

## **Regulatory Impact Analysis**

**Rule Citation:** 15A NCAC 18C .1305

**Rule Topic:** Amendment to Rule .1305 - Source Water Protection Planning

**DEQ Division:** Division of Water Resources (DWR)

**Staff Contacts:** Jay Frick, Protection and Enforcement Branch Head, Public Water Supply Section, DWR  
[jay.frick@ncdenr.gov](mailto:jay.frick@ncdenr.gov)  
(919) 707-9102

**Impact Summary:** State government: Yes  
Local government: Yes  
Private entities: Yes  
Substantial Impact: No  
Federal government: No

**Necessity:** The proposed rule change outlined in this analysis is intended to reduce regulatory burden and allow public water system owners to create and implement one plan, rather than two separate plans addressing essentially the same, but not identical, federal and state requirements.

### **1. Summary**

G.S. 130A-320 (established by S.L. 2014-41) resulted in the establishment of 15A NCAC 18C.1305. The new rule became effective January 1, 2019 after adoption by the North Carolina Commission for Public Health. The intent of the rule is to require public water systems using surface water to create and implement a protection plan to assess threats and develop emergency response protocols. Recently, a similar effort was initiated at the federal level. The American Water Infrastructure Act (AWIA) established requirements that mandate development of a Risk and Resiliency Assessment and an Emergency Response Plan for community water systems with populations greater than 3,300. In August 2019, EPA released details of the federal compliance requirements in its “Emergency Response Plan Template and Instructions.” Evaluation of the EPA template and instructions revealed significant overlap with the state’s .1305 rule for source water protection planning.

AWIA requirements include all of the elements required by G.S. 130A-320. Therefore, to reduce regulatory burden and allow public water systems to create and maintain one plan, rather than two separate plans addressing essentially the same, but not identical, state and federal requirements, we propose revising rule .1305 as specified in the Appendix of this document.

### **2. Background**

In 2014 the North Carolina General Assembly passed S.L. 2014-41 that resulted in revisions to G.S. 130A-320, which requires certain public water systems to create and implement a

Source Water Protection Plan (SWPP). In response to G.S. 130A-320, the Department established Rule 15A NCAC 18C .1305, effective January 1, 2019. During the rule making process the Department, with input from a stakeholder group, developed rule language that satisfied the requirements of the statute. Rule .1305 required establishment of plans that contained elements of the historically voluntary SWPPs, as well as additional elements required by G.S. 130A-320 that emphasized emergency preparedness. We propose revising rule .1305 requirements for source water protection planning for systems that: (i) comply with AWIA requirements, and (ii) assess risk from potential contaminant sources within the state-specified areas currently codified in .1305. Revisions to .1305 will eliminate unnecessary duplication and additional compliance cost for many of the state's public water systems.

### **3. Proposed Changes and Economic Impact Analysis**

The proposed revisions to 15A NCAC 18C .1305 are expected to assist the regulated community by providing simplification, clarity, and an option to achieve compliance by satisfying similar federal requirements. The effectiveness of the protection plans required by the rule will not be reduced, as the emphasis remains on response strategies to mitigate emergency contamination events. There may be limited economic impact (cost savings) realized by these revisions, but any such savings are difficult to quantify with certainty. Therefore, this analysis will focus primarily on the qualitative aspect of the revisions versus quantification of potential cost reductions.

As mentioned in the summary section, the most significant revision provides an alternative for water systems to comply with state requirements. For water systems subject to new federal AWIA requirements, the revised rule will accept the completion of a Risk and Resiliency Assessment and an Emergency Response Plan as satisfying the state's planning requirements. This option eliminates duplicative effort to produce essentially the same product. In addition, the state intends to adopt the federal update cycle of every five years, meaning that water systems will be able to achieve both federal and state compliance without maintaining two separate and unsynchronized update cycles. Therefore, the proposed revisions will result in convenience and simplification for the regulated community. We believe the majority of water systems in the state that are subject to 18C .1305 and the AWIA requirements (109 water systems) will be eager to take advantage of this provision. For water systems choosing to comply using this option, cost savings will likely be minimal and essentially equal to the cost of modifying the AWIA products for the state.

