TESTIMONY OF NANCY K. STONER
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U.S. ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
UNITED STATES HOUSE OF REPRESENTATIVES

JULY 25, 2012

Chairman Gibbs, Ranking Member Bishop, and members of the Subcommittee, thank you for the opportunity to appear before you today to discuss the U.S. Environmental Protection Agency (EPA)'s efforts to achieve better water quality improvements through integrated municipal stormwater and wastewater planning and innovative approaches for meeting our infrastructure challenges.

Introduction

The Nation has come a long way in improving water quality, public health and the environment since Congress enacted the Clean Water Act (CWA) almost 40 years ago. We have improved water quality and increased public health protection in streams, lakes, bays, and other waters nationwide. However, significant water pollution challenges remain. We face difficult and expensive infrastructure and engineering challenges in providing advanced treatment for nutrients and controlling combined sewer overflows (CSOs), sanitary sewer overflows (SSOs), and stormwater.

Population growth, increases in impervious surfaces, aging infrastructure, climate change, and the current economic challenges are stressing implementation of infrastructure and programs needed to fully attain CWA goals. Many of our state and local government partners find themselves facing difficult financial conditions. Their ability to finance improvements by raising revenues or issuing bonds has declined during the economic downturn and ongoing economic recovery. We recognize the challenging

financial conditions that many municipalities are facing, and the EPA is working with states and local governments to develop and implement new approaches that will achieve water quality and human health goals more cost effectively and sustain our Nation's essential water infrastructure while creating jobs and strengthening the economy. The EPA's priorities for sustainable water infrastructure are embodied in our *Clean Water and Safe Drinking Water Infrastructure Sustainability* Policy issued in October 2010. Two key elements of this policy are support for integrated planning for water infrastructure investments and wider deployment of innovative approaches such as "green infrastructure", which I will focus on today.

Integrated Planning

In the past, the EPA, states, and municipalities have often focused on each CWA requirement individually without full consideration of all CWA obligations or how various water quality investments can be coordinated and managed as a single effort. This uncoordinated approach may have the unintended consequence of constraining a municipality from addressing its most serious water quality issues first.

We believe a new commitment to integrated water quality planning and management offers municipalities an opportunity to meet CWA requirements in a more effective manner and in a way that achieves the highest priority goals more quickly. As Assistant Administrator Giles will elaborate upon, the EPA recently reached settlement agreements with several cities that have begun to embrace integrated planning approaches. These agreements demonstrate how we can help communities across America meet a range of clean water goals more efficiently while helping to create jobs, and strengthen our economy.

To further encourage this trend, on October 27, 2011, Assistant Administrator Cynthia Giles and I signed a memorandum to the EPA Regions that expresses the agency's commitment to integrated approaches to managing municipal stormwater and wastewater. The integrated approach provides interested municipalities with an opportunity to develop a comprehensive plan that balances competing CWA requirements and allows municipalities to focus their resources on the most pressing public health and environmental protection issues. In the memorandum, the EPA committed to developing an integrated planning approach framework to help explain how the agency will work with state and local governments.

Earlier this year, we made a draft of the framework publicly available and held a series of public workshops around the country to gather input from states, municipalities, and other stakeholders on the integrated approach. On June 5, 2012, after making adjustments to reflect what we learned from public input, we signed a memorandum to the EPA Regions that transmitted the final framework. A copy of the final framework is attached to my testimony.

The framework outlines the principles we will follow in implementing the integrated approach. It also provides guidance on developing and implementing effective integrated plans by describing the elements that the EPA believes an integrated plan should generally address, including:

- A description of the water quality, human health and other issues;
- A description of their wastewater and stormwater systems;
- A process for stakeholder input;
- A process for identifying, evaluating and selecting alternatives and proposing implementing schedules;
- A process for measuring success; and

- A process for adapting plans to address changing circumstances.

