

US EPA ARCHIVE DOCUMENT

EPA Region 9 Strategic Plan

Fiscal Years 2011- 2014

Updated February 2012

<u>Summary</u>	2
<u>Introduction</u>	3
<u>Air Quality and Climate Change</u>	4
<u>Water Quality</u>	10
<u>Cleaning Up Communities & Advancing Sustainable Communities</u>	16
<u>Chemical Safety & Pollution Prevention</u>	22
<u>Enforcing Environmental Laws</u>	23
<u>Environmental Justice</u>	25
<u>Children's Health</u>	26
<u>Geographic Areas of Focus</u>	26
<u>I-710 Corridor</u>	26
<u>Tribal Partnerships</u>	28
<u>Navajo Nation</u>	29
<u>Hawaii and the Pacific Islands</u>	30
<u>U.S.-Mexico Border</u>	35
<u>San Joaquin Valley</u>	37
<u>Region 9 Support Services</u>	41
<u>Abbreviations and Acronyms</u>	42

Summary

The U.S. Environmental Protection Agency's Region 9 encompasses four states, 147 sovereign tribes and dozens of Pacific islands. It is a diverse, beautiful and productive part of the nation, from the lush rainforests of Hawaii and the agricultural oasis of the Central Valley to the thrumming economies of Silicon Valley, Las Vegas and Los Angeles. Nearly 50 million people make their homes and livelihoods throughout EPA Region 9's 386,000 square mile-jurisdiction, producing more than \$2 trillion in goods and services each year.

But these places – Arizona, California, Hawaii, Nevada, the Pacific islands and tribal lands – also are encumbered with a host of environmental challenges. While much progress has been made over the last 40 years to reduce smog, improve water quality, clean up hazardous waste and create sustainable, healthy communities, much work remains to achieve the Agency's co-equal goals of protecting our environment and ensuring public health.

The Region 9 Strategic Plan outlines the agency's clear and measurable efforts to build on that strong foundation while also tackling emerging problems such as climate change, marine debris and the development of safe chemicals. Over the next half decade, Region 9 will strive to enforce federal standards governing clean air, clean water, toxics and hazardous waste. The Region is also developing detailed plans for a multi-disciplinary approach to specific geographic sub-regions and populations.

Among the agency's highest priorities are the I-710 freeway corridor in Southern California and the San Joaquin Valley in Central California. In both areas, predominantly minority and low-income populations grapple with some of the poorest air quality in the country. In addition, Region 9 is committed to improving residents' access to clean drinking water and to ensuring the proper disposal of hazardous waste in these primarily commercial and agricultural zones.

In the Pacific islands, Region 9 has somewhat different aims: among them, addressing the growing impact of climate change, the increasing flow of marine debris, limitations posed by septic water systems, and efforts to clean up large-scale military installations.

Tribal lands, including the Navajo Nation, face similar challenges – namely, the legacy of highly-toxic uranium mining for weapons development. On those lands, EPA Region 9 has

EPA Region 9 Facts

- Region 9 is home to 15% of the total population of the United States, and three of the fastest-growing states in the nation.
- Our 147 tribes account for 25% of the total Native population of the United States, and 50% of all tribal lands nationwide.
- A full 61% of the lands in Region 9 are federally owned, and our partnerships with local, state, and other federal agencies of primary importance to accomplishing our mission.
- Region 9 is host to 25% of the nation's dairies, employs 25% of the nation's agricultural workers, and produces 50% of the nation's produce. Other important industries include electronics and technology, forestry, mining, and tourism.
- Region 9 has more Superfund megasites than any other Region.
- We have the largest number of abandoned mines in the country; California alone has 47,000 abandoned mines.
- Includes priority watersheds – the Klamath Basin, which drains 10.5 million acres in California and Oregon; Lake Tahoe, one of the deepest lakes in the world; and the San Francisco Bay-Delta Estuary, a 4-million acre watershed that covers more than 40% of California.
- 80% of the funds Region 9 is appropriated go out the door as grants; we provide more than 900 grants to states, tribes, and communities.

outlined a set of clear, attainable benchmarks for cleaning up these sites and protecting the nation's critical natural resources for future generations.

2011 was an impressive year for Region 9. Our office ordered responsible parties to spend tens of millions of dollars to clean up hazardous Superfund sites; proposed a plan to reduce emissions from a Four Corners power plant by almost 90%; pioneered a clean-tech groundwater cleanup and leveraged millions in grants to improve water quality in the Napa River, the lifeblood of Wine Country.

Over the past four decades, Region 9 has spent billions of dollars and millions of staff hours to maintain and safeguard our most precious resources: the air we breathe, the water we drink, the land we treasure.

For more information about our work in past years, please see our annual Region 9 Progress Reports at www.epa.gov/region9/annualreport

Introduction

This EPA Region 9 Strategic Plan identifies the measurable environmental and human health outcomes the public can expect this year and, in some cases, the next three years, and describes how we intend to achieve those results. The Plan reflects a commitment to our core values of science, transparency, and the rule of law in managing our programs.

This document was developed by Region 9 to advance Administrator [Lisa P. Jackson's seven priorities](#) and EPA's mission to protect human health and the environment. EPA submitted the Agency's National Strategic Plan on September 30, 2010 to the Congress and to the Office of Management and Budget.

EPA's national 2010-2015 Strategic Plan sets forth five major goals plus five "cross-cutting fundamental strategies" to determine EPA's work nationwide:

- Goal 1: Taking Action on Climate Change and Improving Air Quality
- Goal 2: Protecting America's Waters
- Goal 3: Cleaning Up Communities and Advancing Sustainable Development
- Goal 4: Ensuring the Safety of Chemicals and Preventing Pollution
- Goal 5: Enforcing Environmental Laws
- Strategy 1: Expanding the conversation on environmentalism
- Strategy 2: Working for environmental justice and children's health
- Strategy 3: Advancing science, research, and technological innovation
- Strategy 4: Strengthening state, tribal, and international partnerships
- Strategy 5: Strengthening EPA's workforce and capabilities

The National Plan is available at the [FY 2011-2015 EPA Strategic Plan website](#).

The Region 9 Strategic Plan takes these same goals and applies them to our specific environmental issues here in the Pacific Southwest. Organized similarly to the national Plan, the Region 9 Plan describes

our statutory programs first. We then describe several strategies that focus on particular environmental issues, vulnerable populations or geographic areas within the Region that have especially severe impacts. Of course, this Plan cannot describe the thousands of actions EPA Region 9 will take over the course of few years. Rather, it provides guidance and direction for major areas of focus.

What does EPA do?

EPA's mission is to protect human health and the environment, and our work is mandated by federal environmental laws. The EPA is responsible for implementing many laws, including:

- Clean Air Act
- Clean Water Act
- Safe Drinking Water Act
- Comprehensive Environmental Response, Compensation and Liability Act, commonly known as Superfund
- Resource, Conservation and Recovery Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide and Rodenticide Act
- Oil Pollution Act
- Emergency Planning and Community Right-to-Know Act

In some cases, EPA directly implements the law. Often it shares authority with another federal agency, or the program may be “delegated” or “authorized” to a state or tribe, meaning that the state or tribe implements the program. In that case, EPA may conduct oversight and enforcement, in addition to providing financial support in the form of grants.

