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June 10, 2008

National Water Program Draft Climate Change Strategy
Office of Water

U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW (4101M)

Washington, DC 20460

Via Email: Water_Climate_Change@epa.gov

Dear Sir or Madam:

The National Association of Clean Water Agencies (NACWA) has reviewed the draft *National Water Program Strategy: Response to Climate Change (Draft Strategy)* and appreciates the opportunity to comment on the U.S. Environmental Protection Agency (EPA) Office of Water's proposed approach for integrating climate issues into its core water programs. The potential impacts of climate change on the water environment and the necessary adaptive measures for utilities that are being predicted as a result of these impacts are of significant concern to NACWA's members. NACWA members are also aware of the need to mitigate the impacts of climate change and many are already engaged in efforts to reduce greenhouse gas emissions and otherwise decrease their contributions to climate change.

NACWA commends the Office of Water for developing the *Draft Strategy* to incorporate potential climate change impacts into existing programs. Section II of the *Draft Strategy*, which provides a thorough description of climate change processes and the significant effects these processes may have on water resources, will no doubt serve as a useful resource to increase the awareness that climate change is fundamentally a water issue. All levels of government and the public need to understand that climate change will have far-reaching consequences to water quantity and water quality. NACWA and its water sector partners recently collaborated on a joint message underscoring the importance of water resources in the ongoing debate over climate change. NACWA will look to the Office of Water to provide continued leadership on this issue and ensure that water remains a top priority in the future as the climate issue continues to influence federal government policies.

The Key Actions identified in the *Draft Strategy* generally provide for the National Water Program to begin working in fiscal years 2008 and 2009, under the assumption of level funding, in the areas of greenhouse gas (GHG) mitigation, water program adaptation to climate change, climate change research, and water

program education on and management of climate change. NACWA recommends that EPA also develop longer-term strategies for identifying and responding to climate change impacts on the water program. Our general comments below reflect this need for longer-term strategies and include recommendations for a more forward-looking approach to prioritization of water program adaptation and research over GHG mitigation, consideration of funding requirements for necessary adaptations, and development of a more holistic watershed approach to simultaneously address climate change and water quality without developing contradictory requirements.

Following these general comments, we provide our recommendations for prioritization and improvement of the Key Actions, as requested by the Office of Water.

Reprioritization of National Water Program Climate Change Goals

The *Draft Strategy* lists five major goals for the National Water Program in its response to climate change:

- Goal 1: Water Program Mitigation of Greenhouse Gases
- Goal 2: Water Program Adaptation to Climate Change
- Goal 3: Climate Change Research Related to Water
- Goal 4: Water Program Education on Climate Change
- Goal 5: Water Program Management of Climate Change

NACWA believes that the ordering of the Goals implies an inherent prioritization and recommends that Goal 2, 'Water Program Adaptation to Climate Change' become the first and primary goal of the National Water Program, followed closely by 'Climate Change Research Related to Water' and then 'Water Program Mitigation of Greenhouse Gases.' As explained in the *Draft Strategy*, "adaptation of water programs to climate change will be a long and iterative process." (p. 37). Appropriately, more Key Actions are assigned to adaptation than to the other four goals. Opportunities for mitigating the impacts of climate change are certainly important, but clearly the effects of climate change on the water environment, and the need to adapt to those changes, will be the most relevant for the Office of Water to address. Section II of the report describes the climate change impacts on water resources. Each effect of climate change will demand adaptive activity from the nation's clean water agencies, ranging from management of increased overflows of sanitary and combined sewers due to more intense rainfall, to relocation of wastewater treatment plants and discharge outfalls due to sea level rise. Most of these adaptations will require significant time, effort, and money on the part of utilities, and EPA will need to assist in these adaptations.

Climate change research will play an important role in planning and implementing adaptation and mitigation efforts for EPA and wastewater utilities and should receive significant attention as the Office's second goal. Though the Office of Water is being looked to for its leadership on carbon sequestration through its underground injection control program and water-related energy conservation efforts, overall these are ancillary activities, albeit of significance to mitigation efforts. Most emission reduction and carbon capture and offset efforts will be either required through other regulations imposed by federal, state, or local governments, or be voluntarily performed. While the Office of Water can assist with identifying and guiding mitigation efforts of utilities and in administering a sequestration program through the underground injection office, mitigation should not be the primary climate change response goal of the National Water Program.

