Office of Wastewater Management
2013 Annual Report

EPA United States Environmental Protection Agency

Message from the Director

As I take the helm as Director of EPA's Office of Wastewater Management (OWM), I am pleased for the opportunity to work together with our knowledgeable and dedicated staff and partners to carry on the vital work of this office. I am excited about our efforts to advance OWM's mission through collaboration, new partnerships, dialogue among our various stakeholders, and new ideas derived from OWM's engaged colleagues. Dynamic engagement of essential stakeholders is critical to our mission of safeguarding and maintaining our nation's waterways.

This report highlights OWM's many efforts in fiscal year 2013 to promote effective and responsible water use, treatment, disposal, and management and to encourage the protection and restoration of our water resources.

As you will see, OWM's programs include a variety of regulatory, voluntary, and funding programs designed to make a difference in communities across this nation. We deliver resources, guidance, and pollution control requirements that protect human health and aquatic ecosystems, reduce flooding, and protect this nation's infrastructure investment. Our focus on long-term sustainability of our water environment and the infrastructure that protects it challenges the status quo and encourages innovation, efficiency, and collaborative problem-solving.

OWM's programs support each of EPA's programmatic goals. We help this country mitigate and adapt to climate change by promoting and funding water efficiency and green infrastructure, promoting and funding energy efficiency improvements at wastewater utilities, and using available data and new projections in permitting and funding programs. We improve water quality through all of our programs, with a particular emphasis on the most troubling water quality concerns, including: nutrients, sediments, pathogens, and emerging contaminants. We also reduce exposure to toxic chemicals through our permitting and pretreatment programs.

OWM's accomplishments would not be possible without our amazing staff or our many partners. Integrity, efficiency, and results have been a hallmark of OWM for the past decade and create the foundation on which we are building our future. Through innovation, collaboration, and inclusion we are becoming more effective and more efficient without sacrificing programmatic or personal integrity. By striving to improve clarity and inclusiveness of our internal communications, we are working toward a more effective organization, person by person, team by team.

By taking greater advantage of new technologies and techniques—from our use of social media to data automation and management—we are working toward a more informed world. By identifying common goals and developing joint workplans with an expanded base of partners, we have been able to leverage the diversity of talents, perspectives, and resources our many partnerships bring.

In 2014, OWM will continue to focus on innovative, collaborative, and forward-thinking solutions—encouraging and promoting green infrastructure approaches; integrated planning, wet weather management, and energy- and water-efficiency initiatives; and effective municipal financing mechanisms. Finally, we will continue our focus on stakeholder collaboration—with environmental groups, livestock agriculture stakeholders, private sector groups, local and municipal governments, and others—as we work with our partners from other federal agencies, states, tribes, localities, the private sector, and nongovernmental organizations to clean and safeguard our waterways.

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Andrew D. Sawyers, Ph.D.
Director, Office of Wastewater Management

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About the Office of Wastewater Management

Clean Water is the goal of all OWM programs. Through its programs and initiatives, OWM promotes compliance with the requirements of the Clean Water Act. Overall, OWM's programs are designed to ensure our surface waters protect public health, support economic and recreational activities, and provide a healthy habitat for fish, plants, and wildlife. OWM supports EPA's goals for clean and safe water and healthy communities and ecosystems.

While OWM helps regulate and promote effective and responsible wastewater treatment, our programs consist of more than just wastewater management:

- Over the past 25 years, the **Clean Water State Revolving Fund** programs have provided more than $100 billion in funding to support more than 33,320 low-interest loans for wastewater treatment, control of nonpoint source pollution, and estuary protection.

- Through **WaterSense**, OWM is helping to raise national awareness of water as a valuable resource; encourage water efficiency among utilities, manufacturers, retailers, and consumers; and make it easy for consumers to find products and services that save water while ensuring product performance. To date, the WaterSense program has helped save consumers more than 487 billion gallons of water and over $8.9 billion in water and energy bills.

- Under its **Sustainable Water Infrastructure Program**, OWM is promoting widespread adoption of better utility management practices, water efficiency practices, effective energy management, full-cost pricing, and watershed approaches to reduce costs and increase system investments.

- Through its **Sustainable Communities Program**, OWM is targeting technical and financial assistance with its partners to support water infrastructure development that will reduce health risks and increase economic opportunity for small, underserved communities that face a disproportionate lack of access to safe water or to safe and sustainable wastewater treatment.

- The **National Pollutant Discharge Elimination System Program** controls water pollution by regulating point sources that discharge pollutants into our surface waters. In FY 2013, under the NPDES program, permits that implemented Clean Water Act requirements for industrial sources, municipal treatment plants, and stormwater management prevented the discharge of an estimated 223 billion pounds of pollutants into U.S. waterways.

- OWM's **Green Infrastructure** initiative focuses attention on an approach to wet weather management that treats stormwater as a valuable resource rather than as a problem. It promotes the use of green roofs, rain gardens, porous pavements, and other techniques that result in improved water and air quality, energy and costs savings, enhanced water supplies, habitat creation, and source water protection.

- OWM's **State and Tribal Water Pollution Control (Section 106) Grants** program provides federal assistance to states, territories, interstate agencies, and eligible tribes to establish and implement ongoing water pollution control programs. This financial assistance helps these entities build and sustain effective water quality programs that ensure the current and future health of our nation's water bodies.

The Office of Wastewater Management 's **mission** is to help meet the nation's clean water goals by ensuring that appropriate regulatory standards, voluntary management approaches, information, financial resources, and technical assistance are provided to states, tribes, communities, and regulated entities. OWM and its staff of more than 100 employees promote effective and responsible water use, treatment, disposal, and management and encourage the protection and restoration of watersheds.

In FY 2013, OWM's programs, including state and tribal assistance, accounted for over $1.6 billion, or more than 20% of EPA's budget.

The **Office of Wastewater Management** comprises an Immediate Office of the Director; the Water Permits Division (WPD); the Municipal Support Division (MSD); and the Planning, Information and Resources Management Staff (PIRMS).

The **Municipal Support Division** manages the Clean Water State Revolving Fund program, assists small communities and Indian tribes, U.S./Mexico border communities, and Alaska Native Villages, and implements special appropriations acts projects. Through the WaterSense program, MSD promotes a national ethic of water efficiency and market enhancement for water-efficient products, programs, and practices. The Division works with partners to promote sustainable wastewater infrastructure and improve wastewater management. The Division also maintains and regularly updates inventories and cost estimates of existing and needed future municipal wastewater treatment works and capital investments to meet the goals of the Clean Water Act. In addition, the Division publishes technical information about conventional and innovative municipal wastewater collection systems and treatment technologies and provides support and technical assistance to states, industry, and homeowners to promote the proper management of on-site and decentralized wastewater systems nationwide.