The framework explains that the integrated approach is optional, and the responsibility to develop an integrated plan rests with municipalities. Once a municipality has developed a plan, the EPA and/or the state will work with the municipality to develop appropriate implementation requirements and schedules. The integrated planning approach, however, will not lower existing regulatory standards. Rather, the approach will take advantage of the flexibilities in existing EPA regulations, policies and guidance to allow municipalities to sequence implementation of their CWA obligations to protect water quality and public health more cost effectively.

For example, the EPA's existing regulations and policies provide the EPA and states flexibility to evaluate a municipality's financial capability in tough economic times and to set appropriate compliance schedules, allow for implementing innovative solutions, and sequence critical wastewater and stormwater capital projects and operation and maintenance-related work in a way that ensures human health and environmental protection. We recognize that such an integrated approach will necessarily involve balancing all of a municipality's competing CWA priorities with the environmental and public health objectives of the CWA. In doing so, we must be diligent in ensuring that a municipality be positioned to address its most pressing water quality and public health issues first.

Green Infrastructure and Sustainable Practices

A second key goal of our 2010 *Clean Water and Safe Drinking Water Infrastructure Sustainability* policy is to promote the wider application of green infrastructure practices for management of municipal stormwater. The EPA has strongly encouraged these green infrastructure approaches for several years. Some cities and communities have implemented green infrastructure approaches and are starting to see that the value of such projects goes beyond protecting water resources.

On a regional scale, green infrastructure consists of a network of open spaces and natural areas (such as forested areas, floodplains and wetlands) that improve water quality while providing recreational opportunities and wildlife habitat. On the local scale, green infrastructure consists of site-specific management practices, such as rain gardens, porous pavements, green roofs and cisterns, that are designed to maintain natural hydrologic functions by absorbing and infiltrating precipitation where it falls, and by returning it to the atmosphere via plants.

Green infrastructure has a number of other environmental and economic benefits in addition to improving water quality, including recharge of ground water and surface water supplies, cleaner air, reduced urban temperatures, reduced energy demand, carbon sequestration, and reduced flooding. It can also provide community benefits, such as improved aesthetics, improved human health, and additional recreational and wildlife areas. A key benefit of green infrastructure approaches is potential cost savings associated with lower capital costs compared to building large stormwater collection and conveyance systems.

The EPA is working with other federal agencies to develop and promote the wider adoption of green infrastructure practices. For example, the EPA has recently established a website providing a link to a wide range of information sources related to green infrastructure, such as a series of six factsheets on incorporating green infrastructure measures into wet weather programs. The EPA is also providing technical assistance to 17 communities in 16 states to help protect and restore water quality with green infrastructure. And lastly, the integrated planning framework is a key mechanism that communities can use to fit green infrastructure into a larger plan for wastewater management.

The EPA is also encouraging municipalities to pursue other innovative and sustainable approaches to stormwater and wastewater management which can include the expanded use of "asset management" that provides a better basis for decision making on a utility-wide basis and supports the long-term financial sustainability of the municipality. "Planning for Sustainability: A Handbook for Water and Wastewater Utilities," released in February 2012[1] was recently created to assist municipalities with asset management. Both asset management and green infrastructure practices complement the integrated infrastructure planning that we are promoting.

Conclusion

As we move forward with the integrated planning approach, the EPA is committed to continuing to work closely with states, municipalities, environmental groups and the public. The EPA and the Association of Clean Water Administrators (ACWA) recently participated in a well attended webinar hosted by the Water Environment Federation. We have also had numerous calls with representatives of key organizations including ACWA, the Conference of Mayors and others to explain the approach. We will also recognize municipal leaders who come forward with an integrated plan and highlight key aspects of the approach.

We at the EPA look forward to working with this Subcommittee, our state colleagues, municipalities, and the many other partners, stakeholders, and citizens to implement the integrated planning approach. We are committed to improvements in wastewater management and moving toward full attainment of water quality and human health goals. Thank you again for inviting me to testify and Cynthia or I would be happy to respond to any questions you may have.

