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MEMORANDUM

TO: Ana Vohryzek, Britton Schwartz
FROM: Eric Moorman
DATE: September 22, 2016
RE: Source Water Protection in the Safe Drinking Water Act

I. QUESTION PRESENTED

Under the State Source Water Assessment Program (SWAP) outlined in the 1996 amendments to the Safe Drinking Water Act (SDWA), is EPA required or authorized to direct the states to protect drinking water sources from contamination?

II. SHORT ANSWER

EPA's SWAP program (SDWA §1453) requires states to assess drinking water sources for all public water systems within their borders. States must delineate source waters within their borders, identify contaminants within the source waters, and assess the source's susceptibility to those contaminants. The states must then publish the results of the assessment for the public. But §1453 does not require states to take any actions to protect drinking water—such as cleaning up contamination or preventing contaminants from entering drinking water sources—based on the results of these assessments. Furthermore, §1453 provides no explicit mechanism by which EPA can directly monitor states' implementation of the assessment programs or ensure that states complete their assessments in accordance with the Act's specifications. Finally, §1453 does not require states to use the results of source water assessments to develop more robust source water protection programs (SWPs) of their own.

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Although §1453 of the SDWA does not require states to take any action to protect source water in accordance with the result of the source water assessments, the legislative history of the 1996 SDWA amendments that created SWAP and the EPA's 1997 Final Guidance to states in developing SWAPs reveal that EPA and Congress intended for states to use the information gathered in the SWAP process to create full-fledged Source Water Protection (SWP) programs.

III. ANALYSIS

A. Statutory Text: SWAP (§ 1453)

SDWA §1453 requires the states to perform a “source water assessment” for all public water systems in their boundaries. Such source water assessment programs (SWAPs) are aimed at identifying public drinking water sources within a state's boundaries, contaminants likely to affect the quality of those sources, and the susceptibility of the sources to those contaminants. The assessment program, which is part of the 1996 amendments to the SDWA, aims to prevent public drinking water source contamination, thereby avoiding the high cost of post-contamination treatment.¹

In 1997, EPA had to publish guidelines for states to use in establishing a “source water assessment program” within the state's boundaries. (§1453(a) (1).) Within 18 months, states had to submit a source water assessment program to EPA for approval. (§1453(a)(3).) Their programs had to accomplish two baseline goals. First, identify all programs had to identify the source water assessment area, mapping each well and surface water body that supplied public drinking water. Second, for any SDWA-regulated contaminants—or for contaminants the state had independently classified as presenting a public health threat—the state had to identify po-

¹ Notably, §1453 excludes assessment of private wells.

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tential sources of pollutants in the assessment areas and determine the overall susceptibility of the public water systems to these contaminants. (§1453(a)(2)(A)-(B).)

Once the EPA approved the program, states had to begin implementing the program immediately. (Id.) If the EPA disapproved the program, it would notify the state in writing and provide recommendations for improvement, which the state incorporated into the plan and resubmitted within 6 months of the EPA's original notification of disapproval. (§1428(c)(1)-(2).) After approving a state's SWAP, the EPA provided a timeline, developed in consultation with the state. After receiving the approval, the state had at most 2 years to conduct an assessment for each public water system in its borders. (Id.) The EPA had discretion to extend this 2-year period by 18 months. (§1453(a)(3).) Upon completing its source water assessment, each state had to make the results of the assessment available to the public. (§1453(a)(7).)

B. EPA's SWAP Guidance Shows Its Intent to Have States Use SWAPs to Protect Source Water Going Forward

In 1997, the EPA published its final guidance document to assist states in developing SWAPs, as mandated by §1453(a)(1).² The 1997 Guidance outlined a number of general guidelines for states to use in complying with §1453, as well as best practices for states to follow in developing SWAPs. It also made suggestions for how states might use the results of SWAPs to go "above and beyond" the requirements of §1453 and develop more comprehensive and robust Source Water *Protection* (SWP) programs. Although §1453 does not require states to take any action to protect source water in accordance with the results of the source water assessments, the 1997 EPA guidance document designed to assist states in complying with the SDWA reveals that

² There are no implementing regulations for §1453.

