

US EPA ARCHIVE DOCUMENT

National Water Program Guidance



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Executive Summary

I. PROGRAM OFFICE: NATIONAL WATER PROGRAM

This *National Water Program Guidance (Guidance)* for fiscal year (FY) 2013 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 (OW) 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 2013 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

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 2013 to reach the public health and water quality goals that are proposed in the EPA *FY 2011-2015 Strategic Plan*. In the *Guidance*, these public health and environmental goals are organized into 15 subobjectives and one large aquatic ecosystem. Each subobjective or large aquatic ecosystem 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 2013.
- **Key Strategies.** For each subobjective, the key strategies for accomplishing environmental goals are described. The role of core programs (e.g. State Revolving Funds (SRF), 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 2013 Targets for Key Program Activities.** For some of the program activities, EPA, states, and tribes will simply report progress accomplished in FY 2013 while for other activities, each EPA region will define specific "targets" (*Appendix E*). 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*.
- **Grant Assistance.** Each of the subobjective strategies includes a brief discussion of EPA grant assistance that supports the program activities identified in the strategy. In FY 2010, the Clean Water Act (CWA) Section 106 Grant Guidance for Water Pollution Control Programs was incorporated within the Water Quality Subobjective and *Appendix D* to streamline the approach to the grant guidance issuance. In FY 2011, EPA incorporated the grant guidance for the Public Water System Supervision and Underground Injection Control grants within the Water Safe to Drink Subobjective to continue to pilot a more streamlined approach to issuing the grant guidance.

In FY 2013, EPA added the grant guidance for the Drinking Water State Revolving Fund grants. The National Water Program's approach to managing grants for FY 2013 is discussed in Part V of this *Guidance*.

- **Environmental Justice (EJ).** For FY 2013, OW 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, EJ principles must be included in our entire decision making processes. Expanding the conversation on environmentalism and working for EJ is a key priority for the National Water Program.
- **A Strategic Response to a Changing Climate.** The National Water Program released the public comment draft of the *National Water Program 2012 Strategy: Response to Climate Change (2012 Strategy)* in April 2012. The *2012 Strategy* addresses the impacts of climate change (e.g. warming water temperatures, changes in rainfall amounts and intensity, and sea level rise) in the context of EPA's clean water and drinking water programs. The *2012 Strategy* also emphasizes assessing and managing risk and incorporating adaptation into EPA's core water programs. Additional information on the *Strategy* and the National Water Program's efforts to build a resilient program are in Section X as well as at <http://www.epa.gov/water/climatechange>.

V. MEASURES

The National Water Program uses three types of measures to assess progress toward the proposed goals in the *EPA FY 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. For FY 2013, OW and Lead Region 6 are leading a coordinated effort to

streamline measures to focus program performance around the smallest and most meaningful suite of water 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:** OW 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.
- **Key Performance Indicators (KPIs) and Agency Priority Goals:** OW reports the results on a subset of the *Guidance* measures, KPIs, to the Deputy Administrator. OW has developed two Agency Priority Goals for FY 2012 and FY 2013 as part of the FY 2013 budget development, consistent with the Government Performance and Results Act (GPRA) Modernization Act, and in support of the EPA's *FY 2011-2015 Strategic Plan*. 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, OW 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 Office of Water
- Tim Fontaine; Senior Budget Officer, Office of Water
- Vinh T. T. Nguyen; Program Planning Team Leader, Office of Water

Internet Access: This FY 2013 *National Water Program Guidance* and supporting documents are available at http://water.epa.gov/resource_performance/planning/index.cfm.

I. Introduction

Clean and Safe Water Goals for 2015

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

Purpose and Structure of this FY 2013 Guidance

This *National Program Guidance* defines the process for creating an "operational plan" for EPA, state, and tribal water programs for FY 2013. This *Guidance* is divided into three major sections:

1. **Subobjective Implementation Strategies:** The EPA FY 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 15 subobjectives (and one large aquatic ecosystem) and describes the increment of environmental progress EPA hopes to make in FY 2013 for each subobjective and large aquatic ecosystem 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) (<http://www.epa.gov/ems/>) and the Environmental Results Program (ERP) (<http://www.epa.gov/erp/>). 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* with long-range targets and in 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 2013 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 2012.
- **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.

3. **Water Program Management System:** Part V of this *Guidance* describes a three-step process for management of water programs in FY 2013:

- Step 1 is the development of this *Guidance*, a draft by February 2012 and the final version by April 2012.
- Step 2 involves consultation among EPA regions, states, and tribes, to be conducted during spring/summer 2012,

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 2013.**

- Step 3 involves work to be done during FY 2013 to assess progress in program implementation and improve program performance.

In FY 2010, the grant guidance for the Water Pollution Control Grants from the Clean Water Act (CWA) Section 106 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 CWA Section 106 grant guidance are incorporated within Section III, 1 (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 for Section 106 grants 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. In FY 2013, the grant guidance for the Drinking Water State Revolving Fund (DWSRF) grants has been incorporated. These drinking water grant guidance sections are incorporated in the Water Safe to Drink Subobjective in this *Guidance*.

FY 2013 National Water Program Priorities

OW 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 2013 to the priority areas identified below to protect America’s waters. OW 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.
- **Making America’s Water Systems Sustainable and Secure:** The Nation’s water infrastructure needs are substantial, and the ability to meet those needs in traditional ways and through traditional funding programs and

funding is limited. EPA is working with partners to help communities and utilities continue to provide for their residents by improving the sustainability of both water infrastructure and water utility management. Improving the sustainability of water infrastructure emphasizes helping utilities make the appropriate capital investment decisions at the right times and helping utilities access the financing they need. EPA will be working with its partners to promote the use of tools by utilities, such as those intended to improve asset management, and consideration of innovative solutions, such as green infrastructure and the WaterSense program. Improving the sustainability of management practices emphasizes utility adoption of peer recognized best management practices (BMP) and the development of utility technical, managerial, and financial capacity to adopt such practices.. 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. 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 Clean Water and Drinking Water SRF programs are cornerstones for the Agency’s efforts to make America’s water systems sustainable and secure. The Agency will continue its strong and effective oversight of these programs and work with its state partners to ensure the programs expeditiously move appropriated funds into high priority projects addressing the environmental and public health protection objectives of CWA and the Safe Drinking Water Act (SDWA).

- **Safeguarding Public Health:** Using science-based standards to protect public water systems as well as ground and surface water bodies has long been an OW 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 Program, EPA can help communities, especially those that are underserved and those with EJ 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 Program is in Section IX.

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 (GLRI), the Chesapeake Bay Executive Order and Strategy, the Gulf of Mexico Hypoxia Action Plan, the federal Bay-Delta Workplan, the National Ocean Policy, and the Gulf of Mexico Regional Ecosystem Restoration Strategy are each designed to help communities in these key geographic areas address complex transboundary challenges. By engaging in innovative, collaborative approaches with federal, state, tribal, and local government and non-governmental partners, and making robust use of existing statutory authority, EPA helps make these programs more effective and restore these precious resources.
- **Improving Watershed-Based Approaches:** Complex issues, such as nonpoint source (NPS) and nutrient pollution, require holistic, integrated solutions that emphasize accountability. As stated in the March 2011 memorandum, "Working in Partnership with States to Address Phosphorus and Nitrogen Pollution through Use of a Framework for State Nutrient Reductions", EPA believes that nitrogen and phosphorus pollution is one of the most serious and pervasive water quality problems. In 2013, EPA water program managers should place a high priority on working with interested state governments and other federal agencies, in collaboration with partners and stakeholders, to accelerate near-term efforts to reduce nitrogen and phosphorus pollution. EPA managers should also continue working with states to help develop numeric criteria for nitrogen and phosphorus, so that states have clearly measurable, objective metrics to guide long-term pollution reduction efforts and adaptively manage towards achieving long-term goals (See http://water.epa.gov/scitech/swguidance/standards/criteria/nutrients/upload/memo_nitrogen_framework.pdf). EPA encourages states to begin work immediately setting priorities on a watershed or statewide basis, establishing nutrient reduction targets, and adopting numeric nutrient criteria for at least one class of waterbodies by no later than 2016. EPA added a new measure (WQ-26) to track progress in this area.

The National Water Program will improve the way existing tools, such as water quality standards (WQS), protection of downstream uses, permits, and total maximum

daily loads (TMDLs), 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 protect remaining healthy watersheds, prevent them from becoming impaired, and accelerate our restoration successes. 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 National 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 will 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 core water programs to impacts from a changing climate.

OW released the public comment draft of the *National Water Program 2012 Strategy: Response to Climate Change (2012 Strategy)* in April 2012. The *2012 Strategy* addresses the impacts of climate change (e.g. warming water temperatures, changes in rainfall amounts and intensity, and sea level rise) in the context of EPA's clean water and drinking water programs. The *2012 Strategy* also emphasizes assessing and managing risk and incorporating adaptation into EPA's core water programs. Additional information on the *2012 Strategy* and the National Water Program's efforts to build a resilient program are in Section X as well as at <http://www.epa.gov/water/climatechange>.

Assuring the Safety of Chemicals

OW 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 EJ informs decision-making, including permitting and standards decisions. The Assistant Administrator of OW wants to underscore those principles and asks that we strive to incorporate them in our work. In

addition to the Urban Waters Program which can benefit underserved communities, OW participates in EPA's Community Action for a Renewed Environment (CARE) program. CARE provides 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, WQS, and TMDLs. Similarly, most inspections and drinking water sanitary surveys 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. OW 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 (NTWC) 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 CWA Compliance and Enforcement

In October 2009, EPA issued the CWA Action Plan ("the Action Plan"). The Action Plan identifies steps EPA will take to improve enforcement efforts aimed at addressing water quality impairment. OW 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 National Pollutant Discharge Elimination System (NPDES) enforcement efforts on pollution 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.

In May 2011, EPA issued its Clean Water Action Plan Implementation Priorities: Changes to Improve Water Quality, Increase Compliance, and Expand Transparency. This document established four key changes to the program:

- Switching existing paper reporting to electronic reporting with automated compliance evaluations to improve efficiency and transparency.
- Creating a new paradigm in which environmental regulations and permits compel compliance via public accountability, self-monitoring, electronic reporting, and other innovative methods.
- Addressing the most serious water pollution problems by fundamentally re-tooling key NPDES permitting and enforcement practices, while continuing to vigorously enforce against serious violators.
- Conducting comprehensive and coordinated permitting, compliance, and enforcement programs to improve state and EPA performance in protecting and improving water quality.

These new approaches represent fundamental overhauls to some of the tools, policies, and regulations by which the states and EPA implement the NPDES permitting and enforcement program. These major changes require time and effort to deliver. Thus, EPA and states will be at work for several years to complete these changes. For more information on specific compliance and enforcement actions for FY 2013, please see the FY 2013 OECA National Program Guidance at <http://www.epa.gov/planandbudget/annualplan/fy2013.html>.

Agency Priority Goals

As part of the FY 2013 budget process, EPA developed Agency Priority Goals¹ for performance, consistent with the GPRA Modernization Act and to support the EPA's *FY 2011-2015 Strategic Plan*. EPA has a cross-Agency Priority Goal to increase transparency and reduce burden through E-reporting. For the National Water Program, two Agency Priority Goals were developed with the Office of Management and Budget (OMB), for quarterly reporting beginning in FY 2012, to track EPA's work to improve the long-term sustainability of small public drinking water systems and the enhancement of the NPS program accountability and incentives to more effectively improve, restore, or maintain water quality. These Agency Priority Goals continue into FY 2013.

Sustainability

OW 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

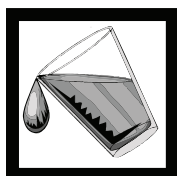
¹ For more information, please see <http://goals.performance.gov/agency/epa>

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 municipal separate storm sewer systems (MS4) compliance for example, the Region is targeting enforcement, low impact develop supplemental environmental projects (SEPs) and assistance (this, through a series of MS4 Compliance/low impact development (LID) workshops) all designed to promote long-term green infrastructure changes in municipal approaches to compliance and land use practices. Additionally, EPA will continue its efforts to promote and educate drinking water and wastewater systems on sustainability practices, such as asset management, rate analyses and review, water and energy efficiency, and innovative system partnerships in order to facilitate their long-term sustainability. For such examples to become the 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 the same or lower cost.

II. Strategies To Protect Public Health

For each of the key subobjectives related to water addressed in the EPA *Strategic Plan* and this *Guidance*, 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 *Guidance* draws from the *Strategic Plan*, but describes plans and strategies at a more operational level and focuses on FY 2013. In addition, this *Guidance* refers to measures that define key program activities that support each subobjective (see *Appendix A and E*).

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% 2012 Commitment: 91%
2013 Target: 92% 2015 Strategic Target: 90%

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

The fundamental public health protection mission of the national drinking water program is to ensure that public water systems deliver drinking water that meets health-based standards to their customers. The protection of the Nation's public health through safe drinking water has been the shared responsibility of EPA, states, and tribes for more than 35 years. Currently, 52,079 community water systems (CWSs)² nationwide supply drinking water to more than 300 million Americans (approximately 95% of the U.S. population). The development and implementation of health protection-based regulatory standards for drinking water quality to limit human exposure to contaminants of concern is the cornerstone of the program. The standards do not prescribe a specific treatment approach; rather, individual systems have flexibility how 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 to limit contaminant occurrence, various stages of treatment, proper operation and maintenance of the distribution and finished water storage system, operator certification and training, and customer awareness. To date, drinking water 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.

To continuously 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 continue to be made to bring non-complying systems into compliance and to help all systems be prepared to comply with the new regulations and be sustainable over the long run.

The protection of drinking water sources is a vital step in the multiple-barrier approach to protect the public health of the Nation's drinking water consumers (source water protection, treatment for contaminants, monitoring to ensure that health-based standards are met, and adequate infrastructure maintenance). The Office of Ground Water and Drinking Water (OGWDW) and EPA regions partner with states and tribes to implement the Source Water Protection Program and the UIC Program in order to protect the Nation's drinking water sources. These efforts are integral to the Agency's sustainable water infrastructure effort because source water protection can reduce the need for drinking water treatment, as well as related energy use which reduces the cost of infrastructure investments, operations, and maintenance.

Targets for Population Served by Systems Meeting Standards (Measure SDW-211)				
EPA Region	2005 Baseline	2011 Actual	2012 Commitment	2013 Target
1	92.5%	91%	89%	89%
2	55.3%	84%	78%	78%
3	93.2%	89%	90%	90%
4	93%	96%	92%	92%
5	94.1%	96%	94%	94%
6	87.8%	91%	85%	85%
7	91.2%	92%	80%	80%
8	94.7%	94%	91%	91%
9	94.6%	97%	95%	95%
10	94.8%	97%	91%	92%
National Total	89%	93.2%	91%	90%*

* The FY 2013 national target is 92% while the regional aggregate is 90%.

² Although SDWA applies to 157,293 public water systems nationwide (as of October 2011), which include schools, hospitals, factories, campgrounds, motels, gas stations, etc. that have their own water system, this measure focuses only on CWSs. A CWS is a public water system that provides water to the same population year-round. As of October 2011, there were 52,079 CWSs. EPA also continues to focus attention on addressing compliance and sustainability challenges faced by non-community water systems.

To make sound decisions to allocate resources among various program areas, EPA regions 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 CWSs that receive water that meets all health-based drinking water standards.

Although EPA regions should use the national FY 2013 target of the population served by CWSs 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.

B) Key National Areas of Emphasis

In FY 2013, EPA will work with states, tribes, and others to continue to implement programs and utilize resources to protect and provide water safe to drink keeping with these key areas of emphasis in mind:

- Implement the Core Drinking Water Programs: EPA, states, and tribes support the efforts of individual water systems by providing a programmatic framework through the implementation of six core areas:
 1. Development or revision of drinking water standards/regulations;
 2. Implementation of drinking water standards/regulations and technical assistance to water systems;
 - Safe Drinking Water Information System (SDWIS)
 3. Drinking Water SRF & Sustainable Water Infrastructure;
 4. Water system security;
 5. Source Water Protection; and
 6. Underground Injection Control.
- Improve small drinking water system technical, managerial and financial capacity.
- Ensure that all funds appropriated for the DWSRF move as expeditiously as possible from EPA through states and into high priority projects, consistent with sound program oversight, achieving the public health protection objectives of SDWA. This includes emphasis on expediting/streamlining grant awards, as well as project outlay and billing to reduce unliquidated obligations (ULOs).
- Implement the new Class VI Geologic Sequestration (GS) rulemaking.

1. Implement Core National Drinking Water Program Areas that are Critical to Providing Safe Drinking Water.

Collectively, these six 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 2013. For measures with targets, a national target and a target for each EPA region, where applicable, are provided in *Appendix A and E*.

a. Development/Revision of Drinking Water Standards/Regulations

SDWA requires the Agency to develop a list of unregulated contaminants that are known or anticipated to occur in public water systems and may require regulation. This list is known as the Contaminant Candidate List (CCL) and the Agency is required to publish this list every five years. SDWA also requires the Agency to determine whether to regulate at least five CCL contaminants with a national primary drinking water regulation (NPDWR) using three statutory criteria. Like CCL, the regulatory determinations process is also on a five year cycle. If the Agency decides that an NPDWR is appropriate, the Agency has 24 months to propose and 18 months to finalize the NPDWR. SDWA requires EPA to collect data for unregulated contaminants that are suspected to be present in drinking water and use this information to support the regulatory determination decision. This unregulated contaminant monitoring is also conducted on a five year cycle and requires available, scientifically sound analytical methods. In addition to the evaluation of whether standards are needed and the potential development of new standards, SDWA also requires EPA to review each NPDWR at least once every six years and revise them, if appropriate. The purpose of the review, called the Six-Year Review, is to identify those NPDWRs for which current health effects assessments, changes in technology, and/or other factors provide a health or technical basis to support a regulatory revision that will maintain or strengthen public health protection.

The Agency, headquarters and regions, will continue to address the development or revision of drinking water standards to protect human health in 2013 and will work with states and tribes to:

2013 Drinking Water Program Areas of Emphasis

- EPA, states, and tribes work to support the efforts of public water systems to consistently meet the provisions of SDWA.
- Improve small drinking water systems technical, managerial and financial capabilities to achieve and maintain compliance with all health-based standards.
- Ensure that all funds appropriated for the DWSRF move as expeditiously as possible from EPA through states and into high priority projects, consistent with sound program oversight.
- Implement the new Class VI GS rulemaking.

- Provide technical and scientific support for the development and implementation of drinking water regulations. This includes the development of analytical methods for updating rules and implementing the Unregulated Contaminant Monitoring Rule (UCMR), improving the analytical method for *Cryptosporidium*, and responding to technical implementation questions regarding the entire range of NPDWRs.
- Begin monitoring for the third Unregulated Contaminant Monitoring Rule (UCMR3) after the rule is promulgated in 2012. Key activities for EPA include management of all aspects of small-system monitoring, approval and oversight of supporting laboratories, troubleshooting and providing technical assistance, and reviewing and validating of data.
- Develop technical guidance and perform other follow-up activities related to the Revised Total Coliform Rule (TCR).
- Conduct a retrospective review of drinking water regulations in response to President Obama's recent call in Executive Order 13563 for each federal agency to "develop ... a preliminary plan, consistent with law and its resources and regulatory priorities, under which the agency will periodically review its existing significant regulations to determine whether any such regulations should be modified, streamlined, expanded, or repealed so as to make the agency's regulatory program more effective or less burdensome in achieving the regulatory objectives." The retrospective review includes the Consumer Confidence Report (CCR) requirements, the Long Term 2 Enhanced Surface Water Treatment Rule (LT2), the Lead and Copper Rule (LCR), and the requirements related to carcinogenic volatile organic compounds (cVOCs).
- Develop revisions to the LCR. 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. Continue to evaluate the long-term issues identified in the national review of the revised LCR with an expectation of publishing the final revisions to the LCR in 2014.
- Address the second Drinking Water Strategy principle, which is fostering the development of new drinking water technologies to address health risks posed by a broad array of contaminants.

b. Implementation of Drinking Water Standards/Regulations and Technical Assistance

The implementation of programs designed to assist public water systems to comply with drinking water regulations is the cornerstone of EPA's drinking water program. EPA will work in concert with states and tribes to facilitate public water system compliance with drinking water regulations through a variety of activities:

- **Conduct Sanitary Surveys:** Sanitary surveys are on-site reviews of the water sources, facilities, equipment, operation, and maintenance of public water systems. These surveys also can serve as a basis for an assessment of the financial and management capacities of the owner or operator of a water system. States and tribes will continue to conduct sanitary surveys for community water systems once every three years. For non-CWSs or CWSs 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, Wyoming, and the District of Columbia. This measure applies to surface water systems and ground water systems. In December 2009, states were required for the first time to conduct sanitary surveys for ground water systems. States were to complete the initial round of sanitary surveys for CWSs by December 2012, and have until December 2014 to complete the initial round of sanitary surveys for non-CWSs or CWSs designated as outstanding performers.
- **Conduct Technical Assistance and Training:** EPA, states, and tribes should focus their assistance to water systems to address the implementation challenges associated with the Ground Water Rule, LCR, Arsenic Rule, and the Disinfection By-Products rules. In addition, EPA, states, and tribes should promote operation and maintenance best practices to small systems in support of long-term compliance success with existing regulations. 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 TCR.
- **Participate in Area-wide Optimization Program Activities:** EPA's Area-Wide Optimization Program (AWOP), which provides compliance assistance to drinking water systems, continues to work with systems and states to develop and implement a variety of approaches to improve water system performance. Optimization 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 2013, EPA will work with four EPA regional offices and 20 states to facilitate the transfer of specific skills using the performance-based training approach that is targeted towards optimizing key distribution system components and/or groundwater system and distribution system integrity.

- **Participate in the 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 2013. 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. In addition, EPA will deliver three (1. Chemistry, 2. Microbiology, and 3. *Cryptosporidium*) Certification Officer Training courses for state and regional representatives.
- **Develop the next generation of the SDWIS and maintain the current SDWIS to support PWSS program implementation:** SDWIS serves as the primary source of national information on compliance with all health-based regulatory requirements of SDWA and is used by most primacy agencies to assist in their management of the PWSS program. SDWIS/State provides primacy agencies with a data system that can manage public water system data and that uses this data to calculate candidate violations of drinking water standards. Since SDWIS/State can manage a large amount of data on public water systems, many states connect a variety of applications (e.g. sanitary survey and operator certification tools) to SDWIS/State to more efficiently implement drinking water standards. Also SDWIS data can be used to inform decisions on where and how to target efforts and resources to assist water systems in achieving compliance with public health standards.

