U.S. Environmental Protection Agency's Protecting America's Waters Story Map
Text-only File

Homepage:

Protecting America's Waters

Welcome! This story map highlights the progress made to advance clean water protection and provide Americans with safe drinking water since 2008. To view this story map, please use the left side bar menu to jump to a specific topic. Each topic includes links to more information on the topic; clicking on the links will result in the information appearing in a new tab or window.

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5) Building Resilience for the Future: Since 2009 EPA has helped Americans save $32 billion on utility bills and 1.5 trillion gallons of water by providing easy ways to save water through WaterSense. Explore how EPA is working to protect the country's precious water resources and boosting the resiliency of critical infrastructure.

6) Moving Science & Innovation Forward: Learn how EPA's use of innovative partnerships and support for breakthrough technologies has accelerated progress toward safe and sustainable water resources while providing the country with better understanding of the health of our waterbodies and quality of our water.

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1) Advancing Clean Water Protection

Since 2008 EPA advanced the goal of clean water protection by protecting upstream waterbodies to keep those high-quality waters pollution-free and decreasing water pollution through commonsense, cost-effective measures.

Setting the First-Ever Limits on Toxic Metals Discharged into Waterways

EPA set the country's first national limits on toxic metals released into America's waterways by steam electric power plants. The historic Steam Electric Effluent Guidelines will cut an estimated 1.4 billion pounds of lead, arsenic, selenium, mercury, and other pollutants from being discharged, providing cleaner drinking water, healthier fish, and safer rivers and streams for downstream communities. The rule is based on widely-used technologies, features a flexible, phased-in implementation approach, and provides up to $566 million in annual benefits to Americans nationwide.

Clear Protection for Clean Waters

Protection for about 60 percent of the nation's streams and millions of acres of wetlands has been confusing, complex, and time-consuming as the result of several Supreme Court decisions. Through the Clean Water Rule EPA and the U.S. Army Corps of Engineers clarified protection for these waters with the goal of making permitting less costly, easier, and faster.

Link to EPA Clear Protection for Clean Water video:
https://www.youtube.com/watch?v=gFyf0XseWrI&feature=youtu.be

Protecting Fish from Cooling Water Intakes

As part of the agency's core mission to protect the environment, EPA acted to protect billions of fish and other aquatic life drawn each year into cooling water systems at large power plants and factories. The Cooling Water Intake Rule requires facilities with cooling water intake structures to look at the structures impact on local aquatic life and take steps that work best for them to minimize mortality and other adverse effects.

Restoring Our Estuaries

Since 2009 nearly 725,000 acres of estuary habitat were restored or better protected through the work of EPA's 28 National Estuary Programs, which are partnerships composed of state and local agencies, universities, and nonprofits. Learn more about Local NEPs or view the NEPmap.

Partnering for Cleaner Waters

Nearly 600 waterbodies have been fully or partially restored since 2009 thanks to the strong state, tribal, and territorial partnerships built through EPA's Clean Water Act Section 319 Program. This program works to address pollution from non-point sources including from urban stormwater runoff and agricultural activities. The graphic below shows the source categories Section 319 projects have focused on from 2008-2013.

The graphic shows the number of NPS projects from 2008-2013 by the following categories:
Agriculture: 1,968
Urban: 1,507
Hydrologic/habitat modification: 609
Other: 578
Waste disposal: 197
Resource extraction: 177
Legacy pollutants: 117
Marianas: 54

Putting the Brakes on Copper Pollution

To better protect our rivers, lakes, streams, and aquatic wildlife from copper and other pollutants that appear in stormwater runoff from roads, the auto industry and states signed a Memorandum of Understanding with EPA to reduce the use of copper, mercury, lead, cadmium, asbestiform fibers and chromium-six salts in motor vehicle brake pads. The agreement calls for reducing copper in brake pads to 0.5% by weight by 2025.

Trash-Free Waters

By 2025 nearly 16 million metric tons of plastic pollution is expected to enter the world's oceans annually. To address our nation’s contribution, EPA launched the Trash-Free Waters Program with a goal of eliminating all trash entering U.S. waters by 2024. The program has made steady progress by supporting state and local trash prevention efforts, working with the private sector on product design and sustainable materials management, and advancing research on the impacts of microplastics.

2) Increasing the Safety of Drinking Water

Safe drinking water is critical to the health of every American and our economy. Through the support of state, tribal, and local governments, utilities, and others, more than 90 percent of our country's water systems consistently meet EPA standards.