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the EPA contemplated that states would ultimately use the information gathered in the SWAP process to create full-fledged Source Water Protection (SWP) programs.

First, the 1997 Guidelines suggest that SWAPs were meant to encourage source water protection. Section 1 required the state to explain how its proposed program would meet the objectives of §1453, describing any current source water protection program and how the assessment would further the program. (Id. at 2-9-2-22.) According to EPA, it “cannot properly evaluate whether a SWAP provides for the protection and benefit of PWSs unless the state describes the linkage of these assessments to ongoing or future SWP efforts.” (Id. at 2-11.) With this requirement, the EPA “hope[d] to ensure the information gained through SWAPs will be directly used for protection actions.” (Id.) Similarly, EPA noted that Congress included the requirement of a susceptibility determination because such an analysis would be “the means for a state to make the inventory useful for decisions regarding source water protection programs and other possible uses.” (Id. at 2-21.)

Section 4, in turn, required states to provide a plan for implementation that contemplates ongoing obligations and monitoring. Specifically, the EPA assessed not only the SWAP approach submitted by the state, but also “the likelihood that such an approach will be successfully carried out” and is “feasible.” (Id. at 2-26.) The state must also “describe how it will periodically report to EPA on the progress of the effort” (Id. at 2-29), including a description of how funds have been expended. In addition, the EPA recommends—but does not require—states to submit a plan to update assessments.

After describing the general requirements under the SWAP program and state best practices, the 1997 EPA Final Guidance strongly encourages states to build on the results of the SWAPs to create State Water Protection Programs (SWPs)—which are not required by the

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SDWA—and issues recommendations as to how states can use the results of SWAPs to develop such SWP programs. EPA notes that the state assessment programs were intended as merely the first step for states in developing more aggressive and comprehensive source water protection programs, stating that “Congress clearly desired the assessment as a precursor to the development of a full SWP [Source Water Protection] program to protect the drinking water for that area,” (Id. at 1-7) and “EPA expects that... information [from SWAP programs] will encourage development and implementation of complete SWP Programs” (Id. at 2-1.) The 1996 amendments “are clearly intended to encourage states and localities to go beyond source water assessments and implement efforts to manage identified sources of contamination in a manner that will protect drinking water supplies.” (Id. at 3-2.) While EPA recognizes that SWP programs are not required under the SDWA, it notes that “assessments are a tool for further efforts— not a complete process in and of themselves” (1-7) and “hopes to ensure the information gained through SWAPs will be directly used for protection actions.” (2-11) To this end, EPA will “encourage states and localities to implement prevention programs” and will “track progress toward achieving this goal.”(1-7).

C. The Legislative History of the 1996 SDWA Amendments Reveals Congress’ Intent for States to Use SWAPS to Implement Source Water Protection Programs

The legislative history of the 1996 amendments to the SDWA reveals that Congress sought to address three primary concerns in enacting the SWAP program: (1) the need for a better source water protection program in the SDWA, (2) the importance of state and/or local control over SWAPs, and (3) the desire for SWAP to be a preliminary step in states’ development of a more comprehensive SWP program.

First, the legislative history reveals legislative agreement on the need to incorporate an explicit source water protection program into the SDWA to reduce high drinking water treatment

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costs. In a 1995 report, the Senate Committee on Environment and Public Works emphasized the need for a source water protection program by pointing out the deficiencies in the SDWA's focus on treatment at the expense of source water protection: because the SDWA focused primarily on monitoring and treating drinking water, the Report noted that "protecting the quality of source water to avoid the expense of treating contaminated water has not been a major part of the national program." (S. REP. NO. 104-169 at 62 (1995).) The 1996 amendments "authorize[] a new source water quality protection partnership to encourage the development of locally-driven, voluntary, incentive-based efforts by public water systems, local governments and private parties to respond to contamination problems that would otherwise require treatment." (Id. at 62-63.) Under the current regulatory framework "the only options typically available to community water systems finding contaminants in their water supply have been treatment or the development of new water supplies." (Id. at 63.) To remedy this problem, the amendments would "add[] a new section to the Safe Drinking Water Act that provides a means other than treatment for community water systems to address problems or emerging problems of contamination." (Id.)