In FY 2013, EPA will continue to partner with states to develop the next generation of SDWIS in order to enhance and improve drinking water treatment technology under the legacy SDWIS platform. This next generation of SDWIS will improve state program management and enable better targeting of resources to systems in need; 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. EPA regions will continue to work with states to ensure broad state input into all aspects of the development of the next generation of SDWIS.

As EPA Office of the Inspector General (OIG) and General Accounting Office (GAO) have noted in their reports on SDWA data quality, having adequate data is important to EPA's ability to understand and oversee state programs. The Agency and its state partners need to continue to look for ways to improve public

health protection and data management and quality. EPA will work with states to improve data completeness, accuracy, timeliness, and consistency in SDWIS through: 1) training on data entry, error correction, and regulatory reporting; 2) conducting data quality reviews of state data files and compliance determinations where possible; and 3) implementing quality assurance and quality control procedures.

- **Coordinate with Enforcement:** The EPA regional offices and OW will continue to work with OECA to identify instances of actual or expected non-compliance that pose risks to public health and to take appropriate actions as necessary, particularly where EPA has primacy for the drinking water program. Collaboration across the drinking water program is critical to ensuring that public water systems with compliance issues are addressed through the most effective means. These approaches include targeted funding, compliance assistance, and enforcement. OECA's drinking water Enforcement Response Policy represents an approach to address significant non-compliance at public water systems and the related enforcement targeting tool's prioritization of systems with unaddressed violations allows primacy agencies to focus compliance assistance and enforcement efforts on returning these systems to compliance. In addition, OW and OECA will continue to track violations at schools and childcare centers that have their own water source in order to quickly bring them back into compliance. These public water systems are of special concern as children are the subpopulation most vulnerable to lead and other contaminants.

c. DWSRF and Sustainable Water Infrastructure

The DWSRF is the cornerstone of the 1996 amendments to SDWA, and is one of the largest items in the Agency's budget. The DWSRF 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 develop system capacity and enhance infrastructure sustainability. From the program's inception in 1997 through FY 2011, nearly \$15.5 billion has been appropriated for the DWSRF; nearly \$13.7 billion has been awarded to states in capitalization grants; and \$21.7 billion in project assistance has been provided by state DWSRFs to 9,031 projects. For every \$1.00 EPA has awarded in capitalization grants, \$1.77 is awarded to projects by states. This exceptional "multiplier effect" is achieved through state grant matching dollars, optional state leveraging, and the repayments and interest earnings from the loan portfolio, as well as other interest earnings resulting from prudent financial management.

The Agency continues to emphasize several national SRF priorities to strengthen the program for the long-term. These priorities include increasing the speed with which appropriated funds move to projects; ensuring that the highest priority projects are ready to proceed to funding; ensuring that the financial integrity of the program through strong auditing, consistent with overarching federal law and guidance; and enhancing coordination between the DWSRF and PWSS programs. In addition, in FY 2013, EPA in partnership with the states and tribes will:

- Strengthen the focus on ensuring that all funds appropriated for the DWSRF move as expeditiously as possible consistent with sound program oversight into high priority projects achieving the public health protection objectives of SDWA. The Agency is emphasizing the importance of states managing their DWSRF programs to improve the speed with which appropriated funds are awarded and outlaid. EPA will work closely with states to encourage/position them to take their capitalization grant award in the first year of availability (appropriations are available for award in the year appropriated and in the subsequent year). EPA recognizes the need to afford states the opportunity to exercise appropriate flexibility in how the state will achieve these broad programmatic objectives. EPA and states will work together to ensure the best possible outcome in each state, given that state's unique set of circumstances.
- Emphasize the need to reduce ULOs in the program and move these funds expeditiously to near-term needs as identified in state Intended Use Plans (IUP) to benefit communities. Cumulatively, across all 51 DWSRF programs, ULOs stood at \$2.57 billion at the end of FY 2011. At the end of FY 2008, ULOs stood at \$1.99 billion. ULOs spiked in 2009 with enactment of American Recovery and Reinvestment Act (ARRA) and have slowly been coming down as states adjust to the increased appropriation levels in FY 2010 and FY 2011. ULOs are not uniformly distributed across all 51 state programs and EPA will be working closely with those states for which ULOs are most significant to assist them in making program changes necessary to quickly reduce existing ULOs and to prevent the accumulation of ULOs in the future.
- Increase the DWSRF fund utilization rate³ for projects (see Program Activity Measure SDW-04) from a 2002 level of 73% to 89% in 2013. EPA will also work with states to monitor the number of projects that have initiated operations (see Program Activity Measure SDW-05) from a cumulative 2005 level of 2,600 to 7,000 in 2013.
- Allocate appropriated funds to states in accordance with each state's proportion of total drinking water infrastructure need as determined by the 2007 Needs Survey and Assessment.⁴ Per statute, each state and the District of Columbia shall receive no less than one percent of the allotment.
- Submit to Congress the 2011 Needs Survey which will document 20-year capital investment needs of public water systems that are eligible to receive DWSRF monies – approximately 53,000 CWSs and 21,400 not-for-profit non-CWSs. The survey reports infrastructure needs that are required to protect public health, such as projects to ensure compliance with SDWA. This Needs Survey will be used to establish DWSRF state allotments beginning in FY 2014.
- Continue to emphasize the importance of directing DWSRF funding to projects with the highest priority public health protection need. EPA will be providing training and technical assistance to its state partners on a model IUP. As part of this process, EPA will be implementing modified, as well as new checklists for EPA regions to use in their review of IUPs and their annual oversight of state programs. These new and revised checklists have been designed to ensure appropriate steps are being planned and taken by states to coordinate DWSRF funding decisions with the public health priority management of state drinking water programs. This is consistent with EPA's response to an OIG study regarding emphasizing the use of DWSRF funding to address systems in non-compliance with SDWA requirements.
- Continue implementation of the SRF Sustainability Policy. This policy is designed to promote technical, managerial, and financial capacity as a critical means to meet infrastructure needs, and further enhance program performance and efficiency, and to ensure compliance. State programs can utilize set-asides to promote asset management, system-wide planning, and other sustainable management practices at public water systems aimed at reducing water loss and better understanding linkages between water production/distribution and energy use.
- Coordinate across drinking water programs, including the PWSS, capacity development and operator certification, in order to identify systems in noncompliance with SDWA requirements or challenged to be sustainable, and then provide loans and/or technical assistance to improve their capacity to provide safe drinking water.

³ Fund Utilization Rate is the cumulative dollar amount of loan agreements divided by cumulative funds available.

⁴ The 2007 Needs Survey was released in 2009.

d. Water System Security

Since the events of 9/11, EPA has been designated as the sector-specific Agency responsible for infrastructure protection activities for the Nation's drinking water and wastewater systems. EPA is utilizing its position within the water sector and working with its stakeholders to provide information to help protect the Nation's drinking water supply from terrorist threats and all hazard events. EPA is accomplishing this by assessing new security technologies to detect and monitor contaminants as part of the Water Security Initiative (WSI), establishing a national Water Laboratory Alliance (WLA), and planning for and practicing (including providing tools, training, and technical assistance) for response to both natural and intentional emergencies and incidents. 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.

In FY 2013, EPA will move to the next phase of the WSI pilot program and the WLA. EPA will, in collaboration with our regional counterparts, states, and utilities:

- Initiate a national outreach strategy under WSI to encourage water utilities to adopt effective, implementable, and sustainable contamination warning system practices, as recommended by a stakeholder workgroup. This strategy will include deploying computer based decision support tools and guidance materials for water utilities on designing, deploying, and testing contamination warning systems based on lessons learned from the pilots.
- Conduct exercises designed to further implement the WLA Response Plan which provides processes and procedures for a coordinated laboratory response to water contamination incidents. In addition, EPA will continue to expand the membership of WLA and support the regional laboratory networks.

EPA will also continue working to ensure that water sector utilities have tools and information (including those that support the Water Alliance for Threat Reduction (WATR)) to prevent, detect, respond to, and recover from terrorist attacks, other intentional acts, and natural disasters. In FY 2013, EPA will, in collaboration with our regional counterparts, states, the Department of Homeland Security (DHS), and water sector officials:

- 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;
- Develop and conduct webcasts and exercises to prepare utilities, emergency responders, and

decision-makers to evaluate and respond to physical, cyber, and contamination threats and events;

- Create, update, and disseminate tools and provide technical assistance to ensure that water and wastewater utilities and emergency responders react rapidly and effectively to intentional contamination and natural disasters. Tools include information on high priority contaminants, incident command protocols, sampling and detection protocols and methods, and treatment options;
- Sustain operation of the Water Desk in the Agency's Emergency Operations Center by updating roles/responsibilities, training staff in the incident command structure, ensuring adequate staffing during activation of the desk, and coordinating with EPA regional field personnel and response partners;
- Support the adoption and use of mutual aid agreements among utilities to improve recovery times;
- Continue to implement specific recommendations for emergency response, as developed by the EPA and water sector stakeholders, including providing 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; and
- 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.

e. Source Water Protection Programs

The Source Water Protection Program is a voluntary program that works with states, associations and other organizations to protect drinking water sources through collaboration and partnerships that engage states, local governments and drinking water utilities, as well as other federal agencies, in protection activities. Source water includes untreated water from streams, rivers, lakes, or underground aquifers that is used to provide public drinking water, as well to supply private wells used for human consumption. A core principle of source water protection is that, while all public water systems are responsible for providing safe water, no public water system should have to provide more drinking water treatment than required to address naturally occurring pollutant concentrations.

In FY 2013, EPA will continue supporting state and local efforts to address sources of drinking water contamination to improve the number of CWSs that have diminished risk to public health concerns 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 2013 (see measure SDW-SP4a). EPA also has a goal of increasing the percent of the population served by these community water systems to 57% in FY 2013 (see measure SDW-SP4b).

Specifically in FY 2013, the Agency will work with states, tribes, and the multi-partner Source Water Collaboratives as appropriate to:

- Facilitate participation with state conservation and local conservation districts to leverage U.S. Department of Agriculture (USDA) funding for source water protection from NPS pollution through state and local decision making.
- Provide training, technical assistance and technology transfer capabilities to states and localities, and facilitate the use and sharing of Geographic Information System (GIS) databases to support local decision-making.
- Characterize current and future pressures on source water quality and availability (particularly the increased frequency of severe drought and/or severe storms), and assess adaptation options to address those impacts, and explore opportunities to mutually leverage resources among federal, state, interstate, and local agencies to protect and preserve drinking water resources.
- Align source water conservation and protection with state priorities. In particular, EPA will work to integrate source water protection into CWA programs, such as the Healthy Watersheds Initiative (HWI), and storm water management through Green Infrastructure.
- Work with the U.S. Forest Service (USFS) to maintain healthy land cover and USDA to promote land conservation programs and BMPs to protect water quality.

f. Underground Injection Control

SDWA requires EPA to develop minimum federal requirements for UIC programs and other safeguards to protect public health by preventing injection wells from contaminating underground sources of drinking water. As such, the UIC program is responsible for developing and overseeing the implementation of regulations to protect underground sources of drinking water through the management of injection wells used to contain hazardous, industrial, and other fluids (including those that use diesel fuel for hydraulic fracturing purposes); sequestration of carbon dioxide (CO₂); and store water for future use and aquifer recharge.

The mechanical integrity of an injection well is critical to assure that there are no significant leaks in the well components and that there is no significant fluid

movement into underground source of drinking water through vertical channels adjacent to the injection well-bore. EPA, states, and tribes have historically had three separate measures for reporting on the number of Class I, II, and III wells that lost mechanical integrity and are were not returned to compliance within 180 days. We no longer tracked these separately for each class starting in FY 2012, they were tracked as a combined group. This will enable better target setting and evaluation of program performance.

Continuing in FY 2013, states and EPA (where EPA directly implements the UIC program) will continue to carry out implementation of the regulations for each class of injection wells by:

- Addressing high priority Class V wells. In 2012, the measure for Class V was 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.
- Evaluating as the direct implementation authority, permit applications, and process new Class VI permits for large-scale commercial carbon sequestration applications following the GS regulations, finalized in December 2010. Starting in FY 2012, EPA now has two indicator measures to evaluate implementation of the GS Rule, 1) the number of permit actions taken and 2) the volume of CO₂ sequestered.
- Processing UIC permits for other nontraditional injection streams, such as desalination brines and treated waters injected for aquifer storage and recovered at a later time.
- Examining and improving 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 GS of CO₂ projects. Activities planned for FY 2013 include:

- Complete development of supporting GS documents (i.e., technical support documents, guidance documents, and implementation materials) for the GS of CO₂ recovered from emissions of power plants and other facilities;
- Continue to facilitate research in UIC-related areas of GS, 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 (USDW);

- Analyze data collected through Class II Enhanced Oil Recovery and Class V pilot projects and additional industry efforts to demonstrate, commercialize, and implement GS of CO₂ technology;
- Continue to engage states, tribes, nongovernmental organizations (NGOs), and public stakeholders through meetings, workshops, and other avenues, on technical issues related to the final Class VI rule and on broader climate change issues;
- Assure that assistance is provided to EPA regional offices to facilitate processing of permits for Class VI GS projects; and provide additional assistance (such as outreach and communication material) for states and tribes in their respective roles in the permitting process as necessary; and
- Process 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 2013. Also in FY 2013, 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.

2. Improvement of small drinking water system technical, managerial, and financial capacity.

Many 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 skills; and (5) difficulty in understanding existing or new regulatory requirements. As a result, some small systems may experience frequent or long-term compliance challenges to reliably providing safe water to their communities.

To reinforce the critical need of improving the protection of public health for people served by small systems, in FY 2012, EPA established an Agency Priority Goal through the budget process to improve small drinking water systems capability in twenty states through increased participation in EPA's Optimization and Capacity Development Programs. In FY 2013, EPA is strengthening its efforts in working with states, tribes, utility associations, third-party technical assistance providers, and other federal partners, to enhance small system compliance and long-term sustainability.

- EPA will continue to emphasize the importance of state implementation of the capacity development and operator certification programs. These programs are critical to

assisting small system in achieving and maintaining compliance with drinking water regulations and long-term system sustainability. EPA will work with states and other partners to identify and disseminate best practices, policies, and innovations across state programs, and promote sustainable practices, including asset management and energy and water efficiency.

- States should continue to target use of DWSRF set-asides for activities that enhance the technical, managerial, and financial capacity of small systems, thereby increasing the ability of these systems to consistently meet both existing and newer drinking water standards.
- The Agency continues to encourage state DWSRF programs that have not yet developed a disadvantaged communities program to do so, as well as advocating that states support existing disadvantaged community assistance, with an emphasis on those systems requiring installation of treatment technology to comply with the Arsenic Rule and newer drinking water regulations.
- The Agency expects states to ensure that DWSRF loans are reserved for systems which are deemed sustainable or are on a pathway to sustainability through DWSRF support. In addition, EPA encourages states to identify opportunities to coordinate with other funding agencies (e.g. USDA Rural Development) to more effectively assist small systems.
- Water system partnerships can provide opportunities for water systems to collaborate on compliance solutions, operations and maintenance activities, and share costs with other nearby systems, thereby enabling them to become sustainable and provide safe and affordable water to their communities. EPA will work with states, tribes, and other partners to educate systems on the various forms of system partnerships, including restructuring and shared treatment. EPA will help states identify opportunities to use DWSRF set-asides to achieve desired partnerships.
- Cross-program collaboration is essential to assisting many small systems with their compliance challenges. Regional and state capacity development, operator certification, and DWSRF programs should increase coordination with the enforcement program and utilize OECA's Enforcement Targeting Tool (ETT) to help determine the most appropriate approach for returning systems to compliance.

To support implementation of this small system effort, the Agency developed a suite of indicators in the FY 2011 *Guidance*, with continued emphasis for use in FY 2013. These indicators correspond to the small system effort: 1) existing and new small water system inventory; 2) state DWSRF projects targeting small systems; and 3) small system noncompliance and their capacity to quickly return to compliance with health-based standards.

Schools and childcare centers are a critical subset of small

systems for which EPA is also continuing to provide special emphasis in FY 2013 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.

3. Streamlining the DWSRF grant award distribution and program/project outlay of funds process.

Congress and EPA continue to emphasize the urgency in ensuring that all funds appropriated for the DWSRF move as expeditiously as possible from EPA through states and into high priority projects, consistent with sound program oversight, achieving the public health protection objectives of SDWA. This includes emphasis on expediting/streamlining project outlay and billing to reduce ULOs.

In FY 2013, EPA will work with states to streamline the SRF grant award and program/project use of funds where feasible. The following is a list of areas developed by Office Wastewater Management (OWM) and OGWDW that EPA, regions and states, could modify or potentially accelerate to expedite the award and outlay of funds while ensuring that the financial integrity of the program is maintained. Not all practices identified may be applicable to each state program, depending on program structure and upon the uncertainties associated with the annual federal appropriations process.

- Timing related to the development and approval of IUPs and their Set-Aside Workplans.
- The award of capitalization grants in the first year of funds availability.
- Timing related to the execution of loans after bids are received or after contract is awarded.
- Project Management related to reviewing and establishing by-pass procedures that ensure projects move as fast as possible.
- The acceleration of cash draws.
- State use of the set-aside funds seeking to appropriately balance the need for set-aside balances to be as low as possible while at the same time being adequate to support ongoing program needs from year to year given uncertainties regarding timing of federal appropriations and subsequent DWSRF Capitalization Grant awards.

4. Implement the new Class VI GS rulemaking

In December 2010, EPA finalized UIC Program requirements for GS, including the development of a new class of wells, Class VI. These requirements (referred to as the Class VI rule) are designed to further protect underground sources of drinking water from endangerment. The Class VI rule builds on existing UIC Program requirements, with extensive tailored requirements that address CO₂ injection for long-term storage to ensure that wells

used for GS are appropriately sited, constructed, tested, monitored, funded, and closed; and that well owners or operators maintain sufficient resources to ensure pre-and post-operational activities.

In FY 2013, the drinking water program is emphasizing the importance of working with states and well owners to implement the Class VI rule. EPA will 1) prepare, revise, and finalize implementation materials including technical guidance documents (listed below) to support Class VI rule implementation; 2) conduct webinars for the regulated community and implementing authorities to facilitate rule implementation and comprehension of guidance (described below) recommendations, and prepare additional implementation materials for the rule; 3) review and process (by rulemaking) Class VI primacy applications from states and tribes; and 4) provide technical assistance to states to analyze complex modeling, monitoring, siting, and financial assurance data for new GS projects.

GS of CO₂ UIC Program Guidance documents referenced above include:

- The II-VI transition guidance.
- Injection well plugging, post-injection site care, and site closure.
- Injection depth waivers.
- Reporting and recordkeeping guidance.

C) Grant Program Resources

EPA manages the following three program grants to the states and tribes, authorized under SDWA, to support the implementation of the drinking water core program and achieve EPA's strategic goals related to drinking water.

Public Water System Supervision

The PWSS grants program support the states' and EPA regional primacy activities related to technical assistance, compliance with, and enforcement of drinking water regulations. PWSS grant guidance issued for FY 2005 will continue to apply in FY 2013 in addition to the guidance provided above. The memo entitled *Guidance and Tentative Grant Allotments to Support Public Water System Supervision (PWSS) Program on Tribal Lands*, provided in 2008, continues to apply in FY 2013 to EPA regions that receive tribal PWSS funding to support the Tribal Drinking Water Program. Of the FY 2013 President's Budget request of \$109.7 million, approximately \$6.8 million will support implementation of the Tribal Drinking Water Programs.

Drinking Water State Revolving Fund

As stated previously, the DWSRF 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 develop system capacity and enhance infrastructure sustainability.

The DWSRF program provides significant resources for states for this purpose. Through FY 2011, the program as a whole provided over \$15.5 billion in assistance to states, tribes, and municipalities. States reserved over \$1.5 billion in set-asides to support key drinking water programs. In FY 2013, the Agency requested \$850 million for the program. EPA continues to emphasize the targeting of DWSRF resources to achieve water system compliance with health-based requirements.

Tribal drinking water systems and Alaska Native Village (ANV) 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 ANV drinking water infrastructure to provide access to safe drinking water and facilitate compliance with NPDWRs. EPA also administers a grant program for drinking water and wastewater projects in ANVs. Additional funding is available from other federal agencies, including the Indian Health Service, USDA and the Department of Housing and Urban Development (HUD).

Underground Injection Control Grants

SDWA requires EPA to develop minimum federal requirements for UIC programs and other safeguards to protect public health by preventing injection wells from contaminating USDW. Each year, funds are distributed by EPA to assist state UIC programs manage and enforce the federal UIC requirements related to injection wells used to dispose of hazardous, industrial, and other fluids (including those that use diesel fuel for hydraulic fracturing purposes); sequestration of CO₂; and store water for future use and aquifer recharge.

For FY 2013, EPA requested \$11.1 million for grants to states to carry out primary enforcement (primacy) responsibilities for implementing regulations associated with UIC wells. In addition, emphasis is directed to activities that address shallow wells (Class V) in source water protection areas.

For additional information on these grants, see the grant program guidance on the website (http://water.epa.gov/resource_performance/planning/index.cfm).

Public Water System Supervision (PWSS) Grant Guidance to States, Tribes, and EPA Regions with Primacy Enforcement Authority

The PWSS program is fundamental to the implementation of SDWA and EPA and state's role in the protection of public health. This *National Water Program Guidance* for FY 2013 includes guidance for state and tribal recipients of PWSS program grants, as well as for EPA regions with primacy enforcement authority. 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, 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:

- Public water systems, of all types, and of all sizes, that are currently in compliance, remain in compliance;
- Public water systems, of all types, and of all sizes, that are not currently in compliance, achieve compliance;
- Public 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 2013.

Assisting public water systems in meeting this objective and achieving long-term sustainability requires grantees to adopt a variety of approaches and coordinate efforts across the drinking water program. Building on the ongoing efforts of grantees to implement the PWSS program, FY 2013 priority activities for the PWSS grantees should include the following:

- Timely submission of primacy program revisions for the purpose of adopting new or revised federal regulations;
- Completion of sanitary surveys;
- Microbial and Disinfectants and Disinfection Byproducts rules implementation;
- Small system compliance assistance; and
- Technical assistance to public water systems.