If you have questions or ideas about EPA's mission or the Region's work, please see our [contact information page](#), or send email to r9.info@epa.gov

Air Quality and Climate Change

Healthy air is essential to our day-to-day well-being and long term health. The [Clean Air Act](#) (CAA) is the federal law designed to make sure that all Americans have air that is safe to breathe. In the Pacific Southwest, we breathe cleaner air today than we did 40 years ago, despite population growth and increased number of vehicles on the roads. Cleaner air has resulted in fewer illnesses, asthma attacks, hospitalizations and premature deaths. In March 2011, EPA issued a [report](#) which looked at the results of the CAA from 1990 to 2020. According to this study, the direct benefits of the CAA are estimated to reach \$2 trillion for the year 2020 while preventing 230,000 premature deaths in that year alone.

Despite tremendous progress in reducing air pollution, the Pacific Southwest continues to have some of the worst air quality in the nation with large populations exposed to particulates (PM_{2.5} and PM₁₀) and smog (ozone). Breathing particulates can cause lung inflammation that can exacerbate diseases like asthma and chronic bronchitis, and can contribute to cardiovascular disease including heart attack and stroke. Ozone can cause irritation of the airways and lung inflammation; it can quickly worsen diseases like asthma and lead to hospitalization and even premature death. Air pollution takes a heavy toll on people's lives and the economy.

Clean air is a national goal. To reach this goal, we work in close collaboration with tribes and 45 state and local air quality agencies.

Region-Wide

- As national air quality standards are updated under the CAA, determine which areas in the Region need to require more pollution controls to come into compliance with federal standards for lead, nitrogen dioxide (NO₂), sulfur dioxide (SO₂), PM_{2.5} and ozone, through the creation of nonattainment areas. The focus in 2012 will be on designating areas for the new 8-hour ozone and SO₂ standards.
- In 2012, review and act on 50 rules developed by state and local air quality agencies to govern air emissions from industrial facilities and determine whether they are sufficiently strong and enforceable.
- The Regional Haze program requires development of air quality plans to reduce the pollution that causes visibility impairments in wilderness areas such as the Grand Canyon, Jarbridge Wilderness Area and Hawaii Volcanoes National Park.
 - In Arizona
 - Determine what controls are necessary for the Four Corners Power Plant, the biggest emitter of nitrogen oxides (NO_x) in the country.
 - Propose a strategy to control emissions from the Navajo Generating Station power plant.
 - In Nevada
 - Determine the type of controls necessary for Reid Gardner Generating Station by summer 2012.
 - In Hawaii
 - Determine whether controls or alternative fuels are necessary for affected power plants on the islands of Hawaii and Maui by summer 2012.
- Continue to oversee 45 state, local and tribal permitting programs that protect the public from air pollution created by industrial plants. Oversight focus will be on cement plants, refineries, and power plants.
 - The Prevention of Significant Deterioration (PSD) program requires that the best available control technology, or BACT, is installed at facilities to control emissions. BACT is an emissions limitation that is based on the maximum degree of control that can be achieved. Since green house gases (GHGs) are regulated under the PSD program, states are required to have provisions for permitting GHGs. We intend to propose approval of the PSD program for the 10 California air agencies that process the highest number of permits. This will result in California's local agencies being responsible for over 90% of the PSD permitting in California.
 - Oversee air modeling and monitoring conducted by state, local and tribal agencies to maintain and enhance the scientific foundation for regulatory actions under the CAA.
 - Audit the entire monitoring program for every state and local Agency in Region 9 at least once every three years.
 - Ensure that state, local, and tribal agencies meet or exceed all monitoring requirements for existing and future air quality standards through regular meetings with technical staff, review of network plans and assessments, data certification, and all other available mechanisms. Focus on air quality monitoring for NO₂, SO₂, lead, ozone, and PM.

- Implement the [Communities Action for a Renewed Environment \(CARE\) grants](#) in Maywood to identify and prioritize their toxic reduction activities and in Hawaii to reduce illegal dumping activities in four local streams.
- Provide education on implementing the [Indoor Air Quality Tools for Schools](#) program at 50 new schools and child care facilities to reduce indoor air pollution. Educate 450 people with asthma, their caregivers and health care professionals on indoor environmental asthma triggers in order to reduce asthma incidents in children.
- Award roughly \$45 million in CAA and Diesel Emissions Reductions Act (DERA) grant funds to States, locals, tribes, and other entities to support core air programs such as planning, monitoring, and permitting, and to encourage innovative projects that achieve reductions in air pollution emissions. All grants have work plans and reporting requirements, and the grants are managed to ensure that grant funds are well-spent, and results are achieved.
 - Continue developing methods to reallocate continuing air grants (CAA 105) to state and local agencies to better align continuing grants with current conditions, including air quality, population, and state and local air program capacity.
- Take action to ensure all states have adequate infrastructure, through Infrastructure State Implementation Plans, to carry out the ozone and PM_{2.5} provisions of the CAA including permitting programs, resources, monitoring and consultation with the public and/or put in place federal measures where there are deficiencies, via Federal Implementation Plans.

Arizona

Phoenix is situated in a valley surrounded by mountain ranges and also has the largest concentration of industrial sources in the state. The Phoenix metro area is not meeting the coarse particulate pollution (PM₁₀) standard or the current 8-hour ozone standard.

- Improve respiratory health of Arizona residents by reducing unhealthy levels of PM₁₀ to meet the national health based standard by the end of 2012, and begin the process of reducing ozone levels even further.
 - Collaborate with State and local agencies in Maricopa County to prepare a new air quality plan that meets the PM₁₀ standard and protects public health. A new plan is due by March 2012.
 - Upon redesignation of Pinal County, work with the State to develop plans to reduce PM₁₀ levels. The new plan will require additional controls on sources of PM₁₀ in order to protect public health.
 - Conduct federal inspections and investigations in sectors that contribute to elevated PM₁₀ levels in Phoenix, such as sand and gravel facilities and major stationary sources.

California

California's unique air quality challenge is due to the combination of the state's weather patterns, topographical formations, rapid population growth, and pollution from vehicles and other mobile sources. The state's role in Pacific Rim commerce also produces air pollution from aircraft and port operations,

which include emissions from ships, cargo handling equipment, trucks, locomotives, and service equipment that are used to distribute imports and goods to the rest of the nation.

Large parts of California exceed the federal health-based standards for both ozone and PM_{2.5} by a significant margin. The California Air Resources Board estimates that PM_{2.5} pollution alone is responsible for 9,000 premature deaths annually in California.

