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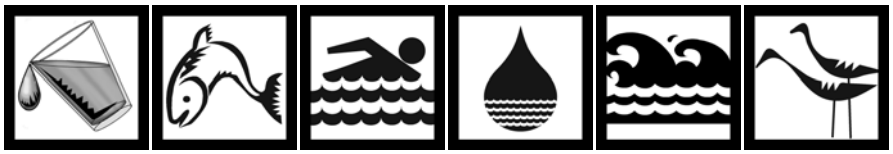

DRAFT
NATIONAL WATER PROGRAM GUIDANCE

FISCAL YEAR 2012

Office of Water
Environmental Protection Agency
February 2011
EPA 850-P-11-001

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EXECUTIVE SUMMARY

I. PROGRAM OFFICE: NATIONAL WATER PROGRAM

This *National Water Program Guidance (Guidance)* for fiscal year (FY) 2012 describes how the Environmental Protection Agency (EPA), states, territories, and tribal governments will work together to protect and improve the quality of the nation's waters, including wetlands, and ensure safe drinking water. Within EPA, the Office of Water oversees the delivery of the national water programs, while the regional offices work with states, tribes, territories, and others to implement these programs and other supporting efforts.

II. INTRODUCTION/CONTEXT

The *Guidance* describes the key actions needed to accomplish the public health and environmental goals in the EPA *FY 2011-2015 Strategic Plan*, published on September 30, 2010. These goals are:

- Protect human health by improving the quality of drinking water, making fish and shellfish safer to eat, and assuring that recreational waters are safe for swimming;
- Protect and restore the quality of the nation's fresh waters, coastal waters, and wetlands; and
- Protect and restore the health of large aquatic ecosystems across the country.

III. WATER PROGRAM PRIORITIES

The Office of Water recognizes that EPA regional offices, states, and tribes need flexibility in determining the best allocation of resources for achieving clean water goals and safe drinking water at the regional, state, and tribal level. From a national perspective, however, EPA, states, and tribes need to give special attention in FY 2012 to the priority areas identified below to ensure safe and clean water for all Americans. These priorities of the National Water Program are organized into two themes, Sustainable Communities and Healthy Watersheds:

1. **Sustainable Communities - Making Communities More Sustainable**
   - Making America's Water Systems Sustainable and Secure
   - Safeguarding Public Health
   - Restoring and Protecting Urban Waters

2. **Healthy Watersheds - Restoring and Protecting America's Watersheds**
   - Focusing Efforts in Key Geographic Areas
   - Strengthening Protections for Our Waters
   - Improving Watershed-Based Approaches

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In addition, the National Water Program is working to support the Administrator's key priorities of Taking Action on Climate Change, Assuring the Safety of Chemicals, Expanding the Conversation of Environmentalism and Working For Environmental Justice, and Building Strong State and Tribal Partnerships through participation in the Agency's cross-cutting fundamental strategies. More information on these priorities is provided in the Introduction to this *Guidance*.

IV. IMPLEMENTATION STRATEGIES

The *National Water Program Guidance* describes, in general terms, the work that needs to be done in FY 2012 to reach the public health and water quality goals that are proposed in the EPA *2011-2015 Strategic Plan.* In the *Guidance*, these public health and environmental goals are organized into 15 "subobjectives," and each of the subobjectives is supported by a specific implementation strategy that includes the following key elements:

- **Environmental/Public Health Results Expected.** Each subobjective strategy begins with a brief review of national goals for improvements in environmental conditions or public health, including national "targets" for progress in FY 2012.

- **Key Strategies.** For each subobjective, the key strategies for accomplishing environmental goals are described. The role of core programs (e.g. State Revolving Funds, water quality standards, discharge permits, development of safe drinking water standards, and source water protection) is discussed and a limited number of key program activity measures are identified. A comprehensive summary, listing all strategic target and program activity annual measures under each subobjective, is in *Appendix A.*

- **FY 2012 Targets for Key Program Activities.** For some of the program activities, EPA, states, and tribes will simply report progress accomplished in FY 2012 while for other activities, each EPA region will define specific "targets" (*Appendix E* – to be published in the final *Guidance* in April 2011). These targets are a point of reference for the development of more binding commitments to measurable progress in state and tribal grant workplans. In the *Guidance*, national or programmatic targets are shown, where applicable, in *Appendix A and E* (to be available in April 2011).

- **Grant Assistance.** Each of the subobjective strategies includes a brief discussion of EPA grant assistance that supports the program activities identified in the strategy. Section 106 Grant Guidance for Water Pollution Control Programs is incorporated within the Water Quality Subobjective and *Appendix D* to streamline the approach to the grant guidance issuance. The National Water Program's approach to managing grants for FY 2012 is discussed in Part V of this *Guidance*. In FY 2011, EPA incorporated the grant guidance for the Public Water System Supervision (PWSS) and Underground Injection Control (UIC) grants within the Water Safe to Drink Subobjective to continue to pilot a more streamlined approach to issuing the grant guidance.

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- **Environmental Justice (EJ).** For FY 2012, the Office of Water is continuing to align the development of this *Guidance* with the development of the EJ Action Plan and the implementation of elements of the cross-cutting fundamental strategy, *Working for Environmental Justice and Children's Health.* The year 2010 ushered in a new era that raised the level of outreach and protection of historically underrepresented and vulnerable subpopulations to a top priority for all Agency activities. To undertake this top priority, environmental justice principles must be included in our entire decision making processes. Expanding the conversation on environmentalism and working for environmental justice is a key priority for the National Water Program.

- **A Strategic Response to a Changing Climate.** The EPA Office of Water released the *National Water Program Strategy: Response to Climate Change* in September 2008. The *Strategy* describes the impacts of climate change (e.g. warming water temperatures, changes in rainfall amounts and intensity, and sea level rise) and their implications for EPA's clean water and drinking water programs. Additional information on the *Strategy* and the National Water Program's efforts to build a resilient program are in Section IX as well as at water.epa.gov/scitech/climatechange/index.cfm.

V. MEASURES

The National Water Program uses three types of measures to assess progress toward the proposed goals in the EPA *2011-2015 Strategic Plan:*

- Measures of changes in environmental or public health (i.e., outcome measures);
- Measures of activities to implement core national water programs (i.e., program activity measures); and
- Measures of activities to restore and protect large aquatic ecosystems and implement other water program priorities in each EPA region (i.e., ecosystem outcome and program activity measures).

In 2006 – 2010, EPA worked with states and tribes to align and streamline performance measures. The National Water Program will continue to engage states and tribes in the Agency's performance measurement improvement efforts.

VI. TRACKING PROGRESS

The National Water Program will evaluate progress toward the environmental and public health goals described in the EPA *Strategic Plan* using four key tools:

- **National Water Program Performance Reports:** The Office of Water will use data provided by EPA regional offices, states, and tribes to prepare performance reports for the National Water Program at the mid-point and end of each fiscal year.

- **Senior Management and DA Measures:** The Office of Water reports the results on a subset of the *National Water Program Guidance* measures to the Deputy Administrator. In addition, headquarters and regional senior managers are held accountable for a select group of the *Guidance* measures in their annual performance assessments.

- **EPA Headquarters (HQ)/Regional Dialogues:** Each year, the Office of Water will visit up to three EPA regional offices and Great Waterbody offices to conduct dialogues on program management, grant management, and performance.

- **Program-Specific Evaluations:** In addition to looking at the performance of the National Water Program at the national level and performance in each EPA region, evaluations will be conducted internally by program managers at EPA headquarters and regional offices; and externally by the EPA Inspector General, Government Accountability Office, and other independent organizations.

VII. PROGRAM CONTACTS

For additional information concerning this *Guidance* and supporting measures, please contact:

- Michael H. Shapiro; Deputy Assistant Administrator for Water
- Tim Fontaine; Senior Budget Officer, Office of Water
- Vinh T. T. Nguyen; Program Planning Team Leader, Office of Water

INTERNET ACCESS: This *FY 2012 National Water Program Guidance* and supporting documents are available at (http://www.epa.gov/water/waterplan).

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I. INTRODUCTION

Clean and Safe Water Goals for 2015

The EPA *2011-2015 Strategic Plan*, published in September of 2010, defines specific environmental and public health improvements to be accomplished by 2015. With the help of states, tribes, and other partners, EPA expects to make significant progress toward protecting human health and improving water quality by 2015 for the following key areas:

Protect Public Health

- **Water Safe to Drink:** maintain current high percentage of the population served by systems meeting health-based Drinking Water standards;
- **Fish Safe to Eat:** reduce the percentage of women of child-bearing age having mercury levels in their blood above levels of concern; and
- **Water Safe for Swimming:** maintain the currently high percentage of days that beaches are open and safe for swimming during the beach season.

Restore and Protect Fresh Waters, Coastal Waters, and Wetlands

- **Healthy Waters:** address an increasing number of the approximately 40,000 impaired waters identified by the states in 2002;
- **Healthy Coastal Waters:** show improvement in the overall condition of the nation's coastal waters while at least maintaining conditions in the four major coastal regions and in Hawaii and the South Central Alaska Region; and
- **More Wetlands:** restore, improve, and protect wetlands with the goal of increasing the overall quantity and quality of the nation's wetlands and reduce the loss of coastal wetlands.

Restore and Protect the Health of Large Aquatic Ecosystems

Implement collaborative programs with other federal agencies and with states, tribes, local governments, and others to improve the health of communities and large aquatic ecosystems including:

- the Great Lakes
- the Chesapeake Bay
- the Gulf of Mexico
- Long Island Sound
- the Puget Sound
- U.S.-Mexico Border waters
- Pacific Island waters
- South Florida waters
- the Columbia River Basin
- the San Francisco Bay Delta Estuary

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Purpose and Structure of this FY 2012 Guidance

This *National Program Guidance* defines the process for creating an "operational plan" for EPA, state, and tribal water programs for FY 2012. This *Guidance* is divided into three major sections:

1. **Subobjective Implementation Strategies:** The EPA *2011-2015 Strategic Plan* addresses water programs in Goal 2, Protecting America's Waters. Within Goal 2, there are 12 subobjectives that define specific environmental or public health results to be accomplished by the National Water Program by the end of FY 2015. This *Guidance* is organized into 16 subobjectives and describes the increment of environmental progress EPA hopes to make in FY 2012 for each subobjective and the program strategies to be used to accomplish these goals.

   The National Water Program is working with EPA's Innovation Action Council (IAC) to promote program innovations, including the Environmental Management Systems (EMS) (www.epa.gov/ems/) and the Environmental Results Program (ERP) (www.epa.gov/permits/erp/index.htm). States and tribes may be able to use these or other innovative tools in program planning and implementation.

2. **Water Measures:** *Appendix A*, a comprehensive list of performance measures in the *Guidance*, includes three types of measures that support the subobjective strategies and are used to manage water programs:

   - "**Outcome" Strategic Target Measures:** Measures of environmental or public health changes (i.e. outcomes) are described in the EPA *Strategic Plan* and include long-range targets for this *Guidance*. These measures are described in the opening section of each of the subobjective plan summaries in this *Guidance.*

   - **National Program Activity Measures:** Core water program activity measures (i.e., output measures) address activities to be implemented by EPA and by states/tribes that administer national programs. They are the basis for monitoring progress in implementing programs to accomplish the environmental goals in the Agency *Strategic Plan*. Some of these measures have national and regional "targets" for FY 2012 that serve as a point of reference as EPA regions work with states/tribes to define more formal regional "commitments" in the Spring/Summer of 2011.

   - **Ecosystem Program Activity Measures:** These measures address activities to restore and protect communities and large aquatic ecosystems and implement other water program priorities in EPA regional offices.

   Over the past eight years, EPA has worked with the Office of Management and Budget (OMB) to evaluate key water programs using the OMB Program Assessment reviews. This

work included identifying measures of progress for each program. Most of the measures identified in the OMB Program Assessment process are included in this *Guidance.*

3. **Water Program Management System:** Part V of this *Guidance* describes a three-step process for management of water programs in FY 2012:

    - Step 1 is the development of this *National Water Program Guidance*.
    - Step 2 involves consultation among EPA regions, states, and tribes, to be conducted during the Spring/Summer 2011, to convert the "targets" in this *Guidance* into regional "commitments" that are supported by grant workplans and other agreements with states and tribes. This process allocates available resources to those program activities that are likely to result in the best progress toward accomplishing water quality and public health goals given the circumstances and needs in the state/region. **The tailored, regional "commitments" and state/tribal workplans that result from this process define, along with this *Guidance,* the "strategy" for the National Water Program for FY 2012.**
    - Step 3 involves work to be done during FY 2012 to assess progress in program implementation and improve program performance.

In FY 2010, the grant guidance for the Water Pollution Control Grants from Section 106 of the Clean Water Act (Section 106 grants) was incorporated into the *National Water Program Guidance*. This was a pilot effort started in FY 2010 to gain efficiency in the issuance of the Section 106 Grant Guidance within the *Guidance*. Text boxes with specific Section 106 guidance are incorporated within Section III, 1 (Restore and Improve Water Quality on a Watershed Basis) of this *Guidance*. *Appendix D* has additional information for states and the interstate agencies. The Tribal Program, Monitoring Initiative, and Water Pollution Enforcement Activities are not included in this pilot, and grantees should follow the specific, separate guidances for these programs. In FY 2011, this pilot effort continued with the integration of the grant guidance for the Public Water System Supervision (PWSS) and Underground Injection Control (UIC) grants. These grant guidance sections were incorporated in the Water Safe to Drink Subobjective in the final FY 2011 *Guidance*.

FY 2012 National Water Program Priorities

The Office of Water recognizes that EPA regions, states, and tribes need flexibility in determining the best allocation of program resources for achieving clean water goals given their specific needs and condition. From a national perspective, however, EPA, states, and tribes need to give special attention in FY 2012 to the priority areas identified below to protect America's waters. The Office of Water has two organizing themes for the National Water Program, Sustainable Communities and Healthy Watersheds**.**

1. **Sustainable Communities -** The nation's water resources are the lifeblood of the nation's communities, supporting the economy and way of life. For communities to be sustainable, water resources must be sustainable as well.

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Making America's Water Systems Sustainable and Secure
The nation's water infrastructure needs are substantial, and the ability to meet those needs through traditional programs and funding is limited. EPA is working with partners to help communities and utilities continue to provide for their residents by improving access to financing, management practices, and use of innovative solutions such as green infrastructure and expansion of the WaterSense program. Recovery Act funds and increases in the Clean Water and Safe Drinking Water Act State Revolving Funds have already boosted these efforts. While making water systems more sustainable, EPA also wants to fortify their security and resiliency by working with water utilities to prevent or minimize disruptions in providing clean and safe water for all citizens. The National Water Program will build upon the successes of the sustainable water infrastructure work to address the needs of disadvantaged urban, rural, and tribal communities.

Safeguarding Public Health
Using science-based standards to protect public water systems as well as ground and surface water bodies has long been an Office of Water priority. Protecting public health through tools, such as beach, fish consumption and drinking water advisories, is part of EPA's core mission. EPA is expanding that science to improve our understanding of emerging potential threats to public health to bring a new sense of responsiveness to public needs. By also working closely with the enforcement program, the National Water Program can ensure safe drinking water and surface water suitable for recreation for all Americans.

Restoring and Protecting Urban Waters
With the water program's new Urban Waters Effort, EPA can help communities, especially those that are underserved and those with environmental justice concerns, to access, restore, and benefit from their local urban waters and surrounding land. By focusing on building capacity and pairing urban water quality restoration with community revitalization, the National Water Program is helping to make these communities more vibrant and strengthening the connections between a healthy environment and a healthy economy. Additional information on the Urban Waters Effort is in Section VIII.

2. **Healthy Watersheds –** People and the natural ecosystems both rely on the health of watersheds. By improving programs and tools to protect watersheds, EPA is protecting human health as well as the environment.

Focusing Efforts in Key Geographic Areas
America's largest aquatic ecosystems are seriously impaired, resulting in significant losses to the diversity and productivity of these systems and risks to the socio-economic well-being of communities. The National Water Program is leading efforts to restore and protect these treasured resources, and in so doing is providing models for broader national applicability. The Great Lakes Restoration Initiative, the Chesapeake Bay Executive Order and Strategy, the Gulf of Mexico Hypoxia Action Plan, the federal Bay-Delta Workplan, and the National Ocean Policy are each designed to help communities in these key geographic areas address complex transboundary challenges. By engaging in

innovative, collaborative approaches with federal, state, and local government and tribal and non-governmental partners, and making robust use of existing statutory authority, EPA helps make these programs more effective and restore these precious resources.

Strengthening Protections for Our Waters
America's waterbodies are imperiled as never before, but EPA has the tools to help repair them. EPA and its partners can provide better protection of the nation's water resources, including sources of drinking water by strengthening criteria and revising regulations. Some examples are by revising the stormwater rule, updating effluent guideline limitations for construction and development and the steam electric sectors, taking action to reduce the harmful environmental consequences of mountaintop mining, and strengthening protection for wetlands and other waters of the United States. EPA will continue to work with the states, tribes, and others to improve monitoring of waters so that we are better able to measure progress in protecting and restoring them. EPA is also working closely with the enforcement program to focus on the biggest threats to the nation's water resources.

Improving Watershed-Based Approaches
Complex issues, such as nonpoint source and nutrient pollution, require holistic, integrated solutions that emphasize accountability. The National Water Program will improve the way existing tools, such as water quality standards, protection of downstream uses, permits and total maximum daily loads, are used to protect and restore watersheds; explore how innovative tools, such as trading and other market-based approaches to watershed protection, can be applied; and enhance efforts to prevent water quality impairments in healthy watersheds. Local partners are becoming more important than ever to the health of watersheds and estuaries, and EPA must improve outreach to them to help them build their capacity to develop and implement their own solutions to local water quality problems.

These National Water Program priorities directly support the Administrator's priority, Protecting America's Waters. In addition, the National Water Program supports the following Administrator's priority themes:

Taking Action on Climate Change
Climate change will affect multiple aspects of the water program, including threatening infrastructure investment, exacerbating water quality problems, compounding stress to aquatic ecosystems, and placing the health and well-being of vulnerable populations at increased risk. EPA must continue to work with partners to identify ways to control greenhouse gas emissions through energy and water efficiency, make programs more resilient through initiatives such as the Climate Ready Estuaries program and Climate Ready Water Utilities, and help adapt base water programs to impacts from a changing climate.

A Strategic Response to a Changing Climate: In September of 2008, the National Water Program published a *Strategy* for responding to the impacts of climate change on clean water and drinking water programs (see water.epa.gov/scitech/climatechange/index.cfm). Key goals of the *Strategy* are to help water program managers recognize the impacts of climate change on water

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programs (e.g. warming water temperatures, changes in rainfall amounts and intensity, and sea level rise) and to identify needed adaptation actions. Additional information on the *Strategy* is in Section IX.

Assuring the Safety of Chemicals

The Office of Water will partner with the Office of Chemical Safety and Pollution Prevention (OCSPP) to accelerate testing of potential endocrine disrupting chemicals that can be present in water supplies and surface waters.

Expanding the Conversation on Environmentalism and Working for Environmental Justice

As part of the federal government, EPA must ensure that communities disproportionately affected by pollution have clean and safe water, and that environmental justice informs decision-making, including permitting and standards decisions. The Assistant Administrator of the Office of Water wants to underscore those principles and asks that we strive to incorporate them in our work. In addition to the Urban Waters effort which can benefit disadvantaged communities, the Office of Water co-leads and actively participates in EPA's Community Action for a Renewed Environment (CARE) program. CARE is providing on-the-ground technical assistance and funding to underserved communities to help them understand, prioritize, and address environmental health threats from all sources.

Building Strong State and Tribal Partnerships

EPA recognizes that states and tribes are key partners in implementing the National Water Program. States write the overwhelming majority of water permits, water quality standards, and total maximum daily loads. Similarly, most inspections are done by states. EPA has begun working to improve this partnership through increased collaboration on key problems, such as nutrients, and by providing greater opportunity to discuss strategic and program planning through the Partnership Council of the Office of Water and the States. The Office of Water is also committed to improving tribal access to safe drinking water and, sanitation, and to improve tribes' capacities to assume greater responsibility for waters within their jurisdiction. The National Tribal Water Council is a key mechanism for ensuring that the views of tribal water professionals are considered in EPA's regulatory and other programs.

EPA, states, and tribes also need to pay special attention to regional priorities. EPA regional offices identified a limited number of regional and state priorities. These priorities were based upon geographic areas and performance measures that were established to support the priorities. Many of the performance measures developed by these regional groups support the National Water Program national priorities.

Improving Enforcement of the Clean Water Act

In October 2009, EPA issued the Clean Water Act Action Plan ("the Action Plan"). The Action Plan identifies steps EPA will take to improve enforcement efforts aimed at addressing water quality impairment. The Office of Water is currently working with the Office of Enforcement and Compliance Assurance (OECA), EPA regions, and states to implement the Action Plan. The Action Plan's three key elements are to: 1) focus NPDES enforcement efforts on pollution

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sources that pose the greatest threats to water quality; 2) strengthen oversight of state permitting and enforcement programs; and 3) improve the accessibility and quality of information provided to the public.

Since work under the Action Plan is ongoing as this *Guidance* is finalized, FY 2012 will be a transition year. EPA anticipates that existing policies, strategies and regulations, may need to be revised to better identify and address the key water quality problems where NPDES compliance and enforcement efforts are critical components to protection and restoration. EPA also expects that the implementation of the Action Plan will identify more immediate opportunities to improve identification of serious noncompliance problems as well as new approaches to address these violations. For more information on specific enforcement actions for 2012, please see the 2012 OECA National Program guidance at www.epa.gov/ocfo/npmguidance/index.htm.

Priority Performance Goals

As part of the FY 2011 budget process, EPA developed Priority Performance Goals around FY 2011 budget priorities and the Administrator's priorities. For the National Water Program, two Priority Performance Goals were developed with OMB, for quarterly reporting beginning in FY 2010, to track the development of state watershed implementation plans in support of EPA's Chesapeake Bay Total Maximum Daily Load (TMDL) and the review of drinking water standards to strengthen public health protection. These Priority Performance Goals continue into FY 2012.

Sustainability

The Office of Water supports the Administrator's emphasis on sustainability and through a collaborative process with other EPA offices and regions will strive to continuously improve our processes to leverage sustainability concepts in achieving OW's mission. Sustainability as a management process emphasizes need for systems-based, integrated tools for assistance, permitting and enforcement. As just one example in one region, Region 1 which has created a functional cross-office team designed to identify how existing EPA approaches and tools can most effectively address stormwater run-off. The Region has selected a combination of assistance, permitting and enforcement, and BMP/technology-driving tools to promote long-term sustainable outcomes. Under MS4 compliance for example, the Region is targeting enforcement, low impact develop SEPs and assistance (this, through a series of MS4 Compliance/LID workshops) all designed to promote long-term green infrastructure changes in municipal approaches to compliance and land use practices. For such examples to become operational norm, having common understanding of these concepts across all staff will be critical moving forward. Sustainability is also an opportunity to improve communications with the public as to how human health and environmental protection may continue to move forward in a smarter manner able to achieve greater benefits at same or lower cost.

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II. STRATEGIES TO PROTECT PUBLIC HEALTH

For each of the key subobjectives related to water addressed in the EPA *Strategic Plan*, EPA has worked with states, tribes, and other stakeholders to define strategies for accomplishing the improvements in the environment or public health identified for the subobjective. This *National Program Guidance* draws from the *Strategic Plan* but describes plans and strategies at a more operational level and focuses on FY 2012. In addition, this *Guidance* refers to "Program Activity Measures" that define key program activities that support each subobjective (see *Appendix A*).

1) Water Safe to Drink

A) SUBOBJECTIVE: **Percent of the population served by community water systems that receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection.**

2005 Baseline: 89%
2011 Commitment: 91%
2012 Target: 91%

(Note: Additional measures of progress are identified in *Appendix A.*)

B) Key Program Strategies

For more than 30 years, protecting the nation's public health through safe drinking water has been the shared responsibility of EPA, the states, and 52,873 CWSs[1] nationwide that supply drinking water to more than 300 million Americans (approximately 95% of the U.S. population). Over this time, safety standards have been established and are being implemented for 91 microbial, chemical, and other contaminants. Forty-nine states and the Navajo Nation have adopted primary authority for enforcing their drinking water programs. Additionally, CWS operators are better informed and trained on the variety of ways to both treat contaminants and prevent them from entering the source of their drinking water supplies.

EPA, states, tribes, and CWSs will work together so that the population served by CWSs receives drinking water that meets all health-based standards. This goal reflects the fundamental public health protection mission of the national drinking water program. Health protection-based regulatory standards for drinking water quality are the cornerstone of the program. The standards do not prescribe a specific treatment approach; rather, individual systems decide how

[1] Although the Safe Drinking Water Act applies to 159,945 public water systems nationwide (as of October 2010), which include schools, hospitals, factories, campgrounds, motels, gas stations, etc. that have their own water system, this implementation plan focuses only on CWSs. A community water system (CWS) is a public water system that provides water to the same population year-round. As of October 2010, there were 52,873 CWSs.

best to comply with any given standard based on their own unique circumstances. Systems meet standards by employing "multiple barriers of protection" including source water protection, various stages of treatment, proper operation and maintenance of the distribution and finished water storage system, and customer awareness.

The overall objective of the drinking water program is to protect public health by ensuring that public water systems deliver safe drinking water to their customers. To achieve this objective the program must work to maintain the gains of the previous years' efforts; drinking water systems of all types and sizes that are currently in compliance will work to remain in compliance. Efforts will be made to bring non-complying systems into compliance and to assure all systems will be prepared to comply with the new regulations.

Making sound decisions to allocate resources among various program areas requires that each EPA region first work with states and tribes to define goals for the program in public health (i.e., "outcome") terms. The table below describes estimates of progress under the key drinking water measure describing the percent of the population served by community water systems that receive water that meets all health-based drinking water standards.

Targets for Population Served by Systems Meeting Standards (Measure SDW-211)

EPA Region	2005 Baseline	2010 Actual	2011 Commitment	2012 Target
1	92.5%	91.3%	89%	TBD
2	55.3%	82.4%	76%	TBD
3	93.2%	96.6%	90%	TBD
4	93%	94.2%	93%	TBD
5	94.1%	93.2%	93%	TBD
6	87.8%	90.3%	87%	TBD
7	91.2%	81.6%	85%	TBD
8	94.7%	93.2%	91%	TBD
9	94.6%	96%	95%	TBD
10	94.8%	92.2%	91%	TBD
National Total	**89%**	**91.4%**	**91%**	**91%***

* The national target is 91% while the regional aggregate is xx%.

Although EPA regions should use the national FY 2012 target of the population served by community water systems receiving safe drinking water as a point of reference, regional commitments to this outcome goal may vary based on differing circumstances in each EPA region.

EPA, states, and tribes support the efforts of individual water systems by providing a programmatic framework through the core programs they implement. Core national program areas that are critical to ensuring safe drinking water are:

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- Development or revision of drinking water standards;
- Implementation of drinking water standards and technical assistance to water systems to enhance their technical, managerial, and financial capacity;
- Drinking Water State Revolving Fund;
- Water system security;
- Protecting sources of drinking water; and
- Underground injection control (UIC).

Public Water System Supervision (PWSS) Grant Guidance to states and tribes.

This *National Water Program Guidance* for FY2012 includes guidance for state and tribal recipients of Public Water System Supervision (PWSS) program grants. Grant recipients are expected to conduct their programs to help achieve the goals, objectives, sub-objectives, strategic targets, and program activity measures specified in section III.1 of this Guidance. In addition, grant recipients should be focused on ensuring that the gains of the previous years' efforts are preserved and built upon.

The overall objective of the PWSS program grant is to protect public health by ensuring that:

- Drinking water systems, of all types, and of all sizes, that are currently in compliance, remain in compliance;
- Drinking water systems, of all types, and of all sizes, that are not currently in compliance, achieve compliance;
- Drinking water systems, of all types, and of all sizes, are preparing to comply with new drinking water regulations that will be taking effect in FY 2012.

A proportion of each state's PWSS grant should be devoted to ensuring that data quality and other data problems are being addressed. Specifically that:

- Water system compliance determinations are consistent with federal and state regulations; and
- The required inventory, compliance, and enforcement data being provided to EPA are accurate and complete.

In accordance with EPA Order 5700.6A2, *Policy on Compliance, Review and Monitoring,* effective January 1, 2008, EPA regions must develop and carry out a post-award monitoring plan and conduct baseline monitoring for every award. This monitoring should ensure satisfaction of five core areas: (1) compliance with all programmatic terms and conditions; (2) correlation of the recipient's work plan/application and actual progress under the award; (3) availability of funds to complete the project, (4) proper management of and accounting for equipment purchased under the award, and (5) compliance with all statutory and regulatory requirements of the program. In addition, this monitoring should inform Regional decisions under 40 CFR 142.17 as authorized under Section 1413 of the Safe Drinking Water Act.

The PWSS grant allotments are based on factors such as population, geographic area, and PWS inventory. State-by-state allotments and the total amount available to each Region for its Tribal support program will be available at http://www.epa.gov/safewater/pws/grants/allotments_state-terr.html.

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Collectively, these core areas of the national safe drinking water program comprise the multiple-barrier approach to protecting public health. In each of these areas, specific Program Activity Measures indicate progress being made and some measures include "targets" for FY 2012. For measures with targets, a national target and a target for each EPA region, where applicable, are provided in *Appendix A*.

1. Development/Revision of Drinking Water Standards

In FY 2012, the Agency will assess the available information on health effects and contaminant occurrence in drinking water to determine which Contaminant Candidate List (CCL 3) chemicals and/or pathogens have sufficient information on which to base a regulatory decision. EPA will work to compile this information to make regulatory determinations for at least five CCL 3 contaminants in 2012. The Agency will also continue to evaluate and address drinking water risks through activities that implement the Safe Drinking Water Act (SDWA) including:

- Following recommendations provided to EPA in the Total Coliform Rule/Distribution System Federal Advisory Committee's Agreement in Principle, EPA proposed revisions to the Total Coliform Rule (TCR) in FY 2010. The Agency has been evaluating the public comments on the proposed revisions to the TCR and is preparing responses. EPA will publish a final revised Total Coliform Rule 2012.

- EPA will continue to provide technical and scientific support for the development and implementation of drinking water regulations.

- EPA proposed the third round of unregulated contaminant monitoring (UCMR 3) in FY 2011. The initial review of the comments received on the proposed UCMR 3 commenced in FY 2011 and continues in FY 2012. EPA will publish the final UCMR 3 in FY 2012. EPA is required by Section 1452(o) of the Safe Drinking Water Act (SDWA), as amended, to annually set-aside $2 million of State Revolving Funds to pay the costs of small system monitoring and sample analysis for contaminants for each cycle of the UCMR.

- As stated previously, EPA has been evaluating the contaminants on the third drinking water Contaminant Candidate List (CCL 3). EPA is assessing data on health effects, occurrence, analytical methods, and treatment technologies for the CCL 3 contaminants, to determine which, if any, CCL 3 contaminants are appropriate for regulation. EPA will publish Preliminary Regulatory Determinations to regulate or not regulate at least five contaminants from the CCL 3 in FY 2012.

- EPA has been developing revisions to the Lead and Copper Rule. Input has been sought through expert panels, public workshops, an Agency work group, and other stakeholder meetings, as well as from peer reviewed scientific literature. In FY 2012,

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the Agency will continue to evaluate the long-term issues identified in the national review of the revised Lead and Copper Rule.

- In FY 2011, the Agency developed and expects to publish the final regulatory determination for perchlorate. If the Agency decides to regulate perchlorate, we will begin the regulatory process to develop a drinking water standard for perchlorate in FY 2012.

- In 2010, the Agency announced a new Drinking Water Strategy (DWS) that outlines new principles to improve the public health protection for drinking water. In FY 2011, OW made significant progress for the first principle (i.e., addressing contaminants as groups rather than one at a time) by holding a national conversation with the public and stakeholders, including utilities, rural communities, and states. We expect to develop a regulatory action to address the first contaminant group in FY 2012. OW will continue to collaborate with ORD and our regional, state, local, and other stakeholders in FY 2012 to address the second principle, which is fostering the development of new drinking water technologies to address health risks posed by a broad array of contaminants. OW worked with other EPA Offices such as OCSPP in FY 2011 and will continue to do so in FY 2012 to gather additional information on other groups of contaminants and use other statutory authorities to protect drinking water (i.e., the third DWS principle).

- In 2010, the Agency announced plans to revise the regulations for trichloroethylene (TCE) and tetrachloroethylene (PCE). The Agency began to revise these two regulations in FY 2011 and will be working with an Agency workgroup to develop a proposed regulation in FY 2012. The Agency's efforts to revise TCE and PCE might also consider other carcinogenic volatile organic compounds for regulation revision.

- EPA will continue to collaborate with stakeholders to undertake the highest priority research and information collection activities to better understand water quality issues in distribution systems.

2. Implementation of Drinking Water Standards and Technical Assistance

In order to facilitate compliance with drinking water regulations, EPA will use the following tools in partnership with states and tribes:

- **Sanitary Surveys:** Sanitary surveys are on-site reviews of the water sources, facilities, equipment, operation, and maintenance of public water systems. States and tribes conduct sanitary surveys for community water systems once every three years. For non-community water systems or community water systems determined by the state or tribe to have outstanding performance based on prior surveys, surveys may be conducted every five years. EPA will conduct surveys at systems on tribal lands. Focused monitoring of this activity was initiated in 2007, for the three-year period starting in 2004 (see Program Activity Measure SDW-1). This measure applies to surface water systems and ground water systems under direct influence of surface

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water and ground water systems. Beginning in December 2009, states were required for the first time to conduct sanitary surveys for ground water systems. States have until December 2012 to complete the initial round of sanitary surveys for community water systems, and until December 2014 to complete the initial round of sanitary surveys for non-community water systems or community water systems designated as outstanding performers.

- **Technical Assistance and Training:** Reference materials to support implementation of recent regulations will be developed or updated. These materials will include technical guidance, implementation guidance, and quick reference guides. Assistance will focus particularly on the Ground Water Rule, revised Lead and Copper Rule, and the Disinfection By-Products rules, as well as simultaneous compliance issues. EPA will promote operation and maintenance best practices to small systems in support of long-term compliance success with existing regulations. EPA will also provide training and technical assistance to states and to water systems that need to increase their treatment to comply with Stage 2 and LT2. Over 59,000 water systems will need to comply with these rules beginning in 2011. EPA will continue to provide technical training to help state staff review new treatment plant upgrades under LT2, specifically membrane and ultraviolet disinfection. In addition, EPA will develop technical assistance materials and training to support state and water system implementation of the revised Total Coliform Rule.

- **Small System Assistance**: EPA also will continue to provide technical assistance, as well as leverage partnerships to help systems serving fewer than 10,000 people consistently meet regulatory requirements through the use of cost-effective treatment technologies, proper disposal of treatment residuals, and compliance with monitoring requirements under the arsenic and radionuclide rules, and with rules controlling microbial pathogens and disinfection by-products in drinking water. Small public water systems face many challenges in providing safe drinking water and meeting the requirements of SDWA. These challenges include: (1) lack of adequate revenue or access to financing; (2) aging infrastructure; (3) retirement of experienced system operators and the inability to recruit new operators to replace them; (4) operators who lack the requisite financial, technical, or managerial skills; and (5) difficulty in understanding existing or new regulatory requirements. As a result, small systems may experience frequent or long-term compliance challenges to providing safe water to their communities.

  In response to this ongoing challenge, in FY 2012, EPA is continuing its efforts begun in FY 2010 to renew and reinforce efforts to enhance small system capacity through a comprehensive small system strategy founded on three major components. First, EPA is working with the USDA Rural Utilities Service and state DWSRF programs to strengthen financial support mechanisms and improve the administrative process small systems must follow to access financial assistance. Through this component, the Agency will continue to encourage states that have not yet developed a disadvantaged communities program to do so, as well as advocating that states increase existing disadvantaged community support, with an emphasis on those

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systems requiring installation of treatment technology to comply with the newer drinking water regulations. The Agency also will work closely with states to ensure that DWSRF loans are reserved for systems which are deemed sustainable or are on a pathway to sustainability through DWSRF support. Second, the Agency will work with states to improve training and technical assistance for small systems, and enhance state capacity development programs, in order to improve small system capacity to achieve and maintain compliance with drinking water regulations and long-term system sustainability. Through their first decade of experience, state capacity development programs have identified which strategies and techniques are most likely to help small systems achieve and maintain sustainability. Under this aspect of the strategy, EPA will continue to work with states to identify and disseminate best practices, policies and innovations across state programs, and promote cost-effective, energy- and water-efficient system practices. EPA also will encourage states to target usage of DWSRF set-asides for training and technical assistance provided to systems challenged to meet newer drinking water standards. Third, EPA will promote system partnership to address existing non-sustainable systems, and work with states to ensure that new water systems are sustainable. To promote restructuring and other forms of system partnerships such as voluntary consolidation, the Agency will continue to provide information on the benefits and best practices associated with these partnerships. In addition EPA, in cooperation with states and water system associations, will help states and systems identify how to use DWSRF set-asides to achieve desired partnerships. Also, the Agency will evaluate whether, as a condition of the DWSRF, state programs are effectively ensuring that new water systems have adequate capacity to meet SDWA requirements.