A proportion of each 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
- Corrective actions associated with data reviews are implemented; and
- The required inventory, compliance, and enforcement data being provided to EPA through the SDWIS/FED data system are timely, 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 SDWA Section 1413.

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.

Drinking Water State Revolving Fund (DWSRF) Grant Guidance to States

This *Guidance* for FY 2013 includes guidance for state recipients of DWSRF 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 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 DWSRF Program is governed by CFR 35 Subpart L, which implements SDWA Section 1452. Additional guidance has been, and continues to be, issued as necessary to address program implementation needs. The ARRA supplemental appropriation for the DWSRF contained a number of new requirements unique to that appropriation. ARRA was implemented through guidance. Federal appropriations bills for FY 2010-2012 contained specific requirements (similar to certain requirements of ARRA) on the amounts appropriated in each of those years and those specific requirements have been implemented through annual "Procedures," issued jointly by OGWDW and OWM.

The SDWA Amendments of 1996 establish the DWSRF Program with the central purpose of providing financial assistance to water systems and to state programs to help achieve the public health protection objectives of the Act. SDWA requires that priority for funding be given to those projects that address the most serious risk to human health; are necessary to ensure compliance with SDWA; and assist systems most in need on a per household basis.

States, at their discretion, may reserve up to a total of 31% of any DWSRF capitalization grant for "set-asides" to fund DWSRF program administration, small system technical assistance, state program management, and local assistance. This includes:

- Support for the state PWSS program.
- State wide operation certification programs.
- State wide capacity development planning.
- System source water protection.
- System level capacity development actions.

To ensure the appropriate balance between financing capital projects to improve the delivery of safe water and funding non-capital set-aside assistance for water systems, the PWSS program in each state has the lead responsibility for determining the priority for providing these two forms of assistance to water systems. This balance of funding priorities is to be reflected in the state's IUP. SDWA requires that states submit an annual IUP that details how the state will use DWSRF program funds, including new capitalization grants, as well as other grant funds, repayments, and other resources. A Project Priority List is a required element of the IUP. The Project Priority List is a cornerstone of the IUP and presents all the capital projects awaiting DWSRF assistance in priority funding order. States must also include a "Fundable List" showing the specific projects that the state actually anticipates being ready to proceed to receiving assistance in the year ahead. Additionally, states are required to submit set-aside work plans that detail how set-aside funds will be used. Finally, states must submit, biennially, a report that explains how DWSRF funds were actually used. States are also required to submit annual data on program performance. Auditing is required to the extent laid out in the Single Audit Act.

EPA regions perform annual on-sight reviews of state programs, including project file reviews and transaction testing. For ARRA, an ARRA specific review was added as well as ARRA specific project file reviews and transaction testing. These reviews serve as EPA's baseline monitoring for the DWSRF.

The DWSRF grant allotments are based on the Drinking Water Needs Survey. State-by-state allotments, territorial funds, and the total amount available to each region for tribes will be available at http://water.epa.gov/grants_funding/dwsrf/index.cfm.

In FY 2013, EPA and the states will continue to ensure that all SRF funds move as expeditiously as possible from EPA through states and into high priority projects, consistent with sound program oversight, achieving the public health protection objectives of SDWA. This includes emphasis on expediting/streamlining project outlay and billing to reduce unliquidated obligations.

Underground Injection Control (UIC) Grant Guidance to States and Tribes

The UIC Program, under SDWA, is vital to the protection of underground sources of drinking water (USDW). EPA works with states and tribes to regulate and monitor the injection of fluids, both hazardous and non-hazardous, into wells, to prevent contamination. This *Guidance* for FY 2013 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 SDWA Section 1443. 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 *Guidance*. 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 USDW;
- Ensure that injected fluids stay within the well and the intended injection zone; and
- No injection may occur which allows for the introduction of any contaminant into an USDW if the presence of that contaminant may cause a violation of any primary drinking water standard 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 2013 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 SDWA Section 1443 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>.

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% 2012 Commitment: 4.9%

2013 Target: 2.5% 2015 Strategic Target: 4.6%

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

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 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; and
- Improve the quality of fishing waters.

EPA will also improve public information and notification of fish consumption risks in order to help people make more informed choices about selecting fish to eat.

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 CWA Section 303(d). 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 CWA 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 option of using the "5m" listing approach as part of the CWA 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 CWA 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 the Quality of Fishing Waters

Success in achieving improved quality in shellfishing waters relies on implementation of CWA 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, expanded monitoring and development of TMDLs may support revision of discharge permit limits to ensure compliance with applicable CWA requirements.

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-two percent of lake acres and 36 percent of river miles have been assessed as of 2010 to support waterbody-specific or regional consumption advisories or a determination that no consumption advice is necessary (see Program Activity Measure FS-1a and b). 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.

In addition, a wide range of clean water programs that applies throughout the country will generally reduce pathogen levels in key waters. For example, improved implementation of NPDES permit requirements for Combined Sewer Overflows (CSOs), Concentrated Animal Feeding Operations (CAFOs), and storm water runoff, as well as improved NPS control efforts, may contribute to restoration of shellfish uses.

C) Grant Program Resources

Grant resources supporting this goal include the state program grants under CWA Section 106, 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/resource_performance/planning/index.cfm).

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%	2012 Commitment: 95%
2013 Target: 95%	2015 Target: 95%

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

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 2013, 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
- Continue 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 published draft criteria in December 2011 and will publish final new or revised criteria in October 2012.

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 TMDLs which are developed based on the schedules established by states in conjunction with EPA. Program Activity Measure WQ-08 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, OW will work in partnership with 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 2013 to reduce the overall level of pathogens discharged to recreational waters using three key approaches:

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

Sanitary Sewer Systems (SSSs) most often contain high levels of suspended solids, pathogenic microorganisms, toxic pollutions, floatables, nutrients, oxygen-demanding organic compounds, oil and grease, and other pollutants and can cause exceedances of WQS. Such exceedances may pose risks to human health, threaten aquatic life and its habitat, and impair the use and enjoyment of the Nation's waterways. EPA is working with states and local governments to fully implement the CSO Policy providing for the development and implementation of long-term CSO control plans. EPA expects that 752 (88%) out of the 853 CSO communities will have enforceable schedules in place to implement approved long-term CSO control plans, including sewer separation, in FY 2013 (see Program Activity Measure SS-1). EPA will also work with states to resolve longstanding issues associated with sanitary sewer overflows (SSOs) and bypasses at treatment plants.

Other key sources of pathogens to the Nation's waters are discharges from CAFOs, municipal storm sewer systems, and industrial facilities. EPA expects to work with states to assure that these facilities are covered by permits where necessary. In addition, EPA expects to work with the states to develop approaches for monitoring wet weather discharges and impacts to surface waters, developing water quality-based effluent limits, and identifying effective control measures and BMPs. For CAFOs, NPDES regulations currently require facilities with discharges to seek permit coverage. Full implementation of the NPDES permitting requirement for CAFOs may 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. Grants awarded to states in FY 2012 will allow most of them to continue monitoring beach water quality during the 2013 swimming season, notifying the public of exceedances, and reporting those data to EPA in early 2014. However, with the lack of beach grants in FY 2013 (affecting monitoring for the 2014 swimming season), some states might reprioritize to designate fewer Tier 1 beaches, as they transition to state-funded beach programs. Thus, EPA expects that 100% of "significant" public beaches will be monitored in accordance with BEACH Act requirements in 2013 (see Measure SS-2). Significant public beaches are those identified by states as "Tier 1" in their beach monitoring and notification programs.

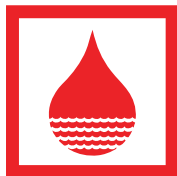
C) Grant Program Resources

Grant resources supporting this goal include BEACH Act grants, which are slated for elimination in FY 2013. States have the flexibility to use CWA Section 106 grants for a wide range of activities, including ambient water quality monitoring, to address their most pressing pollution control program needs. Some activities might also be eligible under NPS program implementation grants (CWA Section 319 grants). For additional information on these grants, see the grant program guidance on the website (http://water.epa.gov/resource_performance/planning/index.cfm).

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, including measures related to watersheds and maintaining water quality in streams already meeting standards are included in *Appendix A and E*.)

B) Key National Strategies

In FY 2013, EPA will work with states, tribes, and others to implement programs to protect and restore water resources with four 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, including the development of integrated protection and restoration strategies, and to use adaptive management approaches to implement cost-effective restoration solutions, giving priority to watershed approaches where appropriate.
- **Water Protection Goals and Strategies:** EPA will work with states and tribes to strengthen capacities to identify and protect high quality waters and watersheds, and to integrate protection and restoration as part of a comprehensive approach to achieve environmental results.

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

In FY 2013, EPA, states, and tribes need to continue to effectively implement and better integrate programs

established under CWA 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 2013 include:

- Strengthen the WQS 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 NPSs; and
- Support sustainable wastewater infrastructure.

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

This *National Water Program Guidance* for FY 2013 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 2013 continues this practice of incorporating Section 106 grants 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://water.epa.gov/grants_funding/cwf/106-guidelines-monitor.cfm
- Water pollution enforcement activities.
See <http://www.epa.gov/ocfo/npmguidance/index.htm>.

*Tribes found eligible under CWA section 518(e) to be treated in the same manner as a state (TAS) to administer a WQS 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 OW 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 2013 in each of these program areas are described below.

a. Strengthen Water Quality Standards Program

WQS are the regulatory and scientific foundation of water quality protection programs (WQPP) under the CWA. Under the Act, states and authorized tribes establish WQS 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 WQS 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 consistent with CWA, and as needed, provide technical and scientific support to states, territories, and authorized tribes in the development of their standards.

Excess nitrogen and phosphorus can cause eutrophication and human health problems in lakes, estuaries, rivers, and streams; and can degrade drinking water quality. EPA continues to place a high priority on state and territories adoption of numeric water quality criteria for nitrogen (N) and phosphorus (P) pollution to help address these issues (see measure WQ-01a). Further, an EPA policy memorandum issued in March 2011, "Working in Partnership with States to Address Phosphorus and Nitrogen Pollution through Use of a Framework for State Nutrient Reductions," encourages states to undertake a number of key actions to address N and P pollution, from priority-setting to full implementation. In accordance with this memorandum, EPA encourages states to begin work immediately setting priorities on a watershed or statewide basis, establishing nutrient reduction targets, and adopting numeric nutrient criteria (and providing milestone information to EPA) for at least one class of waterbodies by no later than 2016. EPA added a new measure (WQ-26) to track progress in this area. EPA anticipates modifying

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 WQS regulation.* EPA expects states and tribes will enhance the quality and timeliness of their WQS 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 WQS 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 Program Activity Measures WQ-03a and 03b). States with disapproved standards provisions should work with EPA to resolve the disapprovals promptly.

EPA's March 2011 memorandum concerning a framework for nutrient reductions reaffirms EPA's commitment to partnering with states and collaborating with stakeholders to make greater progress in accelerating the reduction of nitrogen and phosphorus loadings to our Nation's waters. EPA encourages states to begin work immediately in setting priorities on a watershed or statewide basis, establishing nutrient reduction targets, and adopting numeric nutrient criteria for at least one class of waterbodies by no later than 2016. As part of the framework, EPA continues to place a high priority on states adopting numeric WQS 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. To help EPA track state progress, states should provide EPA a full set of performance milestone information concerning total nitrogen and total phosphorus numeric criteria development, proposal, and adoption (see Program Activity Measures WQ-01a and WQ-26).

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 WQS 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 (WQSDB) for this purpose. EPA will provide a copy of WQSDB 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://water.epa.gov/scitech/swguidance/standards/wqshome_index.cfm.

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

or replacing this measure in coming years to move the focus from planning and priority-setting to achieving the targeted reductions by implementing strategies for reducing N and P pollution.

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.

EPA continues 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 WQS under the third approach (see Program Activity Measure WQ-02).

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 WQS up to date with the latest scientific information (see Program Activity Measures WQ-03a and 03b) and to facilitate adoption of standards that EPA can approve (see Program Activity Measure WQ-04a). EPA encourages states, territories, and authorized tribes to make their WQS 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 CWA 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/fedrgstr/EPA-WATER/2008/July/Day-17/w16385.pdf>). Once FY 2013 funds are appropriated, EPA will revise the guidelines to reflect any changes made to the program. The guidelines specify the activities that states and interstate agencies are to 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:

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

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/elements03_14_03.pdf), which calls for states to implement their monitoring strategies by 2014. During FY 2013, these efforts include:

- Implementing monitoring strategies;
- Undertaking statistical surveys; and
- Integrating assessments of water conditions, including reports under CWA Section 305(b), and listing of impaired waters under CWA Section 303(d) by April 1, 2014.

In FY 2013, states will continue to transmit water quality data to the national STORET Warehouse using the Water Quality Exchange (WQX) framework to meet the requirement under CWA Section 106 (e) to report water quality data annually. States will also submit assessment results for the 2012 Integrated Report via the Assessment Database version 2, the Office of Water Integrated Report (OWIR-ATT) flow or a compatible electronic format, and geo-reference these assessment decisions. EPA will support states' use of WQX and WQX Web to submit data to the STORET Data Warehouse and use of OWIR-ATT and Assessment Database (ADB) to submit Integrated Report data to EPA 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.

A separate CWA 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>)

State and EPA cooperation on statistically-valid assessments of water condition nationwide remains a top priority. In 2013, EPA will issue the National Rivers and Streams Assessment report which will contain the findings from the 2008-2009 rivers and streams survey. This report will constitute the first complete assessment of the Nation's flowing waters and will contain a comparison of stream conditions from 2004 to 2008/2009 and evaluate change. The fifth report on the national coastal condition also will be drafted, peer reviewed, and released for public comment in FY 2013. It will include information from the 2010 National Coastal Condition Assessment and evaluation of changes since 2000. In 2012, EPA, states, and tribes will conduct field sampling for the second National Lakes Assessment, and data collected from the previous year's Wetlands Survey will be undergoing laboratory analysis. FY 2013 CWA Section 106 Monitoring Initiative funds will be allocated for sampling for the second Rivers and 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.

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 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 Measures WQ-06a and WQ-06b). As tribal strategies are developed, EPA will work with tribes to implement them over time.

EPA is also working with tribes towards implementation of *Strategic Plan* measures WQ-SP14a.N11 and WQ-SP14b.N11. In FY 2013, EPA will continue to report on WQ-SP14a.N11, which tracks improvement of one or more defined parameters on previously identified monitoring stations on tribal lands that have the highest potential for improvement. Also in FY 2013, EPA will report out on the newly defined pilot measure

WQ-SP14b.N11, which tracks where water quality is meeting benchmark criteria and showing no degradation at identified monitoring stations on tribal lands. EPA will be engaging tribal communities in consultation on WQ-SP14b.N11 prior to reporting at the end of FY 2012.

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.

EPA will also continue to work with state and other partners to strengthen capacities to identify and protect high quality waters and watersheds. In an effort to promote and encourage the progress made and still needed for statewide assessments that identify healthy watersheds and in some cases, provide a watershed condition gradient, EPA developed a technical document (<http://water.epa.gov/polwaste/nps/watershed/index.cfm>) that provides a systems-based approach, examples of assessments of healthy watershed components, integrated assessment approaches, examples of management approaches, sources of national data, and key assessment tools. The data and information gathered from both individual and integrated assessments of landscape condition, habitat, hydrology, geomorphology, water quality and biological condition can help inform management approaches, including implementing water quality and other protection programs. Regions are currently developing and/or implementing healthy watersheds strategies (WQ-22a). Activities underway include regions working with states to: (1) develop state healthy watershed strategies; (2) assess and protect instream flow and landscape condition; and (3) tie this work to programs such as source water protection and antidegradation.

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 (NEP) (see "Protect Coastal and Ocean Waters" Subobjective), as well as the Association of Clean Water Administrators (ACWA), and federal land management agencies foster efficient strategies to address water quality impairments. EPA

and USFS signed a Memorandum of Agreement (<http://www.epa.gov/owow/tmdl/usfsepamoa/>) designed to develop approaches (e.g., TMDLs and TMDL alternatives) to address water quality impairments on USFS land. In addition, EPA formed a partnership with the U.S. Fish and Wildlife Service (USFWS) to identify the location of impaired waters and to develop a strategy to address and protect waters on USFWS land. Through a partnership with the National Park Service, EPA has provided geospatial analysis from the agencies atmospheric mercury deposition modeling for each of the National Park Service managed properties. 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-08). In 2013 the CWA 303(d) Listing and TMDL Program will continue to engage with states on a 10-year vision discussion for the program. As part of this effort, the program will evaluate WQ-08 and determine if there are new measures to better measure the success of the program in line with the outcome of the vision effort. It is anticipated that any new measures would be ready for public comment in the FY 2014 *Guidance*.

As noted below, EPA is encouraging states to organize schedules for TMDLs to address all pollutants on an impaired segment when possible. 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>). In addition, EPA recently released the polychlorinated biphenyl (PCB) TMDL Handbook (<http://www.epa.gov/owow/tmdl>), and the Recovery Potential Screening Web site, a tool for comparing impaired waters restorability (<http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/recovery/index.cfm>).

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

Section 106 Grant Guidance to States and Interstate Agencies: Identifying Impairments and Developing TMDLs

EPA encourages states to effectively assess their waters and make all necessary efforts to ensure the timely submittal of required CWA Section 303(d) lists of impaired waters. For 2013, 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 WQS are not attained, states will develop 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 Section 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).

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 with the translation of TMDL Waste Load Allocations into NPDES stormwater permits, as well as support innovative approaches, such as impervious cover surrogate 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 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 has been working closely with OECA to implement the CWA Action Plan. Additional information on the CWA Action Plan and 2013 activities can be found at: <http://www.epa.gov/compliance/civil/cwa/cwaenplan.html>. Some key NPDES program efforts include:

- **Integrated Workload Planning:** OWM and the Office of Compliance 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 CWA Action Plan.

- **Permit Quality Reviews (PQR) and Action Items and Integrated PQR and State Review Framework (PQR-SRF) Reviews:** OW conducts PQRs 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. Under CWA Action Plan, OW conducted several Transitional PQRs in the first half of FY 2012 while OW collaborated with OECA to carry out several Integrated PQR-SRF Reviews in the second half of FY 2012. Based on lessons learned from these FY 2012 reviews, region-led PQR-SRF integrated reviews will be conducted in FY 2013.
- **Program Integrity:** In FY 2011 and FY 2012, EPA increased emphasis in working with states to ensure the integrity of the NPDES program. Consistent with the CWA Action Plan, EPA has begun integrating program and enforcement oversight to ensure the most significant actions affecting water quality are included in an accountability system and are addressed. In FY 2013, regional permitting programs will coordinate with the regional enforcement programs to schedule and conduct CWA oversight reviews using the integrated permitting and enforcement oversight process, and draft integrated reports using HQ guidance. Regions will use NPDES program performance reports to inform regular discussions with states and to track performance. Some factors that are being 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 continue the 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.
- **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 2013, EPA intends to use a revised selection, commitment, and results calculation method to allow EPA to set a better baseline and improve the overall effectiveness of 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. 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 and communities to implement the Green Infrastructure Strategic Agenda released in April 2011. Green infrastructure uses vegetation, soils, and sustainable stormwater practices to manage water, preserve natural environmental functions, and provide associated community benefits. The Strategic Agenda promotes the use of green infrastructure at the local level through research, technical assistance, and outreach. Green Infrastructure management approaches and technologies infiltrate, evapotranspire, capture and reuse stormwater to maintain or restore natural hydrology. EPA supports use of CWA 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 final NPDES pesticides general permit (PGP) on October 31, 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 PGPs, oversee implementation of those permits, and assist in a national effort to educate the pesticides application industry regarding the new permit requirements.
- **Vessels:** In December 2008, EPA issued the Vessel General Permit (VGP) to provide coverage for these vessels in U.S. waters. On November 30, 2011, EPA signed the Draft 2013 NPDES VGP, which, if finalized, would replace the current 2008 VGP when it expires on December 19, 2013. The draft VGP contains numeric ballast water discharge limits for most

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 PQRs 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/Environmental Council of the States (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. 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 CWA 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 trading and linking development of WQS, TMDLs, and permits. States are expected to ensure that stormwater permits are reissued on a timely basis and to strengthen the provisions of MS4 permits as they are reissued to ensure clarity on what is required and 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 CAFO rule, including regulations, permits and technical standards, and work closely with their inspection and enforcement programs to ensure a level playing field. States were required to modify their programs to regulate pesticide discharges by October 31, 2011 and continue implementation through 2013. 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.

For those states for which their NPDES data has been migrated to Integrated Compliance Information System (ICIS-NPDES) or which are direct users of ICIS-NPDES, states are expected to ensure data availability by fully populating ICIS-NPDES with the data elements that are comparable to Water Enforcement National Data Base (WENDB) (December 28, 2007 memo from Michael Stahl and James Hanlon, “ICIS Addendum to the Appendix of the 1985 Permit Compliance System Policy Statement”) for the appropriate regulated universes of facilities. For those states in the Permit Compliance System (PCS) rather than ICIS-NPDES, states are expected to ensure data availability by fully populating PCS with the WENDB data elements for the appropriate regulated universes of facilities. After the effective date of the NPDES electronic reporting rule, all states are required to fully comply with that regulation, including the reporting to EPA of required NPDES data as identified in that regulation or its appendices for the regulated universes specified in that regulation and by the deadlines identified in that regulation. 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 2013, OECA’s NPM Guidance continues to identify activities for improving enforcement efforts aimed at addressing water quality impairment through the CWA Action Plan. OW and states will be working closely with OECA as the CWA Action Plan is implemented. The final *OECA NPM Guidance* is available with the complete Agency set at: <http://www.epa.gov/planandbudget/annualplan/fy2013.html>.

vessels which will reduce the threat posed by invasive species to U.S. waters. 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 economic damages. Among other things, the draft VGP also contains more stringent effluent limits for oil to sea interfaces and exhaust gas scrubber washwater, which would improve environmental protection of U.S. waters. EPA has also improved the efficiency of several of the VGP’s administrative requirements, which are expected to reduce confusion in and burden for the regulated industry. EPA also proposed the Small Vessel General Permit (sVGP) to provide NPDES permit coverage for vessels less than 79 feet in the event that the P.L. 110-299 (extended by P.L. 111-215) moratorium on NPDES permitting of incidental discharges (except ballast water) from fishing vessels (regardless of size) and commercial vessels less than 79 feet expires on December 18, 2013.