San Joaquin Valley:

- Reduce PM_{2.5} annual concentrations by 7% per year through regulatory action and accelerating the development of cleaner transportation. Achieve a total reduction of 34% from 2009 levels to reach attainment of PM_{2.5} standards by 2014. The California Air Resources Board (CARB) predicts that 640 premature deaths will be avoided per year in San Joaquin Valley if the PM_{2.5} standards are attained.
 - Reduce emissions by working with CARB and the District to develop comprehensive plans for attaining the 2006 PM_{2.5} standard (35 ug/m³) and the 2008 8-hour ozone standard (0.75 ppm) as early as possible. The PM_{2.5} plan is due to EPA by December 2012.
 - Act on at least 10 San Joaquin Valley rules that will help obtain air emission reductions, including those concerning fumigants, and petroleum production and distribution.
 - Convene venture capitalists, government agencies, and private companies in Bakersfield to accelerate the development and adoption of cleaner technology, including medium-duty battery-electric and hybrid trucks and vehicles.

California's South Coast:

- Reduce PM_{2.5} annual concentrations by 3% by December 2012 through regulatory action and accelerating the development of cleaner transportation and other clean air technologies. Achieve a total reduction of 13% from 2009 levels to reach attainment of the PM_{2.5} standard by 2014.
 - Reduce emissions through regulatory action on the South Coast Air Quality Management District's rules focused on reducing emissions from sources such as industrial boilers, refineries, coatings, and consumer products.
 - Manage \$400,000 of grant funds that support the development of innovative technology to reduce harmful diesel and PM_{2.5}, NO_x and greenhouse gas emissions.
- Evaluate whether the South Coast air basin has achieved attainment of the current PM₁₀ standard.
- Convene government agencies, private companies and venture capitalists to accelerate the development and adoption of cleaner technology, and site technologies with significant air emission reductions benefits.

Hawaii

- Convene federal, state, city and county governments, non-profits, businesses, and communities to establish a vehicle miles traveled (VMT) baseline and reduce VMTs by 3% by 2013. This VMT effort is part of Hawaii's Clean Energy Initiative and will support the State's goal of 70% clean energy by 2030.
- Implement the [Rewarding Internships in Sustainable Employment \(RISE\)](#) Program. RISE is a sustainability internship program providing college students and recent graduates residing in Hawaii with paid green jobs and training. The projects focus on renewable energy, energy

efficiency, transportation, water, and waste reduction. By 2013, RISE will leverage resources from EPA and other federal agencies to support one full-time RISE Director, two full-time RISE Mentors, and 20 RISE internships on O'ahu and the Big Island.

- Recruit and work with at least 7 Hawaii federal facilities under the Federal Green Challenge to reduce their greenhouse gas emissions by 5% by the end of 2013 in at least two of six topic areas: electronics, energy, purchasing, transportation, waste, and water.

Nevada

- Mercury in the air eventually is deposited into water, where it transforms into methylmercury, a highly toxic form of mercury that can build up in fish tissue. Americans are primarily exposed to mercury by eating contaminated fish. In coordination with the Nevada Department of Environmental Protection, continue implementing the national gold mine Maximum Achievable Control Technology standards for air toxics. The final rule will reduce mercury emissions by 1,460 pounds per year: about a 77% reduction from 2007 levels, nationally.
- In December 2011, we finalized action on the Regional Haze Plan for Nevada, with the exception of the technology to control NO_x on the Reid Gardner Generating Station. By end of 2012, we intend to take action on the NO_x controls for Reid Gardner Generating Station.

Clean Energy and Climate Change

In addition to GHG emission reduction benefits, there are multiple environmental and public health benefits to reducing energy consumption and promoting renewable energy. Impacts are associated with each major step in utilizing fossil fuel: oil and gas extraction, coal mining, electricity generation, petroleum refining, fuel transport and storage, and fuel combustion. Similarly, accidental oil spills and explosive conditions in mines can create large-scale environmental and public health risks.

We will work through voluntary and regulatory programs with partners (local governments, states, industry, federal agencies) and internally to reduce GHG emissions in the Region 17% below 2005 levels by 2020, and 83% below 2005 levels by 2050. Reductions of this magnitude will require the commitment of partner entities throughout Region 9. Internal activities to ensure that Region 9's operations achieve carbon neutrality by 2012 and to help meet [Agency-wide goals](#) under the President's order on "*Federal Leadership in Environmental, Energy, and Economic Performance*" ([Executive Order 13514](#)) are also part of this reduction.

Region 9's more significant work activities to support our partners and achieve these goals are summarized below.

- **Transportation:** The transportation sector was responsible for 39% of GHG emissions in Region 9 in 2005. To achieve our goals, we will work to reduce greenhouse gas and black carbon emissions through support for deployment of electric vehicles; smart growth principles; California Statewide High Speed Rail planning; West Coast Collaborative diesel grants, engine efficiencies and fuel improvements.
- **Energy:** Meeting the region's 2005 energy needs accounted for 36% of GHG emissions. To achieve our GHG reduction goals, we will promote cost-effective energy efficiency (EE) measures and environmentally responsible renewable energy (RE) development.
 - Energy Star: Support the national [Energy Star](#) program by promoting benchmarking, energy efficiency, and the use of Energy Star products. Encourage building owners/managers to

- benchmark their energy use through Energy Star's on-line database called [Portfolio Manager](#). Continue to incorporate Energy Star into the Green Building effort.
- Promote water efficiency, water reuse, energy efficiency and renewable power generation in the Water Sector. Saving water saves energy and thereby reduces GHG and other air emissions. Approximately 11.4 billion kilowatt hours are used annually to pump and treat water within the region and a 20% savings through energy and water efficiency is realistically achievable. To achieve these savings, the Region will work with partners to identify energy efficiency and renewable energy potential at drinking water and wastewater facilities, work with utilities to implement feasible options, and work with agricultural producers to improve water use efficiency.
 - Support development of climate action plans for the Mexican states of Baja California and Sonora, implementing Border 2012's newly developed Clean Energy and Climate Change objective. The Climate Action Plans provide the framework for future investment in renewable energy and energy efficiency projects benefitting the public health of both U.S. and Mexican citizens.
 - Through the Guam Energy Task Force and the Civil Military Coordination Council, Region 9 will work with the Department of Defense, the National Renewable Energy Laboratory, and the Government of Guam to ensure that new power demand for military expansion is met primarily through improvements in energy efficiency and renewable energy to help achieve DoD's goal of reducing greenhouse gas emissions by 34%.
 - Evaluate and implement lower carbon footprint technologies, such as in-situ treatment solutions. Promote the [RE-Powering America's Lands](#) project for constructing utility scale renewable energy projects on contaminated lands, including former mine sites, Superfund sites, and active and closing federal facilities.
 - In partnership with DOE's National Renewable Energy Laboratory and the City of Richmond, California develop a screening tool that the City can use to prioritize the best sites for renewable energy systems on degraded or contaminated land in the community. Connect with EPA's RE-Power America Program to make the tool more widely accessible to other cities.
 - Promote the capture and utilization of biogas for renewable energy production. Major biogas sources include: dairies, landfills and wastewater treatment facilities. Capturing the biogas reduces emissions of methane, a potent GHG; while utilizing the biogas to produce energy reduces the need for fossil-fuel derived energy.
- **Industry:** The industrial sector emitted 18% of the regional GHGs in 2005. To help reduce emissions from this sector, the Region proposes to:
 - Provide outreach and technical assistance to achieve voluntary reductions from the highest GHG emitting industrial sectors including recruitment of new members into EPA partnerships with a proven track record of reducing GHG emissions. Partnership programs include: [Landfill Methane Outreach Program](#), [GreenChill](#), [Responsible Appliance Disposal Program](#), [Green Power Partnership](#), and [Combined Heat and Power Partnership](#). In areas where we are the permitting authority, process permit applications for [greenhouse gas permits](#), and ensure compliance with the [GHG Reporting program](#) for large industrial operations.

