

Infrastructure for Drinking Water and Wastewater Treatment

The federal government helps localities meet capital needs for safe drinking water and wastewater treatment infrastructure, to ensure access to safe drinking water throughout the nation and reduce water pollution. Despite large unmet funding needs, due in part to aging infrastructure, federal investment in this area has generally fallen over the past decade or so. In 2017, funding for water infrastructure programs at the Environmental Protection Agency (EPA) totaled \$2.4 billion, which is 35 percent below its 2001 level after adjusting for inflation.

The need to upgrade and replace water infrastructure is well documented. The American Society of Civil Engineers' (ASCE) latest "Infrastructure Report Card" gives drinking water systems a grade of D and wastewater systems a D+. ²³ As it notes, many of the more than 1 million miles of pipes delivering drinking water in this country were laid in the early to mid-1900s with a lifespan of 75 to 100 years; more than 56 million new users will need to be connected to public wastewater systems in the next decade; and in about 772 communities, wastewater and stormwater still drain into the same system with associated overflow concerns.

Capital investment required over the next 20 years totals \$384 billion for drinking water systems and \$271 billion for wastewater treatment, according to the EPA. ²⁴ Some estimates are even higher. The American Water Works Association projects that restoring existing drinking water systems as they reach the end of their useful lives and expanding them to serve a growing population will cost at least \$1 trillion over the next 25 years. ²⁵

The federal role in meeting these needs is to help communities that would otherwise have trouble financing necessary investments. The largest federal assistance comes from EPA contributions to state Clean Water and Drinking Water revolving loan funds. ²⁶ In addition, the Agriculture Department provides financial assistance for water infrastructure (including low-cost loans that can be supplemented with grants) geared to the special needs of rural communities, which often have less financial and technical capacity and face higher costs because of smaller-scale operations.

The trend in federal water infrastructure funding over the past 15 years or so has been downward — apart from a major infusion of funds in 2009 and 2010 as part of infrastructure investments to aid recovery from the Great Recession. On an inflation-adjusted basis, total EPA water

²³ American Society of Civil Engineers, "2017 Infrastructure Report Card: A Comprehensive Assessment of America's Infrastructure," March 2017, <http://www.infrastructurereportcard.org/wp-content/uploads/2016/10/2017-Infrastructure-Report-Card.pdf>.

²⁴ Environmental Protection Agency, "Drinking Water Needs Survey and Assessment," April 2013, <https://www.epa.gov/sites/production/files/2015-07/documents/epa816r13006.pdf>; "Clean Watersheds Needs Survey 2012," January 2016, https://www.epa.gov/sites/production/files/2015-12/documents/cwns_2012_report_to_congress-508-opt.pdf.

²⁵ American Water Works Association, "Buried No Longer: Confronting America's Water Infrastructure Challenge," <https://www.awwa.org/Portals/0/files/legreg/documents/BuriedNoLonger.pdf>.

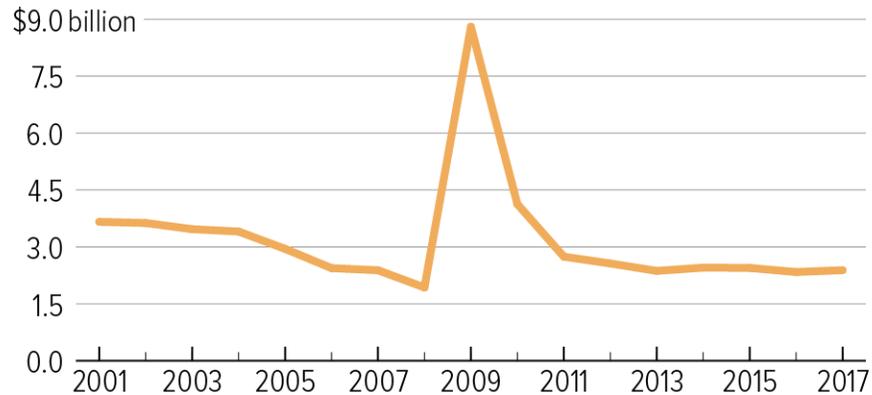
²⁶ States, in turn, use those funds to make low-interest loans to localities for water infrastructure projects, along with certain other forms of assistance. As loans are repaid, funds become available to make new loans, thus considerably magnifying the long-term effect of the federal investment. However, given the massive needs for additional infrastructure investments and the long-term nature of many revolving fund loans, additional federal capital contributions continue to be needed.

infrastructure appropriations in 2017 were 35 percent below the 2001 level and 13 percent below the 2011 level. (See Figure 6.)

FIGURE 6

Funding for Environment Protection Agency Water Infrastructure Programs Has Generally Fallen Over Time

In 2017 dollars, fiscal years



Note: Includes temporary funding from the 2009 Recovery Act but excludes funding for Hurricane Sandy in 2013. Reflects funding for Clean Water State Revolving Fund, Drinking Water State Revolving Fund, and special purpose grants for water infrastructure. Funding for 2017 includes \$100 million for Flint, MI.

Source: CBPP based on Claudia Copeland, "Funding for EPA Water Infrastructure: A Fact Sheet," Congressional Research Service, Jan 4, 2016, EPA, and enacted appropriations

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Appropriations for rural water programs have also fallen. In 2017 dollars, appropriations fell from \$614 million in 2008 (the first year for which these data are available) to \$561 million in 2017, a cut of 9 percent.

The serious lead contamination in Flint, Michigan's drinking water is a reminder of the problems that old water infrastructure can cause. Additional resources would enable the EPA and the Agriculture Department to better address high-priority needs for water infrastructure without cutting other critical environmental efforts.