- **Green Infrastructure:** EPA is collaborating with partner organizations and communities to implement the Green Infrastructure Strategic Agenda released

in April 2011. Green infrastructure uses vegetation, soils, and sustainable stormwater practices to manage water, preserve natural environmental functions, and provide associated community benefits. The Strategic Agenda promotes the use of green infrastructure at the local level through research, technical assistance, and outreach. Green Infrastructure management approaches and technologies infiltrate, evapotranspire, capture and reuse stormwater to maintain or restore natural hydrology. EPA supports use of CWA Section 106 funds to provide programmatic support for green infrastructure efforts, which promote prevention, reduction, and elimination of water pollution.

- **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 is considering national rule-making to improve the overall efficiency and effectiveness of the program.

- **CAFOs:** EPA revised the NPDES regulations for CAFOs in 2008 to address the Second Circuit's 2005 decision in *Waterkeeper Alliance et al. v. EPA*. 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. 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 continue the development and implementation of new regulations to protect and restore the Chesapeake Bay. EPA will continue work on rulemakings under CWA to reduce nitrogen, phosphorus, and sediment pollution in the Bay from CAFOs, stormwater discharges from new and redeveloped properties, new or expanded discharges, and other pollutant discharges as necessary. EPA will work with the Bay jurisdictions to facilitate implementation of the Bay TMDL at the local level through the implementation of Phase 2 Watershed Implementation Plans developed in 2012. EPA will encourage jurisdictional 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 WQS and the Bay TMDL wasteload allocations. EPA will also continue to support jurisdictions and EPA regional offices in effectively implementing the NPDES program to improve the health of the watershed. Finally, EPA will continue to implement a Chesapeake Bay Compliance and Enforcement Strategy in Regions 2, 3, 4, and 5 to monitor compliance and take appropriate federal enforcement actions to ensure that permittees are in compliance with their regulatory and statutory requirements.
- **Sanitary Sewer Overflows 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.
- **Integrated Wastewater and Stormwater Planning:** In recent years, EPA has begun to embrace integrated planning approaches to municipal wastewater and stormwater management. OW and the OECA further committed to work with states and communities to implement and use integrated planning in their October 27, 2011 memorandum "*Achieving Water Quality Through Municipal Stormwater and Wastewater Plans*."⁵ Integrated planning will assist municipalities in achieving the human health and water quality objectives of CWA by identifying efficiencies in

implementing sometimes overlapping and competing requirements that arise from distinct wastewater and stormwater programs, including how best to make capital investments. Integrated planning also can facilitate the use of sustainable and comprehensive solutions, including green infrastructure, that protect human health and improve water quality. An integrated planning approach does not remove obligations to comply with CWA, but rather recognizes the flexibilities in CWA for the appropriate sequencing of work. EPA is developing a framework to provide guidance for EPA, states, and local governments in developing and implementing effective integrated plans. The framework identifies the operating principles and essential elements of an integrated plan. EPA conducted five workshops across the country in January and February, 2012 to solicit stakeholder input on the framework to identify several cities to use as pilots for the integrated planning approach. This is a joint effort between OW and OECA.

- **Green Infrastructure:** EPA is collaborating with partner organizations and communities to implement the Green Infrastructure Strategic Agenda released in April 2011. Green infrastructure uses vegetation, soils, and sustainable stormwater practices to manage water, preserve natural environmental functions, and provide associated community benefits. The Strategic Agenda promotes the use of green infrastructure at the local level through research, technical assistance, and outreach. Green Infrastructure management approaches and technologies infiltrate, evapotranspire, capture and reuse stormwater to maintain or restore natural hydrology. EPA supports use of CWA Section 106 funds to provide programmatic support for green infrastructure efforts, which promote prevention, reduction, and elimination of water pollution.
- **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 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).

⁵ The October 27, 2011 memorandum is available at <http://cfpub.epa.gov/npdes/integratedplans.cfm>

- **Compliance and Enforcement:** 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 POTWs that comply with their permitted wastewater discharge standards (see Program Activity Measures WQ-15 and WQ-16). As part of the CWA Action Plan, in FY 2011, OECA began leading an effort to develop and implement an improved framework to identify and prioritize the most serious NPDES violations and align it with appropriate enforcement response recommendations and program performance expectations. In addition, this effort will identify necessary tools to support the improved framework. This work will continue in FY 2012 and FY 2013.

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 CWA Section 319 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-09). In addition, EPA estimates that more than half of the waters identified on states' 303(d) impaired waters list are primarily impaired by NPSs and will track progress in restoring these waters nationwide (see Program Activity Measure WQ-10).

As described in more detail in Section 2 below, EPA is encouraging states to use the CWA Section 319 program to support a more comprehensive, watershed approach to protecting and restoring water quality. EPA continues to support states and tribes in developing comprehensive watershed plans geared towards restoring impaired waters on a watershed basis while still protecting high quality and threatened waters as necessary. In FY 2013, 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 NPSs.

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, Department of Transportation (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 Measures WQ-17 and SDW-04).

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), USDA, and HUD, 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 CWA 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 by states and at the local level 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 NEP watersheds. Many states, EPA regions, and their partners have also undertaken important efforts to protect, improve, and restore watersheds at other hydrologic scales. Together, these projects provide strong evidence of the value of a comprehensive approach to assessing water quality, defining problems and protection priorities, integrating management of diverse pollution controls and protection measures, 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 protect and 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 towards both maintaining water quality and achieving water quality goals. EPA estimates that there are approximately 6,000 local watershed groups active nationwide.

To increase focus on protecting and maintaining our Nation's remaining healthy waters, EPA has launched a proactive approach called HWI (<http://water.epa.gov/polwaste/nps/watershed/index.cfm>). The HWI is intended to preserve and maintain natural ecosystems by protecting our remaining healthy watersheds, preventing them from becoming impaired, and accelerating our restoration successes. The HWI will be implemented by states through strategic, systems approaches to identifying and protecting healthy watersheds based on integrated assessments of landscape condition, habitat, hydrology, geomorphology, water quality, and biological condition. The identification of healthy watersheds can help inform the establishment of priorities for both protection and restoration. The anticipated outcomes of the HWI are state-level integrated aquatic ecosystem protection programs that result in both maintaining and increasing the number of healthy watersheds. Promoting a national water program that restores impaired waters and considers as a priority the protection of healthy watersheds, including the maintenance of restored waters, is a balanced program for achieving CWA goals.

A key element of the HWI is to work with our state and other partners to identify healthy watersheds state-wide and to develop and implement healthy watershed protection plans that set priorities and leverage programs and resources across state agencies and their partners. The development of EPA Regional Healthy Watersheds Strategies can assist significantly in these efforts. Developing these strategies involves regions working with their respective states to identify healthy watersheds, as well as intact components of other watersheds statewide and to implement protection and conservation programs both at the state and local levels (see Program Activity Measure WQ-22a).

For FY 2013, EPA will implement its National Strategy, including HWI, 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., USFS, U.S. Geological Survey (USGS), USFWS, & others) to leverage their healthy watersheds programs (e.g., Landscape Conservation Cooperatives, National Fish Habitat Plan, National Water Census, and Green Infrastructure Community of Practice). In FY 2013, EPA will build upon the collaborative process already underway among federal partners to demonstrate substantial improvements in water quality by coordinating efforts between USDA and EPA programs, such as EPA's CWA Section 319 and 106 grants and USDA's Farm Bill conservation programs. This coordination will allow for more effective, targeted investments at the federal and state level during a time of constrained budgets, and will ensure continued improvements in water quality. EPA is also working with USFS and USFWS 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 WQS) on lists required under CWA Section 303(d). 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 WQS by 2015 (about 8.2% of all impaired waters identified in 2002). EPA, working with the states, will exceed that goal. Regions

have indicated the progress they expect to make toward this goal in FY 2013 (see measure WQ-SP10.N11 and the following table).

Region	Total Impaired Waters (2002)	FYs 2002-2011 Waters in Attainment	FY 2012 Commitment (cumulative)	2013 Target (cumulative)
1	6,710	117	140	152
2	1,805	127	171	176
3	8,998	557	575	600
4	5,274	504	514	524
5	4,550	646	665	665
6	1,407	190	200	220
7	2,036	353	383	394
8	1,274	270	314	316
9	1,041	105	109	109
10	6,408	250	253	257
Totals	39,503⁷	3,119	3,324	3,413⁸

Regions will work with states to set commitments for this measure, to be developed over the summer of 2012 based on the targets in the table above. This process 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 measure WQ-SP12.N11).

In FY 2013, EPA will no longer request states and EPA regions to report on the number of impaired water segments where restoration planning is complete (formally referred to as WQ-21). However, the completion of planning remains an essential, intermediate step toward full restoration of a waterbody and can be documented more quickly than actual waterbody improvement. As discussed under the section, Implement TMDLs and Other Watershed Related Plans, the CWA 303(d) Listing and TMDL Program will engage with states on a 10-year

⁶ 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.

⁷ 39,503 updated from 39,768 to reflect corrected data.

⁸ Although the regional aggregated target is 3,413, EPA's national target is set at 3,524.

vision discussion for the program. As part of this effort, the program will evaluate WQ-08 and determine if there are new measures to better measure the success of the program in line with the outcome of the vision effort. It is anticipated that new measures would be ready for public comment by FY 2014.

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 measure WQ-SP12.N11). EPA expects to exceed this target in 2013.

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;
- Coordinate waterbody restoration efforts with CWA Section 319 funds reserved for development of watershed plans;
- Make effective use of SRFs provided under CWA Title VI;
- Make effective use of water quality planning funds provided under CWA Section 604(b);
- Leverage resources available from other federal agencies, including the USDA;
- Apply funds appropriated by Congress for watershed or related projects; and
- A goal of 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 will continue to work with regions 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 for ATTAINS to become the repository for measures 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.

Development of 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 WQS (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).

EPA has another measure aimed at tracking progress in protecting and maintaining water quality:

- Net water quality restoration or maintenance by waterbody type (e.g., rivers, lakes) (WQ-SP13.N11 for Wadeable streams).

EPA has been working with state partners to address concerns that these existing measures do not fully capture investments in water quality restoration that do not result in achievement of full WQS attainment. Most waters take years to recover fully, and although incremental improvements represent progress these are currently not well represented. Initially, EPA heard from states that new measures are needed to give credit for water quality improvement short of full WQS attainment. The major gap is tracking progress (after TMDLs or other planning is complete, but before standards are fully met) and maintenance of water quality.

In August 2009, EPA worked with ACWA to establish an EPA/State workgroup to develop a set of indicator measures to track and report on the progress towards full attainment of WQS. In December 2010, the workgroup developed a measure for tracking incremental water quality improvements that was proposed in the draft *Guidance*. EPA received many comments that the improving measure needed to be better defined. To address the concerns raised during the public comment process, EPA engaged the EPA/State Monitoring Assessment Partnership (MAP) forum to refine this measure.

In the process of continuing to work on and refine the draft measure, EPA heard concerns about the burden of

adding new reporting requirements. Some made suggestions to reexamine and use the existing reporting mechanisms under CWA. Through the CWA Section 303(d)/305(b) Integrated Report (IR), states provide water quality information for individual assessment units and statistical survey results representative of state-wide conditions across a waterbody type.

The information states report for individual assessment units is the basis of the current measures, WQ-SP10. N11 and WQ-SP11, which track previously impaired waters restored to fully attaining WQS or for which a cause of impairment has been removed. One of the two approaches the workgroup developed for reporting incremental improvements in water quality proposes to use the state-wide statistical survey results states are asked to report through the IR. The other approach the workgroup developed proposed to establish additional reporting requirements for trends at individual monitoring stations. While many states maintain long term monitoring stations suitable for this option, many others would need to redirect resources to implement it.

A number of states have already begun reporting state scale survey results in the IR and more expect to in 2012 and beyond. Therefore, the Agency proposes to establish an indicator measure based on reporting state scale survey results starting in FY 2014. EPA remains committed to helping the states demonstrate the results of water quality protection and restoration investments. To address the reporting burden concerns, the Agency plans to work with the states to use the IR process to report on the incremental measure.

319 Program Study and Potential Program Improvements and Accountability

NPS pollution, caused by runoff that carries excess nutrients, pesticides, pathogens, toxics, and other contaminants to waterbodies, is one of the greatest remaining source of surface and ground water quality impairments and threats in the United States. Grants under CWA Section 319 are provided to help states, territories, and tribes implement their EPA-approved NPS management programs. The programs are designed to: (1) protect water quality by preventing or minimizing new NPS pollution, (2) improve impaired waters so that they ultimately meet WQS, (3) restore impaired waters so that they meet WQS, and (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 CWA Section 303(d) list of impaired waters. To better understand the effectiveness of various state NPS programs in reducing or eliminating NPS pollution, EPA in FY 2011 coordinated with state partners to complete a detailed study (*A National Evaluation of the Clean Water Act Section 319 Program*, November 2011) of how states are implementing their CWA Section 319 NPS programs to protect and restore NPS-impaired waters. From the study, EPA developed a detailed

understanding of the ways that states utilize the CWA Section 319 funding to implement successful state NPS programs. The study provides valuable information on the range, extent, and effectiveness of a broad variety of program tools currently being used by the states to control NPS pollution, such as the development and implementation of watershed-based plans to remediate impaired waterbodies; the use of state-wide non-regulatory and regulatory approaches to achieve broad-scale implementation or compliance to address broadly pervasive issues (e.g. Animal Feeding Operations, cropland, and urban runoff); use of State Revolving Loan Funds, state funds, and other state-wide financial incentives/disincentives to achieve broad-scale implementation; and effectiveness of state-wide leveraging of authorities and resources of other federal and state agencies.

EPA concluded that states rely on both base and incremental Section 319 funding to develop and implement watershed-based plans, as well as fund the wide range of NPS activities (including staffing support, implementation of statewide regulatory and non-regulatory NPS programs, and other statewide efforts) to sustain and implement an effective state NPS program. Additionally, EPA identified a number of opportunities for Section 319 program improvement.

To address these opportunities for improvement, a workgroup of EPA and State Water Division Directors developed a set of potential recommendations for improving the Section 319 NPS Program. Based on these recommendations, as well as findings from the Government Accountability Office's FY 2012 evaluation of the Section 319 Program and ongoing coordination with OMB, EPA is working closely with the states and other partners in FY 2012 to maximize program effectiveness in protecting and restoring water quality, assure program accountability, and improve the states' and EPA's ability to demonstrate program success, including incremental progress made towards improving and/or maintaining water quality. EPA will revise the CWA section 319 grant guidelines in FY 2012 to reflect program enhancements.

EPA's Agency Priority Goal: Section 319 Program

One of the EPA's Agency Priority Goals for FY 2012-2013 calls for EPA to release new CWA Section 319 grant guidelines by November 2012 and for 50% of the states to revise their NPS programs according to new Section 319 grant guidelines by September 30, 2013. Also as part of this goal, EPA will work collaboratively with USDA in high priority, focused watersheds to address agricultural NPS pollution. The goal of our collaboration is to coordinate Agency efforts, thereby increasing conservation on the ground to better protect water resources from NPS of pollution, including nitrogen and phosphorus. This EPA and USDA collaboration will support ready and willing stakeholders (including agricultural producers, NGOs, universities, and state and local water quality, resource,

and agricultural leaders) to implement watershed plans in priority watersheds. In 50-150 watersheds, USDA will apply Environmental Quality Incentives Program financial assistance funds on systems of conservation practices in small (HUC-12) watersheds impaired by nutrients and/or sediment. States will provide monitoring support to gauge water quality progress as a result of these concentrated practices.

C) Grant Program Resources

Key program grants that support this Subobjective are:

- The CWA Section 106 Water Pollution Control State Program grants;
- The CWA Section 319 State program grant for nonpoint pollution control, including set-aside for tribal programs;
- Alaska Native Village Water and Wastewater Infrastructure grants;
- CWSRF capitalization grants, including set-asides for planning under CWA Section 604(b) and for grants to tribes for wastewater treatment infrastructure.

For additional information on these grants, see the grant program guidance on the website (http://water.epa.gov/resource_performance/planning/index.cfm).

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

2012 Commitment: 2.8

2013 Target: 2.8

2015 Target: 2.8

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

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 2013, 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 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 *FY 2009 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 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. The *NCCR IV* is expected to be released in 2012 with an updated condition ranking.

EPA works with diverse partners to implement region-specific protection and restoration programs. For example, EPA manages 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 *Ocean Survey Vessel (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 *NCCR V*. In FY 2013, states will analyze sampling data and the National Water Program will work with states, tribes, and the Office of Research and Development to draft the *NCCR V*, which is planned for release to the public for comment in May 2013. Building on coastal condition assessment reports issued in 2001, 2004, 2008 and on the *NCCR IV* now scheduled for release in April 2012, 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 CWA 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 2013, EPA will continue to 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

NEP is a local, stakeholder-driven, and collaborative program that protects and restores the water quality and ecological integrity of estuaries of national significance. The goals and objectives of each of the NEPs are identified in their Comprehensive Conservation and Management Plans (CCMPs). The NEP is comprised of 28 estuaries along the east, west, Gulf of Mexico, and Caribbean coasts. During FY 2013, EPA will continue supporting the NEPs' implementation of their individual CCMPs.

The overall health of the Nation's estuarine ecosystems depends on the protection and restoration of high-quality habitat. EPA tracks the number of habitat acres that the NEPs and their partners 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 2013 goal of protecting or restoring an additional 100,000 acres of habitat within the NEP study areas.

EPA also tracks the annual and cumulative amount of cash and in-kind resources that NEP directors and/or staff are influential in obtaining. The 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).

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 known as 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 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, and increasing the beneficial use of dredged material. EPA will continue to monitor compliance with environmental requirements at ocean disposal sites (see Program Activity Measure CO-06). 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 2013, EPA will continue to work with other agencies on ballast water discharge standards or controls (both through EPA's VGP and coordination with U.S. Coast Guard (USCG) 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 CWA to provide that no NPDES permits shall be required under the CWA for discharges incidental to the normal operation of recreational vessels. Instead, the Clean Boating 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 NEP grants and coastal nonpoint pollution control grants under the Coastal Nonpoint Pollution Control Program administered jointly by EPA and the National Oceanic and Atmospheric Administration (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://water.epa.gov/resource_performance/planning/index.cfm).

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 MPRSA or the UIC program that may be required.

“Climate Ready Estuaries”: EPA will continue to build capacity within NEP to adapt to the changes from climate change on the coasts. 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 improve resources for NEPs and other coastal communities working to adapt to climate change.

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 and E.)

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 U.S. had lost more than 115 million acres of wetlands⁹ to development, agriculture, and other uses. Today, losses still continue albeit at a slower rate. Furthermore, 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*¹⁰, released by the USFWS, reported overall gains in wetland acres in the conterminous U.S. that exceeded overall losses from 1998 through 2004; this gain was 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.

In a 2008 follow-on report¹¹, the NOAA’s National Marine Fisheries Service, in cooperation with USFWS, analyzed the status and recent trends of wetland acreage in the coastal watersheds of the U.S. adjacent to the Atlantic Ocean, Gulf of Mexico, and Great Lakes between 1998 and 2004. Results indicated 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. To that end, EPA, USFWS, NOAA’s National Marine Fisheries Service and Coastal Resources Center, USACE, USDA’s Natural Resource Conservation Service (NRCS), 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.

The 2011 *National Wetlands Inventory Status and Trends Report*¹², released by USFWS, once again reports overall losses in wetland acres in the conterminous U.S. that exceeded overall gains from 2004 through 2009 for a loss of roughly 13,800 acres/year. This net loss is primarily attributable to a decrease in estuarine vegetated wetlands (e.g. saltmarsh) and major losses of freshwater forested wetlands. The reasons for the overall decline in wetland area were complex and potentially reflected economic conditions, land use trends, changing wetland regulation and enforcement measures, conservation initiatives, the impacts of the 2005 hurricane season, and climatic changes. The results emphasize the need for clear CWA protections, as well as, voluntary restoration and protection efforts. The report does not assess the quality or condition of wetlands. As a complement to the USFWS Status and Trends report,

⁹ 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.

¹⁰ 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.

¹¹ 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.

¹² Dahl, T.E. 2011. Status and trends of wetlands in the conterminous United States 2004 to 2009. U.S. Department of the Interior; Fish and Wildlife Service, Washington, D.C. 108 pp.

EPA is working with states, USFWS, and other federal agencies to complete a National Wetland Condition Assessment by 2014 to effectively complement the USFWS Status and Trends Reports and provide, for the first time, a snapshot of baseline wetland condition for the conterminous U.S.

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 CWA Section 404 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 CWA Section 404. USACE and EPA jointly administer the CWA Section 404 program, which regulates the discharge of dredged or fill material into waters of the U.S., including wetlands. EPA tracks performance through budget measure WT-SP22.

EPA will continue to work with USACE to ensure application of the CWA 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 USACE issuing a CWA 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 USACE. In FY 2013, EPA will continue to track the effectiveness of EPA's environmental review of CWA Section 404 permits (see Program Activity Measure WT-03). Each EPA region will also identify opportunities to partner with USACE 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.

On October 6, 2011, the Federal District Court for the District of Columbia set aside the Enhanced Coordination Procedures (ECP) developed by the Department of the Army and EPA to expedite review of 79 pending Appalachian surface coal mining permit applications. (See Section IV of the Memorandum of Understanding Among the US Department of the Army, US Department of the Interior, and US Environmental Protection Agency: Implementing the Interagency Action Plan on Appalachian Surface Coal Mining, dated June 11, 2009¹³.) As a result of this decision and pending potential action by the U.S. government to seek an appeal in this matter, the agencies will no longer use the ECP process for any purpose. In specific:

- The ECP process was set aside, so EPA regional offices should have ceased coordination under the ECP. Regions should continue to work with USACE consistent with existing statutory and regulatory authorities and roles.
- Regions continue to have a critical role under CWA Section 404 to provide comments to USACE about areas in which EPA has expertise, including water quality matters CWA Section 404(b)(1) Guidelines.
- Consistent with CWA and existing regulations and interagency memoranda, regions should continue their collaboration with USACE, as appropriate, to review proposed discharges of dredged or fill material pursuant to CWA Section 404. It is through regular interaction that the agencies work together most effectively to share information, identify issues of concern, and reach environmentally responsible permit outcomes.