The **Water Permits Division** provides national program direction to the NPDES permit, pretreatment, and sewage sludge management programs under the Clean Water Act. WPD develops regulations, policy, guidance, and national strategies related to NPDES permits; manages national implementation of the NPDES program; and oversees Regional and state operations. The Division also coordinates with the Office of Enforcement and Compliance Assurance to promote compliance with NPDES requirements, and with the Office of Science and Technology in the development of national standards for point sources and indirect dischargers.

The **Program, Information and Resource Management Staff** serves as the staff office to the Office Director and leads a wide range of functions for the office, handling matters relating to policy, budget, administration, information management, strategic planning, communications, technology, regulatory development, and legislation. PIRMS also is tasked with managing the State and Tribal Water Pollution Control Grants program, which provides assistance to states, interstate agencies, and eligible tribes to establish and implement ongoing water pollution control programs.

2013 Program Highlights

Helping Communities Address Their Water Quality Needs: The Clean Water State Revolving Fund (CWSRF) Program Turns 25 — For two and a half decades, the Clean Water State Revolving Fund program has helped communities throughout the nation meet the goals of the Clean Water Act by improving water quality, achieving and maintaining compliance with environmental laws, protecting aquatic wildlife, protecting and restoring drinking water sources, and preserving our nation's waters for recreational use. Building on a federal investment of over $37.4 billion, the state CWSRFs have provided more than $100 billion in funding to communities to ensure public health, protect valuable aquatic resources, and meet environmental standards. The more than 32,800 low-interest loans to approximately 4,880 communities have provided benefits to hundreds of millions of people.

Protecting the Nation's Waters from Ship-borne Pollutants & Reducing Invasive Species — OWM issued a final vessel general permit regulating discharges from commercial vessels, including ballast water, to protect the nation's waters from ship-borne pollutants and reduce invasive species in U.S. waters. The final vessel general permit covers commercial vessels greater than 79 feet in length, excluding military and recreational vessels, and replaced the 2008 vessel general permit, which expired on Dec. 19, 2013. This permit regulates 27 specific discharge categories, and improves the efficiency of the permit process and clarifies discharge requirements for vessel owners and operators.

Expanding Green Infrastructure through Information, Engagement, and Coordination — To help expand the use of green infrastructure, OWM announced in October 2013 that EPA is allocating $400,000 in technical assistance for green infrastructure projects to six communities—Providence, RI; Detroit, MI; Lincoln, NE; Gary, IN; Pima County, AZ; and Spartanburg, SC. This technical assistance continues the Agency's support for communities to encourage them to use green infrastructure to reduce water pollution while increasing economic activity and neighborhood revitalization, job creation, energy savings, and open space. In the last two years, EPA has provided $1.35 million in technical assistance for green infrastructure to more than 20 communities. To share lessons learned from green infrastructure projects, EPA is releasing a series of reports highlighting the work of communities that received technical assistance from EPA in 2012. In 2013, OWM also issued the EPA's *2013 Green Infrastructure Strategy*, which focuses on improved federal coordination, Clean Water Act regulatory support, research and information exchange, funding and financing, and capacity building; and it announced the winners of its first-ever Campus RainWorks Challenge, which is designed to inspire the next generation of architects, planners, and engineers to develop innovative green infrastructure solutions.

Enabling Commercial Kitchens to Become More Water Efficient — OWM has finalized the first WaterSense specification for a commercial kitchen product, enabling pre-rinse spray valves—which remove excess food waste from dishes prior to dishwashing—to earn the WaterSense label and help food service establishments save water, energy, and money. Pre-rinse spray valves can account for nearly one-third of the water used in a typical commercial kitchen. EPA estimates that approximately 51 billion gallons of water is used every year to rinse dishes by close to one million food service establishments in the country. If every U.S. commercial food service establishment installed and used a WaterSense labeled pre-rinse spray valve, we could save more than 10 billion gallons of water, and more than $225 million in water and energy costs annually across the country.

Launching SepticSmart to Encourage Proper Septic System Care & Maintenance — In FY 2013, OWM launched SepticSmart, a nation-wide public education initiative to inform homeowners with septic systems about the importance of properly maintaining their septic system, helping to prevent the release of pollutants and protect public health and the quality of the nation's waters. The initiative also provides resources for local organizations and government leaders to help promote this message locally.

Helping Small & Rural Wastewater Systems Develop Sustainable Managment Solution — OWM and EPA's Office of Groundwater and Drinking Water (OGWDW), together with the U.S. Department of Agriculture's (USDA's) Rural Development – Rural Utilities Service, has launched a suite of tools to help small and rural water and wastewater systems assess their management effectiveness and chart a course for improvement for system sustainability.

Developing Climate Change Adaptation and Mitigation Strategies for the NPDES Program — OWM and EPA's Office of Civil Enforcement worked together to develop strategies for the NPDES permit program to address a number of climate change-related challenges. Clarity is needed for NPDES permit writers and permittees who are faced with a variety of challenges and opportunities. Changes in precipitation, runoff and stream flows, temperatures, sea level rise and water level drops in other water bodies all presage the need for adaptation and resilience mechanisms, including new approaches to estimating low flows for effluent limit calculations or planning for outfall placement as water levels rise or fall. Simultaneously, there are a variety of wastewater treatment alternatives that provide robust mitigation opportunities, such as green infrastructure for wet weather, and methane capture and biogas production for publicly owned treatment works and concentrated animal feeding operations. OWM has completed a preliminary evaluation of climate change-related implications for the NPDES program, and is partnering with internal and external collaborators on research, tools development, and support for permit writers and permitees.

Clean Water State Revolving Fund Program

Since the inception of the Clean Water State Revolving Fund (CWSRF), the CWSRFs have helped communities throughout the nation meet the goals of the Clean Water Act by improving water quality, achieving and maintaining compliance with environmental laws, protecting aquatic wildlife, protecting and restoring drinking water sources, and preserving our nation's waters for recreational use. In 2013, the CWSRFs provided approximately $4.6 billion in financing through 1,477 assistance agreements.

