

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

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MEMORANDUM

SUBJECT: Integrated Municipal Stormwater and Wastewater Planning Approach Framework

FROM:

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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." 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." 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.

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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 quality³ 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.

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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 Policy⁴.

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