United States Senate
Republican Policy Committee
Jon Kyl, Chairman
347 Russell Senate Office Building
Washington, DC 20510
202-224-2946
http://rpc.senate.gov

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Meeting States' Clean Water Infrastructure Needs

Introduction

The federal government's allocation of funds to local water systems and communities for water and wastewater infrastructure projects is based on an obsolete formula that leaves some states with insufficient funds to meet their water infrastructure needs. Congress should update the allocation formula so that the states receive a more equitable distribution of funds, thus enabling them to comply with federal clean water mandates.

History of the Clean Water State Revolving Fund

In 1987, Congress amended the Clean Water Act to create a new mechanism for financing clean water and wastewater infrastructure projects nationwide. The resulting program, the Clean Water State Revolving Fund, provided an independent, permanent source of low-cost financing for a wide range of clean water projects, including all types of nonpoint source pollution control, watershed protection or restoration, estuary management, and traditional wastewater treatment projects. That program based the formula on needs as they were in 1987, and it has never been updated.

Each state administers its own revolving fund under the oversight of the Environmental Protection Agency, and has the flexibility to tailor loan terms to specific circumstances and to target resources to specific environmental needs. Under the program, the EPA provides annual grants to states. The states must then provide a matching grant of at least 20 percent. The states, in turn, use those funds to provide assistance to both public and private entities for state-determined water-quality priorities. The most common form of assistance has been loans with interest rates ranging from zero to market rates, with repayment periods of up to 20 years. Monies from the repaid loans go back into the state revolving funds, which helps to meet those states' future water infrastructure needs.

The Allocation Formula Does Not Reflect States' Current Needs

As noted above, the amount of money each state receives is based upon a formula that was established in the 1987 Clean Water Act amendments, and upon the amount of money Congress appropriates for the program each year. The formula, based on needs surveys from the 1970s and 1980s, is now obsolete. Individual state water infrastructure needs have changed over time, mainly due to changing demographics, so the current allocation formula – at least for some states – bears little relationship to the states' current needs. The best way to ascertain current needs is the EPA's Clean Watersheds Needs Survey. The survey is conducted in cooperation with the states every four years to estimate the nation's 20-year clean water infrastructure needs in order to comply with federal clean water mandates, but it is not utilized to determine the allocation of funding.[1]

The most recent needs survey, published in 2000,[2] shows that 17 states and the District of Columbia receive less money than their portion of the nation's total needs, while others receive more. This allocation of funds leaves underfunded states without sufficient resources to meet their needs. The chart on page 3 allows a comparison of each state's percentage share of the nation's 20-year clean watershed needs according to the EPA's survey (second column) with each state's percentage share of the money allotted for FY 2004, based on the 1987 formula (third column). Comparing these two columns reveals the current discrepancies. The fourth and fifth columns are a hypothetical set of percentages calculated by RPC that show what states would receive under more balanced formulas based on the EPA's needs survey.[3]

Specifically, the chart shows that 17 states (set in bold type in the following chart) currently receive a smaller percentage of the FY 2004 allotment than their percentage share of total needs, based on the EPA's needs survey. Those states are forced to rely on other methods of funding for their water infrastructure needs, such as issuing revenue bonds that must be repaid with interest.

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[1]The EPA publishes the amount of money each state needs to comply with the Clean Water Act over the next 20 years and then sums these amounts to get the total 20-year national need. In the chart on page 3, the figures in the second column (labeled "% Share of Nat'l. Need (EPA survey)"), are calculated by dividing each state's need by the total national need.

[2]Environmental Protection Agency, "Clean Watersheds Needs Survey 2000 – Report to Congress," http://156.33.242.133/rpc/rva/1081/108187.htm. This survey was not completed until August 20, 2003.

[3]These formulas are similar to the one used by the EPA to distribute money under the Safe Drinking Water State Revolving Fund. These proposed formulas allocate funds based on the EPA's most recent Clean Watersheds Needs Survey, but provide that each state (and the District of Columbia) receive a minimum allotment, either no less than 0.5 percent of the total available funds (fourth column) or no less than 1 percent (fifth column).