In FY 2012, the Wetlands Division expects to conduct a pilot project to examine how wetland monitoring and assessment information can inform wetland regulatory decision-making, especially with Interagency Review Teams that review documentation for the establishment and management of mitigation banks and in-lieu fee programs. Working with state and federal regulatory scientists, the pilot envisions a series of working sessions to: 1) evaluate regulatory data needs; 2) determine where existing assessment methods and data can help meet those needs; and 3) establish a procedure for regulatory agencies to use wetland monitoring methods and assessment data in their decision-making processes. While this pilot could potentially include a broad range of aquatic resource regulatory decisions, the initial focus of this work will be review of wetland impacts and compensatory mitigation proposals. Depending on the results of the pilot, regions may be asked to work with Interagency Review Teams in their areas to implement the recommendations of the pilot.

¹³ http://www.epa.gov/owow/wetlands/pdf/Final_MTM_MOU_6-11-09.pdf

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 USFWS 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 CWA Section 319, SRF, NEP, 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 2013, EPA expects to track the following key activities for accomplishing its wetland goals:

- **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-01. These acres may include those supported by Wetland Five-Star Restoration Grants, NEP, CWA Section 319 NPS grants, Brownfield grants, EPA’s Great Waterbody Programs, and other EPA programs. This does not include enforcement or mitigation acres. EPA exceeded its target for this Program Activity Measure between 2009 and 2011, mainly due to unexpected accomplishments from NEP enhancement projects. Based on five year trend data, the target will be at 180,000 cumulative acres for FY 2013, 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 WQS 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 Measure WT-02a¹⁴ reflects EPA’s goal of increasing state and tribal capacity in these core wetland management areas. In reporting progress under

measure WT-02a, EPA will assess the number of states and tribes that have substantially increased their capacity in one or more core elements. This is an indicator measure.

- **Regulatory Program Performance:** Data on Aquatic Resources Tracking for Effective Regulation (DARTER) is EPA’s system to manage its workflow in CWA Section 404 permit program. CWA Section 404 requires a permit from USACE, or an EPA-approved state, for the discharge of dredged or fill material into waters of the U.S. DARTER allows EPA staff to track agency involvement in pre-application coordination, review of public notices for proposed permits, and access shared data from USACE’s national regulatory program data management system, known as OMBIL¹⁵ Regulatory Module (ORM2).

Using ORM 2.0 and DARTER as a data source, Program Activity Measure WT-03 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.

In January 2010, the Wetlands Division within OW and all regional offices agreed to the minimum expected level of data entry in DARTER for the review of proposed CWA Section 404 projects. These requirements included all public notices for standard permits, and any “significant coordination events” completed during the review of proposed standard permits. “Significant coordination events” are defined as: site visits; meetings; and letters completed during both the pre-application and public notice period of CWA Section 404 application review. In addition, regions are expected to complete final review, for all applications that EPA coordinated on, to determine if EPA’s involvement resulted in environmental improvements in USACE’s final application decision. For USACE Standard Permit decisions made in FY 2011 (i.e., a permit was issued, denied, or withdrawn), 88% of the time EPA provided comments and recommendations during the permit review and documented environmental improvements in the final permit outcome.

- **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

¹⁴ In December 2011, OWOW decided to suspend use of measure WT-2b in FY 2013. Measure WT-02b will be deferred to the future after a good number of state programs have adopted the full program. At that point, OWOW will replace WT-02a with WT-02b, or will develop a new replacement measure.

¹⁵ Operations and Maintenance Business Information Link (OMBIL)

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 was concluded in 2011, and data analysis concluded in 2012. The final NWCA report is expected in 2014.

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. States should also have plans to eventually document trends in wetland condition over time. Progress by states in developing their monitoring capacity is measured in WT-02a (see State/Tribal Programs section above)¹⁶. 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 NWCA;
- 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, CWA Section 319 Grants, the Brownfields grants, and NEP Grants. For additional information on these grants, see the grant program guidance on the website (http://water.epa.gov/resource_performance/planning/index.cfm). In addition, some states and tribes have utilized CWA Section 106 funds for program implementation, including wetlands monitoring and protection projects.

¹⁶ In December 2011, OWOW decided to suspend use of measure WT-04 in FY 2013 because measure WT-02a essentially reports the same activity.

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 country. 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	2012 Commitment: 23.9
2010 Result: 22.7	2013 Target: 23.4
2011 Result: 21.9	2015 Strategic Target: 24.7

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

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.

The goal of EPA's Great Lakes program is to restore and maintain the environmental integrity of the Great Lakes ecosystem, as mandated by GLRI, the *Great Lakes Water Quality Agreement*, and CWA. As the primary means of accomplishing this goal, EPA leads the Interagency Task Force in implementation of the FY 2010 to FY 2014 GLRI *Action Plan*. This interagency collaboration accelerates progress, avoids potential duplication of effort, and saves money. Through a coordinated interagency process led by EPA, implementation of GLRI is helping to restore the Great Lakes ecosystem, enhance the economic health of the region, and ultimately improve the public health of the area's 30 million Americans. As outlined in the GLRI Action Plan released by the Administrator and governors, GLRI targets five focus areas: eliminating or mitigating toxic substances and restoring designated Areas of Concern (AOC); preventing and reducing the destructive impacts of invasive species; improving nearshore health and reducing NPS pollution; improving habitat and reducing species loss; and emphasizing and instilling the concepts of accountability, education, monitoring, evaluation, communication, and

partnership throughout the implementation of GLRI. In FY 2013, the President has proposed \$300 million for GLRI to support programs and projects which, in accordance with the GLRI Action Plan, target the most significant environmental problems in the Great Lakes. Special priority will be placed on cleaning up and de-listing AOCs, reducing phosphorus contributions from agricultural and urban lands that contribute to harmful algal blooms and other water quality impairments, and invasive species prevention.

EPA works with its GLRI partners to select the best combination of programs and projects for Great Lakes restoration and protection based on criteria, such as feasibility of prompt implementation and timely achievement of measurable outcomes. GLRI funds are used to implement federal projects and projects done in conjunction with public entities like states, tribes, municipalities, universities, and with private entities such as non-governmental organizations. GLRI grants are generally issued competitively. However, the EPA also distributes funds for federal projects to other federal agencies to supplement (but not supplant) the base funding for these agencies' Great Lakes activities. Traditional infrastructure financing under Clean and Drinking Water SRFs, and Superfund cleanup enforcement are important examples of work which, though outside GLRI'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.

Continued progress is dependent on continued work to implement core CWA 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 fourth year, GLRI will support programs and projects which, in accordance with the GLRI Action Plan, target the most significant environmental problems in the Great Lakes. Special priority will be placed on cleaning up and de-listing AOCs, reducing phosphorus contributions from agricultural and urban lands that contribute to harmful algal blooms and other water quality impairments, and invasive species prevention. Interagency Task Force members will issue requests for proposals as soon as possible to maximize the number of projects that will be able to be started during the 2013 field season. Key expected activities are described below.

- **Prevention and Reduction of Toxics.** EPA, in conjunction with federal, state, tribal, and local government partners (as well as non-governmental organizations and academia) will take steps to mitigate the use and release of toxic substances into the Great Lakes. The EPA will issue grants to address legacy pollutants, such as PCB or mercury in products, as well as chemicals of emerging concern. The USFS will plant trees on brownfield sites to enhance plant uptake to prevent pollution from entering the Great Lakes basin. The National Park Service will accelerate remediation of contamination in national parks. The USCG will accelerate needed remediation of toxic pollutants on light house properties which put the surrounding coast and adjacent waters at risk and will develop special capabilities necessary to respond to oil spills on ice and submerged oil in the freshwater of the Great Lakes.
- **Areas of Concern Restoration.** EPA and the USFWS will issue grants to stakeholders to remove Beneficial Use Impairments (BUIs) in AOCs. EPA, USFWS, USACE, USGS, and NOAA are working together to accelerate action at several AOCs where delisting is within reach. Through the Great Lakes Legacy Act (GLLA), sediment remediation projects will begin and will be supplemented with navigational channel dredging by USACE and habitat enhancements by USFWS.
- **Invasive Species.** GLRI has supported priority Asian carp work including; the installation of structures by USACE at the electric barrier site to reduce the risk of bypass by Asian carp; and USFWS and Illinois Department of Natural Resource efforts to detect and remove Asian Carp from the system. As needed, GLRI will invest in additional efforts to keep Asian carp from becoming established in the Great Lakes. DOT's Maritime Administration, the U.S. Coast Guard, and EPA will fund development of ballast water treatment systems for use in freshwater ecosystems. Further, USFS and USFWS will deploy portable boat washing units to limit the spread of invasive species by recreational boaters. EPA and USFWS will continue to conduct monitoring surveys that will detect new invaders in Great Lakes locations. USFWS and the Bureau of Indian Affairs (BIA) will support on-the-ground implementation of *Aquatic Nuisance Species Management Plans* for Great Lake states and tribes, which includes conducting rapid response exercises to demonstrate and refine multi-agency response capabilities. NRCS, USFS, and National Park Service will work with agricultural producers and other landowners to implement practices that reduce terrestrial invasive species. The Great Lakes Fishery Commission will advance sea lamprey control methods using pheromones and telemetry, and USACE will enhance the use of barriers to further reduce sea lamprey populations. EPA will issue competitive grants to communities and organizations to reduce or control terrestrial invasive species.
- **Identification and Remediation of Sources of Impairments.** NRCS, USFS, USACE, National Park Service, USGS, NOAA, and EPA will collaborate to: understand linkages between nearshore impairments and their causal agents; enhance or implement practices to reduce the causal agents, including the export of nutrients and soils to the nearshore waters; establish and implement TMDL and Watershed Action Plans for phosphorus and other non-toxic pollutants; and evaluate the effectiveness of such efforts. The agencies will focus primarily on three geographic watersheds highlighted in the GLRI Action Plan: Maumee River, Lower Fox River/Green Bay, and Saginaw River.
- **Enhanced Public Health Protection at Beaches.** To assist local health officials in better protecting beach-goers, NOAA, USGS, Animal and Plant Health Inspection Service (APHIS), and EPA will collaborate with state, local, and tribal governments to: remediate identified sources of pollution or bacteria at beaches; increase the effectiveness of monitoring for pathogens; model environmental conditions likely to result in elevated levels of bacteria; and enhance communications to the public about daily swimming conditions.
- **Protection and Restoration of Native Species and Habitats.** Agencies will implement protection and restoration actions to improve habitat and restore wildlife. Federal agencies, including USACE, BIA, EPA, Federal Highway Administration, USFWS, Great Lakes Fishery Commission, NOAA, National Park Service, NRCS, USFS, USGS, and APHIS will continue to implement projects to reduce sedimentation and nutrient inputs, restore natural hydrological regimes, improve water quality, and protect and restore habitat including islands, beaches, sand dunes, and upland areas.
- **Improvement of Aquatic Ecosystem Resiliency.** USFS, USFWS, USGS, USACE, Federal Highway Administration, BIA, and National Park Service will begin implementation of projects to remove large woody debris in floodplains and streams, replace barrier culverts to restore fish passage and stream/river connectivity, and restore forested edges in riparian areas.
- **Evaluation of Program Effectiveness and the Health of the Great Lakes Ecosystem Using the Best Available Science.** EPA will work with all GLRI agencies to continue implementation of the Great Lakes Accountability System

to incorporate transparency and accountability throughout GLRI. Federal agencies will improve existing programs that assess the physical, biological, and chemical integrity of the Great Lakes. EPA will continue to implement the *Coordinated Science and Monitoring Initiative* with other federal agencies, state agencies, and Environment Canada to address lake-specific science and monitoring needs in Lake Ontario in 2013 (to be followed by Lakes Erie, Michigan, Superior, and Huron in consecutive years). EPA and USGS will continue to develop the necessary infrastructure for uniform data quality management and real-time information access.

• **Enhanced Communication, Partnerships, and Outreach.**

EPA and NOAA will directly engage in education and outreach activities, including the incorporation of Great Lakes protection and stewardship criteria into a variety of educational materials. EPA and NOAA will foster additional engagement and communication of stewardship principles through the *Bay Watershed Education & Training* program, a program new to the Great Lakes. EPA will lead and support coordination and collaboration among Great Lakes partners to ensure that GLRI actions, projects, and programs are efficient, effective, and consistent with the US-Canada *Great Lakes Water Quality Agreement*. The Department of State will support the *Great Lakes Water Quality Agreement* through cooperative efforts with Canadian partners on issues of binational importance. Partnerships will be advanced and resources and capabilities leveraged through existing collaborative efforts such as the Great Lakes Interagency Task Force and its Regional Working Group, the US-Canada Binational Executive Committee, the State of the Lakes Ecosystem Conference, the US-Canada Great Lakes Binational Toxics Strategy, Lakewide Management Plans, the Coordinated Science Monitoring Initiative and Great Lakes Fisheries management. With and through the Lakewide Management Plans, partner agencies will implement Lakewide Management Plans programs and projects, using public fora to assist with the transfer and dissemination of information.

C) Grant Program Resources:

EPA grants will generally be issued competitively. Other members of the Interagency Task Force are also expected to select proposals, issue grants, and provide other assistance with funding from GLRI.

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 GLLA.

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* and *E*.)

B) Key Strategies

The Chesapeake Bay – the largest estuary in the United States – is a complex ecosystem that includes important habitats¹⁷ and food webs¹⁸. The Chesapeake Bay watershed includes more than 64,000 square miles of land, 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 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); EPA, 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 CBC, 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:

- Promulgated the Nation's largest TMDL with excellent supporting science;
- Adopted the Nation's first consistent WQS 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 three million farmland acres;

¹⁷ <http://www.chesapeakebay.net/fieldguide>

¹⁸ <http://www.chesapeakebay.net/discover/bayecosystem/foodwebs>

- Preserved more than one 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 two million acres;
- Planted more than 7,000 miles of streamside forested buffers;
- Restored nearly 15,000 acres of wetlands; and
- Removed blockages to more than 2,000 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 put 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 Bay jurisdictions 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 *Strategy for Protecting and Restoring the Chesapeake Bay Watershed* [EPA-903-R-10-003], a plan 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 *ChesapeakeStat*, a systematic process within the partnership for analyzing information and data to continually assess progress towards goals and adapt strategies and tactics when needed. *ChesapeakeStat* 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; the FY 2012 Action Plan and the first annual EO progress report were issued in March 2012. Also in early 2012, federal agencies joined 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 also developed 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 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 meet WQS in the Bay and its tidal rivers. The TMDL is designed to ensure that all nitrogen, phosphorus, and sediment pollution control efforts needed to fully restore the Bay and its tidal rivers are in place by 2025, with controls, practices, and actions in place by 2017 that would achieve 60 percent of the necessary reductions. 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 2013 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 NPS 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 NPS 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, such as an expanded non-tidal monitoring network, and an expanded set of models will allow for better prioritization and adjustment of management activities.

In FY 2013, EPA will use its technical and scientific analysis capabilities to provide support and guidance to the jurisdictions as they work to involve thousands of local governments that will be affected by the TMDL. EPA will assist the jurisdictions in making scientifically informed determinations of the most effective ways to meet their TMDL obligations that will provide individually tailored solutions.

In FY 2013, EPA also will continue the development and implementation of new regulations to protect and restore the Chesapeake Bay. EPA will continue work on rulemakings under the CWA to reduce nitrogen, phosphorus, and sediment pollution in the Bay from CAFOs, 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 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.

To ensure that the jurisdictions are able to meet EPA's expectations under the TMDL and new rulemakings, EPA will continue its broad range of grant programs. Most significantly, EPA will continue funding for state implementation and enforcement, directing recipients to give preference to priority strategies, practices, and watersheds that will result in the greatest benefits to water quality in the Bay, consistent with CBP's ongoing efforts to use the most accurate and appropriate science to identify priority watersheds and practices. Priority strategies and practices would be those identified in jurisdictions' Watershed Implementation Plans as necessary to achieve nutrient and sediment reductions to meet Chesapeake Bay TMDL allocations. Priority practices are also those proven, cost-effective practices that reduce or prevent the greatest nutrient and sediment loads to the Chesapeake Bay. EPA also will work with the states to

ensure that local governments are adequately supported in their efforts to implement the Chesapeake Bay TMDL.

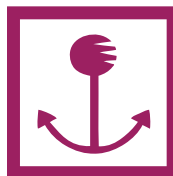
Ensuring that the regulated community complies with the appropriate regulations is an essential responsibility for achieving the goals established for the Chesapeake Bay and its watershed. In FY 2013, OECA will use its Chesapeake Bay-related resource allocation in Regions 2, 3, 4, and 5 to focus on sectors contributing significant amounts of nutrients, sediment, and other contaminants to impaired watersheds in the Chesapeake Bay, including CAFOs, stormwater point source discharges (including discharges from municipal separate storm sewer systems and 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.

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 authorities under CWA Section 117. 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

2012 Commitment: 2.4

2011 Actual: 2.4

2013 Target: 2.4

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

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 33 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. Conserve and Restore Habitat

Healthy and resilient coastal habitats sustain many ecosystem services upon which humans rely. Reversing ongoing habitat degradation and preserving the remaining healthy habitats is necessary to protecting the communities, cultures, and economy of the Gulf Coast. For decades, the Gulf Coast has endured extensive damage to key habitats, such as coastal wetlands, estuaries, barrier islands, upland habitats, seagrass beds, oyster reefs, corals, and offshore habitats. 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 FY 2013 and 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.

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, or settling, 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. EPA and the Gulf of Mexico Alliance, Habitat Conservation and Restoration Team, have worked extensively with the five Gulf states to develop and implement a Gulf Regional Sediment Management Master Plan that endorses best practices for sediment management, outlines technical considerations, and recommends solutions for the most beneficial use of this resource (i.e. dredged material). The “Technical Framework” document has been developed and is posted for review.¹⁹

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. An excess amount of nutrients is identified as one of the primary problems facing Gulf estuaries and coastal waters. Over the next several years, the Gulf states will establish 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 FY 2013, EPA will support coastal nutrient criteria and standards development with Gulf state pilots 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 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 hypoxic zone in the northern Gulf. Actions to address this problem must focus on reducing 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 approximately 17,350 square kilometers to less than 5,000 square kilometers, measured as a five-year running average. 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 2013, EPA 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, other federal agencies, and the Gulf Coast Ecosystem Restoration Task Force, EPA will help develop and implement nutrient reduction strategies that include an accountability framework for point and nonpoint sources contributing nitrogen and phosphorus loading to the Gulf, as well as watershed plans that provide a road map for addressing NPSs. EPA will continue to coordinate with USDA and with federal and state partners to support monitoring BMPs and water quality improvement through work with the partner organizations and states and to leverage

¹⁹ http://www.gulfofmexicoalliance.org/pdfs/GRSMMP_Technical_Framework_Dec_09.pdf

resources to focus wetland restoration and development and habitat restoration efforts towards projects within the Mississippi River Basin that will sequester nutrients as appropriate from targeted watersheds and tributaries.

Education and outreach are essential to accomplish EPA's goal of healthy and resilient coastal habitats. Gulf residents and decision makers need to 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 also a nationwide need for a better understanding of the link between the health of the Gulf of Mexico and the U.S. economy. The EPA's long-term goal is to increase awareness and stewardship of Gulf coastal resources and promote action among Gulf citizens. In 2013, the Gulf of Mexico Program will foster regional stewardship and awareness of Gulf coastal resources through annual Gulf Guardian Awards; and will support initiatives that include direct involvement from underserved and underrepresented populations and enhance local capacity to reach these populations.

2. Restore Water Quality

CWA provides authority and resources that are essential to protecting water quality in the Gulf of Mexico and in the larger Mississippi River Basin, which 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. The EPA regional offices 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. These efforts will 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, USACE, and USGS 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 priority coastal watersheds. These watersheds, which include impaired segments identified by states around the Gulf, will receive targeted technical and financial assistance to restore impaired waters. The FY 2013 goal is to fully attain WQs in at least 360 of these segments.

3. Enhance Community Resilience

The Gulf Coastal communities continuously face and adapt to various challenges of living along the Gulf of Mexico such as storm risk, sea-level rise, land and habitat loss, depletion of natural resources, and compromised water quality. 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 FY 2013, 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. The EPA is working collaboratively with multiple agencies that share responsibility in this area, including NOAA Sea Grant Programs and USGS in support of this goal.

4. Replenish and Protect Living Coastal and Marine Resources

Living coastal and marine resources are showing visible signs of distress, such as depleted species population and degraded habitats. Decision makers must protect these resources and allow them to survive and thrive in a changing environment, while supporting the needs of communities who depend on them for their livelihoods. A primary focus should be to strengthen and build programs to promote resource management that focuses on the needs and functions of the ecosystem as a whole, facilitating improved fisheries management and species protection efforts and restoring depleted populations of living coastal and marine resources. The natural resources of the Gulf are rich and diverse; however, the varying needs for and use of these resources are sometimes in conflict with one another, and this has resulted in negative impacts for those very resources that sustain the Gulf. For example, the need to provide pathways and pipelines supporting the oil and gas industry often runs counter to efforts to promote intact wetlands and nursery areas. Land use practices and development can often result in water quality degradation of estuarine and coastal environments, home to species that are the foundation of commercial and recreational fishing industries. Maintaining and returning healthy living resources back to resilient and sustainable populations depends on how well we can address the current challenges and those they will face in the future.

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 Coast Ecosystem Restoration Strategy.

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

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 and E*.)

B) Key Program Strategies

More than 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 2011 dollars, that value is now \$8.91 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 WQS – 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. An educated and informed citizenry that participates in the restoration and protection of the Long Island Sound is essential to achieving these goals.

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 1994 CCMP to restore and protect the Sound. Because levels of dissolved oxygen (DO) 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 WQS.

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 PCS and Discharge Monitoring Reports (DMRs). A revised TMDL will incorporate updated state marine WQS for DO, 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 (see measure LI-SP41).

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 NPSs 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 NPS 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 DO (see measure LI-SP42.N11).

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

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 the Sound's federal and state natural resource managers (see measure LI-SP43). 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

In 2013, New York, Connecticut, and EPA will continue to cooperate in implementing the Long Island Sound Action Agenda, 2011-2013. The Action Agenda identifies priority actions to implement the 1994 CCMP and is organized around four themes: Waters and Watersheds; Habitats and Wildlife; Communities and People; and Science and Management. EPA will also continue to work with New York and Connecticut to comprehensively revise the 1994 CCMP. The new Plan will build upon the 1994 CCMP goals and targets, and will include new areas for action, such as climate change impacts, urban waters, underserved communities, and stewardship of sensitive areas of exemplary scientific, ecological, or public significance.

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 (see measure LI-SP44).