To support implementation of this small system strategy, the Agency has developed a suite of new indicators for the FY 2011 *Guidance*, with continued emphasis for use in FY 2012. These indicators correspond to the three major components of the small system strategy: existing and new small water system inventory; state DWSRF projects targeting small systems; and small system noncompliance and their capacity to quickly return to compliance with health-based standards. For public water systems serving fewer than 500 persons, the Agency includes a new indicator that will be able to track these systems, as well as the creation of new small water systems. This measure is important to help account for changes in the universe of small water systems and help provide a more complete picture of the nature of the small system challenges in each state. The measure is an important aspect of the small systems strategy that will continue to be a major area of emphasis in FY 2012. Schools and childcare centers are a critical subset of small systems for which EPA is also continuing to provide special emphasis in FY 2012 to ensure that children receive water that is safe to drink. Therefore, included is a separate indicator for schools and childcare centers meeting health-based standards.

- **Area-wide Optimization Program:** EPA's Area-Wide Optimization Program (AWOP), which provides compliance assistance to small drinking water systems, continues to work with systems and states to develop and implement a variety of

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approaches to improve water system performance. Tools include comprehensive performance evaluations (CPEs) to assess the performance of filtration technology and distribution system optimization (DSO) techniques. AWOP is a highly successful technical assistance and training program that enhances the ability of small systems to meet existing and future microbial, disinfectant, and disinfection byproducts standards. In FY 2012, EPA continues to work with four EPA regional offices and 21 states to facilitate the transfer of specific skills using the performance-based training approach targeted towards optimizing key distribution system components and/or groundwater system and distribution system integrity.

- **Drinking Water Laboratory Certification Program:** EPA will continue the program that sets standards and establishes methods for EPA, state, tribal, and privately-owned laboratories that analyze drinking water samples. Through this program, EPA also will conduct three EPA regional program reviews during FY 2012. Headquarters visits each EPA regional office on a triennial basis and evaluates their oversight of the state laboratories and the state laboratory certification programs within their purview.

- **Data Access, Quality and Reliability:** The Safe Drinking Water Information System (SDWIS) serves as the primary source of national information on compliance with all health-based regulatory requirements of SDWA. As part of the Drinking Water Strategy and the Agency-wide "Regaining Ground: Increasing Compliance in Critical Areas", EPA will replace obsolete and expensive to maintain drinking water information system technology under the legacy SDWIS platform. The next generation of SDWIS will reduce the total cost of ownership; enable faster implementation of drinking water rules and provide tools to ensure consistent determinations for compliance with drinking water rules; and support efficient sharing of drinking water compliance monitoring data between states and EPA. In addition, EPA in concert with states, will work to collect and display all compliance monitoring data. This will improve transparency and data management operations.

  EPA will continue to work with states to improve data completeness, accuracy, timeliness, and consistency in the Safe Drinking Water Information System (SDWIS) through: 1) training on data entry, error correction, and regulatory reporting; 2) conducting data verifications and analyses where possible; and 3) implementing quality assurance and quality control procedures.

- As stated previously, a new Drinking Water Strategy envisions a comprehensive new approach to public health protection under the SDWA and other federal statutes. The fourth principle of the Strategy calls for EPA to partner with states and tribes to share all monitoring data collected and reported by public water systems (PWS). This partnership will improve how states, tribes, and EPA share and use information, and allow more rigorous oversight of the drinking water program to improve public health. It will also improve consumer access to water quality data of their own systems. Making these data available will result in greater transparency in drinking water quality from the national level to the individual water-system level, thereby

increasing public awareness of status and trends in drinking water quality and its importance to public health. Through this data sharing principle, the Strategy acknowledges the growing demand from environmental agencies, public health agencies, non-governmental organizations, and the public for access to a broader range of information about drinking water quality than is currently available in the SDWIS database. EPA joined with three state environmental and public health associations in November 2010 in a memorandum of understanding for the exchange of drinking water data and information. Beginning in FY 2011 and continuing into FY 2012, EPA will work with state partners on the data to be shared, approaches to successful data exchange, uses of monitoring data, and ways to effectively communicate the data.

- **Coordination with Enforcement:** The EPA regional offices and the Office of Water will continue to work with the Office of Enforcement and Compliance Assurance (OECA) to identify instances of actual or expected non-compliance that pose risks to public health and to take appropriate actions as necessary. The Office of Water has worked with OECA to develop a new approach to significant noncompliance. The Office of Water believes that this new approach will better focus enforcement efforts on the greatest public health risks. In addition, OW and OECA will continue close coordination regarding violations at schools and childcare centers that have their own water source. These public water systems are of special concern as children are the subpopulation most vulnerable to lead and other contaminants, and as a result, a new measure was added in FY 2011 to monitor compliance.

3. Drinking Water State Revolving Fund

The Drinking Water State Revolving Fund (DWSRF), established under the Safe Drinking Water Act, enables states to offer low interest loans and other assistance to help public water systems across the nation make improvements and upgrades to their water infrastructure, or other activities that build system capacity.

EPA will work with states to increase the DWSRF fund utilization rate[2] for projects from a 2002 level of 73% to 89% in 2012 (see Program Activity Measure SDW-4). EPA will also work with states to monitor the number of projects that have initiated operations (see Program Activity Measure SDW-5).

For fiscal years 2010-2013, appropriated funds will be allocated to states in accordance with each state's proportion of total drinking water infrastructure need as determined by the most recent Needs Survey and Assessment.[3] There is also a statutory requirement that each state and the District of Columbia receive no less than one percent of the allotment. The survey documents 20-year capital investment needs of public water systems that are eligible to receive DWSRF monies – approximately 53,000 community water systems and 21,400 not-for-profit non-community water systems. The survey reports

[2] Fund Utilization Rate is the cumulative dollar amount of loan agreements divided by cumulative funds available.
[3] The 2007 Needs Survey was released in 2009.

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infrastructure needs that are required to protect public health, such as projects to ensure compliance with the Safe Drinking Water Act (SDWA).

In FY 2012 EPA will continue implementation of the SRF Sustainability Policy. This policy is designed to promote technical, financial, and managerial capacity as a critical means to meet infrastructure needs, and further enhance program performance and efficiency, and to ensure compliance. The Agency will continue to work with state and local governments to address federal drinking water policy in order to provide equitable consideration of small system customers.

In FY 2012, EPA will further contribute to the sustainable water infrastructure initiative through partnership-building activities, including the Agency's capacity development and operator certification work with states, and efforts with the water utility industry to promote asset management, system-wide planning, and the water sector as a career of choice. The program will engage states and other stakeholders to facilitate the voluntary adoption by public water systems of attributes associated with effectively managed utilities. Finally, the program also will continue to expand efforts to encourage sustainable practices at public water systems aimed at reducing water loss and better understanding linkages between water production/distribution and energy use.

4. Water System Security

EPA will provide tools, training, and technical assistance to help protect the nation's critical water infrastructure from terrorist and other catastrophic events. Reducing risk in the water sector requires a multi-step approach of determining risk through vulnerability assessments, reducing risk through security enhancements, and preparing to effectively respond to and recover from incidents.

EPA will move to the next phase of the Water Security Initiative (WSI) pilot program, focusing on technical assistance, support and evaluation activities, and will continue to support water sector-specific agency responsibilities, including the Water Alliance for Threat Reduction (WATR), to protect the nation's critical water infrastructure. The Agency will continue to integrate the regional laboratory networks and the WSI pilot laboratories into a national, consistent program. All of these efforts support the Agency's responsibilities and commitments under the National Infrastructure Protection Plan (NIPP), as defined within the Water Sector Specific Plan, which includes, for example, specific milestones for work related to the WSI, the Water Laboratory Alliance, and metric development.

In FY 2012, EPA will complete as part of a stakeholder workgroup, an evaluation of the effectiveness, sustainability, and practicality of all the WSI contamination warning system pilot. The Agency will also continue to prepare and refine a series of guidance documents for water utilities on designing, deploying, and testing contamination warning systems based on lessons learned from the pilots.

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In FY 2010, EPA published a Water Laboratory Alliance (WLA) response plan providing the processes and procedures for coordinated laboratory response to water contamination incidents. In FY 2012, EPA will focus its efforts on conducting exercises within the framework of this national plan and work to expand the membership of the WLA with the intention of achieving nationwide coverage. In addition, EPA will continue to support the Regional laboratory networks by providing laboratories and utilities with access to supplemental analytical capability and capacity, improved preparedness for analytical support to an emergency situation, and coordinated and standardized data reporting systems and analytical methods.

In FY 2012, EPA will also continue working to ensure that water sector utilities have tools and information (including those that support WATR) to prevent, detect, respond to, and recover from terrorist attacks, other intentional acts, and natural disasters. The following preventive and preparedness activities will be implemented for the water sector in collaboration with the Department of Homeland Security (DHS), states and tribes, and homeland security and water sector officials:

- Continue to promote awareness and adoption of drinking water and wastewater protective programs throughout the nation to further Agency priorities and the interests, needs, and priorities of stakeholders.
- Continue to chair the Water Government Coordination Council and coordinate with the Water Sector Coordinating Council.
- Continue to develop and conduct exercises to prepare utilities, emergency responders, and decision-makers to evaluate and respond to physical, cyber, and contamination threats and events;
- Disseminate tools and provide technical assistance to ensure that water and wastewater utilities and emergency responders react rapidly and effectively to intentional contamination and other incidents. This includes: information on high priority contaminants, incident command protocols, sampling and detection protocols and methods, and treatment options;
- Provide an expanded set of tools (e.g., best security practices, incident command system and mutual aid training, contaminant databases, decontamination guidance) in order to keep the water sector current with evolving water security priorities;
- Refine and provide outreach and training on a risk assessment tool that will enable utilities to address the risks from all hazards, including climate change impacts; and
- Continue to implement specific recommendations of the Water Decontamination Strategy as developed by EPA and water sector stakeholders (e.g., defining roles and responsibilities of local, state, and federal agencies during an event).

5. Protecting Sources of Drinking Water

EPA will serve as an analytic resource and facilitator for states, interstates, tribes, and communities in consolidation and sharing information, developing strategies and coordinating across jurisdictions to protect and preserve drinking water resources and continue a multiple barrier approach to drinking water management that uses source water protection as the initial barrier to contamination. The cost to prevent source water

contamination is usually less than the cost of source wate remediation. Source water includes surface water, ground water, and the interchange between them.

EPA's goal is to increase the number of community water systems with minimized risk to public health through development and implementation of protection strategies for source water areas (as determined by states) from a baseline of 20% of all areas in FY 2005 to 50% in FY 2012 (see measure SDW-SP4a). EPA also has a goal of increasing the percent of the population served by these community water systems at 57% in FY 2012 (see measure SDW-SP4b).

In FY 2012, EPA will continue supporting state and local efforts to identify and address current and potential sources of drinking water contamination. These efforts are integral to the sustainable water infrastructure effort because source water protection can reduce the need for drinking water treatment, along with related increased energy use, which, in turn, can reduce the cost of infrastructure. In FY 2012, the Agency will continue to:

- Work with national, state, and local stakeholder organizations and the multi-partner Source Water Collaborative to encourage broad-based actions at the state and local level to address potential sources of contamination (PSOCs);

- Support source water protection efforts by providing training, technical assistance, and technology transfer capabilities to states and localities, and facilitating the adoption and sharing of Geographic Information System (GIS) databases to support local decision-making;

- Work with states, interstates, tribes, and other stakeholders to characterize current and future pressures on source water quality and availability (particularly the impacts of climate change, such as the increased frequency, severity and duration of drought), assess adaptation options to address those impacts, and explore opportunities to mutually leverage resources among federal, state, interstate, and local agencies to implement the most effective options.

EPA will continue working with federal programs to align source water preservation and protection with their priorities. In particular, we are working to integrate source water protection into Clean Water Act programs, such as the watershed approach, storm water management, and OECA enforcement programs (such as to prioritize inspections and enforcement by source water impact).

EPA will continue working with other federal agencies like the U.S. Forest Service to maintain healthy land cover and the U.S. Department of Agriculture on land conservation programs and best management practices to protect water quality. EPA encourages states and communities to leverage these programs to preserve and protect drinking water supplies.

6. Underground Injection Control

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EPA works with states and tribes to monitor and regulate the underground injection of fluids by wells, both hazardous and non-hazardous, to prevent contamination of underground sources of drinking water. EPA, states, and tribes will continue to report on Classes I, II, and III wells that lost mechanical integrity and are returned to compliance within 180 days, but will no longer track these separately for each class starting in FY 2012. This will enable better target setting and evaluation of program performance.

In 2012, states and EPA (where EPA directly implements the UIC program) will continue to carry out implementation of the regulations for each class of wells. States and EPA will continue to address high priority Class V wells. In 2012, the measure for Class V will be changed from high priority wells, as defined by each program, to only those high priority well types regulated under the Class V rule in order to provide nationally consistent information about implementation of that rule. States and EPA will also continue to process UIC Class V permit applications for experimental technology carbon sequestration projects. The information gathered from these efforts will enable the Agency and states to evaluate new Class VI permits for large-scale commercial carbon sequestration applications following the GS regulation, finalized in December 2010. In FY 2012, EPA will have two indicator measures, permit actions taken and volume of CO2 sequestered, that will assist in evaluating implementation of that rule. States and EPA will process UIC permits for other nontraditional injection streams, such as desalination brines and treated waters injected for aquifer storage and recovered at a later time. States and EPA will also examine and improve current practices for permitting the use of diesel fuels in hydraulic fracturing operations related to oil, gas, and geothermal production activities.

The Agency will carry out the following responsibilities in permitting current and future geologic sequestration (GS) of carbon dioxide projects. Activities planned for FY 2012 include:

- Complete development of supporting GS documents (i.e., technical support documents, guidance documents, and implementation materials) for the GS of carbon dioxide recovered from emissions of power plants and other facilities;

- Continue to facilitate research in UIC-related areas of geologic sequestration including studies on siting characteristics of GS projects, monitoring of injected CO2, modeling of CO2 plume and pressure front movement, and other processes of CO2 injection which could potentially pose risks to underground sources of drinking water**.**

- Analyze data collected through Class II Enhanced Oil Recovery (EOR) and Class V pilot projects and additional industry efforts to demonstrate, commercialize, and implement geologic sequestration of carbon dioxide technology;

- Continue to engage states, tribes, nongovernmental organizations, and public stakeholders through meetings, workshops, and other avenues, on technical issues related to the final Class VI rule and on climate change issues more broadly; and

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- Provide necessary technical assistance, such as the issuance of technical guidance concerning well construction, financial responsibility, testing and monitoring, to states and tribes in permitting initial GS projects; and where EPA has direct implementation authority, permit GS projects; and

- Process initial primacy applications from states and tribes seeking GS well permitting authority and approve revisions to UIC programs for acquiring GS Class VI wells in their existing state and tribal UIC programs.

Many of these activities support the recommendations laid out in the President's Carbon Capture and Storage Task Force report. EPA will continue to implement actions responsive to the Task Force report into FY 2012. Also in FY 2012, EPA will continue to review new applications for primary enforcement authority from states and tribes work to dissuade states from returning their UIC programs to the Agency, and update the UIC grant allocation guidance used by states and EPA regions.

EPA will continue implementation of the UIC database by working with states and direct implementation programs to fully populate the UIC database. The Agency aims to include 68 UIC programs and 500,000 wells by 2013. EPA will support mapping of each state's data for initial submissions and transition from paper reporting to electronic reporting for states that pass Quality Assurance/Quality Control parameters.

Underground Injection Control (UIC) Grant Guidance to states and tribes.

The UIC Program, under the Safe Drinking Water Act, is vital to the protection of underground sources of drinking water. EPA works with states and tribes to regulate and monitor the injection of fluids, both hazardous and non-hazardous, by wells, to prevent contamination. This *National Water Program Guidance* for FY 2012 includes guidance for EPA regional, state, and tribal recipients of UIC program funds. Each year, State and Tribal Assistance Grants (STAG) funds are distributed by the national UIC Program to help UIC programs enforce the minimum federal UIC requirements. These funds are authorized by Congress under Section 1443 of the SDWA. Grant recipients are expected to conduct their programs to help achieve the goals, objectives, sub-objectives, strategic targets, and program activity measures specified in this NWPG. In addition, grant resources should be focused on ensuring that the gains of the previous years' efforts are preserved and built upon.

The overall objective of the UIC grant is to protect public health by:

- Setting minimum requirements for injection wells. All injection must be authorized under either general rules or specific permits;
- Ensuring that injection well owners and operators may not site, construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity that endangers USDWs;
- Ensure that injected fluids stay within the well and the intended injection zone; or

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Underground Injection Control (UIC) Grant Guidance to states and tribes (Continue)

- Mandate that fluids that are directly or indirectly injected into a USDW do not cause a public water system to violate drinking water standards or otherwise adversely affect public health.

Assisting owners and operators of UIC facilities in meeting these objectives require grantees to adopt a variety of approaches and to coordinate efforts with other groundwater protection programs. FY 2012 priority activities for the UIC grant fund recipients should include the following:

- Timely submission of primacy program revisions for the purpose of adopting new or revised federal regulations;
- Maintaining program capacity to implement UIC program requirements for all classes of wells;
- Ensuring that Class I, II and III (salt solution) wells that lose mechanical integrity are returned to compliance;
- Addressing high priority Class V wells; and
- Populating the UIC National Database by sharing well specific data.

In accordance with EPA Order 5700.6A2, *Policy on Compliance, Review and Monitoring,* effective January 1, 2008, EPA regions must develop and carry out a post-award monitoring plan and conduct baseline monitoring for every award. This monitoring should ensure satisfaction of five core areas: (1) compliance with all programmatic terms and conditions; (2) correlation of the recipient's work plan/application and actual progress under the award; (3) availability of funds to complete the project, (4) proper management of and accounting for equipment purchased under the award, and (5) compliance with all statutory and regulatory requirements of the program.

The grant allotments are determined by the UIC Grant Allocation Model and follow the criteria identified in Section 1443 of the SDWA which requires UIC allocations to be based on such factors as "population, geographic area, extent of underground injection practices, and other relevant factors." UIC Grant Guidance #42 provides more detail about the UIC Grant Allocation Model including how the model works and examples of how the UIC funds may be used. See http://www.epa.gov/safewater/uic/guidance.html. The UIC program is currently working to update the UIC Grant Allocation Model so that allocations best represent the resources and efforts required to implement primacy programs now and in the future. As with the old formula, the new formula will direct available resources toward the highest risk wells in order to achieve the maximum level of public health protection. Corresponding UIC grant guidance for the new formula will be issued in FY 2012.

C) Grant Program Resources

EPA has several program grants to the states, authorized under the Safe Drinking Water Act, that support work towards the drinking water strategic goals including the Public Water System Supervision (PWSS), Drinking Water State Revolving Fund (DWSRF), and Underground Injection Control (UIC) grants. For additional information on these grants, see the grant program guidance on the website (http://www.epa.gov/water/waterplan).

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The PWSS grants support the states' primacy activities (e.g., enforcement and compliance with drinking water regulations). PWSS grant guidance issued for FY 2005 will continue to apply in FY 2012. Of the FY 2012 President's Budget request of $109.7 million, approximately $6.8 million will support implementation of the Tribal Drinking Water Programs.

The DWSRF program provides significant resources for states to use in protecting public health. Through FY 2009, the program as a whole provided over $16.1 billion ($16.2B including ARRA) in assistance and states reserved over $1.5 billion in set-asides to support key drinking water programs. In FY 2012, the Agency requested $0.99 billion for the program. EPA is emphasizing targeting DWSRF resources to achieve water system compliance with health-based requirements.

Tribal drinking water systems and Alaska Native Village water systems face the challenge of improving access to safe drinking water for the populations they serve. Funding for development of infrastructure to address public health goals related to access to safe drinking water comes from several sources within EPA and from other federal agencies. EPA reserves 2.0% of the DWSRF funds for grants for Tribal and Alaska Native Village drinking water infrastructure to provide access to safe drinking water by facilitating compliance with the National Primary Drinking Water Regulations. EPA also administers a grant program for drinking water and wastewater projects in Alaska Native Villages. Additional funding is available from other federal agencies, including the Indian Health Service.

The FY 2012 budget requests $11.1 million for grants to states to carry out primary enforcement (primacy) responsibilities for implementing regulations associated with Classes I, II, III, IV, and V underground injection control wells. In addition, emphasis is directed to activities that address shallow wells (Class V) in source water protection areas.

2) Fish and Shellfish Safe to Eat

A) SUBOBJECTIVE: Percent of women of childbearing age having mercury levels in blood above the level of concern (of 4.6 percent).

2005 Baseline: 5.7% **2011 Commitment: 4.9%**
2012 Target: 4.9% **2015 Target: 4.6%**

(Note: Additional measures of progress are identified in *Appendix A.*)

B) Key National Strategies

Elevated blood mercury levels pose a significant health risk and consumption of mercury-contaminated fish is the primary source of mercury in blood. Across the country as of 2008, states and tribes have issued fish consumption advisories for a range of contaminants covering 1.4 million river miles and over 18 million lake acres. In addition, a significant portion of the

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valuable shellfishing acres managed by states and tribes is not open for use. EPA's national approach to meeting safe fish goals and improving the quality of fishing waters is described in this section.

EPA's approach to making fish and shellfish safer to eat includes several key elements:

- Encourage development of statewide mercury reduction strategies;
- Reduce air deposition of mercury;
- Improve public information and notification of fish consumption risks; and
- Improve the quality of fishing waters.

1) Comprehensive Statewide Mercury Reduction Programs

EPA recognizes that restoration of waterbodies impaired by mercury may require coordinated efforts to address widely dispersed sources of contamination and that restoration may require a long-term commitment.

In early March 2007, EPA established guidelines allowing states the option of developing comprehensive mercury reduction programs in conjunction with their lists of impaired waters developed under Section 303(d) of the Clean Water Act. Under the new guidelines, EPA allows states that have a comprehensive mercury reduction program to place waters impaired by mercury in a subcategory "5m" of their impaired waters lists and defer development of mercury TMDLs for these waters. These mercury impaired waters would not be included in estimates of the "pace" of TMDL development needed to meet the goal of developing TMDLs for impaired waters within 8 to 13 years of listing the waterbody.

The key elements of a state comprehensive mercury reduction program are:

- Identification of air sources of mercury in the state, including adoption of appropriate state level programs to address in-state sources;
- Identification of other potential multi-media sources of mercury in products and wastes and adoption of appropriate state level programs;
- Adoption of statewide mercury reduction goals and targets, including targets for percent reduction and dates of achievement;
- Multi-media mercury monitoring;
- Public documentation of the state's mercury reduction program in conjunction with the state's Section 303(d) list; and
- Coordination across states where possible, such as through the use of multi-state mercury reduction programs.

EPA expects that these elements of a comprehensive mercury reduction program will be in place in order for 5m listings to be appropriate (i.e., specific legislation, regulations, or other programs that implement the required elements have been formally adopted by the state, as opposed to being in the planning or implementation stages). States will have the

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option of using the "5m" listing approach as part of the Section 303(d) lists due to EPA in April of every even numbered year.

EPA will also use available tools to identify specific waters with high mercury levels and then address these problems using core Clean Water Act program authorities, including TMDL and permitting programs where a state does not develop a comprehensive statewide reduction strategy for specific waters in which a local source of mercury can be addressed using existing tools.

2) Reduce Air Deposition of Mercury

Most fish advisories are for mercury, and a critical element of the strategy to reduce mercury in fish is reducing emissions of mercury from combustion sources in the United States. On a nationwide basis, by 2010, federal regulatory programs were expected to reduce electric-generating unit emissions of mercury from their 2000 level (see EPA *Strategic Plan*; Goal 1: Taking Action on Climate Change and Improving Air Quality).

3) Improve Public Information and Notification of Fish Consumption Risks

Another key element of the strategy is to expand and improve information and notification of the risks of fish consumption. As part of this work, EPA is also encouraging and supporting states and tribes to adopt the fish tissue criterion for mercury that EPA issued in 2001 and apply it based on implementation guidance.

EPA is actively monitoring the development of fish consumption advisories and working with states to improve monitoring to support this effort. Forty-three percent of lake acres and 39 percent of river miles have been assessed to support waterbody-specific or regional consumption advisories or a determination that no consumption advice is necessary (see Program Activity Measure FS-1). EPA also encourages states and tribes to monitor fish tissue based on national guidance and most states are now using EPA guidance recommendations in their fish advisory programs.

4) Improve the Quality of Fishing Waters

Success in achieving improved quality in shellfishing waters relies on implementation of Clean Water Act programs that are focused on sources causing shellfish acres to be closed. Important new technologies include pathogen source tracking, new indicators of pathogen contamination and predictive correlations between environmental stressors and their effects. Once critical areas and sources are identified, core program authorities, including expanded monitoring, development of TMDLs, and revision of discharge permit limits can be applied to improve conditions.

In addition, a wide range of clean water programs that applies throughout the country will generally reduce pathogen levels in key waters. For example, work to control Combined Sewer Overflows and to reduce discharges from Concentrated Animal Feeding

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Operations, storm water runoff, and nonpoint source pollution will contribute to restoration of shellfish uses.

C) Grant Program Resources

Grant resources supporting this goal include the state program grants under Section 106 of the Clean Water Act, other water grants identified in the Grant Program Resources section of Subobjective 4, and grants from the Great Lakes National Program Office. For additional information on these grants, see the grant program guidance on the website (http://water.epa.gov/grants_funding/).

3) Water Safe for Swimming

***A) SUBOBJECTIVE:* Percent of days of the beach season that coastal and Great Lakes beaches monitored by state beach safety programs are open and safe for swimming:**

2006 Baseline: 97% **2011 Commitment: 91%**
2012 Target: 95% **2015 Target: 95%**

(Note: Additional measures of progress are included in *Appendix A*.)

B) Key National Strategies

The nation's waters, especially beaches in coastal areas and the Great Lakes, provide recreational opportunities for millions of Americans. Swimming in some recreational waters, however, can pose a risk of illness as a result of exposure to microbial pathogens. By "recreational waters" EPA means waters officially designated for primary contact recreation use or similar full body contact use by states, authorized tribes, and territories.

For FY 2012, EPA's national strategy for improving the safety of recreational waters will include four key elements:

- Establish pathogen indicators based on sound science;
- Identify unsafe recreational waters and begin restoration;
- Reduce pathogen levels in all recreational waters; and
- Improve beach monitoring and public notification.

1) Continue to Develop the Scientific Foundation to Support the Next Generation of Recommended Water Quality Criteria

The BEACH Act requires EPA to develop new or revised recreational water quality criteria. EPA is implementing a science plan that will provide the support needed to underpin the next generation of recommended water quality criteria. EPA will propose criteria in early 2012 and publish new or revised criteria in October 2012.

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2) Identify Unsafe Recreational Waters and Begin Restoration

A key component of the strategy to restore waters unsafe for swimming is to identify the specific waters that are unsafe and develop plans to accomplish the needed restoration. A key part of this work is to maintain strong progress toward implementation of Total Maximum Daily Loads (TMDLs) which are developed based on the schedules established by states in conjunction with EPA. Program Activity Measure WQ-8 indicates that most EPA regions expect to maintain schedules providing for completion of TMDLs within 13 years of listing. EPA will continue to work with states to expand implementation of TMDLs, including developing TMDLs on a water segment or watershed basis where appropriate (see Section II.1).

In a related effort, the Office of Water will work in partnership with the Office of Enforcement and Compliance Assurance (OECA) to better focus compliance and enforcement resources to unsafe recreational waters. In addition, wet weather discharges, which are a major source of pathogens, are one of OECA's national priorities.

3) Reduce Pathogen Levels in Recreational Waters Generally

In addition to focusing on waters that are unsafe for swimming today, EPA, states and tribes will work in FY 2012 to reduce the overall level of pathogens discharged to recreational waters using three key approaches:

- Reduce pollution from Combined Sewer Overflows (CSOs) that are not in compliance with final requirements of the Long Term Control Plans;
- Address other sources discharging pathogens under the NPDES permit program; and
- Encourage improved management of septic systems.

Overflows from combined storm and sanitary sewers in urban areas can result in high levels of pathogens being released during storm events. Because urban areas are often upstream of recreational waters, these overflows are a significant source of unsafe levels of pathogens. EPA is working with states and local governments to fully implement the CSO Policy providing for the development and implementation of Long Term Control Plans (LTCPs) for CSOs. EPA expects that close to 87% of the 853 CSO permits will have schedules in place to implement approved LTCPs in FY 2012 (see Program Activity Measure SS-1). EPA will also work with states to resolve longstanding issues associated with sanitary sewer overflows and bypasses at treatment plants.

Other key sources of pathogens to the nation's waters are discharges from Concentrated Animal Feeding Operations (CAFOs), municipal storm sewer systems, and industrial facilities. EPA expects to work with states to assure that these facilities are covered by permits. In addition, EPA expects to work with the states to develop approaches for monitoring wet weather discharges and impacts to surface waters, developing WQBELs, and identifying effective control measures and BMPs. For CAFOs, the NPDES regulations currently require facilities with discharges to seek permit coverage. Full

implementation of the NPDES permitting requirement for CAFOs will result in lower pathogen contamination due to permitting requirements that place controls on discharges of manure and process wastewater.

Finally, there is growing evidence that ineffective septic systems are adversely impacting water resources. EPA will work with state, tribal, and local governments to develop voluntary approaches to improving management of these systems.

4) Improve Beach Monitoring and Public Notification

Another important element of the strategy for improving the safety of recreational waters is improving monitoring of public beaches and notifying the public of unsafe conditions. EPA continues to work with states to implement the Beaches Environmental Assessment and Coastal Health (BEACH) Act and expects that 97 percent of "significant" public beaches will be monitored in accordance with BEACH Act requirements in FY 2012 (see Program Activity Measure SS-2). Significant public beaches are those identified by states as "Tier 1" in their beach monitoring and notification programs. Finally, EPA will fully implement improvements to eBeaches that will make it easier for states to submit information on beach monitoring and notification, as well as enable EPA to make information available to the public through the BEACON system in a more timely manner (http://epa.gov/waterscience/beaches/).

C) Grant Program Resources

Grant resources supporting this goal include the Clean Water Act Section 106 grants to states, nonpoint source program implementation grants (Section 319 grants), and the BEACH Act grant program grants. For additional information on these grants, see the grant program guidance on the website (http://water.epa.gov/grants_funding/).

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III. STRATEGIES TO PROTECT AND RESTORE FRESH WATERS, COASTAL WATERS, AND WETLANDS

An overarching goal of the National Water Program is to protect and restore aquatic systems throughout the country, including rivers, lakes, coastal waters, and wetlands. Although the three subobjective strategies described below address discrete elements of the nation's water resources, the National Water Program manages these efforts as part of a comprehensive effort. In addition, the national strategies described below are intended to work in concert with the efforts to restore and protect the large aquatic ecosystems described in Part IV of this *Guidance*.

1) Improve Water Quality on a Watershed Basis

A) SUBOBJECTIVE: Use pollution prevention and restoration approaches to protect and restore the quality of rivers, lakes, and streams on a watershed basis.

(NOTE: Additional measures of progress are included in the Appendices, including measures related to watersheds and maintaining water quality in streams already meeting standards.)

B) Key National Strategies

In FY 2012, EPA will work with states, tribes, and others to implement programs to protect and restore water resources with three key goals in mind:

- **Core Water Programs:** EPA, states, and tribes need to continue maintaining and improving the integration and implementation of the core national clean water programs throughout the country to most effectively protect and restore water quality.

- **Use of the Watershed Approach:** EPA will continue to support the implementation of "watershed approaches" to restoring and protecting waters. This work will be coordinated with the efforts to restore and protect large aquatic ecosystems discussed in Part IV of this *Guidance*.

- **Water Restoration Goals and Strategies:** EPA will continue to work with states and tribes to strengthen capacities to identify and address impaired waters and to use adaptive management approaches to implement cost-effective restoration solutions, giving priority to watershed approaches where appropriate.

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- **Water Protection Goals and Strategies:** EPA will work with states and tribes to strengthen capacities to identify and protect high quality waters including efforts to integrate these efforts with restoration approaches.

1) Implement Core Clean Water Programs to Protect All Waters Nationwide

In FY 2012, EPA, states, and tribes need to continue to effectively implement and better integrate programs established under the Clean Water Act to protect, improve, and restore water quality. To achieve this, EPA will apply adaptive management principles to our core programs and initiatives. Key tasks for FY 2012 include:

- Strengthen the water quality standards program;
- Improve water quality monitoring and assessment;
- Implement TMDLs and other watershed plans;
- Strengthen the NPDES permit program;
- Implement practices to reduce pollution from all nonpoint sources; and
- Support sustainable wastewater infrastructure.

Section 106 Grant Guidance to States and Interstate Agencies: General Information

This *National Water Program Guidance* for FY 2012 includes guidance for state and interstate recipients of Section 106 grants for Water Pollution Control Programs. As a general matter, grant recipients are expected to conduct their programs to help achieve the goals, objectives, subobjectives, strategic targets, and program activity measures specified in section III.1 of this *Guidance*. In addition, section III.1 includes specific guidance for State and Interstate grant recipients in text boxes like this. Together, section III.1, the text boxes, and Appendix D replace the biannual Section 106 Grant Guidance. The National Water Program Guidance for FY 2012 continues this practice of incorporating Section 106 grants guidance into the main National Program Guidance.

This grant guidance covers only the core water pollution control activities listed above this box. EPA continues to provide separate guidance for the following water pollution control activities:

- Tribal water pollution control programs.*
  See http://epa.gov/owm/cwfinance/106tgg07.htm.
- State and Interstate use of Monitoring Initiative funds.
  See http://epa.gov/owm/cwfinance/106-guidelines-monitor.htm.
- Water pollution enforcement activities.
  See http://www.epa.gov/ocfo/npmguidance/index.htm.

*Tribes found eligible under section 518(e) of the Clean Water Act to be treated in the same manner as a state (TAS) to administer a water quality standards program are expected to follow the same guidance as states for these programs.

As part of this process, EPA will continue efforts to integrate across programs, media and federal agencies to more effectively support efforts to protect and restore waters. In the

event that the Office of Water finds that existing programs, initiatives, or processes are not resulting in a significant contribution to national goals, we will work with regions, states, tribes, and other partners to rethink and redesign the delivery of clean water programs to more effectively protect and restore waterbodies and watersheds. Similarly, EPA regional offices have the flexibility to emphasize various parts of core national programs and modify targets to meet EPA regional and state needs and conditions.

Priorities for FY 2012 in each of these program areas are described below.

a) ***Strengthen Water Quality Standards Program:*** Water Quality Standards are the regulatory and scientific foundation of water quality protection programs under the Clean Water Act. Under the Act, states and authorized tribes establish water quality standards that define the goals and limits for waters within their jurisdictions. These standards are then used to determine which waters must be cleaned up, how much may be discharged, and what is needed for protection.

To help achieve strategic targets, EPA will continue to review and approve or disapprove state and tribal water quality standards and promulgate replacement standards where needed; develop water quality criteria, information, methods, models, and policies to ensure that each waterbody in the United States has a clear, comprehensive suite of standards that define the highest attainable uses; and as needed, provide technical and scientific support to states, territories, and authorized tribes in the development of their standards.

A high priority is to support state and territory development of numeric nutrient criteria -- water quality criteria to help target reductions in excess nitrogen and phosphorus that can cause eutrophication and other problems in lakes, estuaries, rivers, and streams. EPA will work with states and territories as they propose and adopt numeric water quality standards for total nitrogen and total phosphorus that apply to each of three entire waterbody types: lakes and reservoirs; rivers and streams; and estuaries. To track progress, EPA will work with states to identify internal milestones for developing, proposing, and adopting total nitrogen and total phosphorus numeric criteria for their waters (see Program Activity Measures WQ-1a, 1b, and 1c). EPA continues to believe that it is also beneficial for states to derive additional numeric criteria for response variables, such as chlorophyll-a and water clarity.

Continuing degradation of previously high quality waters is of increasing concern. EPA's antidegradation policy calls for states and authorized tribes to conduct a public review of proposed activities that are likely to lower water quality in high quality waters to determine whether the proposed degradation is necessary to accommodate important economic or social development in the area in which the waters are located. EPA strongly encourages states and authorized tribes without antidegradation implementation procedures to establish them as soon as possible to ensure that antidegradation policies are implemented.

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Section 106 Grant Guidance to states and Interstate Agencies: Water Quality Standards. It is EPA's objective for states and authorized tribes to administer the water quality program consistent with the requirements of the CWA and the water quality standards regulation.* EPA expects states and tribes will enhance the quality and timeliness of their water quality standards triennial reviews so that these standards reflect EPA guidance and updated scientific information. EPA encourages states and tribes to reach early agreement with EPA on triennial review priorities and schedules and coordinate at critical points to facilitate timely EPA reviews of state water quality standards submissions. It is particularly important for states and tribes to keep their water quality criteria up to date, including considering all the scientific information EPA has issued for specific pollutants since the state or tribe last updated those criteria, and adding or revising criteria as necessary (see measures WQ-3a and 3b). States with disapproved standards provisions should work with EPA to resolve the disapprovals promptly.