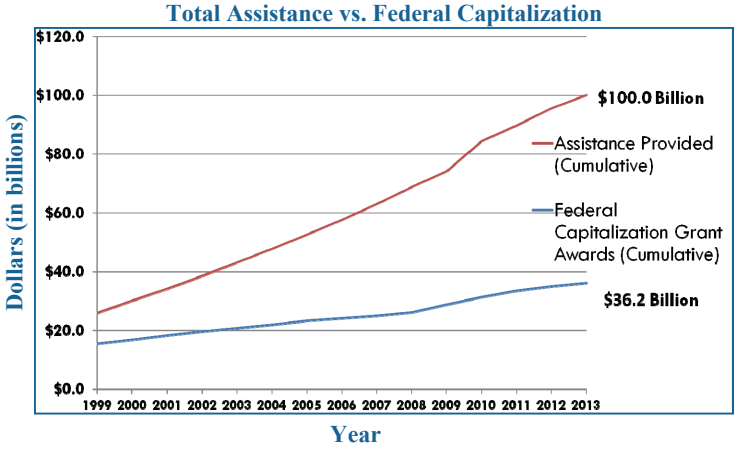
25 Years of Supporting our Nation's Water Infrastructure Needs— For two and a half decades, this successful federal-state partnership has helped provide communities a permanent, independent source of low-cost financing for a wide range of water quality infrastructure projects.

Over half of the CWSRF assistance, $54.8 billion, has gone towards improving wastewater treatment plants and advanced wastewater treatment practices. More than $23 billion has gone toward addressing sanitary and combined sewer overflows, and an additional $4.2 billion has gone toward addressing nonpoint sources of water pollution, such as stormwater runoff from urban areas, and protecting and restoring our estuaries.

Through its Green Project Reserve, the CWSRFs have provided more than $2.5 billion in funding for green infrastructure, water efficiency improvements, energy efficiency improvements, and other environmentally innovative activities since the reserve was initiated in 2009.

CWRSFs Reach Historic $100 Billion Milestone — In 2013, the CWSRFs reached a significant milestone by providing over $100 billion in cumulative funding for projects that help communities throughout the nation ensure public health, protect valuable aquatic resources, and meet environmental standards. This remarkable level of assistance was due to the ability of the CWSRFs to proceeds, sound investments, and loan repayments. For every dollar that has been awarded to the CWSRF programs through capitalization grants, nearly $2.80 has been committed to CWSRF projects.

Cumulative CWSRF Funding Provided 1999-2013: Total Assistance vs. Federal Capitalization



Serving Small and Disadvantaged Communities — CWSRF programs are able to provide low-cost infrastructure financing where it is needed most. States have the flexibility to fund small systems and those serving disadvantaged communities, which typically have fewer financing options. Since the program's inception, nearly $23.3 billion in CWSRF funding has been directed to communities with a population of less than 10,000 for needed wastewater infrastructure and other water quality projects. Starting in 2009, the CWSRFs were given the ability to provide further financial assistance through additional subsidization. To date, over $3.8 billion in additional subsidization has been provided to various communities in the form of principal forgiveness or grants.

Expanding Nontraditional Eligibilities: CWSRF Green Paper — Building upon 25 years of outstanding performance, the CWSRFs continue to explore ways for providing affordable financial assistance to meet the nation's most pressing needs while also maintaining the fiscal integrity of the CWSRF programs. To support these efforts, OWM has revisited the previous work that has been done on promoting nontraditional eligibilities to update them with new, innovative ideas and to clarify various financing mechanisms within the program. A draft is scheduled to be completed in early 2014.

Disaster Relief Appropriations Act Provides $474 Million To Promotes Recovery and Resilience Within the CWSRF Community — On January 29, 2013, the President of the United States signed into law P.L 113-2, a supplemental appropriation for FY 2013. Included in this appropriation was the Disaster Relief Appropriations Act (DRRA), which provided $474 million to EPA's Clean Water State Revolving Fund to finance projects that reduce flood damage risk and enhance resiliency to rapid hydrologic change or natural disasters at wastewater treatment works. Communities in New York and New Jersey are in the process of identifying projects and determining how federal and state relief funds from different sources can best be allocated. As the DRRA funds are distributed, EPA will work with federal and state partners to focus financial resources where they can efficiently and successfully adapt wastewater systems to the impact of climate change and serve as a model for future disaster preparedness.

WaterSense Program

WaterSense is a national symbol for water efficiency among utilities, plumbing manufacturers, retailers, and consumers. WaterSense labeled products and new homes have helped consumers save billions of gallons of water. Through December 2012, WaterSense has helped consumers save a cumulative 487 billion gallons of water and over $8.9 billion in water and energy bills. Additionally, reductions of 64.7 billion kWh of electricity and 24 million metric tons of carbon dioxide were achieved through the use of WaterSense labeled products.

Best Management Practices for Commercial & Institutional Facilities — In November 2012, WaterSense released *WaterSense at Work: Best Management Practices for Commercial and Institutional Facilities* to help facility owners, operators, designers, and managers better understand and manage their water use, establish an effective water management program, and identify products and practices that can reduce water and energy use. By taking steps to use less water, these facilities can save on operating costs and get a green building edge.

WaterSense Labeled Units in Multi-Family Buildings — On January 1, 2013, homes in multi-family buildings became eligible for the WaterSense label. WaterSense labeled new homes allow residents to enjoy the comforts of home while saving water and energy inside and out by using WaterSense labeled plumbing fixtures, efficient hot water systems, and low-maintenance/water-smart landscapes. More than 200 families now live in WaterSense labeled single family homes, apartments, and condominiums. These residents can save up to 50,000 gallons of water annually and up to $600 each year on their utility bills compared to residents living in a traditional home.

Fifth Annual Fix-A-Leak Week— WaterSense held its fifth annual Fix-a-Leak Week, March 18 to 24, 2013, to encourage Americans to conserve water by checking water bills and fixtures for water waste, twisting and tightening pipe and hose connections, and considering replacing broken or inefficient fixtures with WaterSense labeled models. Taking these simple steps can save households more than 10,000 gallons of water and as much as 10% on utility bills annually.

First WaterSense Labeled Product Available for Commercial Kitchens — In September 2013, OWM finalized the first WaterSense specification for a commercial kitchen product. Pre-rinse spray valves—which remove excess food waste from dishes prior to dishwashing—are now eligible to earn the WaterSense label and help food service establishments save water, energy, and money. Pre-rinse spray valves can account for nearly one-third of the water used in a typical commercial kitchen. If every U.S. commercial food service establishment installed and used a WaterSense labeled pre-rinse spray valve, we could save more than 10 billion gallons of water, and more than $225 million in water and energy costs annually across the country.