In a similar report, the House Committee on Commerce emphasized the health-related and cost-related benefits of the source water assessment program under the 1996 amendments:

The Committee recognizes that source water protection can be a cost-effective strategy for ensuring safe drinking water supplies. Development of a new water supply may be expensive and time-consuming. Poor source water supplies also increase the costs of treatment for both large and small water systems. To address source water protection, the bill creates a new program in which States with primacy will conduct an assessment, coordinated with existing information and programs, to determine the vulnerability of sources of drinking water with State boundaries. (H.R. REP. NO. 104-632, pt. 1 at 41-42.)

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Both the House and Senate, therefore, emphasized the need for an alternative source water protection strategy that was not based on after-the-fact treatment but rather on preventive protection of source water by building barriers to source water contamination in the first place.³

Second, the legislative history reveals Congress' intent that the SWAP program would serve not merely as an end in itself, but as a preliminary step in states' subsequent development of robust, full-fledged source water protection programs. The Senate Committee on Environment and Public Works noted in a report that the 1996 amendments "[do] not preempt State or local law or prevent States or local governments from undertaking their own source water protection programs pursuant to State or local law." (S.R. 104-169, at p. 66 (1995).) The Committee added: "if a State receives information through an assessment... the State may use that information in the implementation of a source water *protection* program under State or local law." (Id.; emphasis added.) A 2005 EPA progress report on the SWAP Program notes that "[a]lthough the SDWA Amendments did not require utilities to develop source water protection plans, Congress intended for source water assessments to lead to protection." (U.S. EPA, "Evaluation Report: Progress Report on Drinking Water Protection Efforts," Report No. 2005-P-00021 (2005).)

Nevertheless, legislative history reflects Congress' preference for allowing states and local entities, rather than the federal government, to maintain primary control over the development and implementation of SWAPs. Congress intended the 1996 amendments to "allow States to tailor [source water] requirements to reflect the resources of the community water system and the nature and extent of the activities taking place within the source water areas." (S.R. 104-169, at p. 64 (1995).) Additionally, EPA has frequently stated that Congress clearly intended for the

³ While both the House and Senate explicitly recognized the importance of cost-saving in protecting source water, neither explicitly mentioned the benefits that such cost-saving would have for water consumers, to whom high water treatment costs are inevitably passed.

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1996 amendments to ensure a flexible, local approach to source water protection: “Because of the wide diversity of potential contaminants and risks, Congress intended that communities have the flexibility to tailor their contamination prevention actions to local circumstances.” (U.S. EPA, “Memorandum: Source Water Assessment and Protection” (2003) at p. 2.)

D. Results On the Ground: State Compliance With the SWAP Program

Today, most states are in full compliance with the SWAP Program. This compliance was slow, however; many states completed their source water assessments many years after their completion deadlines. In 2003, only 40 percent of states had completed source water assessments for all public water system in their borders. (U.S. EPA, “Evaluation Report: States Making Progress on Source Water Assessments, But Effectiveness Still to be Determined” Report No. 2004-P-00019 (2004) at p. 5.) EPA reported that, in 2004, states “were at various levels of source water assessment completion even though the May 2003 deadline had passed.” (Id.) While a few states had completed assessments for 100 percent of their public source waters, the vast majority of states were at significantly lower levels of completion. (Id.)