EPA places a high priority on states proposing and adopting numeric water quality standards for total nitrogen and total phosphorus that apply to all waters in each of three waterbody types – lakes and reservoirs, rivers and streams, and estuaries – to help reduce or prevent eutrophication and other problems in those waters (see measures WQ-1a and 1b). To help EPA track state progress, states need to provide EPA with a full set of performance milestone information concerning total nitrogen and total phosphorus numeric criteria development, proposal, and adoption (see measure WQ-1c).

EPA strongly encourages states and authorized tribes without antidegradation implementation methods to establish them as soon as possible, consistent with EPA's regulation.

States and tribes should make their water quality standards accessible to the public on the Internet in a systematic format. Users should be able to identify the current EPA-approved standards that apply to each waterbody in the state or reservation, for example by providing tables and maps of designated uses and related criteria. EPA has developed the Water Quality Standards Database for this purpose. EPA will provide a copy of the Database for a state or tribe to populate, operate, and maintain locally if it does not have its own database. You may request a copy of the WQSDB and guidance for its installation and use at http://www.epa.gov/waterscience/standards/wqshome/.

*Tribes found eligible to be treated in the same manner as a state (TAS) to administer water quality standards programs under section 518 of the Clean Water Act. As of January 2009, 44 tribes have been found to be eligible for TAS status.

In a related effort, EPA will continue to encourage and support tribes in implementing one of the three approaches for protecting water quality contained in EPA's *Final Guidance on Awards of Grants to Indian Tribes under Section 106 of the Clean Water Act.* The three approaches are: the non-regulatory approach; the tribal law water quality protection approach; and the EPA-approved water quality protection approach. EPA tracks the progress of tribes adopting

EPA-approved water quality standards under the third approach (see Program Activity Measure WQ-2).

EPA will also work with states, territories, and authorized tribes to ensure the effective operation of the standards program, including working with them to keep their water quality standards up to date with the latest scientific information (see Program Activity Measures WQ-3a and 3b) and to facilitate adoption of standards that EPA can approve (see Program Activity Measures WQ-4a).

EPA encourages states, territories, and authorized tribes to make their water quality standards accessible to the public on the Internet in a systematic format.

b) ***Improve Water Quality Monitoring and Assessment:*** EPA will continue to work with states, tribes, territories, and other partners to provide the monitoring data and information needed to make good water quality protection and restoration decisions and to track changes in the nation's water quality over time.

Congress designated $18.5 million in new Section 106 funds for the Agency's Monitoring Initiative. Begun in 2005, this initiative builds upon states' base investments in monitoring to include enhancements to state and interstate monitoring programs and collaboration on statistically-valid surveys of the nation's waters. EPA recognizes that these funds represent a small amount of the total needed to address all state water monitoring needs. The basis for allotting these funds is found in the *Amendment to the Guidelines for the Award of Monitoring Initiative Funds under Section 106 Grants to States, Interstate Agencies, and Tribes* in the *Federal Register* in July 17, 2008 (http://www.epa.gov/owm/cwfinance/award-monitoring-fund.htm). Once FY 2012 funds are appropriated, EPA will revise the guidelines to reflect any changes to the program. The guidelines specify the activities that states and interstate agencies carry out under the monitoring initiative. These included funding new, expanded, or enhanced monitoring activities as part of the state's implementation of its comprehensive state monitoring strategy. Some monitoring priorities that states should consider include:

- Integration of statistical survey and targeted monitoring designs to assess the condition of all water resources over time;
- Evaluate the effects of implementation of TMDLs and watershed plans,
- Development of criteria and standards for nutrients and excess sedimentation;
- Enhancement of bioassessment and biocriteria for all water resources; and
- Support other state monitoring objectives, including monitoring of wetlands and use of landscape and other predictive tools.

A separate Section 106 workplan component must be submitted that includes water monitoring activities and milestones for both implementation of state strategies and collaboration on statistically-valid surveys of the nation's waters. (http://www.epa.gov/owow/monitoring/nationalsurveys.html)

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State and EPA cooperation on statistically-valid assessments of water condition nationwide remains a top priority. In FY 2012, EPA will issue the National Rivers & Streams Assessment report which will contain the finding from the 2008-2010 rivers & streams survey coupled with a baseline condition of the nation's rivers. This report will constitute the second survey for streams which will allow a comparison of stream conditions from 2004 to 2008/2009 and evaluate change. The fifth report on the national coastal condition also will be released in 2012. In FY 2012, EPA, states, and tribes will be conducting field sampling for the second National Lakes Assessment, and data collected from the previous year's Wetlands Survey will be undergoing laboratory analysis. FY 2010 CWA Section 106 Monitoring Initiative funds will be allocated for sampling for the second Rivers & Streams Survey. Throughout the National Aquatic Resource Survey (NARS) program EPA will continue to enhance and expand its working relation with states, tribes, and other partners to improve the administration, logistical, and technical support for the surveys.

Section 106 Grant Guidance to States and Interstate Agencies: Monitoring.
EPA encourages states, territories, and interstate commissions to use a combination of Section 106 monitoring funds, base 106 funds, and other resources available to enhance their monitoring activities, and meet the objectives of EPA's March, 2003 guidance, "Elements of a State Water Monitoring and Assessment Program" (http://www.epa.gov/owow/monitoring/elements/), which calls for states to implement their monitoring strategies by 2014. During FY 2012, these efforts include:

- Implementing monitoring strategies;
- Undertaking statistical surveys; and
- Integrating assessments of water conditions, including reports under Section 305(b) of the Clean Water Act and listing of impaired waters under Section 303(d) of the Clean Water Act by April 1, 2012.

In FY 2012, some states will transmit water quality data to the national STORET Warehouse using the Water Quality Exchange (WQX) framework and submit assessment results for the 2012 Integrated Report via the Assessment Database version 2, or a compatible electronic format, and geo-reference these assessment decisions (see Program Activity Measure WQ-7). EPA will support states' use of WQX, WQX Web, and data in the STORET Data Warehouse through technical assistance and Exchange Network grants. Water quality assessment data are critical to measuring progress towards the Agency's and states' goals of restoring and improving water quality.

In FY 2012, states will continue to enhance and refine their monitoring programs and make progress according to schedules established in their monitoring strategies (see Program Activity Measure WQ-5). EPA stresses the importance of using statistical surveys to generate statewide assessments and track broad-scale trends; enhancing and implementing designs to address water information needs

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at local scales (e.g., watersheds) including monitoring waters where restoration actions have been implemented, and integrating both statistical surveys and targeted monitoring to assess the condition of all water resources over time.

EPA will assist tribes in developing monitoring strategies appropriate to their water quality programs through training and technical assistance and work with tribes to provide data in a format accessible for storage in EPA data systems (see Program Activity Measure WQ-6). As tribal strategies are developed, EPA will work with tribes to implement them over time.

EPA's goal is to achieve greater integration of federal, regional, state, tribal, and local level monitoring efforts to connect monitoring and assessment activities across geographic scales, in a cost-efficient and effective manner, so that scientifically defensible monitoring data is available to address issues and problems at each of these scales. In addition EPA will work with states and other partners to address research and technical gaps related to sampling methods, analytical approaches, and data management.

c) ***Implement TMDLs and Other Watershed Related Plans:*** Development and implementation of TMDLs for 303(d) listed waterbodies is a critical tool for meeting water quality restoration goals. TMDLs focus on clearly defined environmental goals and establish a pollutant budget, which is then implemented via permit requirements and through local, state, and federal watershed plans/programs. Strong networks, including the National Estuary Programs (see "Protect Coastal and Ocean Waters" Subobjective), as well as the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA), and federal land management agencies foster efficient strategies to address water quality impairments. In 2007, EPA and the Forest Service (FS) signed a Memorandum of Agreement (http://www.epa.gov/owow/tmdl/usfsepamoa/) designed to develop strategies (e.g., TMDLs and TMDL alternatives) to address water quality impairments on FS land. In addition, EPA formed a partnership with the Fish and Wildlife Service (FWS) to identify the location of impaired waters and to develop a strategy to address and protect waters on FWS land. These networks are uniquely positioned to improve water quality through development and implementation of TMDLs, TMDL alternatives, and other restoration actions.

EPA will track the degree to which states develop TMDLs or take other appropriate actions (TMDL alternatives) on approved schedules, based on a goal of at least 80 percent on pace each year to meet state schedules or straight-line rates that ensure that the national policy of TMDL development within 8-13 years of listing is met (see Program Activity Measure WQ-8).

As noted below, EPA is encouraging states to organize schedules for TMDLs to address all pollutants on an impaired segment when possible (see Program Activity Measure WQ-21a). Where multiple impaired segments are clustered

within a watershed, EPA encourages states to organize restoration activities across the watershed (i.e., apply a watershed approach). To assist in the development of Watershed TMDLs, the TMDL program developed two tools: Handbook for Developing Watershed TMDLs, and a 'checklist' for developing mercury TMDLs where the source is primarily atmospheric deposition (http://www.epa.gov/owow/tmdl/). Another tool supporting the development of watershed TMDLs is the Causal Analyses/Diagnosis Decision Information System (http://cfpub.epa.gov/caddis).

Section 106 Grant Guidance to States and Interstate Agencies: TMDLs. EPA encourages states to effectively assess their waters and make all necessary efforts to ensure the timely submittal of required § 303(d) lists of impaired waters. For the 2010 Integrated Reporting (IR) Cycle, State 303(d) list submissions did not match the progress made with the 2008 IR Cycle. In 2012, EPA will continue to work with states, interstate agencies, and tribes to foster a watershed approach as the guiding principle of clean water programs. In watersheds where water quality standards are not attained, states will develop Total Maximum Daily Loads (TMDLs), critical tools for meeting water restoration goals. States should establish a schedule for developing necessary TMDLs as expeditiously as practicable. EPA policy is that TMDLs for each impairment listed on the state § 303(d) lists should be established in a time frame that is no longer than 8 to 13 years from the time the impairment is identified. States have started to address more difficult TMDLs, such as broad-scale mercury and nutrient TMDLs, which required involvement at the state and federal level across multiple programs. EPA will also continue to work with states to facilitate accurate, comprehensive, and georeferenced data made available to the public via the Assessment, TMDL Tracking, and Implementation System (ATTAINS).

For waters impaired by problems for which TMDLs are not appropriate, EPA will work with partners to develop and implement activities and watershed plans to restore these waters e.g., TMDL alternatives. Additionally, EPA will work with partners to improve our ability to identify and protect healthy waters/watersheds, and to emphasize integration of and application of core program tools, the watershed approach, and innovative ideas for protecting these waters. Moreover, EPA issued an updated guidance on how to more effectively address stormwater impairments under two key programs of the CWA: the 303(d) TMDL Program and the NPDES Stormwater Program. The updated guidance will assist the translation of TMDL Waste Load Allocations into NPDES Stormwater permits, as well as support innovative approaches, such as Impervious Cover TMDLs, to address the considerable number of waterbodies polluted by stormwater discharges.

d) ***Strengthen the NPDES Permit Program:*** The NPDES program requires point source dischargers to be permitted and requires pretreatment programs to control discharges from industrial and other facilities to the nation's public-owned treatment works. EPA is working with states to structure the permit program to

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better support comprehensive protection of water quality on a watershed basis and recent increases in the scope of the program arising from court orders and environmental issues. In addition, the NPDES Program will be working closely with the Office of Enforcement and Compliance Assurance (OECA) to implement the Clean Water Act Action Plan. Additional information on the Action Plan and 2012 activities can be found at: http://www.epa.gov/ocfo/npmguidance/index.htm#OECA. Some key NPDES program efforts include:

- **Permit Quality Reviews and Action Items:** EPA conducts Permit Quality Reviews to assess the health and integrity of the NPDES program in authorized states, tribes, territories, and EPA regions. EPA manages a commitment and tracking system to ensure that NPDES Action Items identified in these assessments are implemented. Implementation is measured through Program Activity Measure WQ-11. Additional NPDES Action Items will continue to be identified and addressed through this process in FY 2012.

- **Program Integrity:** EPA will increase emphasis in working with states to ensure the integrity of the NPDES program. Consistent with the Clean Water Act Action Plan, EPA will integrate program and enforcement oversight to ensure the most significant actions affecting water quality are included in an accountability system and are addressed. Some factors that will be reviewed in EPA's oversight program include sufficient progress in the implementation of the NPDES program including permitting, inspections, and enforcement. In addition, EPA will begin a process to make streamlining revisions to various parts of the existing NPDES application and permit regulations to improve program clarity, protection of water quality, program transparency, and efficiency.

- **Integrated Workload Planning:** The Office of Wastewater Management (OWM) and the Office of Compliance (OC) are jointly implementing an effort to strengthen performance in the NPDES program by integrating and streamlining approaches for oversight of NPDES permitting and enforcement, including a rule replacing existing paper reporting with electronic reporting, in order to automate compliance evaluations and improve transparency. This current initiative builds upon recent efforts by OECA and OW to strengthen implementation of the NPDES permit and enforcement programs under the Clean Water Act Action Plan and the "Coming Together for Clean Water" strategy.

- **High Priority Permits:** EPA works with states and EPA regions to select high priority permits based on programmatic and environmental significance and commit to issuing a specific number of those permits during the fiscal year (see Program Activity Measures WQ-19). Currently, measure WQ-19's targets are based on a universe of priority permits that shifts each year, and those fluctuations in the measure's universe make trend analysis difficult. In

FY 2012, EPA intends to reevaluate the overall measure structure, as well as criteria used in the selection process for priority permits, in order to allow EPA to set a better baseline and improve the overall effectiveness of the measure. Any revisions to this measure are intended for adoption and implementation in FY 2013. EPA is seeking suggestions on ways to improve the measure.

- **Watershed Permits/Water Quality Trading:** Organizing permits on a watershed basis can improve the effectiveness and efficiency of the program. Permits can also be used as an effective mechanism to facilitate cost-effective pollution reduction through water quality trading (see Program Activity Measure WQ-20). EPA will continue to coordinate with EPA regional offices, states, USDA, and other federal agencies to implement watershed programs.

- **Green Infrastructure:** EPA is collaborating with partner organizations to implement the Green Infrastructure Action Strategy released in January 2008, to help incorporate green infrastructure solutions at the local level to protect water quality using integrated wet weather management. Green Infrastructure management approaches and technologies infiltrate, evapotranspire, capture and reuse stormwater to maintain or restore natural hydrology. EPA supports use of Section 106 funds to provide programmatic support for green infrastructure efforts, which promote prevention, reduction, and elimination of water pollution.

- **Pesticides:** On January 7, 2009, the U.S. Court of Appeals for the Sixth Circuit determined that NPDES permits are required for discharges from the application of pesticides to waters of the United States. In response to the Court's decision, EPA issued a draft NPDES pesticides general permit (PGP) in 2010 and will issue a final PGP in 2011 for areas of the country where EPA is the NPDES permitting authority. EPA has been and will continue to assist NPDES-authorized states in developing their own pesticide general permits and to assist in a national effort to educate the pesticides application industry regarding the new permit requirements.

- **Vessels:** As a result of a 2006 court ruling vacating a longstanding EPA regulation, approximately 70,000 vessels that were exempt from permitting need to be covered by an NPDES permit for discharges incidental to their normal operation. In December 2008, EPA issued the Vessel General Permit (VGP) to provide coverage for these vessels in US waters. EPA is currently developing the next iteration of the VGP, which will become effective in December 2013. As part of these efforts, EPA has taken the lead in developing scientific protocols and models to determine how to more effectively control the introduction of numerous aquatic invasive species into our Nation’s waters from ballast water discharges. Ballast water discharges have resulted in the introduction of numerous aquatic invasive species, resulting in severe degradation of many ecosystems and billions of dollars of

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economic damages. Legislation enacted on July 31, 2008, (P.L. 110-299) established a moratorium on NPDES permitting of incidental discharges (except ballast water) from fishing vessels (regardless of size) and commercial vessels less than 79 feet. Subsequent legislation (P.L. 111-215) extended this moratorium to December 18, 2013. EPA is exploring options for providing permit coverage for these vessels.

- **Stormwater:** In October 2008, The National Academy of Sciences/National Research Council (NRC) found that EPA's stormwater program needs significant changes to improve its effectiveness and the quality of urban streams. EPA has evaluated the NRC findings and state permitting authorities have identified additional efficiencies that should be considered. EPA has initiated national rule-making to improve the overall efficiency and effectiveness of the program. EPA intends to propose this rule in the fall of 2011 and take final action in November of 2012 (FY 2013).

- **CAFOs:** EPA revised the NPDES regulations for Concentrated Animal Feeding Operations (CAFOs) in 2008 to address the Second Circuit's 2005 decision in Waterkeeper Alliance et al. v. EPA. Under the terms of the revised regulations, CAFOs that discharge or propose to discharge to waters of the U.S. must seek NPDES permit coverage. EPA is working to assure that all states have up-to-date CAFO NPDES programs and that all CAFOs that discharge seek and obtain NPDES permit coverage. EPA will also work with permitting authorities to identify which CAFOs need to seek permit coverage and provide the tools and information needed to prevent discharges and provide appropriate permit coverage. In addition, EPA will continue to monitor the number of CAFOs covered by NPDES permits as an indication of state progress (see Program Activity Measure WQ-13).

- **Chesapeake Bay:** In response to the Chesapeake Bay Executive Order, EPA will conduct significant new regulatory, permitting, modeling, reporting and planning efforts for the Agency, including developing a stormwater regulation to better control wet weather related pollution and revised CAFO implementation guidance and regulations to better control agricultural pollution in the Chesapeake Bay. EPA will encourage state NPDES programs to incorporate more stringent permit provisions in stormwater permits prior to promulgation of a rule. Also, EPA will review all new or reissued NPDES permits for significant municipal and industrial wastewater dischargers submitted by Bay jurisdictions to ensure that the permits are consistent with the applicable Bay water quality standards and the Bay TMDL wasteload allocations. In addition, EPA will continue to support states and EPA regional offices in effectively implementing the NPDES program to improve the health of the watershed. Finally, EPA will implement a Chesapeake Bay Compliance and Enforcement Strategy in part to ensure that permittees are in compliance with their permit provisions.

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- **Sanitary Sewer Overflows (SSOs) and Bypasses:** EPA will continue to work with states to resolve longstanding issues related to overflows in separate sanitary sewer systems and bypasses at the treatment plant to ensure that water quality is protected during wet weather events.

Section 106 Grant Guidance to States and Interstate Agencies: Permits, Enforcement, and Compliance. States should continue to implement significant actions identified during Regional program and permit quality reviews to assure effective management of the permit program and to adopt efficiencies to improve environmental results. States should also implement recommended significant actions identified under the EPA/ECOS enforcement and compliance "State Review Framework" process. States should place emphasis on implementing criteria to ensure that priority permits selected are those offering the greatest benefit to improve water quality and those permit revisions needed to implement TMDLs. EPA will track the implementation of the significant action items described above (WQ-11). EPA will work with each state to evaluate and set programmatic and performance goals to maximize water quality improvement and achieve state and EPA regional priorities across the Clean Water Act programs to maintain the integrity of the NPDES programs. EPA and states should work together to optimally balance competing priorities, schedules for action items based on the significance of the action, and program revisions. States are encouraged to seek opportunities to incorporate efficiency tools such as watershed permitting, trading, and linking development of water quality standards, TMDLs, and permits. States are expected to ensure that stormwater permits are reissued on a timely basis and to strengthen the provisions of the MS4 permits as the permits are reissued to ensure clarity on what is required and that permits are written so that they are enforceable. States should place emphasis on incorporating green infrastructure in all stormwater permits. States need to update their programs to implement the concentrated animal feeding operation (CAFO) rule, including regulations, permits and technical standards, and work closely with their inspection and enforcement programs to ensure a level playing field. States need to modify their programs to regulate pesticide discharges by April 2011 and continue implementation through 2012. In general, states should ensure that permittees submit data that accurately characterizes the pollutant loadings in their discharge for reasonable potential determinations and other reporting. States are expected to ensure data availability by fully populating the required Integrated Compliance Information System (ICIS- NPDES) or Permit Compliance System (PCS) Water Enforcement National Data Base (WENDB) data elements or data elements in ICIS-NPDES that are comparable to WENDB in PCS or ICIS (December 28, 2007 memo from Michael Stahl and James Hanlon, "ICIS Addendum to the Appendix of the 1985 Permit Compliance System Policy Statement") as appropriate. The Office of Enforcement and Compliance Assurance (OECA) has a separate National Program Manager (NPM) Guidance. States and regions should continue to conduct joint permitting and enforcement planning as outlined in the OECA NPM Guidance. [OECA CWA-09]. In 2012, OECA's NPM Guidance continues to identify activities for improving enforcement efforts aimed at addressing water quality impairment through the Clean Water Act Action Plan (the Action Plan). OW and states will be working closely with OECA as the Action Plan is implemented. The final *OECA NPM Guidance* is available with the complete Agency set at: www.epa.gov/ocfo/npmguidance/index.htm.

- **Current Permits:** EPA will continue to work with states to set targets for the percentage of permits that are considered current, with the goal of assuring

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that not less than 90% of all permits are current (see Program Activity Measure WQ-12).

- **Pretreatment:** EPA and states will monitor the number and national percentage of significant industrial users that have control mechanisms in place to implement applicable pretreatment requirements prior to discharging to Publicly Owned Treatment Works (POTWs). EPA will also monitor the number and national percentage of categorical industrial users in non-approved pretreatment POTWs that have control mechanisms in place to implement applicable pretreatment requirements (see Program Activity Measure WQ-14).

- **Compliance:** EPA will track and report on key measures of compliance with discharge permits including the percent of major dischargers in Significant Noncompliance (SNC), and the percent of major publicly owned treatment works (POTWs) that comply with their permitted wastewater discharge standards (see Program Activity Measures WQ-15 and WQ-16). As part of the Clean Water Act Action Plan, in FY 2011, EPA's OECA will be leading an effort to review, revise and integrate current policies and tools that guide how EPA and state prioritize permitting and enforcement actions, including those surrounding the SNC Policy, and in FY2012, regions and states should pilot test the draft revised versions of these policies and regulations.

- **Urban Waters:** EPA's Urban Waters effort is focusing on pilot projects nationwide to help urban communities, particularly disadvantaged communities, to reconnect with and revitalize their water environments. EPA's OWM will continue to be involved in Federal Partners workgroup, develop work products to advance this effort to integrate green infrastructure into stormwater management plans, reduce combined sewer overflows, and promote wastewater operation certification training.

e) ***Implement Practices to Reduce Pollution from all Nonpoint Sources:*** Polluted runoff from sources such as agricultural lands, forestry sites, and urban areas is the largest single remaining cause of water pollution. Land applied nutrients represent a significant challenge to improving water quality. EPA, states, and tribes are working with local governments, watershed groups, property owners, and others to implement programs and management practices to control polluted runoff throughout the country.

EPA provides grant funds to states and tribes under Section 319 of the Clean Water Act to implement comprehensive programs to control nonpoint pollution, including reduction in runoff of nitrogen, phosphorus, and sediment. EPA will monitor progress in reducing loadings of these key pollutants (see Program Activity Measure WQ-9). In addition, EPA estimates that some 5,967 waterbodies are primarily impaired by nonpoint sources and will track progress in restoring these waters nationwide (see Program Activity Measure WQ-10).

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As described in more detail in Section 2 below, EPA is encouraging states to use the Section 319 program to support a more comprehensive, watershed approach to protecting and restoring water quality. EPA first published in FY 2003 new grant guidelines for the Section 319 program to require the use of at least $100 million for developing and implementing comprehensive watershed plans. These plans are geared towards restoring impaired waters on a watershed basis while still protecting high quality and threatened waters as necessary. In FY 2012, EPA will continue to work closely with and support the many efforts of states, interstate agencies, tribes, local governments and communities, watershed groups, and others to develop and implement their local watershed-based plans. State CWSRF funds are also available to support efforts to control pollution from nonpoint sources.

f) ***Support Sustainable Water Infrastructure:*** The U.S. depends on drinking water, wastewater, and stormwater infrastructure for the health, the economy, the vitality of water environment, and the sustainability of communities. However, the U.S. has underinvested in the renewal of existing infrastructure while growth patterns create needs for an expanding network of infrastructure that communities will need to maintain and replace.

The U.S. must embrace a fundamental change in the way we manage, value, and invest in infrastructure. EPA is pursuing a Sustainable Infrastructure Program, designed to affect that change by institutionalizing practices that will help communities find sustainable solutions while maximizing the value of each infrastructure dollar spent. The suite of activities which comprises the program is based on two basic tenets:

- To be sustainable as a community, you need sustainable infrastructure.
- To achieve sustainable water infrastructure, you need sustainable utilities.

To those ends, EPA is working to foster the integration of water infrastructure decisions into smart growth strategies that provide more livable communities and reduce long term infrastructure needs and costs. EPA is also working to promote effective and sustainable utility management. Those efforts center around upfront planning that incorporates the assessment of life cycle costs, innovative and green alternatives, and collateral environmental benefits into infrastructure investment strategies.

Sustainable Water Infrastructure is an integral part of the Sustainable Communities Partnership between HUD, DOT, and EPA. EPA is working with the partners to integrate infrastructure planning across water, housing, and transportation sectors to achieve the partnership goals.

EPA is also pursuing these goals through the DWSRFs and CWSRFs that provide low interest loans to help finance drinking water and wastewater treatment

facilities, as well as other water quality projects. Recognizing the substantial remaining need for drinking water and wastewater infrastructure, EPA expects to continue to provide significant annual capitalization to the SRFs, and to encourage the leveraging of those investments to achieve infrastructure and community sustainability. EPA will work with states to assure the effective operation of SRFs, including monitoring the fund utilization rate (see Program Activity Measure WQ-17).

In another example, EPA is working with USDA and other partners to expand the promotion of effective utility management with smaller utilities. This effort will support the National Water Program's efforts to address the needs of disadvantaged urban and rural communities.

In a related effort, EPA will work with other federal agencies to improve access to basic sanitation. The 2002 World Summit in Johannesburg adopted the goal of reducing the number of people lacking access to safe drinking water and basic sanitation by 50% by 2015. EPA will contribute to this work through its support for development of sanitation facilities in Indian country, Alaskan Native villages, and Pacific Island communities using funds set aside from the CWSRF and targeted grants. Other federal agencies, such as the Department of the Interior (DOI), the U.S. Department of Agriculture (USDA), and the Department of Housing and Urban Development, also play key roles in this area and are working with EPA in this effort. EPA is also working to improve access to drinking water and wastewater treatment in the U.S.-Mexico Border area (see Section IV of this *Guidance*).

2) Accelerate Watershed Protection

Strong implementation of core Clean Water Act programs is essential to improving water quality but is not sufficient to fully accomplish the water quality improvements called for in the Agency's *Strategic Plan*. Today's water quality problems are often caused by many significant factors that are not adequately addressed by these core programs, including loss of habitat and habitat fragmentation, hydrologic alteration, invasive species, and climate change. Addressing these complex problems demands a watershed systems approach to protection that considers both habitats and the critical watershed processes that drive the condition of aquatic ecosystems. The watershed systems approach is implemented through an iterative planning process to actively seek broad public involvement and focus multi-stakeholder and multi-program efforts within hydrologically-defined boundaries to address priority resource goals.

The National Water Program has successfully used a watershed approach to focus core program activities and to promote and support accelerated efforts in key watersheds. At the largest hydrologic scales, EPA and its partners operate successful programs addressing the Chesapeake Bay, Great Lakes, Gulf of Mexico, and National Estuary Program watersheds. Many states, EPA regions, and their partners have also undertaken important efforts to protect, improve, and restore watersheds at other hydrologic scales.

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Together, these projects provide strong evidence of the value of a comprehensive approach to assessing water quality, defining problems, integrating management of diverse pollution controls, and defining financing of needed projects.

Over the past decade, EPA has witnessed a groundswell of locally-driven watershed protection and restoration efforts. Watershed stakeholders, such as citizen groups, governments, non-profit organizations, and businesses, have come together and created long-term goals and innovative solutions to clean up their watersheds and promote more sustainable uses of their water resources. Additionally, many of these groups and other volunteer efforts provide water monitoring data that can be used to identify problems and track progress toward water quality goals. EPA estimates that there are approximately 6,000 local watershed groups active nationwide.

To increase focus on protecting, maintaining, and conserving our nation's remaining healthy waters, EPA has launched a proactive approach called the Healthy Watersheds Initiative (HWI). The goal of the HWI is to maintain and protect a healthy watershed "infrastructure" of habitat, biotic communities, water chemistry, and intact watershed processes such as hydrology, fluvial geomorphology, and natural disturbance regimes. These healthy, functioning watersheds provide the ecological infrastructure that anchor water quality restoration efforts. This ecological support system will enable us to restore impaired waters, and to do so cost effectively. Key components of the HWI are development of Regional Office HWI Strategies that include working with the states to identify healthy watersheds and intact components of other watersheds statewide and implement protection and conservation programs both at the state and local levels.
For FY 2012, EPA will finalize and implement its National Strategy, including a Healthy Watersheds Strategy, for building the capacity of state, tribal, and local government and watershed groups to protect and restore water quality. The Strategy emphasizes four activities to accelerate local watershed protection efforts:

- Target training and tools to areas where existing groups can deliver environmental results;
- Work with states to develop and begin implementation of Healthy Watersheds programs;
- Enhance support to local watershed organizations through third party providers (e.g., federal partners, EPA assistance agreement recipients), including support for enhancing volunteer monitoring and EPA and state ability to use volunteer data; and
- Share best watershed approach management practices in locations where EPA is not directly involved.

EPA is also working at the national level to develop partnerships with federal agencies to encourage their participation in watershed protection and to promote delivery of their programs on a watershed basis. For example, EPA is working with other federal agencies (e.g., Forest Service, USGS, USFWS & others) to leverage their healthy watersheds programs (e.g., Green Infrastructure Community of Practice). Also, EPA will work with USDA to promote coordinated use of federal resources, including grants utilizing the Clean Water Act Section 319 and Farm Bill funds. EPA is also working with the U.S.

Forest Service (USFS) and the U.S. Fish and Wildlife Service to foster efficient strategies to address water quality impairments by maintaining and restoring watersheds on federal lands. EPA and the USFS will work to advance a suite of water quality related actions, TMDL alternatives (i.e., including category 4b watershed plans) that will build partnerships between agencies and among states.

3) Define Waterbody/Watershed Standards Attainment Goals and Strategies

In 2002, states identified some 39,503 specific waterbodies as impaired (i.e., not attaining state water quality standards) on lists required under Section 303(d) of the Clean Water Act. Although core programs, as described above, provide key tools for improving these impaired waters, success in restoring the health of impaired waterbodies often requires a waterbody-specific focus to define the problem and implement specific steps needed to reduce pollution.

Nationally, EPA has adopted a goal of having 3,360 of those waters identified as attaining water quality standards by 2015 (about 8.2% of all impaired waters identified in 2002). Regions have indicated the progress they expect to make toward this goal in FY 2012 (see strategic target WQ-SP10.N11 and the following table).

Targets for Attaining Standards in Impaired Waters
By Region and Nationally (Measure WQ-SP10.N11)

Region	Total Impaired Waters (2002)	FYs 2002-2010 Waters in Attainment	FY 2011 Commitment (cumulative)	FY 2012 Target (cumulative)
1	6,710	101	117	TBD
2	1,805	126	127	TBD
3	8,998	544	555	TBD
4	5,274	495	504	TBD
5	4,550	630	640	TBD
6	1,407	182	190	TBD
7	2,036	295	302	TBD
8	1,274	270	270	TBD
9	1,041	72	72	TBD
10	6,408	194	196	TBD
Totals	**39,503**[4]	**2,909**	**2,973**	**3,273***

[4] 39,503 updated from 39,768 to reflect corrected data.

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(Note that a previous measure reported 1,980 waters identified as impaired in 1998-2000 to be in attainment by 2002. These estimates are not included in the table above. *The national FY 2012 target for this measure is 3,273.)

Regional commitments for this measure, to be developed over the summer of 2011 based on the targets in the table above, should reflect the best effort by EPA regions and states to address impaired waters based on redesigning and refocusing program priorities and delivery methods where necessary to meet or exceed this measure's targets**.** In the event that an EPA regional office finds that existing program delivery and alignment is not likely to result in a significant contribution to national goals, the EPA region should work with states to rethink and redesign the delivery of clean water programs to more effectively restore waterbodies and watersheds. Regions will also develop targets and commitments for progress under measures related to improvement of impaired waters short of full standards attainment (see measure WQ-SP11) and in small watersheds where one or more waterbody is impaired (see measures WQ-SP12.N11).

States and EPA regions have indicated that the time frame for reaching full attainment in formerly impaired waters can be long and that the significant program efforts to put restoration plans in place need to be better recognized. Acknowledging this issue, EPA will work with states to report the number of impaired water segments where restoration planning will be complete in FY 2012 (see Program Activity Measure WQ-21a and proposed indicator measure in the Incremental Progress in Restoring Water Quality Section below). Completion of planning is an essential, intermediate step toward full restoration of a waterbody and can be documented more quickly than actual waterbody improvement. In general, initial restoration planning is complete when each cause of impairment in a waterbody is covered by one or more of the following: an EPA approved TMDL, a watershed plan (e.g. TMDL alternative), or a statewide mercury reduction program consistent with EPA guidance.

For some impaired waters, the best path to restoration is the prompt implementation of a waterbody-specific TMDL or TMDLs. For many waters, however, the best path to restoration will be as part of a larger, watershed approach that results in completion of TMDLs for multiple waterbodies within a watershed and the development of a single implementation plan for restoring all the impaired waters in that watershed. EPA has identified some 4,800 small watersheds where one or more waterbodies are impaired and the watershed approach is being applied. The goal is to demonstrate how the Watershed Approach is working by showing a measurable improvement in 330 such watersheds by 2015 (see strategic target WQ-SP12.N11).

Regions are encouraged to use some or all of the following strategies in marshalling resources to support waterbody and watershed restoration:

- Realign water programs and resources as needed, including proposal of reductions in allocations among core water program implementation as reflected in commitments to annual program activity measure targets;

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- Coordinate waterbody restoration efforts with Section 319 funds reserved for development of watershed plans;
- Make effective use of state revolving funds provided under Title VI of the Clean Water Act;
- Make effective use of water quality planning funds provided under Section 604(b) of the Clean Water Act;
- Leverage resources available from other federal agencies, including the USDA;
- Apply funds appropriated by Congress for watershed or related projects; and
- A goal of the Assessment TMDL Tracking and Implementation System (ATTAINS) is to track several strategic plan measures. In a continuing effort to improve the ability of the ATTAINS data system to track measures using the 2002 baseline waters, EPA is working with Regions 4 and 8 to ensure that the 2002 baseline waters data available in ATTAINS accurately reflects the state reports. This quality assurance effort may result in corrections to the data component of the 2002 baseline. The goal is to have all corrections made by the time the FY 2012 NWPG commitment appendix is posted later this year and for ATTAINS to become the repository for measures WQ-21, WQ-SP10.N11, and WQ-SP11.

EPA also recognizes that additional impaired waters are not included on state 303(d) lists because the standards impairments may not require or be most effectively addressed through development and implementation of a TMDL. Many of these waters are identified in Categories 4b and 4c of state Integrated Reports – that is, where the impairment is being addressed through other pollution control requirements (4b), or where the impairment is not caused by a pollutant, per se, but rather by habitat degradation or other factors (4c). EPA and its partners should continue to work together to ensure that restoration efforts are focused on these waters as well as those on the 303(d) list, facilitate integration of activities to incorporate these waters into watershed plans, and identify mechanisms for tracking progress in restoring them.

Potential Future Measures for Improving Water Quality on a Watershed Basis

Incremental Progress in Restoring Water Quality

EPA has a suite of existing measures that track progress in water quality restoration:

- Previously impaired waters now fully attaining water quality standards (WQ-SP10.N11).
- Previously impaired waters for which a cause of impairment has been removed (WQ-SP11).
- Impaired watersheds with water quality improvement (WQ-SP12.N11).
- Net water quality restoration or maintenance by waterbody type (e.g., rivers, lakes) (WQ-SP13.N11 for wadeable streams).
- Impaired waters where initial restoration planning (e.g., TMDLs) is complete (WQ-21).

Existing measures, however, do not fully capture all types of restoration progress. Most waters take years to recover fully, and although incremental improvements represent progress these are currently not well represented. EPA has heard a strong message from states that new measures are needed to give credit for water quality improvement short of full WQS attainment. The

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major gap is tracking progress after TMDLs or other planning is complete, but before standards are fully met.

In August 2009, EPA worked with the Association of State and Interstate Water Pollution Control Administrators to establish an EPA/State workgroup to develop a set of indicator measures to track and report on the progress towards full attainment of water quality standards. The workgroup has developed two indicator measures. One measure tracks the development of comprehensive watershed plans that identify what is necessary to implement the nonpoint source elements of TMDLs, while the other measure tracks incremental improvements in water quality. The proposed indicator measures include:

Planning Measure WQ-21(b): The number of water segments identified as impaired in 2002 for which states and EPA agree that a 9-element watershed management plan is complete to restore surface water quality.