Revised Specifications for Professional Certification Programs — In September 2013, OWM released a Draft Professional Certification Program Labeling System, and three draft revised specifications for professional certification programs. The draft labeling system and revised specifications create a consolidated and common set of requirements that complement and streamline each of the WaterSense program specifications. Implementing such changes will enable WaterSense to ensure both a base level of organizational competency among professional certifying organizations regardless of the type of professional certification program that earns the WaterSense label and consistency in the evaluation of professional certification programs.

2013 Partners of the Year — WaterSense has partnered with more than 2,700 partners—manufacturers, retailers and distributors, local and state governments, utilities, water districts, trade associations, nonprofits, certified irrigation professionals, professional certifying organizations, licensed certification providers, and builders—to encourage water-efficient behaviors and the purchase of quality products that use less water. In 2013, WaterSense initiated its highest level of recognition by presenting recognized **Sustained Excellence Awards** to Kohler Co. and Lowes Inc. for their continuous high level of support.

Seven partners were recognized as **Partner of the Year**:

- **Promotional Partner of the Year:** Athens-Clarke County (Georgia) Public Utilities Department
- **Large Manufacturer Partner of the Year:** Delta Faucet Company
- **Small Manufacturer Partner of the Year:** Niagara Conservation Corp.
- **Retailer Partner of the Year:** The Home Depot
- **Builder Partner of the Year:** KB Home
- **Professional Certifying Organization of the Year:** The Irrigation Association
- **Irrigation Partner of the Year:** John Taylor

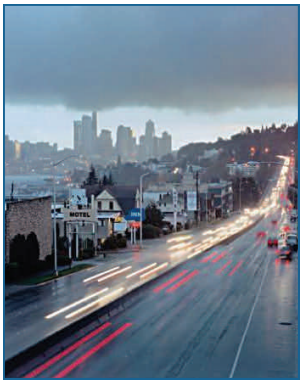
WaterSense also presented six **Excellence Awards**, which recognize additional organizations and individuals whose support stood out in one or more evaluation categories:

- **Excellence in Promoting WaterSense Labeled Products:** City of Boulder (Colorado) Public Works/Utilities
- **Excellence in Strategic Collaboration:** Colorado Springs Utility (Colorado)
- **Excellence in Education and Outreach:** Public Service Commission of Wisconsin & Town of Sharon (Massachusetts)
- **Excellence in Promoting WaterSense & Water-Efficient Irrigation Practices:** Sonoma-Marin (California) Saving Water Partnership
- **Excellence in Construction of Affordable WaterSense Labeled New Homes:** Habitat for Humanity of Metro Denver (Colorado)

Municipal Program

Urban wet weather sources remain an important EPA priority because of the potential impacts on human health and the environment. Stormwater is a source of water quality impairment for over 22,000 miles of river and streams, over 700,000 acres of lakes, and over 800 square miles of estuaries. Stormwater runoff is generated when precipitation does not percolate into the ground. As it flows, the runoff collects debris, chemicals, and other pollutants and is discharged, often untreated, into the nation's waters. Urban wet weather sources are among the most significant sources of water pollution today that EPA can address through the Clean Water Act. In addition to the water quality problems, stormwater runoff reduces groundwater recharge and can increase flooding and associated damage.

Strengthening Stormwater Program — EPA continues to evaluate options for revising and strengthening its stormwater program. The Agency conducted analyses to determine the costs and benefits of establishing a retention-based standard for new and redeveloped projects, and met with stakeholders on numerous occasions to obtain their input on possible rulemaking provisions.



Integrated Planning for Stormwater Management — During FY 2013, EPA worked with states, municipalities, and stakeholders to implement the integrated planning framework that was finalized in FY 2012. EPA developed a Q&A document to clarify several aspects of the framework, participated in workshops sponsored by the National Association of Clean Water Agencies, and met with local governments and other stakeholders to discuss how to consider a community's financial circumstances when developing schedules for integrated plans. On January 18, 2013, EPA issued memorandum to the EPA Regions that transmitted a financial capability framework document, which identifies various implementation issues as well as some more ways to present additional information as part of a financial capability analysis. EPA will continue its dialog with stakeholders on this topic in FY 2014.

Forest and Logging Roads — In December 2012, EPA revised its Phase I stormwater regulations to clarify that a NPDES permit is not required for stormwater discharges from logging roads. EPA took this action in response to *Northwest Environmental Defense Center v. Brown*, in which the court held, contrary to EPA's intent, that stormwater runoff from certain logging roads is a point source discharge of industrial stormwater that requires an NPDES permit.

Draft 2013 Multi-Sector General Permit — In September 2013, EPA proposed an updated draft permit to regulate stormwater discharges from industrial activities. The proposed permit will help protect our nation's waterways from industrial sector pollutants, which can contribute to aquatic ecosystem degradation, increase drinking water treatment costs, and impair the recreational use and aesthetic value of waterways. The permit covers 29 different sectors of industrial activity and, once finalized, will be in effect in the four states and other territories and areas where the EPA is the permitting authority. The 2013 MSGP provisions are largely similar to the 2008 MSGP; however, changes were made to streamline the permit and improve permit clarity and enforceability.

Green Infrastructure — Green Infrastructure (GI) uses vegetation and soil to manage rainwater where it falls, keeping polluted stormwater from entering sewer systems and waterways in local communities. Communities are increasingly using GI to supplement or substitute for single-purpose "gray" infrastructure investments. EPA is a strong supporter of such practices.

- In April 2013, OWM announced the **winners of the first annual Campus RainWorks Challenge**, a new design competition to inspire the next generation of landscape architects, planners, and engineers to develop innovative GI systems to mitigate the impacts of urban stormwater while supporting vibrant, sustainable communities. Over 200 student teams participated, and four winners were chosen: Illinois Institute of Technology, University of Florida, Missouri University of Science and Technology, and University of Arizona.
- In September 2013, OWM launched its **second annual Campus RainWorks Challenge**. The challenge was expanded to include two competition categories: Master Plan and Site Design.
- In October 2013, OWM released EPA's **2013 Green Infrastructure Strategy**. The strategy builds on the previous 2008 and 2011 GI strategies, maintaining a focus on information exchange and community engagement while focusing on improving federal coordination, Clean Water Act regulatory support, research and information exchange, funding and financing, and capacity building.
- In October 2013, OWM announced that EPA is allocating $400,000 in **technical assistance** to six communities to help expand their use of green infrastructure. The six communities include: Providence, RI; Detroit, MI; Lincoln, NE; Gary, IN; Pima County, AZ; and Spartanburg, SC. In the last two years, EPA has provided $1.35 million in assistance to more than 20 communities.
- In October 2013, OWM began releasing a **series of reports** highlighting the work of communities that received GI technical assistance from EPA in 2012 to share lessons learned.
- In October 2013, Onondaga County, NY, and EPA **hosted a meeting in Syracuse** of EPA's GI community partners and technical assistance recipients, and representatives from EPA's Urban Waters partnership communities. The meeting allowed these groups to engage in a peer-to-peer exchange about their experiences implementing GI in an effort to foster dialogue among communities with on-the-ground experience working with green projects to help increase the rate at which GI is adopted across the country.