By 2005, however, states and local entities had completed source water assessments for 86 percent of the nation’s public water systems. (U.S. EPA, “Evaluation Report: Progress Report on Drinking Water Protection Efforts,” Report No. 2005-P-00021 (2005) at p. 5.) Additionally, by 2005 a number of states—including Minnesota and Pennsylvania—were creating more comprehensive source water protection plans using the data assembled under SWAP. (Id.) By 2008, over 98 percent of national public water systems had completed their source water assessments.

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(U.S. EPA, “Evaluation Report: Summary of Recent Developments in EPA’s Drinking Water Program and Areas for Additional Focus,” Report No. 08-P-0120 (2008) at p. 9.)⁴

In addition to completing the required assessments, many states have taken EPA’s suggestion and gone “above and beyond” the requirements by using the results from the assessments as the basis for developing robust state source water *protection* programs. For example, Oregon, Minnesota and North Carolina have all voluntarily adopted Source Water Protection programs that exceed the requirements under the SDWA’s SWAP program. (Association of State Drinking Water Administrators (ASDWA), “Elements of an Effective State Source Water Protection Program” (2008)⁵ Such efforts are consistent with Congress’ and EPA’s intention that the source water assessments serve as a basis for further state action to protect source water.

IV. CONCLUSION

Section 1453 of the Safe Drinking Water Act (SDWA) requires states to perform source water assessments for all public water systems within their borders. Such assessments must delineate source waters within the state, identify contaminants, and assess the source’s susceptibility to those contaminants. Although the SDWA’s SWAP Program requires states to assess the quality of all public source waters in their borders, it does not obligate states to act on this information in any way. Critically, §1453 includes no legal obligation—for either the EPA or the states—to actually protect or improve source water by either reducing pollutants or preventing pollutants from entering the source water in the first place. Nor does §1453 require states to use the results of source water assessments to develop more robust source water protection programs. However, both the legislative history of the 1996 SDWA amendments and EPA’s 1997 Final

⁴ I could not locate any EPA reports post-2008 describing state progress in adopting SWAP programs; 2008 was the most recent year for which this information was available.

⁵ Available at http://www.nesc.wvu.edu/smart/training/toolkit/page1/Effective_State_SW_Protection.pdf.

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Guidance to states in developing SWAPs reveal that although §1453 of the SDWA does not require states to take any action to protect source water in accordance with the result of the source water assessments, EPA and Congress intend that states will ultimately use the information gathered in the SWAP process to create full-fledged Source Water Protection (SWP) programs.

V. RESEARCH TRAIL

Below is a list of resources used in compiling this memorandum:

Legislative History (Compiled through ProQuest Legislative Insight)

- S. REP. NO. 104-169 at 62 (1995)
- H.R. REP. NO. 104-632, pt. 1 (1996)

Safe Drinking Water Act

- §1453 (establishing state Source Water Assessment Program)

Federal Regulations

- There appear to be no regulations implementing §1453

EPA Guidance Documents

- U.S. EPA, “State Source Water Assessment and Protection Programs: Final Guidance (1997)

EPA Progress Reports and Memoranda on SWAP Program

- U.S. EPA, “Memorandum: Source Water Assessment and Protection” (2003)
- U.S. EPA, “Evaluation Report: States Making Progress on Source Water Assessments, But Effectiveness Still to be Determined” Report No. 2004-P-00019 (2004)
- U.S. EPA, “Evaluation Report: Progress Report on Drinking Water Protection Efforts,” Report No. 2005-P-00021 (2005)
- U.S. EPA, “Evaluation Report: Summary of Recent Developments in EPA’s Drinking Water Program and Areas for Additional Focus,” Report No. 08-P-0120 (2008)
- U.S. EPA: “Introduction to EPA’s Drinking Water Source Protection Programs” (2003).

Reports by Other Organizations

- Association of State Drinking Water Administrators (ASDWA), “Elements of an Effective State Source Water Protection Program” (2008)
http://www.nesc.wvu.edu/smart/training/toolkit/page1/Effective_State_SW_Protection.pdf