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,"²⁰ because of its proximity in the Northeast population corridor and its vulnerability to the impacts of human usage. 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, in 2012, the LISS incorporated EPA's Urban Waters initiative as a qualifying project category in its Futures Fund subgrant program to solicit local on-the-ground projects that help implement the CCMP. A number of projects in New York and Connecticut have been funded that support Urban Waters objectives. Such projects range from bringing urban children to the Sound for an educational and on-the-water experience to construction and installation of bioretention basins to help filter runoff before it enters the Sound.

EPA and the states use authorities and funding provided under CWA Section 319 to manage watersheds that are critical to the health of the Sound. Under CWA 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 SRF under CWA Section 601 is used by states to leverage funding for STP upgrades for nitrogen control, and NPDES permits issued under CWA 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 CWA Section 303(d), both the states of Connecticut and New York revised their ambient WQS for DO to be consistent with EPA's national guidance for DO in marine waters. With EPA funding through the LISS, Connecticut conducts the Long Island Sound ambient water quality monitoring (WQM) program, and has participated with the State of New York in EPA's National Coastal

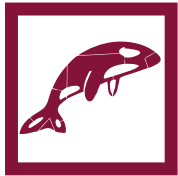
²⁰ L.Koppelman, *The Urban Sea: Long Island Sound*, 1976; ISBN 0-275-28863-8

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 CWA Sections 119(d) and 320(g) as amended. Ninety-nine percent of the funds appropriated annually for Long Island Sound under these sections of law are made available as grant funds to eligible entities. 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://longislandsoundstudy.net/about/grants/>.

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 and E*.)

B) Key Program Strategies

The Puget Sound in Washington State, the Strait of Juan de Fuca, and the Georgia Basin to the north in Canada, together make up the Salish Sea; The Salish Sea ecosystem is the homeland of the Coast Salish people, comprising 19 tribes in the U.S. and 55 First Nations in Canada. Residents and governments on both sides of the international border share a commitment to steward the ecosystem's resources. The pressures from the Salish Sea basin's seven million inhabitants (expected to increase to over nine million by 2025) on the ecosystem are substantial. EPA's Puget Sound program works to ensure that the natural, cultural, and

economic benefits of the Puget Sound ecosystem are protected and sustained, today and into the future. The Puget Sound basin represents the largest population and commercial center in the Pacific Northwest and the waters of Puget Sound provide a vital system of international ports, transportation systems, and defense installations. The Puget Sound 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. The waters in this basin also provide a significant source of seafood for both commercial and recreational harvesters. In 2010, over 23 million pounds of salmon were harvested commercially by treaty tribal and non-treaty fishers²¹. The Puget Sound is a traditional place of subsistence harvesting for tribal communities currently living in the basin and whose ancestors have lived near the shores of the Puget Sound for thousands of years. However, continued declines in wild salmon and increasing pollution threats to shellfish beds require that focused efforts be made in watershed and habitat protection and restoration, as well as pollution prevention so that salmon species and safe shellfish harvests can be recovered and maintained. OW performance measures for the Puget Sound program reflect EPA's commitment to protect water quality and restore habitat to levels that reverse these trends (see measures PS-SP49.N11 and PS-SP51).

Although Puget Sound currently leads U.S. waterways in shellfish production, approximately 36,000 acres of an estimated 190,000 acres of classified shellfish beds are closed due to pollution sources, primarily fecal bacteria from humans, livestock, and pets (Puget Sound Partnership, December 9, 2011). These closures affect local economies and cultural and subsistence needs for these traditional resources. In addition, excess nutrients from a variety of sources (e.g., on-site septic systems, agricultural, and other sources) have created hypoxic zones that further impair shellfish and finfish populations. Toxic contaminants also enter the Puget Sound, with an estimated loading of at least 1.7 million pounds per year being released into the water. Stormwater is the major pathway for these contaminants to enter Puget Sound. Many of these pollutants are finding their way into the Puget Sound food web. Studies have found that many marine species, including orca whales, have high levels of toxic contaminants, such as PCBs, polybrominated diphenyl ethers (PBDEs), and polycyclic aromatic hydrocarbons (PAHs).

Growing recognition that protecting the Puget Sound ecosystem requires increased capacity and sharper focus, resulted in a new state approach to restoring and protecting the Puget Sound basin. In 2006, a broad partnership of civic leaders, scientists, business and environmental group representatives, state and local agency directors and tribal leaders developed a new approach to protecting the Puget

²¹ http://www.psp.wa.gov/vitalsigns/commercial_fisheries_harvest.php

Sound. This work resulted in the creation of a new state agency in 2007, the Puget Sound Partnership (Partnership). The Partnership adopted a CCMP in 2009, the “2020 Action Agenda”, for protecting and restoring the Puget Sound ecosystem. The Action Agenda was updated in 2012 to bring an even sharper focus on the strategies and near term actions that will bring about the changes needed to achieve the aggressive targets set for Puget Sound restoration.

State and tribal partnership with EPA was significantly leveraged in 2011 when EPA awarded multi-year cooperative agreements to competitively-selected entities to act as “lead organizations” (LOs) to facilitate efficient implementation of priority work in the Action Agenda at the basin-wide and local level. The selected state agencies and tribal organizations are effectively working together with local governments and other stakeholders in the Puget Sound Partnership Management Conference to improve conditions in the Puget Sound basin within the following areas of emphasis:

- Management of implementation of the Action Agenda;
- 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.

Additionally, EPA chairs and convenes a Puget Sound Federal Caucus with 13 other agencies to coordinate and optimize federal work that supports Puget Sound restoration and protection objectives.

This local, state, tribal, and federal partnership in the Puget Sound region has grown significantly stronger and more effective by EPA’s ongoing support of the Puget Sound Partnership Management Conference through NEP, and the lead organization funding model.

Key program strategies for FY 2013 include:

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

- EPA will continue to support and partner 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 2009 – FY 2011, more than 70 substantial watershed protection grants have been awarded to protect and restore commercial, subsistence, and recreational shellfish growing areas; to protect and improve habitat in watersheds supporting wild salmon populations; and to guide development patterns and management practices associated with a growing human

population in a way that protects the habitats and water quality of local watersheds into the future.

- EPA is working with tribes and Puget Sound Federal Caucus to develop an action plan to improve the protection and restoration of habitat critical to salmon recovery and shellfish harvest. This plan will better integrate the habitat work of federal agencies.

Building Strong Tribal Partnerships

- The 19 federally recognized tribes and three tribal consortia in the Puget Sound basin have consistently and effectively led programs to protect and restore the resources of the Puget Sound ecosystem, upon which their cultures depend. Many of the region’s most notable environmental victories originate from the vision, leadership, and effort of tribes: Elwha Dam removal; restoration of the Nisqually Estuary and protection of the Nisqually watershed; restoration of the Skokomish River estuary; restoration of the Hansen Creek floodplain; restoration of habitat in the Nooksack River; and protection of Salish Sea waters from potential oil spills. Region 10 is committed to continuing to uphold our trust responsibility to Puget Sound tribes through several specific activities:
 - Working through the Puget Sound Federal Caucus to maintain an active, results-oriented dialogue with the Tribal Caucus on the protection of tribal treaty-reserved rights;
 - Supporting the capacity of Puget Sound tribes to engage in the CWA Section 320 Management Conference; and
 - Maintaining a government-to-government relationship with each federally recognized tribe in the ecosystem.

Addressing Stormwater Issues through Local Watershed Protection Plans

- EPA is continuing to work with state and local agencies and the tribes using watershed protection approaches to reduce stormwater impacts to aquatic resources in urbanizing areas currently outside of NPDES Phase I and II permit authority. Of particular concern are sensitive and high value estuarine waters such as Hood Canal, the northern Straits, and south Puget Sound.
- EPA will also continue to work with the state to increase support to local and tribal governments and the development community to promote smart growth and LID approaches in the Puget Sound basin. In 2010 and 2011, more than a dozen substantial watershed protection and technical study grants were awarded to help reduce stormwater impacts and promote LID approaches.
- Watershed protection and land use integration projects continue to be a focus of EPA’s stormwater work. These activities are included in actions eligible for funding in EPA’s Puget Sound grant programs, consistent with priority actions identified in the Puget Sound Action Agenda.

- Region 10 is working with Joint Base Lewis McChord to develop a model stormwater permit for Puget Sound and with the State to support its aggressive stormwater permitting efforts.
- EPA is working with the Partnership and other state agencies in developing a comprehensive stormwater 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. Through monitoring programs and Region 10's Puget Sound Financial Ecosystem Accounting Tracking System (FEATS) reporting tool, EPA will assist with evaluating, quantifying, and documenting improvements in local water quality and beneficial uses as these watershed protection and restoration plans are implemented.

Reducing Sources of Toxics and Nutrients

- EPA will work with partners to implement the findings from an EPA funded study completed in November 2011 that identified the major sources of toxics entering Puget Sound and the major pathways. This work will include strategies to reduce and control the toxics identified, with an emphasis on stormwater runoff. In addition, EPA will continue its clean-up efforts of contaminated sites throughout Puget Sound.
- EPA will work with stakeholders to prevent toxic contaminants (especially persistent bioaccumulative toxics (PBTs)) from entering the fresh or marine waters of Puget Sound and to identify less toxic alternatives for products.
- EPA will continue to work with stakeholders to develop and refine a mass balance model of nutrient sources, reservoirs, pathways, and risk to local ecosystems in Puget Sound.
- EPA will work to identify specific nutrient reduction strategies within priority areas, including both Hood Canal and South Puget Sound with an emphasis on reducing the impacts from on-site septic systems and agricultural practices.

Restoring and Protecting Marine and Nearshore Aquatic Habitats

- EPA will work closely with state and local agencies and tribes to enhance and leverage their resources to protect and restore Puget Sound marine and nearshore habitat.
- Efforts will focus on: (1) effective regulation and stewardship, including updating Shoreline Master Programs and ensuring their effective implementation; (2) targeting capital investments in habitat restoration and protection consistent with the Puget Sound Nearshore Ecosystem Restoration Program and other analyses; and (3) tackling high priority threats including invasive species, oil spills, derelict fishing gear removal, 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, Applying Science, and Communicating Results

- EPA is supporting the development of a basin-wide, coordinated ecosystem monitoring and assessment system. Working with stakeholders in the Puget Sound National Estuary Program Management Conference through the Partnership, ambient ecosystems conditions are assessed and the results of Puget Sound funded programs and projects are evaluated for effectiveness. Adaptive management can then inform decisions, making current protection and restoration activities as effective as possible and steering future resources to identified priorities.
- A Strategic Science Plan for Puget Sound was adopted by the Puget Sound Partnership Leadership Council in June 2010 and was updated for FY 2012. The Strategic Science Plan provides the overall framework for development and coordination of specific science activities necessary to support Puget Sound ecosystem protection and restoration. The Science Plan is a key foundation for evaluating all of the priority actions and strategies in the Puget Sound Action Agenda.
- EPA continues to support the lead organization cooperative agreement awarded to the Partnership in FY 2010 to coordinate and implement a Puget Sound-wide environmental education and outreach program. This outreach and education program brings regular communication on the science, monitoring data, and results of actions taken to preserve and restore Puget Sound to the public.

Ensuring Focused and Productive Transboundary Coordination

- EPA Region 10 continues to maintain an extremely constructive working relationship with transboundary partners in the Puget Sound-Georgia Basin ("Salish Sea") ecosystem. EPA 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-Environment Canada chaired SoC working group, comprising state, provincial, tribal, and first nation representatives, will 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 2012 activity will be the planning of the biennial Salish Sea Ecosystem Research Conference (Seattle, 2013). In 2011 this transboundary conference attracted registration from over 1100 scientists, policy makers, and stakeholders.

Supporting the Working for Environmental Justice Cross-Cutting Strategy

- EPA Region 10 is conducting an environmental justice analysis for the Puget Sound's Lower Duwamish Waterway Superfund Cleanup. This analysis will include baseline screening for environmental justice concerns, an assessment of cumulative impacts from pollution sources in the area, and an evaluation of potential disproportionate adverse impacts to individuals who live, work, and play on or near the site as a result of the cleanup alternatives currently under consideration, together with potential mitigations for such impacts. A strong outreach and coordination effort driven largely by environmental justice is being focused on local communities in planning and developing the cleanup plans in the Lower Duwamish. This work, which included the Muckleshoot and Suquamish Tribes, is addressing the cultural interests and usage of the River by tribal members and local fishers for subsistence fishing, as well as those who recreate on the River.
- EPA has funded two projects in FY 2012, one of which continues funding into FY 2013, that are aimed at building community capacity and identifying the environmental health issues in South Seattle near the Duwamish estuary. The results of these projects will provide input to EPA on how to best address environmental justice issues in FY 2013 and beyond, and enable the Tribe to address specific environmental health issues in FY 2013.
- EPA is encouraging the State of Washington to re-examine Puget Sound fish consumption rates to address communities that rely upon subsistence fishing practices.

C) Grant Program Resources

EPA grant resources directly supporting this goal are provided through NEP grants under CWA Section 320 and under the "Geographic Program: Puget Sound Program Project" appropriation. EPA expedites the use of these funds by awarding multi-year lead organization awards to competitively selected Washington state agencies and tribal organizations who then make subawards addressing priority implementation projects and actions consistent with the Puget Sound Action Agenda. Lead organizations are using EPA grant resources to implement toxic and nutrient reduction strategies, to protect and restore shellfish resources, as well as local watersheds and nearshore areas. These lead organization awards also include a grant to the Northwest Indian Fisheries Commission for implementing priority tribal ecosystem projects and tribal capacity building, as well as grants to the Partnership for its ongoing work in managing implementation of the Action Agenda, and for outreach and education work. EPA has conducted program reviews and advanced post award monitoring on lead organization grant recipients to assess program effectiveness and identify efficiencies. For example, with the tribal lead organization grant, EPA established a coordinated single-point-of-contact process for environmental data

Quality Assurance reviews that reduced the amount of time needed to establish and approve tribal data quality plans. Additional program effectiveness was realized as a result of EPA's 2011 administrative review of NEP grants to the Partnership. In that review, EPA identified opportunities for significant improvements in the management of subawards and established a comprehensive and consistent policy of subaward requirements for lead organizations across the Puget Sound program. In addition to NEP grants and the "Geographic Program: Puget Sound Program Project" appropriation, other water program grants supporting Washington state and tribal water quality and infrastructure loan programs assist in the achievement of this subobjective.

D) A Strategic Response to Climate Change

The Partnership's Action Agenda recognizes that climate change will exacerbate the existing threats to Puget Sound and calls for actions that adapt to and mitigate potentially harmful effects. The Partnership used funds awarded under the FY 2010 Climate Ready Estuaries grants to develop climate change indicators and guidance for climate-sensitive habitat restoration and further address climate change in its 2012 update of the Action Agenda. EPA's review of the 2012 Action Agenda update has focused on the inclusion of climate change considerations in near and long term actions to protect and restore the Puget Sound

Since 2009, EPA's funding criteria have included climate change adaptation and mitigation. Grant awards made under the Puget Sound program require that applicants consider climate change and highlight climate-related activities in workplans and performance reports. Additionally, the lead organizations implementing focused efforts to improve conditions in Puget Sound are incorporating climate change response, mitigation, and adaptation in their criteria for project funding. EPA tracks climate change activities and outputs in FEATS.

For additional information, please visit: <http://www.epa.gov/pugetsound/index.html>.

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 2020 Plan.

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

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 2020 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 CWA and related authorities, ranging from discharge permit issuance, to watershed restoration, to nonpoint pollution control.
- 2. Drinking Water and Wastewater Treatment Financing:** Residents of the U.S.-Mexico Border Region face disproportionate exposure to inadequately treated wastewater and unsafe drinking water. EPA's U.S.-Mexico Border Water Infrastructure Program enables communities in the Border Region, defined as 100 kilometers north and south of the international border, to develop, design, and construct infrastructure projects that provide safe drinking water and wastewater collection and treatment.

In FY 2013, EPA plans to provide approximately \$10 million for planning, design, and construction of drinking water and wastewater facilities. EPA will continue working with all of its partners, including Mexico's National Water Commission (CONAGUA), to leverage available resources to meet priority needs. The FY 2013 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 the completion of other border drinking water and wastewater infrastructure projects as well as through the collaborative efforts established through the Border 2020 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 NAFTA²²-created institutions, the Border Environment Cooperation Commission (BECC) and the North American Development Bank (NADB), have worked closely 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.
- 4. Improve Measures of Progress:** During FY 2013, 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

Many border communities are financially disadvantaged and cannot bear the debt burden necessary to rebuild water infrastructure through conventional assistance channels. EPA grants are made available to communities that have

exhausted all other available funding sources, such as USDA grants and loans and SRF loans. EPA uses a collaborative and public prioritization process to fund those projects that address the most urgent environmental and public health concerns. See section VII for a discussion of environmental justice concerns and strategies to address these concerns in the U.S.-Mexico Border Region.

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 and E*.)

B) Key Program Strategies

The U.S. Pacific Island territories of Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands (CNMI) struggle to provide adequate drinking water and sanitation service. For example, the island of Saipan in the Northern Marianas, with a population of about 50,000, may be the only municipality of its size in the U.S. without 24-hour drinking water. When residents of Saipan do get water, 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, at the very least, keep the infrastructure and situation from worsening, and will slowly move the systems up toward U.S. standards.

- **Use of Existing Grants:** EPA is working in partnership with other federal agencies, such as DOI to optimize federal grants to improve priority water and wastewater systems. EPA and other federal grants have led to significant improvements in the recent past. However, existing grants fall far short of the overall capital needs in the Pacific Islands.

²² North American Free Trade Agreement

- **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 are down more than 90%; and drinking water now meets all EPA health-based standards. In 2009, EPA entered into a comparable Stipulated Order in 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 details and contractor assistance to build capacity in the Islands to protect public health and the environment. For example, in recent years, EPA has used on-site EPA-managed contractors and 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 (DOD) in its Guam Military Expansion project to improve the environmental infrastructure on Guam. The U.S. and Japan have agreed to relocate Marines from Okinawa, Japan to Guam. The relocation could ultimately result in a significant number of additional troops and dependents on Guam, putting additional pressure on the drinking water and wastewater systems. 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 drinking water and wastewater infrastructure.

C) Grant Program Resources

A range of grants funds and set-asides from the national SRF appropriations are available to implement projects to improve drinking water and wastewater infrastructure in the Pacific Islands. EPA has historically provided about \$3 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 \$4 million per territory in infrastructure funding in FY 2009.

Beginning in FY 2010 EPA appropriations language established an SRF set-aside for territories of 1.5%, which, along with an overall increase in SRF funding, resulted in an increase in infrastructure funding for the Pacific territories, to approximately \$37 million total in FY 2010, and \$28 million in FY 2011. However, funding levels for subsequent years are uncertain. To bring drinking water and wastewater service and infrastructure in the U.S. Pacific territories up to U.S. standards, significant and sustained investment will be required.

D) A Strategic Response to Climate Change

EPA 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 SRF projects;
- Coordinating with territorial energy offices and Energy Task Forces; and
- Working with 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 LEED 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 and E*.)

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 U.S., 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.

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 CWA Section 404 wetlands protection program; the Comprehensive Everglades Restoration Program (CERP); the WQPP for

the Florida Keys National Marine Sanctuary (FKNMS); the Southeast Florida Coral Reef Initiative (SEFCRI), 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

FKNMS and Protection Act of 1990 directed EPA and the State of Florida, in consultation with NOAA, to develop a WQPP for the Sanctuary. The purpose of the WQPP is to recommend priority corrective actions and compliance schedules addressing point and NPSs 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 2013, 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 (see measures SFL-SP45, SFL-SP46, SFL-47a and SFL-47b). 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 (see measure SFL-1). 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 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 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 2013

- 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 by March 15, 2012, and finalize these criteria by November 15, 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 USACE to evaluate proposed ASR projects.
- Support state actions to remediate residential canals in the Florida Keys that are impaired from development that has increased turbidity and bacterial numbers while suppressing DO concentration.
- 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 USACE 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.

- 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 WQS throughout the Everglades. The Seminole Tribe and the Miccosukee Tribe of Indians of Florida both have federally approved 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

Region 4 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 CWA Section 104(b)(3). 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) Subobjective:

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 and E*.)

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 EJ 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, Coeur 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 dichlorodiphenyltrichloroethane (DDT), PCBs, mercury, and emerging contaminants, such as PBDE.

EPA joined with other partners in 2005 to form the Columbia River Toxics Reduction Working Group (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 (LCREP), 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.

LCREP, one of EPA's NEPs, 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 LCREP. The Lower Columbia River Estuary Monitoring Program, developed and overseen by LCREP, provides critical work for understanding the lower river and estuary, including toxics and habitat characterization, essential for Columbia River human health protection and salmon restoration. LCREP developed a management plan in 1999 which was updated in 2011 into a streamlined partnership based regional strategy for estuary recovery focused on habitat loss, land use practices, water quality and contaminants, education and information, and regional coordination.

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:

- Clean up 85 acres of known highly contaminated sediments in the Portland Harbor and other sites in the Lower Columbia River (see Measure CR-SP53); and
- Demonstrate a ten percent reduction in mean concentration of certain contaminants of concern found in water and fish tissue in five sites where baseline data is available (see Measure CR-SP54).

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 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 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 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.
- In August 2011, Columbia River Basin tribal, state, federal, and non-governmental executives convened for the first time to discuss toxics reduction accomplishments throughout the Basin. Executives at the meeting signed a statement committing entities to formalize the Working Group and committing to continue to work together on toxics reduction throughout the Basin. The accomplishments information will be part of a *Columbia River Basin Toxics Reduction Action Plan Progress Report* planned to be finalized for 2012. EPA has held 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. Five workshops have focused on agricultural successes and technology transfer; PCBs; the development of a monitoring framework; and flame retardants, a growing concern in the Columbia River Basin. A workshop focused on identifying priority toxic reduction actions is currently being planned for June 2012.
- States and tribes are reducing toxics with regulatory tools: WQS; water quality improvement plans TMDLs; and NPDES permits.
 - On October 17, 2011, EPA approved Oregon's revised WQS for toxic pollutants to protect human health, based on a fish consumption rate of 175 grams/day, or approximately 23 fish meals per month. The new standards are the most protective of any *state* in the U.S. (although some *tribes* have more protective standards for tribal lands). This standard protects the most vulnerable populations, tribes, and EJ communities that rely on subsistence fishing for their food sources. The Oregon fish consumption rate project will have national technical and policy implications, for EPA, Pacific Northwest states, and other states with tribal subpopulations and high fish consumers.
 - State and local governments are removing toxics from communities, including a Washington State 2007 PBDE ban; a 2009 Oregon State decabromodiphenyl ether (deca-BDE) ban; and mercury reduction strategies by Oregon, Idaho, and Nevada, to help communities reduce toxic chemical use and ensure proper disposal.
 - The State of Washington has launched a public dialogue to discuss how to reduce toxics in fish which includes a revision of sediment clean-up standards, the development of water quality implementation tools and a revision of human health criteria to address high fish consumers and protect public health.
- States, tribes, and local partners are improving farming practices;
 - Oregon's Pesticide Stewardship Partnership Program in the Walla Walla Basin has shown a decline of 95% - 100% in bioaccumulative organophosphate pesticides in 2006-2011 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.
- Federal and state governments are cleaning up contamination at Portland Harbor, Hanford, Upper Columbia/Lake Roosevelt, Bradford Island, Coeur d'Alene Basin, and other sites.