Industrial Program

Industrial wastewater discharges may contain pollutants that affect the quality of receiving waters and/or the effectiveness of wastewater treatment. The industrial program works to protect and improve water quality through technology and water quality based permitting of direct discharging industrial sources such as manufacturing facilities, vessels, coal mines, shale gas extraction operations, and steam electric power plans. It also includes the National Pretreatment Program, which regulates thousands of industrial operations that discharge into municipal sewers that flow to sewage treatment works.

Vessel General Permit – On March 28, 2013, OWM issued the final vessel general permit (VGP) regulating discharges from commercial vessels, including ballast water, to protect the nation's waters from ship-borne pollutants and reduce invasive species in U.S. waters. The final VGP covers commercial vessels greater than 79 feet in length, excluding military and recreational vessels, and replaced the 2008 vessel general permit, which expired on December 19, 2013.

The final permit reduces the administrative burden for vessel owners and operators, eliminating duplicative reporting requirements, clarifying that electronic recordkeeping may be used instead of paper records, and streamlining self-inspection requirements for vessels that are out of service for extended periods. The permit continues to regulate the 26 specific discharge categories that were contained in the 2008 permit and, for the first time, would provide coverage for fish hold effluent in the event that a permitting moratorium currently in effect expires in December 2014.

A key new provision of the permit is a numeric standard to control the release of non-indigenous invasive species in ballast water discharges. The new ballast water discharge standard addressing invasive species is based upon results from independent EPA Science Advisory Board and National Research Council National Academy of Sciences studies. These limits are generally consistent with those contained in the International Maritime Organization's 2004 Ballast Water Convention. The new standard is expected to substantially reduce the risk of introduction and establishment of non-indigenous invasive species in U.S. waters. Additionally, the final VGP contains requirements to ensure ballast water treatment systems are functioning correctly. The final permit also provides additional environmental protection for certain vessels. For example, certain high-risk vessels entering the Great Lakes must conduct additional management measures to reduce the risk of introducing new invasive species to our waters.

Reducing Vessel Discharges of Oily Lubricants – The 2013 VGP requires that environmentally acceptable lubricants (EALs) be used in all oil-to-sea applications unless their use is technically infeasible. EALs are defined in the VGP, and these products must meet specific criteria for being biodegradable, minimally-toxic, and non-bioaccumulative. Every year, approximately 5 to 30 million liters of oil leak into aquatic ecosystems from vessel stern tubes, one of many "oil-to-sea interfaces." Unquantified volumes of oils leak from other oil-to-sea interfaces, including vessel thrusters, propulsion pods, wire ropes, and below water line machinery.

OWM and EPA's Design for the Environment (DfE) Program have partnered to lead and implement a unique pollution prevention approach that is reducing both the volume of these oily discharges and the toxicity of those discharges into surrounding waters, using the strengths from their regulatory authorities and voluntary labeling programs. Utilizing programs focused on multi-pollutant impacts, these efforts have resulted in a significant long-term reduction in the impact of chronic oily discharges to our waters. This first such regulatory requirement in the world, partnered with a voluntary implementation program to ease regulatory compliance, has resulted in meaningful reduction in oil pollution impacts.

Draft Small Vessel General Permit – OWM has developed a draft small Vessel General Permit (sVGP), which would regulate discharges from commercial vessels, excluding military and recreational vessels. Currently, except for ballast water discharges, NPDES permits are not required for any discharges incidental to normal operation of commercial fishing vessels and other non-recreational vessels less than 79 feet. However, unless Congress takes additional action, a moratorium from the requirement to obtain permit coverage for incidental discharges from these vessels will expire on December 18, 2014. In anticipation of the end of the moratorium, OWM published the draft sVGP in 2013, and intends to finalize the sVGP early in 2014.

Pretreatment Program – During FY 2013, OWM provided outreach, training, and technical assistance to the public, EPA Regions, and states on implementing pretreatment programs, effluent guidelines, and general NPDES issues through a variety of venues, including webinars and speaking engagements, such as the National Association of Clean Water Agencies national pretreatment conference. This year, OWM also continued its popular Pretreatment 101 webinar series with a session on "POTW Pretreatment Considerations & Permitting Programs for Hauled Waste."

Rural Program

The rural program strives to protect and improve water quality by developing and implementing NPDES programs to assist rural areas and rural populations. The program develops regulations, policies, technical implementation guidance, and outreach for EPA Regions, states, and the general public. In addition, the program focuses on innovative approaches for working with the agricultural community.

Livestock Water Quality Blueprint — Working closely with EPA's Office of Wetlands, Oceans, and Watersheds (OWOW) and the Administrator's Agricultural Advisor, OWM is working cooperatively with livestock agriculture stakeholders to develop and implement approaches that improve the environmental performance of animal agriculture through voluntary initiatives and improved regulatory programs. Voluntary initiatives complement and enhance the permitting, compliance assistance, and enforcement programs of EPA and the states. The blueprint being developed will advance voluntary action and includes four key elements: partnership projects, maintaining a collaborative working relationship with livestock agriculture stakeholders, recognizing leading environmental stewards from the livestock sector, and planning for a national water quality best practices conference. Partnership projects build trust and effective working relationships through training programs, communications, and support for the development of on-farm tools, all designed to advance water quality best practices.

CAFO Permitting — During FY 2013, OWM continued to work with states and livestock producers to help producers better understand and comply with the 2008 Concentrated Animal Feeding Operations (CAFO) Rule.

- **Development of State AFO/CAFO Compendium:** OWM completed a comprehensive summary of state CAFO and animal feeding operation programs, summarizing innovative programs, including manure transfer programs, to assist states that are interested in implementing similar programs.
- **Technical Standards Review:** OWM reviewed each state's technical CAFO standards to ensure that producers and other stakeholders possess the most recent information to calculate manure application rates for their nutrient management plans.

Environmental Markets — OWM continues to support the work of OWOW and U.S. Department of Agriculture programs to develop and advance water quality trading and related environmental markets. This effort focuses on the development of markets that involve the participation of agricultural producers, providing a financial incentive for improved environmental performance beyond regulatory compliance.

