship of mutual trust, and water systems rely on the state's technical assistance to help maintain compliance with requirements of 15A NCAC 18C. Federal rule administration by EPA would likely reduce the benefits of direct technical interaction with water systems (at a time when they need it the most), and it may lead to confusion and a deterioration of the relationships that currently exist with the regulated community. Additionally, defaulting to EPA would not benefit the state economically, as the existing DWSRF grant proceeds are adequate and stable to support implementation of the new federal regulations.

3. Fiscal Impact to the Regulated Community

As mentioned in the "Background" section, two classifications of water systems will be subject to the PFAS regulations. These classifications include community and non-transient non-community systems that have their own source of raw water. The percentage of the regulated community that will be subject to the PFAS rule is approximately 39% of the total number of water systems in the state. This subset is primarily made up of systems owned by local government and the private sector. These systems (1,960) will incur initial compliance costs, with a smaller subset incurring treatment costs on an ongoing basis. As stated earlier, resulting costs are not the direct effects of the state rule proposed by this document. Water systems will ultimately be responsible for compliance regardless of whether the federal rule is codified into 15A NCAC 18C or not. Additionally, compliance costs will not change with respect to federal versus state oversight, as the proposed state rule adopts by reference the exact language of the federal requirements.

EPA has published a comprehensive cost and benefit analysis in C.F.R. Volume 89, No. 82 Section XII, *Cost Analysis*, which also includes a description of the methodology used to model costs in Subsection D., *Method of Estimating Costs*. EPA's projected costs are not provided for each individual state. General engineering assumptions regarding level and types of treatment are included in EPA's cost models.

Benefits to Public Water Systems

As discussed previously in this document, the regulated community will realize a direct benefit from the proposed state rule as the Section codifies the federal regulations. Over many years of implementing provisions of the SDWA, the PWS Section has developed expertise to assist the regulated community with technical and compliance related issues. Implementation of the new PFAS regulations will be no different. A beneficial relationship exists between the agency and the regulated community that fosters communication and mutual problem solving. For example, regional office staff routinely go onsite to provide technical assistance on operations and maintenance, deliver compliance assistance, inspect facilities, and to help resolve consumer concerns. These interactions often result in more rapid problem solving, which helps water systems remain in or return to compliance, and prevents smaller problems from morphing into larger ones. The state rule proposed herein is a condition for primacy, and if the agency does not

pursue primacy, the historically beneficial relationships may deteriorate, at least with respect to the Section's ability to assist water systems with PFAS regulation.

4. Potential Benefits to the Consuming Public

The consumers of water from public water systems are not technically part of the regulated community. However, because the objective of the new federal PFAS requirements is to offer potential public health benefits, we believe there is value in referencing the source of federal information related to this topic. EPA has published extensive information related to anticipated public health benefits associated with its new PFAS rule, as well as the methodologies used to determine benefits, in C.F.R. Volume 89, No. 82 Section XII, *Health Risk Reduction and Cost Analysis*, Subsections G, H, and I.

Secondary benefits to the consuming public may be realized from the state's efforts to implement the new regulations per primacy agreement with EPA. As mentioned previously, a more efficient mechanism for technical assistance and problem solving can help systems maintain compliance or return to compliance faster than they would with less localized assistance. Ultimately this serves the interests of consumers reliant on the water system.

5. Concluding Remarks

The following points summarize concepts addressed within this Regulatory Impact Analysis:

- EPA intends to regulate PFAS in drinking water, as per recent revisions to the federal Safe Drinking Water Act. Nearly 1,960 North Carolina public water systems will be subject to the new regulations.
- The PWS Section proposes state Rule 15A NCAC 18C .1540 to adopt the federal rule language by reference (see Appendix A). This enables the state to apply for primacy and be delegated authority to implement and enforce the new regulations.
- It is advantageous to the state and the regulated community for the PWS Section to administer the new EPA rule implementation, as opposed to implementation at the federal level. This is the historic approach that has been utilized by the state concerning other provisions of the Safe Drinking Water Act, and it offers benefits to the regulated community.
- Fiscal impacts incurred by the regulated community and related to rule compliance (such as sampling and PFAS mitigation) will arise from the federal regulations, but these impacts are not a direct result of the state rule proposed within this document.
- Fiscal impact to the state will be minimal as staff resources for implementation and technical assistance are already allocated, as per funding from the Drinking Water State Revolving Fund. No additional funding will be requested.

- Long term impact related to the consuming public includes the confidence in public drinking water as consumers realize that routine monitoring for PFAS is being conducted and that mandates exist to mitigate levels that exceed federal standards. Public health benefits may also be realized as exposure to PFAS through drinking water is reduced.

APPENDIX A – PROPOSED RULE LANGUAGE FOR 18C .1540

15A NCAC 18C .1540 CONTROL OF PER- AND POLYFLUOROALKYL SUBSTANCES

The provisions of 40 C.F.R. 141, Subpart Z – Control of Per- and Polyfluoroalkyl Substances (PFAS) are hereby incorporated by reference including any subsequent amendments and editions. Copies are available for public inspection as set forth in Rule .0102(a) and (b) of this Subchapter.

History Note: Authority G.S. 130A-315; 130A-320(c); P.L. 93-523; 40 C.F.R. 141 Eff. [Month Day, Year. TBD]