Funding for Climate Change Adaptation

The *Draft Strategy* fails to recognize the significant funding levels that will be needed to assist wastewater utilities with adaptation efforts. NACWA and the broader water sector have made it clear that federal support must be provided to the nation's clean water agencies and water utilities for adaptation efforts. Most of the legislation now being discussed on Capitol Hill recognizes the importance of water resources and sets aside substantial resources for adaptation efforts, while making initiatives in the water resource area eligible for such funds. EPA must begin to consider the resources that will be needed in the future to address these challenges in the context of the existing investment needs in the nation's water and wastewater infrastructure.

Implement a Watershed Approach for Climate Change and Water Quality

The watershed approach is one of the Office of Water's "Four Pillars" for sustainable water infrastructure. As stated in the *Draft Strategy*, "[m]any elements of a 'watershed approach' will increase the resiliency of watersheds to climate change and increase the sustainability of aquatic systems" (p. vi). The *Draft Strategy* also recognizes that "the challenges posed by climate change... do not always fit neatly into existing programs" (p. 37). Considering the potential of a true watershed approach to both improving water quality and helping to address climate change challenges, EPA needs to begin more serious discussions about the needed long-term changes to its existing programs and implementation policies to accommodate a more holistic, watershed approach.

Current EPA practices unfortunately often run counter to a comprehensive watershed approach. EPA's continued reliance on point source controls to achieve nutrient reductions in an attempt to address the Gulf of Mexico hypoxia issues is a prime example of the Agency's failure to consider true watershed approaches. While recognizing that point sources are a minority contributor to the problem, watershed-wide technology-based solutions are still being considered as the quickest, most reliable way to show progress. When climate change considerations are factored in, the logic of continuing to ratchet down on the point sources breaks down further. Point source controls are generally GHG-intensive, due to the large amounts of energy required to construct and operate them, while nonpoint source control measures provide reductions with none of these downsides and can provide additional environmental benefits, including carbon sequestration in tree planting and cover crops, improved habitat, and increased control of sediments and other pollutants. Under a holistic watershed approach, EPA could consider GHGs and other relevant environmental considerations in the decision-making process for implementing total maximum daily loads (TMDLs) and other water programs.

Prioritization of Key Actions

The following list of Key Actions should be given priority by the National Water Program over the other Key Actions contained in the *Draft Strategy*. NACWA's comments regarding each of these priority Key Actions are also provided.

Goal 1: Water Program Mitigation of Greenhouse Gases

Key Action 1 – Improve Energy Efficiency at Water and Wastewater Utilities

Comments: The solar, wind, and combined heat and power (CH&P) projects suggested in this Key Action are expensive and have long payback times. Utilities will need assistance funding these types of programs. Some CH&P projects can conflict with Clean Air Act State Implementation Plans, particularly in California, where distributed generation regulations make it very difficult to install a reciprocating engine with heat recovery that would operate for an extended period of time. EPA should give assistance to utilities, especially where existing regulations make it difficult for utilities to act on their own.

Key Action 7 – Promote Energy Saving/Generating “Green Buildings” and “Green Infrastructure” Including Provisions Allowing Such Practices in Stormwater Permits

Comments: This Key Action should be reworded as “Promote Water Conservation and Stormwater Management through ‘Green Infrastructure’ and ‘Green Buildings’ and Promote Use of These Practices in Stormwater Permits.” This rewording will more accurately reflect the needs of water and wastewater utilities in mitigating GHGs and adapting to climate change. EPA should also continue work to evaluate the effectiveness of green infrastructure, so that it will continue to be viewed as a practical option by both regulators and municipalities.

Key Action 11: Pilot Projects for Marketing of Nonpoint Source Biological Sequestration

Comments: The use of biosolids and biosolids compost as a net carbon sequestration strategy when compared to commercial fertilizers used on agricultural soils should also be considered in this Key Action. In addition, low carbon fuel production from biosolids and other wastewater residuals, such as fats, oils, and greases, should be supported by EPA.

Goal 2: Water Program Adaptation to Climate Change

Key Action 14 – Clean Water Criteria for Sedimentation/Velocity

Comments: Development of velocity and sedimentation criteria must be carefully coordinated with stakeholders from local, state, and federal agencies. Concerns about increased flow, velocity, and sediment loadings could be addressed most effectively with a watershed approach that considers the restoration of habitat and natural stream conditions.