The current indicator measure (WQ-21(a), previously WQ-21) is being revised to track the development of 319 watershed management plans which 'round out' the planning component of the restoration pipeline. The development of watershed management plans is an important step in the restoration pipeline. This step establishes an implementation plan for the nonpoint source component of a TMDL, including the sources that need to be controlled, the practices that need to be implemented, and funding necessary to ensure implementation. It is important to note that the level of detail in watershed plans will vary from state and state, and EPA does not approve each state developed watershed plan. If this measure is adopted, EPA intends to develop ways to streamline reporting, including some means of ensuring that the plans developed meet some minimum level of acceptability. EPA does recognize and acknowledge that tracking segments that have a watershed management plan could become burdensome if the tools to track this information are not in place.

Additionally, the purpose of WQ-21(b) is to document the incremental progress in the water quality restoration process by reporting and tracking the first step, completion of nine element watershed management plans to meet standards. While the development of watershed management plans is an important step, tracking segments with watershed management plans through measure WQ-21(b) is not as progressive as tracking the actual implementation of the plans. Furthermore, most states should be judicious in devoting resources to developing plans and should not develop more plans than they can realistically implement within a reasonable timeframe. The Agency is soliciting comments on whether a state should receive credit under this measure only when the restoration measures and activities identified in the plans have been implemented.

Improving Measure: State demonstration of trends in improved water quality, i.e.,
(a) Percentage of monitoring stations showing improvement; and/or
(b) Percentage of waters in “healthy” or “good” condition based on state-wide statistical (probability) survey increases over time.

This indicator measure is being added to demonstrate trends in improved water quality. Note: This measure will only be reported on every 6 years. The first reporting year is 2014.

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EPA invites comments from states and other stakeholders on these proposed indicator measures. EPA and the State Workgroup will review the comments and determine if these measures will be included in the FY 2012 NWPG.

319 Program Accountability Study and Potential Measures

Nonpoint source pollution, caused by runoff that carries excess nutrients, pesticides, pathogens, toxics, and other contaminants to waterbodies, is the greatest remaining source of surface and ground water quality impairments and threats in the United States. Grants under Section 319 of the Clean Water Act (CWA) are provided to help states, territories, and tribes implement their EPA-approved nonpoint source (NPS) management programs. The programs are aimed to: (1) protect water quality by preventing or minimizing new NPS pollution, (2) improve impaired waters so that they ultimately meet water quality standards, (3) restore impaired waters so that they meet water quality standards, (4) improve or restore those waters with deteriorated water quality that may not have been formally assessed by a state and added to the state's Section 303(d) list of impaired waters. To better understand the effectiveness of various state NPS programs in reducing or eliminating nonpoint source pollution, EPA plans to work with state partners to complete a detailed study of how states are using section 319 resources to restore impaired waters, either via TMDL implementation or state/watershed scale implementation of NPS programs. Based on the results of the study, EPA will engage the states in developing recommendations on program revisions, as appropriate, to improve program accountability and ensure that states are using cost-effective approaches to protect and restore their waters.

The study will provide valuable information, such as the extent of use of state-wide non-regulatory and regulatory approaches to achieve broad-scale implementation or compliance for major issues (e.g. Animal Feeding Operations or Stormwater/LID), use of state-wide financial incentives/disincentives to achieve broad-scale implementation, effectiveness of state-wide leveraging authorities and resources of other agencies, and criteria used to fund state-wide programs and watershed projects. The Agency will consult states in various steps of the study and, ultimately, provide recommendations for potential program improvements, including establishment of metrics to increase accountability for NPS pollution reduction. EPA is soliciting comments on the concept, the type of data and analysis, and the consultation process that would be key to the success of the study.

C) Grant Program Resources

Key program grants that support this Subobjective are:

- The Clean Water Act Section 106 Water Pollution Control State Program grants;
- The Clean Water Act Section 319 State program grant for nonpoint pollution control, including set-aside for Tribal programs;
- Alaska Native Village Water and Wastewater Infrastructure grants;

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- CWSRF capitalization grants, including set-asides for planning under Section 604(b) of the Clean Water Act and for grants to tribes for wastewater treatment infrastructure.

For additional information on these grants, see the grant program guidance on the website (http://www.epa.gov/water/waterplan).

2) Improve Coastal and Ocean Waters

A) SUBOBJECTIVE: **Prevent water pollution and protect coastal and ocean systems to improve national coastal aquatic ecosystem health on the "good/fair/poor" scale of the National Coastal Condition Report. (Rating is a system in which 1 is poor and 5 is good.)**

2009 Baseline: 2.8	**2011 Commitment: 2.8**
2012 Target: 2.8	**2015 Target: 2.8**

(NOTE: Additional measures of progress are included in *Appendix A*.)

B) Key National Strategies

Estuaries, coastal waters, and oceans are among the most productive ecosystems on earth, providing multiple ecological, economic, cultural, and aesthetic benefits and services. They are also among the most threatened ecosystems, largely as a result of rapidly increasing population growth and development. About half of the U.S. population now lives in coastal areas, and coastal counties are growing three times faster than counties elsewhere in the nation. The overuse of natural resources and poor land use practices in upland as well as coastal areas have resulted in a host of human health and natural resource problems.

For FY 2012, EPA's national strategy for improving the condition of coastal and ocean waters will include the key elements identified below:

- Maintain coastal monitoring and assessment;
- Support state coastal protection programs;
- Implement the National Estuary Program (NEP); and
- Protect ocean resources.

Effective implementation of the national water quality program, as well as of the ocean and coastal programs described in this section, will increase the likelihood of achieving the national and regional objectives described below.

One important objective of the national strategy is to maintain a national coastal condition score of at least 2.8 -- the national baseline score in the 2009 in the *National Coastal Condition Report (NCCR) III* (see measure CO-222.N11). Another objective is to assess conditions in each major coastal region -- Northeast, Southeast, West Coast, Puerto Rico, Gulf of Mexico, Hawaii, and

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South Central Alaska and to work with states, tribes, and other partners over the next five years to at least maintain each region's coastal condition rating.

EPA works with diverse partners to implement region-specific protection and restoration programs. For example, EPA manages the National Estuary Program (NEP), the agency's flagship place-based water quality protection and restoration effort. In addition, EPA works to protect and restore coastal water quality with the states, tribes, and other partners in the Gulf of Mexico, Chesapeake Bay, New England, and along the West Coast. Some of these efforts are described in more detail in Part III of this *Guidance*.

1) Coastal Monitoring and Assessment

EPA has made improved monitoring of water quality conditions a top priority for coastal as well as inland waters. Some of these data were collected by the *OSV Bold*. In FY 2010, states completed field sampling under EPA's National Coastal Condition Assessment program. Results of the sampling will serve as the basis for the *National Coastal Condition Report V (NCCR V)*. In FY 2012, states will analyze sampling data and the National Water Program will work with states, tribes, and EPA's Office of Research and Development to draft the *NCCR V*, which is planned for release in 2012. Building on coastal condition assessment reports issued in 2001, 2004, 2008 and on the *NCCR IV* now scheduled for release in 2011, the *NCCR V* will describe the health of major marine eco-regions along the coasts of the U.S. and will depict assessment trends for the nation and for individual marine eco-regions. The coastal condition assessments are the basis for the measures of progress in estuarine and coastal water quality used in the current EPA *Strategic Plan*.

2) State Coastal Programs

States play a critical role in protection of coastal waters through the implementation of core Clean Water Act programs, ranging from permit programs to financing of wastewater treatment plants. States also lead the implementation of efforts to assure the high quality of the nation's swimming beaches; including implementation of the BEACH Act (see the Water Safe for Swimming Subobjective).

In FY 2012, EPA will coordinate with states interested in establishing "no discharge zones" to control vessel sewage. EPA will track total coastal and noncoastal statutory square miles protected by "no discharge zones" (see Program Activity Measure CO-2).

3) Implement the National Estuary Program

The NEP is a local stakeholder-driven, collaborative, voluntary estuarine protection and restoration program. There are currently 28 estuaries of national significance along the east, west, and Gulf of Mexico coasts. During FY 2012, EPA will continue supporting the NEPs' implementation of their individual Comprehensive Conservation and Management Plans (CCMPs). EPA also tracks the annual and cumulative amount of cash and in-kind resources that NEP directors and/or staff played a key role in obtaining. The

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measure depicts the level of resources leveraged by the CWA Section 320 base grants annually provided to the NEPs (see Program Activity Measure CO-4).

Since the overall health of the nation's estuarine ecosystems depends on the protection and restoration of high-quality habitat, EPA also tracks the number of habitat acres that the NEPs annually protect and restore in their estuarine watersheds, or study areas. The numbers appear as environmental outcome measures under the Ocean/Coastal Subobjective. EPA has set a FY 2012 goal of protecting or restoring an additional 100,000 acres of habitat within the NEP study areas.

Estuaries in the National Estuary Program

Albemarle-Pamlico Sounds, NC	Galveston Bay, TX	New York/New Jersey Harbor, NY/NJ
Barataria-Terrebonne, LA	Indian River Lagoon, FL	Peconic Bay, NY
Barnegat Bay, NJ	Long Island Sound, NY/CT	Puget Sound, WA
Buzzards Bay, MA	Maryland Coastal Bays, MD	San Francisco Bay, CA
Casco Bay, ME	Massachusetts Bay, MA	San Juan Bay, PR
Charlotte Harbor, FL	Mobile Bay, AL	Santa Monica Bay, CA
Coastal Bend Bays & Estuaries, TX	Morro Bay, CA	Sarasota Bay, FL
Lower Columbia River, OR/WA	Narragansett Bay, RI	Tampa Bay, FL
Delaware Estuary, DE/NJ	New Hampshire Estuaries, NH	Tillamook Bay, OR
Delaware Inland Bays, DE		

4) ***Ocean Protection Programs***

The Marine Protection, Research, and Sanctuaries Act (MPRSA, also called the Ocean Dumping Act) is the primary federal environmental statute governing transportation of dredged material and other material for the purpose of disposal into ocean waters, while Clean Water Act (CWA) Section 404 governs the discharge of dredged or fill material into "waters of the United States." Several hundred million cubic yards of sediment are dredged from waterways, ports, and harbors every year to maintain the nation's navigation system. This sediment must be disposed without causing adverse effects to the marine environment. EPA and the U.S. Army Corps of Engineers (USACE) share responsibility for regulating how and where the disposal of dredged sediment occurs.

EPA and USACE will focus on improving how disposal of dredged material is managed, including designating and monitoring disposal sites, involving local stakeholders in planning to reduce the need for dredging (see Program Activity Measure CO-5), and increasing the beneficial use of dredged material. EPA will use the capability provided by the *OSV Bold* to monitor compliance with environmental requirements at ocean disposal sites (see Program Activity Measure CO-6). In addition, the *Strategic Plan* includes a measure of the percent of active ocean dredged material disposal sites that have achieved environmentally acceptable conditions (see CO-SP20.N11).

One of the greatest threats to U.S. ocean waters and ecosystems is the uncontrolled spread of invasive species. A principal way invasive species are introduced or spread in U.S. waters is through the discharge of ballast water from ships. In FY 2012, EPA will continue to participate on the Aquatic Nuisance Species Task Force, work with other

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agencies on ballast water discharge standards or controls (both through EPA's Vessel General Permit and coordination with U.S. Coast Guard regulatory efforts under the Nonindigenous Aquatic Nuisance Prevention and Control Act as amended), and participate in activities with other nations for effective international management of ballast water.

In July of 2008, Congress passed the Clean Boating Act of 2008 (P.L. 110-228) amending the Clean Water Act (CWA) to provide that no National Pollutant Discharge Elimination System (NPDES) permits shall be required under the CWA for discharges incidental to the normal operation of recreational vessels. Instead, the Act directs EPA to establish management practices and associated standards of performance for such discharges (except for vessel sewage, which is already regulated by the CWA). EPA is developing those regulations.

C) Grant Program Resources

Grant resources directly supporting this work include the National Estuary Program grants and coastal nonpoint pollution control grants under the Coastal Nonpoint Pollution Control Program administered jointly by EPA and the NOAA (Section 6217 grant program). In addition, clean water program grants identified under the watershed subobjective support this work. For additional information on these grants, see the grant program guidance on the website (http://www.epa.gov/water/waterplan).

D) A Strategy for Addressing Climate Change

Support Evaluation of Sub-seabed and Ocean Sequestration of CO2
EPA will work with other interested agencies and the international community to develop guidance on sub-seabed carbon sequestration and will address any requests for carbon sequestration in the sub-seabed or "fertilization" of the ocean, including any permitting under the Marine Protection, Research, and Sanctuaries Act (MPRSA) or the Underground Injection Control program that may be required.

"Climate Ready Estuaries"
EPA will continue to build capacity within the National Estuary Program (NEP) to adapt to the changes from climate change on the coast. EPA will provide additional assistance to individual NEPs to support their work to develop adaptation plans for their study areas or technical assistance to support implementation of those plans. Climate Ready Estuaries will continue to revise and improve the internet based tool kit as a resource for other coastal communities working to adapt to climate change.

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3) Increase Wetlands

A) SUBOBJECTIVE: **Working with partners, achieve a net increase of wetlands nationwide, with additional focus on coastal wetlands, and biological and functional measures and assessment of wetland condition.**

(Note: Additional measures of progress are identified in *Appendix A*.)

B) Key National Strategies

Wetlands are among the nation's most critical and productive natural resources. They provide a variety of benefits, such as water quality improvements, flood protection, shoreline erosion control, and ground water exchange. Wetlands are the primary habitat for fish, waterfowl, and wildlife, and as such, provide numerous opportunities for education, recreation, and research. EPA recognizes that the challenges the nation faces to conserve our wetland heritage are daunting and that many partners must work together in order for this effort to succeed.

By 1997, the United States has lost more than 115 million acres of wetlands[5] to development, agriculture, and other uses. Today, the U.S. may be entering a period of annual net gain of wetlands acres for some wetland classes. Still, many wetlands in the U.S. are in less than pristine condition and many created wetlands, while beneficial, fail to replace the diverse plant and animal communities of wetlands lost.

The 2006 *National Wetlands Inventory Status and Trends Report*[6], released by the U.S. Fish and Wildlife Service (FWS), reports the quantity and type of wetlands in the conterminous United States. Although the report shows that overall gains in wetland acres exceeded overall losses from 1998 through 2004, this gain is primarily attributable to an increase in un-vegetated freshwater ponds, some of which (such as aquaculture ponds) may not provide wetlands services and others of which may have varying ecosystem value. The report notes the following trends in other wetland categories: freshwater vegetated wetlands declined by 0.5%, a smaller rate of loss than in preceding years; and estuarine vegetated wetlands declined by 0.7%, an increased rate of loss from the preceding years. The report does not assess the quality or condition of wetlands. The FWS expects to issue an updated report in the Spring of FY 2011. In addition the Status and Trends report, EPA is working with states, FWS, and other federal agencies to complete a National Wetland Condition Assessment by 2013 to effectively complement the FWS Status and Trends Reports and provide, for the first time, a snapshot of baseline wetland condition for the conterminous U.S.

[5] Dahl, T.E. 2000. Status and trends of wetlands in the conterminous United States 1986 to 1997. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

[6] Dahl, T.E. 2006. Status and trends of wetlands in the conterminous United States 1998 to 2004. U.S. Department of the Interior; Fish and Wildlife Service, Washington, D.C.

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In a 2008 follow-up report[7], the National Oceanic and Atmospheric Administration's National Marine Fisheries Service, in cooperation with the U.S. Fish and Wildlife Service, analyzed the status and recent trends of wetland acreage in the coastal watersheds of the United States adjacent to the Atlantic Ocean, Gulf of Mexico, and Great Lakes between 1998 and 2004. Results indicate that Gulf of Mexico and Atlantic coast watersheds experienced a net loss in wetland area at an average annual rate of about 60,000 acres over the 6-year study period. The fact that coastal watersheds were losing wetlands despite the national trend of net gains during the same study period points to the need for more assessment on the natural and human forces behind these trends and to an expanded effort on conservation of wetlands in these coastal areas. This point was highlighted in a 2008 report on wetland conservation by the Council on Environmental Quality. To that end, EPA, FWS, NOAA's National Marine Fisheries Service and Coastal Resources Center, the Army Corps of Engineers, USDA's Natural Resource Conservation Service, and the Federal Highway Administration have begun working in partnership to determine the specific causes of this coastal wetland loss and to more specifically understand the tools, policies, and practices to successfully address it.

In FY 2012, EPA will continue a multi-agency effort to comprehensively review and evaluate policy and practice for permitting mountaintop mining operations with the goal of reducing the harmful environmental effects of Appalachian surface coal mining. The multi-faceted initiative involves enhanced environmental review and coordination with the Army Corps of Engineers on Clean Water Act Section 404 permits, more rigorous review of CWA Section 402 permits, coordination with the Office of Surface Mining (OSM) on Surface Mining Control and Reclamation (SMCRA) permits, and several significant technical documents and Clean Water Act policy actions to guide future practice in Appalachian surface coal mining. Policy actions include: publication of a rule addressing fill material, support improved and strengthened state oversight of proposed permits using state 401 water quality certification authority, consider other regulatory and/or policy modifications to better protect the environment and public health from the impacts of Appalachian surface coal mining, and improve compensatory mitigation for stream and wetland impacts from permitted mining activities.

EPA's Wetlands Program combines technical and financial assistance to state, tribal, and local partners with outreach and education, in addition to wetlands regulation under Section 404 of the Clean Water Act for the purpose of restoring, improving and protecting wetlands in the U.S. Objectives of EPA's strategy include helping states and tribes build wetlands protection program capacity and integrating wetlands and watershed protection. Through a collaborative effort with our many partners culminating in a May 2008 report, EPA's Wetlands Program articulated a set of national strategies in the areas of monitoring, state and tribal capacity, regulatory programs, jurisdictional determinations, and restoration partnerships. These strategies are in part reflected in the following measures.

1) No Net Loss: EPA contributes to achieving no overall net loss of wetlands through the wetlands regulatory program established under Section 404 of the Clean Water Act (CWA). The U.S. Army Corps of Engineers (USACE) and EPA jointly administer the

[7] Stedman, S. and T.E. Dahl. 2008. Status and trends of wetlands in the coastal watersheds of the Eastern United States 1998 to 2004. National Oceanic and Atmospheric Administration, National Marine Fisheries Service and U.S. Department of the Interior, Fish and Wildlife Service.

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Section 404 program, which regulates the discharge of dredged or fill material into waters of the United States, including wetlands. EPA tracks performance through budget measure WT-SP22.

EPA will continue to work with USACE to ensure application of the Section 404(b)(1) guidelines which require that discharges of dredged or fill material into waters of the U.S. be avoided and minimized to the extent practicable and unavoidable impacts are compensated for. EPA regions should identify whether the Corps issuing a Section 404 permit would result in adverse human health or environmental effects on low-income and minority populations, including impacts to water supplies and fisheries. Where such effects are likely, EPA regions should suggest ways and measures to avoid and/or mitigate such impacts through comments to the Corps. In FY 2012, EPA will continue to track the effectiveness of EPA's environmental review of CWA Section 404 permits (see Program Activity Measure WT-3). Each EPA region will also identify opportunities to partner with the Corps in meeting performance measures for compliance with 404(b)(1) guidelines. At a minimum, these include:

- Environmental review of CWA Section 404 permits to ensure wetland impacts are avoided and minimized;
- Ensure when wetland impacts cannot be avoided under CWA Section 404 permits, that the unavoidable impacts are compensated for;
- Participation in joint impact and mitigation site inspections, and Interagency Review Team activities;
- Assistance on development of mitigation site performance standards and monitoring protocols; and
- Enhanced coordination on resolution of enforcement cases.

2) Net Gain Goal: Meeting the "net gain" element of the wetland goal is primarily accomplished by other federal programs (Farm Bill agriculture incentive programs and wetlands acquisition and restoration programs, including those administered by U.S. Fish and Wildlife Service) and non-federal programs. EPA will work to improve levels of wetland protection by states and via EPA and other federal programs through actions that include:

- Working with and integrating wetlands protection into other EPA programs such as Clean Water Act Section 319, State Revolving Fund, National Estuary Program, and Brownfields;
- Providing grants and technical assistance to state, tribal, or local organizations;
- Developing technical assistance and informational tools for wetlands protection; and
- Collaborating with USDA, DOI, NOAA, and other federal agencies with wetlands restoration programs to ensure the greatest environmental outcomes.

For FY 2012, EPA expects to track the following key activities for accomplishing its wetland goals:

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Wetlands Restored and Enhanced Through Partnerships: EPA will track this commitment as a sub-set of the overall net gain goal and will track and report the results separately under Program Activity Measure WT-1. These acres may include those supported by Wetland Five-Star Restoration Grants, the National Estuary Program, Section 319 nonpoint source grants, Brownfield grants, EPA's Great Waterbody Programs, and other EPA programs. This does not include enforcement or mitigation acres. EPA greatly exceeded its target for this Program Activity Measure in 2009 and 2010, mainly due to unexpected accomplishments from National Estuary Program enhancement projects. Based on five year trend data, the target will be at 170,000 cumulative acres for FY 2011, as measured against a FY 2005 baseline.

State/Tribal Programs: A key objective of EPA's wetlands program is building the capacity of states and tribes in the following core elements of a wetlands program: wetland monitoring; regulation including 401 certification; voluntary restoration and protection; and water quality standards for wetlands. EPA is enhancing its support for state and tribal wetland programs by providing more directed technical assistance and making refinements to the Wetland Program Development Grants. Program Activity Measures WT-2a and WT-2b reflect EPA's goal of increasing state and tribal capacity in these core wetland management areas. In reporting progress under measures WT-2a and WT-2b, EPA will assess the number of states and tribes that have substantially increased their capacity in one or more core elements, as well as track those core elements that states and tribes have developed to a point where they are fully functional. This is an indicator measure.

Regulatory Program Performance: EPA and the Corps of Engineers have partnered to develop and refine a Clean Water Act Section 404 permit database (ORM 2.0) that enables more insightful data collection on the performance of the Section 404 regulatory program. Using ORM 2.0 as a data source, Program Activity Measure WT-3 documents the annual percentage of 404 standard permits where EPA coordinated with the permitting authority and that coordination resulted in an environmental improvement in the final permit decision. This measure will remain an indicator until enough data is collected to define a meaningful target. This is also an indicator measure.

Wetland Monitoring: In 2006, EPA issued "The Elements of a State Wetlands Monitoring and Assessment Program" to assist EPA and state program managers in planning and implementing a wetland monitoring and assessment program within their broader water quality monitoring efforts. Since that time, EPA has worked actively with states and tribes to advance wetlands monitoring and the use of assessment data to better manage wetland resources. EPA chairs the National Wetlands Monitoring and Assessment Work Group, comprised of more than 35 states and tribes along with other federal agencies, to provide national leadership in implementing state and tribal wetlands monitoring strategies. The Work Group played a prominent role in informing the design of the National Wetland Condition Assessment (NWCA). The NWCA will provide the first statistically valid assessment of the ecological condition of the nation's wetlands, providing a baseline data layer that could be used in subsequent years to gauge changes in wetland condition and potentially the impacts of climate change on wetland ecological

integrity. Field work will be concluded in 2011, with data analysis scheduled for 2012. The final NWCA report is expected in 2013.

EPA will continue to work with states and tribes to build the capability to monitor trends in wetland condition as defined through biological metrics and assessments. At the end of FY 2010, 22 states were measuring and reporting baseline wetland condition in the state using condition indicators and assessments (see Program Activity Measure WT-4). By the end of FY 2012, EPA projects at least 26 states will be doing the same. States should also have plans to eventually document trends in wetland condition over time. Examples of activities indicating the state is "on track" include, but are not limited to:

- Building technical and financial capacity to conduct an "intensification study" as part of the 2011 National Wetland Condition Assessment;
- Developing or adapting wetland assessment tools for use in the state;
- Monitoring activity is underway for wetland type(s)/watershed(s) stated in strategy or goals; and
- Developing a monitoring strategy with a goal of evaluating baseline wetland condition. Baseline condition may be established using landscape assessment (Tier 1), rapid assessment (Tier 2), or intensive site assessment (Tier 3).

C) Grant Program Resources

Examples of grant resources supporting this work include the Wetland Program Development Grants, Five Star Restoration Grants, the Clean Water Act Section 319 Grants, the Brownfields grants, and the National Estuary Program Grants. For additional information on these grants, see the grant program guidance on the website (http://www.epa.gov/water/waterplan). In addition, some states and tribes have utilized Clean Water Act Section 106 funds for program implementation, including wetlands monitoring and protection projects.

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IV. STRATEGIES TO PROTECT COMMUNITIES AND LARGE AQUATIC ECOSYSTEMS

The core programs of the Clean Water Act and Safe Drinking Water Act are essential for the protection of the nation's drinking water and fresh waters, coastal waters, and wetlands. At the same time, additional, intergovernmental efforts are sometimes needed to protect and restore communities and large aquatic ecosystems around the county. For many years, EPA has worked with state and local governments, tribes, and others to implement supplemental programs to restore and protect the Great Lakes, the Chesapeake Bay, the Gulf of Mexico, and the waters along the U.S.-Mexico Border. More recently EPA has developed new, cooperative initiatives addressing Long Island Sound, South Florida, Puget Sound, the Columbia River, San Francisco Bay Delta Estuary, and the waters of the Pacific Islands.

1) Improve the Health of the Great Lakes

A) ***SUBOBJECTIVE:*** **Improve the overall ecosystem health of the Great Lakes by preventing water pollution and protecting aquatic ecosystem (using the Great Lakes 40-point scale).**

2005 Baseline:	**21.5 points**
2009 Result	**23.9**
2010 Result:	**22.7**
2011 Commitment:	**23.4**
2012 Target:	**23.9**
2014 Target:	**24.7**

(Note: Additional measures of progress are identified in *Appendix A.*)

B) ***Key Strategies***

As the largest surface freshwater system on the face of the earth, the Great Lakes ecosystem holds the key to the quality of life and economic prosperity for tens of millions of people. While significant progress has been made to restore the environmental health of the Great Lakes, much work remains to be done.

During 2010, the U.S. Environmental Protection Agency (EPA) began implementing President Obama's Great Lakes Restoration Initiative (GLRI), the largest investment in the Great Lakes in decades. The GLRI invests in the region's environmental and public health through a coordinated interagency process led by EPA. As outlined in the GLRI Action Plan released by the Administrator and governors, this unprecedented program focuses on five major restoration priorities: (1) reducing toxic substances and restoring Areas of Concern; (2) advancing a "zero tolerance" policy toward invasive species; (3) improving near-shore health and reducing non-point source pollution; (4) restoring and protecting habitat, including reducing species loss; and

(5) ensuring the information, engagement, and accountability in the program overall. In FY 2012, the President has proposed $350 million for the Initiative to strategically implement both federal projects and projects with states, tribes, municipalities, universities, and other organizations.

The Action Plan identifies goals, objectives, measurable ecological targets, and specific actions for each of the five focus areas identified above. The Action Plan is used by federal agencies in the development of the federal budget for Great Lakes restoration in fiscal years 2012 and beyond. As such, it serves as guidance for collaborative restoration work with participants to advance restoration. The Action Plan also helps advance the Great Lakes Water Quality Agreement with Canada. Traditional infrastructure financing under Clean and Drinking Water State Revolving Funds, and Superfund cleanup enforcement are important examples of work which, though outside the Initiative's scope, will also continue to be essential to Great Lakes protection and restoration. EPA is working with states and tribes to ensure that these high priority activities are targeted to help further clean up the Great Lakes.

Under the Initiative, EPA will administer funding individually and with other federal agencies to implement priority federal projects as well as other programs undertaken by nonfederal entities that support the Action Plan. Funding will be provided through grants and cooperative agreements or through interagency agreements that allow the transfer of funds to other federal agencies for subsequent use and distribution. Most grants will be issued competitively. The principles of accountability, action, and urgency underlie the Action Plan.

Continued progress is dependent on continued work to implement core Clean Water Act programs and appropriately targeted supplementation of those programs. These programs provide a foundation of water pollution control that is critical to the success of efforts to restore and protect the Great Lakes. While the Great Lakes face a range of unique pollution problems (extensive sediment contamination and atmospheric deposition) they also face problems common to most other waterbodies around the country. Effective implementation of core programs, such as discharge permits, nonpoint pollution controls, wastewater treatment, wetlands protection, and appropriate designation of uses and criteria, must be fully and effectively implemented throughout the Great Lakes Basin.

In its third year, the GLRI will support programs and projects strategically chosen to target the most significant environmental problems in the Great Lakes ecosystem through direct program implementation by EPA and Interagency Task Force members. This will be accomplished by issuing grants and other agreements to states, tribes, municipalities, universities, and other organizations. Guided by the GLRI Action Plan, Agencies are shifting efforts for a stronger emphasis on implementation actions and results in the Initiative's focus areas. A special focus is being placed on restoring Areas of Concern (AOC) throughout the Basin, using Great Lakes Legacy Act (GLLA) cleanups of contaminated sediments to address beneficial use impairments (BUIs). Programs and projects expected to be initiated in FY 2012 are selected via a planning process conducted through the Great Lakes Interagency Task Force. This process includes competitive grant programs to implement the Initiative by funding states, tribes, and other partners. Key activities expected to advance environmental progress within each of the Initiative's focus areas are described below:

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- **Toxic Substances and Areas of Concern**: EPA is working closely with non-federal partners to address beneficial use impairments in Areas of Concerns, including GLLA clean-ups of contaminated sediments.
- **Invasive Species:** GLRI has supported priority Asian carp work including; the installation of structures by the U.S. Army Corps of Engineers' (USACE) at the electric barrier site to reduce the risk of bypass by Asian carp; and Fish and Wildlife Service (FWS) and Illinois Department of Natural Resource efforts to detect and remove Asian Carp from the system. As needed, GLRI will invest in efforts to keep Asian carp from becoming established in the Great Lakes through the support of priorities, such as the development of Ballast Water Treatment technologies; assistance to states and communities in preventing the introduction of invasive species and controlling existing populations; establishing early detection and rapid response capabilities; and the implementation of Aquatic Nuisance Species Management Plans by the FWS partnership.
- **Nearshore Health and Nonpoint Source**: Watershed plans will be implemented by EPA, U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS), FWS, USGS, state programs, and tribal governments. Additionally, GLRI funds have been marked for NRCS to work directly with agricultural producers in targeted watersheds to implement conservation practices to reduce soil erosion and non-point source nutrient loading to waters of the Great Lakes Basin.
- **Habitat and Wildlife Protection and Restoration**: GLRI funds will support an FWS led multistate, bi-national recovery program to manage extinction threats to the endangered piping plover; U.S. Forest Service projects that replace culverts and road crossings in order to improve fish passage; BIA wetland restoration projects in tribal areas; restoration of degraded habitats in AOCs; and USACE and NOAA programs to assist local communities in implementing habitat restoration projects in coastal areas.
- **Accountability, Education, Monitoring, Evaluation, Communication, and Partnerships**: EPA and partner agencies will enhance existing programs that measure and assess the physical, biological, and chemical integrity of the Great Lakes. EPA will continue to refine the Great Lakes Accountability System, the publicly accessible database which partner agencies use to regularly report on their progress to meet the objectives the GLRI Action Plan.

Progress will be tracked against measures of progress in each Focus Area, including:

Toxic Substances and Areas of Concern

- Implementation of management actions necessary for delisting Great Lakes Areas of Concern.
- Removal of Beneficial Use Impairments.
- Remediation of contaminated sediments.
- Cumulative decline of PCBs in Great Lakes fish.

Invasive Species

- Number of nonnative species newly detected in the Great Lakes ecosystem.
- Acres managed for populations of invasive species controlled to a target level.

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- Number multi-agency rapid response plans established, mock exercises to practice responses carried out under those plans, and/or actual response actions.

Nearshore Health and Nonpoint Source Pollution

- Loadings of soluble reactive phosphorus from tributaries draining targeted watersheds.
- Percent of days of the beach season that Great Lakes beaches monitored by state beach safety programs are open and safe for swimming.
- Acres in the Great Lakes watershed with USDA conservation practices implemented to reduce erosion, nutrients, and/or pesticide loading.

Habitat and Wildlife Protection and Restoration

- % of populations of native aquatic non-threatened and endangered species self-sustaining in the wild.
- Number of acres of wetlands and wetland-associated uplands protected, restored and enhanced.
- Number of acres of coastal, upland, and island habitats protected, restored and enhanced.
- Number of species delisted due to recovery.

Accountability, Education, Monitoring, Evaluation, Communication and Partnerships

- Improvement in the overall aquatic ecosystem health of the Great Lakes using the Great Lakes 40-point scale.

C) Grant Program Resources:

Most EPA grants will be issued competitively in support of progress in the GLRI Action Plan focus areas. Other members of the Interagency Task Force are also expected to select proposals, issue grants, and provide other assistance with funding from the Initiative.

In addition, the Great Lakes National Program Office negotiates grants resources with states and tribes, focusing on joint priorities, such as AOC restoration, pursuant to Remedial Action Plans, and Lakewide Management Plans implementation. Additional information concerning these resources is provided in the grant program guidance website (http://www.epa.gov/glnpo/fund/glf.html). This website also links to information requesting proposals for monitoring and evaluation of contaminated sediments or for remediation of contaminated sediments, a non-grant program pursuant to the Great Lakes Legacy Act.

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2) Improve the Health of the Chesapeake Bay

***A) SUBOBJECTIVE:* Improve the Health of the Chesapeake Bay Ecosystem.**

(Note: Measures of progress are identified in *Appendix A*.)

B) Key Strategies

The Chesapeake Bay – the largest estuary in the United States – is a complex ecosystem that includes important habitats and food webs. The Chesapeake Bay watershed stretches across more than 64,000 square miles, encompassing parts of Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia and the entire District of Columbia. Threading through the Bay watershed are more than 100,000 tributaries that flow into the Bay. The community, environmental, and economic health and vitality of the Bay and its watershed are all impacted by the quality of the Bay's waters and the biological, physical, and chemical conditions of the Bay watershed.

The Chesapeake Bay Program (CBP) is a unique regional partnership that has coordinated and conducted the restoration of the Chesapeake Bay since 1983. CBP partners include the states of Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia; the District of Columbia; the Chesapeake Bay Commission (CBC); the Environmental Protection Agency, representing the federal government; and advisory groups of citizens, scientists, and local government officials. EPA is the lead federal agency on the Chesapeake Executive Council (EC). In addition to the EPA Administrator, the EC consists of the governors of Maryland, Virginia, and Pennsylvania, the mayor of the District of Columbia, the chair of the Chesapeake Bay Commission, and for the past few years, the Secretary of Agriculture and the Governors of New York, West Virginia, and Delaware have been invited to participate.

In the last 25 years, the CBP partners have achieved important progress:

- Adopted the nation's first consistent water quality standards and assessment procedures, prompting major state and local investments in nutrient removal technologies across hundreds of wastewater treatment facilities;
- Established nutrient management plans on more than 3 million farmland acres;
- Preserved more than 1 million acres of forests, wetlands, farmland and other natural resources, meeting the Program's Land Preservation goal two years early;
- Developed science, data monitoring, models, and measures that are recognized as some of the best and most extensive in the country and often around the world;
- Placed moratoria on striped bass harvests, leading to restoration of the stock that supports 90 percent of the Atlantic Coast population;
- Advanced use of conservation tillage, now practiced on more than 2 million acres;
- Planted nearly seven thousand miles of streamside forested buffers;
- Restored nearly 14 thousand acres of wetlands; and

- Removed blockages to more than 2 thousand miles of spawning grounds to help restore migratory fish.

Despite 25 years of progress, the health of the Bay and its watershed remains in poor condition.

In May 2009, the EC pledged to get all Bay management mechanisms necessary to restore the Bay in place by 2025 and agreed to use short-term goals, called milestones, to increase restoration work. Every two years, the six states and D.C. will meet milestones for implementing measures to reduce pollution, with the first set of milestones due in December 2011.

On May 12, 2009, President Obama signed Executive Order (EO) 13508 on Chesapeake Bay Protection and Restoration. The EO has brought the Chesapeake Bay Program to a new level of interagency coordination and cooperation. The EO establishes the purpose of concerted, coordinated federal agency action: "to protect and restore the health, heritage, natural resources and economic value of the Nation's largest estuarine ecosystem and the natural sustainability of its watershed."

On May 12, 2010, in response to EO 13508, EPA and the other federal agencies, identified in the EO, released a strategy to coordinate, expand, and bring greater accountability to efforts to help speed the Bay's recovery. The coordinated strategy defines environmental goals and milestones, identifies key indicators of progress, describes specific programs and strategies to be implemented, identifies mechanisms to ensure coordinated and effective activities, and outlines adaptive management to make necessary adjustments.

In June 2010, EPA launched Chesapeake*Stat*, a systematic process within the partnership for analyzing information and data to continually assess progress towards goals and adapt strategies and tactics when needed. It includes a public website that promotes improved accountability, fosters coordination, and promotes transparency by sharing performance information on goals, indicators, strategies, and funding.

