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October 18, 2019

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The Honorable Thomas R. Carper  
Ranking Member  
Committee on Environment and Public Works  
United States Senate

The Honorable Frank Pallone, Jr.  
Chairman  
The Honorable Greg Walden  
Republican Leader  
Committee on Energy and Commerce  
House of Representatives

**Drinking Water State Revolving Fund: Limited Information Available on State or Local Requirements That Are Equivalent to Federal Cross-Cutting Environmental Requirements**

Congressional Committees

The United States faces significant challenges addressing old and deteriorating drinking water infrastructure, and the Environmental Protection Agency (EPA) estimates that the nation’s drinking water utilities need \$472.6 billion in infrastructure investments over the next 20 years.<sup>1</sup> Across the country, about 49,250 community water systems provide drinking water to communities, and replacing and repairing drinking water infrastructure often involves large capital investments, which in turn require funding. The largest source of federal funding for drinking water infrastructure is EPA’s Drinking Water State Revolving Fund (SRF) program. States use Drinking Water SRFs to, among other things, make loans to local communities and utilities for various drinking water infrastructure projects, such as replacing water treatment systems, repair and replacement of distribution pipelines, and other projects needed to achieve or maintain compliance with national primary drinking water regulations. According to EPA, in 2018 Drinking Water SRFs committed \$2.8 billion in drinking water infrastructure loans and refinancing and disbursed \$2.5 billion for drinking water infrastructure to improve our nation’s public health.

All recipients of federal financial assistance, including recipients of loans and refinancing from state Drinking Water SRF, must comply with federal cross-cutting environmental, economic, and

<sup>1</sup>Environmental Protection Agency, Drinking Water Infrastructure Needs Survey and Assessment, Sixth Report to Congress (Washington, D.C.: March, 2018).

miscellaneous, and social requirements.<sup>2</sup> In 2017, a bill was introduced that, if enacted, would have exempted recipients of Drinking Water SRF loans and refinancing from federal cross-cutting requirements if the EPA Administrator determined that the state has a requirement that is not less stringent than the federal requirement.<sup>3</sup>

Section 2019 of the America's Water Infrastructure Act of 2018 includes a provision for GAO to examine federal cross-cutting environmental requirements and potentially equivalent state and local requirements.<sup>4</sup> This report describes (1) the federal cross-cutting environmental requirements that apply to drinking water infrastructure projects financed by loans from the Drinking Water SRF program; and (2) what is known about which state or local requirements are equivalent to federal cross-cutting environmental requirements.<sup>5</sup>

For our first objective, we reviewed EPA's 2003 Cross-Cutting Federal Authorities Handbook and EPA's 2015 Interpretive Guidance regarding certain amendments to the Federal Water Pollution Control Act to identify any federal cross-cutting requirements that apply to Drinking Water SRF projects, and to identify those requirements that are considered environmental.<sup>6</sup> We interviewed EPA officials to identify any changes or additional requirements that were not in the Handbook and reviewed additional documentation. We also met with representatives of organizations that represent or assist states, local governments, or drinking water systems to identify and better understand the federal cross-cutting environmental requirements. Specifically, we met with representatives from the Association of State Drinking Water Administrators, American Water Works Association, Association of Metropolitan Water Agencies, and Rural Community Assistance Partnership. We also corresponded with a representative from the Council of Infrastructure Financing Authorities via email.

