



**American Water Works
Association**

Government Affairs Office
1300 Eye Street NW
Suite 701W
Washington, DC 20005-3314
T 202.628.8303
F 202.628.2846

Headquarters Office
6666 West Quincy AVE
Denver, CO 80235
T 303.794.7711
F 303.347.0804
www.awwa.org

February 20, 2013

The Honorable Henry A. Waxman
U.S. House of Representatives
The Honorable Sheldon Whitehouse
U.S. Senate
Co-chairs
Bicameral Task Force on Climate Change

Dear Congressman Waxman and Senator Whitehouse,

We thank the Task Force for the opportunity to comment on climate change as it may affect U.S. drinking water providers. We do have standing concerns about how climate change may affect water resources, water infrastructure, and utility energy consumption in treatment and distribution processes.

For example, we recognize that changes in climate can affect not only how much precipitation falls in a given year, but when it falls and in what form (rain, which is not easily stored, or mountain snow, which holds water until warmer months). Changes in average and extreme temperatures impact evaporation and soil conditions throughout a utility's watersheds, affecting the water supply, and will likely affect the demand for most types of water uses. These variables can significantly affect a utility's water storage capacity and its decisions about when to store and when to release water. This can also affect the quality of source waters that a community draws from. AWWA strongly encourages climate change modeling to help anticipate changes in the hydrologic cycle and that this information be compiled in a manner that is both useful and accessible to utilities.

More dramatically, in recent years we have seen major weather events, such as Hurricane Rita and Superstorm Sandy, inflict heavy damage on specific utilities. Federal research efforts, in partnership with the field experience of water utilities, could advance our knowledge of climate change and how it affects water resources a great deal. They might also help us design water facilities to withstand major weather events.

Efforts to mitigate greenhouse gases are another area of concern. We have participated in many discussions regarding geologic sequestration of greenhouse gases, urging industry and policymakers to make sure geosequestration does not endanger underground sources of drinking water.

AWWA's members are committed to good environmental stewardship. Part of this involves examining their own energy usage and carbon footprint and then taking steps to reduce energy consumption as much as reasonably feasible. In fact, energy used to collect, treat and distribute water is a major component of a utility's operating expenses. Consequently, one of the "greenest" practices a water utility can exercise is to maintain, replace or upgrade aging pipeline infrastructure. Doing this to address clogged or leaking water mains ensures the conservation of both water and energy. AWWA does have ideas on enhancing the federal role in water infrastructure investment through a long-term, low-interest loan program we call the Water Infrastructure Finance and Innovations Act (WIFIA). We would welcome an opportunity to discuss that idea with you at any time.

It's not just pumping and distributing water that consumes energy, but making raw water safe for humans to drink is also energy-dependent. Water utility managers are already investing in more energy-efficient pumps, motors and treatment techniques. Different water treatment techniques have different energy requirements. Under current drinking water law, the U.S. Environmental Protection Agency (EPA) is required to look at the cost of treatment in considering standards or treatment techniques for a new regulation, but the use of energy, and its associated costs and emissions in that evaluation is more implied than explicit.

We believe increased energy consumption of new treatment requirements, along with the associated costs and emissions, should also be considered in developing drinking water regulations. For example, a recent study found that using chlorine gas to disinfect water uses 36% less electricity than the most widely used substitute, bulk sodium hypochlorite. Any effort to push utilities away from the use of chlorine gas should take that into account, understanding that an increase in electricity use will result in greater energy costs and increased emissions. Likewise, a peer-reviewed study published in the March 2009 edition of *Journal-AWWA* compared the energy costs of different treatment techniques. Requiring a 10-million-gallon-a-day water treatment plant with conventional treatment technology to adopt ultraviolet light disinfection would increase electrical consumption by more than 16 percent. Adding low-pressure micro/ultra filtration membranes would drive up energy costs by almost 170 percent. Utilities may be required to add these more energy-intensive treatment techniques to meet increasingly complex drinking water regulations, with the attendant increases in the utility's carbon footprint. It is important that such climate change impacts be considered in a "triple-bottom-line" analysis as part of considering the reasonableness of any proposed drinking water standard.

With regard to the questions in your letter of January 31, our responses are below:

1. *What actions or policies could federal agencies adopt, using existing authorities, to reduce emissions of heat-trapping pollution?*

AWWA urges regulatory officials to prominently include the cost of increased energy consumption for new or alternative treatment techniques when evaluating the cost and benefits of proposed drinking water rules under the Safe Drinking Water Act regulatory determination and standard-setting processes. This would allow EPA to adequately

weigh the benefits of proposed regulation against the consequences of increased emissions, among other factors.

2. *What actions or policies could federal agencies adopt, using existing authorities, to make our nation more resilient to the effects of climate change?*

We realize that in the new budget climate, federal research dollars will become ever tighter. However, we strongly recommend that priority be directed toward refinement of climate change modeling as it affects the hydrologic cycle at the regional scale needed by water utility managers. Such modeling would not only help water utilities prepare for changes in the quantity and quality of source waters, but also help them design for future dramatic weather events or trends. In addition to more locally relevant data, resources to make relevant climate information more accessible and useful to water utilities, and research to improve understanding of strategies to adapt to climatic changes are also critical in improving climate resiliency. The U.S. Global Change Research Program (USGCRP) has been involved in all of the above efforts, and renewed attention and resources to this and similar programs would be useful to both improve understanding of possible changes and increase knowledge of how to reduce the impacts of such changes, both through federally funded research as well as through promoting public-private partnerships and partnerships with local and state governments.

We also urge that protection of drinking water supplies remain a paramount concern as federal and state officials examine geosequestration of greenhouse gases.

3. *What legislation would you recommend Congress enact to strengthen the ability of federal agencies to prevent and respond to the effects of climate change?*

Congress should amend the Safe Drinking Water Act to make energy consumption an explicit factor in calculating the costs and benefits of proposed drinking water and wastewater regulations.

With regard to future water infrastructure needs, we urge Congress to create new, innovative tools to provide water utilities access to low-cost capital to assist in infrastructure investment. We are not asking for grants, particularly in this budget climate. However, we do urge Congress to enact the Water Infrastructure Finance and Innovation Authority that we have been advocating along with the Water Environment Federation and the Association of Metropolitan Water Agencies.

WIFIA would provide access to low-cost loans for projects costing at least \$20 million of national or regional significance. It would also allow state agencies to aggregate loan applications from smaller utilities into a single loan meeting the \$20-million threshold. The state revolving loan fund has been a great tool for small to medium-sized systems that need help with regulatory compliance. However, it is not authorized to finance projects outside that compliance framework and is not large enough in most states to finance larger projects.

WIFIA would be a complementary water infrastructure finance tool, filling the role the SRFs cannot fill. We would be happy to discuss this proposal further.

Again, AWWA appreciates the opportunity to provide input to the Bicameral Task Force on Climate Change. As shown in our concerns above, climate change can have significant impacts on the quality and quantity of drinking water available to communities, the cost of providing that water, the energy footprint of water utilities, and on the financial well being of towns and cities. We hope to work further with the Task Force as it addresses this important issue.

Sincerely,

A handwritten signature in black ink that reads "Tom Curtis". The signature is written in a cursive, flowing style.

Tom Curtis
Deputy Executive Director, Government Affairs