Water Quality

Water touches every person every day; it is the lifeblood of our communities and our livelihoods. In the arid Pacific Southwest, water is an especially valuable resource that faces many competing demands and challenges. From the headwaters of our watersheds to the depths of our drinking water aquifers, Region 9 is committed to protecting our precious water resources. Consistent with the national water program, Region 9's water quality strategy has two organizing themes: healthy watersheds and sustainable communities. Under healthy watersheds, our focus is on achieving healthy watersheds; restoring impaired waters in priority watersheds and protecting wetlands. Under sustainable communities, our priorities are on developing sustainable infrastructure to protect public health and conserve resources for the benefit of future generations.

For each of these two themes, Region 9's approach to protect water quality and all of water's beneficial uses is two-fold:

1. Use the Clean Water Act (CWA) and the Safe Drinking Water Act (SDWA) as regulatory tools to develop effective permits and enforce compliance; and
2. Coordinate and leverage resources by providing financial and technical assistance towards specific goals that restore water quality.

Looking at the challenges ahead, we take inspiration from ways we are addressing unique issues:

- In 2012, Region 9 announced the establishment of nation's largest marine No Discharge Zone, banning large cruise ships and other commercial vessels from discharging their sewage within three miles of the entire California coast. The proposed rule has strong support from the state, other federal agencies, and many citizen groups.
- In 2010, Region 9 completed a legal settlement with the City and County of Honolulu to upgrade their sewage treatment infrastructure over the next 20-25 years and will protect the world-famous coastal waters and beaches from effluent discharges.

Achieving Healthy Watersheds

Clean water is essential for human health, recreation, economic productivity, and the survival of our cherished aquatic ecosystems. However, many of our streams, rivers, lakes, and much of our coastline have poor water quality and are polluted. For these waters, states, tribes and EPA conduct extensive studies to calculate the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards by performing a study known as a Total Maximum Daily Load, or TMDL. TMDLs are typically prepared by the states and require EPA approval. TMDLs are used as a guide for federal, state, and local decisions such as defining permit limits for dischargers and determining appropriate restoration projects and actions that achieve specific pollution reductions needed to restore water quality. The large-scale watersheds discussed below and our Region's remaining wetlands are our top priorities.

San Francisco Bay and Delta

The largest and one of the most ecologically diverse aquatic habitats on the West Coast, providing drinking water for 25 million Californians and irrigation water to 4 million acres of farmland. The estuary's poor water quality reflects the cumulative and interactive effects of pollution, water diversions, habitat degradation and non-native species. Region 9 is working to restore the San Francisco Bay and Delta in the following ways:

- EPA values public input in the search for balanced solutions to complex problems. An Advanced Notice of Proposed Rulemaking was issued in February 2011 to solicit public input on ways to improve water quality and reduce pollutants: <http://www.epa.gov/region9/water/watershed/sfbay-delta/anpr.html>
- Work with the California Water Boards and other stakeholders to implement TMDLs to reduce loading of pollutants in the Bay and Delta system such as mercury and selenium.
- EPA will support updating the science and policies of water-quality criteria for toxicity, selenium, methyl mercury, cadmium, nutrients and bio-criteria with the State of California from 2012 – 2014.
- Work with stakeholder, state, local, and other federal partners to establish a regional monitoring program for the Delta and San Joaquin basin that will provide meaningful feedback and influence water quality improvement efforts.
- Enforce the CWA through administrative and judicial actions by completing a judicial settlement with East Bay cities requiring replacement of aging sewer pipes in order to eliminate spills from the East Bay Municipal Utilities District's sanitary sewage system. Additionally, in the North Bay, we will monitor improvements being made by Marin County sanitary sewer systems in response to EPA's enforcement orders.

Lake Tahoe

Because of its ecological significance, natural beauty and recreational value, Lake Tahoe is designated an "Outstanding National Resource Water" by the state of California and a "water of extraordinary ecological or aesthetic value" by the state of Nevada. Lake Tahoe continues to be threatened by the impacts of land use, transportation patterns, invasive species, and wildfires. Since 1997, EPA has provided nearly \$40 million to Lake Tahoe for projects to control nonpoint source polluted runoff; conduct wetlands planning; develop a watershed improvement program reporting tool and an adaptive management system to guide implementation of the Lake Tahoe TMDL; and initiate urban storm water pollution prevention. Funding sources include the Clean Water Act and the Southern Nevada Public Lands Management Act.

In 2011, California, Nevada, and the EPA signed a Lake Tahoe TMDL, the scientific effort at the forefront of the campaign to return Lake Tahoe water clarity to historic levels. Region 9 is working to implement the bi-state Lake Tahoe TMDL for fine sediment, nitrogen by directing our collective financial and technical resources to priority scientific studies, outreach and education, and pollution-reduction projects.

Klamath River

Extending 250 miles from Southern Oregon to the California coast, the river was historically the third-largest producer of salmon on the West Coast, and supports Chinook and Coho salmon, cutthroat trout, steelhead and sturgeon. Several tribes rely on the river for subsistence, transportation and ceremony, as they have for thousands of years. These tribes include the Yurok, Hoopa Valley, Karuk, Quartz Valley and Resighini Rancheria on the lower stretches of the river in California, and the Modoc and Klamath in the upper basin in Oregon. Klamath River waters are degraded due to excessively warm water temperatures, high nutrient loads and low dissolved oxygen, associated with water impoundments from dams, agricultural diversions, and algae blooms that have contributed to fish die-offs.

In 2002, a massive die-off of more than 33,000 salmon brought national attention to this historically conflicted area, where tribes, farmers, commercial salmon fisherpeople, wildlife refuges and hydroelectric power generation have competing needs for water. In an effort to resolve conflicts and restore the salmon fishery, two linked agreements - the Klamath Hydroelectric Settle Agreement (KHSA) and the Klamath Basin Restoration Agreement (KBRA) - evaluate possible removal of four dams, reallocation of water, and

funding for salmon recovery work. Studies and NEPA analysis are underway to inform a March 2012 decision by the Secretary of the Interior on whether to pursue dam removal and restoration work. Additionally, TMDLs to address nutrients, pH, dissolved oxygen, ammonia toxicity, and temperature were completed in 2010 for both the Oregon and California reaches of the Klamath River and some of its tributaries. These TMDLs set targets for the mentioned parameters and allocate responsibility for water quality improvement. Going forward, Region 9 will continue to support restoration of the Klamath watershed in the following ways:

- Region 9 will focus on ensuring responsible parties develop and initiate water quality restoration plans, establish a tracking and accounting program for water quality improvement projects and collaborate on large scale pollutant control programs, such as riparian restoration to help control the temperature of the water.
- Providing financial assistance to support implementation of the Klamath Basin TMDLs with \$200,000 from EPA to assist California and Oregon develop the Klamath Tracking and Accounting Program. This effort has expanded to include other entities including the National Fish and Wildlife Foundation, The Nature Conservancy, Willamette Partnership, Klamath Watershed Partnership and the Oregon Watershed Enhancement Board who are using their own funds, as well as grant funding from the Natural Resources Conservation Service (NRCS), to support the development of this program.
- Supporting the Yurok Tribe in their efforts to restore the Klamath River Estuary with a \$493,000 grant, and technical assistance for blue-green algae monitoring.
- Provide input to evaluate the potential impacts of dam removal on water quality and sediment deposition, as well as review and comment on the U.S. Department of the Interior's Environmental Impact Report/Environmental Impact Statement under EPA's National Environmental Policy Act (NEPA) authority.