For our second objective, we conducted a literature review that included law reviews and journals, to find any reviews, reports, or analyses addressing state or local requirements equivalent to federal cross-cutting environmental requirements. We conducted keyword searches for the period January 1990 through August 2019 in a variety of science-focused databases including ProQuest's PolicyFile and Science collections, National Technical Information Service, Harvard Think Tank, and Scopus. We also conducted keyword searches of legal secondary sources, such as law reviews, journals, and treatises. All searches were

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<sup>2</sup>The federal cross-cutting economic and miscellaneous requirements are requirements found in federal law or Executive Orders that govern the operation of federal agencies or the use of federal funds. For example, section 306 of the Clean Air Act prohibits federal financial assistance recipients from procuring goods or services from individuals or entities who have violated the Clean Air Act. The federal cross-cutting social requirements are requirements in federal laws that prohibit discrimination in any federally assisted program on the basis of race, color, national origin, sex, handicap, or age, such as title VI of the Civil Rights Act of 1964 and in Executive Orders to increase the participation of disadvantaged business enterprises in federally assisted programs and activities and ensure equal employment opportunity. Unlike the other cross-cutting requirements, the cross-cutting social requirements found in federal laws apply to the entire operation of the state and entities receiving a SRF loan and not just the activities funded by EPA's Drinking Water SRF capitalization grant or SRF loans.

<sup>3</sup>H.R. 1653, § 2(d), 115<sup>th</sup> Cong. (2017).

<sup>4</sup>Pub. L. No. 115-270, 132 Stat. 3765, 3858-3859 (2018).

<sup>5</sup>This report focuses on the federal cross-cutting environmental requirements as defined by EPA, and does not address the federal cross-cutting economic and miscellaneous and social requirements as defined by EPA.

<sup>6</sup>Environmental Protection Agency, Cross-Cutting Federal Authorities: A Handbook on Their Application in the Clean Water and Drinking Water State Revolving Fund Programs. (Washington, D.C.: October 2003) and Interpretive Guidance for Certain Amendments in the Water Resources Reform and Development Act to Titles I, II, V, and VI of the Federal Water Pollution Control Act (January 6, 2015).

conducted in August 2019. These searches did not identify any materials addressing state or local requirements equivalent to federal cross-cutting environmental requirements. We also discussed with representatives of the organizations noted above and EPA officials about the extent to which there was information available that identified state or local requirements that were equivalent to federal cross-cutting environmental requirements. We did not interview officials from individual states, but instead sought broader coverage by interviewing organizations that represent or assist states, local governments, or drinking water systems.

We conducted this performance audit from April 2019 to October 2019, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

## **Background**

The Safe Drinking Water Act was enacted in 1974 to improve the safety of the nation's drinking water. Under the Safe Drinking Water Act, EPA sets enforceable standards for public drinking water systems that generally limit the levels of specific contaminants in drinking water that can adversely impact the public's health. The Drinking Water SRF program, which is managed by EPA, was created under the Safe Drinking Water Act Amendments of 1996 to assist public water systems in maintaining or achieving compliance with the drinking water standards of the Safe Drinking Water Act and to protect public health.

EPA's Drinking Water SRF program comprises programs in each of the 50 states.<sup>7</sup> EPA and states have different roles and responsibilities in the management of the Drinking Water SRF programs. EPA administers funding, provides guidance and assistance to states, and oversees their efforts, including annually reviewing state programs' performance. States are responsible for managing their SRF programs, working with communities, ranking and selecting projects for funding, and managing the finances of their SRF programs. Congress provides annual appropriations to EPA for the Drinking Water SRF program, which EPA then allots and provides to states in the form of capitalization grants—grants to capitalize state SRF programs. States must match these capitalization grants with a minimum of 20 percent of their own contributions to the state SRF and deposit loan repayments and interest payments into the fund.

Cross-cutting federal requirements are generally requirements found in other federal laws as well as executive orders that apply to federal financial assistance programs, including assistance through the Drinking Water SRF program. These requirements are often not cited in the statute authorizing the federal financial assistance, such as the Safe Drinking Water Act, but apply broadly by their own terms to a wide range of federal financial assistance programs.<sup>8</sup> The cross-cutting requirements apply only to projects and activities whose cumulative SRF funding equals the amount of the capitalization grant from EPA to the state to fund the state SRF

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<sup>7</sup>There is an additional program for Puerto Rico. EPA allots a portion of the Drinking Water SRF as grants to Washington, D.C., and the U.S. territories of U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands for drinking water infrastructure. The District and the US territories are not eligible to establish state revolving loan fund programs. According to EPA, the District and the U.S. territories listed above receive grants for drinking water infrastructure from the Construction Grants Program.