C) Grant Program Resources

EPA grant resources directly supporting this goal are limited to NEP Grants under CWA Section 320 (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) Restore and Protect the San Francisco Bay Delta Estuary

A) Subobjective:

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.

The Bay Delta 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

Understanding²³ and produced an Interim Action Plan²⁴ 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 FY 2008, 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 \$22 million, leveraging an additional \$25 million and involving nearly 53 partners working on 38 projects throughout the San Francisco Bay Area.

In FY 2013, the San Francisco Bay Delta Estuary program will focus on:

- Providing 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;
- Participating 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;
- Continuing a competitive grant program to implement projects that improve water quality and restore habitat in San Francisco Bay watersheds;
- Strengthening 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 quality through watershed planning, LID and TMDL implementation;
- Supporting the California Water Boards in implementing their Bay Delta Strategic Plan, particularly reviewing/improving WQS;
- Increasing effectiveness of regulatory programs to restore water quality and to protect wetlands and streams;

²³ <http://www.doi.gov/documents/BayDeltaMOUSigned.pdf>

²⁴ <http://www.doi.gov/documents/CAWaterWorkPlan.pdf>

- Continuing efforts to support studies that focus on preparing for the effects of climate change;
- Continuing to support restoration of wetlands acreage and the development of measures to minimize the methylation of mercury in wetlands; and
- Strengthening monitoring to assist in CWA 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 NEP grants under CWA Section 320 (approx. \$600,000 annually in recent years). More recently, the FY 2008- 2011 appropriations bills included close to \$23 million, collectively, for partnership grants to improve San Francisco Bay water quality. Proposals have been 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. In FY 2012 and 2013, resources will also be directed to support the water quality issues beyond the immediate San Francisco Bay, i.e., in the Delta and its tributaries, as well as to the continuation of the San Francisco Bay grant program.

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>.

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 2011, EPA reviewed program measures and made improvements to many measures. These measures were included in the draft *Guidance*. Public comments were due to EPA on March 19, 2012. EPA reviewed comments and made changes and clarifications, where appropriate, to measures and the text. A summary of responses to comments is provided on OW's performance planning Web site at (http://water.epa.gov/resource_performance/planning/index.cfm). EPA regional offices provided regional targets in mid March. After discussion among headquarters and regional offices, national targets for FY 2013 were revised to reflect regional input, where applicable.
- **Part 2: EPA Region/State/Tribe Consultation/Planning:** EPA regions will work with states and tribes to develop FY 2013 Performance Partnership Agreements or other grant workplans, including commitments to reporting key activities and, in some cases, commitments to specific FY 2013 program accomplishments (May through October of 2012).
- **Part 3: Program Evaluation and Adaptive Management:** The National Water Program will evaluate program progress in 2013 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 2012 to develop agreements concerning program priorities and commitments for FY 2013 in the form of Performance Partnership Agreements or individual grant workplans. The *National Water Program Guidance for FY 2013*, including program strategies and FY 2013 targets, forms a foundation for this effort.

The *National Water Program Guidance for FY 2013* 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 was reduced and EPA 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 and E*). 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 2012, EPA regions will work with states and tribes to agree on reporting for all the measures in the *FY 2013 Guidance*, including both target and indicator measures. For the target measures, EPA regional offices will develop FY 2013 regional "commitments" based on their discussions with states and tribes and using the "planning targets" in the *FY 2013 Guidance* as a point of reference. Draft regional "commitments" are due July 6th and, after review and comment by National Program Managers, EPA regions are to finalize regional commitments by October 3rd. 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 19, 2012.

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. The tailored program "commitments" that result from this process define, along with this *Guidance*, the "strategy" for the National Water Program for FY 2013.

As EPA regional offices work with states and tribes to develop FY 2013 commitments, there should also be discussion of initial expectations for progress under key measures in FY 2014. The Agency begins developing the FY 2014 budget in the spring of 2012 and is required to provide initial estimates of FY 2013 progress for measures included in the budget in August of 2012. These estimates can be adjusted during the fall before they go

into the final FY 2014 President's budget in January/February 2013. OW will consult with EPA regions in developing the initial FY 2014 budget measure targets in August 2012, and regions will be better able to comment on proposed initial targets if they have had preliminary discussions of FY 2014 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 their staffs, reviewing progress against these tasks, and accounting for their completion.

2. State Grant Results and Reporting

In FY 2013, 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 2013 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. National Program Managers are expected to modify sections of

their grant guidance for the 14 identified state categorical grant programs to comply with the GPI. In addition, the Agency is committed to providing state and tribal partners with the resources they need to implement environmental programs in a timely manner. National Program Managers should describe efforts to streamline the grant distribution process in their guidance, as appropriate.

As the GPI 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 2013 reporting. As in FY 2012, 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.

For FY 2013, 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 2013 targets and commitments are established, EPA is asking that states and EPA regions provide OW with state specific results data at the end of FY 2013. These measures are associated with some of the larger water program grants. The water grant programs and the FY 2013 "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-01a; WQ-03a; WQ-08b; WQ-14a; WQ-15a; WQ-19a, WQ-26.
- b. **Public Water System Supervision (PWSS Grants).** State Grant Measures: SDW-211; SDW-SP1.N11; SDW-SP4b; and SDW-01a.
- c. **State Underground Water Source Protection (UIC Grants).** State Grant Measures: SDW-07.
- 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

The Environmental Information Exchange Network has provided the foundation for EPA, states, and tribes to now move aggressively to convert from old fashioned paper reporting to electronic reporting. To reduce burden, improve compliance, expand the information available to the public about pollution that affects them, and improve the ability of EPA, states, and tribes to implement environmental programs, the Agency has commenced a comprehensive initiative to convert to electronic reporting. EPA is focusing this initiative in two main areas: (1) developing an Agency wide policy to ensure that new regulations include electronic reporting in the most efficient way; and (2) developing and then implementing an Agency plan to convert the most important existing paper reporting to electronic, while also looking for opportunities to reduce or streamline outdated paper reporting. Since this work is cross-cutting, EPA has established an Agency Electronic Reporting Task Force to lead and manage this work.

The Agency is interested in learning from the states and tribes about their successes and challenges in converting from paper reporting to electronic. And, the Agency will keep states and tribes informed about its progress in this initiative. If a state or tribe would like to share information with the Electronic Reporting Task Force, please contact David Hindin (OECA) and Andy Battin (Office of Environmental Information) for more information.

In 2009, EPA Administrator Lisa P. Jackson issued a memorandum stating her strategic vision that the National Environmental Information Exchange Network (Exchange Network) becomes the preferred means of environmental data sharing between EPA, states, tribes, and others. This memorandum affirmed the unanimous ECOS resolution calling for full implementation of the Exchange Network, and represented a renewed joint commitment to success of the Network.

OW supports this goal and will continue our outreach efforts in FY 2013 to achieve full implementation for the WQX, SDWIS, and UIC systems. OW and regional offices will work with the Office of Environmental Information and state and tribal partners to meet the strategic targets necessary to achieve network implementation for WQX, SDWIS, and UIC. OW has committed to having 47 states flowing WQX, 39 states flowing SDWIS, and 41 states flowing UIC. OW is actively working to support a transition to the Exchange Network Services Center and expects to eliminate the legacy Central Data Exchange (CDX) web application for SDWIS and the Beach Notification system by the third quarter FY 2012. As a reminder, data systems operations and maintenance for Exchange Network data flows remain eligible activities for funding under categorical program grants.

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 2012 in most cases. For most grants, guidance for FY 2012 is being carried forward unchanged to FY 2013. Grant guidance documents can be found on the Internet at (http://water.epa.gov/resource_performance/planning/index.cfm). More information about grant management and reporting requirements is provided at the end of this section.

In FY 2010, the grant guidance for the Water Pollution Control Grants from CWA Section 106 was incorporated into this *National Water Program Guidance*. This was a pilot effort to gain efficiency in the issuance of the CWA Section 106 Grant Guidance within the *National Water Program Guidance*. Text boxes with specific CWA 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 PWSS and UIC grants within the Water Safe to Drink Subobjective to continue to pilot a more streamlined approach to issuing the grant guidance. For FY 2013, EPA added the grant guidance for the DWSRF grants to this Subobjective.

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 2013 program performance commitments.

6. Better Serving Communities

In FY 2013, EPA will institutionalize its commitment to support communities both through the resources EPA offers and the means by which we coordinate among programs. Since March 2010, when Deputy Administrator Bob Perciasepe convened a multi-region, multi-program effort, led by the Office of Policy (OP), to steer the Agency towards using communities as one of the Agency's "organizing principles," significant progress has been made. For example, a subset of 27 "community-based programs" have been identified that, while not exhaustive, illustrate the investment the Agency has made across offices in direct assistance to communities. Additionally, geomapping capabilities were completed in March 2012 to help the Agency identify and track where EPA is working in communities through grants and technical assistance. The geomapping has the potential to better coordinate Headquarters and regional efforts and improve the ability to identify potential gaps in service to communities. Finally, a new grants policy went into effect on March 31, 2012 establishing an 'OneEPA' approach to coordinating and implementing community-based grant programs, including streamlining grants processes consistent with EPA's fiduciary responsibilities and providing useful grants information to communities.

In implementing EPA's long-term goals for an improved environment and better public health in communities, regions should look for additional opportunities in which their core program activities can help the Agency achieve the following intermediate outcomes: 1. Provide the right information about EPA programs to the right people at the right time; 2. Facilitate communities' access to EPA resources; 3. Increase the capacity of communities, including those that are underserved and overburdened, to protect their health and the environment; 4. Enhance effective internal coordination among all major EPA community-based programs; 5. Improve leveraging of EPA funding by EPA programs; 6. Improve leveraging of partnerships with public and private sector entities; and 7. Strengthen EPA staff capacity to do community-based work.

In particular in FY 2013, regions are asked to:

- Strengthen involvement and increase investment in one or more of the Agency's 27 programs that comprise the Community-Based Coordination Network (*Contact: John Foster, Office of Sustainable Communities, 202-564-2870 or foster.john@epa.gov*).
- Support ongoing inter-agency partnerships that align resources or activities in communities (e.g. the

Interagency Working Group on Environmental Justice, the HUD-DOT-EPA Partnership for Sustainable Communities, the Urban Waters partnership and others).

- Adhere to OGD's Community-Based Grants Policy²⁵, including implementing identified best practices for streamlining competitions, considering combining competitions, and implementing protocols to geo-code projects for inclusion in Agency-wide mapping.
- Work with OGD and Office of Environmental Justice (OEJ) to post competition schedules and other grant information²⁶.
- Utilize the Office of Solid Waste and Emergency Response's (OSWER) Technical Assistance Services for Communities (TASC) contract to provide technical assistance for communities that find it difficult to manage grants (*Contact: Howard Corcoran, OARM, 202-564-1903 or corcoran.howard@epa.gov*).
- Increase the amount of training provided to regional staff to work within tribes and other communities (for example, the Office of International and Tribal Affairs' Working Effectively with Tribal Governments online training²⁷, the EJ Fundamentals Course available through <http://intranet.epa.gov/oeca/oc/neti/index-new.html>).
- Work with Marsha Minter of OSWER, Charles Lee of OECA, or John Frece of OP (co-leads for a new community-based KPI in FY 2012) to identify a pilot project in each region to implement the best practices generated through an assessment conducted under the FY 2012 Community-Based KPI. (*Contacts: Marsha Minter, OSWER, 202-566,0215; Charles Lee, OECA, 202-564-2597; John Frece, OP, 202-56-2125*)

Recognizing that some 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 efforts with states and USDA and work collaboratively with rural communities and technical providers in 2012 and in planning program activities for FY 2013.

B) Program Evaluation and Adaptive Management (Step 3)

As the strategies and programs described in this *Guidance* are implemented during FY 2013, 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:

²⁵ http://intranet.epa.gov/ogd/policy/gpi_12_02_community_based_grants_03_02_12.pdf

²⁶ http://www.epa.gov/ogd/training/resources_for_communities/community_grants_table.htm

²⁷ <http://intranet.epa.gov/aieointr/training/tribal/EPA/mainmenu/launchPage.htm>

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

OW 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 *Guidance*;

The reports will include performance highlights, management challenges, and best practices. OW 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

OW reports to the Deputy Administrator the results on a subset of the *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, OW 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 OW projects selected by OP, annual Program Evaluation Competition and reviews undertaken by the Evaluation and Accountability Team in OW. Program offices will provide continuing oversight and evaluation of state/tribal program implementation in key program areas (e.g., NPDES program).

In addition, OW expects that external parties will evaluate water programs, including projects conducted by the EPA OIG, the Congressional Government Accountability Office, and projects by the National Academy of Sciences.

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 OW will take to improve the linkage between program assessment and program management include:

- **Communicate Performance Information to Program Managers:** OW will use performance information to provide mid-year and annual program briefings to the Deputy Assistant Administrator and senior HQ water program managers.
- **Communicate Performance Information to Congress and the Public:** OW will use performance assessment reports and findings to communicate program progress to other federal agencies, OMB, the Congress, and the public. OW has established a performance page on EPA’s web site to display data on annual and long term performance trends.
- **Link to Budget and Workforce Plans:** OW will use performance assessment information in formulation of the annual budget and in development of workforce plans.
- **Promote Wide Dissemination of Best Practices:** OW 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.
- **Expand Regional Office Participation in Program Assessment:** OW 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.
- **Strengthen Program Performance Assessment in Personnel Evaluations:** OW 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.
- **Recognize Successes:** In cases where program performance assessments have contributed to improved performance in environmental or program activity terms, OW will recognize these successes. By explaining and promoting cases of improved program performance, the organization builds confidence in the assessment process and reinforces the concept that improvements are attainable.
- **Strengthen Development of Future Strategic Plans and National Performance Guidance:** OW will use program assessments to improve future strategic plans, including revised strategic measures. In addition, OW will use end of the year performance results to assist in setting regional and national annual commitments for the *Guidance*.

- **Promote Effective Grants Management:** OW 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 OW that all grants are to comply with applicable grants requirements (described in greater detail in the “National Water Program Grants Management for FY 2013” section), regardless of whether the program specific guidance document addresses the requirement.
- **Follow-Up Evaluation for Measure and Program Improvement:** OW 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 2013

OW 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 *Guidance*.

A) Policy for Competition of Assistance Agreements

OW strongly supports the Agency policy to promote competition to the maximum extent practicable in the award of assistance agreements. Project officers must 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 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 October 12, 2011, OGD issued a memorandum approving a competition exemption for awards to non-profit co-regulator/co-implementor organizations (collectively referred to as “co-regulator organizations”) for core co-regulator organization type activities funded with STAG categorical appropriations under the associated program support cost authority. The competition exemption only applies to certain STAG funded awards and is subject to several conditions. For EPA to use STAG funding under the associated program support cost authority, the activities funded must support the environmental protection programs of non-federal governmental partners and the services the co-regulator organizations provide must be for the direct use and of primary benefit of these entities and not EPA. For the funds that would otherwise be allotted to state governmental entities, EPA policy requires that EPA obtain the prior approval of the affected state agency or department before such funding is used for awards to co-regulator organizations for associated program support on their behalf.

On June 2, 2011, the Administrator issued the “U.S. EPA Policy Statement on Climate Change Adaptation” which affirmed the Agency’s commitment to anticipate and plan for future changes in climate and incorporate them into our programs, policies and operations. Subsequently, OGD and OP issued a memorandum on October 18, 2011, requesting EPA headquarters and regional program offices to work to incorporate climate change considerations into applicable competitive funding opportunities where the outcomes of the project are sensitive to climate or where the project could be more effective if climate change were addressed.

B) Policy on Compliance Review and Monitoring

OW 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.

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 OIG. 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, 2011 to be used for 2011 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 2012 performance agreements. OW 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.

E. Compliance with Title VI of the Civil Rights Act of 1964

It is a priority of the Agency to ensure compliance with Title VI of the Civil Rights Act of 1964, <http://www.epa.gov/civilrights/t6lawrg.htm>. This statute prohibits discrimination based on race, color, and national origin, including limited English proficiency (LEP), by entities receiving federal financial assistance.

As required by implementing EPA regulations at 40 C.F.R. Part 7, EPA applicants must complete EPA Form 4700-4 to demonstrate compliance with Title VI and other non discrimination statutes and regulations, http://www.epa.gov/ogd/forms/adobe/4700-4_sec.pdf. The regulations also impose specific obligations on grant recipients, including providing compliance information, establishing grievance procedures, designating a Title VI Coordinator, and providing notices of non-discrimination, <http://www.epa.gov/civilrights/docs/40p0007.pdf>.

Title VI requires EPA financial assistance recipients to provide meaningful access to LEP individuals. To implement that requirement, and consistent with Executive Order 13166, <http://www.epa.gov/civilrights/docs/eo13166.pdf>, the Office of Civil Rights (OCR) issued guidance to recipients entitled, "Guidance to Environmental Protection Agency Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons."²⁸

OCR also published a Title VI Public Involvement Guidance for EPA Assistance Recipients Administering Environmental Permitting Programs, <http://edocket.access.gpo.gov/2006/pdf/06-2691.pdf>.

In coordination with the grants management community, OARM will work with OCR and the Office of General Counsel to develop and implement appropriate grant conditions, training programs and monitoring strategies to help achieve compliance with Title VI and implementing regulations and guidance.

All recipients of EPA financial assistance have an affirmative obligation to implement effective Title VI compliance programs and ensure that their actions do not involve discriminatory treatment and do not have discriminatory effects even when facially neutral. Recipients should be prepared to demonstrate that such compliance programs exist and are being implemented or to otherwise demonstrate how they are meeting their Title VI obligations.

²⁸ http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2004_register&docid=fr25jn04-79.pdf

VI. National Water Program and Tribes

EPA is committed to strengthening human and environmental health in Indian country. As outlined in the *EPA FY 2011-2015 Strategic Plan*, the Agency will continue to engage with tribes to build effective and results-oriented environmental programs. EPA continues to provide federally-recognized tribes with opportunities to develop tribal capacity to ensure that programs implemented by tribes or by EPA are protective of public health and the environment. EPA's National Water Program recognizes that as sovereign entities, and environmental co-regulators, Indian tribes are responsible for protecting thousands of square miles of rivers, streams, and lakes, as well as ground water. In addition, tribes living on or near the coast are largely dependent on coastal resources. Tribes play a major role in protecting the water resources vital to their existence, and many are seeking to develop comprehensive and effective water quality programs to improve and protect water quality on tribal lands.

Each tribe faces a variety of challenges in protecting these resources and ensuring the health of their communities. To support and enhance tribal efforts in FY 2013, OW is taking actions in its programs to promote tribal participation and program development to protect water resources. These actions are described throughout this guidance, and include helping tribes to: develop and implement water quality programs under the Final Guidance on Awards of Grants to Indian tribes under CWA Section 106; restore and improve water quality on a watershed basis; develop and manage NPS pollution program (e.g. through watershed-based plans, BMPs, and restoration activities); conduct source water protection assessments; and improve implementing core elements of a wetlands program or wetlands monitoring strategy. In addition, in FY 2013, OW will use best practices developed over the last year to optimize tribal consultation efforts and consistency in implementing the *EPA Policy on Consultation and Coordination with Indian Tribes* (<http://www.epa.gov/tribal/consultation/index.htm>). Further, to reduce the number of tribal homes lacking access to safe drinking water and basic sanitation, which remains high relative to the national average, the National Water Program is working with other federal agencies to ensure that federal infrastructure investments are integrated and planned to provide long-term sustainable solutions for safe drinking water and basic sanitation on tribal lands. OW will continue to support the National Tribal Water Council (NTWC) to promote information exchange, sharing of BMPs, and analysis of high-priority water-related issues and actions from a tribal perspective. The NTWC serves as a national forum for tribal water managers to interact with each other, with tribes, and directly with EPA on issues related to ground, surface and drinking water quality.

The National Water Program will continue to evaluate progress on actions in Indian country that support goals described in the *EPA Strategic Plan*. EPA will evaluate

Summary of FY 2013 National Water Program Guidance Measures Supporting Tribes

Water Safe to Drink		
SDW-SP3.N11	SDW-18.N11	SDW-01b
Improved Water Quality on a Watershed Basis		
WQ-SP14a.N11	WQ-SP14b.N11	WQ-02
WQ-03b	WQ-06a	WQ-06b
WQ-12b	WQ-19b	WQ-23
	WQ-24.N11	
Increase Wetlands		
WT-SP22		WT-02a

progress using the National Water Program measures, including a set of measures directly supporting tribes, which are highlighted here and further described in *Appendix A* and *E*. In addition, the Administrator has placed renewed emphasis on improving the Agency's relationships with tribes through the Strategic Plan's *Cross-Cutting Fundamental Strategy: Strengthening State, Tribal and International Partnerships*. EPA will also work with tribes to improve environmental conditions and public health in communities overburdened by environmental pollution in support of the *Strategic Plan's Cross-Cutting Fundamental Strategy: Working for Environmental Justice and Children's Health* (see VI. *Water Program and Environmental Justice in this Guidance*). Throughout 2006–2012, EPA worked with states and tribes to align and streamline performance measures. The National Water Program will continue to actively engage states and tribes in the Agency's performance measurement improvement efforts.

VII. National 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, OW will actively work to create healthy and sustainable communities by decreasing environmental burdens and increasing environmental benefits. To further support this priority, EJ principles must be included in the Agency's decision making processes.