Seventeen community water systems and five non-transient non community water systems are not subject to the AWIA planning requirements and would not be able to satisfy state requirements using the provision in .1305 (d). Even so, this subset of systems would realize the same cost savings as AWIA-subject water systems due to the revisions discussed below. Cost savings resulting from these revisions will likely be minimal. Water systems in this subset are operated by both government and private sector entities, and they must still comply with protection planning to satisfy the legislative mandate.

We propose reducing the potential contaminant sources (PCSs) considered for inclusion in a protection plan to only those that have the potential to reach surface waters upon their release (referred to as “spillable” for purposes of this discussion). This revision is consistent with the original spirit and intent of the legislation and better aligns the North Carolina planning process with new federal AWIA requirements. The primary purpose of these protection plans is for water systems to assess and expand their ability to mitigate contamination events through emergency response protocols. Non-spillable PCSs (such as old landfill sites or poultry feeding facilities) are not typically a concern from the context of emergency response. The decision to consider only spillable PCSs simplifies the planning effort and allows water systems to provide greater focus on those contaminants that can reach surface waters upon release. Some cost savings may be realized due to overall plan simplification, as some water systems may conclude that a simpler effort can be completed using in-house expertise versus hiring an external consultant. However, an accurate cost savings would be difficult to predict.

Since the promulgation of Rule .1305 we have received feedback from water systems that express concern regarding their role to identify PCSs apart from those included in the state’s inventory of permitted facilities. We acknowledge that existing rule language is too broad and developing a comprehensive, exhaustive inventory of every PCS may not be possible, despite the best efforts of the water system. Therefore, language of Rule .1305 has been modified to require water systems to supplement the PCS list provided by the state: (i) only if additional PCSs are known to exist by the water system, and (ii) only for such PCSs that are reasonably expected to reach surface waters if released. This revision is useful to clarify the agency’s expectation regarding the PCS list. We encourage water systems to include any PCS not provided by the state that, if in their judgment, constitutes a threat that can be mitigated by the emergency response protocols outlined in the protection plan. This revision is to clarify the rule’s original intent and is not expected to change economic impact associated with plan development.

We received suggestions from external entities to extend the plan update cycle from three years to five. Upon receipt of guidance from EPA regarding AWIA requirements, we learned that federal expectations for updating Risk and Resiliency Assessments and Emergency Response Plans is based upon a five-year cycle. Therefore, to achieve consistency with the federal requirements, we propose revising the state required update cycle to every five years. This change will also reduce regulatory burden for water systems, but it will not result in a significant reduction of cost. Plan effectiveness will remain unchanged.

There are several other minor revisions that will not significantly impact regulatory cost or the ability for a water system to respond effectively during contamination events. These minor revisions include removal of provisions that are not included in the AWIA requirements, and they are not believed to add value sufficient to justify development of an additional, state-unique protection plan. For example:

- Regarding water system outreach to PCS facilities, permitted facilities already have mandated communication protocols following a contamination event. In addition, AWIA outlines notification protocols associated with contaminant release.
- Regarding inclusion of voluntary, proactive source water protection activities, this provision is an artifact of “traditional” source water protection (SWP) planning that does not emphasize emergency preparedness, which is the primary intent of the legislation. Traditional SWP plans have always been voluntary in the state and focus on long-term management of PCSs that are not necessarily spillable. In fact, the realization that there are separate and distinct approaches (proactive versus reactive) to protection planning is what prompted a revision in the name of the plans required to satisfy Rule .1305.
- Regarding communication via the water plant’s Consumer Confidence Report (CCR), the information provided in the CCR only effectively informs the public that the water system is, or is not, in compliance with the Rule. AWIA requirements do not include this provision.
- Regarding notification to other interconnected water systems, the information in the contingency strategy may contain sensitive information about the vulnerabilities and response strategies of the water system. Dissemination of this information to any other party should be on a need-to-know basis as determined by the water system. Otherwise, the effectiveness of emergency response protocols could be compromised.