Southern California Coast

Critical to California's economy, the Southern California beaches have more beachgoer days (80 million person days per year) than the rest of the country combined. Under the CWA and the Beaches Environmental Assessment and Coastal Health (BEACH) Act, EPA's goal is to protect the public health and safety of our coastal and other recreational beaches from trash and bacteria pollution. Region 9 is working to protect Southern California's coastal assets in the following ways:

- Establish TMDLs for Santa Monica Bay, Ballona Wetlands, City of Long Beach, Malibu Lagoon, the Dominguez Channel and Estuary, and others. Under a consent decree, EPA is required to approve or establish TMDLs for these Los Angeles area impaired waters by March 2013. Each TMDL will have different implementation schedules and targets, but is intended to reduce pollutants such as pesticides, bacteria and nutrients to restore water quality to support a healthy ecosystem. The process to restoration is technically and technologically challenging, and will require the cooperation of multiple stakeholders.
- Assist the Los Angeles Regional Water Board in revising the Los Angeles Municipal Separate Storm Sewer System (MS4) permit, with a goal of supporting reissuance in 2012. Areas in which the permit will be strengthened include Low Impact Development (LID) performance standards for new and redevelopment, incorporation of numeric and narrative limitations to implement TMDLs for bacteria, trash, metals, and other toxic pollutants, and establishment of more effective monitoring plans to assist in compliance determinations.

Protecting Wetlands

Next to tropical rain forests, wetlands are the most diverse and productive ecosystems on the planet. In addition to providing habitat for vanishing species, wetlands protect human health and safety through their natural water quality and flood control functions. As losses of western wetlands and streams exceed 90% in many places in Region 9, our focus includes “big picture” approaches to protecting our remaining aquatic resources, from desert streams to coral reefs. In recent years we have provided approximately \$1,800,000 annually to states and tribes to develop their wetland programs through improving their monitoring, restoration and regulatory abilities. In addition to our financial assistance, Region 9 is working to protect wetlands in the following ways:

- Ensuring our wetlands keep their CWA protections. Recent Supreme Court decisions have made CWA authority far less certain, particularly for drier or seasonal watersheds typical in Region 9. Our scientists will review all cases where entities assert that the CWA does not apply to their project to ensure that traditional legal safeguards against pollution are restored or maintained to the fullest extent of the law.
- Integrating tools and building partnerships on a landscape-scale. We will integrate regulatory and non-regulatory water programs to address the challenges of large-scale developments by promoting mitigation consistent with existing local watershed plans and gaining commitments to stormwater LID best practices as wetlands permit conditions. We will continue our technical support of Sacramento and Placer County efforts to combine species and aquatic resource permitting under a regional conservation strategy, integrating existing programs to impact watersheds for the better and streamline regulatory review.
- Advancing the science of wetlands health. We will work with our states to monitor and assess approximately 60 wetland sites in California, Nevada, and Arizona as part of the National Wetlands Condition Assessment, and build state technical capacity with the study results. A final report will be issued in 2013.
- Enforce CWA protections for wetlands through administrative and judicial actions to discourage unpermitted fill of wetlands and protect this scarce resource.

Developing Sustainable Water Infrastructure

The future of our homes, industries, and communities depends on the sustainability of our infrastructure. Region 9 is working to support sustainable communities by focusing on our infrastructure on three fronts: coordinating and leveraging resources in priority areas towards sustainable goals, addressing the needs of community drinking water systems, and protecting drinking water aquifers from underground injection.

Coordinating and Leveraging Resources

The majority of water infrastructure in the U.S. was built before 1980, and is not as efficient as current technologies. As energy costs rise, so do the costs of operating water infrastructure, which accounts for 3% of the total U.S. energy use. \$600 billion to \$1 trillion of federal, state, and private resources will be dedicated over the next 20 years to make critical improvements to water infrastructure. Of this, Region 9 administers about \$240 million in State Revolving Funds annually to renew and repair drinking water and wastewater infrastructure. Our goal is to coordinate and leverage federal and state water infrastructure

funding to promote sustainability, reduce greenhouse gas emissions, and save utilities money by increasing water and energy efficiency, renewable energy development, and low-impact development in water infrastructure. Region 9 is achieving this goal in the following ways:

- In 2012 we will provide \$12 million to fund 45-50 tribal water infrastructure projects to serve homes lacking access to safe drinking water and basic sanitation. U.S. Indian Health Service (IHS) has identified 417 such potential projects in Region 9. In Indian Country a disproportionate percentage of tribal homes lack access to safe drinking water and safe wastewater disposal. IHS data shows 13% of American/Alaska Native homes do not have safe drinking water and basic sanitation, an extremely high percentage compared with 0.6% of non-native homes in the United States that lack such infrastructure as measured by the U.S. Census. In providing these services to our tribes, we have the opportunity to merge traditional infrastructure maintenance with newer approaches for integrating the sustainable components of these systems. We will increase our use of energy assessments to better take advantage of the solar and wind power potential of tribal lands. Although incorporating these elements into traditional infrastructure approaches will be a challenge, these developments will increase our use of sustainable infrastructure technology Region-wide.
- Build tribal capacity for improved compliance through contract circuit riders to assist operators and tribal governments in trouble shooting, operator training, user rate studies, and other issues vital to ensuring SDWA compliance and providing safe water. Funding of \$800,000 will increase contractor field presence to assist tribal systems in California, and Eastern and Western Arizona. A \$70,000 cost share agreement with the IHS for a district utility consultant will be used to address the Nevada and Owens Valley Area. Additional assistance is provided through contract field surveys, used by EPA staff and circuit riders to follow up on system deficiencies and training. Approximately 80 field surveys are conducted annually at a cost of \$400,000.
- Encourage and assist our state Clean Water and Drinking Water SRF Programs to exceed the minimum Green Project Reserve requirements established annually by Congress to fund energy efficiency, water efficiency, renewable energy, recycled water, and green infrastructure/low impact development projects.
- Initiate the California Water and Energy Project; ensure ten sustainable water infrastructure projects are developed and funded by 2013.
- Complete at least ten energy and/or water audits this year at water and wastewater utilities by coordinating applicable federal, state, and energy utility resources.
- Promote the use of Low Impact Development tools (LID) through urban storm water permits. We will comment on all draft MS4 permits to urge inclusion of specific LID performance standards for new and redevelopment, and requirements to develop LID retrofit plans over time. We will continue to track the inclusion of specific LID requirements in individual MS4 permits as a measure of success.
- Leverage resources of existing technical-assistance organizations (such as Rural Water Association and Rural Community Assistance Corp.), conduct audits, and promote integration of funding, operator certification, and compliance targeting to ensure that water system operators continue to receive the necessary training to allow them to obtain and retain certification at the levels

appropriate to their system.