Protecting Communities from Lead

The crisis in Flint brought to the forefront the challenges many communities across the country are facing. To better protect communities from lead in drinking water, EPA met with officials from every state to ensure robust implementation and oversight of the federal Lead and Copper Rule (LCR) is occurring and that any high lead levels are being addressed. The agency also released a white paper outlining options the agency can take through a proposed rulemaking in 2017 to strengthen the current rule.

EPA Releases a National Drinking Water Action Plan

In November 2016 EPA issued a National Drinking Water Action Plan that serves as a national call to action and identified key actions that can be taken now by EPA and partners to increase the safety and reliability of the country's drinking water. The plan features a suite of actions to address key drinking water challenges, including:

An animated GIF appears showing the following information:
1) Strengthening Source Water Protection and Resilience
2) Reducing Lead Risks
3) Education the Public on Drinking Water Safety
4) Addressing Unregulated Contaminants
5) Advancing Oversight of the Safe Drinking Water Act
6) Improving Water Infrastructure Finance

Modernizing Our Country’s Drinking Water Monitoring Data

EPA launched the Compliance Monitoring Data Portal to allow laboratories and water utilities to electronically share data with state and tribal agencies---a move that could reduce data entry and management work by hundreds of thousands of hours per year, while improving data quality.

Better Protecting Sources of Drinking Water

A key part of having safe drinking water is protecting the sources of drinking water. In February 2016, EPA released an online mapping tool that allows users to identify potential sources of contamination and provides data to support local source water assessments and responses to accidental spills and releases.

The map can be found at: https://epamap37.epa.gov/dwmaps/

Supporting Small Water Utilities

Since 2010 EPA provided $53 million in grants to the country's small drinking water utilities for training and technical assistance. Many of these systems face challenges in providing reliable drinking water and wastewater services due to a lack of financial resources, aging infrastructure, and high staff turnover.

3) Rebuilding the Nation's Aging Infrastructure:

Communities across the country are facing the immediate challenges of aging and inadequate infrastructure for drinking water and wastewater. To support communities with replacement or upgrade efforts, EPA's state revolving funds have provided over $66 billion in low-interest loans for water infrastructure projects since 2009.

By the Numbers

Since 2009, the state revolving funds provided:

$16.3 billion through more than 6,200 low-cost loans for drinking water infrastructure projects through the Drinking Water State Revolving Fund; and,

Nearly $50 billion through more than 15,000 low-cost loans for wastewater and stormwater infrastructure projects through the Clean Water State Revolving Fund.

This level of funding was possible, in part, due to EPA's contribution of nearly $25.6 billion to the state revolving funds since 2009. Click on the map below to see how much federal funding was allotted to your state since 2009.

Most of the data available in the SRF map can be found on the following pages: Annual Allotment of Federal Funds for States, Tribes, and Territories and Clean Water State Revolving Fund (CWSRF) Allotments of Federal Funds to States

These loans provided funding for crucial infrastructure projects that delivered meaningful public health and environmental benefits.

Finance Graphic 1: Two circle graphics appear on the screen illustrating the following information: Clean Water State Revolving Fund:
- $900 million was provided for green infrastructure projects
- $1.8 billion was provided for nonpoint source pollution projects
- $2.9 billion was provided for water and energy efficiency projects
- $27 billion was provided for secondary and advanced treatment projects

Drinking Water State Revolving Fund:
- $1.5 billion was provided for water efficiency, energy efficiency and green infrastructure projects
- $1.7 billion was provided for storage projects
- $5.8 billion was provided for treatment projects
- $7 billion was provided for transmission and distribution projects

Providing Funding and Financing for Communities in Need

Infrastructure finance struggles often hit economically stressed and disadvantaged communities the hardest. To better support these communities, EPA provided critical funding through the state revolving funds and EPA tribal set-aside grants. Since 2009:

An animated GIF shows the following information:
Small Communities (serving populations less than 10,000):
DWSRF: $5.2 billion was provided through 4,200 loans
CWSRF: $11 billion was provided through 10,000 loans

Disadvantaged Communities (as defined by state): DWSRF: $5.2 billion was provided through 2,400 loans CWSRF: $5 billion was provided through 1,800 loans

Tribal Communities:
DW SRF: $168 million was set-aside
CW SRF: $287 million was set-aside

Creating New Water Infrastructure Finance Opportunities

In 2014 Congress passed the historic Water Infrastructure Finance and Innovation Act (WIFIA), a new EPA federal loan and guarantee program that will accelerate investment in our nation's water infrastructure. EPA through WIFIA will provide loans for up to 49 percent of eligible project costs for projects that will cost at least $20 million for large communities and $5 million for small communities. EPA is finalizing the set-up for the WIFIA program and intends to issue a request for applications in 2017 once appropriations are secured.