<sup>8</sup>See 40 C.F.R. § 35.3575(a). In addition, the state capitalization grants for Drinking Water SRFs are subject to EPA regulations governing grants. EPA does not consider these regulations to be cross-cutting requirements and they are not within the scope of our review.

program.<sup>9</sup> Generally, projects and activities funded with monies in amounts greater than the capitalization grant amount are not subject to these federal cross-cutting requirements.<sup>10</sup> Each state determines which Drinking Water SRF loans, projects, and activities will be used to satisfy this obligation and ensures that those selected loan recipients and state agencies comply with the federal cross-cutting requirements.<sup>11</sup>

EPA retains ultimate responsibility for ensuring that states and assistance recipients comply with the cross-cutting federal requirements. However, because of the unique nature of the SRF programs—which are managed by the states that, unlike EPA, have a direct relationship with the recipients that must comply with the requirements—compliance activities are carried out mainly by the states and assistance recipients, to the extent authorized under each cross-cutting requirement.

### **Federal Cross-cutting Environmental Requirements Apply to Projects Financed through the Drinking Water State Revolving Fund Program**

Sixteen federal cross-cutting environmental requirements apply to both the grants states receive from EPA to capitalize their Drinking Water SRFs and the loans that utilities and municipalities receive from states' Drinking Water SRFs, according to EPA guidance and officials. These cross-cutting requirements are generally found in laws other than the Safe Drinking Water Act as well as executive orders, and apply to all federal financial assistance, not just the capitalization grants and selected Drinking Water SRF loans. In October 2003, EPA issued a Handbook that identifies cross-cutting requirements and categorizes 14 as environmental authorities.<sup>12</sup> In addition, EPA officials we interviewed and a 2015 agency guidance document identified two additional cross-cutting environmental requirements.<sup>13</sup> These 16 cross-cutting environmental requirements are described in table 1.

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<sup>9</sup>40 C.F.R. § 35.3575(b)(1).

<sup>10</sup>40 C.F.R. § 35.3575(b)(2). However, federal anti-discrimination requirements apply to all projects funded by SRFs. 40 C.F.R. § 35.3575(c).

<sup>11</sup>In a given year, a state may decide to require projects whose cumulative Drinking Water SRF funding is greater than the amount of the capitalization grant to comply with cross-cutting environmental requirements. 35.3575(b)(3). When this occurs, the state may credit the excess project funding to its obligation in future years to have projects whose cumulative Drinking Water SRF funding is equal to the amount of the capitalization grant comply with the federal cross-cutting environmental requirements. See 40 C.F.R. § 35.3575(b)(3).

<sup>12</sup>EPA officials told us they are in the process of updating the 2003 Handbook.

<sup>13</sup>Environmental Protection Agency, Interpretive Guidance for Certain Amendments in the Water Resources Reform and Development Act to Titles I, II, V, and VI of the Federal Water Pollution Control Act (January 6, 2015)

**Table 1: Federal Cross-Cutting Environmental Requirements for Drinking Water State Revolving Fund Capitalization Grants, Loans, Projects, and Activities**