[1] The February, 2012 Handbook is available at http://water.epa.gov/infrastructure/sustain/upload/EPA-s-Planning-for-Sustainability-Handbook.pdf

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN - 5 2012

MEMORANDUM

SUBJECT: Integrated Municipal Stormwater and Wastewater Planning Approach Framework

FROM: Nancy Stoner
Acting Assistant Administrator
Office of Water

Cynthia Giles
Assistant Administrator
Office of Enforcement and Compliance Assurance

TO: EPA Regional Administrators
Regional Permit and Enforcement Division Directors

In recent years, EPA has increasingly embraced integrated planning approaches to municipal wastewater and stormwater management. EPA further committed to work with states and communities to implement and utilize these approaches in its October 27, 2011 memorandum *"Achieving Water Quality Through Municipal Stormwater and Wastewater Plans."* Integrated planning will assist municipalities on their critical paths to achieving the human health and water quality objectives of the Clean Water Act by identifying efficiencies in implementing requirements that arise from distinct wastewater and stormwater programs, including how to best prioritize capital investments. Integrated planning can also facilitate the use of sustainable and comprehensive solutions, including green infrastructure, that protect human health, improve water quality, manage stormwater as a resource, and support other economic benefits and quality of life attributes that enhance the vitality of communities.

To provide further guidance on developing and implementing effective integrated plans under this approach, we have developed, with extensive public input, the attached Integrated Municipal Stormwater and Wastewater Planning Approach Framework document. We are posting the framework document on our website and, as they become available, will provide practical examples of how municipalities are implementing this approach. We would like to thank Regions 2, 4, 5, 7 and 10 for their assistance in conducting public workshops to gain input on the draft framework. We encourage all Regions to work with their States to identify

appropriate opportunities for implementing the Integrated Planning approach. We will continue to work with the Regions as we explore the pathway forward on implementing this approach.

We encourage you to contact Deborah Nagle, Director, Water Permits Division (nagle.deborah@epa.gov) and Mark Pollins, Director, Water Enforcement Division (pollins.mark@epa.gov) with any questions you might have.

Attachment

cc: Regional Permit and Enforcement Liaisons
Association of Clean Water Administrators
United States Conference of Mayors
National League of Cities
American Rivers
National Association of Clean Water Agencies
National Association of Flood & Stormwater Management Agencies
Natural Resources Defense Council
Water Environment Federation
Environmental Council of States

INTEGRATED MUNICIPAL STORMWATER AND WASTEWATER PLANNING APPROACH FRAMEWORK

May, 2012

The purpose of this framework is to provide further guidance for EPA, States and local governments in developing and implementing effective integrated plans under the Clean Water Act (CWA). The framework identifies the operating principles and essential elements of an integrated plan. The integrated planning approach is voluntary. The responsibility to develop an integrated plan rests with the municipality that chooses to pursue this approach. If a municipality decides to take advantage of this approach, the integrated plan that it develops can provide information to inform the permit and enforcement processes and can support the development of conditions and requirements in permits and enforcement orders. The integrated plan should identify the municipality's relative priorities for projects and include a description of how the proposed priorities reflect the relative importance of adverse impacts on human health and water quality and the municipality's financial capability. The integrated plan will be the starting point for development of appropriate implementation actions, which may include requirements and schedules in enforceable documents.

EPA will continue to provide opportunities for stakeholder input during the implementation of this framework. Outreach activities associated with this effort will include the development of case studies and best practices.

EPA recognizes that approved National Pollutant Discharge Elimination System (NPDES) States are partners in the implementation of the program and have the lead for the day-to-day activities in their States. Many States have existing water quality management planning processes, which may include those established under Section 208 and 303 of the CWA, that may help facilitate the development of an integrated plan and work in conjunction with the implementation of an integrated plan. Integrated plans should be consistent with, and designed to meet the objectives of, existing total maximum daily loads (TMDLs). EPA is committed to working closely with the States in the implementation of this framework. EPA Regions and Headquarters will work with States when appropriate to determine the proper response to an integrated plan.