4) Making a Difference in Communities

From supporting communities with green infrastructure projects and restoring urban waterways to providing rural Alaska native villages with access to safe drinking water and sanitation services, EPA made a positive difference in the lives of American families and communities for years to come.

Revitalizing Urban Waters
EPA provided 114 organizations across the country with approximately $6.6 million in grants to support urban water revitalization efforts through river cleanups, water quality testing, and educating the next generation of environmental stewards.

A graphic appears that shows the following information:
Title: EPA Urban Waters Small Grants Support:
Education: Educate communities in environmental stewardship
Economic Growth: Prepare the next generation for careers in the green economy
Restoration: Provide tools to reduce pollution and improve water quality
Recreation: Increase opportunities for community outdoor recreation

EPA also serves as the lead agency for the Urban Waters Federal Partnership, which supports 19 communities with restoration funding and technical assistance and also co-sponsors the 5 Star and Urban Waters Restoration Grant program which works to address water quality issues in priority watersheds by restoring streams, wetlands, lakes, and degraded shorelines. Since 2013 EPA invested nearly $2.4 million into 128 community-based 5-Star projects that have restored approximately 2,000 acres of waterbodies.

Below is a map that shows places where EPA and federal, state and/or local partners are taking steps to restore their urban waters.

View the Urban Waters map and information.

Building Green Infrastructure

EPA provided more than $2.8 million in green infrastructure technical assistance to 52 communities since 2012 to help communities develop green infrastructure concept plans, evaluate the benefits of sustainable stormwater management, and identify approaches to enhance climate resilience.

Providing Tribal Communities with Safe and Convenient Water Services

A top priority for EPA has been working to close the gap in the number of tribal communities lacking in-home piped water and sewer lines. Since 2009 EPA, working with state, federal, local, and tribal partners, provided nearly 48,000 American Indian and Alaska Native homes with safe drinking water and more than 54,000 homes with modern wastewater management.

Empowering Tribes through Environmental Protection

EPA has worked to streamline the process for tribal governments to administer their own Clean Water Act (CWA) programs, assisted 14 tribes to take on new CWA regulatory responsibilities, and helped seven tribes adopt water quality standards for their reservation waters. Additionally, EPA established procedures for tribes to obtain authority to identify impaired waters on their lands and to establish restoration plans for attaining and maintaining water quality standards.

College Communities Embrace EPA's Campus Rain Works Challenge

EPA's Campus Rain Works Challenge was launched with a goal to harness the bright minds and competitive spirit of college and university students to design on-campus green infrastructure systems that reduce stormwater pollution and benefit the campus community. The annual competition has attracted over 430 college and university teams nationwide to submit innovative green infrastructure designs with winning teams earning funding to support the school's research or training programs. See some of the winning designs below.

Graphic 1: 2015 First Prize Winner (Master Plan): University of Texas at Arlington
Graphic 2: 2015 First Prize Winner (Demonstration Project): University of Maryland, College Park
Graphic 3: 2014 First Prize Winner (Master Plan): University of Illinois at Chicago
Graphic 4: 2014 First Prize Winner (Demonstration Project): University of Maryland, College Park

Supporting Communities Addressing Stormwater Pollution

Stormwater pollution is one of the nation's most significant water challenges, with increasing amounts of runoff polluting our streams, rivers and lakes. To help communities tackle stormwater runoff, EPA released a step-by-step guide for developing a long-term stormwater management plan and provided five communities $150,000 each in technical assistance to develop plans that could serve as national models. The communities are: Burlington, Iowa; Chester, Pennsylvania; Hattiesburg, Mississippi; Rochester, New Hampshire; and, Santa Fe, New Mexico.

5) Building Resilience for the Future

Communities and water utilities are increasingly facing the challenges of rising sea levels and more frequent extreme weather events, such as droughts, storms, and flooding. To help protect the country's precious water resources and boost the resilience of the nation's critical water infrastructure, EPA has provided Americans with easy ways to save water through WaterSense and partnered with utilities and communities through the Climate Ready Water Utilities and Climate Ready Estuaries initiatives.