- Support efforts by the California Water Institute (at California State University Fresno) to develop a Center for Disadvantaged Communities Water Assistance to address the water and wastewater needs of rural communities. We will support regionalization efforts and the stakeholders' dialogue on regional solutions and development of institutional tools/processes for consolidation of small systems into a larger service area, providing the needed economy of scale for the delivery of safe, reliable and affordable drinking water.

Community Drinking Water Systems

While community water systems continue to deliver safe drinking water in compliance with the Safe Drinking Water Act (SDWA) to 97% of the population in Region 9, ensuring a safe, reliable and sustainable source of drinking water is fraught with ongoing challenges. Maintaining compliance with new and existing federal and state drinking water requirements coupled with increasing operation and maintenance costs associated with aging infrastructure poses the greatest challenge. Smaller water systems, such as those serving less than 10,000 persons, are greatly hindered by dis-economies of scale and lack of technical, managerial and financial capability to address needs. Region 9 is addressing the needs community drinking water systems in the following ways:

- With our states, assess and improve the effectiveness of our program efforts to enhance the capability of the 3,800 small community water systems in Region 9 by:
 - Providing opportunities for networking through conference calls, workshops, and dedicated internet sites to share information and effective practices among states, Regions, and technical assistance providers;
 - Ensuring that states are prioritizing systems for assistance based on degree of public health risk with mechanisms to monitor water system and state follow-up efforts;
 - Providing additional subsidization for disadvantaged communities, and
 - Ensuring that any new systems have adequate capability before beginning operation.
- Improve the data reliability and accuracy of our delegated drinking water programs through audits and reviews. With contractor support, we will conduct a comprehensive onsite file review and data audit of the Navajo Nation program and up to three "electronic" data audits of the Nevada, Arizona and the Northern Marianas Islands programs. We will evaluate and document business practice changes since the last comprehensive file review and data audit of three programs (California, Hawaii, and our own Tribal Program).
- Working with our states, address and resolve violations at 505 public water systems in accordance with the new SDWA enforcement response policy this year. (These 505 are from a universe of 755 PWSs with SDWA violations on the priority systems list as of July 2010.)
- Working and consulting with tribal governments, address and resolve violations at 75 public water systems in Indian Country - including 11 Bureau of Indian Affairs (BIA) public water systems this year.

Protect drinking water aquifers from underground injections

The SDWA mandates our Underground Injection Control (UIC) Program to protect drinking water aquifers from adverse impacts caused by injection wells. Injection wells include deep industrial disposal wells, wells used for enhanced oil and gas recovery, solution mining wells, and shallow wells such as those

used for stormwater drainage or as part of a community septic system. Under the UIC program, EPA issues permits to ensure that deep injection projects comply with safe drinking water requirements and encourages adoption of ground water protection Best Management Practices by operators of shallow injection wells. Region 9 is will work to protect drinking water aquifers from underground injections in the following ways:

- The Region, States and Navajo Nation are committed to addressing all public water systems on the July 2011 Enforcement Target Tool list with a score of 11 or greater (over 300 systems across states/tribes/territories).
- Evaluate new deep injection proposals and renewal applications, and anticipate issuing three to five permits each year. New injection proposals include natural gas storage caverns, geothermal energy development and copper solution mining in Arizona, brine injection at Newhall Ranch and commercial non-hazardous waste disposal in Ventura County. Anticipated renewals include biosolids injection by the City of Los Angeles, wastewater disposal at the Lahaina Reclamation Facility and Elk Hills Power Plant, and permits for the Alon Bakersfield refinery and Unocal's Guadalupe field.
- Continue to compel closure of banned Large Capacity Cesspools (LCC) in Hawaii (see Hawaii section).

Carbon Sequestration

Atmospheric build-up of carbon dioxide (CO₂) and other greenhouse gases as a result of human activities is linked to shrinking glaciers, sea level rise, changes in plant and animal habitats, and other global impacts. One possible way to mitigate the negative impacts of higher atmospheric concentrations of CO₂ is to capture the gas at stationary sources and inject it underground for long-term storage in a process called geologic sequestration (GS). EPA recently adopted rules for GS under the SDWA, which include stringent siting, construction, operational, monitoring, closure, and post-injection site care requirements for GS injection wells. All proposed GS projects in Region 9 will require a Class VI UIC permit to operate, and our UIC program will evaluate all permit applications to ensure protection of drinking water aquifers.

Cleaning Up Communities and Advancing Sustainable Communities

EPA's primary tools for cleaning up our communities are the Superfund law, officially known as CERCLA (**Comprehensive Environmental Response, Compensation, and Liability Act**) along with RCRA (Resource Conservation and Recovery Act), TSCA (Toxic Substances Control Act), OPA (Oil Pollution Act), and EPCRA (Emergency Planning and Community Right-to-Know Act). The following objectives encompass actions that may be taken under any one of these authorities.

Cleaning up Communities

EPA's mandate includes eliminating exposures to uncontrolled hazardous waste, enforcing laws on waste management and preventing waste from being generated in the first place. We deal with facilities that have been permitted or sites that have been listed on Superfund's National Priorities List, and we respond to smaller dangerous sites discovered throughout the year.

Superfund Program

EPA's Superfund program cleans up the most seriously contaminated sites in the country. Region 9 has a predominance of large, complex sites, including many square miles of contaminated ground water, former commercial landfills, operating and closed military installations and many historic mines. We subdivide our sites into project areas to prioritize clean ups and address the most toxic and high risk areas first to protect nearby residents and sensitive ecosystems.