Key Action 19 – Watershed Climate Change Policy Memo

Comments: This Key Action should be a priority only if it is used as the basis for the Office of Water to begin developing a holistic watershed approach to climate change and water quality issues. Although EPA states that it supports management of water resources using a watershed approach, the current regulatory framework and EPA structure do not make it realistic in most cases. This memo will only be useful if it can help promote implementation of a watershed approach.

Key Action 25 – Review/Revise Nonpoint Pollution Guidelines and Methods

Comments: Any progress that EPA can make to curb nonpoint pollution will be important, and many nonpoint pollution controls will bring multiple environmental benefits.

Key Action 27 – Evaluate Opportunities to Address Wet Weather/Climate Impacts at Municipal and Industrial Operations

Comments: This Key Action includes promotion of green and sustainable infrastructure, which should be done at both the local and regional levels. The local methods listed in the *Draft Strategy*, such as increasing perviousness of land cover and retaining stormwater, are important, but regional structures such as reservoirs and restored or constructed wetlands are also important to help reduce wet weather impacts.

Key Action 28 – Assess Climate Impacts at Animal Feeding Operations

Comments: Any progress that EPA can make to decrease pollution from animal feeding operations will be important.

Key Action 31 – Clarify Use of the Clean Water and Drinking Water SRFs to Support Adaptation to Climate Change

Comments: The focus of the Office of Water on climate change should not divert State Revolving Fund (SRF) resources from current infrastructure improvement programs. Additional SRF funds or other types of funding, especially proceeds from a climate change cap and trade program, will be required if EPA's infrastructure improvement programs are expanded to include climate change adaptation projects.

Goal 3: Climate Change Research Related to Water

Key Action 36 – Climate Research in Water Related ORD Research

Comments: Climate change research is vital in guiding the adaptation and mitigation efforts that should be undertaken by utilities and supported by EPA. Research priorities should be identified with the help of wastewater utilities to ensure that the research conducted addresses climate change needs facing utilities.

Goal 4: Water Program Education on Climate Change

Although none of the Key Actions listed for this goal are priorities, the Water Program Education efforts should be ongoing as research provides new insight into links between climate change and water research. Educational materials must be objective and well-supported by research and sound science.

Goal 5: Water Program Management of Climate Change

Key Action 45 – Regional Additions to National Water Climate Strategy

Comments: Since climate change is expected to have different effects in different parts of the country, determining what these changes will be and addressing climate change's impacts on a regional basis is vital. Additional key actions from each EPA Region will help utilities in each part of the country address climate change challenges appropriately.

Other Comments

A Key Action for EPA to support water reuse and recycling should be added to Goal 2: Water Program Adaptation to Climate Change. As noted in Section II of the *Draft Strategy*, changes in precipitation patterns could result in water shortages and drought in some areas of the country, particularly in the southwest where populations are rapidly increasing in many cities. Water reuse and recycling could play an important role in supplementing limited water supplies from surface waters and groundwater, as well as potentially reduce costs and energy use associated with importing water from other regions. EPA can assist with promoting water reuse and recycling and by helping the industry to overcome the negative reactions often expressed by the public and government leaders in regards to water reuse.

EPA should also consider developing a new Key Action specifically on the issue of using biosolids and biosolids compost for sequestration of carbon. This could include priority research to demonstrate the sequestration benefit and comparative carbon footprints between biosolids/compost application and chemical fertilizer and establishment of a committee or workgroup among EPA, the Department of Agriculture, and industry practitioners to develop strategies for removing barriers to increased use of biosolids land application.

Since the rate of climate change and the exact effects that it will have on water resources are uncertain, incorporation of climate change responses into EPA policies and regulations must be done carefully. The Office of Water will need to balance proactive responses to climate change with the creation of new requirements that may be onerous or expensive for utilities and may be shown as unnecessary in the long term. Response actions will need to be based on valid scientific research and data, and the costs and benefits of each response will need to be considered.

Thank you for the opportunity to comment on the *Draft Strategy*. Please contact me at 202/833-9106 or chornback@nacwa.org if you have any questions about comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Hornback", written in a cursive style.

Chris Hornback

Senior Director, Regulatory Affairs