Helping Utilities Become Climate Ready

Because water utilities operate on the front lines of climate change, EPA launched the Climate Ready Water Utilities to boost the resilience and preparedness of the water sector. This initiative has produced a popular series of online risk assessment and preparedness tools, including the Climate Resilience Evaluation and Awareness Tool (CREAT), and provided on-the-ground technical assistance, trainings, and exercises for communities and utilities across the country. CREAT's climate scenarios projection maps are featured below.

Text Box 1: CREAT's Climate Scenarios Projection Map shows anticipated impacts from a changing climate. Understanding how climate change may affect a utility's ability to maintain and deliver adequate and reliable drinking water and wastewater services is the first step in climate-related planning.

Text Box 2: This map shows the expected change in average annual precipitation in 2035 in a hot/dry scenario.

Text Box 3: This map illustrates the expected increase in intensity and frequency of a 100-year storm by 2035.

Text Box 4: This map shows the expected number of days per year with temperatures above 100ºF in a 2035 hot/dry scenario.

Protecting Estuaries in a Changing Climate

EPA launched the Climate Ready Estuaries (CRE) program to help coastal communities build resilience to climate change. In addition to its suite of online tools and information, CRE has assisted the National Estuary Programs with climate planning to better protect sensitive coastal ecosystems through vulnerability assessments, development and implementation of adaptation strategies, and engaging and educating local leaders and stakeholders.

Listen to how the Peconic Estuary Program in Eastern Long Island, New York, has used CRE's tools to conduct a vulnerability assessment and how they are mitigating climate change risks.

Link to EPA Video: https://www.youtube.com/watch?v=Pw--gmZacTY&feature=youtu.be

Helping Americans Save Water for Future Generations

EPA's WaterSense program works to protect the country's water supply for future generations by offering American families and businesses with easy ways to save water, energy, and money.

Graphic 1: Since 2009 WaterSense has helped American families and businesses save $32 billion on utility bills and 1.5 trillion gallons of water, which is more than the amount of water needed to supply all of the homes in California for a year.

Graphic 2: WaterSense has helped reduce the amount of energy needed to heat, pump, and treat water by 212 billion kilowatt-hours, enough to supply a year's worth of power to more than 19.4 million homes.

Graphic 3: Today, there are more than 16,000 models of WaterSense labeled products found in residential and commercial bathrooms, commercial kitchens, and outdoor irrigation systems—all independently certified to use at least 20 percent less water and perform as well or better than standard models.

Graphic 4: WaterSense is supported by nearly 1,800 manufacturers, retailers, builders, and promotional partners like state and local governments, water utilities, and non-profits.

6) Moving Science and Innovation Forward

Today, our country has a better understanding of the health of our waterbodies and quality of our water through EPA's use of innovative partnerships and support for breakthrough technologies to accelerate progress toward safe and sustainable water resources.

Advancing the Science

Over the last eight years EPA completed the first set of National Aquatic Resource Surveys, which provide nationally-consistent data on the condition of the nation's waters coastal waters, lakes and reservoirs, rivers and streams, and wetlands. This data is used by EPA, states, the scientific community, and others to craft policies and programs to better manage aquatic resources. The latest NARS reports provided critical and groundbreaking findings including the finding that habitat degradation and nutrient pollution is much more widespread than previously thought and the nation's coastal waters and wetlands are in better shape compared to our rivers, streams, and lakes.

Explore the map to see NARS water sampling sites near you.

Setting Safe Water Quality Levels

Since 2009 EPA has used scientific information to recommend safewaterqualitylevelsfor100 pollutants including toxics, nutrients, and pathogens in our country's waterways. The agency also established drinkingwaterstandardsformorethan90contaminants.

Safeguarding Public Health through Historic Drinking Water Advisories

Using the latest science EPA issued drinking water health advisories for PFOA and PFOS, two industrial chemicals, and for two cyanotoxins produced from harmful algal blooms. These advisories will help local water systems and state, tribal and local officials take the appropriate steps to address the contaminants if needed. EPA also made regulatory determinations for 5 contaminants, including perchlorate, since 2009.

Spurring Innovation in the Water Sector

Over the last eight years EPA actively promoted the use of technology and innovation to help solve current water challenges while promoting economic growth. The agency's Water Technology Innovation Blueprints identified key markets for innovation opportunities, highlighted emerging innovation pioneers, and outlined actions the agency will take to further promote the use of technology for clean and safe water.