I. Background

In recent years, EPA has begun to embrace integrated planning approaches to municipal wastewater and stormwater management. EPA further committed to work with States and communities to implement and utilize integrated planning approaches to municipal wastewater and stormwater management in its October 27, 2011 memorandum *"Achieving Water Quality Through Municipal Stormwater and Wastewater Plans."*[1] Integrated planning will assist municipalities on their critical paths to achieving the human health and water quality objectives of the CWA by identifying efficiencies in implementing requirements that arise from distinct wastewater and stormwater programs, including how best to make capital investments.

[1] The October 27, 2011 memorandum is available at http://cfpub.epa.gov/npdes/integratedplans.cfm.

Integrated planning can also facilitate the use of sustainable and comprehensive solutions, including green infrastructure, that protect human health, improve water quality, manage stormwater as a resource, and support other economic benefits and quality of life attributes that enhance the vitality of communities. In February, 2012, EPA released "Planning for Sustainability: A Handbook for Water and Wastewater Utilities."[2] The Handbook describes a number of steps utilities can take to build sustainability considerations into their existing planning processes and make the best infrastructure choices that protect water quality and ensure the long-term sustainability of infrastructure assets. The elements of an integrated plan which are described below are complementary to the elements in the Sustainability Handbook.

The integrated planning approach does not remove obligations to comply with the CWA, nor does it lower existing regulatory or permitting standards, but rather recognizes the flexibilities in the CWA for the appropriate sequencing and scheduling of work.

II. Principles

Following are overarching principles that EPA will use in working with municipalities to implement an integrated approach to meet their wastewater and stormwater program obligations under the CWA. Also presented are guiding principles that EPA recommends municipalities use in the development of their integrated plans.

Overarching Principles

1. This effort will maintain existing regulatory standards that protect public health and water quality.

2. This effort will allow a municipality to balance CWA requirements in a manner that addresses the most pressing public health and environmental protection issues first.

3. The responsibility to develop an integrated plan rests with the municipality that chooses to pursue this approach. Where a municipality has developed an initial plan, EPA and/or the State will determine appropriate actions, which may include developing requirements and schedules in enforceable documents.

4. Innovative technologies, including green infrastructure, are important tools that can generate many benefits, and may be fundamental aspects of municipalities' plans for integrated solutions.

[2] The February 2012 Handbook is available at http://water.epa.gov/infrastructure/sustain/upload/EPA-s-Planning-for-Sustainability-Handbook.pdf.

Principles to Guide the Development of an Integrated Plan

Integrated plans should:

1. Reflect State requirements and planning efforts and incorporate State input on priority setting and other key implementation issues.

2. Provide for meeting water quality standards and other CWA obligations by utilizing existing flexibilities in the CWA and its implementing regulations, policies and guidance.

3. Maximize the effectiveness of funds through analysis of alternatives and the selection and sequencing of actions needed to address human health and water quality related challenges and non-compliance.

4. Evaluate and incorporate, where appropriate, effective sustainable technologies, approaches and practices, particularly including green infrastructure measures, in integrated plans where they provide more sustainable solutions for municipal wet weather control.

5. Evaluate and address community impacts and consider disproportionate burdens resulting from current approaches as well as proposed options.

6. Ensure that existing requirements to comply with technology-based and core requirements are not delayed.

7. Ensure that a financial strategy is in place, including appropriate fee structures.

8. Provide appropriate opportunity for meaningful stakeholder input throughout the development of the plan.

III. Elements of an Integrated Plan

Defining Scope

NPDES requirements for separate sanitary sewer systems, combined sewer systems, municipal separate storm sewer systems and at wastewater treatment plants may be included in an integrated plan. Each of the aforementioned systems may have different owners/operators responsible for the various sewer systems and treatment plants as well as different geographic service areas and different service populations. In addition, integrated plans may address source water protection efforts that protect surface water supplies, and/or nonpoint source control through proposed trading approaches or other mechanisms. When developing an integrated plan, a municipality/community must determine and define the scope of the integration effort, ensure the participation of entities that are needed to implement the integrated plan, and identify the role each entity will have in implementing the plan. EPA will continue to work closely with State and local governments to incorporate green infrastructure approaches to water quality within permits and enforcement actions, consistent with the practice over the past several years.