To implement the Administrator's EJ priority, EPA adopted Plan EJ 2014, its overarching EJ strategy²⁹. This four-year plan is designed as a roadmap to help EPA integrate EJ into all of its programs. Plan EJ 2014 is helping 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. The plan includes five cross-Agency focus areas, tools development, and program initiatives. The five areas are:

1. Incorporating EJ into Rulemaking;
2. Considering EJ in Permitting;
3. Advancing EJ through Compliance and Enforcement;
4. Supporting Community-Based Action Programs; and
5. Fostering Administration-Wide Action on EJ.

OW supports the Administrator's EJ priority and Plan EJ 2014. OW also supports the *Cross-Cutting Fundamental Strategy: Working for Environmental Justice and Children's Health* established in the *EPA FY 2011–2015 Strategic Plan*.

Every national program and region has made a commitment to lead a cross-Agency element of Plan EJ 2014, either in a policy or tools development area. OW leads the Fostering Administration Wide Action under Plan EJ 2014.

OW places emphasis on achieving results in areas with potential EJ 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) ANV 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 impacts on human health. OW will explore ways to collaborate with OEJ and other EPA offices on how to best develop climate change adaptation policies and strategies that pay closer attention to vulnerable populations.

1. Utilization of Cross-Agency Tools Developed under Plan EJ 2014 and Enhancing Water Tools and Data for EJ Screening

Due to the leadership provided by all national programs and regions, Plan EJ 2014 workgroups have made significant progress during FY 2011 and FY 2012 in developing tools to advance the integration of EJ in all EPA programs, policies and activities. These cross-Agency tools advance EJ in the following key areas: 1) rulemaking; 2) legal authorities; 3) EJ screening; and 4) permitting.

In FY 2013, OW will ensure integration of EJ in its programs, policies, and activities by utilizing, referring to, and relying on:

- the *Guidance on Considering Environmental Justice in the Development of an Action* during the development of any rule, regulation, or guidance;
- the *EJ Legal Tools Document* to identify legal authorities under environmental statutes administered by EPA that may support consideration of EJ in permitting, rulemaking, NEPA, Title VI, or other actions³⁰;
- *EJScreen* to identify areas of EJ concern and integrate its use in OW's day-to-day activities, such as rules, permits, compliance and enforcement actions, NEPA assessments, community engagement activities, and grants; and guidance on enhanced public participation in permitting and other tools to consider EJ in EPA-issued permits.

OW is working closely with other EPA offices to ensure that the Agency's broader EJ efforts are informed by the consideration of communities' water and surface water quality. As called for in Plan EJ 2014, OP is leading the development of *EJ Screen*, which is envisioned as EPA's first nationally consistent EJ screening tool to enhance EJ analysis and decision making. OW is working with OP to include water-related considerations in the first version of the screening tool. The inaugural tool will evaluate each community's proximity to major NPDES dischargers as a component of the total environmental burden experienced by nearby communities across multiple media.

²⁹ For information concerning Plan EJ 2014, please see <http://www.epa.gov/compliance/ej/plan-ej/index.html>

³⁰ For more information, please see *EJ Legal Tools*, issued on December 21, 2011 at <http://www.epa.gov/compliance/ej/resources/policy/plan-ej-2014/ej-legal-tools.pdf>

Even though there are low income and minority communities who bear a disproportionate cumulative pollution burden from multiple media, there are nonetheless low income and minority communities which may enjoy relatively good air quality, for example, while still struggling to address water pollution problems. The National Water Program should not forget these communities and instead strive to address their water needs regardless of the magnitude of the pollution problems they may or may not face from other media. Currently OW is working to develop GIS capabilities which will allow managers of the various components of the National Water Program to identify and target where their specific program responsibilities overlap with EJ communities on a socio-demographic basis.

2. Achieving Results under the FY 2011-2015 Strategic Plan Cross Cutting Strategy on EJ and Children's Health³¹

Building on measures (relating to safe drinking water and sanitation on tribal lands, the U.S.-Mexico border region, and ANVs) discussed below, OW will continue to develop and track measures that characterize actions taken, or that characterize environmental or health conditions of overburdened communities/children as outlined in the FY 2012 Annual Action for the *Cross-cutting Strategy for EJ and Children's Health*, using EJSCREEN as appropriate and other EJ tools as needed.

3. National Program Manager Program Initiative under Plan EJ 2014

In addition to developing the policies and tools to integrate EJ into its programs, policies, and day-to-day operations, each NPM is to identify an existing or new program initiative to focus their efforts on maximizing the environmental, health, and economic benefits to overburdened communities.³² OW has identified Urban Waters as its program initiative(s).

Many urban waters are impaired by pathogens, excess nutrients, and contaminated sediments that result from sanitary sewer and CSOs, polluted runoff from urban landscapes and contamination from abandoned industrial facilities. Under the Urban Waters Program, EPA is seeking to support communities in their efforts to access, improve, and benefit from their urban waters and the surrounding land. This program also recognizes that certain communities, including minority, low income, and those with indigenous populations, are and have

been particularly burdened by polluted urban waterways and have not reaped the benefits that healthy, accessible waters can bring. The objective of EPA's Urban Waters Program is to protect and restore America's urban waterways. This program will help promote addressing EJ considerations by:

- Addressing water quality issues in communities, such as those containing minority, low income, or indigenous populations, that have been adversely impacted by polluted urban waters; and
- Involving these communities and others in performance of projects including the design, planning, and performance of activities that contribute to water quality restoration.

Healthy and accessible urban waters can help grow local businesses and enhance educational, recreational, employment and social opportunities in nearby communities. By promoting public access to urban waterways, EPA will help communities become active participants in restoration and protection. By linking water to other community priorities, such as economic development, EPA will help to sustain that involvement. By more effectively leveraging existing programs, EPA aims to support projects and build partnerships with a variety of federal, state, tribal, and local partners that foster increased connection, understanding, and stewardship of local waterways. As noted in the "Urban Waters Program" Section of this document (Section IX), this program will advance EJ goals through activities such as the Urban Waters Small Grants; the Urban Waters Federal Partnership; and the development of tools for local action at the community level. Specifically:

- For these Urban Waters program measures, below, the National Water Program will use "EJ Screen", a tool of EJ Plan 2014, to assess how many of the projects initiated and completed are in overburdened communities:
 - 1) WQ-25a: Number of urban water projects initiated addressing water quality issues in the community and
 - 2) WQ-25b: Number of urban water projects completed addressing water quality issues in the community. If funding is approved, grant recipients would be required to report results corresponding to these measures.
- The National Water Program will share both barriers and effective practices for engaging overburdened communities that are identified through Urban Waters

³¹ **FY 2013 NPM Guidance Process:** Each of the five National Program Managers (NPMs) will work with regions and Strategy Champions to include, in their Draft FY 2013 NPM Guidance, qualitative expectations for both HQ and regions for incorporating EJ and Children's Health into program initiatives/program activities and/or annual commitments* (i.e., ACS measures) with numeric targets. Quantitative annual commitments will address actions that promote EJ/Children's Health or would address environmental/health conditions of overburdened communities/children. (February 2012)

³² Each NPM will identify at least one program or activity as part of Plan EJ 2014, where it will focus existing activities to maximize environmental and human health benefits for disproportionately burdened communities (*Supports Principle 2*).

- By December 2011, NPMs will identify at least one program activity based on populations served, EJ goals advanced, and other criteria.
- By February 2012, NPMs will provide guidance in FY 2013 NPM Guidance regarding EJ program activities.
- By June 2012, NPMs will develop plan for tailoring program activities to maximize environmental and/or public health benefits for overburdened communities and report on these benefits in a qualitative and quantitative manner.

program activities. These lessons learned will be shared within the National Water Program and with OEJ.

4. Environmental Justice and Water Safe to Drink

OW will promote infrastructure improvements to small and disadvantaged communities through DWSRF that reduce public exposure to contaminants through compliance with regulations and support the reliable delivery of safe water by CWSs, 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 and energy efficiency. This also includes partnership efforts with the USDA Rural Utilities Service to enhance the sustainability of rural drinking water and wastewater systems and to promote a sustainable and green water sector workforce.

On October 10, 2007, EPA published the latest changes to the 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.

5. Drinking Water on in Indian Country

The challenges associated with the provision of safe drinking water in Indian country are similar to challenges facing other small communities: a lack of technical, managerial, and financial capacity to operate and maintain drinking water systems. The magnitude of these challenges in Indian country is demonstrated by tribal water system compliance with health-based regulations (SDW-SP3.N11).

- In 2011, 81.2% of the population in Indian country served by community water systems received drinking water meeting all applicable health-based drinking water standards. In comparison; 93% of the U.S. population served by community water systems received drinking water that met all applicable health-based standards.
- Additionally, in coordination with other federal agencies, 97,311 American Indian and Alaska Native homes tracked by the Indian Health Service were provided access to safe drinking water through FY 2011.

The EPA National Tribal Drinking Water Program will continue to maintain its commitment to improve the provision of safe drinking water in Indian country by working with public water systems to maintain and improve compliance with the NPDWRs through use of infrastructure

funding, technical assistance, and enforcement actions. This effort supports the *Cross-Cutting Fundamental Strategy: Working for Environmental Justice and Children's Health* to highlight EJ supporting work. EPA recognizes that not all tribal communities are disproportionately burdened by environmental hazards, and thus, do not present a universal need for EJ. However, the above measure (SDW-SP3.N11) indicates that a greater proportion of the overall population in Indian country lacks access to and receives drinking water that is not in compliance with all applicable health-based drinking water standards compared to the U.S. population on the whole. Therefore, an increase in the percent population receiving safe drinking water is indicative of an overall increase in public health protection in Indian country.

The EPA will also continue to work in partnership with the Indian Health Service, USDA, and HUD 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 ensure that tribal water utility staff have the training and experience needed to provide safe drinking water.

6. Environmental Justice and Fish and Shellfish Safe to Eat

OW 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 WQS Program promotes EJ by ensuring that advisories and minority population health risks are known when states make WQS attainment decisions, develop TMDLs for impaired waters, and develop permits to control sources of pollution.

OW 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.

OW 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. OW 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.

7. Environmental Justice and the U.S.-Mexico Border Region

The U.S. and Mexico have a long-standing commitment to protect the environment and public health for communities in the U.S.-Mexico border region. Residents of the border region face disproportionate exposure to inadequately treated wastewater and unsafe drinking water. EPA's U.S.-Mexico Border Water Infrastructure Program enables communities in the border region, defined as 100 kilometers north and south of the international border, to develop, design, and construct infrastructure projects that provide safe drinking water and wastewater collection and treatment. The lack of safe drinking water directly impacts public health while inadequate sanitation and treatment facilities impact shared and transboundary rivers and coastal waters and threaten the public health and ecosystems of the region. EPA prioritizes funding to border communities based on the most severe public health and environmental conditions. These communities are looking to EPA as a last-resort funding source when utilities, cities, or states are not able to fully finance needed infrastructure improvements.

Through the U.S.-Mexico Border Water Infrastructure Program, communities build and improve drinking water and wastewater infrastructure. Many households in the communities receive drinking water or wastewater service for the first time. These first time service connections are tracked by measures MB-SP24.N11 and MB-SP25.N11 - additional homes served by improvements in water services. The household connections are reported when infrastructure projects have completed construction and are operational.

8. Environmental Justice and Alaska Native Villages

ANVs are unique populations that have extreme sanitation difficulties relative to people in the lower 48 states. Limited federal and state funding was provided to address these problems, but under the 1996 Amendments to the SDWA, Congress formally recognized an annual appropriation that EPA may distribute specifically to these communities. The ANV Program addresses the lack of basic drinking water and sanitation infrastructure (i.e. flushing toilets and running water) in rural and Native Alaska communities. In many of these communities, "honeybuckets" and pit privies are the sole means of sewage collection and disposal. Drinking water is often hauled in 50-gallon tanks from community watering points.

Since 1995 the ANV program, through the State of Alaska, has provided grant funds to over 200 underserved communities to improve or to construct drinking water and wastewater facilities thereby improving local health and sanitation conditions. The ANV program also supports training and technical assistance programs related to the technical, financial, and managerial requirements of managing sanitation systems in rural Alaska.

Measure WQ-23 tracks the percentage of serviceable rural Alaska homes with access to safe drinking water supply and wastewater disposal. The number of homes served by a community drinking water and wastewater system has increased dramatically from 60% in 1998 to 92% in 2010. When compared to the national average, ANVs continue to stand out as under-served populations for both clean water infrastructure and wastewater treatment. Consequently, these villages experience disproportional exposure to untreated or under-treated wastewater.

9. Environmental Justice Water Related Elements

The 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. Since 2005, CARE grants have reached 87 communities, allowing for the CARE process to occur in 40 states and territories with over 1,700 partners engaged for a total of \$16 million in grants. Through 2009, combined, CARE communities have leveraged dollar-for-dollar the CARE funding, although it is not required, and visited over 4,000 homes providing information and/or environmental testing; worked to reduce risks in almost 300 schools and provided environmental information to over 2,800 businesses and 50,00 individuals.

OW 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 2013, the lead coordination NPM for the CARE Program is the Office of Air and Radiation (OAR), with OCSPP as co-lead. OW and OSWER principals and staff will continue to actively participate in this cross-Agency program, as do OEJ and the Office of Children Health Protection (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 the program successes, the CARE program has two indicator measures that were new in FY 2012 and that will continue to be tracked and reported under OAR'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 addressing the challenges of climate change, it is important to recognize that the impacts of climate change raise serious EJ 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." OW will work with program offices in EPA to address the issues facing EJ communities regarding climate change.

VIII. National 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 OCHP at headquarters.

Actions that regions can take in FY 2013 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 child care centers are a critical subset of small drinking water systems for which EPA is also continuing to provide special emphasis in FY 2013 to ensure that children receive water that is safe to drink. There are approximately 7,700 schools and child care centers that are also public water systems. Similar to other small systems, schools and child care centers often do not have the technical, managerial, or financial capacity to comply with SDWA requirements, including maintaining a certified operator. EPA will continue to provide technical assistance, user-friendly guidance, and training to ensure that these systems understand their responsibilities for providing safe drinking water. EPA will also continue to work with state partners to ensure that violations occurring at schools and child care centers are addressed quickly and these systems are returned to compliance. The National Water Program has developed a separate indicator (Measure SDW-17) for schools and child care centers meeting health-based standards in order to track progress in this area.

IX. National Water Program and the Urban Waters Program

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 CSOs. 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, OW, OSWER, and OEJ began to develop a new Urban Waters Program to address these issues. This effort supports the Administrator's priority, Protecting America's Waters.

The goal of the Urban Waters Program 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 joined USDA and DOI to lead a 12-member federal interagency working group, the Urban Waters Federal Partnership, 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; coordinate support to on-the-ground projects; and feature the work on the partnership at urbanwaters.gov, a new interagency

website. EPA will develop new and interactive web tools for community-to-community knowledge sharing; conduct outreach to non-digital audiences; and provide technical assistance to support communities in being informed 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 EJ 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, NEP, and Large Aquatic Ecosystem programs may offer additional place-based opportunities to engage urban communities.

In late FY 2012, EPA expects to award Urban Waters Small Grants to support local efforts to address water quality issues in urban waterways. These activities would be reflected in two measures: 1) WQ-25a: Number of urban water projects initiated addressing water quality issues in the community, and 2) WQ-25b: Number of urban water projects completed addressing water quality issues in the community. If funding is approved, grant recipients would be required to report results corresponding to these measures.

X. National Water Program and Climate Change

Climate change impacts include too little water in some places, too much water in other places, and degraded water quality. Some locations will be subject to all of these conditions during different times of the year. Water cycle changes are expected to continue and will adversely affect energy production and use, human health, transportation, agriculture, and ecosystems.³³

Climate change alters the hydrological cycle, changing the background conditions in which natural and man-made systems function. Changes have already been observed and are expected to continue, such as warming air and water, changes in the location and amount of rain and snow, increased intensity of rainfall and tropical storms, sea level rise, changes in ocean chemistry, and indirect effects related to energy generation and fuel production.

However, particular changes and impacts vary by region and locale, and adaptation strategies depend upon the type of decision being addressed. Further, while there is relatively strong ability to forecast temperature increases due to climate change, projecting changes in precipitation and its effects on hydrology carries large uncertainties at the local scale. Therefore, a key challenge will be how to help local decision makers understand the potential local impacts, and how to make long-term plans under a new range of uncertainty than what planners have previously learned to address. Water resource managers will also need to learn how to take into account local impacts of climate change as they grapple with other challenges, including population growth, land use changes, economic constraints, and a variety of stressors to the quality and quantity of our nations waters.

In September 2008, the National Water Program published the first *National Water Program Strategy: Response to Climate Change*. This strategy identified 44 key actions to be taken by EPA to begin to understand and address the impacts of climate change on our programs.

In 2012, the National Water Program is publishing the second *National Water Program 2012 Strategy: Response to Climate Change*. This 2012 Strategy builds upon the work done since the 2008 Strategy. It describes a set of long-term goals for the management of sustainable water resources for future generations in light of climate change and reflects the wider context of climate change-related activity underway throughout the Nation. The 2012 Strategy is intended to be a roadmap to guide future programmatic planning and inform decision makers during the Agency's annual planning process.

The National Water Program collaborated with the State and Tribal Climate Change Council as part of the development of the 2012 Strategy. The Council has provided valuable feedback throughout the process and has assisted

in distributing the public comment draft. Established in October 2009, the State and Tribal Climate Change Council encourages and enhances communication between state, tribal, and EPA water program managers on climate change and water issues. The Council includes members nominated by ACWA, the Association of State Drinking Water Administrators (ASDWA), the Association of State Wetland Managers (ASWM), state members of the Ground Water Protection Council, and the National Tribal Water Council.

Impacts of Climate Change on Water Resources

- Increases in water pollution problems due to warmer air and water temperatures and changes in precipitation patterns, causing an increase in the number of waters categorized as "impaired";
- More extreme weather events, including heavier precipitation and tropical and inland storms, causing adverse effects on water quality, aquatic system health, and water infrastructure;
- Changes to the availability of drinking water supplies due to increased frequency, severity and duration of drought, changing patterns of precipitation and snowmelt, increased evaporation, and aquifer saltwater intrusion, increasing competition for public water supply, agriculture, industry, and energy production;
- Waterbody boundary movement and displacement as rising sea levels alter ocean and estuarine shorelines and as changes in water flow, precipitation, and evaporation affect the size of wetlands and lakes;
- Changing aquatic biology due to warmer water and changing flows, resulting in deterioration of aquatic ecosystem health in some areas;
- Collective impacts on coastal areas resulting from a combination of sea level rise, increased damage from floods and storms, coastal erosion, salt water intrusion to drinking water supplies, and increasing temperature and acidification of the oceans; and
- Indirect impacts due to unintended consequences resulting from carbon sequestration and other greenhouse gas reduction strategies.

³³ U.S. Global Change Research Program, "Global Climate Change Impacts in the U.S." (2009), Water Sector, at: <http://globalchange.gov/publications/reports/scientific-assessments/us-impacts/climate-change-impacts-by-sector/water-resources>

In addition, the *National Water Program 2012 Strategy: Response to Climate Change* reflects the findings of the Inter-agency Climate Change Adaptation Task Force, including the national action plans for freshwater resources; oceans and coasts; and fish, wildlife, and plants. The *2012 Strategy* is also intended to be consistent with EPA's broader adaptation planning process currently underway, as reflected in the "U.S. EPA Policy Statement on Climate Change Adaptation" issued by EPA Administrator Lisa Jackson on June 2, 2011. In the policy statement, she affirmed the Agency's commitment to anticipate and plan for future changes in climate and incorporate them into its programs, policies, and operations. The policy statement directs that an Agency-wide adaptation plan be developed (to be completed in June 2012), as well as adaptation implementation plans by each national program and regional office (to be completed in FY 2013). Recognizing that climate change impacts are a stressor among many others that water resource managers are grappling with, the *2012 Strategy* is also designed to build upon other EPA initiatives such as the *Coming Together for Clean Water Strategy* and the *Clean Water and Safe Drinking Water Infrastructure Sustainability Policy*.

National Water Program 2012 Strategy: Response to Climate Change

Vision: Despite the ongoing effects of climate change, the National Water Program will continue to achieve its mission to protect and restore our waters to ensure that drinking water is safe; and that aquatic ecosystems sustain fish, plants and wildlife, as well as economic, recreational, and subsistence activities.

New tools and information are needed to help water resource managers address climate change. However, several of our existing programs are also important strategies to both reduce greenhouse gases and to adapt to the impacts of climate change, including programs to conserve water, reduce energy use, adopt green infrastructure and watershed-based practices, and improve the resilience of watersheds and estuaries.

The National Water Program will continue to develop tools and information in collaboration with federal, state, tribal and local partners to build awareness, increase knowledge, and share lessons learned to expand the national capacity to address climate change and become 'climate ready'. The National Water Program through its *National Water Program 2012 Strategy: Response to Climate Change* will focus on the following areas:

- **Infrastructure:** Wastewater, drinking water and stormwater infrastructure, including continuing implementation of Climate Ready Water Utilities, WaterSense, green infrastructure, and technical assistance to reduce energy use at water treatment plants.

Geographic Climate Regions (adapted from U.S. Global Change Research Program) and EPA Regions

Climate Regions	EPA Regions
Northeast	1, 2, 3
Southeast	3, 4, 6
Midwest	2, 5, 7
Great Plains	6, 7, 8
Southwest	6, 8, 9
Pacific Northwest	8, 10
Montane	8, 9, 10
Alaska	10
Caribbean Islands	2
U.S. Pacific Islands and Territories	9

- **Watersheds and Wetlands:** Landscape strategies to protect and restore watersheds, including HWI, the Coastal Watersheds Initiative, and LID.
- **Coastal and Ocean Waters:** Programs for coastal wetlands and estuaries, including Climate Ready Estuaries, coastal infrastructure, and ocean water quality issues such as ocean acidification and coral reefs, and the National Ocean Policy.
- **Water Quality:** Support for effective implementation of EPA's water quality programs, including, for example, stormwater management and protecting underground sources of drinking water through the UIC program.
- **Working with Tribes:** Building EPA's understanding and ability to work with tribes to incorporate "traditional ecological knowledge" in the development of adaptation strategies for tribal communities.
- **Regional Strategies:** In addition, EPA Regions will work collaboratively within their 'geographic climate regions' to address strategic issues posed by climate change. Impacts of climate change are often local. Water resource managers are realizing that the new hydrological context is nonstationary, and that adaptation strategies will need to take into account both near- and long-term implications. Water program managers at the local, state, tribal, and federal levels will need to work collaboratively to develop the information, tools and local capacity to make decisions and implement effective programs to address the most critical issues in their communities.