Implementing the 2011 Pesticide General Permit (PGP) — In FY 2013, OWM continued to implement its NPDES Pesticide General Permit for point source discharges from the application of pesticides to the waters of the United States, which it issued in October 2011. The permit requires operators to minimize discharges through the use of pest management measures and to monitor for and report any adverse incidents. On June 21, 2013, OWM also issued a final rule to remove language from NPDES regulations that exempted pesticide operators from needing a permit for discharging pesticides to waters of the United States. This action was in response to a 2009 decision by the Sixth Circuit Court of Appeals in *National Cotton Council, et al, v. EPA.* To assist operators that need to submit an annual report under EPA's PGP, in January 2013, OWM updated its online electronic Notice of Intent (NOI) system to allow for electronic submissions. In addition, OWM conducted a webcast, published a tutorial and updated its Q&A document to guide operators on how to file electronic annual reports. In FY 2013, EPA received a total of 291 NOIs and 196 annual reports.

Aquaculture Permitting — Aquaculture, especially marine net pen fisheries, is an emerging focal area for economic development and, thus, environmental protection. OWM is participating in a federal agency task force, and has taken the lead on an initiative to streamline federal permitting of net pen facilities. These efforts include: an evaluation of water quality protection measures to meet the requirements of all federal agencies, collaboration with fisheries industry representatives, and development of a permitting process that dovetails regulatory requirements. In support of an expanded role in the aquaculture sector, OWM is also supporting the development of regional permits for concentrated aquatic animal production facilities, and developing a website for disseminating information.

Ten-year Review of the 2003 NPDES CAFO Rule — OWM is conducting a procedural review of EPA's 2003 NPDES regulations for CAFOs, pursuant to Section 610 of the Regulatory Flexibility Act (RFA). Section 610 of the RFA requires that federal agencies review rules that could potentially have economic impacts to small entities within 10 years to decide whether the rules should continue unchanged, be amended, or be withdrawn. Per the requirements of the RFA, OWM solicited comments on the continued need for the rule; the nature of complaints or comments received concerning the rule; the complexity of the rule; the extent to which the rule overlaps, duplicates, or conflicts with other federal, state, or local government rules; and the degree to which the technology, economic conditions, or other factors have changed in areas affected by the rule. Results of the review are anticipated early in 2014.

State and Regional Permitting Program

The State and Regional Branch provides technical and policy support to help implement the NPDES permit program. Through coordination with states and EPA Regions, the program guides the consistent and effective translation of water quality goals and standards into permit limits and conditions. It resolves legal barriers that prevent optimal program implementation and provides proactive and consistent management of external legal drivers. It also provides timely information on the integrity of NPDES program implementation while working cooperatively to produce efficient processes and measurable results.

Strengthening NPDES Permit Program — OWM continues to collaborate with OECA to implement the *Clean Water Act Action Plan* and improve NPDES processes. Throughout FY 2013, OWM collaborated with OECA's Office of Compliance to review existing EPA-state memoranda of agreement (MOAs), which help govern how the EPA and authorized states interact to implement the state's NPDES program, to ensure that they reflect current program requirements and facilitate effective implementation.

In FY 2013, OWM continued to work with the EPA Regions and states to address petitions for withdrawal of state NPDES programs. OWM worked with Regions to resolve four petitions (Virginia, Kentucky, and Florida (2)) and made significant progress on five others. OWM also issued a memo clarifying its expectations for identifying and managing petitions, and to foster transparency, it launched a website providing key documentation for petitions.

Reinventing EPA's Process for Assessing Permit Quality — FY 2013 saw a maturation of EPA's processes for ensuring the quality and integrity of NPDES permits. OWM completed the transition from a Headquarters- to a Region-led process for permit quality reviews (PQRs). It continued refining the PQR procedures and tools in response to input from the Regions, sharing this information on line. During 2013, OWM and the Regions completed 14 PQR site visits.

In FY 2013, EPA recalibrated its efforts to integrate oversight processes with OECA. While remaining committed to coordination with OECA on ensuring the quality and integrity of NPDES permits, the two offices, in response to feedback from the Regions, recognized the value of decoupling the PQR process from OECA's State Review Framework in order to promote the greatest amount of flexibility in how programs are assessed.

OWM continued to refine and use management systems that provide summary and trend information regarding state program performance and permit quality. To meet GPRA requirements, support EPA and OW strategic planning, and satisfy its program management objectives, OWM continue to refine its measures for permit backlog, priority permits, and action items to ensure that its accountability measures for permits and permittees reflect the most important environmental and programmatic priorities.

Providing Robust NPDES Tools, Training, & Technical Assistance — OWM continued its close collaboration with the Office of Science and Technology (OST) to ensure that the criteria, standards, and implementation guidance they developed (e.g., water quality criteria for ammonia) could be implemented through water quality-based requirements in NPDES permits.

In FY 2013, OWM conducted six week-long NPDES Permit Writers Courses throughout the country, providing basic NPDES training to over 200 students. OWM continues to offer a web-based version of the full permit writer's training course; in FY 2013, online students completed over 400 NPDES course modules. Recognizing that the value of the web-based training is likely to increase as travel funds become more constrained, OWM is re-recording all of the course modules to ensure they reflect the latest information. OWM also provided targeted training modules on NPDES permitting for whole effluent toxicity to state staff in Region 7, in April 2013, and piloted a new, one-day workshop on nutrient permit limits for permit writers in July 2013, which will be expanded and continued in 2014.

Coordination on Water Quality Issues – In the interest of a cohesive national water program, OWM invests heavily in coordination with programs in OST—including methods, criteria, and standards—and OWOW—including monitoring and TMDLs. In FY 2013, OWM participated in workgroups for development of water quality criteria for pathogens, ammonia, and selenium, all of which have implications for NPDES permit limits. OWM worked with OST to support the Regions and states in implementing whole effluent toxicity limits. OWM also laid groundwork for a robust partnership with OST, OWOW, Regions, and states in addressing nutrient pollution, perhaps the most pressing water quality problem EPA will confront in the next few years.

Improving Implementation of Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) in Permits — OWM, OWOW, and the EPA Regional Offices collaborated to more effectively implement TMDL WLAs. These offices worked together to review draft TMDLs and improve data management. They also collaborated on supporting permit writers in developing effective, defensible WQBELs as well as other permit provisions to meet water quality objectives and in gathering monitoring data and other relevant information to aid in TMDL development.