- Protect people and the environment from potential exposures to hazardous and toxic waste at contaminated properties:
 - Conduct site assessment activities to evaluate sites about which the public or local agencies notify us, and complete remedial site assessment reports. We will complete 200 site assessments in 2012 (which includes reassessments, preliminary assessments, and site inspections) and 100 site assessments in each subsequent year for the next five years. (The FY12 numbers are significantly higher due to completing work on the Navajo mining lands five-year plan.) Based on these assessments, we will determine whether the sites qualify for immediate action or warrant longer-term and more detailed studies, and decide which sites are proposed for NPL listing, or referred to a state or other entity.
 - Complete short-term cleanups at 14 smaller, more dangerous sites using Superfund emergency response resources and oversee completion of another 14 short-term cleanups conducted by potentially responsible parties each year. Over the next five years, complete 60 emergency cleanups and oversee an additional 60 private party emergency cleanups.
 - At the larger, more complex NPL Superfund sites, complete 17 remedial actions (cleanup) in 2012 which will significantly reduce the risk of exposure to nearby residents and the environment, and bring the sites closer to completion.
 - We will complete all construction activities at 3 of our NPL sites in 2012 as well. We plan to complete construction (when all remedial actions at the NPL site are in place and operational) at 10 more sites in next the five years.
- Respond to accidental or intentional releases of oil or hazardous materials, and clean up contaminated sites. **EPA On-Scene Coordinators (OSCs) are on call 24/7 to respond to releases of pollutants that threaten human health and the environment.**
 - Prevent oil spills and enhance preparedness by focusing enforcement on critical inland waterways through compliance inspections and unannounced drills. We will conduct 25 of these drills each year to test the responsiveness and capabilities in the region.
 - Complete the geographic response plans for the three zones along the lower Colorado River (from the Hoover Dam to the Mexico Border) by the end of 2012. This effort will be accomplished through a partnership among the Bureau of Reclamation, U.S. Geological Survey, U.S. Fish & Wildlife Service, National Park Service, the states of Nevada, Arizona and California, as well as local and tribal governments. The effort involves geospatial analysis and spill response support to protect natural resources and cultural resources along more than 700 miles of riverbank shoreline with hundreds of stakeholders.

- Reduce environmental footprint of EPA-led cleanups and promote sustainable re-use of contaminated properties.
 - In coordination with EPA headquarters rollout, apply methodology on principles of life cycle assessment for better-informed remedial decisions at hazardous waste cleanups. Perform the analysis at 3 Fund-lead and 3 Federal facility sites in 2012. In 2012, evaluate how life cycle analyses impacted decisions and site actions, and determine applicability for all sites, and at what stage in the cleanup. Our goal is to integrate the methodology into our site decision-making process, if the tool proves to be a valuable addition to our program.
 - Include the evaluation of lower carbon footprint technologies, such as in-situ treatment solutions in Feasibility Studies for Superfund sites. Continue training project managers in new technologies and techniques for reducing the ecological footprint of cleanups while maintaining protectiveness and meeting regulatory requirements.
 - Develop renewable energy to provide power for one additional Superfund cleanup in 2012. In addition, for EPA-led cleanups, work with EPA Headquarters on purchasing renewable energy certificates to off-set our energy needs. Our goal is to have 100% of our fund-lead cleanup energy needs off-set through renewable energy certificates. Alternatively, we would have all our sites powered in part from either on-site renewable power or through renewable energy certificates.
 - Promote the [RE-Powering America's Lands](#) project for constructing utility scale renewable energy projects on contaminated lands, including former mine sites, Superfund sites, and active and closing federal facilities. In 2011, we worked with HQ on solicitation and evaluation of projects, nine of which were in the region, and will work with the four selected grantees (one in Arizona, three in California) in 2012 to evaluate sites for renewable energy.
- Address the impacts of solid waste accumulating in the Pacific Gyre. Prevent land-based debris from entering the marine environment by improving permit requirements under the Clean Water Act, enhancing enforcement and supporting key State of California initiatives to strengthen policies.
 - Reduce land-based sources through increased enforcement and develop innovative tools to identify and reduce the packaging most commonly found in beach and litter surveys. Work with the Department of Defense in developing an agreement to: a) sight and report the type, location and approximate quantity of marine debris in the ocean; b) aspire to zero shipboard waste; and c) implement a beach cleanup protocol that segregates debris by type, measures volume of each type and identifies the source of the plastics to the extent possible. The agreement will be drafted in early 2012.
 - Conduct toxicity studies of the effects of marine plastic ingestion on pelagic fish with California's Office of Environmental Health Hazard Assessment and collaborate with the University of California at San Diego and the University of California at Davis on a controlled lab study. The studies are designed to analyze the potential transfer and resulting effects of marine plastic debris contaminated with persistent organic pollutants such as PCBs and DDT from ambient sea water on fish tissue. Reports to be completed in 2012. If fish tissue studies identify a substantial risk, we will develop an approval memorandum to proceed with evaluating appropriate response actions.
 - Tsunami-derived Debris: In partnership with the National Oceanic and Atmospheric Administration (NOAA), US Coast Guard, Department of Defense and the National Aeronautics and Space Administration (NASA), assess the location, volumes and movement of debris from the Japanese tsunami. We are currently working with the University of Hawaii, the Oceania

Regional Response Team and the Inter-agency Marine Debris Coordinating Committee to develop a both a short term strategy targeted to assess the magnitude and impacts of the tsunami debris, and a long term strategy to find and record macro and micro marine debris in the area surrounding and impacting the Northwestern Hawaiian Islands.

- **Support sustainable development through assessment, cleanup and revitalization of brownfields and contaminated lands, and green jobs training.**
 - Through a competitive national grant competition, we anticipate awarding approximately 15 new brownfields grants each year throughout the region, totaling \$_{2.5}-3 million each year, to assess 40 brownfields sites, and clean up 3 brownfield sites identified by previous efforts. Develop brownfields grants applications in high priority geographic areas including the San Joaquin Valley, Navajo Nation, Guam, and the I-710 Corridor. The changing landscape for redevelopment agencies in California may impact the number of successful grant applicants we fund compared with previous years.
 - Manage Area Wide Planning Grants: Citizens for a Better Environment - Huntington Park, California; City of Phoenix; Neighborhood Parks Council - San Francisco; Jacobs Center - San Diego to promote community participation in redevelopment planning in neighborhoods surrounding brownfield sites. This up-front planning with citizen engagement at the beginning of a brownfields redevelopment project ensures that community members shape the project and influence redevelopment in their neighborhood.
- **Increase access and resources for underserved communities to be more involved in decisions about hazardous waste sites that impact them.**
 - Use Technical Assistance Services for Communities (TASC) to provide scientific advisors to 1-2 communities living near contaminated sites. This program provides independent technical advisors of the communities' choosing to help them understand site related technical information. This program is more limited in scope than the Technical Assistance Grants (TAG) which are available to communities surrounding NPL Superfund sites, and is targeted at only those communities that have an added need for independent assistance.

Promoting Sustainable Materials Management

- Sustainable materials management supports opportunities to reduce environmental impacts across the life cycle of materials. This includes how materials are mined, manufactured, used, reused, recycled, and finally disposed. We are working nationally and with communities throughout Region 9 to gain efficiencies in sustainable materials management, resulting in greenhouse gas reductions, conservation of materials and water, and reduced volume and toxicity of waste.
- In 2012, launch a website of work products and resources developed by the West Coast Climate and Materials Management Forum, an EPA-led partnership of West Coast cities and states. The website will include a Materials Management Toolkit that provides assistance to state and local governments implementing materials management life cycle approaches in their Climate Action Plans.
- In 2012, recruit two to five colleges and universities to reduce food waste and increase food waste diversion through the national Food Recovery Challenge. Develop tools, case studies, and web resources that will be used to advance reduction and diversion throughout the University of California and California State University systems.

