NACWA
A Clear Commitment to America's Waters

November 13, 2009

Water Resources Climate Change Adaptation Workgroup
Council on Environmental Quality
Executive Office of the President
1600 Pennsylvania Avenue NW
Washington, DC 20500
Submitted via email: WaterAdaptation@ceq.eop.gov

Re: Stakeholder Listening Sessions – Climate Change Adaptation Workgroup

The National Association of Clean Water Agencies (NACWA) appreciated the opportunity to participate in the October 28 listening session for state, municipal, and water utility organizations to provide input to the Council on Environmental Quality (CEQ) Interagency Water Resources and Climate Change Adaptation Workgroup. NACWA represents the interests of nearly 300 publicly owned wastewater treatment agencies nationwide, serving the majority of the sewered population in the U.S., and NACWA members are very concerned about the impacts of climate change on their wastewater treatment facilities. The comments below provide additional information about climate change adaptation for wastewater utilities which expand on the comments made by NACWA during last month's listening session. The comments are organized based on the five questions asked by the CEQ Workgroup during the listening session.

1. **What do you see as the key impacts of a changing climate for water resources?**

   The changing precipitation patterns resulting from climate change will have a large impact on wastewater utilities, and these impacts will vary from region to region. Some regions, such as the northeast, expect to have more precipitation, potentially with more frequent and intense storms, leading to more combined and sanitary sewer overflows. Many wastewater treatment facilities will be required to increase their storage and/or treatment capacity to deal with these storm events. In other areas, such as the southwest, more droughts are expected, leading to decreased flow to wastewater treatment facilities and an increased demand for water reuse and recycling.

   Seal level rise may inundate coastal utilities, as well as requiring ocean discharging utilities to relocate their discharge outlets or increase their pumping capacity. Since wastewater utilities are usually located in low-lying areas to take advantage of gravity flow to the treatment facilities, flood-control measures may need to be improved to deal with the higher levels of flooding that may occur more frequently due to climate change.

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Climate change will directly affect the water bodies that receive wastewater effluent, exacerbating many existing water quality problems. Rising atmospheric temperatures may increase the temperature of the water bodies, changing the water chemistry, while more intense storms will increase erosion and contamination from stormwater runoff. New treatment requirements may be placed on utilities to help mitigate these changes and protect environmental quality.

2. Are there key programs, policies, or other actions that Federal agencies should adopt to support or guide adaptation to climate change?

The federal government must recognize that climate change adaptation measures for water resources, like all water quality issues, vary on a regional basis. The best way to account for these regional variations is through a holistic, watershed-based approach that allows local decisions about the best ways to adapt to climate change and improve water quality. Although significant progress has been made in improving water quality under the Clean Water Act through control of point sources, the goals of the Act have not been fully achieved because nonpoint sources of pollution are not addressed in the Act. With the water quantity and quality problems that are expected to be exacerbated by climate change, controlling all sources of pollution will become even more important. The best way to do this is for pollution reduction and climate change adaptation needs to be determined locally for each watershed.

EPA needs to increase its flexibility with permit requirements to account for the changes in water bodies resulting from climate change. For example, if water temperatures rise or pH drops due to carbon dioxide deposition, there could be changes in the receiving water ecosystems. The discharge permits for wastewater utilities often require demonstration that the discharge is not adversely affecting the aquatic environment. EPA and regional water boards should be aware that conditions may change due to climate change, not necessarily as a result of wastewater discharges, and provide flexibility in demonstration of permit compliance to account for these changes.

Wastewater needs to be seen as an important resource, not simply a waste product. In areas of increased drought, water reuse will become increasingly important. EPA and other federal agencies need to review policies that provide barriers to effective water reuse. Guidance will be required from EPA on the levels of treatment required, particularly for emerging contaminants. The biosolids produced by the wastewater treatment process are another important resource, since they can be land-applied as fertilizer or used as a renewable fuel source. Federal agencies should promote inclusion of biosolids in the renewable fuel definition of the climate change legislation along with the upcoming energy bill legislation. Also, EPA and the Department of Energy should look at their regulations and policies and implement or promote the inclusion of biosolids as a renewable fuel wherever it is excluded or opposed.

Water reuse and other climate change adaptation measures are extremely expensive and the federal government should provide funding to local communities for these measures in recognition of how important water is as a national and life-sustaining resource. A recent report by NACWA and the Association of Metropolitan Water Agencies (AMWA), *Confronting Climate Change: An Early Analysis of Water and Wastewater Adaptation Costs*, estimated the nationwide adaptation costs for water and wastewater utilities through 2050 as $450-$940 billion for infrastructure improvements and operations and maintenance expenses. This does not include costs for emergency response and recovery related to storm events and

drought, or increased costs for new regulatory requirements. The report is available at *http://www.nacwa.org/ccchange*, and a copy is also enclosed with this letter.

3. Are there effective models for coordination among Federal agencies, States, tribes, and local governments, and others on water resources and climate change issues that the workgroup should consider in its work?

The Orange County, California, Ground Water Replenishment System (GWRS) is an excellent example of coordination among state and regional agencies to establish wastewater reclamation for indirect potable use. The two principal regional agencies, Orange County Sanitation District (OCSD) and Orange County Water District (OCWD), worked cooperatively to plan, design, construct, and commission this joint project. A joint powers agreement was established that governs the terms and conditions of the system along with a steering committee made up of three members from each agency's board of directors. The state department of public health and regional water board worked cooperatively and agreed to have an independent advisory committee address and resolve the multitude of issues that arose, and based upon the committee recommendations approved the project. Eighteen months after commissioning of the system, this independent panel still operates in an advisory capacity to the GWRS.

4. How can water resources and climate change adaptation planning be coordinated or integrated with other water resources planning efforts? Can you provide examples of such coordination already underway?

Climate change adaptation planning can be coordinated with any existing water resource planning efforts that are occurring on a local, state, or regional basis. Watershed organizations can incorporate different aspects of planning and coordination, with large-scale organizations facilitating integration of federal and state or regional programs and small-scale organizations helping with implementation. For example, the Western Governors' Association (*www.westgov.org*) coordinates programs for water resource planning, and it released a report this year, *Western States Watershed Study* (*http://www.westgov.org/wswc/wsws%20main%20report_jan09.pdf*), that detailed water supply and demand issues and how federal agencies can support the regional planning activities of the western states. Another report, *Preparing for Climate Change in the Great Lakes Region* (*http://www.miseagrant.umich.edu/downloads/climate/Climate_Workshop_Report.pdf*) provides an additional example of how climate change adaptation can be done on a regional basis.

King County, Washington, has conducted studies incorporating climate change into facility planning. For more information about these studies, please contact Laura Wharton, Supervisor of Comprehensive Planning and Asset Management Program Development, Wastewater Treatment Division, King County Department of Natural Resources and Parks, at *laura.wharton@kingcounty.gov* or 206/684-1238.

5. Are there water resources and climate change studies or reports that the workgroup should consider in its work?

In addition to the reports and websites already cited in these comments, the Western Water Assessment (*http://wwa.colorado.edu*) has a comprehensive list of studies and reports on climate change and impacts to water resources. The Western Water Assessment is a joint effort between the University of Colorado and the

National Oceanic and Atmospheric Administration's Earth System Research Laboratory, designed to assist in decision regarding water resources in the western states.

Thank you for consideration of NACWA's comments on climate change adaptation and wastewater utilities. Please contact me at 202/296-9836 or *cfinley@nacwa.org* if you have any questions.

Sincerely,

Cynthia A. Finley
Director, Regulatory Affairs