1	2	3	4	5
State	**% Share of Nat'l. Need (EPA survey)**	**Share of Total FY2004 Allotment (current formula)**	**Share of Total FY2004 Allotment (proposed formula, 0.5% min. allot.)**	**Share of Total FY2004 Allotment (proposed formula, 1% min. allot.)**
Alabama	1.50%	1.13%	1.46%	1.40%
Alaska	0.31%	0.61%	0.50%	1.00%
Arizona	3.42%	0.68%	3.29%	2.94%
Arkansas	0.28%	0.66%	0.50%	1.00%
California	7.95%	7.23%	7.62%	6.57%
Colorado	0.74%	0.81%	0.73%	1.00%
Connecticut	1.30%	1.24%	1.26%	1.24%
Delaware	0.16%	0.50%	0.50%	1.00%
District of Columbia	0.83%	0.50%	0.81%	1.00%
Florida	5.50%	3.41%	5.28%	4.61%
Georgia	1.29%	1.71%	1.26%	1.23%
Hawaii	0.96%	0.78%	0.94%	1.00%
Idaho	0.11%	0.50%	0.50%	1.00%
Illinois	6.56%	4.57%	6.29%	5.46%
Indiana	3.99%	2.44%	3.84%	3.40%
Iowa	1.08%	1.37%	1.05%	1.06%
Kansas	0.78%	0.91%	0.77%	1.00%
Kentucky	1.54%	1.29%	1.49%	1.43%
Louisiana	1.31%	1.11%	1.27%	1.25%
Maine	0.61%	0.78%	0.61%	1.00%
Maryland	2.64%	2.45%	2.55%	2.32%
Massachusetts	2.58%	3.43%	2.49%	2.27%
Michigan	2.26%	4.35%	2.18%	2.01%
Minnesota	1.28%	1.86%	1.25%	1.22%
Mississippi	0.47%	0.91%	0.50%	1.00%
Missouri	2.76%	2.80%	2.66%	2.41%
Montana	0.28%	0.50%	0.50%	1.00%
Nebraska	0.66%	0.52%	0.65%	1.00%
Nevada	NR	0.50%	0.50%	1.00%
New Hampshire	0.50%	1%	0.50%	1.00%
New Jersey	7.08%	4.13%	6.79%	5.87%
New Mexico	0.11%	0.50%	0.50%	1.00%
New York	11.27%	11.16%	10.79%	9.23%
North Carolina	3.27%	1.83%	3.15%	2.82%
North Dakota	0.0003%	0.50%	0.50%	1.00%
Ohio	4.81%	5.69%	4.62%	4.05%
Oklahoma	0.32%	0.82%	0.50%	1.00%
Oregon	0.82%	1.14%	0.81%	1.00%
Pennsylvania	4.45%	4.01%	4.28%	3.77%
Rhode Island	0.78%	0.68%	0.77%	1.00%
South Carolina	0.72%	1.04%	0.71%	1.00%
South Dakota	0.0007%	0.50%	0.50%	1.00%
Tennessee	0.33%	1.47%	0.50%	1.00%
Texas	5.05%	4.62%	4.85%	4.25%
Utah	0.47%	0.53%	0.50%	1.00%
Vermont	0.08%	0.50%	0.50%	1.00%
Virginia	1.94%	2.07%	1.88%	1.75%
Washington	1.51%	1.76%	1.47%	1.41%
West Virginia	1.40%	1.58%	1.36%	1.32%
Wisconsin	1.84%	2.73%	1.78%	1.67%
Wyoming	NR	0.50%	0.50%	1.00%

A Proposal For an Updated and More Equitable Formula

Unlike the clean water revolving fund, allocations under another federal revolving fund – the Safe Drinking Water State Revolving Fund – are made based on a federal survey of needs, using the EPA's most recent Drinking Water Infrastructure Needs Survey (the survey is updated every four years).[4] Each state receives funds based on its share of the total 20-year drinking-water needs estimate, yet no state receives less than 1 percent of available funds. Under the current clean water revolving fund formula, each state receives a minimum allotment of one-half of one percent of available funds. Under an allocation formula that gave each state funds based on 20-year clean watershed infrastructure needs, with no state receiving less than one-half of one percent (0.5 percent) of the total (as illustrated in column four of the chart), 26 states would receive an equal or greater amount than they currently receive under the clean water fund, while 24 states would receive less than under the current allocation system.

The proposed allocation formula would work as follows, using Maryland as an example (this is the same formula used for the drinking water fund, with the only change being the minimum allotment of 0.5 percent instead of 1 percent; refer to column four of the chart on page 3):

A. The nation's total 20-year need, according to EPA's needs survey is $181,198,000,000.
B. Maryland's total eligible 20-year need is $4,779,000,000.
C. Maryland's percentage of total national need is 2.64 percent (B/A).
D. The amount appropriated by Congress for FY 2004 is $1,321,904,500.
E. The minimum allotment (0.5 percent) is $6,609,523.
F. Maryland's unadjusted grant (before minimums are applied to states with < 0.5 percent) is $34,864,522 (C x D).
G. To determine each state's adjusted grant, take the difference between the states unadjusted grant, F, and the minimum allotment, E. For Maryland the number is $28,254,999 (F - E).
H. The process through G is done for every state. To bring the states that have needs of less than 0.5 percent up to the 0.5 percent minimum some funds must be taken from all of the states that have needs greater than 0.5 percent. To do that, the EPA calculates G for every state and then takes the sum of the Gs for each state that falls short of the minimum (shortages) and the sum of the Gs for each state that exceeds the minimum (exceedances). The sum of the shortages divided by the sum of the exceedances is 0.0442.
I. Finally, the figure from G is multiplied by 0.0442, and then subtracted from the figure in F. For Maryland, the resulting allotment is $33,647,916, or 2.55 percent of the total appropriation.