Plan Elements

An integrated program should be tailored to the size and complexity of the wastewater and stormwater infrastructure addressed in the plan. Although the details of each integrated plan will vary depending on the unique challenges of each community, an integrated plan generally should address the following elements:

Element 1: A description of the water quality, human health and regulatory issues to be addressed in the plan, including:

- An assessment of existing challenges in meeting CWA requirements and projected future CWA requirements (*e.g.*, water quality-based requirements based on a new TMDL);
- Identification and characterization of human health threats;
- Identification and characterization of water quality impairment and threats and, where available, applicable wasteload allocations (WLAs) of an approved TMDL or an equivalent analysis;
- Identification of sensitive areas and environmental justice concerns; and
- Metrics for evaluating and meeting human health and water quality objectives.

Element 2: A description of existing wastewater and stormwater systems under consideration and summary information describing the systems' current performance, including:

- Identification of municipalities and utilities that are participating in the planning effort and a characterization of their wastewater and stormwater systems; and
- Characterization of flows in and from the wastewater and stormwater systems under consideration.

Element 3: A process which opens and maintains channels of communication with relevant community stakeholders in order to give full consideration of the views of others in the planning process and during implementation of the plan.

- Municipalities developing integrated wastewater and stormwater plans should provide appropriate opportunities that allow for meaningful input during the identification, evaluation, and selection of alternatives and other appropriate aspects of plan development;
- Municipalities participating in an integrated wastewater and stormwater plan should, during the implementation of the plan, make pertinent new information available to the public and provide opportunities for meaningful input into the development of proposed modifications to the plan; and
- Where a permit or enforcement order incorporates green infrastructure requirements, the municipalities required to implement the requirements should allow for public involvement to assist in evaluating the effectiveness of the approach and to assist in successful implementation of the approach.

Element 4: A process for identifying, evaluating, and selecting alternatives and proposing implementation schedules which addresses:

- The use of sustainable infrastructure planning approaches, such as asset management, to assist in providing information necessary for prioritizing investments in and renewal of major wastewater and stormwater systems;
- The use of a systematic approach to consider and incorporate, where appropriate, green infrastructure and other innovative measures where they provide more sustainable solutions;
- Identification of criteria, including those related to sustainability, to be used for comparing alternative projects and a description of the process used to compare alternatives and select priorities;
- Identification of alternatives, including cost estimates, potential disproportionate burdens on portions of the community, projected pollutant reductions, benefits to receiving waters and other environmental and public health benefits associated with each alternative;
- An analysis of alternatives that documents the criteria used, the projects selected, and why they were selected;
- A description of the relative priorities of the projects selected including a description of how the proposed priorities reflect the relative importance of adverse impacts on public health and water quality[3] and the permittee's financial capability;
- Proposed implementation schedules; and
- For each entity participating in the plan, a financial strategy and capability assessment that ensures investments are sufficiently funded, operated, maintained and replaced over time. The assessment of the community's financial capability should take into consideration current sewer rates, stormwater fees and other revenue, planned rate or fee increases, and the costs, schedules, anticipated financial impacts to the community of other planned stormwater or wastewater expenditures and other relevant factors impacting the utility's rate base. Municipalities can use as a guide the document "CSO Guidance for Financial Capability Assessment and Schedule Development," EPA 832-B-97-004) or other relevant EPA or State tools.

Element 5: Measuring success - As the projects identified in the plan are being implemented, a process for evaluating the performance of projects identified in a plan, which may include evaluation of monitoring data, information developed by pilot studies and other studies and other relevant information, including:

- Proposed performance criteria and measures of success;
- Monitoring program to address the effectiveness of controls, compliance monitoring and ambient monitoring; and
- Evaluation of the performance of green infrastructure and other innovative measures to inform adaptive design and management to include identification of barriers to full implementation.

[3] An example of an informal tool to help identify priorities is given by "Combined Sewer Overflow Guidance for Screening and Ranking", EPA, August 1995. The guidance is available at http://www.epa.gov/npdes/pubs/owm595.pdf.