Electronic Applications and Reporting — OWM and OECA continued their close collaboration on the transition from paper to electronic reporting for NPDES permittees. This included support for OECA's proposed rule on electronic reporting, which was published July 30, 2013. OWM also coordinated with OECA on enhancements, new releases, and new development for modules to support electronic Notices of Intent for the Construction General Permit, Multi-Sector General Permit, Pesticides General Permit, and Vessels General Permit.

State and Tribal Water Pollution Control Grants

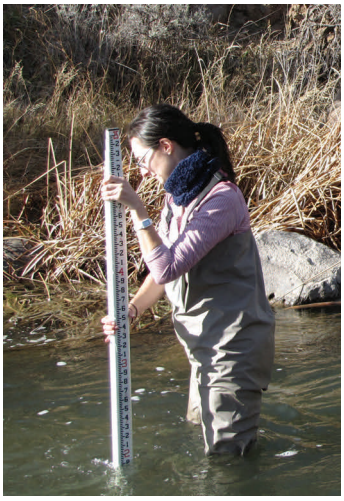
Section 106 of the Clean Water Act authorizes EPA to provide federal assistance to states (including territories and the District of Columbia), interstate agencies, and eligible tribes to establish and implement ongoing water pollution control programs. Prevention and control measures supported by water pollution control programs include ambient water quality monitoring, water quality standards and Total Maximum Daily Load (TMDL) development, NPDES permitting and enforcement, advice and assistance to local agencies, training, and public information. Due to sequestration, in FY 2013, there was a 5% ($13 million) reduction in Section 106 grant funds. EPA provided $225 million in Section 106 funding to states, interstate agencies, and tribes to prevent and control water pollution in FY 2013.

State and Interstate Water Pollution Control Grants — Increasingly, EPA and states are working together to develop basin-wide approaches to water quality management. The Section 106 Grant Program is helping to foster a watershed protection approach at the state level by looking at states' water quality problems holistically and targeting the use of limited finances available for effective program management. In FY 2013, EPA provided more than $183 million in Section 106 grant funding to states and interstate agencies to help protect and restore water bodies.

Tribal Water Pollution Control Grants — For tribes, Section 106 grants are a crucial, dedicated source of funding for developing, maintaining, and expanding programs designed to prevent, control, and eliminate water pollution. Tribes began receiving Section 106 funds in 1989. In FY 2013, the tribal set-aside was approximately $25.5 million.

Of the 565 federally recognized tribes, approximately 350 meet the criteria to receive Section 106 funding, and 75% (265) of these tribes were eligible to receive grants in FY 2013. Tribes across the country are using Section 106 grants to identify and proactively address water quality priorities and concerns.

State and Tribal Water Monitoring Initiative — Using approximately $17.5 million in FY 2013, OWM and OWOW continue to work with states and tribes to enhance their water quality monitoring programs and implement a multi-year statistically valid survey of the nation's waters. In FY 2013, states and tribes conducted sampling and reported water quality monitoring data for the rivers and streams survey. The monitoring initiative allows EPA, states, and tribes to continue to report on the condition of the nation's waters and make significant progress toward assessing trends in water condition in a scientifically defensible manner.

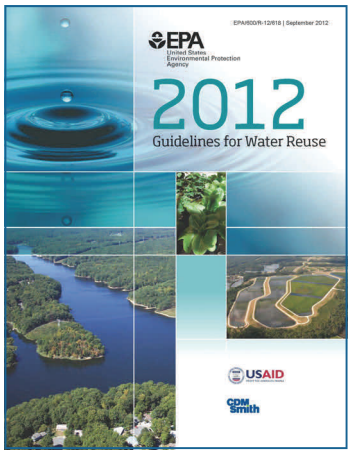


State Water Quality Management Resource Study — OWM is partnering with the Association of Clean Water Administrators and the Environmental Council of States to update and quantify current and future expenditures and resources for the management of state water quality programs, and to quantify the resources needed to fully implement the Clean Water Act. The new EPA/state task force is updating the 1998 Resource Analysis based on recommendations from a third-party review by the National Academy of Public Administrators, which concluded that the effort was well designed and executed. With the results of the review, the task force is moving forward to improve collaboration and cultural learning, fine-tune tools and methods for estimating state resource needs, and improve the effectiveness of water quality programs. The resource study will provide critical information on state expenditures and needs for Clean Water Act programs.

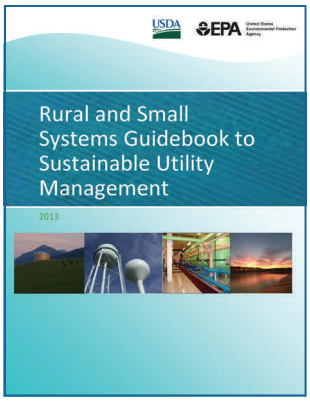
Sustainable Water Infrastructure Management Program

Our nation's water infrastructure systems are aging, and many will be reaching the end of their useful life span in the next 20 to 40 years. To address the mounting needs, OWM is collaborating with the Office of Ground Water and Drinking Water and other federal agencies and across the infrastructure industry to change the way the country views, values, and manages its water infrastructure and to ensure that this infrastructure also supports sustainable communities.

Water Reuse — Although there are no existing federal regulations on water reuse, EPA has developed guidelines that describe the types of reuse applications, technical and legal issues in the U.S., public involvement, and water reuse in other countries. In October 2012, EPA's Office of Research and Development and Office of Water released the Agency's *2012 Guidelines for Water Reuse*. The 2012 reuse guidelines build on the Agency's previous reuse guidelines issued in 2004, incorporating information on water reuse that has been developed since the 2004 document was issued. In addition to summarizing the existing regulations in the U.S., the document includes water reuse practices outside of the U.S., over 100 new case studies, information on planning for future water reuse systems, and information on indirect potable reuse and industrial reuse.

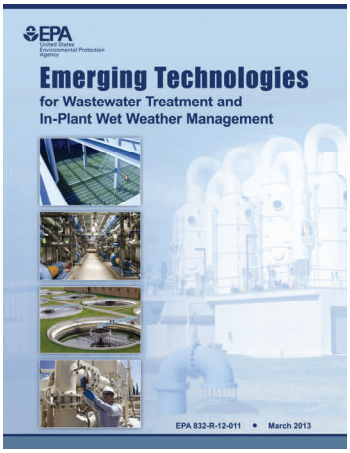


Sustainable Management of Rural and Small Systems— Working closely with the U.S. Department of Agriculture (USDA) and OGWDW, OWM developed two major publications designed to help rural and small systems sustainably manage their operations. The first, called the *Rural and Small Systems Guidebook to Sustainable Utility Management* helps small systems comprehensively assess their current operations, using 10 key management areas that cover all aspects of system operations and use the results of the assessment to chart a course for improving their effectiveness. The guidebook was developed with extensive input from managers of rural and small systems through a series of workshops sponsored by EPA, USDA, and various technical assistance providers like the National Rural Water Association, Rural Community Assistance Program, and others. The second, called the *Workshop in a Box* contains materials designed to help assistance providers conduct workshops on their own, using the guidebook. EPA and USDA are now working with the EPA Regions, states, and technical assistance providers to promote the use of these important documents. A train the trainer webinar is scheduled for January 2014, and additional workshops with rural and small systems will take place in 2014.