Finally, the agency will also benefit from the proposed revisions to .1305. Assuming that the majority of the state’s community water systems will prefer to use their AWIA plans to satisfy state requirements, there will be a significant reduction in staff time necessary for assistance, either through individual site visits, workshops, or other mechanisms of outreach and support. Additionally, the level of guidance materials can be reduced because EPA has already produced detailed templates relevant to AWIA compliance. This is beneficial because the legislation mandating protection planning was passed without additional resources for limited program staff to provide support and track/enforce compliance. The original fiscal note had itemized funding needed for one additional FTE to assist with rule implementation, estimated at \$90,000 per year. We believe this position will no longer be necessary pending approval of proposed revisions to the rule.

## APPENDIX – REVISED RULE LANGUAGE FOR 18C .1305

### 15A NCAC 18C .1305 SOURCE WATER PROTECTION PLANNING

(a) In compliance with G.S. 130A-320, every supplier of water operating a public water system treating and furnishing water from a surface water source shall create and implement a Source Water Protection Plan (SWPP) based upon the following schedule:

- (1) Water systems that have a single source of supply and a source susceptibility rating of higher or moderate, as determined by the Department, shall create and implement a SWPP by January 1, 2021.
- (2) Water systems that have multiple sources of supply and any source susceptibility rating of higher, as determined by the Department, shall create and implement a SWPP by January 1, 2022.
- (3) All other water systems treating and furnishing water from surface water sources shall create and implement an SWPP by January 1, 2023.
- (4) Any public water system that begins treating and furnishing water from a surface water source on or after January 1, 2021 shall create and implement a SWPP that satisfies the requirements of this Rule prior to the commencement of its operations.

(b) Any public water system required to create and implement a SWPP in accordance with this Rule shall review and update their SWPP at three year intervals from the creation deadline specified in Paragraph (a) of this Rule. Updated information in the SWPP must address the plan elements listed in Paragraph (c) of this Rule.

(c) Each SWPP shall contain the following elements:

- (1) A list of potential contaminant sources (PCSs), both provided by the Department and identified by the water system, located in the following areas as defined in Classifications and Water Quality Standards Applicable to Surface Waters and Wetlands of North Carolina, 15A NCAC 02B .0200, which is hereby incorporated by reference, including subsequent amendments and editions and can be found at no charge at [http://portal.ncdenr.org/c/document\\_library/get\\_file?uuid=f12e8078-b128-44ce-b55b-fe5e7d876f3e&groupId=38364](http://portal.ncdenr.org/c/document_library/get_file?uuid=f12e8078-b128-44ce-b55b-fe5e7d876f3e&groupId=38364):
  - (A) within the entire watershed for waters classified as WS I;
  - (B) within the critical area and 1,000 feet from perennial streambanks within the protected area for waters classified as WS II and WS III;
  - (C) within the critical area and 1,000 feet from perennial streambanks, within the protected area for waters classified as WS IV;
  - (D) within ½ mile from the normal pool elevation in which the intake is located, or to the ridge line of the watershed, whichever comes first, for a reservoir within waters classified as WS V; and
  - (E) within ½ mile, measured as a straight line, upstream from and draining to the intake located directly in the stream or river, or to the ridge line of the watershed, whichever comes first, for a direct stream intake within waters classified as WS V.
- (2) For community water systems, a contingency strategy that documents the system's planned response to an emergency event or contamination of its water source(s) that includes the following:
  - (A) identification and contact information of personnel responsible for emergency management, including water system, local, State, and federal emergency response personnel;
  - (B) identification of foreseeable natural and human caused emergency events including water shortages and outages;
  - (C) description of the emergency response strategies for each identified shortage or outage event and each potential contamination event associated with PCSs identified and listed in Subparagraph (c)(1) of this Rule;
  - (D) standard operating procedures to close intakes and switch to an alternate intake during a contamination event, including procedures that outline exercises designed to practice closure and switching of the intake(s);
  - (E) description of public notification procedures; and
  - (F) identification and evaluation of all facilities and equipment that upon failure would result in a water outage or violations of the Rules Governing Public Water Systems, 15A NCAC 18C.
- (3) For non transient, non community water systems, the contingency strategy shall contain the positions and phone numbers of responsible persons to contact in the event of an emergency, including water system, local, State, and federal emergency contacts.
- (4) An evaluation of a water system's ability to take the following actions:

- ~~(A) — close its water intake(s) in the event of contamination, including a determination of the duration of time the water intake(s) can remain closed while maintaining positive water pressure within the distribution system;~~
- ~~(B) — isolate or divert contaminated water from its surface water intake(s);~~
- ~~(C) — reduce demand by implementing conservation measures during a contamination event. Water Shortage Response Plans can be referenced to fulfill this requirement for water systems required to prepare a Water Shortage Response Plan under 15A NCAC 02E .0607, which is hereby incorporated by reference, including subsequent amendments and editions and can be found at no charge at <http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20e/15a%20ncac%2002e%20.0607.pdf>; and~~
- ~~(D) — meet demand via alternate sources of supply in the event of contamination or loss of its primary water source.~~
- ~~(5) — Verification of outreach efforts provided to the owners of the PCSs identified in Subparagraph (c)(1) of this Rule to raise awareness of the proximity of the drinking water intake(s) and provide emergency contact information for use during a contamination event.~~
- ~~(6) — A description of proactive activities and management strategies designed to protect the source(s) from contamination, including documentation of any voluntary source water protection activities that have been implemented by the water system.~~
- ~~(7) — Description of public awareness communication efforts that include the following:
 
  - ~~(A) — publication of the emergency and source water protection planning status, the next revision date, and a reference to this Rule in the community water system's annual Consumer Confidence Report, as required by 15A NCAC 18C .1538; and~~
  - ~~(B) — notification to any other public water system to which the system is directly interconnected of the contingency strategy set forth in Subparagraph (c)(2) of this Rule. A description of this communication shall be maintained in the SWPP.~~~~

~~(d) The supplier of water shall maintain a copy of the current SWPP onsite at each water treatment facility and make the SWPP available to personnel responsible for emergency management and operator(s) on duty at all times. The SWPP and any associated documentation used in its creation and implementation shall be available for review by Section staff upon request.~~

~~(e) The supplier of water shall certify that a SWPP has been created and implemented, and that the water system's governing body has been advised of the SWPP creation and implementation. The certification shall be submitted to the Department by the deadline specified in Paragraph (a) of this Rule.~~

~~(f) The supplier of water shall certify that a SWPP has been revised and that the water system's governing body has been advised of the revision. The certification shall be submitted to the Department by the revision deadline specified in Paragraph (b) of this Rule.~~

(a) In compliance with G.S. 130A-320, every supplier of water operating a public water system treating and furnishing water from a surface water source shall create and implement a Source Water Protection Plan. For purposes of this Rule, the Source Water Protection Plan required by G.S. 130A-320 shall be referred to as a Source Water Resiliency and Response Plan (SWRRP).

(b) The SWRRP shall include a list of potential contaminant sources (PCSs), with the potential to reach surface waters upon release, both provided by the Department and supplemented by the water system if additional PCSs are known to exist by the water system. The listed PCSs will be located in the following areas as defined in Classifications and Water Quality Standards Applicable to Surface Waters and Wetlands of North Carolina, 15A NCAC 02B .0200, which is hereby incorporated by reference, including subsequent amendments and editions and can be found at no charge at [http://portal.ncdenr.org/c/document\\_library/get\\_file?uuid=f12e8078-b128-44cc-b55b-fc5e7d876f3c&groupId=38364](http://portal.ncdenr.org/c/document_library/get_file?uuid=f12e8078-b128-44cc-b55b-fc5e7d876f3c&groupId=38364);

- (1) within the entire watershed for waters classified as WS-I;
- (2) within the critical area and 1,000 feet from perennial streambanks within the protected area for waters classified as WS-II and WS-III;
- (3) within the critical area and 1,000 feet from perennial streambanks, within the protected area for waters classified as WS-IV;
- (4) within ½ mile from the normal pool elevation in which the intake is located, or to the ridge line of the watershed, whichever comes first, for a reservoir within waters classified as WS-V; and
- (5) within ½ mile, measured as a straight line, upstream from and draining to the intake located directly in the stream or river, or to the ridge line of the watershed, whichever comes first, for a direct-stream intake within waters classified as WS-V.