This is just one example of a formula that would lead to a more equitable distribution of clean water funds. Another option would be to provide a minimum allotment to each state of 1 percent (as is shown in the fifth column of the chart). Yet another option would be to provide no minimum allocation

[4]Environmental Protection Agency, "Drinking Water Infrastructure Needs Survey – Second Report to Congress," 2000. http://www.epa.gov/safewater/needs.html.

and allocate funds mirroring exactly the EPA needs survey. Regardless of which formula is chosen, it is important that the resulting distribution of funds reflect the current clean water needs of each state.

Why Congress Should Change the Formula

Obviously, a flawed formula will not assure that each state can meet the clean water needs of its citizens and is, therefore, unfair to those states. EPA's needs survey is an evaluation of the amount of money each state will need over the next 20 years to comply with federal clean water mandates. Those states that do not receive their proportion of the national need lack the funding necessary to comply with the federal mandates. Unfunded mandates are something Congress has agreed should be eliminated. A needs-based formula would achieve that goal, and do so in an equitable manner. For those states that would receive less funding under a fairer formula, the burden is upon them to explain why their states should receive more than they need – in some cases, more than twice as much as their need – while other states receive dramatically less. Changing the formula would eliminate one more unfunded mandate.

Another reason to consider this new formula is that states' needs change over time. Some states that did receive more money than their needs now receive less. For example, Alabama is eligible for 1.13 percent of the total congressional appropriation under the 1987 formula. According to the 1996 needs survey,[5] Alabama's percentage of total national needs was 1.05 percent. But according to the 2000 needs survey, Alabama's percentage is 1.50 percent. Connecticut, Hawaii, Louisiana, Maryland, Nebraska, Rhode Island, and Texas are all states that once received more money than their proportion of national needs, but now receive less. By changing the formula to comport with the needs survey, it will adjust to changing circumstances and, thus, will protect all states from situations where they don't receive their proportion of the total national need.

The inequities built into the current formula may also work against a successfully functioning revolving fund. When the fund was put in place, it was anticipated that it would eventually become fully capitalized and self-sustaining through repayment of loans. But states that have not received the money they need from the revolving fund often end up going to Congress for project-specific earmarks on appropriations bills. Since the inception of the clean water revolving fund, the number of earmarks for water infrastructure projects has skyrocketed from zero to 520 in 2004. This has two potentially adverse effects. First, the large numbers of earmarks going to clean water infrastructure projects may make Congress less willing to provide as much money to the revolving fund. Second, the practice of earmarking reduces the number of loans made under the revolving fund, reducing the amount of money going back into the funds from loan repayments. This undercuts the revolving fund's ability to become fully capitalized. Indeed, even though it has been in existence since 1987, the revolving fund is still not self-sustaining.

According to the Congressional Research Service (CRS), "In 1989, congressional appropriators began the practice of supplementing appropriations for the SRF [state revolving fund] programs, with

[5]Environmental Protection Agency, 1996 Clean Water Needs Survey Report to Congress, http://www.epa.gov/owm/mtb/cwns/1996rtc/toc.htm.

project earmarks in the EPA appropriations account that funds the Clean Water Act and Safe Drinking Water Act assistance programs."[6] As noted by the CRS, "earmarking reduces the amounts of funds provided to capitalize state revolving loan programs, thus arguably delaying the time when states will become financially self-sufficient in administering capital programs and potentially prolonging the time when states and communities seek continued federal aid."[7]

Conclusion

The Clean Water State Revolving Fund formula is obsolete and needs to be changed to reflect current needs so that funds are distributed more equitably. A formula based on the EPA's survey would distribute funds more equitably so that all states would be able to better meet their clean water and wastewater infrastructure needs, and so that all states would be better protected from future situations in which they might otherwise receive substantially less money than their proportional needs.

[6]CRS, *Water Infrastructure Project Earmarks in EPA Appropriations: Trends and Policy Implications*, February 11, 2004.

[7]CRS, Feb. 2004.