Clean Watersheds Needs Survey (CWNS) — Data for the 16th CWNS was collected January – December 2012. Conducted every four years, the survey estimates the capital infrastructure investments needed nationwide for wastewater and stormwater pollution control infrastructure. During FY 2013, the survey data were reviewed to ensure data quality, and the results were analyzed to prepare the upcoming report to Congress. Additionally, state and Regional CWNS coordinators met in Washington, DC, in July 2013, to discuss the states' experiences with the 2012 CWNS in order to improve future data collection.

Engineering & Technology — OWM continues to support EPA's goal to help wastewater utility owners and operators become more energy self-sufficient through energy conservation and renewable energy technologies. In April 2013, OWM released the report, *Emerging Technologies for Wastewater Treatment and In-Plant Wet Weather Management*, to assist municipal wastewater utility owners and operators, local governments, engineers, and planners find information on new wastewater treatment and in-plant wet weather management technologies. The document includes technical and cost information to assist users in considering using more efficient, sustainable, and cost-effective wastewater treatment and in-plant wet weather management technologies. In August 2013, OWM released an addendum to the report, providing additional information on emerging technologies to reflect new and more current information.



In FY 2013, OWM also released a series of new and updated fact sheets on renewable energy, including: hydropower from wastewater, solar cells, fuel cells, microturbines, wind turbines, and viable auxiliary power sources.

Sustainable Communities Program

Reliable, affordable water and wastewater services are critical to a community's quality of life. Many small and rural communities, including communities in Indian Country and along the U.S./Mexico border, struggle with aging, inadequate, or no access to safe water and basic wastewater services and have difficulties recruiting and retaining qualified staff and sustaining financial reserves to maintain the water infrastructure they have. Residents in these communities face increased health risks and substantial economic challenges compared to the rest of the U.S. The Sustainable Communities Program provides financial and technical assistance to help these communities establish and improve their wastewater services, lower their risk of disease, and reap the associated economic benefits.

U.S.-Mexico Border Water Infrastructure Program — The U.S.-Mexico Border Water Infrastructure Program funds planning, design, and construction of critical water and wastewater treatment facilities, often providing first-time access to safe treatment. EPA uniquely improves water quality in the U.S. by funding selected projects in Mexico to prevent pollution from entering U.S. waters where rivers flow north into the U.S. or waters are shared. Since 1997, the program has completed 84 projects benefitting over 8 million people. In FY 2013, EPA invested $4.7 million, and 3,400 homes received first-time access to safe drinking water and more than 25,000 homes received first-time access to wastewater collection and treatment. With 23 projects under construction and 26 communities conducting planning and development for future construction, program investments benefit the U.S. by over $6 million annually from avoided disease and over $13 million from ecological improvements. The Mexican financial contribution for Mexican projects is three times that of EPA's U.S.-Mexico Border Water Infrastructure Program.

Federal Tribal Infrastructure Task Force: Improving Access to Safe, Sustainable Water Facilities in Indian Country — In April 2013, EPA signed an MOU with the USDA, Department of Housing and Urban Development, Department of Health and Human Services, and Department of Interior to renew their commitment to work together to improve and sustain safe water, wastewater, and solid waste treatment services for tribal communities. The MOU partners affirmed their continued efforts to work together to reduce the number of tribal homes lacking access to safe water and basic sanitation and support tribes in developing and maintaining sustainable management entities for these services. The partnership has supported the development of a common Preliminary Engineering Report template, launched research to determine the true costs of operating and maintaining tribal systems, and developed an online, coordinated directory of regional federal contacts for operators to exchange information and get technical assistance.

Clean Water Indian Set Aside (CWISA) and Alaska Native Villages (ANV) Grant Programs — OWM's CWISA Grant Program is dedicated to the planning, design, and construction of critical wastewater treatment systems for American Indians and Alaska Natives. In FY 2013, in partnership with other federal agencies, EPA awarded $27 million to fund 77 wastewater treatment construction projects that will improve wastewater service to over 13,000 tribal homes, with 60% of the projects providing first-time access to safe wastewater services.

The ANV Grant Program funds construction, planning, and design for water and wastewater treatment along with training and technical assistance for the over 240 ANVs and 60 non-native underserved communities. EPA awarded $9.5 million in FY 2013 to fund 10 projects, with about a fifth of the homes receiving first-time service. The program also uniquely funds education, training, and management programs for nearly 200 communities, and has supported the doubling of certified operators in Alaskan Rural Villages since 1992 and has seen a decrease in the number of non-compliant systems by about 80% since 2006. Residents of these communities have seen reduced health risks including reduced infectious disease hospitalization rates.

SepticSmart Program Launches — Over a quarter of the residences in the U.S. have septic systems. Proper system maintenance helps prevent the release of pollutants and protects public health and the quality of the nation's waters. In November 2012, OWM launched "SepticSmart," nation-wide initiative to inform homeowners of simple actions they can take to ensure their systems function well. SepticSmart also provides resources for outreach organizations and government leaders to promote this message locally. EPA held its first annual SepticSmart Week, September 23-27, 2013. Partnering with its Decentralized MOU partners, EPA got the word out via the web and social media, encouraging homeowners to get SepticSmart.

Model Program to Assist State Septic Programs in the Chesapeake Bay Watershed — In September 2013, OWM released the final *Model Program for Onsite Systems Management in the Chesapeake Bay Watershed*. The model program compiles valuable elements of a model state program for managing septic systems and other onsite wastewater treatment, incorporating key recommendations to effectively and efficiently manage nitrogen treatment systems. EPA's model program provides "state of the art" tools and approaches from which states can choose to more effectively manage nutrients entering the Bay from onsite systems and help improve water quality in the Bay.

Office of Wastewater Management
1200 Pennsylvania Avenue, NW (4201M)
Washington, DC 20460
EPA 832-R-14-002
February 2014

http://water.epa.gov/resource_performance

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