In September 2010, the EO agencies released their first annual action plan with more detailed information about the EO strategy initiatives to be undertaken in 2011. This will be followed in early 2012 by the first annual EO progress report. Federal agencies will join the states in establishing two-year milestones with many federal efforts designed to support the state and the District in meeting their current and future water quality milestones. Federal agencies will also develop appropriate two-year milestones for other outcomes outlined in the strategy, beyond those for water quality.

On December 29, 2010, EPA established the Chesapeake Bay Total Maximum Daily Load (TMDL), a historic and comprehensive "pollution diet" with rigorous accountability measures to initiate sweeping actions to restore clean water in the Chesapeake Bay and the region's streams, creeks, and rivers. The TMDL was prompted by insufficient restoration progress over the last several decades in the Bay. The TMDL is required under federal law and responds to consent decrees in Virginia and D.C. dating back to the late 1990s. It is also a keystone commitment of the EO strategy. The TMDL – the largest ever developed by EPA – includes pollution limits to

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meet water quality standards in the Bay and its tidal rivers. The TMDL is designed to ensure that all pollution control measures to fully restore the Bay and its tidal rivers are in place by 2025, with 60 percent of the actions completed by 2017. The TMDL is supported by rigorous accountability measures to ensure cleanup commitments are met, including short-and long-term benchmarks, a tracking and accounting system for jurisdiction activities, and federal contingency actions that can be employed if necessary to spur progress.

The Year Ahead: Challenges and Opportunities

EPA's focus in FY 2012 will be to continue to improve the rate of progress in restoring the Chesapeake Bay by meeting the President's expectations as described in EO 13508, using the agency's existing statutory authority, developing more rigorous regulations, providing states with the tools necessary for effective regulatory implementation, creating better tools for scientific analysis and accountability, and supporting regulatory compliance and enforcement.

EPA will work with the states to build and refine a transparent accountability system. This system is expected to provide EPA, the states, local governments, and the public a clear understanding of how the TMDL is being implemented and attained through appropriate point and nonpoint source controls to meet the basin-jurisdiction loading targets identified in two-year milestones. The system is also expected to track any offsets that are relied upon to achieve the TMDL allocations and build appropriate accountability for implementation of such offsets.

EPA monitoring of the states' progress under the TMDL will include evaluation of whether the states two-year milestones are consistent with the expectations and the load and wasteload allocations in the TMDL. EPA will also monitor whether a jurisdiction has implemented point and nonpoint source controls to meet the basin-jurisdiction loading targets identified in its two-year milestones.

The EO specifically cites the need for strengthening the scientific support for actions to better protect and restore the water quality and ecological integrity of the entire Bay watershed, and calls for focused and coordinated habitat and research activities directed toward living resources and water quality. EPA is working with the other CBP partners to expand the scientific capabilities of the program. New decision support tools and an expanded set of models will allow for better prioritization and adjustment of management activities.

In FY 2012, EPA will use its technical and scientific analysis capabilities to provide implementation support and guidance to the states and thousands of local governments that will be affected by the TMDL. EPA will assist these jurisdictions in making scientifically informed determinations of the most effective ways to meet their TMDL obligations that will provide individually tailored solutions. EPA has committed to reducing air deposition of nitrogen to the tidal waters of the Bay from 17.9 to 15.7 million pounds per year through federal air regulations during the coming years.

In FY 2012, EPA also will continue the development and implementation of new regulations to protect and restore the Chesapeake Bay. EPA will initiate rulemakings under the Clean Water Act to reduce nitrogen, phosphorus, and sediment pollution in the Bay from concentrated animal

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feeding operations, stormwater discharges from new and redeveloped properties, new or expanded discharges, and other pollutant discharges as necessary.

EPA will use its resources to develop the scientific underpinnings of the new regulations, which likely will include enhanced understanding of the loads contributed by various pollution sources in specific geographies. EPA's Air and Radiation program is developing three rules that could affect ambient air levels of NOx and therefore the deposition of nitrogen in the Chesapeake Bay: 1) a replacement rule for the court-remanded Clean Air Interstate Rule; 2) the reconsideration of the ozone standard that was promulgated in 2008; and 3) a secondary standard for oxides of nitrogen and sulfur.

To ensure that the states are able to meet EPA's expectations under the TMDL and new rulemakings, EPA will continue and in some cases expand its broad range of grant programs. EPA will direct investments toward key local governments and watershed organizations based on their ability to reduce nutrient and sediment loads via key sectors, such as development and agriculture in urban and rural areas. Most significantly, EPA will continue funding for state implementation and enforcement.

Ensuring that the regulated community complies with the appropriate regulations is an essential responsibility for achieving the goals established for the Chesapeake Bay and its watershed. In FY 2012, the Enforcement and Compliance Assistance program will use its Bay-related resource allocation to focus on sectors contributing significant amounts of nutrients, sediment and other contaminants to impaired watersheds in the Bay, including CAFOs, stormwater point source discharges (including discharges from municipal separate storm, sewer systems, stormwater discharges from construction sites and other industrial facilities), municipal and industrial wastewater facilities, and air deposition sources of nitrogen, including power plants. EPA also will identify appropriate opportunities for compliance and enforcement activities related to dredge and fill operations, federal facilities, and Superfund sites, including remedial action and removal sites, and Resource Conservation and Recovery Act (RCRA) corrective action facilities.

More specifically, EPA's compliance and enforcement actions will be focused on the following areas:

- Superfund and RCRA: Elizabeth River; Anacostia River; and Patapsco River (Baltimore Harbor);
- CAFOs: three geographic areas that represent the greatest contributions of manure-based agriculture nutrient loads to the Bay;
- Wastewater: significant wastewater facilities under permit schedules for upgrading treatment;
- Stormwater: permit non-compliance related to municipal separate storm sewer systems (MS4s), construction activity and priority industrial sectors within geographic hot-spots that are critical to restoration of the Bay; and
- Air deposition: stationary sources and mobile sources at port facilities, warehouses, and construction sites within the Chesapeake Bay airshed.

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In addition, enforcement resources will support the Agency's priority to restore the Chesapeake Bay by providing information about wet weather sources of pollution. This will result in an increase in knowledge, use, transparency, and public access to data about wet weather sources through: a) building an electronic reporting module for getting non-major permit data into ICIS-NPDES to pilot with states in the Chesapeake Bay; b) building and deploying targeting tools to help identify the most significant sources of noncompliance and discharges of pollutants most responsible for the impairment of this important water body; and c) making all non-enforcement confidential data available, with easy-to-use tools to aid in the public's ability to use and understand the data.

C) Grant Program Resources

Resources supporting this goal include grant authorizes under Section 117 of the Clean Water Act. For additional information on these grants, see the grant program guidance at http://www.epa.gov/region03/chesapeake/grants.htm.

3) Restore and Protect the Gulf of Mexico

A) SUBOBJECTIVE: **Improve the overall health of coastal waters of the Gulf of Mexico (by 0.2) on the "good/fair/poor" scale of the National Coastal Condition Report (a 5-point system in which 1 is poor and 5 is good):**

2004 Baseline:	**2.4**
2010 Actual:	**n/a**
2011 Commitment:	**2.6**
2012 Target:	**2.6**

(Note: Additional measures of progress are identified in *Appendix A.*)

B) Key Strategies

The Gulf of Mexico basin has been called "America's Watershed." Its U.S. coastline is 1,630 miles; it is fed by thirty-three major rivers, and it receives drainage from 31 states in addition to a similar drainage area from Mexico. One sixth of the U.S. population now lives in Gulf Coast states, and the region is experiencing remarkably rapid population growth. In addition, the Gulf yields approximately forty percent of the nation's commercial fishery landings, and Gulf Coast wetlands comprise about half the national total and provide critical habitat for seventy-five percent of the migratory waterfowl traversing the United States.

1) Healthy and Resilient Coastal Habitats

Healthy and resilient coastal habitats sustain many ecosystem services upon which humans rely. Reversing ongoing habitat degradation and preserving the remaining healthy habitats is

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necessary to protecting the communities, cultures, and economy of the Gulf Coast. The overall wetland loss in the Gulf area is on the order of fifty percent, and protection of the critical habitat that remains is essential to the health of the Gulf aquatic system. EPA has a goal of restoring 30,600 cumulative acres of habitat by 2012 (see Program Activity Measure GM-SP39). EPA is working with the NOAA, environmental organizations, the Gulf of Mexico Foundation, and area universities to identify and restore critical habitat. EPA will enhance cooperative planning and programs across the Gulf states and federal agencies to protect wetland and estuarine habitat.

2) Sustainable Coastal Barriers

The Gulf Coast supports a diverse array of coastal, estuarine, nearshore and offshore ecosystems, including seagrass beds, wetlands and marshes, mangroves, barrier islands, sand dunes, coral reefs, maritime forests, bayous, streams, and rivers. These ecosystems provide numerous ecological and economic benefits including water quality, nurseries for fish, wildlife habitat, hurricane and flood buffers, erosion prevention, stabilized shorelines, tourism, jobs, and recreation. Coastal communities continuously face and adapt to various challenges of living along the Gulf of Mexico. The economic, ecological, and social losses from coastal hazard events have grown as population growth places people in harm's way and as the ecosystems' natural resilience is compromised by development and pollution. In order to sustain and grow the Gulf region's economic prosperity, individuals, businesses, communities, and ecosystems all need to be more adaptable to change. In 2012, EPA will assist with the development of information, tools, technologies, products, policies, or public decision processes that can be used by coastal communities to increase resilience to coastal natural hazards and sea level rise. EPA is working with NOAA, Sea Grant Programs, and the U.S. Geological Survey in support of this goal.

3) Wise Use of Sediment Resources

The wise management of sediments for wetland creation, enhancement, and sustainability is of critical importance to the Gulf Coast region, especially given locally high rates of subsidence and the region-wide threat from potential future impacts of climate change. To successfully sustain and enhance coastal ecosystems, a broad sediment management effort is needed that incorporates beneficial use of dredge material, and other means of capturing all available sediment resources.

Healthy estuaries and coastal wetlands depend on a balanced level of nutrients. Excessive nutrient levels can have negative impacts such as reducing the abundance of recreationally and commercially important fishery species. Excess nutrients is identified as one of the primary problems facing Gulf estuaries and coastal waters. Over the next several years, the Gulf states will be establishing criteria for nutrients in coastal ecosystems that will guide regulatory, land use, and water quality protection decisions. Nutrient criteria could potentially reverse current trends in nutrient pollution to coastal waters and estuaries, but the challenge is to prevent or reduce the man-made sources of nutrients to levels that maintain ecosystem productivity and restore beneficial uses. In 2012, EPA will support coastal nutrient criteria and standards development with a Gulf state pilot and will develop science and management tools for the characterization of nutrients in coastal ecosystems. Because the five Gulf states face similar nutrient management challenges at both the estuary level and as the receiving water for the entire

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Mississippi River watershed, the Gulf of Mexico Alliance Partnership is an important venue to build and test management tools to reduce nutrients in Gulf waters and achieve healthy and resilient coastal ecosystems.

Any strategy to improve the overall health of the entire Gulf of Mexico must include a focused effort to reduce the size of the zone of hypoxic conditions (i.e., low oxygen in the water) in the northern Gulf. Actions to address this problem must focus on both localized pollutant addition throughout the Basin and on nutrient loadings from the Mississippi River. EPA, in cooperation with states and other federal agencies, supports the long-term target to reduce the size of the hypoxic zone from about 17,300 square km to less than 5,000 square km, measured as a five-year running average (see Program Activity Measure GM-SP40.N11). In working to accomplish this goal, EPA, states, and other federal agencies, such as USDA, will continue implementation of core clean water programs and partnerships and efforts to coordinate allocation of technical assistance and funding to priority areas around the Gulf.

Specifically, in FY 2012, EPA's Mississippi River Basin program will address excessive nutrient loadings that contribute to water quality impairments in the basin and, ultimately, to hypoxic conditions in the Gulf of Mexico. Working with the Gulf Hypoxia Task Force, Gulf of Mexico Alliance and other states within the Mississippi/Atchafalaya River Basins, and other federal agencies, EPA will help target efforts within critical watersheds to implement effective strategies that can yield significant progress in addressing nonpoint source nutrient pollution.

4) Improve Science Monitoring and Management Efforts:

The Clean Water Act provides authority and resources that are essential to protecting water quality in the Gulf of Mexico and in the larger Mississippi River Basin that contributes pollution, especially oxygen demanding nutrients, to the Gulf. Enhanced monitoring and research is needed in the Gulf Coast region to make data more readily available. EPA regions and the Gulf of Mexico Program Office will work with states to continue to maximize the efficiency and utility of water quality monitoring efforts for local managers by coordinating and standardizing state and federal water quality data collection activities in the Gulf region and to assure the continued effective implementation of core clean water programs, ranging from discharge permits, to nonpoint pollution controls, to wastewater treatment, to protection of wetlands. The Gulf of Mexico Program is working with NOAA, the U.S. Army Corps of Engineers, and the U.S. Geological Survey in support of this goal.

A central pillar of the strategy to restore the health of the Gulf is restoration of water quality and habitat in 13 priority coastal watersheds. These 13 watersheds include 755 of the impaired segments identified by states around the Gulf and will receive targeted technical and financial assistance to restore impaired waters. The FY 2012 goal is to fully attain water quality standards in at least 132 of these segments (see Program Activity Measure GM-SP38).

Harmful algal blooms (HABs) cause public health advisories, halt commercial and recreational shellfish harvesting, limit recreation, exacerbate human respiratory problems, and cause fish kills. EPA is working with Mexico and the Gulf states to implement an advanced detection forecasting capability system to manage harmful algal blooms and for notifying public health

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managers (see Program Activity Measure GM-01) and expects to expand the system in 2012 by providing support for taxonomy training in Yucatan and Quintana Roo to complete the training in all six Mexican States.

The Gulf of Mexico Program Office has a long-standing commitment to develop effective partnerships with other programs within EPA, in other federal agencies, and with other organizations. For example, the Program Office is working with the EPA Office of Research and Development and other federal agencies to develop and implement a coastal monitoring program to better assess the condition of Gulf waters.

5) Environmental Education

Education and outreach are essential to accomplish EPA's overall goals and are integral to all priority issues. It is critical that Gulf residents and decision makers understand and appreciate the connection between the ecological health of the Gulf of Mexico and its watersheds and coasts, their own health, the economic vitality of their communities, and their overall quality of life. There is a nationwide need for a better understanding of the link between the health of the Gulf of Mexico and the U.S. economy. The long-term goal is to increase awareness and stewardship of Gulf coastal resources and promote action among Gulf citizens. In 2012, the Gulf of Mexico Program will establish public and private support for the development and deployment of the Gulf Coastal Ecosystem Learning Centers Rotational Educational Exhibits Initiative; foster regional stewardship and awareness of Gulf coastal resources through annual Gulf Guardian Awards; and support initiatives that include direct involvement from underserved and underrepresented populations and enhance local capacity to reach these populations.

C) Grant Program Resources

The Gulf of Mexico Program issues an annual competitive Funding Announcement for Gulf of Mexico Regional Partnership projects that improve the health of the Gulf of Mexico by addressing improved water quality and public health, priority coastal habitat protection/recovery, more effective coastal environmental education, improved habitat identification/characterization data and decision support systems, and strategic nutrient reductions. Projects must actively involve stakeholders and focus on support and implementation of the Gulf of Mexico Ecosystem Restoration Strategy.

For additional information on these grants, see the grant program guidance on the website (http://www.epa.gov/gmpo).

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4) Restore and Protect Long Island Sound

A) SUBOBJECTIVE: **Prevent water pollution, improve water quality, protect aquatic ecosystems, and restore habitat of Long Island Sound.**

(Note: Additional measures of progress are identified in *Appendix A*.)

B) Key Program Strategies

More that 20 million people live within 50 miles of Long Island Sound's shores and more than one billion gallons per day of treated effluent enter the Sound from 106 treatment plants. In a 1992 study, it was estimated that the Sound generated more than $5.5 billion to the regional economy from clean water-related activities alone – recreational and commercial fishing and shellfishing, beach-going, and swimming. In 2009 dollars, that value is now $8.41 billion. The Sound also generates additional billions of dollars through transportation, ports, harbors, real estate, and other cultural and aesthetic values. The Sound is breeding ground, nursery, feeding ground, and habitat to more than 170 species of fish and 1,200 invertebrate species that are under stress from development, competing human uses and climate change.

The key environmental and ecological outcomes for Long Island Sound include:

- Marine and tributary waters that meet prescribed state water quality standards – waters that are fishable, swimmable, and that support;
- Diverse habitats of healthy, abundant and sustainable populations of aquatic and marine-dependent species in;
- An ambient environment that is free of substances that are potentially harmful to human health or that otherwise may adversely affect the food chain; and
- An educated and informed citizenry who participates in the restoration and protection of this invaluable resource.

EPA will continue to work with the Long Island Sound Study (LISS) Management Conference partners – the states of New York and Connecticut and other federal, state, and local government agencies, academia, industry, and the private sector -- to implement the Comprehensive Conservation and Management Plan (CCMP) to restore and protect the Sound. Because levels of dissolved oxygen are critical to the health of aquatic life and viable public use of the Sound, a CCMP priority is controlling anthropogenic nitrogen discharges to meet these water quality standards.

1) Reduce Nitrogen Loads

The Long Island Sound bi-state nitrogen TMDL, approved by EPA in 2000, relies on flexible and innovative approaches, notably bubble permits, management zones, and exchange ratios that allow sewage treatment plant (STP) operators to trade nitrogen reduction obligations with each other. This approach helps attain water quality improvement goals, while allowing communities to save an estimated $800 million by

allocating reductions to those STPs where they can be achieved most economically, and to STPs that have the greatest impact on water quality.

The States of New York and Connecticut will continue to allocate resources toward STP upgrades to control nitrogen discharges to meet TMDL requirements. These states will monitor and report discharges through EPA's Permit Compliance System (PCS) and Discharge Monitoring Reports (DMRs). A revised TMDL will incorporate updated state marine water quality standards for dissolved oxygen, as well as other refined or updated technical data.

The State of Connecticut will continue to implement its Nitrogen Credit Exchange program, first instituted in 2002. Reductions in nitrogen discharges at STPs that go beyond TMDL requirements create the state's system of market credits, which will continue to assist municipalities in reducing construction costs and more effectively address nitrogen reductions to the Sound. New York City will continue its STP nitrogen upgrades and will minimize the impact of nitrogen discharges to the Sound as construction proceeds through 2017. Westchester County will continue construction upgrades at its two affected STPs to control its nitrogen discharges to the Western Sound.

EPA will continue to work with the upper Long Island Sound watershed States of Massachusetts, New Hampshire, and Vermont to implement state plans that identify and control nitrogen discharges to the Connecticut River. As sources are identified and control strategies developed, the states will modify discharge permits to incorporate appropriate load allocations. A continuing challenge to EPA and states is to address nonpoint sources of nitrogen deposition to the Sound, including atmospheric deposition and groundwater infiltration. These sources contribute many thousands of pounds of nitrogen and which are more difficult and complex to identify and control. To address these sources, the LISS supports local watershed protection programs and projects that reduce stormwater runoff, plan for and manage growth, and conserve natural landscapes.

2) Reduce the Area and Duration of Hypoxia

As nitrogen loads to the Sound decrease, reductions in the size and duration of the hypoxic area may be anticipated; however, ecosystem response is not linear spatially or temporally in some systems. While other factors also affect the timing, duration, and severity of hypoxia, including weather conditions such as rainfall, solar radiation and light, temperature, and winds, continued reductions in nitrogen loads will help to mitigate these uncontrollable natural factors. As the states continue implementing STP upgrades for nitrogen and nonpoint source controls, the new applied technologies will reduce nitrogen inputs, limit algal response, and intervene in natural cycles of algal growth, its death, decay, and resulting loss of dissolved oxygen.

3) Restore and Protect Critical Habitats and Reopen Rivers to Diadromous Fish

EPA will continue to work with Management Conference partners as they restore and protect critical and degraded habitats and reopen rivers and streams to diadromous fish

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passage. The states and EPA will continue to direct efforts at the most vulnerable coastal habitats and key areas of high ecological value, such as coastal wetlands. The states will lead these efforts, using EPA's and a variety of public and private funds, and cooperate with landowners, to construct fishways, remove dams, or otherwise mitigate impediments to diadromous fish passage. Where feasible and as funding allows, fish counting devices will provide valuable data on actual numbers of fish returning to breeding grounds. Restoration of the diadromous fishery and increasing the higher trophic levels in the Sound are longer-term goals of Long Island Sound's federal and state natural resource managers. The states and EPA will continue work to plan for, address, and mitigate climate change impacts on coastal estuarine environments through the Long Island Sound Sentinel Monitors program. Key environmental sentinels of ecological change will be identified and tracked to monitor changes from baselines. Through this program, managers and decision makers will be alerted to potential effects on the vital ecological resources at risk or vulnerable to climate change, and mitigation options may be developed and implemented.

4) Implement through Partnerships

New York, Connecticut, and EPA will cooperate to agree on and implement a new *Long Island Sound Agreement*. The *Agreement* will build upon CCMP goals and targets, which were refined and documented in the predecessor *Long Island Sound 2003 Agreement.*

The states and EPA will continue to address the highest priority environmental and ecological problems identified in the CCMP – the impact of hypoxia on the ecosystem, including living marine resources; the effects of reducing toxic substances, pathogens, and floatable debris on the ambient environment; identification, restoration and protection of critical habitats; and managing the populations of living marine and marine-dependent resources that rely on the Sound as their primary habitat. The Management Conference will work to improve riparian buffers in key river reaches and restore submerged aquatic vegetation in key embayments; reduce the impact of toxic substances, pathogens, and floatable debris on the ecology; and improve the stewardship of these critical areas.

EPA and the states will continue to support the Citizens Advisory Committee and the Science and Technical Advisory Committee, which provide technical expertise and public participation and advice to the Management Conference partners in the implementation of the CCMP. An educated and informed public will more readily recognize problems and understand their role in environmental stewardship.

5) Core EPA Program Support

The LISS supports, and is supported by EPA core environmental management and regulatory control programs, as well as one of the Administrator's key priorities – urban waters. Long Island Sound itself is known as the "Urban Sea,"[8] because of its proximity in the Northeast population corridor and its vulnerability to the impacts of human usage.

[8] L.Koppelman, *The Urban Sea: Long Island Sound*, 1976; ISBN 0-275-28863-8

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All of Connecticut's 24 coastal towns are urbanized, as are Westchester, Queens, Nassau, and Suffolk counties in New York that border the Sound. The CCMP, established under CWA Section 320, envisioned a partnership of federal, state and local governments, private industry, academia and the public, to support and fund the cleanup and restoration of the Sound. This cooperative environmental partnership relies on existing federal, state and local regulatory frameworks, programs, and funding to achieve restoration and protection goals.

For example, EPA and the states use authorities and funding provided under CWA Section 319 to manage watersheds that are critical to the health of Long Island Sound. Under Section 303(d), state and local TMDLs for harmful substances support the work of the Management Conference in ensuring a clean and safe Long Island Sound.

EPA's State Revolving Fund under Section 601 is used by states to leverage funding for STP upgrades for nitrogen control, and NPDES permits issued under Section 402 provide enforceable targets to monitor progress in reducing nitrogen and other harmful pollutants to waters entering the Sound. Because of the LISS nitrogen TMDL, developed under Section 303(d), both the states of Connecticut and New York revised their ambient water quality standards for dissolved oxygen (DO) to be consistent with EPA's national guidance for DO in marine waters. With EPA funding through the LISS, Connecticut conducts the LIS ambient water quality monitoring (WQM) program, and has participated with the State of New York in EPA's National Coastal Assessment monitoring program. The data compiled by the LISS WQM program is one of the most robust and extensive datasets on ambient conditions available to scientists, researchers, and managers. The LISS nitrogen TMDL sets firm reduction targets and encourages trading at point sources, and NPDES/SPDES permits have been modified to incorporate TMDL nitrogen limits on a 15 year enforceable schedule. The states of New York and Connecticut recognize the significant financial investments required to support wastewater infrastructure and have passed state bond act funding to sustain efforts to upgrade STPs to reduce nitrogen loads. These actions are primary support of CWA core programs, and are ongoing and integral to LISS CCMP implementation to restore and protect Long Island Sound, the *Urban Sea*.

C) Grant Program Resources

EPA grant resources supporting this goal include the Long Island Sound CCMP implementation grants authorized under Sections 119(d) and 320(g) of the Clean Water Act as amended. These grants include sub grants for the Long Island Sound Futures Fund Large and Small grant programs administered by the National Fish and Wildlife Foundation, the Long Island Sound CCMP Enhancements program administered by the New England Interstate Water Pollution Control Commission, and the Long Island Sound Research Grant program administered by the New York and Connecticut Sea Grant programs. The LISS web page provides grant information and progress toward meeting environmental results at: (http://www.longislandsoundstudy.net/grants/index.htm).

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5) Restore and Protect the Puget Sound Basin

A) SUBOBJECTIVE: **Improve water quality, improve air quality, and minimize adverse impacts of rapid development in the Puget Sound Basin.**

(Note: Additional measures of progress are identified in *Appendix A*.)

B) Key Program Strategies

The Puget Sound Basin is the largest population and commercial center in the Pacific Northwest, supporting a vital system of international ports, transportation systems, and defense installations. The ecosystem encompasses roughly 20 rivers and 2,800 square miles of sheltered inland waters that provide habitat to hundreds of species of marine mammals, fish, and sea birds. Puget Sound salmon landings average more than 19 million pounds per year and support an average of 578,000 sport-fishing trips each year, as well as subsistence harvests to many tribal communities. However, continued declines in wild salmon and other key species indicate that additional watershed protection and restoration efforts are needed to reverse these trends.

Although Puget Sound currently leads U.S. waterways in shellfish production, 30,000 acres of shellfish beds have been closed to harvest since 1980. These closures affect local economies and cultural and subsistence needs for these traditional resources. In addition, excess nutrients have created hypoxic zones that further impair shellfish and finfish populations. Recent monitoring assessments indicate that marine species in the Puget Sound have high levels of toxic contamination. Almost 5,700 acres of submerged land (about 9 square miles) are currently classified as contaminated with toxics and another 24,000 as at least partially contaminated. Additional pollutants are still being released: approximately 1 million pounds of toxics are released into the water, with stormwater identified as a major source, and 5 million pounds into the air each year, with many of these pollutants also finding their way into Puget Sound and its food web.

There is growing recognition that protecting the Puget Sound ecosystem would require increased capacity and sharper focus. In 2006, a broad partnership of civic leaders, scientists, business and environmental representatives, representative agency directors and tribal leadership was asked to propose a new state approach to restoring and protecting the Puget Sound Basin and its component watersheds. This challenge resulted in the creation of the Puget Sound Partnership (Partnership) in 2007, a new state agency, and an updated and more integrated comprehensive management plan in 2009, the "2020 Action Agenda", for protecting and restoring the Puget Sound ecosystem.

In 2011 EPA awarded multi-year cooperative agreements to competitively-selected entities to act as "lead organizations" (LOs) to implement focused efforts to improve conditions in the Puget Sound basin within the following areas of emphasis:

- Marine and nearshore protection and restoration;

- Watershed protection and restoration;
- Toxics and nutrients prevention, reduction, and control;
- Pathogen prevention, reduction, and control;
- Projects in tribal areas; and
- Outreach and education.

The Partnership and LOs will be directly involved in much of the work outlined below.

Key program strategies for FY 2012 include:

Improving Water Quality and Restoring Shellfish Beds and Wild Salmon Populations through Local Watershed Protection

- EPA will continue to work with state and local agencies and tribal governments to build capacity for protecting and restoring local watersheds, particularly in areas where shellfish bed closures or harvest area downgrades are occurring or where key salmon recovery efforts are being focused. In recent years, FY 2008 – FY 2010, substantial watershed protection grants have been awarded to protect and restore commercial, subsistence, and recreational shellfish growing areas and other awards were made to entities working to protect watersheds supporting wild salmon populations.

Addressing Stormwater Issues through Local Watershed Protection Plans

- EPA will work with state and local agencies and the tribes using local watershed protection approaches to reduce stormwater impacts to local aquatic resources in urbanizing areas currently outside of NPDES Phase I and II permit authority. Of particular concern are the sensitive and high value estuarine waters such as Hood Canal, the northern Straits, and south Puget Sound.
- EPA will also work with the state to increase support to local and tribal governments and the development community to promote smart growth and low impact development approaches in the Puget Sound Basin. In 2010, eight substantial watershed protection or technical study grants were awarded to help reduce stormwater impacts and promote low impact development approaches.
- Watershed protection and land use integration projects continue to be a focus of EPA's stormwater work and these activities are included in actions eligible for funding in EPA's Puget Sound grant programs. This is consistent with supporting the priority actions identified in the Puget Sound Action Agenda, which was formally approved by EPA under Section 320 of the Clean Water Act in 2009.
- To the extent that we can, EPA will assist with evaluating, quantifying, and documenting improvements in local water quality and beneficial uses as these local watershed protection and restoration plans are implemented.
- EPA is working with the Partnership and other state agencies to help support development of a comprehensive storm water monitoring program for the Puget Sound basin so that information gathered can be used to adaptively manage the next round of permits and implementation actions.

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Reducing Sources of Toxics and Nutrients

- Priority toxic contaminants from terrestrial, atmospheric, and marine discharge sources will be quantified and source control actions prioritized and initiated.
- A mass balance model of nutrient sources, reservoirs, pathways, and risk to local ecosystems in Puget Sound will be refined and specific nutrient reduction strategies will be established within priority areas, including both Hood Canal and South Puget Sound.

Restoring and Protecting Nearshore Aquatic Habitats

- EPA will work closely with state and local agencies to enhance and leverage their resources to protect and restore Puget Sound nearshore habitat.
- Efforts will focus on (1) effective regulation and stewardship, including updating Shoreline Management Plans and ensuring their effective implementation; (2) targeting capital investments in habitat restoration and protection consistent with the Puget Sound Nearshore Ecosystem Restoration Partnership and other analyses; and (3) tackling high priority threats including invasive species, oil spills, and climate change.
- Protection programs, restoration strategies, project lists, and outcomes will be evaluated against current conditions and ongoing habitat loss to determine net changes in extent and function of estuary habitats.

Improving Ecosystem Monitoring and the Application of Science

- A new Integrated Science Plan for Puget Sound is being developed including enhanced monitoring, modeling, assessment and research capacity. The emerging science agenda will be focused on improving the effectiveness of both local management activities and broader policy initiatives.
- EPA is working with a number of stakeholders in the Puget Sound National Estuary Program management conference through the Puget Sound Partnership to develop a basin-wide, coordinated ecosystem monitoring and assessment system.
- EPA will work with other science communication initiatives and programs to ensure that data and information is more available and relevant to citizens, local jurisdictions, watershed management forums, and resource managers. EPA awarded a lead organization cooperative agreement to the Partnership in FY 2010 to coordinate and implement a Puget Sound wide environmental education and outreach program that includes regular communication to the public of the science, monitoring data, and results of actions taken to preserve and restore Puget Sound.

Ensuring Focused and Productive Transboundary Coordination

EPA Region 10 will continue to work with Environment Canada, Pacific Yukon Region to implement biennial work plans developed under the 2000 Joint Statement of Cooperation on the Georgia Basin and Puget Sound Ecosystem ("SoC"). As in previous

years, the EPA-EC chaired SoC working group, comprising state, provincial, tribal, and first nations representatives, work toward sharing scientific information on the ecosystem, developing joint research initiatives, ensuring coordination of environmental management initiatives, and jointly considering longer term planning issues including air quality and climate change. A significant FY 2011 activity is the planning of the biennial Salish Sea Ecosystem Research Conference (Vancouver, 2011); in 2009 this transboundary conference attracted registration from over 1100 scientists, policy makers, and stakeholders.

C) Grant Program Resources

EPA grant resources directly supporting this goal are provided through the National Estuary Program grants under Section 320 of the Clean Water Act. In recent years, additional Puget Sound grant resources have been made available under the "Geographic Program: Puget Sound Program Project" appropriation. These appropriations have been applied to priority actions aimed at pollution control, watershed protection, and the science capacity needed to help focus, monitor, and assess the effectiveness of actions. A range of other water program grants also support many activities that assist in the achievement of this subobjective. These include grants supporting Washington State and Tribal water quality programs, and infrastructure loan programs.

D) A Strategic Response to Climate Change

The Puget Sound Partnership's received FY 2010 Climate Ready Estuaries funds to incorporate climate change into its Comprehensive Conservation and Management Plans, and also received an additional technical assistance contract to develop climate change indicators and climate-sensitive habitat restoration guidance. The Puget Sound Partnership's Action Agenda calls for actions to adapt to and mitigate for climate change. The Action Agenda recognizes that climate change will exacerbate the existing threats to Puget Sound. Many of the strategies and actions to protect and restore the Puget Sound also serve as mitigation and adaptation measures. Both the Puget Sound Partnership and EPA have identified climate change impacts to be considered when evaluating potential actions. Additionally, the lead organizations (LOs) implementing focused efforts to improve conditions in Puget Sound are incorporating climate change response and adaptation in their criteria for project funding.

For additional information, please visit: http://www.epa.gov/region10/psgb/.

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6) Sustain and Restore the U.S.-Mexico Border Environmental Health

A) SUBOBJECTIVE: **Sustain and restore the environmental health along the U.S.-Mexico Border through the implementation of the Border 2012 Plan.**

(Note: Additional measures of progress are identified in *Appendix A*.)

B) Key Strategies

The United States and Mexico have a long-standing commitment to protect the environment and public health for communities in the U.S.-Mexico Border region. The basic approach to improving the environment and public health in the U.S.-Mexico Border region is the *Border 2012 Plan*. Under this Plan, EPA expects to take the following key Actions to improve water quality and protect public health.

1) Core Program Implementation: EPA will continue to implement core programs under the Clean Water Act and related authorities, ranging from discharge permit issuance, to watershed restoration, to nonpoint pollution control.

2) Drinking Water and Wastewater Treatment Financing: Federal, state, and local institutions participate in border area efforts to improve water quality through the construction of infrastructure and development of pretreatment programs. Specifically, Mexico's National Water Commission (CONAGUA) and EPA provide funding and technical assistance for project planning and construction of infrastructure.

Congress has provided $990 million for border infrastructure from 1994 to 2010. In FY 2011, EPA plans to provide approximately $14.5 million for planning, design, and construction of drinking water and wastewater facilities. EPA will continue working with all of its partners to leverage available resources to meet priority needs. The FY 2012 targets will be achieved through the completion of prioritized Border Environment Infrastructure Fund (BEIF) drinking water and wastewater infrastructure projects. Future progress in meeting this subobjective will be achieved through other border drinking water and wastewater infrastructure projects as well as through the collaborative efforts established through the Border 2012 Water Task Forces.

3) Build Partnerships: Partnerships are critical to the success of efforts to improve the environment and public health in the U.S.-Mexico Border region. Since 1995, the NAFTA-created institutions, the Border Environment Cooperation Commission (BECC) and the North American Development Bank (NADB), have had the primary role in working with communities to develop and construct environmental infrastructure projects. BECC and NADB support efforts to evaluate, plan, and implement financially and operationally sustainable drinking water and wastewater projects. EPA will continue to support these institutions and work collaboratively with CONAGUA.

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4) ***Improve Measures of Progress:*** During FY 2012, EPA will work with Mexico, states, tribes, and other institutions to improve measures of progress toward water quality and public health goals.

C) Grant Program Resources

A range of program grants are used by states to implement core programs in the U.S.-Mexico Border region for waters in the U.S. only. Allocations of the funding available for infrastructure projects, funded through the Border Environment Infrastructure Fund (BEIF), are not provided through guidance, but through a collaborative and public prioritization process.

7) Sustain and Restore Pacific Islands Territories

A) SUBOBJECTIVE: Sustain and restore the environmental health of the U.S. Pacific Island Territories of American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.

(Note: Additional measures of progress are identified in *Appendix A.*)

B) Key Program Strategies

The U.S. Pacific island territories of Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands struggle to provide adequate drinking water and sanitation service. For example, the island of Saipan in the Northern Marianas, with a population of about 70,000, may be the only municipality of its size in the United States without 24-hour drinking water. When residents of Saipan do get water (many receive only a few hours per day of water service), it is too salty to drink. In the Pacific Island territories, poor wastewater conveyance and treatment systems threaten to contaminate drinking water wells and surface waters. Island beaches, with important recreational, economic, and cultural significance, are frequently polluted and placed under advisories.

One of the root causes of drinking water and sanitation problems in the U.S. Pacific Island territories is inadequate and crumbling infrastructure. Recent studies estimate that it would take over one billion dollars in capital investments to bring the Pacific territories drinking water and wastewater systems up to U.S. standards. EPA is targeting the use of existing grants, enforcement, and technical assistance to improve the drinking water and wastewater situation in the Pacific Islands. In pursuing these actions, EPA will continue to use the available resources and to work with partners at both the federal and local levels to seek improvements. These efforts will very likely only keep the infrastructure and situation from worsening, and will not move the systems up toward U.S. standards.