(c) Any community water system subject to this Rule shall certify completion and implementation of a SWRRP by December 31, 2022. The SWRRP shall contain the following elements:

- (1) identification and contact information of personnel responsible for emergency management, including water system, local, State, and federal emergency response personnel;
- (2) an evaluation of a water system's ability to take the following actions:
  - (A) close its water intake(s) in the event of contamination, including a determination of the duration of time the water intake(s) can remain closed while maintaining positive water pressure within the distribution system;
  - (B) isolate or divert contaminated water from its surface water intake(s);
  - (C) reduce demand by implementing conservation measures during a contamination event. Water Shortage Response Plans can be referenced to fulfill this requirement for water systems required to prepare a Water Shortage Response Plan under 15A NCAC 02E .0607, which is hereby incorporated by reference, including subsequent amendments and editions and can be found at no charge at <http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20e/15a%20ncac%2002e%20.0607.pdf>; and
  - (D) meet demand via alternate sources of supply in the event of contamination or loss of its primary water source.
- (3) identification of foreseeable natural and human-caused emergency events including water shortages and outages;
- (4) a description of the emergency response strategies for each identified shortage or outage event and each potential contamination event associated with PCSs identified and listed in Paragraph (b) of this Rule;
- (5) standard operating procedures to close intakes and switch to an alternate intake during a contamination event, including procedures that outline exercises designed to practice closure and switching of the intake(s);
- (6) a description of public notification procedures; and
- (7) identification and evaluation of all facilities and equipment that upon failure would result in a water outage or violations of the Rules Governing Public Water Systems, 15A NCAC 18C.

(d) For community water systems that are subject to this rule and also required to complete a Risk and Resilience Assessment and an Emergency Response Plan under Section 2013 of America's Water Infrastructure Act (AWIA), which amends Section 1433 of TITLE XIV of the Public Health Service Act (The Safe Drinking Water Act); the system's Risk and Resilience Assessment and Emergency Response Plan created to comply with AWIA may be referred to as a SWRRP and used to satisfy the requirements of this Rule, if the PCS list was compiled in accordance with areas specified in Paragraph (b) of this Rule. The schedule for certifying completion and implementation of the SWRRP is as follows:

- (1) by September 30, 2020 for community water systems serving more than 100,000 people;
- (2) by June 30, 2021 for community water systems serving 50,000 to 99,999 people;
- (3) by December 30, 2021 for community water systems serving 3,301 to 49,999 people.

(e) Non-transient, non-community water systems subject to this Rule shall certify completion and implementation of a SWRRP by December 31, 2022. The SWRRP shall contain the following elements:

- (1) identification and contact information of personnel responsible for emergency management, including water system, local, State, and federal emergency response personnel;
- (2) an evaluation of a water system's ability to take the following actions:
  - (A) close its water intake(s) in the event of contamination, including a determination of the duration of time the water intake(s) can remain closed while maintaining positive water pressure within the distribution system;
  - (B) isolate or divert contaminated water from its surface water intake(s);
  - (C) reduce demand by implementing conservation measures during a contamination event, and
  - (D) meet demand via alternate sources of supply in the event of contamination or loss of its primary water source.

(f) Any public water system that begins treating and furnishing water from a surface water source on or after December 31, 2022 shall create and implement a SWRRP that satisfies the requirements of this Rule prior to the commencement of its operations.

(g) Any public water system required to create and implement a SWRRP in accordance with this Rule shall review and update its SWRRP at five-year intervals from its creation deadline, as specified in Paragraph (c), (d) or (e) of this Rule.

(h) The supplier of water shall certify that a SWRRP has been created and implemented, and that the water system's governing body has been advised of the SWRRP creation and implementation. The certification shall be submitted to the Department by the deadline specified in Paragraphs (c), (d) or (e) of this Rule.

(i) The supplier of water shall certify that a SWRRP has been revised and that the water system's governing body has been advised of the revision. The certification shall be submitted to the Department by the revision deadline specified in Paragraph (g) of this Rule.

*History Note: Authority G.S. 130A-315; 130A-320(c);  
Eff. January 1, 2019.  
Rev.*