Cross-cutting requirement	Description
Archeological and Historic Preservation Act	Section 3 of the act, as amended, authorizes the Secretary of the Interior to survey sites affected by financial assistance provided by an agency and undertake the recovery, protection, and preservation of significant scientific, prehistorical, historical, or archeological data if the Secretary determines that it might be irrevocably lost or destroyed.
Clean Air Act	Section 176(c) of the act prohibits any federal financial assistance for activities in certain areas of the country that do not conform to approved state implementation plans for attaining or maintaining national ambient air quality standards.
Coastal Barriers Resources Act	The Act generally prohibits federal financial assistance within the John H. Chafee Coastal Barrier Resources System—undeveloped coastal barriers and other areas located on the coasts that are identified and selected by the Secretary of the Interior—that might encourage development of the area, such as new or expanded drinking water infrastructure.
Coastal Zone Management Act of 1972	Section 307(c) of the act requires federal agency activities within or outside coastal zones that affect any land or water use or natural resource of the coastal zone to be carried out in a manner consistent to the maximum extent practicable with approved state coastal zone management programs.
Endangered Species Act	Section 7 of the act requires federal agencies to consult with the U.S Fish and Wildlife Service when they determine that an action it funds may affect a species that is listed as endangered or threatened or its critical habitat. The act prohibits the take <sup>a</sup> of endangered species unless it is incidental to, and not the purpose of, carrying out an otherwise lawful activity.
Farmland Protection Policy Act	The act requires agencies to use established criteria to identify the quantity of farmland actually converted to nonagricultural use by federal programs and to identify and take into account the adverse effects of federal programs on the preservation of farmland; consider appropriate alternative actions that could lessen such effects; and assure that federal programs to the extent practicable are compatible with state, local, and private programs and policies to protect farmland.
Federal Actions to Address Environmental Justice in Minority and Low-Income Populations (Executive Order 12898)	The Executive Order directs agencies to conduct their programs, policies, and activities that substantially affect human health or the environment in a manner that ensures they do not have the effect of excluding persons from participating in, denying persons the benefits of, or subjecting persons to discrimination under such programs, policies; and activities because of their race, color, or national origin.
Fish and Wildlife Coordination Act	Section 2 of the act generally requires federal agencies to consult with the U.S. Fish and Wildlife Service and the relevant state wildlife agency whenever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened, or otherwise controlled or modified for any purpose in order to prevent loss of and damage to wildlife resources.

Floodplain Management Executive Order (Executive Order 11988)	The Executive Order directs agencies to consider alternatives to supporting actions in a floodplain to avoid adverse effects and incompatible development in the floodplain and, if an alternative is not practicable, design or modify the action to minimize potential harm to or within the floodplain.
Magnuson-Stevens Fishery Conservation and Management Act	Section 305(b) of the act as amended requires federal agencies to consult with the Secretary of Commerce regarding any action they fund that may adversely affect any essential fish habitat, which are waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity that are identified in fishery management plans developed by regional fishery management councils and approved by the Secretary of Commerce.
Migratory Bird Treaty Act	The act as amended makes it illegal to, among other things, take, capture, or kill any native migratory bird or its eggs or nest except as permitted by regulations.
National Environmental Policy Act of 1969	The act requires federal agencies to evaluate the likely environmental effects of proposed projects they fund using an environmental assessment or, if the projects would likely significantly affect the environment, a more detailed environmental impact statement evaluating the proposed project and alternatives.
National Historic Preservation Act	Under section 106 of the act and its implementing regulations, federal agencies funding undertakings that might affect historic properties must consult with state historic preservation officers, Indian tribes, and other interested parties to assess the effects of the undertakings on historic properties and seek ways to avoid, minimize, or mitigate any adverse effects on historic properties.
Protection of Wetlands Executive Order (Executive Order 11990)	The Executive Order directs federal agencies to avoid providing assistance for new construction in wetlands unless the head of the agency finds that there is no practicable alternative and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.
Safe Drinking Water Act	Section 1424(e) of the act prohibits federal financial assistance for projects the Environmental Protection Agency Administrator determines may contaminate an aquifer that is the sole or principal source of drinking water for an area and create a significant hazard to public health.
Wild and Scenic Rivers Act	Section 7 of the act as amended prohibits federal financial assistance for construction of water resources projects that would have a direct and adverse effect on the values of rivers included in the National Wild and Scenic Rivers System or being studied for inclusion in the System.

Source: GAO review of documents from the Environmental Protection Agency (EPA); listed statutes and Executive Orders; and EPA officials. | GAO-20-77R

<sup>a</sup>Take is defined as harassing, harming—including significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing breeding, feeding, or sheltering—pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting an endangered species.