- **Use of Existing Grants:** EPA is working in partnership with the U.S. Department of the Interior to optimize federal grants to improve priority water and wastewater systems. EPA

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grants (historically, about $1.2M per territory annually for water and wastewater combined), plus other federal grants have led to some improvements in the recent past. However, existing grants fall far short of the overall capital needs in the Pacific Islands.

- **Enforcement:** EPA will continue to oversee implementation of judicial and administrative orders to improve drinking water and wastewater systems. For example, as a result of implementation of a 2003 Stipulated Order under the federal district court in Guam, wastewater spills in Guam in the period of 2005-2008 were down by 99% compared to 1999-2002; and no island-wide boil water notices have been issued in over four years (through mid-2009) compared to nearly every month in 2002. (However, in 2009, several wastewater overflows and boil water notices occurred.) In 2009, EPA has entered into a comparable Stipulated Order in the CNMI. EPA will continue to assess judicial and administrative enforcement as a tool to improve water and wastewater service.

- **Technical Assistance:** EPA will continue to use technical assistance to improve the operation of drinking water and wastewater systems in the Pacific Islands. In addition to periodic on-site training, EPA will continue to use the IPA (Intergovernmental Personnel Act) to build capacity in the Islands to protect public health and the environment. For example, in recent years, EPA has placed U.S. Public Health Service drinking water and wastewater engineers in key positions within Pacific island water utilities and within local regulatory agencies.

- **Guam Military Expansion:** EPA will continue to work with the Department of Defense in its Guam Military Expansion project to improve the environmental infrastructure on Guam. The U.S and Japan have agreed to relocate the Marine Base from Okinawa, Japan to Guam. By 2014, the relocation could result in approximately 22,000 additional troops and dependents and upwards of 80,000 additional people total on Guam (a 40% increase in population) while spending $10 - $15 billion on construction. This military expansion is an opportunity to improve the environmental infrastructure on Guam, but significant investment will be required to meet the increased strain on the island's fragile water and wastewater infrastructure.

C) Grant Program Resources

A range of grants funds and set-asides from the national State Revolving Fund (SRF) appropriations are available to implement projects to improve drinking water and wastewater infrastructure in the Pacific islands. EPA has historically provided about $4 million total to the Pacific territories in drinking water and wastewater grants annually through the SRF programs. SRF funding under ARRA provided approximately an additional $4M per territory in infrastructure funding in FY 2009.

The FY 2010 appropriations language increased the SRF set-aside for territories to 1.5%, which, along with the significant overall increase in SRF funding, resulted in a nearly 10-fold increase in infrastructure funding for the Pacific territories, to approximately $37M total in FY 2010. However, the 1.5% set-aside for territories is not permanent, and funding levels for subsequent years are uncertain. To bring drinking water and wastewater service and infrastructure in the

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U.S. Pacific territories up to U.S. standards, significant and sustained investment will be required.

D) A Strategic Response to Climate Change

EPA's Pacific Islands Office has been working to address climate change and water issues by focusing on three main areas in the Pacific Islands: water quality protection and improvement; outreach, education and collaboration on climate change issues; and sustainable military buildup on Guam. Projects include:

- Promoting water conservation and efficiency at public utilities through innovative State Revolving Fund (SRF) projects;
- Following up on the June 2009 Pacific Islands Environment Conference, entitled "Climate of Change: Energizing a Sustainable Future for Pacific Islands." The conference, which took place on Saipan, CNMI, focused on issues including renewable energy and energy efficiency, coral reef protection, adaptation strategies for Pacific Islands, and improved efficiency for water and wastewater services; and
- Working with the Department of Defense (DOD) and other federal resource agencies to ensure that sustainable practices are included in the upcoming military buildup on Guam. This includes improving drinking water and wastewater compliance with environmental standards, utilizing low impact development and green infrastructure for new construction, and minimizing marine habitat disturbance.

For additional information on EPA's work in the Pacific Islands, please visit: http://www.epa.gov/region09/islands/

8) Restore and Protect the South Florida Ecosystem

A) SUBOBJECTIVE: Protect and restore the South Florida ecosystem, including the Everglades and coral reef ecosystems.

(Note: Additional measures of progress are identified in *Appendix A*.)

B) Key Program Strategies

The South Florida ecosystem encompasses three national parks, more than ten national wildlife refuges, a national preserve and a national marine sanctuary. It is home to two Native American nations, and it supports the largest wilderness area east of the Mississippi River, the only living coral barrier reef adjacent to the United States, and the largest commercial and sport fisheries in Florida. But rapid population growth is threatening the health of this vital ecosystem. South Florida is home to about 8 million people, more than the populations of 39 individual states. Another 2 million people are expected to settle in the area over the next 10 to 20 years. Fifty percent of the region's wetlands have been lost to suburban and agricultural development, and the altered hydrology and water management throughout the region have had a major impact on the ecosystem.

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EPA is working in partnership with numerous local, regional, state, and federal agencies and tribes to ensure the long-term sustainability of the region's varied natural resources while providing for extensive agricultural operations and a continually expanding population. EPA's South Florida Geographic Initiative (SFGI) is designed to protect and restore communities and ecosystems affected by environmental problems. SFGI efforts include activities related to the Section 404 wetlands protection program; the Comprehensive Everglades Restoration Program (CERP); the Water Quality Protection Program for the Florida Keys National Marine Sanctuary; the Southeast Florida Coral Reef Initiative, directed by the U.S. Coral Reef Task Force; the Brownfields Program; and a number of other waste management programs.

1) *Accelerate Watershed Protection*

Strong execution of core clean water programs is essential but not adequate for accelerating progress toward maintaining and restoring water quality and the associated biological resources in South Florida. Water quality degradation is often caused by many different and diffuse sources. To address the complex causes of water quality impairment, we are using an approach grounded in science, innovation, stakeholder involvement, and adaptive management – *the watershed approach*. In addition to implementing core clean water programs, we will continue to work to:

- Support and expand local watershed protection efforts through innovative approaches to build local capacity; and
- Initiate or strengthen through direct support watershed protection and restoration for critical watersheds and water bodies.

2) *Conduct Congressionally-mandated Responsibilities*

The Florida Keys National Marine Sanctuary (FKNMS) and Protection Act of 1990 directed EPA and the State of Florida, in consultation with the National Oceanic and Atmospheric Administration (NOAA), to develop a Water Quality Protection Program (WQPP) for the Sanctuary. The purpose of the WQPP is to recommend priority corrective actions and compliance schedules addressing point and nonpoint sources of pollution in the Florida Keys ecosystem. In addition, the Act also required development of a comprehensive water quality monitoring program and provision of opportunities for public participation. In FY 2012, EPA will continue to implement the WQPP for the FKNMS, including the comprehensive monitoring projects (coral reef, seagrass, and water quality), special studies, data management, and public education and outreach activities. EPA will also continue to support implementation of wastewater and storm water master plans for the Florida Keys to upgrade inadequate wastewater and storm water infrastructure. In addition, we will continue to assist with implementing the comprehensive plan for eliminating sewage discharges from boats and other vessels.

3) Support the Actions of the U.S. Coral Reef Task Force

In October 2002, the U.S. Coral Reef Task Force passed a resolution to improve implementation of the National Action Plan to Conserve Coral Reefs. Among other things, the resolution

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recommended development of local action strategies (LAS) to improve coordinated implementation of coral reef conservation. In 2004 and 2005, EPA Region 4 staff worked with the Southeast Florida Coral Reef Initiative (SEFCRI) to develop a LAS for southeast Florida calling for reducing "land-based sources of pollution" and increasing the awareness and appreciation of coral habitat. Key goals of the LAS are:

- Characterize the existing condition of the coral reef ecosystem;
- Quantify, characterize and prioritize the land-based sources of pollution that need to be addressed based on identified impacts to the reefs;
- Identify how pollution affects the southeast Florida coral reef habitat;
- Reduce the impacts of land-based sources of pollution; and
- Work in close cooperation with the awareness and appreciation focus team.

Detailed action strategies or projects for each goal have been developed. For example, one priority action strategy/project is to assimilate existing data to quantify and characterize the sources of pollution and identify the relative contributions of point and nonpoint sources.

4) ***Other Priority Activities for FY 2012***

- Support development of TMDLs for various south Florida waters including the watershed for Lake Okeechobee, the primary or secondary source of drinking water for large portions of south Florida.

- Continue to work with Florida Department of Environmental Protection in developing numeric water quality criteria for Florida water bodies. EPA in accordance with a consent decree established numeric nutrient criteria for all Florida lakes and flowing waters (except South Florida flowing waters) in 2010. EPA is to propose numeric nutrient criteria for all Florida estuaries and coastal waters and South Florida flowing waters in 2011 and finalize these criteria in 2012.

- Assist the State of Florida and South Florida Water Management District in evaluating the appropriateness of aquifer storage and recovery (ASR) technology as a key element of the overall restoration strategy for south Florida. Region 4 will continue to work with the COE to evaluate proposed ASR projects.

- Continue implementation of the South Florida Wetlands Conservation Strategy, including protecting and restoring critical wetland habitats in the face of tremendous growth and development.

- Continue to work closely with the Jacksonville District U.S. Army Corps of Engineers and the State of Florida to facilitate expedited review of National Environmental Policy Act (NEPA) and regulatory permit actions associated with the ongoing implementation of CERP. Several large water storage impoundments will be under construction during the next few years.

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- Continue to implement the Everglades Ecosystem Assessment Program, an EMAP-based monitoring program to assess the health of the Everglades and the effectiveness of ongoing restoration and regulatory strategies, especially those for phosphorus and mercury.

- Continue to work with the State of Florida, the South Florida Water Management District, the Seminole Tribe of Florida and Miccosukee Tribe of Indians of Florida, and federal agencies to implement appropriate phosphorus control programs that will attain water quality standards throughout the Everglades. The Seminole Tribe and the Miccosukee Tribe of Indians of Florida both have federally approved water quality (WQS) which may differ from the State WQS. To insure the identification of the appropriate WQS criteria, both tribes should be involved in the activities, especially in nutrient control, water quality activities, and development of TMDLs effecting tribal waters.

C) Grant Program Resources

The South Florida Program Office uses available resources to fund priority programs and projects that support the restoration and maintenance of the south Florida ecosystem, including the Everglades and coral reef habitat. These programs and projects include monitoring (water quality, seagrass, and coral reef), special studies, and public education and outreach activities. Federal assistance agreements for projects supporting the activities of the SFGI are awarded under the authority of Section 104(b)(3) of the CWA. Region 4 issues announcements of opportunity for federal funding and "requests for proposals" in accordance with EPA Order 5700.5 (Policy for Competition of Assistance Agreements).

9) Restore and Protect the Columbia River Basin

A) SUBOBJECTVE: **Prevent water pollution and improve and protect water quality and ecosystems in the Columbia River Basin to reduce risks to human health and the environment.**

(Note: Additional measures of progress are identified in *Appendix A.*)

B) Key Program Strategies

The Columbia River Basin is one of the world's great river basins in terms of its land area and river volume, as well as its environmental and cultural significance. It is vital to the more than eight million people who inhabit the area. The Columbia River Basin spans two countries, seven states, roughly 259,000 square miles. It is our country's fourth largest watershed, containing the largest river input into the Pacific Ocean in North and South America and once boasted the largest salmon runs in the world. The Columbia River Basin is home to many native tribes - high fish consumption and increased exposure to toxics by tribal people is a significant

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environmental justice issue. The Columbia River Basin also serves as a unique and special ecosystem, home to many important plants and animals.

Challenges

The river is economically vital to many Northwest industries, such as sport and commercial fishing, agriculture, hydropower, wind energy, recreation, and tourism. Tribal people have depended on the Basin for physical, spiritual, and cultural sustenance for centuries. Public and scientific concern about the health of the Basin ecosystem is increasing. Salmon runs have been reduced from a peak of almost 16 million fish annually to a fraction of their original returns. There is significant habitat and wetland loss throughout the Basin. There are several Superfund sites in the Basin (Portland Harbor, Hanford, Couer d'Alene River Basin and Lake Roosevelt) and there are growing concerns about toxic contamination in fish, aquatic life, and wildlife.

Based on concern raised by a 1992 EPA national survey of contaminants, the Columbia River Inter-Tribal Fish Commission and EPA conducted two studies. A fish consumption survey in 1995 showed tribal members eat 6-11 times more fish than the EPA national average; and a fish contamination study in 2002 showed the presence of 92 contaminants in fish consumed by tribal members with some levels above EPA levels of concern. Recent studies and monitoring programs have found significant levels of toxic chemicals in fish and the waters they inhabit, including DDT, PCBs, mercury, and emerging contaminants, such as PBDEs.

In 2005, EPA joined with other partners in 2005 to form the Columbia River Toxics Reduction Working Group. The Working Group consists of representatives from tribal, federal, state, local, and non-profit partners and provides a forum to share information and collaborate on toxics reduction. Through the working group, EPA Region 10 is working closely with the states of Oregon, Washington, Idaho, Columbia Basin tribal governments, the Lower Columbia River Estuary Partnership, local governments, citizen groups, industry, and other federal agencies to implement a collaborative action plan to assess and reduce toxics in fish and water in the Columbia River Basin and to restore and protect habitat.

The Lower Columbia River Estuary Partnership, one of EPA's National Estuary Programs, also plays a key role in addressing toxics and restoration of critical wetlands in the Lower Columbia River estuary. Since 1996, EPA has provided significant financial support to the Lower Columbia River Estuary Partnership (LCREP). LCREP developed a management plan in 1999 that has served as a blueprint for estuary recovery efforts. The Lower Columbia River Estuary Monitoring Program, developed and overseen by LCREP, is critical for better understanding the lower river and estuary, including toxics and habitat characterization, essential for Columbia River salmon restoration.

Working with partners including LCREP, and the states of Washington and Oregon, EPA has established several goals for improving environmental conditions in the Columbia River basin by 2014:

- Protect, enhance, or restore 19,000 acres of wetland and upland habitat in the Lower Columbia River Estuary;

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- Clean up 85 acres of known highly contaminated sediments in the Portland Harbor and other sites; and
- Demonstrate a 10 percent reduction in mean concentration of certain contaminants of concern found in water and fish tissue in five sites where baseline data is available.

Future Directions and Accomplishments

EPA Region 10 is leading the Columbia River Toxics Reduction Strategy, a collaborative effort with many partners, to better understand and reduce toxics in the Columbia River Basin. Actions include:

- The Columbia River Toxics Reduction Working Group has been convened as a collaborative watershed based group consisting of local communities, non-profits, tribal, state, and federal government agencies to develop and implement an action plan for reducing toxics in the Columbia River Basin.
- EPA, with the Columbia River Toxics Reduction Working Group, completed a *Columbia River Basin State of the River Report for Toxics*, in January 2009. This report provided a characterization of the current status and trends of toxics pollution and serve as a catalyst for a public dialogue on enhancing and accelerating actions to reduce toxics in the Columbia River Basin.
- In September 2010, EPA and the Columbia River Toxics Reduction Working Group released the Columbia River Basin Toxics Reduction Action Plan. The Action Plan presents 61 actions that can be accomplished over the next five years to reduce toxics in the Basin, focusing around five initiatives:
    - Increase public understanding and political commitment to toxics reduction;
    - Increase toxic reduction actions;
    - Increase monitoring for source identification and then focus attention to reduce toxics;
    - Develop regional, multi-agency monitoring; and
    - Develop a data management system to share toxics information around the Basin.

- EPA is holding workshops around the Basin to engage citizens; tribal, local state, and federal governments; industry; agriculture; and NGOs on toxics and toxics reductions in the Columbia River Basin. Four workshops have focused on agricultural successes and technology transfer; PCBs; and flame retardants, a growing concern in the Columbia River Basin.
- States and tribes are reducing toxics with regulatory tools: Water Quality Standards; water quality improvement plans (total maximum daily loads (TMDLs); and National Pollutant Discharge Elimination System (NPDES) permits.
- Currently EPA is working with the State of Oregon, and the Confederated Tribes of the Umatilla Indian Reservation to collaboratively develop human health criteria that will increase protection for Oregon populations who consume high amounts of fish, especially tribal fish consumers, expected to be final in 2011. These criteria will result in reduced toxics in point sources, nonpoint sources, hazardous waste clean ups, water quality improvement plan (TMDL) implementation and other tools and will serve as a national and regional model for increased toxics reduction and human health protection.

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- States, tribes, and local partners are improving farming practices;
    - Oregon's Pesticide Stewardship Partnership Program in the Walla Walla Basin has shown a 70% decline in bioaccumulative organophospate pesticides in 2006-2008 data.
    - In May 2009, the Washington Department of Health lifted the Yakima River DDT fish advisory because of the success of collaborative efforts of the agricultural community, Washington Ecology, Yakima Indian Nation, and others to reduce soil erosion into the Yakima River.
    - State and local governments are removing toxics from communities, including a Washington State 2007 PBDE ban; a 2009 Oregon State Deca-BDE ban; and mercury reduction strategies by Oregon, Idaho, and Nevada, to help communities reduce toxic chemical use and ensure proper disposal.
- Federal and state governments are cleaning up contamination at Portland Harbor, Hanford, Upper Columbia/Lake Roosevelt, Bradford Island, Lake Coeur d'Alene, and other sites.

C) Grant Program Resources

EPA grant resources directly supporting this goal are limited to the National Estuary Program Grants under Section 320 of the Clean Water Act (approx. $600 K annually in recent years) which funds work only in the lower part of the Columbia River, which is less than 2% of the Columbia River Basin. A range of other water program grants also support many activities that assist in the achievement of this subobjective. These include grants supporting Oregon, Idaho, and Washington state and tribal water quality programs.

10) San Francisco Bay Delta Estuary

A) Protect and restore water quality and ecological health of the estuary through partnerships, interagency coordination, and project grants in the San Francisco Bay.

B) Key Program Strategies

The San Francisco Bay Delta Estuary (Bay Delta) is the largest estuary on the west coast of North America. Its 4-million acre watershed covers more than 40% of California and includes the drainage basins for the Sacramento and San Joaquin Rivers, the Sacramento-San Joaquin Delta, and the San Francisco Bay (including Suisun and San Pablo Bays).

The Bay Delta is a valuable economic and ecological resource. It provides drinking water to 25 million Californians, irrigation to 4.5 million acres of agriculture, and hosts important economic resources such as the hub of California's water supply infrastructure, Port of Oakland, deep water shipping channels, major highway and railroad corridors, and energy lines. The Bay Delta ecosystem supports 750 species of plants, fish, and wildlife including several endangered and threatened aquatic species, such as delta smelt, steelhead, spring run Chinook salmon, winter run Chinook salmon, and others. Two-thirds of California's salmon pass through Bay Delta waters, and at least half of its Pacific Flyway migratory water birds rely on the region's wetlands.

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The Bay Delta Estuary is confronted by a wide range of challenges that are magnified and concentrated in the Delta, the heart of California's water system. Delta resources are in a state of crisis. Decades of pollution and resource extraction have lead to sharp declines in Bay Delta fisheries contributing to the collapse of California's salmon fishing industry. Multiple years of drought conditions have reduced water supply for agriculture and cities contributing to difficult economic conditions. Sub-sea level Delta islands are protected only by aging levees, leaving homes, communities, farms, transportation corridors, and energy infrastructure vulnerable to sea level rise, levee collapse, and flooding. A major earthquake would cause a catastrophic failure of the levee system jeopardizing lives, cities, and water supplies from the Delta to San Diego.

The federal government has recently re-committed to robust engagement on restoring the Bay-Delta ecosystem and addressing California's water needs. In 2009, EPA was one of six federal agencies who signed a Memorandum of Understanding[9] and produced an Interim Action Plan[10] describing a coordinated set of actions to restore the ecological health of the Bay-Delta ecosystem while providing for a high-quality, reliable, sustainable water supply for the State. Under the Action Plan, EPA has work underway to address critical water quality issues, including assessing the effectiveness of the current regulatory mechanisms to address the key water quality issues, developing a comprehensive regional water quality monitoring program, and integrating climate change into regional water management planning.

Since FY2008, EPA has administered a competitive grant program, the San Francisco Bay Water Quality Improvement Fund (SFBWQIF), to support partnerships that protect and restore San Francisco Bay watersheds as directed by congressional appropriations. EPA has prioritized activities to protect and restore habitat including riparian corridors, floodplains, wetlands, and the Bay; reduce polluted run-off from urban development and agriculture; and implement TMDLs to restore impaired water quality. To date, EPA has awarded $14.7 million, leveraging an additional $11.7 million and involving nearly 37 partners working on 28 projects throughout the San Francisco Bay Area.

In FY 2012, the San Francisco Bay-Delta Estuary program will focus on the following activities:

- Provide scientific support for Bay-Delta restoration to improve the understanding of:
    - The causes and methods for reversing the decline of pelagic organisms in the Delta;
    - Restoring the health of the San Joaquin River (San Joaquin River Restoration Settlement Act, Public Law 111-11); and
    - Pesticide and mercury pollutant loading;
- Participate in a state/federal partnership to balance the competing water needs between agriculture, urban uses, and the environment, especially the Agency commitments in the Interim Federal Action Plan of December 2009;
- Continue a competitive grant program to implement projects that improve water quality and restore habitat in San Francisco Bay watersheds;
- Strengthen ongoing implementation of the San Francisco Estuary Partnership's CCMP by supporting a new strategic plan. Encourage focus on reducing urban runoff impacts on water

[9] http://www.doi.gov/documents/BayDeltaMOUSigned.pdf
[10] http://www.doi.gov/documents/CAWaterWorkPlan.pdf

quality through watershed planning, Low Impact Development (LID) and TMDL implementation;
- Support the California Water Boards in implementing their Bay Delta Strategic Plan, particularly reviewing/improving water quality standards;
- Increase effectiveness of regulatory programs to restore water quality and to protect wetlands and streams;
- Continue efforts to support studies that focus on preparing for the effects of climate change;
- Continue to support restoration of wetlands acreage; and
- Strengthen monitoring to assist in Clean Water Act reporting and TMDL implementation, particularly aimed at establishing a San Joaquin Regional Monitoring Program.

For additional information see: http://www.epa.gov/region9/water/watershed/sfbay-delta/index.html.

C) Grant Program Resources

Historically, EPA grant resources directly supporting this goal have been limited primarily to the National Estuary Program grants under Section 320 of the Clean Water Act (approx. $600 K annually in recent years). More recently, the FY 2008, 2009, and 2010 appropriations bills included close to $17 million, collectively, for partnership grants to improve San Francisco Bay water quality. Proposals are solicited through an open competition, attempting to leverage other funding and targeting the SFBWQIF's priority environmental issues, as follows: reducing polluted run-off from urban development and agriculture, implementing TMDLs to restore impaired water quality, and protecting and restoring habitat including riparian corridors, floodplains, wetlands, and the Bay. There are currently no grant resources which specifically support the water quality issues beyond the immediate SF Bay, i.e., in the Delta and its tributaries.

D) A Strategic Response to Climate Change

Within San Francisco Bay, the San Francisco Estuary Partnership, the Bay Conservation and Development Commission (BCDC), and EPA Global Change Research Program completed a pilot project with the Climate Ready Estuaries Program to identify key vulnerabilities of the San Francisco Bay Delta Estuary to climate change. BCDC is proposing new policies for their Bay Plan to better address climate change and EPA will work to support adoption of appropriate policies.

For additional information, please visit
http://www.sfestuary.org/projects/detail2.php?projectID=4.

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V. NATIONAL WATER PROGRAM AND GRANT MANAGEMENT SYSTEM

1. National Water Program

This *National Water Program Guidance* document describes the general approaches that EPA, in consultation with states and tribes, expects to be most effective in attaining the environmental and public health improvements identified in the EPA *2011-2015 Strategic Plan.* This *Guidance*, however, is part of a larger, three part management process.

- **Part 1: Develop the *National Water Program Guidance:*** During the fall of 2010, EPA reviewed program measures and made improvements to many measures. This draft *Guidance* is being issued in February 2011 and comments are due by March 19th. EPA will review these comments and make changes and clarifications to measures and the text of the *Guidance*. A summary of responses to comments will be provided on the Office of Water Strategic Plan Web site at (http://www.epa.gov/water/waterplan/). EPA regional offices will provide regional targets in mid March. After discussion among headquarters and regional offices, national targets for FY 2012 will be revised to reflect regional input.

- **Part 2: EPA Region/State/Tribe Consultation/Planning**: EPA regions will work with states and tribes to develop FY 2012 Performance Partnership Agreements or other grant workplans, including commitments to reporting key activities and, in some cases, commitments to specific FY 2012 program accomplishments (May through October of 2011).

- **Part 3: Program Evaluation and Adaptive Management**: The National Water Program will evaluate program progress in 2012 and adapt water program management and priorities based on this assessment information.

Parts 2 and 3 of this program management system are discussed below. Key aspects of water program grant management are also addressed.

A) EPA Region/State/Tribe Consultation/Planning (Step 2)

1) National Water Program Guidance Commitment Process

EPA regional offices will work with states and tribes beginning in April of 2011 to develop agreements concerning program priorities and commitments for FY 2012 in the form of Performance Partnership Agreements or individual grant workplans. The *National Water Program Guidance for FY 2012,* including program strategies and FY 2012 targets, forms a foundation for this effort.

The *National Water Program Guidance for FY 2012* includes a minimum number of measures that address the critical program activities that are expected to contribute to attainment of long-

term goals. Between FYs 2007 and 2008, the total number of water measures has been reduced and EPA has focused reporting on existing data systems where possible. Some of these Program Activity Measures track activities carried out by EPA while others address activities carried out by states and tribes (see *Appendix A*). In addition, some of these measures include annual national "targets" while others are intended to simply indicate change over time.

During the Spring/Summer of 2011, EPA regions will work with states and tribes to agree on reporting for all the measures in the *FY 2012 Guidance*, including both target and indicator measures. For the target measures, EPA regional offices will develop FY 2012 regional "commitments" based on their discussions with states and tribes and using the "planning targets" in the *FY 2012 Guidance* as a point of reference. Draft regional "commitments" are due July 8 and, after review and comment by National Program Managers, EPA regions are to finalize regional commitments by October 3. These final regional "commitments" are then summed to make the national commitment, and both the regional and national commitments are finalized the Agency's Annual Commitment System (ACS) by October 21, 2011.

A key part of this process is discussion among EPA regions, states, and tribes of regional "commitments" and the development of binding performance partnership agreements or other grant workplan documents that establish reporting and performance agreements. The goal of this joint effort is to allocate available resources to those program activities that are likely to result in the best progress toward accomplishing water quality and public health goals for that state/tribe (e.g., improved compliance with drinking water standards and improved water quality on a watershed basis). This process is intended to provide the flexibility for EPA regions to adjust their commitments based on relative needs, priorities, and resources of states and tribes in the EPA region. Recognizing that rural communities face significant challenges in ensuring safe drinking water and protecting water quality, the National Water Program will focus on addressing rural communities' needs in discussions with states and work more collaboratively with rural communities and rural technical providers in 2012 in planning program activities for FY 2012. The tailored program "commitments" that result from this process define, along with this *Guidance*, the "strategy" for the National Water Program for FY 2012.

As EPA regional offices work with states and tribes to develop FY 2012 commitments, there should also be discussion of initial expectations for progress under key measures in FY 2013. The Agency begins developing the FY 2013 budget in the spring of 2011 and is required to provide initial estimates of FY 2013 progress for measures included in the budget in August of 2011. These estimates can be adjusted during the fall before they go into the final FY 2013 President's budget in January/February 2012. The Office of Water will consult with EPA regions in developing the initial FY 2013 budget measure targets in August 2011, and regions will be better able to comment on proposed initial targets if they have had preliminary discussions of FY 2013 progress with states and tribes. Regions should assume stable funding for the purposes of these discussions.

Final commitments are used as a management internal control to communicate performance expectations to programs in regions and headquarters. The accountability to these commitments is tracked through annual and interim reporting by responsible programs. HQ and regional managers are responsible for translating the measured commitments into appropriate tasking for

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their staffs, reviewing progress against these tasks, and accounting for their completion.

2) State Grant Results and Reporting

In FY 2012, EPA remains committed to strengthening our oversight and reporting of results in state grants, not only linking state work plan commitments to EPA's *Strategic Plan*, but also enhancing transparency and accountability. EPA and states will continue working in FY 2012 to achieve this through two related efforts:

State Grant Workplans. The Agency's long-term goal is for EPA and states to achieve greater consistency in workplan formats. To achieve that goal, the Office of Grants and Debarment (OGD) convened a State/EPA workgroup of grant practitioners to identify Essential Elements to be included in grant workplans and related grant progress reports for the 14 identified state categorical grant programs. On January 24, 2011, OGD issued Grants Policy Issuance (GPI) 11-03 *State Grant Workplans and Progress Reports.* The GPI requires that workplans and associated progress reports prominently display three Essential Elements (the Strategic Plan Goal; the Strategic Plan Objective; and the Workplan Commitments plus time frame) to further accountability, strategic plan alignment, and consistent performance reporting. To further transparency, the GPI calls for the establishment of an Information Technology application to electronically store workplans and progress reports. The State /EPA workgroup is currently exploring prototypes for the application.

In consultation with the practitioners workgroup and recognizing that the requirements for the GPI will need to be phased in over time to allow regions and states to adjust to the new requirements. The GPI will go into effect for awards for the 14 identified state categorical grant programs made on or after October 1, 2012. The Agency's goal is to have all covered grants awarded on or after October 1, 2012 comply with the GPI. Regions and states, however, should begin their planning now to transition to the new approach and, at a minimum, the GPI should be considered in FY 2012 workplan negotiations. As the policy is implemented, it will be important for National Program Managers and Regional Program Offices to provide appropriate outreach, assistance and education to state recipients. In addition, OGD will work with regions on a case-by-case basis to address any implementation challenges. Please contact Jennifer Bogus, OARM/OGD, at 202-564-5294 should you have questions related to the GPI.

Measuring Results in State Grant Work Plans and Progress Reports: OW program offices and regions should begin working with state grant recipients to ensure compliance with the new GPI when it becomes effective in FY 2013. As the policy is implemented, it will be important for OW program offices and regions to provide appropriate outreach, assistance, and education to state grant recipients. In addition, OGD will work with the regions on a case-by-case basis to address any implementation challenges.

The current set of measures flagged as State Grant Measures in ACS will be retained for FY 2012 reporting. As in FY 2011, the use of the template to capture results for these measures is not required. However, reporting on the results remains the responsibility of EPA regions and states.

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For FY 2012, regions and states will continue to report performance results against the set of state grant measures into ACS. For a subset of the measures for which FY 2012 targets and commitments are established, EPA is asking that states and EPA regions provide the Office of Water with state specific results data at the end of FY 2012. These measures are associated with some of the larger water program grants. The water grant programs and the FY 2012 "State Grant" measures supporting the grant are:

a. **Water Pollution Control State and Interstate Program Support (106 Grants).** State Grant Measures: WQ-SP10.N11; WQ-1a/b/c; WQ-3a; WQ-5; WQ-8b; WQ-14a; WQ-15a; WQ-19a.
b. **Public Water System Supervision (PWSS Grants).** State Grant Measures: SDW-211; SDW-SP1.N11; SDW-SP4a; and SDW-1a.
c. **State Underground Water Source Protection (UIC Grants).** State Grant Measures: SDW-7.
d. **Beach Monitoring and Notification Program Implementation Grants.** State Grant Measures: SS-SP9.N11 and SS-2.
e. **Nonpoint Source Grants (319 Grants).** State Grant Measure: WQ-10.

3) Use of the Exchange Network for Reporting Water Quality Monitoring Results

In a July 2009 memorandum, EPA Administrator Jackson made enhanced use of the National Environmental Information Exchange Network a part of her strategic vision for the Agency. She wrote in response to a unanimous request from the Environmental Council of the States emerging from their spring 2009 meeting that she intends "the Agency to work with the states to set an aggressive timetable for completing the transition to the Exchange Network (EN) for regulatory and national system reporting". She directed the NPMs to work to achieve the vision of the Network as "the preferred way EPA, states, tribes, and others share and exchange data." She added "I look forward to reviewing our progress toward achieving this goal". OW places a high priority on increasing the use of the EN for the exchange of water related flows.

Regions working in partnership with the state programs should:

- Increase WQX submissions to at least 46 state submissions during 2011;
- Increase SDWIS submissions using the EN to 39 states by 2012;
- Encourage the use of the exchange network for submitting UIC data by 15 states during 2011; and
- Increase the use of the eBeaches flow to 15 states by 2011 and 30 states by 2012.

4) Grant Guidances

In addition to this *National Water Program Guidance*, supporting technical guidance is available in grant-specific guidance documents. The grant guidance documents will be available by April 2011 in most cases. For most grants, guidance for FY 2011 is being carried forward unchanged to FY 2012. Grant guidance documents can be found on the Internet at (www.epa.gov/water/waterplan/). More information about grant management and reporting requirements is provided at the end of this section.

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In FY 2010, the grant guidance for the Water Pollution Control Grants from Section 106 of the Clean Water Act (Section 106 grants) was incorporated into this *National Water Program Guidance*. This was a pilot effort to gain efficiency in the issuance of the Section 106 Grant Guidance within the *National Water Program Guidance*. Text boxes with specific Section 106 guidance are incorporated within Section III, 1, B, 1 of this *Guidance*. *Appendix D* has additional information for states and the interstate agencies. The Tribal Program, Monitoring Initiative, and Water Pollution Enforcement Activities are not included in this pilot, and grantees should follow the specific, separate guidances for these programs.

In FY 2011, EPA incorporated the grant guidance for the Public Water System Supervision (PWSS) and Underground Injection Control (UIC) grants within the Water Safe to Drink Subobjective to continue to pilot a more streamlined approach to issuing the grant guidance.

5) Work Sharing Between EPA and States

Both EPA and states fulfill critical roles in protecting and improving human health and the environment. By law and through shared experience, EPA and states must effectively collaborate in the planning and implementation of environmental programs, and by ensuring compliance with statutory and regulatory requirements to succeed.

The current economic challenges facing states are requiring the Agency to seriously consider alternate approaches in work planning to maintain the current levels of delivery of its environmental and public health programs.

Further, the Administrator has placed renewed emphasis on improving the Agency's relationships with the States through the Strategic Plan's Cross-Cutting Fundamental Strategy, *Strengthening State, Tribal and International Partnerships*.

To maintain program performance nationally and to ensure the success of the Partnerships Strategy, EPA regional offices and their state partners are to expand the utilization of work sharing in developing their FY 2012 program performance commitments. Examples and best practices for work sharing are included in *Appendix F* (in electronic copy only).

B) Program Evaluation and Adaptive Management (Step 3)

As the strategies and programs described in this *Guidance* are implemented during FY 2012, EPA, states, and tribes will evaluate progress toward water goals and work to improve program performance by refining strategic approaches or adjusting program emphases.

The National Water Program will evaluate progress using four key tools:

1) National Water Program Mid-Year and End of Year Best Practice and Performance Reports

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The Office of Water will prepare a performance report for the National Water Program at the mid-point and the end of each fiscal year based on data provided by EPA headquarters program offices, EPA regions, states, and tribes. These reports will give program managers an integrated analysis of progress ***at the national level*** and ***in each EPA region*** with respect to environmental and public health goals identified in the *Strategic Plan* and program activity measures in the *National Water Program Guidance*;

The reports will include performance highlights, management challenges, and best practices. The Office of Water will maintain program performance records and identify long-term trends in program performance. In addition, the National Water Program Oversight Group will meet at mid-year and end of the year to discuss recent performance trends and results.

2) Senior Management Measures and Quarterly Program Update Meetings with the Deputy Administrator

The Office of Water reports to the Deputy Administrator the results on a subset of the *National Water Program Guidance* measures three times per fiscal year. In addition, headquarters and regional senior managers are held accountable for a select group of the *Guidance* measures in their annual performance assessments.

3) HQ/Regional Dialogues

Each year, the Office of Water will visit three EPA regional offices to conduct dialogues on program management and performance. These visits will include assessment of performance in the EPA regional office and associated Large Aquatic Ecosystem programs against objectives and subobjectives in the *Strategic Plan* and annual state/tribal Program Activity Measure commitments.

In addition, a key topic for the HQ/regional dialogues will be identification of program innovations or "best practices" developed by the EPA region, states, tribes, watershed organizations, and others. By highlighting best practices identified in HQ/region dialogues, these practices can be described in water program performance reports and more widely adopted throughout the country.

4) Program-Specific Evaluations

In addition to looking at the performance of the National Water Program at the national level and performance in each EPA regional office, individual water programs will be evaluated periodically by EPA and by external parties.

EPA program evaluations include Office of Water projects selected by The Office of Policy, Economics, and Innovation's (OPEI) annual Program Evaluation Competition and reviews undertaken by the Evaluation and Accountability Team in the Office of Water. Program offices will provide continuing oversight and evaluation of state/tribal program implementation in key program areas (e.g., NPDES program).

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In addition, the Office of Water expects that external parties will evaluate water programs, including projects conducted by the EPA Office of Inspector General (OIG), the Congressional Government Accountability Office (GAO), and projects by the National Academy of Sciences (NAS).