Element 6: Improvements to the Plan

- A process for identifying, evaluating and selecting proposed new projects or modifications to ongoing or planned projects and implementation schedules based on changing circumstances; and
- In situations where a municipality is seeking modification to a plan, or to the permit or enforcement order that is requiring implementation of the plan, the municipality should collect the appropriate information to support the modification and should be consistent with Elements 1 – 5 discussed above.

IV. Implementation

Implementing an integrated approach to wastewater and stormwater management may require coordination between State and federal NPDES permit and enforcement authorities. EPA recognizes the importance of and encourages early coordination between NPDES States and EPA on key implementation issues that may arise in individual integrated plans. This will ensure that plans will not need to be revised in order for them to be implemented. State NPDES permit authorities should initiate discussions with EPA on their efforts to address integrated plans that raise issues associated with ongoing federal enforcement actions and when addressing the initial integrated plans developed in the State or when a permit may potentially present a novel approach. EPA and States will determine the appropriate roles of permit and enforcement authorities in addressing the regulatory requirements identified in the plan. As discussed below, elements of an integrated plan can be incorporated, where appropriate, into NPDES permits, enforcement actions, or both. Permit issuance and implementation of existing permit and enforcement requirements and activities shall not be delayed while an integrated plan is being developed.

Permits

All or part of an integrated plan can be incorporated into an NPDES permit as appropriate. Limitations and considerations for incorporating integrated plans into permits include:

- Compliance schedules for meeting water quality-based effluent limitations (WQBELs) in NPDES permits issued for discharges from publicly owned treatment works (POTWs) and/or combined sewer overflows need to be consistent with the requirements in 40 CFR section 122.47. Where appropriate, an NPDES permit authority may include a compliance schedule in a permit for WQBELs based on post July 1, 1977 State water quality standards provided the compliance schedule is "as soon as possible" and the State has clearly indicated in its water quality standards or implementing regulations that it intends to allow them. Compliance schedules in permits should prioritize the most significant human health and environmental needs first.

- Reopener provisions in permits consistent with section 122.62(a) may better facilitate adaptive management approaches.

- Green infrastructure approaches and related innovative practices that provide more sustainable solutions by managing stormwater as a resource should be considered and incorporated, where appropriate, where they provide more sustainable solutions for municipal wet weather control.

- Appropriate water quality trading may be reflected in NPDES permits (*see* EPA's 2003 Water Quality Trading Policy).

Enforcement

EPA and the States may bring enforcement actions against municipalities to address noncompliance with the CWA. Enforcement tools include administrative orders, negotiated consent decrees, or other state formal enforcement actions that require compliance with various requirements under the CWA. All or part of an integrated plan may be able to be incorporated into the remedy of a federal or State enforcement action. Considerations for incorporating integrated plans into enforcement actions include:

- The integrated planning framework should ensure that all necessary parties to a consent decree or administrative order are involved (*e.g.* municipality, utility authority).

- When there is a history of long-standing violations without significant progress, enforcement is used to address past violations and establish a path for coming into compliance.

- Where an extended time frame is necessary to achieve compliance, enforcement orders should provide schedules for CWA requirements that prioritize the most significant human health and environmental needs first.

- How permitting and enforcement actions may be used in conjunction to ensure implementation of the integrated plans.

- Sufficient flexibility should be provided in enforcement orders to allow for adaptive management approaches.

- Green infrastructure approaches and related innovative practices that provide more sustainable solutions by managing stormwater as a resource should be considered and incorporated, where appropriate, where they provide more sustainable solutions for municipal wet weather control.

- Environmentally beneficial projects that are identified in an integrated plan and which the municipality is not otherwise legally required to perform, such as water conservation measures, may be included in a settlement agreement consistent with EPA's Supplemental Environmental Projects Policy[4].

[4] The May 1, 1998, policy is available at http://www.epa.gov/oecaerth/resources/policies/civil/seps/fnlsup-hermn-mem.pdf.