### Available Information on the Equivalency of State or Local Requirements to Federal Cross-Cutting Environmental Requirements Is Limited

Limited information is available on whether state or local governments have requirements that are equivalent to federal cross-cutting environmental requirements for the Drinking Water SRF program. EPA officials we interviewed were not certain of requirements at the state or local level that are equivalent to federal cross-cutting environmental requirements for the Drinking Water

SRF program. However, they provided examples of the types of states that may have equivalent or more stringent requirements. Specifically, EPA officials said that states with larger tribal populations may have requirements similar to section 106 of the National Historic Preservation Act. They also noted that states bordering oceans and states with more low lying areas may have more stringent flood plain management requirements than Flood Plain Management Executive Order 11988. EPA officials did not know of any legal analyses conducted to determine whether state or local requirements are equivalent to federal cross-cutting environmental requirements.<sup>14</sup>

Representatives we interviewed from five organizations that represent state governments and water systems did not have specific examples of requirements at the state or local level that were equivalent to federal cross-cutting environmental requirements and had not conducted any legal analysis to make such a determination. One national organization representing state government agencies that are responsible for managing Drinking Water SRF programs told us that some state members indicated that they did not have any state or local laws that are equivalent to federal cross-cutting environmental requirements.

Additionally, our review of literature—including law reviews and journals—did not identify any materials addressing state or local requirements that are equivalent to federal cross-cutting environmental requirements. An effort by the Council of Environmental Quality is underway to develop memoranda which compare and contrast state and local environmental review requirements with the National Environmental Protection Act (NEPA) requirements. None of the memoranda completed as of August 2019 determine whether state and local requirements are equivalent to NEPA. However, in some states, compliance with NEPA is deemed to satisfy the state’s environmental assessment law. For example, under Georgia state law, an agency will be deemed to have complied with the state NEPA if a NEPA document is prepared and federally approved. In South Dakota, state agencies that must comply with NEPA do not need to complete an additional process under state law.<sup>15</sup>

## Agency Comments

We provided a draft of this report to EPA and requested comments, but EPA told us they did not have any technical comments.

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We are sending copies of this report to the appropriate congressional committees and the Administrator of the Environmental Protection Agency. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

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<sup>14</sup>EPA officials, one organization representing states, and one organization representing water systems told us that states and Drinking Water SRF loan applicants are more concerned with the American Iron and Steel requirement and the Davis-Bacon Act than federal cross-cutting environmental requirements. The American Iron and Steel requirement, which was added to the Safe Drinking Water Act by section 2113 of the Water Infrastructure Improvements for the Nation Act, requires projects financed by Drinking Water SRFs to use only iron and steel products produced in the United States. All construction projects carried out with assistance from a Drinking Water SRF must comply with Davis-Bacon Act requirements to pay prevailing wages to laborers and mechanics. The American Iron and Steel requirement and the Davis-Bacon Act are not federal cross-cutting environmental requirements.

<sup>15</sup>In 2014, GAO examined federal and state environmental review requirements under the National Environmental Policy Act and similar state laws. [GAO-15-71](#), *High way Projects: Many Federal and State Environmental Review Requirements Are Similar, and Little Duplication of Effort Occurs* (Washington, D.C.: Nov 18, 2014).

If you or your staff have any questions about this report, please contact me at 202-512-3841 or [gomezj@gao.gov](mailto:gomezj@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs can be found on the last page of this report. Key contributors to this report were Diane Raynes (Assistant Director), Summer Lingard-Smith (Analyst-in-Charge), Jessica Blackband, Mark Braza, John Delicath, Jennifer Gould, Richard P. Johnson, Michelle Sager, and Jeanette Soares.

A handwritten signature in black ink that reads "Alfredo Gómez". The signature is written in a cursive style with a large initial 'A' and 'G'.

J. Alfredo Gómez  
Director, Natural Resources and Environment

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