Finally, improved program performance requires a commitment to both sustained program evaluation and to using program performance information to revise program management approaches. Some of the approaches the Office of Water will take to improve the linkage between program assessment and program management include:

1) **Communicate Performance Information to Program Managers:** The Office of Water will use performance information to provide mid-year and annual program briefings to the Deputy Assistant Administrator and senior HQ water program managers.

2) **Communicate Performance Information to Congress and the Public:** The Office of Water will use performance assessment reports and findings to communicate program progress to other federal agencies, the Office of Management and Budget (OMB), the Congress, and the public. The Office of Water has established a performance page on EPA's web site to display data on annual and long term performance trends.

3) **Link to Budget and Workforce Plans:** The Office of Water will use performance assessment information in formulation of the annual budget and in development of workforce plans.

4) **Promote Wide Dissemination of Best Practices:** The Office of Water will actively promote the wide application of best practices and related program management innovations identified as part of the End of the Year Performance Reports.

5) **Expand Regional Office Participation in Program Assessment:** The Office of Water will promote expanded involvement of EPA regional offices in program assessments and implementation of the assessment process. This effort will include expanded participation of the Lead Region in program assessment processes.

6) **Strengthen Program Performance Assessment in Personnel Evaluations:** The Office of Water will include in EPA staff performance standards specific references that link the evaluation of staff, especially the Senior Executive Service Corps, to success in improving program performance.

7) **Recognize Successes:** In cases where program performance assessments have contributed to improved performance in environmental or program activity terms, the Office of Water will recognize these successes. By explaining and promoting

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cases of improved program performance, the organization builds confidence in the assessment process and reinforces the concept that improvements are attainable.

8) **Strengthen Development of Future Strategic Plans and National Performance Guidance:** The Office of Water will use program assessments to improve future strategic plans, including revised strategic measures. In addition, the Office of Water will use end of the year performance results to assist in setting regional and national annual commitments for the *National Water Program Guidance*.

9) **Promote Effective Grants Management:** The Office of Water will continue to actively promote effective grants management to improve program performance. The Agency has issued directives, policies, and guidance to help improve grants management. It is the policy of the Office of Water that all grants are to comply with applicable grants requirements (described in greater detail in the "National Water Program Grants Management for FY 2012" section), regardless of whether the program specific guidance document addresses the requirement.

10) **Follow-Up Evaluation for Measure and Program Improvement**. The Office of Water may conduct systematic assessments of program areas that have consistently been unable to meet performance commitments. The assessments will focus on characterizing barriers to performance and options for program and/or measure improvement.

2. National Water Program Grants Management for FY 2012

The Office of Water places a high priority on effective grants management. The key areas to be emphasized as grant programs are implemented are:

- Promoting competition to the maximum extent practicable;
- Monitoring assistance agreements and ensuring compliance with post-award management standards;
- Assuring that project officers and their supervisors adequately address grants management responsibilities; and
- Linking grants performance to the achievement of environmental results as laid out in the Agency's *Strategic Plan* and this *National Water Program Guidance*.

A. Policy for Competition of Assistance Agreements

The Office of Water strongly supports the Agency policy to promote competition to the maximum extent practicable in the award of assistance agreements. Project officers must

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comply with Agency policy concerning competition in the award of grants and cooperative agreements and ensure that the competitive process is fair and impartial, that all applicants are evaluated only on the criteria stated in the announcement, and that no applicant receives an unfair advantage.

The Policy for Competition of Assistance Agreements, EPA Order 5700.5A1, effective January 15, 2005, applies to: (1) competitive announcements issued, released, or posted after January 14, 2005; (2) assistance agreement competitions, awards, and disputes based on competitive announcements issued, released, or posted after January 14, 2005; (3) non-competitive awards resulting from non-competitive funding recommendations submitted to a Grants Management Office after January 14, 2005; and (4) assistance agreement amendments issued after January 14, 2005.

If program offices and regional offices choose to conduct competitions for awards under programs that are exempt from the Competition Order, they must comply with the Order and any applicable guidance issued by the Grants Competition Advocate (GCA). This includes complying with the Office of Management and Budget (OMB) standard formatting requirements for federal agency announcements of funding opportunities and OMB requirements related to Grants.gov (http://www.grants.gov), which is the official federal government website where applicants can find and apply to funding opportunities from all federal grant-making agencies.

On December 1, 2006, OGD issued a memorandum describing the approval process for using State and Tribal Assistance Grants (STAG) funds to make non-competitive awards to state co-regulator organizations using the co-regulator exception in the Competition Order. The memorandum states that it is EPA policy to ensure that the head of the affected state agency or department (e.g., the State Environmental Commissioner or the head of the state public health or agricultural agency) is involved in this approval process. Accordingly, effective December 1, 2006, before redirecting STAG funds from a State Continuing Environmental Program (CEP) grant allotment for a non-competitive award to a state co-regulator organization, EPA must request and obtain the consent of the head of the affected state agency or department.

B. Policy on Compliance Review and Monitoring

The Office of Water is required to develop and carry out a post-award monitoring plan and conduct baseline monitoring for every award. EPA Order 5700.6A2, *Policy on Compliance, Review and Monitoring,* effective January 1, 2008 helps to ensure effective post-award oversight of recipient performance and management. The Order encompasses both the administrative and programmatic aspects of the Agency's financial assistance programs. From the programmatic standpoint, this monitoring should ensure satisfaction of five core areas:

- Compliance with all programmatic terms and conditions;
- Correlation of the recipient's work plan/application and actual progress under the award;
- Availability of funds to complete the project;
- Proper management of and accounting for equipment purchased under the award; and
- Compliance with all statutory and regulatory requirements of the program.

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If during monitoring it is determined that there is reason to believe that the grantee has committed or commits fraud, waste and/or abuse, then the project officer must contact the Office of the Inspector General. Baseline monitoring activities must be documented in the Post-Award Database in the Integrated Grants Management System (IGMS). Advanced monitoring activities must be documented in the official grant file and the Grantee Compliance Database.

C. Performance Standards for Grants Management

Project officers of assistance agreements participate in a wide range of pre-and post-award activities. OGD issued *Guidance for Assessing Grants Management and the Management of Interagency Agreements under the Performance Appraisal and Recognition System (PARS)* on September 30, 2010 to be used for 2010 PARS appraisals of project officers who are managing at least one active grant during the rating period, and their supervisors/managers. The memo also provides guidance for the development of 2011 performance agreements. The Office of Water supports the requirement that project officers and their supervisors/managers assess grants management responsibilities through the Agency's PARS process.

D. Environmental Results Under EPA Assistance Agreements

EPA Order 5700.7, which went into effect in 2005, states that it is EPA policy to:

- Link proposed assistance agreements to the Agency's *Strategic Plan;*
- Ensure that outputs and outcomes are appropriately addressed in assistance agreement competitive funding announcements, work plans, and performance reports; and
- Consider how the results from completed assistance agreement projects contribute to the Agency's programmatic goals and responsibilities.

The Order applies to all non-competitive funding packages/funding recommendations submitted to Grants Management Offices after January 1, 2005, all competitive assistance agreements resulting from competitive funding announcements issued after January 1, 2005, and competitive funding announcements issued after January 1, 2005. Project officers must include in the Funding Recommendation a description of how the project fits within the Agency's *Strategic Plan*. The description must identify all applicable EPA strategic goal(s), objectives, and where available, subobjective(s), consistent with the appropriate Program Results Code(s).

In addition, project officers must:

- Consider how the results from completed assistance agreement projects contribute to the Agency's programmatic goals and objectives;
- Ensure that well-defined outputs and outcomes are appropriately addressed in assistance agreement work plans, solicitations, and performance reports; and
- Certify/assure that they have reviewed the assistance agreement work plan and that the work plan contains outputs and outcomes.

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VI. Water Program and Environmental Justice

In January 2010, Administrator Jackson made ***Expanding the Conversation on Environmentalism and Working for Environmental Justice*** one of EPA's key priorities. This new priority challenges EPA to address the needs of communities that are underrepresented in environmental decision-making and overburdened by environmental pollution. Through this priority, the Office of Water will actively perform community outreach and engage and work with communities to create healthy and sustainable communities by decreasing environmental burdens and increasing environmental benefits.

To further support this priority, environmental justice principles must be included in the Agency's decision making processes. The Office of Water supports the Administrator's EJ priority and the EJ Plan 2014, a four-year plan that will help EPA move forward to develop a stronger relationship with communities and increase the Agency's effort to improve the environmental conditions and public health in overburdened communities. For more information on EJ Plan 2014, see http://www.epa.gov/compliance/ej/resources/policy/plan-ej-2014.html. The Office of Water also supports the *Cross-Cutting Fundamental Strategy: Working for Environmental Justice and Children's Health* established in the *FY 2011 – 2015 Strategic Plan*.

To facilitate the continued integration of EJ into its programs, OW will:

- Provide opportunities to engage communities in the National Water Program work and develop improved methods of information delivery and technical assistance to communities underrepresented in decisions to provide clean and safe water;
- Overcome barriers to incorporating EJ in decision making, including development of regulations and issuing permits;
- Consider approaches for incorporating EJ in setting priorities, allocating resources, targeting activities, and measuring progress; and
- Work with the regions and federal agencies to coordinate funding and technical support for efforts to build healthy, sustainable, and green neighborhoods.

The Office of Water will make the use of all tools it has at its disposal -- technical assistance, data, and initiatives, such as the Urban Waters Effort, Community Action for a Renewed Environment (CARE), and grants -- to link with EPA regional efforts that address the range of environmental issues facing all EJ communities including the community based EJ Showcase Community Program.

During FY 2011 - 2012, OW will work with other EPA media offices and EJ stakeholders to address permits issued pursuant to federal environmental laws that enable EPA to address the complex issue of cumulative impacts from exposure to multiple sources and existing conditions that are critical to the effective consideration of environmental justice in permitting.

The goal of this effort is to ensure that environmental justice concerns are given full consideration in the decision to issue a permit and the terms of permits issued under federal environmental laws. An additional goal is to develop tools to support the consideration of environmental justice during implementation of permitting programs.

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1. Environmental Justice in the EPA National Water Program

The Office of Water places emphasis on achieving results in areas with potential environmental justice concerns through Water Safe to Drink (Sub-objective 2.1.1) and Fish and Shellfish Safe to Eat (Sub-objective 2.1.2). In addition, the National Water Program places emphasis on other EJ Water Related Elements: 1) Sustain and Restore the U.S.-Mexico Border Environmental Health (Subobjective 2.2.9); 2) Sustain and Restore Pacific Island Territories (Subobjective 2.2.10); and 3) Alaska Native Villages Program. This focus will result in improved environmental quality for all people, including the unserved and underserved subpopulations living in areas with potential disproportionately high and adverse human health conditions. The Office of Water will explore ways to collaborate with the Office of Environmental Justice and other EPA offices on how to best develop climate change adaptation policies and strategies that pay closer attention to vulnerable populations.

In order to advance environmental quality for communities with EJ concerns, the Office of Water will address the EJ considerations in drinking water and wastewater infrastructure improvements to small and disadvantaged communities. The Office of Water will address the lack of access to safe drinking water and sanitation systems in small disadvantaged communities, including tribal and territorial communities, as well as, reduce the risk to exposure in contaminants in fish. The Office of Water also places emphasis on Community Action for a Renewed Environment (CARE) communities/projects that assess and address sources of water pollution. The Office of Water will continue serving as the lead for CARE which rotates leadership among EPA's four media programs every two years. Finally, the Office of Water places emphasis on helping communities -- especially disadvantaged communities -- to access, restore and benefit their urban waters through the Urban Waters Effort.

2. Environmental Justice and Water Safe to Drink

The Office of Water will promote infrastructure improvements to small and disadvantaged communities through the Drinking Water State Revolving Fund (DWSRF) that reduce public exposure to contaminants through compliance with rules and support the reliable delivery of safe water by public water systems, schools, and child-care centers.

To maintain and improve water quality in rural America, EPA will continue its efforts to promote better management of water utilities through support of state capacity development and operator certification programs, and through initiatives on asset management, operator recruitment and retention, and water efficiency. This also includes efforts to build a sustainable and green water sector workforce.

EPA will continue to encourage states to refer drinking water systems to third party assistance providers, when needed. Third party assistance is provided through existing contractual agreements or by other state, federal, or non-profit entities.

On October 10, 2007, EPA published the latest changes to the Lead and Copper Rule (LCR) which included significant improvements to the Public Education (PE) requirements. Drinking

water systems must conduct PE when they have a lead action level exceedance. EPA made significant modifications to the content of the written public education materials (message content) and added a new set of delivery requirements. These revisions are intended to better ensure that at risk and under represented populations receive information quickly and are able to act to reduce their exposure.

3. Drinking Water on Tribal Lands

The challenges associated with the provision of safe drinking water in Indian country are similar to challenges facing other small communities: a lack of financial, technical and managerial capacity to operate and maintain drinking water infrastructure. The magnitude of these challenges in Indian country is demonstrated by tribal water system compliance with health-based regulations and by the number of homes that lack access to safe drinking water in Indian country.

- In 2010, 13.2% of the population in Indian country was served by community water systems in violation of EPA's health-based drinking water standards. In comparison; 7.9% of the entire U.S. population was served by community water systems in violation of these regulations.
- Additionally, 34,187 or 12.1% of the tribal homes tracked by the Indian Health Service were found to lack access to safe drinking water in 2009. This compares with the 0.6% of non-native homes in the United States that lack such infrastructure, as measured in 2005 by the U.S. Census Bureau.

The EPA National Tribal Drinking Water Program will continue to maintain its commitment to improve safe drinking water in Indian country by working with public water systems to maintain and improve compliance with the National Primary Drinking Water Regulations by targeting infrastructure dollars and training. The EPA will also continue to work in partnership with the Indian Health Service, the Department of Agriculture, the Department of the Interior, and Housing and Urban Development through the Infrastructure Task Force (ITF) to increase access to safe water. The ITF is tasked with enhancing the coordination of federal tribal infrastructure funding and generating ways to improve and support tribal utility management in an effort to increase and maintain access to safe drinking water in Indian country.

To support better management and maintenance of water systems on tribal lands, EPA will continue to implement the National Tribal Drinking Water Operator Certification program to provide tribal water utility staff with advanced training and experience.

4. Environmental Justice and Fish and Shellfish Safe to Eat

The Office of Water promotes contaminant monitoring, as well as risk communication to minority populations who may consume large amounts of fish and shellfish taken from polluted waters. Integration of public health advisory activities into the Water Quality Standards Program promotes environmental justice by ensuring that advisories and minority population health risks are known when states make water quality standards attainment decisions, develop Total Maximum Daily Loads for impaired waters, and develop permits to control sources of pollution.

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The Office of Water will focus on activities encouraging states to assess fish and shellfish tissue for contaminants in waters used for fishing by minority and sensitive populations, particularly those that catch fish for subsistence. Such populations may include women of child bearing age, children, African Americans, Asian Pacific Islanders, Hispanics, Native Americans, Native Hawaiians, and Alaska Natives.

The Office of Water reaches these populations by disseminating information in multiple languages to doctors, nurses, nurse practitioners, and midwives about reducing the risks of exposure to contaminants in fish and shellfish. The Office of Water maintains the National Fish Advisory Web site that includes the National Listing of Fish Advisories (includes both fish and shellfish advisories) and provides advice to health professionals and the public on preparing fish caught for recreation and subsistence.

5. Environmental Justice Water Related Elements

The Community Action for a Renewed Environment (CARE) program is a community-based, multi-media collaborative Agency program designed to help local communities address the cumulative risk of pollutant exposure. Through the CARE program, EPA programs work together to provide technical and financial assistance to communities. CARE assistance agreements create and strengthen local partnerships, local capacity, and civic engagement to improve local environments and health, and to ensure sustainability of environmental health efforts over time. Technical support and training help communities build partnerships and use collaborative processes to improve their understanding of environmental risks from all sources, set priorities, and select and implement actions to reduce risks.

CARE helps communities choose from the range of EPA programs designed to address community concerns and improve their effectiveness by working to integrate the programs to better meet the needs of communities. The CARE program coordinates with a broad range of governments, organizations and businesses to help communities find partners they will need to succeed. In addition, CARE makes best practices, lessons learned and other tools accessible to all communities. CARE benefits many communities, the majority of which are experiencing disproportionate adverse health and environmental impacts.

The Office of Water will work with CARE communities/projects to assess and address sources of water pollution, including the use of water pollution reduction programs in their communities, particularly those communities suffering disproportionately from environmental burdens. The CARE Program will continue to promote cross-media collaboration across the Agency. Regions will use cross-media teams to manage and implement CARE cooperative agreements in order to protect human health and protect and restore the environment at the local level. Regions also will identify experienced project officers/leaders for each of the CARE projects and provide training and support as needed. In FY 2012, the lead coordination NPM for the CARE Program is OW, with OAR as co-lead. OCSPP and OSWER principals and staff continue to actively participate in this cross-Agency program, as do OEJ and OCHP. The CARE Program and regions will ensure required reporting of progress and results in Quarterly and End of Year Reports and other efforts to aggregate program results on a national level. To capture some of

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the program successes, the CARE program has two new indicator measures that will be tracked and reported under the Office of Air's National Program Guidance. The indicator measures are:

- Number and percent of communities who have developed and agreed on a list of priority toxic and environmental concerns using the CARE partnership process (annual and cumulative)
- Number and percent of communities who, through the CARE Program, implement local solutions to address an agreed upon list of priority toxic and environmental concerns using the CARE partnership process (annual and cumulative)

More program information is available at www.epa.gov/CARE.

In addition, EPA will continue to work with at risk and underserved communities in the U.S.-Mexico Border region and Pacific Islands to improve water infrastructure to increase access to safe drinking water and sanitation.

The Office of Water will promote the protection of public health through the improvement of sanitation conditions in Alaska Native Villages and other small and disadvantaged rural Alaska communities. EPA's Alaska Native Village Infrastructure program funds the development and construction of drinking water and wastewater infrastructure. As projects are completed, public exposure to contaminants is greatly reduced through the reliable delivery of safe drinking water in compliance with public health standards and the treatment of wastewater to meet environmental regulations.

In addressing the challenges of climate Change, it is important to recognize that the impacts of climate change raise serious environmental justice issues. It is generally understood that the extent and nature of climate change impacts on populations will vary by region, the relative vulnerability of population groups, and society's ability to adapt to or cope with climate change.

As emphasized in the *Technical Support Document* accompanying the *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, "within settlements experiencing climate change, certain parts of the population may be especially vulnerable; these include the poor, the elderly, those already in poor health, the disabled, those living alone…and/or indigenous populations." The Office of Water will work with program offices in EPA to address the issues facing EJ communities regarding climate change

6. Achieving Results in the Environmental Justice Priorities

The Office of Water will track these activities through Goal 2, Protecting America's Waters, and is reviewing existing measures, as part of the Action Plan for the *Cross-Cutting Fundamental Strategy: Working for Environmental Justice and Children's Health*, to identify opportunities to highlight EJ work in the National Water Program.

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VII. Water Program and Children's Health

It is important that children's environmental health be an intrinsic part of decision-making at every level of the Agency. EPA must build on existing activities and accomplishments so that children's health protection is not just a consideration in Agency decision-making, but a driving force in decisions. EPA must use a variety of approaches to protect children from environmental health hazards, including regulation, implementation of community-based programs, research, and outreach. At the same time, EPA must periodically evaluate performance to ensure that progress is being made towards this goal.

EPA regions, states, and tribes should identify and assess environmental health risks that may disproportionately affect children throughout their life stages, including fetal development, infancy, childhood, and adolescence. Regional programs must ensure that policies, programs, activities, and standards address disproportionate risks to children. Each region supports a Children's Health Coordinator who serves as a resource within the region to assist offices and divisions with children's environmental health programs and planning. The regional Children's Health Coordinator is also a liaison between the region and the Office of Children's Health Protection and Environmental Education at headquarters.

Actions regions can take in FY 2012 to expand efforts to protect children's environmental health include:

- Reviewing existing ACS measures that are specific to or refer to children's health to determine if they can better report outcomes and results in children's environmental health for inclusion in future planning and reporting;
- Formulating discussions and agenda topics on children's health outcomes for EPA programs in national meetings, such as division directors meetings;
- Implementing the Agency's Children's Environmental Health Guidance for Human Health Risk Assessments (http://epa.gov/risk/guidance.htm);
- Sponsoring joint meetings with counterparts in state environmental departments and health departments to facilitate coordinated actions to better protect children's environmental health; and
- Developing region-wide strategies to focus on addressing critical children's health issues within each region.

Schools and day care centers are a critical subset of small systems for which EPA is also continuing to provide special emphasis in FY 2012 to ensure that children receive water that is safe to drink. The National Water Program has developed a separate indicator for schools and day care centers meeting health-based standards in order to track progress in this area.

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VIII. National Water Program and the Urban Waters Effort

Urban environments, particularly in underserved communities, are dominated by impervious surfaces, industrial facilities, and abandoned or vacant, often contaminated lands. These characteristics, in combination with insufficient storm water infrastructure, generate excess runoff that transports garbage, fertilizers, pesticides, and hazardous wastes into the local bodies of water and contribute to combined sewer overflows. In addition, pollution may be introduced to local water bodies from any existing operating facilities. Years of contamination create legacy pollutant issues, public and environmental health hazards, and cases of environmental injustice. Urban populations are often denied access to the water and do not reap the potential economic, social, and environmental benefits of the resource. Furthermore, historic urban patterns of development often isolate communities from their waters.

In March 2009, in response to a charge from EPA Administrator Lisa Jackson, EPA's Office of Water, Office of Solid Waste and Emergency Response, and Office of Environmental Justice began to develop a new Urban Waters effort to address these issues. This effort supports the Administrator's priority, Protecting America's Waters.

The goal of the Urban Waters effort is to help communities - particularly underserved communities - access, restore, and benefit from their urban waters and the surrounding land. By promoting public access to urban waters, EPA will help communities become active participants in the enjoyment, restoration, and protection of these urban waters. By linking water to other community priorities, EPA will help make the condition of these waters more relevant to nearby communities and help to sustain their involvement over the time horizon needed for water quality improvement.

In April and May 2009, during outreach to those working in and with urban communities, EPA heard from organizations and individuals who have successfully mobilized to address these issues. These stakeholders indicated that important factors in that success were: engagement of nearby residents, especially youth; robust partnerships; strong community-based organizations; active and informed local government officials; effective education and communication; economic incentives; and early, visible victories that fueled sustained action. It was also clear from these sessions, that stakeholders want federal agencies to better coordinate their support to communities and that they are seeking technical assistance and information to assist them in making more informed choices and in influencing local decisions about their waters and the surrounding land.

In response to key stakeholder feedback, EPA will join with the U.S. Department of Agriculture and Department of Interior to lead a federal interagency working group to improve communities' access to resources relevant to urban water restoration; convene national and regional forums with state, tribal and local agencies, centers of learning, private sector and non-governmental organizations; and coordinate support to on-the-ground projects. EPA will develop new Web 2.0 tools for community-to-community knowledge sharing; conduct outreach to non-digital audiences; and provide technical assistance to support communities in being informed

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participants in local decision-making.

State, tribal, and local government agencies are encouraged to build on their existing partnerships and develop new partnerships with non-profits, private sector, academia and community groups, especially those addressing environmental justice to undertake activities that:

- Promote equitable and safe public access to urban waterways and equitable development of waterfronts;
- Improve the appearance, odor, health, and quality of the water for uses including recreation, fishing, swimming and drinking water sources; and
- Improve the perception of the potential value of these waters and encourage community involvement in their restoration and improvement by reframing water as relevant to community priorities, such as education, employment, recreation, safety, health, housing, transportation, and livability.

Areas of activity may include green infrastructure, source water protection, water sector workforce development, watershed planning, land revitalization, monitoring and assessment, fish advisories, and beach monitoring and notification. EPA's current work in the Chesapeake Bay, Great Lakes, National Estuary Program, and Large Aquatic Ecosystem programs may offer additional place-based opportunities to engage urban communities.

IX. National Water Program and Climate Change

The EPA Office Water released the *National Water Program Strategy: Response to Climate Change (Strategy)* in September 2008. The *Strategy* describes the impacts of climate change (e.g. warming water temperatures, changes in rainfall amounts and intensity, and sea level rise) and their implications for EPA's clean water and drinking water programs (please see http://water.epa.gov/scitech/climatechange/strategy.cfm).

Forty-four specific "key actions," identified in the *Strategy*, lay the foundation for adapting water programs to a changing climate. Most of these actions address building resilience to climate change impacts, while others address opportunities for mitigating release of greenhouse gases, improving research on climate change and water issues, and facilitating education about climate change challenges.

Highlights of Climate Change activities in the National Water Program

- Greenhouse Gas Mitigation - Water programs at EPA have been working to help control greenhouse gas emissions by focusing on improving energy efficiency at drinking water and wastewater utilities, reducing water use through the WaterSense program, and reducing urban heat islands through the Green Infrastructure and Green Buildings programs. In addition in 2010, the EPA Underground Injection Control Program finalized

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a rule to protect groundwater supplies that could be affected by geological sequestration of carbon dioxide.

- Resiliency - To improve resilience and readiness to adapt to the impacts of climate change, the EPA Office of Water and the EPA Office of Air and Radiation have worked together to develop the Climate Ready Estuaries program. The National Water Program also formed a working group under the National Drinking Water Advisory Council FACA to evaluate the concept of "Climate Ready Water Utilities". This group provided findings and recommendations on the development of an effective program that will enable drinking water and wastewater utilities to develop and implement long-range plans that account for climate change impacts.

- Water Program Adaptation - Climate change is being incorporated throughout the National Water Program's base programs as information becomes available and resources allow. For example, guidance has been issued clarifying the use of the State Revolving Funds for climate change mitigation and adaptation. Water infrastructure programs are adopting methods to reduce risk to investments. Green infrastructure strategies are being promoted to manage stormwater flows while preserving water in watersheds. The National Estuary Program is incorporating climate resilient strategies. And watershed-based programs are incorporating climate change risks in strategies to build watershed resilience. Further, each of the regional water programs is implementing projects to address regional priorities, mitigate greenhouse gases, and build resilience.

- Collaboration – Solving complex problems requires collaborative problem solving, and the NWP has engaged partners and stakeholders throughout the federal government, in states, tribes and localities, and with other EPA offices. For example, the Deputy Assistant Administrator of OW co-chaired the Water Workgroup of Interagency Climate Change Adaptation Task Force, comprising over a dozen federal agencies involved in water resource management in the U.S. The Interagency Workgroup has developed a set of recommendations for federal agencies to work together to respond to climate change challenges, and continues to work together to implement strategies.

Next Steps

The National Water Program will continue to build a resilient program. In 2011, the program will continue to work with stakeholders and partners to build our collective ability to plan and implement strategies. Notably, the NWP Climate Workgroup will revise its *Strategy* for 2012 and beyond, building on the foundation, the lessons learned, and the partnerships built during the past few years of addressing climate change. Efforts in 2011 include:

- Continue to implement the updated key actions;

- Revise and update the *Strategy* by 2012 with long-term goals and mid-term strategies to guide annual planning, including both headquarters and regional water programs;

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- Work with states, tribes, and other stakeholders to enhance communication and collaboration and build new programs, such as Climate Ready Water Utilities to address adaptation challenges;

- Continue to co-chair the Water Workgroup of the Interagency Adaptation Task Force, and work with other federal agencies involved in water management to address priority projects, such as water use efficiency and improving data and information for planning;

- Continue developing integrated water and climate change research programs among EPA, other federal agencies, water research foundations, and other interested parties; and

- Continue to reach out to water program managers, stakeholders, and the public to build awareness, increase knowledge, and share lessons learned to expand the national capacity to address climate change.

Water managers are encouraged to evaluate opportunities to address climate change within their own water programs by identifying ways to mitigate greenhouse gas emissions and to adapt to long-term vulnerabilities. Climate change adds additional reasons to evaluate options to conserve water, reduce energy use, adopt green infrastructure and watershed-based practices, and improve the resilience of watersheds and estuaries. Over the next several years, more tools and information will be developed to support planners and decision makers as they address this important challenge.

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APPENDICES

A) FY 2012 National Water Program Guidance Measures Summary Appendix

B) Office of Water American Recovery and Reinvestment Act Measures

C) Explanation of Key Changes Summary

D) Additional Guidance for Section 106 State and Interstate Grant Recipients

E) FY 2012 Detailed Measures Appendix (to be published with the final NWPG)

F) Work Sharing Between EPA and States - Examples and Best Practices (available online at water.epa.gov)

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APPENDIX A

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FY 2012 National Water Program Guidance

Measures Summary

G/O/S	FY 2012 ACS Code	FY 2012 Measure Text	Non-Commitment Indicator (Y/N)	State Performance Measure (Y/N)	FY 2012 Budget Target	FY 2012 Planning Target
Italicized measure code denotes a change in measure text and/or change in reporting. FY 2012 Budget Target is from 4-year performance measure table in the FY 2012 Congressional Justification.						
Goal 2: Protecting America's Waters						
Subobjective 2.1.1 Water Safe to Drink						
2.1.1	SDW-211	Percent of the population served by community water systems that receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection.		Y	91%	91%
2.1.1	SDW-SP1.N11	Percent of community water systems that meet all applicable health-based standards through approaches that include effective treatment and source water protection.		Y	90%	90%
2.1.1	SDW-SP2	Percent of "person months" (i.e. all persons served by community water systems times 12 months) during which community water systems provide drinking water that meets all applicable health-based drinking water standards.			95%	95%
2.1.1	SDW-SP3.N11	Percent of the population in Indian country served by community water systems that receive drinking water that meets all applicable health-based drinking water standards.			87%	87%
2.1.1	SDW-SP4a	Percent of community water systems where risk to public health is minimized through source water protection.				50%
2.1.1	SDW-SP4b	Percent of the population served by community water systems where risk to public health is minimized through source water protection.		Y		57%
2.1.1	SDW-SP5	By 2015, in coordination with other federal agencies, reduce by 50 percent the number of homes on tribal land lacking access to safe drinking water.	Y			Indicator
2.1.1	SDW-18.N11	Number of American Indian and Alaska Native homes provided access to safe drinking water in coordination with other federal agencies.				110,000
2.1.1	SDW-01a	Percent of community water systems (CWSs) that have undergone a sanitary survey within the past three years (five years for outstanding performers) as required under the Interim Enhanced and Long-Term I Surface Water Treatment Rules.		Y	95%	95%
2.1.1	SDW-01b	Number of tribal community water systems (CWSs) that have undergone a sanitary survey within the past three years (five years for outstanding performers) as required under the Interim Enhanced and Long-Term I Surface Water Treatment Rule.				65
2.1.1	SDW-02	Percent of the data for violations of health-based standards at public water systems that is accurate and complete in SDWIS-FED for all maximum contaminant level and treatment technique rules (excluding the Lead and Copper Rule).	Y			Indicator
2.1.1	SDW-03	Percent of the lead action level data that for the Lead and Copper Rule, for community water systems serving over 3,300 people, is complete in SDWIS-FED.	Y			Indicator

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2.1.1	SDW-04	Fund utilization rate [cumulative dollar amount of loan agreements divided by cumulative funds available for projects] for the Drinking Water State Revolving Fund (DWSRF).			89%	93%
2.1.1	SDW-05	Number of Drinking Water State Revolving Fund (DWSRF) projects that have initiated operations. (cumulative)				6,080 (Increment of 490)
2.1.1	*SDW-07*	Percent of Classes I, II and Class III salt solution mining wells that have lost mechanical integrity and are returned to compliance within 180 days thereby reducing the potential to endanger underground sources of drinking water.		Y	90%	90%
2.1.1	*SDW-08*	Number of Class V motor vehicle waste disposal wells (MVWDW) and large capacity cesspools (LCC) [approximately 23,640 in FY 2010] that are closed or permitted (cumulative).			20,840	20,840
2.1.1	SDW-11	Percent of DWSRF projects awarded to small PWS serving <500, 501-3,300, and 3,301-10,000 consumers.	Y			Indicator
2.1.1	SDW-12	Percent of DWSRF dollars awarded to small PWS serving <500, 501-3,300, 3,301-10,000 consumers.	Y			Indicator
2.1.1	SDW-13	Percent of DWSRF loans that include assistance to disadvantaged communities.	Y			Indicator
2.1.1	SDW-14	Number and percent of CWS and NTNCWS, including new PWS, serving fewer than 500 persons. (New PWS are those first reported to EPA in last calendar year).	Y			Indicator
2.1.1	SDW-15	Number and percent of small CWS and NTNCWS (<500, 501-3,300, 3,301-10,000) with repeat health based Nitrate/Nitrite, Stage 1 D/DBP, SWTR and TCR violations.	Y			Indicator
2.1.1	SDW-16	Average time for small PWS (<500, 501-3,300, 3,301-10,000) to return to compliance with acute Nitrate/Nitrite, Stage 1 D/DBP, SWTR and TCR health-based violations (based on state-reported RTC determination date).	Y			Indicator
2.1.1	SDW-17	Number and percent of schools and childcare centers that meet all health-based drinking water standards.	Y			Indicator
2.1.1	*SDW-19a*	Volume of CO2 sequestered through injection as defined by the UIC Final Rule.	Y			Indicator
2.1.1	*SDW-19b*	Number of permit decisions during the reporting period that result in CO2 sequestered through injection as defined by the UIC Final Rule.	Y			Indicator
Subobjective 2.1.2 Fish and Shellfish Safe to Eat						
2.1.2	FS-SP6.N11	Percent of women of childbearing age having mercury levels in blood above the level of concern.			4.9%	4.9%
2.1.2	FS-1a	Percent of river miles where fish tissue were assessed to support waterbody-specific or regional consumption advisories or a determination that no consumption advice is necessary. (Great Lakes measured separately; Alaska not included) (Report every two years)	Y			Indicator

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2.1.2	FS-1b	Percent of lake acres where fish tissue were assessed to support waterbody-specific or regional consumption advisories or a determination that no consumption advice is necessary. (Great Lakes measured separately; Alaska not included) (Report every two years)	Y			Indicator
Subobjective 2.1.3 Water Safe for Swimming						
2.1.3	SS-SP9.N11	Percent of days of the beach season that coastal and Great Lakes beaches monitored by state beach safety programs are open and safe for swimming.		Y	95%	95%
2.1.3	SS-1	Number and national percent, using a constant denominator, of Combined Sewer Overflow (CSO) permits with a schedule incorporated into an appropriate enforceable mechanism, including a permit or enforcement order, with specific dates and milestones, including a completion date consistent with Agency guidance, which requires: 1) Implementation of a Long Term Control Plan (LTCP) which will result in compliance with the technology and water quality-based requirements of the Clean Water Act; or 2) implementation of any other acceptable CSO control measures consistent with the 1994 CSO Control Policy; or 3) completion of separation after the baseline date. (cumulative)				742 (87%)
2.1.3	SS-2	Percent of all Tier I (significant) public beaches that are monitored and managed under the BEACH Act program.		Y		95%
Subobjective 2.2.1 Improve Water Quality on a Watershed Basis						
2.2.1	WQ-SP10.N11	Number of waterbodies identified in 2002 as not attaining water quality standards where standards are now fully attained. (cumulative)		Y	3,273	3,273
2.2.1	WQ-SP11	Remove the specific causes of waterbody impairment identified by states in 2002. (cumulative)			9,566	9,566
2.2.1	WQ-SP12.N11	Improve water quality conditions in impaired watersheds nationwide using the watershed approach. (cumulative)			238	238
2.2.1	WQ-SP13.N11	Ensure that the condition of the Nation's streams does not degrade (i.e., there is no statistically significant increase in the percent of streams rated "poor" and no statistically significant decrease in the streams rated "good").				Maintain or improve stream conditions
2.2.1	*WQ-SP14a.N11*	Improve water quality in Indian country at baseline monitoring stations in tribal waters (i.e., show improvement in one or more of seven key parameters: dissolved oxygen, pH, water temperature, total nitrogen, total phosphorus, pathogen indicators, and turbidity). (cumulative)				20
2.2.1	*WQ-SP14b.N11*	Identify monitoring stations on tribal lands that are showing no degradation in water quality (meaning the waters are meeting uses). (cumulative)	Y			Indicator
2.2.1	WQ-SP15	By 2015, in coordination with other federal agencies, reduce by 50 percent the number of homes on tribal lands lacking access to basic sanitation. (cumulative)	Y			Indicator

