



American Water Works  
Association



## Evaluating the Affordability of Federal Water-Related Mandates

### Action Requested:

Raise awareness of the challenges many American communities face in affording federal water-related mandates, and of EPA's well-meaning, but deficient steps toward evaluating affordability challenges.

### Background

Federal water-related mandates can impose significant financial hardships on American communities. Unfortunately, it is generally the least fortunate Americans – those living near or below the poverty level – who are most heavily and adversely affected by these mandates. Because American communities have limited resources, EPA needs to be careful that the investments it requires of American communities address the most important risks to public health and the environment in ways that deliver maximum benefits at the most affordable cost.

To help identify when its mandates might cause undue economic stress, EPA employs affordability criteria to determine when its actions may cause undue economic hardship. For drinking water, EPA assesses the national-level cost of meeting new standards in small communities, while under the Clean Water Act, EPA reviews the cost of agency enforcement actions in particular communities.

If EPA considered more robust affordability criteria, and if the agency could moderate its mandates in response, the economic hardship imposed on lower-income households could be alleviated in many communities. But while EPA should be commended for its openness in attempting to address this important issue, there are several critical limitations to how it defines affordability and applies its criteria. Then too, EPA often lacks flexibility under the law to make adjustments to schedules and mandates that are equal to the affordability challenge facing our communities.

It should be noted that EPA is currently attempting to deal with some affordability concerns through its June 2012 *Integrated Municipal Wastewater and Stormwater Planning Approach Framework*, which offers the possibility of a longer compliance period. While promising and commendable, this Framework primarily relies upon an inadequate measure – median household income (MHI) – as its main affordability metric, and is limited to Clean Water Act permit and enforcement actions. Under the Integrated Planning Framework, EPA has not committed to considering drinking water investments or investments needed to replace aging water and wastewater infrastructure, which add significantly to the overall cost of water service in many communities.

### EPA's Assessment of Affordability for Drinking Water Regulations

EPA's consideration of affordability in the context of potable water supply is limited to assessing the *national-level affordability of regulatory options for small communities*. EPA does *not* consider the affordability of drinking water requirements in any manner that pertains to specific utilities, their regulatory targets, or the timing of compliance. EPA has stated that it would consider a national drinking water regulation to be unaffordable nationwide if it would result in a household drinking water bill in excess of 2.5% of the nationwide average MHI for communities with populations less

than 10,000 people. To date, EPA has never made this finding. If it did, the agency would be required to identify feasible technologies that are affordable for small communities. If EPA made an un-affordability finding and identified an alternative technology or control technique, states could grant approval for small systems to use that alternative (called a variance) on a case-by-case basis. Variances are subject to review and approval by EPA. States can also grant a temporary extension of compliance deadlines (called an exemption) on a case-by-case basis. States consider the process for issuing exemptions and variances to be extremely burdensome and they are seldom granted.

### **EPA's Affordability Analysis for Clean Water Actions**

For Clean Water Act-related enforcement actions, EPA undertakes a two-part analysis to assess whether mandates to a particular community would cause significant and widespread economic hardship. The analysis is divided into two parts:

1. A "preliminary screen" examines affordability in terms of impacts to local households, using a factor called the Residential Indicator (RI). The RI weighs the average per household cost of wastewater bills relative to median household income in the service area. EPA deems that a Residential Indicator of 2% or greater means that the community is likely to experience economic hardship in complying with the Agency mandate.
2. A "secondary screen" examines metrics related to the financial capability of the impacted utility. This screen applies a Financial Capability Indicator (FCI), involving a score that reflects the average of six economic factors. These factors include the community's bond rating, its net debt, its median household income, the local unemployment rate, the service area's property tax burden, and its property tax collection rate. A lower FCI score implies weaker economic conditions and thus an increased likelihood that an enforcement action will cause substantial and widespread economic impact on the community.

The Residential Index and the Financial Capability Indicator are ultimately combined into an overall rating. This overall rating is intended to demonstrate the overall level of financial burden imposed on a community by compliance with water quality mandates.

### **The Limitations of EPA's Approach**

Some of the limitations of EPA's approach to assessing the affordability of drinking water regulations are obvious: first, larger communities are assumed to be able to afford anything. And second, the national average cost to small communities is held low if many small communities aren't affected by the standard in question. This is often the case, because most contaminants don't occur in *all* small communities. But such a standard can carry a *huge* cost for those communities that are affected.

With respect to both drinking water and wastewater, a key limitation to EPA's assessment of affordability concerns the use of median household income. MHI can be a highly misleading indicator of a community's ability to pay higher water bills, for many reasons. Among others:

- *MHI is a poor indicator of economic distress and bears little relationship to poverty or other measures of economic need within a community.* For example, analysis of MHI and poverty data for the 100 largest cities in the United States shows that for 21 cities identified as having an MHI within \$3,000 of the 2010 national MHI (\$50,046), there is no discernible relationship between MHI and the incidence of poverty.
- *MHI does not capture impacts across the entire income distribution.* In many cities, income levels are not clustered around the median, but are spread over a wide income range. Many people may be clustered far below the median income – say, in the bottom quintile – so that

large numbers of people living nearer the bottom of the income range must struggle with higher water bills that look affordable at the median.

- *Income distribution can vary widely across different districts and neighborhoods.* The economic hardship associated with increasing water and wastewater bills is often concentrated in a few lower-income neighborhoods, a factor missed completely by looking only at community-level MHI.

These limitations are illustrated by a real example: in one city studied, the federal storm water mandate would be judged a mandate to be affordable based on city-wide MHI. But the lowest quintile of the households in that city – people living at or below the poverty level – would be required to pay over 9% of their income for water service. It is virtually certain that many households in that city would face painful and damaging tradeoffs – such as not going to the doctor or not buying medicine – in order to afford a water bill that would be judged to be affordable based on MHI.

EPA's Financial Capability Indicator (FCI) is also flawed:

- EPA looks only at property tax revenues as a percentage of full market property value (FMPV) as its measure of local tax effort. This ignores income taxes, sales taxes, business taxes, and user fees typically charged for city services, and leads to a significant understatement of local tax effort in cities that rely on multiple forms of taxation.
- The secondary screening analysis includes measures of local MHI and unemployment compared to the national average. By focusing on how these measures compare with the current national levels, EPA fails to acknowledge the absolute value of the indicators. For example, if the national unemployment rate is 9%, a community with an unemployment rate of 10% is considered by EPA as having only a “mid-range” unemployment problem. In fact an unemployment rate of 10% is likely to be a severe stress to any community.
- EPA does not consider the longer-term needs facing many municipalities for reinvestment and renewal of water and wastewater infrastructure due to the current system's age and condition. As documented by the American Water Works Association's *Buried No Longer* report (covering drinking water infrastructure only), these needs are real, pressing, and substantial.

### **Conclusion**

It is important that EPA consider the affordability of implementing Clean Water Act and Safe Drinking Water Act mandates, and the agency should be commended for developing a system to do so. However, current EPA practices unreasonably narrow the scope of its affordability analysis. The result is often an inadvertent “environmental justice” issue as real and significant hardship is created for Americans with the lowest incomes.

The American Water Works Association and the Water Environment Federation offer this paper to raise awareness about this important issue. We hope to spark a national conversation that leads to specific changes in current policy.

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