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2.2.1	WQ-24.N11	Number of American Indian and Alaska Native homes provided access to basic sanitation in coordination with other federal agencies.				56,400
2.2.1	WQ-01a	Number of numeric water quality standards for total nitrogen and for total phosphorus adopted by States and Territories and approved by EPA, or promulgated by EPA, for all waters within the State or Territory for each of the following waterbody types: lakes/reservoirs, rivers/streams, and estuaries (cumulative, out of a universe of 280)		Y		69
2.2.1	WQ-01b	Number of numeric water quality standards for total nitrogen and total phosphorus at least proposed by States and Territories, or by EPA proposed rulemaking, for all waters within the State or Territory for each of the following waterbody types: lakes/reservoirs, rivers/streams, and estuaries (cumulative, out of a universe of 280).		Y		89
2.2.1	WQ-01c	Number of States and Territories supplying a full set of performance milestone information to EPA concerning development, proposal, and adoption of numeric water quality standards for total nitrogen and total phosphorus for each waterbody type within the State or Territory (annual). (The universe for this measure is 56.)		Y		56
2.2.1	WQ-02	Number of Tribes that have water quality standards approved by EPA. (cumulative)				42
2.2.1	WQ-03a	Number, and national percent, of States and Territories that within the preceding three year period, submitted new or revised water quality criteria acceptable to EPA that reflect new scientific information from EPA or other resources not considered in the previous standards.		Y	64.3%	38
2.2.1	WQ-03b	Number, and national percent of Tribes that within the preceding three year period, submitted new or revised water quality criteria acceptable to EPA that reflect new scientific information from EPA or other resources not considered in the previous standards.				16
2.2.1	WQ-04a	Percentage of submissions of new or revised water quality standards from States and Territories that are approved by EPA.			85%	85%
2.2.1	WQ-05	Number of States and Territories that have adopted and are implementing their monitoring strategies in keeping with established schedules.		Y		56
2.2.1	WQ-06a	Number of Tribes that currently receive funding under Section 106 of the Clean Water Act that have developed and begun implementing monitoring strategies that are appropriate to their water quality program consistent with EPA Guidance. (cumulative)				200
2.2.1	WQ-06b	Number of Tribes that are providing water quality data in a format accessible for storage in EPA's data system. (cumulative)				150

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2.2.1	WQ-07	Number of States and Territories that provide electronic information using the Assessment Database version 2 or later (or compatible system) and geo-reference the information to facilitate the integrated reporting of assessment data. (cumulative)				46
2.2.1	WQ-08a	Number, and national percent, of TMDLs that are established or approved by EPA [Total TMDLs] on a schedule consistent with national policy. Note: A TMDL is a technical plan for reducing pollutants in order to attain water quality standards. The terms 'approved' and 'established' refer to the completion and approval of the TMDL itself.			51,923	2,305
2.2.1	WQ-08b	Number, and national percent, of approved TMDLs, that are established by States and approved by EPA [State TMDLs] on a schedule consistent with national policy. Note: A TMDL is a technical plan for reducing pollutants in order to attain water quality standards. The terms 'approved' and 'established' refer to the completion and approval of the TMDL itself.		Y	43,711	2,129
2.2.1	WQ-09a	Estimated annual reduction in million pounds of nitrogen from nonpoint sources to waterbodies (Section 319 funded projects only).			8.5 million	8.5 million
2.2.1	WQ-09b	Estimated annual reduction in million pounds of phosphorus from nonpoint sources to waterbodies (Section 319 funded projects only).			4.5 million	4.5 million
2.2.1	WQ-09c	Estimated annual reduction in million tons of sediment from nonpoint sources to waterbodies (Section 319 funded projects only).			700,000	700,000
2.2.1	WQ-10	Number of waterbodies identified by States (in 1998/2000 or subsequent years) as being primarily nonpoint source (NPS)-impaired that are partially or fully restored. (cumulative)		Y		291
2.2.1	WQ-11	Number, and national percent, of follow-up actions that are completed by assessed NPDES (National Pollutant Discharge Elimination System) programs. (cumulative)	Y			Indicator
2.2.1	WQ-12a	Percent of non-Tribal facilities covered by NPDES permits that are considered current. [Measure will still set targets and commitments and report results in both % and #.]				90%
2.2.1	WQ-12b	Percent of tribal facilities covered by NPDES permits that are considered current. [Measure will still set targets and commitments and report results in both % and #.]				90%
2.2.1	WQ-13a	Number, and national percent, of MS-4s covered under either an individual or general permit.	Y			Indicator
2.2.1	WQ-13b	Number of facilities covered under either an individual or general industrial storm water permit.	Y			Indicator
2.2.1	WQ-13c	Number of sites covered under either an individual or general construction storm water site permit.	Y			Indicator

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2.2.1	WQ-13d	Number of facilities covered under either an individual or general CAFO permit.	Y			Indicator
2.2.1	WQ-14a	Number, and national percent, of Significant Industrial Users (SIUs) that are discharging to POTWs with Pretreatment Programs that have control mechanisms in place that implement applicable pretreatment standards and requirements.		Y		21,600
2.2.1	WQ-14b	Number, and national percent, of Categorical Industrial Users (CIUs) that are discharging to POTWs without Pretreatment Programs that have control mechanisms in place that implement applicable pretreatment standards and requirements.	Y			Indicator
2.2.1	WQ-15a	Percent of major dischargers in Significant Noncompliance (SNC) at any time during the fiscal year.		Y	<22.5%	<22.5%
2.2.1	WQ-16	Number, and national percent, of all major publicly-owned treatment works (POTWs) that comply with their permitted wastewater discharge standards. (i.e. POTWs that are not in significant non-compliance)			86%	86%
2.2.1	WQ-17	Fund utilization rate [cumulative loan agreement dollars to the cumulative funds available for projects] for the Clean Water State Revolving Fund (CWSRF).			94.5%	94.5%
2.2.1	WQ-19a	Number of high priority state NPDES permits that are issued in the fiscal year.		Y	100%	710
2.2.1	WQ-19b	Number of high priority state and EPA (including tribal) NPDES permits that are issued in the fiscal year.			100%	800
2.2.1	WQ-20	Number of facilities that have traded at least once plus all facilities covered by an overlay permit that incorporates trading provisions with an enforceable cap.	Y			Indicator
2.2.1	*WQ-21a*	Number of water segments identified as impaired in 2002 for which States and EPA agree that initial restoration planning is complete (i.e., EPA has approved all needed TMDLs for pollutants causing impairments to the waterbody or has approved a 303(d) list that recognizes that the waterbody is covered by a Watershed Plan [i.e., Category 4b or Category 5m]). (cumulative)	Y			Indicator
2.2.1	*WQ-21b*	Number of water segments identified as impaired in 2002 for which States and EPA agree that a 9-element watershed management plan is complete to restore surface water quality. (cumulative)	Y			Indicator
2.2.1	WQ-22a	Number of Regions that have completed the development of a Healthy Watersheds Initiative (HWI) Strategy and have reached an agreement with at least one state to implement its portion of the Region's HWI Strategy.	Y			Indicator
2.2.1	*WQ-22b*	Number of states that have completed a Healthy Watersheds Protection Strategy or have completed at least 2 of the major components of a Healthy Watersheds assessment.	Y			Indicator
2.2.1	WQ-23	Percent of serviceable rural Alaska homes with access to drinking water supply and wastewater disposal.			93%	92%

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2.2.1	*WQ-25a*	Number of urban water projects initiated addressing water quality issues in the community.			3	3
2.2.1	*WQ-25b*	Number of urban water projects completed addressing water quality issues in the community.			0	N/A
Subobjective 2.2.2 Improve Coastal and Ocean Waters						
2.2.2	CO-222.N11	Prevent water pollution and protect coastal and ocean systems to improve national and regional coastal aquatic system health on the 'good/fair/poor' scale of the National Coastal Condition Report.				2.8
2.2.2	CO-SP20.N11	Percent of active dredged material ocean dumping sites that will have achieved environmentally acceptable conditions (as reflected in each site's management plan and measured through on-site monitoring programs).			95%	95%
2.2.2	CO-02	Total coastal and non-coastal statutory square miles protected from vessel sewage by “no discharge zone(s).” (cumulative)	Y			Indicator
2.2.2	CO-04	Dollar value of “primary” leveraged resources (cash or in-kind) obtained by the NEP Directors and/or staff in millions of dollars rounded to the nearest tenth of a percent.	Y			Indicator
2.2.2	CO-05	Number of dredged material management plans that are in place for major ports and harbors.	Y			Indicator
2.2.2	CO-06	Number of active dredged material ocean dumping sites that are monitored in the reporting year.	Y			Indicator
2.2.2	CO-432.N11	Working with partners, protect or restore additional acres of habitat within the study areas for the 28 estuaries that are part of the National Estuary Program (NEP).			100,000	100,000
Subobjective 2.2.3 Increase Wetlands						
2.2.3	*WT-SP21.N11*	Working with partners, achieve a net increase of wetlands nation wide, with additional focus on coastal wetlands, and biological and functional measures and assessment of wetland condition.				Target in Spring 2011
2.2.3	WT-SP22	In partnership with the U.S. Army Corps of Engineers, states and tribes, achieve 'no net loss' of wetlands each year under the Clean Water Act Section 404 regulatory program.			No Net Loss	No Net Loss
2.2.3	WT-01	Number of acres restored and improved, under the 5-Star, NEP, 319, and great waterbody programs (cumulative).			170,000	170,000
2.2.3	WT-02a	Number of states/tribes that have substantially built or increased capacity in wetland regulation, monitoring and assessment, water quality standards, and/or restoration and protection. (This is an annual reporting measure.)	Y			Indicator
2.2.3	WT-02b	Number of core elements (regulation, monitoring and assessment, water quality standards, or restoration and protection) developed and implemented by (number) of States/Tribes.	Y			Indicator

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G/O/S	FY 2012 ACS Code	FY 2012 Measure Text	Non-Commitment Indicator (Y/N)	State Performance Measure (Y/N)	FY 2012 Budget Target	FY 2012 Planning Target
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2.2.3	WT-03	Percent of Clean Water Act Section 404 standard permits, upon which EPA coordinated with the permitting authority (i.e., Corps or State), where a final permit decision in FY 08 documents requirements for greater environmental protection* than originally proposed.	Y			Indicator
2.2.3	WT-04	Number of states measuring baseline wetland condition - with plans to assess trends in wetland condition - as defined through condition indicators and assessments (cumulative).				26
Subobjective 2.2.4 Improve the Health of the Great Lakes						
2.2.4	GL-433.N11	Improve the overall ecosystem health of the Great Lakes by preventing water pollution and protecting aquatic ecosystems.			23.9	23.9
2.2.4	GL-SP29	Cumulative percentage decline for the long term trend in average concentrations of PCBs in Great Lakes fish.			40%	40%
2.2.4	GL-SP31	Number of Areas of Concern in the Great Lakes where all management actions necessary for delisting have been implemented (cumulative)			3	3
2.2.4	GL-SP32.N11	Cubic yards (in millions) of contaminated sediment remediated in the Great Lakes (cumulative from 1997).			8.7 million	8.7 million
2.2.4	GL-05	Number of Beneficial Use Impairments removed within Areas of Concern. (cumulative)			31	31
2.2.4	GL-06	Number of nonnative species newly detected in the Great Lakes ecosystem.			1	1
2.2.4	GL-07	Number of multi-agency rapid response plans established, mock exercises to practice responses carried out under those plans, and/or actual response actions (cumulative).			10	10
2.2.4	*GL-08*	Percent of days of the beach season that the Great Lakes beaches monitored by state beach safety programs are open and safe for swimming.			94%	94%
2.2.4	GL-09	Acres managed for populations of invasive species controlled to a target level (cumulative).			2,600	2,600
2.2.4	GL-10	Percent of populations of native aquatic non-threatened and endangered species self-sustaining in the wild (cumulative).			35%	35%
2.2.4	GL-11	Number of acres of wetlands and wetland-associated uplands protected, restored and enhanced (cumulative).			7,500	7,500
2.2.4	GL-12	Number of acres of coastal, upland, and island habitats protected, restored and enhanced (cumulative).			20,000	20,000
2.2.4	GL-13	Number of species delisted due to recovery.			1	1
2.2.4	GL-15	Five-year average annual loadings of soluble reactive phosphorus (metric tons per year) from tributaries draining targeted watersheds.			0.5%	0.5%
2.2.4	GL-16	Acres in Great Lakes watershed with USDA conservation practices implemented to reduce erosion, nutrients, and/or pesticide loading.			8%	8%

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G/O/S	FY 2012 ACS Code	FY 2012 Measure Text	Non-Commitment Indicator (Y/N)	State Performance Measure (Y/N)	FY 2012 Budget Target	FY 2012 Planning Target
Italicized measure code denotes a change in measure text and/or change in reporting. FY 2012 Budget Target is from 4-year performance measure table in the FY 2012 Congressional Justification.						
Subobjective 2.2.5 Improve the Health of the Chesapeake Bay Ecosystem						
2.2.5	CB-SP33.N11	Percent of Submerged Aquatic Vegetation goal of 185,000 acres achieved, based on annual monitoring from prior year.				Long Term Target
2.2.5	CB-SP34	Percent of Dissolved Oxygen goal of 100% standards attainment achieved, based on annual monitoring from the previous calendar year and the preceding 2 years.				Long Term Target
2.2.5	*CB-SP35*	Percent of goal achieved for implementing nitrogen pollution reduction actions to achieve the final TMDL allocations, as measured through the phase 5.3 watershed model.			1%	1%
2.2.5	*CB-SP36*	Percent of goal achieved for implementing phosphorus pollution reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.			1%	1%
2.2.5	*CB-SP37*	Percent of goal achieved for implementing sediment pollution reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.			1%	1%
2.2.5	CB-2	Percent of forest buffer planting goal of 10,000 miles achieved.				71%
Subobjective 2.2.6 Restore and Protect the Gulf of Mexico						
2.2.6	GM-435	Improve the overall health of coastal waters of the Gulf of Mexico on the "good/fair/poor" scale of the National Coastal Condition Report.			2.6	2.6
2.2.6	GM-SP38	Restore water and habitat quality to meet water quality standards in impaired segments in 13 priority areas. (cumulative starting in FY 07)			234	234
2.2.6	GM-SP39	Restore, enhance, or protect a cumulative number of acres of important coastal and marine habitats. (cumulative starting in FY 07)			30,600	30,600
2.2.6	GM-SP40.N11	Reduce releases of nutrients throughout the Mississippi River Basin to reduce the size of the hypoxic zone in the Gulf of Mexico, as measured by the 5-year running average of the size of the zone.				Deferred for FY 2012
2.2.6	GM-01	Implement integrated bi-national (U.S. and Mexican Border States) early-warning system to support State and coastal community efforts to manage harmful algal blooms (HABs).				Complete taxonomy training in all 6 Mexican states
Subobjective 2.2.7 Restore and Protect the Long Island Sound						
2.2.7	LI-SP41	Percent of goal achieved in reducing trade-equalized (TE) point source nitrogen discharges to Long Island Sound from the 1999 baseline of 59,146 TE lbs/day.			56%	56%
2.2.7	*LI-SP42.N11*	Reduce the size (square miles) of observed hypoxia (Dissolved Oxygen <3mg/l) in Long Island Sound.				Deferred for FY 2012
2.2.7	*LI-SP43*	Restore, protect or enhance acres of coastal habitat from the 2010 baseline of 2,975 acres.			250 acres	250 acres
2.2.7	*LI-SP44*	Reopen miles of river and stream corridors to diadromous fish passage from the 2010 baseline of 177 river miles by removal of dams and barriers or by installation of bypass structures.			38 miles	38 miles

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G/O/S	FY 2012 ACS Code	FY 2012 Measure Text	Non-Commitment Indicator (Y/N)	State Performance Measure (Y/N)	FY 2012 Budget Target	FY 2012 Planning Target
Italicized measure code denotes a change in measure text and/or change in reporting. FY 2012 Budget Target is from 4-year performance measure table in the FY 2012 Congressional Justification.						
Subobjective 2.2.8 Restore and Protect the Puget Sound Basin						
2.2.8	PS-SP49.N11	Improve water quality and enable the lifting of harvest restrictions in acres of shellfish bed growing areas impacted by degraded or declining water quality. (cumulative starting in FY 06)			5,453	5,453
2.2.8	PS-SP51	Restore acres of tidally- and seasonally-influenced estuarine wetlands. (cumulative starting in FY 06)			13,863	13,863
Subobjective 2.2.9 Sustain and Restore the U.S.-Mexico Border Environmental Health						
2.2.9	MB-SP23	Loading of biochemical oxygen demand (BOD) removed (cumulative million pounds/year) from the U.S.-Mexico Border area since 2003.			108.8	108.8
2.2.9	MB-SP24.N11	Number of additional homes provided safe drinking water in the U.S.-Mexico border area that lacked access to safe drinking water in 2003.			100	100
2.2.9	MB-SP25.N11	Number of additional homes provided adequate wastewater sanitation in the U.S.-Mexico border area that lacked access to wastewater sanitation in 2003.			1,282	1,282
Subobjective 2.2.10 Sustain and Restore the Pacific Island Territories						
2.2.10	PI-SP26	Percent of population in the U.S. Pacific Island Territories served by community water systems that has access to continuous drinking water meeting all applicable health-based drinking water standards, measured on a four quarter rolling average basis.			78%	78%
2.2.10	PI-SP27	Percentage of time that sewage treatment plants in the U.S. Pacific Island Territories comply with permit limits for biochemical oxygen demand (BOD) and total suspended solids (TSS).			64%	64%
2.2.10	PI-SP28	Percent of days of the beach season that beaches in each of the U.S. Pacific Island Territories monitored under the Beach Safety Program will be open and safe for swimming.				82%
Subobjective 2.2.11 Restore and Protect the South Florida Ecosystem						
2.2.11	SFL-SP45	Achieve 'no net loss' of stony coral cover (mean percent stony coral cover) in the Florida Keys National Marine Sanctuary (FKNMS) and in the coastal waters of Dade, Broward, and Palm Beach Counties, Florida, working with all stakeholders (federal, state, regional, tribal, and local).	Y			Indicator
2.2.11	SFL-SP46	Annually maintain the overall health and functionality of sea grass beds in the FKNMS as measured by the long-term sea grass monitoring project that addresses composition and abundance, productivity, and nutrient availability.	Y			Indicator
2.2.11	SFL-SP47a	At least seventy five percent of the monitored stations in the near shore and coastal waters of the Florida Keys National Marine Sanctuary will maintain Chlorophyll a (CHLA) levels at less than or equal to 0.35 ug l-1 and light clarity (Kd)) levels at less than or equal to 0.20 m-1.			75%	75%

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G/O/S	FY 2012 ACS Code	FY 2012 Measure Text	Non-Commit-ment Indicator (Y/N)	State Performance Measure (Y/N)	FY 2012 Budget Target	FY 2012 Planning Target
Italicized measure code denotes a change in measure text and/or change in reporting. FY 2012 Budget Target is from 4-year performance measure table in the FY 2012 Congressional Justification.						
2.2.11	SFL-SP47b	At least seventy five percent of the monitored stations in the near shore and coastal waters of the Florida Keys National Marine Sanctuary will maintain dissolved inorganic nitrogen (DIN) levels at less than or equal to 0.75 uM and total phosphorus (TP) levels at less than or equal to .25 uM .			75%	75%
2.2.11	SFL-SP48	Improve the water quality of the Everglades ecosystem as measured by total phosphorus, including meeting the 10 parts per billion (ppb) total phosphorus criterion throughout the Everglades Protection Area marsh and the effluent limits for discharges from stormwater treatment areas.			Maintain phosphorus baseline	Maintain phosphorus baseline
2.2.11	SFL-1	Increase percentage of sewage treatment facilities and onsite sewage treatment and disposal systems receiving advanced wastewater treatment or best available technology as recorded by EDU. in Florida Keys two percent (1500 EDUs) annually.	Y			Indicator
Subobjective 2.2.12 Restore and Protect the Columbia River Basin						
2.2.12	CR-SP53	Clean up acres of known contaminated sediments. (cumulative starting in FY 06)				60
2.2.12	CR-SP54	Demonstrate a reduction in mean concentration of certain contaminants of concern found in water and fish tissue. (cumulative starting in FY 06)				Deferred until 2014

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APPENDIX B

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FY 2012 National Water Program Guidance

American Recovery and Reinvestment Act Measures

APPENDIX B
OFFICE OF WATER
AMERICAN RECOVERY AND REINVESTMENT ACT MEASURES

DW SRF	Number of ARRA projects that are under contract (non-tribal)
DW SRF	Number of ARRA projects for which Tribes have signed a Memorandum of Agreement with IHS for the project (tribal)
DW SRF	Number and ARRA amount ($) of projects that have started construction (non-tribal)
DW SRF	Number and ARRA amount ($) of projects that have started construction (tribal)
DW SRF	Number and ARRA amount ($) of projects that have completed construction (non-tribal)
DW SRF	Number and ARRA amount ($) of projects that have completed construction (tribal)
DW SRF	Number of States that have awarded all of their 20% green project reserve
DW SRF	**Fund utilization rate (cumulative loan agreement dollars to the cumulative funds available for projects) for the Drinking Water State Revolving Fund (DWSRF)**
DW SRF	**Number of Drinking Water State Revolving Fund (DWSRF) projects that have initiated operations (cumulative)**
CW SRF	Number of ARRA projects that are under contract (non-tribal)
CW SRF	Number of ARRA projects for which Tribes have signed a Memorandum of Agreement with IHS for the project (tribal)
CW SRF	Number and ARRA amount ($) of projects that have started construction (non-tribal)
CW SRF	Number and ARRA amount ($) of projects that have started construction (tribal)
CW SRF	Number and ARRA amount ($) of projects that have completed construction (non-tribal)
CW SRF	Number and ARRA amount ($) of projects that have completed construction (tribal)
CW SRF	Number of States that have awarded all of their 20% green project reserve
CW SRF	**Fund utilization rate (cumulative loan agreement dollars to the cumulative funds available for projects) for the Clean Water State Revolving Fund (CWSRF)**

Measures in BOLD are annual measures included in Appendix A of the FY 2012 National Water Program Guidance.

***** denotes measures that are long-term

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APPENDIX C

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FY 2012 National Water Program Guidance

Explanation of Key Changes Summary

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APPENDIX C: Explanation of Changes from FY 2011 to FY 2012

Office of Water – National Water Program Guidance FY 2012

Change from FY 2011 Guidance Document		Reason for Change	Affected Pages and Sections
Priorities	No change to National Water Program priorities.	Not applicable.	**Executive Summary, pages 1-2. Introduction, pages 7-11.**
Strategies	Strategies in the National Water Program Guidance are reorganized into subobjectives in Goal 2 to align with the new EPA Strategic Plan. Previously, the National Water Program subobjectives are in Goals 2 and 4.	NWPG strategies are organized by subobjectives to align with the new FY 2011-2015 EPA Strategic Plan, published September 30, 2010. All subobjectives previously under Goal 4 (part of 2.2.2 and subobjectives 2.2.3 to 2.2.12) are now in Goal 2, Objective 2.	**See Table of Contents for overview of new organization.**
	Adding narrative for worksharing between EPA and states.	New text is added to emphasize work sharing between EPA and states to ensure that current levels of delivery of environmental and public health programs are maintained given current economic challenges facing states.	**Section V, A, 5 Page 99**
Annual Commitment Measures	Strategic Plan measures starting with a number or SP have been recoded.	Measures in the previous Strategic Plan starting with a number or SP have been recoded to align to their respective subobjective. For example, measure 2.1.1 was recoded to SDW-211 and measure SP-10 to WQ-SP10.N11. The original code is retained in the new code, right after the subobjective prefix. The suffix .N11 is added to measures that are in the new FY 2011-2015 Strategic Plan.	**Appendix A and throughout the narrative**
	Measures modified: **SDW-07a, SDW-07b & SDW-07c.** **SDW-7** Measure text: *Percent of Classes I, II and Class III salt solution mining wells that have lost mechanical integrity and are*	Combine 3 mechanical integrity measures into SDW-07. The denominator for the number of wells with mechanical integrity losses is very small. Typically, Class I, II and III wells are deep wells and there are many more Class II wells that lose mechanical integrity relative to Classes I and III wells (2,800	**Section II & Appendix A**

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Change from FY 2011 Guidance Document		Reason for Change	Affected Pages and Sections
	returned to compliance within 180 days thereby reducing the potential to endanger underground sources of drinking water.	compared to 8 for Class I and 7 for Class III). The revised measure should improve the numbers in the denominator of the measure.	
	Measure modified: **SDW-08.** Measure Text: *Number of Class V motor vehicle waste disposal wells (MVWDW) and large capacity cesspools (LCC) [approximately 23,640 in FY 2010] that are closed or permitted (cumulative).*	The measure includes all the wells covered by the EPA 1999 Class V Rule reporting on closed or permitted MVWDW wells. In addition, it allows for reporting on additional types of high priority wells including, at minimum, Large Capacity Cess (LCC) Pools. Reporting in percentages will not provide good information on progress in closing or permitting the MVWD wells. The new measure, cumulative numbers of wells, for the MVWDW, will show progress each year against the universe.	**Section II, Appendix A**
Annual Commitment Measures	Newly created measures: **SDW-19a & SDW-19b.** **SDW-19a** Measure text: *Volume of CO2 sequestered through injection as defined by the UIC Final Rule.* **SDW-19b** Measure text: *Number of permit decisions during the reporting period that result in CO2 sequestered through injection as defined by the UIC Final Rule.*	Adding two new measures for geologic sequestration of carbon dioxide. EPA is promulgating a regulation to require greenhouse gas monitoring and reporting from facilities that conduct geologic sequestration of carbon dioxide and all other facilities that conduct injection of carbon dioxide. This rule does not require control of greenhouse gases, it requires only monitoring and reporting of greenhouse gases. The final rule is effective on December 31, 2010.	**Section II & Appendix A**
	Measure modified: **WQ-SP13.N11**	Revised measure language to align with *FY 2011-2015 Strategic Plan* by deleting "Wadeable." Note: Also consistent with the FY2011-2015 *Strategic Plan*, in 2015 this measure will be revised to report on the Lakes survey.	**Section II & Appendix A**
	Measure modified: **WQ-SP14a.N11** Newly created measure: **WQ-SP14b.N11** Measure text: *Identify monitoring stations on tribal lands that are showing no degradation in water quality (meaning the waters are meeting uses). (cumulative)*	SP-14 is broken out into two parts (a and b) to provide for clear reporting. Aligning to the new *FY 2011-2015 Strategic Plan* by adding the word “baseline” to WQ-SP14a.N11 (formerly SP-14). WQ-SP14b.N11 is a newly created indicator measure to track monitoring stations on tribal lands that show no degradation in water quality.	**Section III & Appendix A**
	Measure deleted: **WQ-15b** Measure text:	Difficulty in obtaining data has led to an absence of national	**Section III,**

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Change from FY 2011 Guidance Document		Reason for Change	Affected Pages and Sections
	By 2015, in coordination with other federal agencies, reduce by 50 percent the number of homes on tribal lands lacking access to basic sanitation. (cumulative)	data since 2005.	**Appendix A.**
Annual Commitment Measures	Measures modified: **WQ-21a** Measure text: *Number of water segments identified as impaired in 2002 for which States and EPA agree that initial restoration planning is complete (i.e., EPA has approved all needed TMDLs for pollutants causing impairments to the waterbody or has approved a 303(d) list that recognizes that the waterbody is covered by a Watershed Plan [i.e., Category 4b or Category 5m]). (cumulative)* **WQ-21b** Measure text: *Number of water segments identified as impaired in 2002 for which States and EPA agree that a 9-element watershed management plan is complete to restore surface water quality. (cumulative)*	Revised to track the development of 319 watershed management plans which 'round out' the planning component of the restoration pipeline. The development of watershed management plans is an important step in the restoration pipeline. This step establishes an implementation plan for the nonpoint source component of a TMDL, including the sources that need to be controlled, the practices that need to be implemented and funding necessary to ensure implementation. While tracking segments with watershed management plans is not as progressive as tracking the actual implementation of the plans or as progressive as the new improving indicator measure noted below, it is an important part of the restoration pipeline since in many states these watershed plans serve as an implementation plan for TMDLs. It is important to note that the level of detail in watershed plans will vary from state and state, and EPA does not approve each state developed watershed plan. If this measure is adopted, EPA intends to develop ways to streamline reporting, including some means of ensuring that the plans developed meet some minimum level of acceptability. EPA does recognize and acknowledge that tracking segments that have a watershed management plan could become burdensome if the tools to track this information are not in place. EPA is seeking further comment on the addition of this measure.	**Section III & Appendix A**
	Measure modified: **WQ-22b** Measure text: *Number of states that have completed a Healthy Watersheds Protection Strategy or have completed at least 2 of the major*	Added completion of Healthy Watersheds Protection Strategies to measure text.	**Section III & Appendix A**

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Change from FY 2011 Guidance Document		Reason for Change	Affected Pages and Sections
	components of a Healthy Watersheds assessment.		
	Newly created measures: **WQ-25a** Measure text: *Number of urban water projects initiated addressing water quality issues in the community.* **WQ-25b** Measure text: *Number of urban water projects completed addressing water quality issues in the community.*	Added measures to track progress of projects that help communities access, improve, and benefit from their urban waters and surrounding lands. These measures, modeled after WQ-10 to highlight success stories, will track projects initiated and completed in the Urban Waters effort.	**Section III & Appendix A**
Annual Commitment Measures	Measure deleted: **CO-3** Measure Text: *Number of National Estuary Program priority actions in Comprehensive Conservation and Management Plans (CCMPs) that have been completed. (cumulative)*	Deleted as it is a poor measure of progress as many actions are on-going and not completed within one year.	**Section III**
	Measures deleted: **CO-SP16, CO-SP17, CO-SP18, CO-SP19, CO-7, CO-8**	Streamlining regional measures from the National Coastal Condition Reports. The regional results are included in the NCCR which can be found at: http://water.epa.gov/type/oceb/assessmonitor/nccr/index.cfm. The overall national NCCR results are captured under CO-2.2.2.N.11, which remains in the National Water Program Guidance.	**Section III**
	Measure modified: **WT-SP21.N11** Measure text: *Working with partners, achieve a net increase of wetlands nation wide, with additional focus on coastal wetlands, and biological and functional measures and assessment of wetland condition.*	Revised measure language to align with *FY 2011-2015 Strategic Plan*.	**Section III & Appendix A**
	Measures modified: **GL-08.** Measure text: *Percent of days of the beach season that the Great Lakes beaches monitored by state beach safety programs are open and safe*	More accurately reflects the efforts of EPA and partners in protecting the beaches of the Great Lakes and more fully aligns with national reporting methods.	**Section IV & Appendix A**

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Change from FY 2011 Guidance Document		Reason for Change	Affected Pages and Sections
Annual Commitment Measures	*for swimming.*		
	Measures modified: **CB-SP35, CB-SP36 & CB-SP37**	Modification is required as a result of the new TMDL and the inability to track the old measures after FY 2010.	**Section IV & Appendix A**
	Measures deleted: **CB-1a & CB-1b**	Deletion is required as a result of the new TMDL and the inability to track the old measure after FY 2010.	**Section IV & Appendix A**
	Measure modified: **LI-SP42.N11** Measure Text: *Reduce the size (square miles) of observed hypoxia (Dissolved Oxygen <3mg/l) in Long Island Sound.*	Measure language changed to be consistent with measures text in new Strategic Plan	**Section IV & Appendix A**
	Measures modified: **LI-SP43** Measure text: *Restore, protect or enhance acres of coastal habitat from the 2010 baseline of 2,975 acres.* **LI-SP44** Measure text: *Reopen miles of river and stream corridors to diadromous fish passage from the 2010 baseline of 177 river miles by removal of dams and barriers or by installation of bypass structures.*	Measure language changed to track acres and miles instead of percent of goal achieved for which long-term goals have been exceeded.	**Section IV & Appendix A**
	Measure deleted: **PS-SP50** Measure text: *Remediate acres of prioritized contaminated sediments. (cumulative starting in FY 06)*	Deletion in anticipation of the development of other indicators and performance measures that would more meaningfully reflect results from investments made through funding and directly tied to the Puget Sound sub-objective. Measure is duplicative as both the Superfund and RCRA programs have other targets related to these projects.	**Section IV & Appendix A**
	Measure deleted: **CR-SP52** Measure Text: *Protect, enhance, or restore acres of wetland habitat and acres of upland habitat in the Lower Columbia River watershed. (cumulative starting in FY 05)*	Deletion reflects duplicative reporting by this measure. Results are captured under CO-432.N11.	**Section IV & Appendix A**
Contacts	No change	Not applicable	

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APPENDIX D

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FY 2012 National Water Program Guidance

Additional Guidance for Section 106 State and Interstate Grant Recipients

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Appendix D

Additional Guidance for Section 106 State and Interstate Grant Recipients

This appendix, along with the text boxes found in Section III.1.B.1, provide guidance for state and interstate grant recipients of grants for water pollution control programs under Section 106 of the Clean Water Act (CWA). Together, Section III.1, the text boxes, and Appendix E replace the corresponding portions of the biannual Section 106 grant guidance.

Base Program Measures: Section 106 funding supports many of the strategic targets and goals outlined in the *National Water Program Guidance*. These measures include:

WQ-SP10.N11
WQ-SP11
WQ-SP12.N11
WQ-SP13a.N11 and WQ-SP13b.N11 (new)
WQ-1a, b, c
WQ-3a
WQ-5
WQ-8b
WQ-10
WQ-12a
WQ-13a, b, c, d
WQ-14a
WQ-15a
WQ-19a
WQ-20
SS-1

Guidance for Core Programs: Guidance for core programs funded through grants for water pollution control programs under Section 106 of the CWA is provided in text boxes in Section III.1. Restore and Improve Water Quality on a Watershed Basis.

Other programs in the NWPG that can utilize Section 106 Funds: State and interstate agencies can use Section 106 Grants to carry out a wide range of water quality planning and management activities. Agencies have the flexibility to allocate funds toward priority activities. Other activities that may be funded with Section 106 funds include:

> **Source Water and Ground Water:** EPA regions and states are reminded that Section 106 grant funds are an essential funding source for the states' drinking water protection activities. The Agency recommends that states

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continue to direct a portion of their Section 106 funding to source water protection and wellhead protection actions that protect both ground water and surface water used for drinking water. States should ensure that there are protective water quality standards in place, and being attained, for each waterbody being used as a public water supply. Also, EPA encourages states to allocate a reasonable share of water quality monitoring resources to assess attainment of the public water supply use, and consider using water quality or compliance monitoring data collected by public water systems in assessing water quality and determining impairment. States should consider placing a high priority on (a) waterbodies where state or local source water assessments have identified highly threatening sources of contamination that are subject to the Clean Water Act and (b) the development and implementation of TMDLs to address impairments of the public water supply use. In particular, states should consider the relationship between point source dischargers and drinking water intakes in setting permit requirements and inspection and enforcement priorities. In addition, EPA encourages state programs to consider using their allocation to leverage the resources of Source Water Collaborative members and allies, found on: www.protectdrinkingwater.org. See Section II.1,B,5 for additional discussion on the Source Water and Ground Water.

Non-point Source: States, territories, and tribes may use Section 106 funds to develop watershed-based plans and to conduct monitoring on a watershed basis. States' integrated monitoring designs should use a combination of statistical surveys and targeted monitoring to cost-effectively evaluate the health of watersheds and the effectiveness of protection and restoration actions, such as nonpoint source implementation projects. In addition, EPA encourages, consistent with the scope of Section 106, broader efforts to protect and maintain healthy watersheds, so that costly implementation measures are not required to restore water quality and aquatic habitat.

Protecting Wetlands: Some states have utilized Section 106 funds for program implementation, including wetlands monitoring and protection projects.

Fish and Shellfish Safe to Eat: See the grant program guidance at: http://www.epa.gov/water/waterplan

Water Safe for Swimming: See the grant program guidance at: http://www.epa.gov/water/waterplan

Other Guidance: Guidance for the Tribal Program, the Monitoring Initiative, and Enforcement is provided separately and can be found at:

- Tribal water pollution control programs. See http://epa.gov/owm/cwfinance/106tgg07.htm
- State and interstate use of Monitoring Initiative funds. See http://epa.gov/owm/cwfinance/106-guidelines-monitor.htm

- Office of Compliance and Enforcement Assurance National Program Manage Guidance. In October, 2009, EPA issued the Clean Water Act Action Plan ("the Action Plan"). The Action Plan identifies steps EPA will take to improve enforcement efforts aimed at addressing water quality impairment. The Office of Water is currently working with the Office of Enforcement and Compliance Assurance (OECA), EPA regions, and states to implement the Action Plan. For more information on specific enforcement actions for 2012, please see the 2012 OECA National Program guidance at: http://www.epa.gov/planandbudget/annualplan/fy2012.html

Disclaimer: The discussion in this document is intended solely as guidance. The statutory provisions and EPA regulations described in this document contain legally binding requirements. This document is not a regulation itself, nor does not it change or substitute for those provisions and regulations. Thus, it does not impose legally binding requirements on EPA, states, or the regulated community. This guidance does not confer legal rights or impose legal obligations upon any member of the public.

While EPA has made every effort to ensure the accuracy of the discussion in this guidance, the obligations of the regulated community are determined by statutes, regulations, or other legally binding requirements. In the event of a conflict between the discussion in this document and any statute or regulation, this document would not be controlling. The general description provided here may not apply to a particular situation based upon the circumstances. Interested parties are free to raise questions and objections about the substance of this guidance and the appropriateness of the application of this guidance to a particular situation. EPA and other decision makers retain the discretion to adopt approaches on a case-by-case basis that differ from those described in this guidance where appropriate. Mention of trade names or commercial products does not constitute endorsement or recommendation for their use.
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