- Co-lead, with EPA Region 10, the national Federal Green Challenge (FGC). The Challenge aims to reduce federal facilities' greenhouse gas emissions by 5% or more per year in two of six areas: electronics, energy, purchasing, transportation, waste, and water. By the end of 2012, EPA Region 9 will recruit at least 50 FGC partners, provide technical assistance, and create a website to help provide support and highlight success.
- With the City of Tracy, develop a decision-support tool by 2012 for recycling and composting. The tool will enable cities to evaluate the cost-effectiveness and environmental benefit of various solid waste reduction strategies.

Ensuring Safe Waste Management

As we strive to minimize toxicity and eliminate waste, strong and vigilant oversight of the remaining waste that is generated is key to preventing harm to communities and the environment. Forty years ago, contamination from mismanagement and spills was common. Today, we are controlling hazardous waste from "cradle-to-grave" under the Resource Conservation and Recovery Act (RCRA), issuing and enforcing permits, and overseeing cleanups. RCRA also sets forth a framework for municipal solid waste management and enables EPA and states and tribes to address environmental problems that can result from underground tanks storing petroleum and other hazardous substances. While waste management has improved markedly, there is still much to be done.

- **Protect people and the environment from potential exposures to hazardous and toxic waste at contaminated properties:** Complex environmental problems (such as contaminated soil, sediment, and groundwater) persist at many contaminated properties that can cause human health concerns. We are accelerating the pace of cleanups by:
 - Partnering with our states and tribes to reduce the potential for human exposure to hazardous waste contamination by controlling potential exposures at an average of 12 hazardous waste cleanup sites per year through 2014.
 - Partnering with our states and tribes to select final cleanup remedies at an average of 15 hazardous waste sites per year through 2014. Our goal is to ensure completion of final remedy construction at 95% of the over 300 high-priority sites in Region 9 by 2020.
 - Partnering with our states and tribes to clean up at least 850 leaking underground storage tank sites per year in 2011 and 2012. There are approximately 10,000 leaking underground storage tank sites in EPA Region 9.
 - Ensuring EPA review and action on proposed PCB cleanups. We will approve approximately 5 sites per year. PCB cleanups are driven primarily by redevelopment activity and our timely approval is critical to ensure that safe economic development continues.
- **Protect communities and workers from exposures at hazardous waste and PCB facilities subject to EPA or state permits:** Hazardous waste and PCB permitting programs help ensure safe treatment, storage, and disposal by establishing specific requirements that must be followed when managing those wastes. With our state partners, we will review and act on both renewals of existing permits and new facilities' permit applications.

- Partner with our states to issue or renew nine hazardous waste permits each year within Region 9 to contribute to the national goal of 100 permit issuances or renewals per year. We will focus on a host of site-specific technical issues as needed including groundwater, air monitoring, and waste management.
- EPA will make two PCB permit renewal decisions each year during 2012 through 2014. There are a total of six permitted PCB facilities in Region 9.

HUD/DOT/EPA Partnership for Sustainable Communities

The Housing and Urban Development/Department of Transportation/EPA Partnership for Sustainable Communities was launched by the three federal agencies to help communities develop in more environmentally and economically sustainable ways. In 2012-2013, with our partners, we will build capacity in communities and advance the consideration of equity in land-use and transportation planning.

- Provide technical assistance to three communities that received HUD and DOT planning grants in 2011 (San Joaquin Valley, Metropolitan Planning Commission, and Honolulu) by providing information and resources to minimize impacts associated with transportation and land use.
- Build smart growth capacity in 4 communities by providing tools and resources (including Walkability Audits and Complete Streets Audits) to help communities achieve their desired development goals, improve the quality of life for their residents, and make their communities more economically and environmentally sustainable.
- Encourage equity considerations and involvement of community groups in federally-funded planning activities by facilitating access and information sharing.

Reducing Environmental Impacts through Environmental Review

EPA reduces impacts to the environment by fostering stewardship and improved planning for major federal projects through our review and comments on Environmental Impact Statements, pursuant to our National Environmental Policy Act (NEPA) authority. Transportation, energy, major infrastructure, and mining projects are priorities.

- **Reduce impacts from major federal projects and promote sustainable transportation and energy development through NEPA reviews.**
 - Work with California High Speed Rail Authority and partners to implement the High Speed Rail Sustainability MOU, which outlines measures to minimize the environmental impacts of the future rail system, improve the livability of communities near planned stations, and promote renewable energy options.
 - Reduce impacts from the transportation sector by advancing the consideration of health impacts, promoting advance mitigation for impacts to biological and aquatic resources, and incorporating measures to reduce vehicle miles traveled.

- Minimize the adverse environmental impacts of five proposed energy, major infrastructure, and water projects through NEPA review of federal environmental impact statements.
- Minimize risks of surface water, ground water, and long-term land contamination from two proposed mining projects. Proactively encourage appropriate mine design and financial assurance, in order to prevent avoidable degradation of water and land, and to ensure availability of adequate resources for remediation, where needed.

Chemical Safety and Pollution Prevention

Materials and products in our everyday lives, from the homes we live in to the food we eat, contain chemicals that create environmental impacts. Our goal is to reduce or eliminate lifecycle impacts during their processing, manufacture, use, and disposal. EPA's primary tools for ensuring the safety of chemicals are the Toxic Substances Control Act (TSCA) and the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

- Conduct inspections, compliance outreach, state and tribal oversight, and initiate appropriate enforcement actions.
 - In 2012, work with states and tribes to conduct over 100 federal inspections to ensure pesticides on the market are legally registered with EPA. Region 9 will work with states to ensure pesticide products do not make illegal public health claims. Our long-term goal is to ensure the Region is notified of all pesticide imports and that all products sold to consumers are properly registered with EPA and have the correct directions for use, to reduce risks from using pesticides.
 - By the end of 2012, work with Contractors State Licensing Boards to educate more than 500,000 registered contractors in Region 9 who may be affected by new Lead Renovation, Repair and Painting Rule through direct mailings, trade journal articles, newsletters and email notifications.
- In 2011-2012, conduct inspections, compliance outreach, data analysis, and initiate appropriate enforcement action to ensure the integrity and public availability of chemical release information through the Toxic Release Inventory (TRI). We ensure the integrity of the data by verifying release reports submitted by regulated facilities and identifying and correcting reporting discrepancies.
- Conduct inspections of federal facilities, a national enforcement priority, to ensure leadership in environmental compliance and take appropriate enforcement action for non-compliance.
 - In 2012 conduct inspections of regulated federal facilities and initiate appropriate enforcement action.
- Deploy pollution prevention strategies to reduce or eliminate the life cycle impacts of products.
 - Co-Chair the National Electronic Product Environmental Assessment Tool (EPEAT) TV Workgroup. Complete a green standard for TVs by mid-2012 to reduce use of energy and toxics and promote product stewardship.
 - Serve as the EPA representative to the Underwriters Laboratories Environment (ULE) Technical Panel developing a green standard for cell phones to reduce use of energy and toxics and promote product stewardship. A published standard is expected by the end of 2012.
 - Identify and promote safer alternatives to copper-based boat hull coatings in California by working with California Department of Toxic Substances Control and the Port of San Diego. Complete pilot testing of coating alternatives and an educational video by 2012.

Enforcing Environmental Laws

National Initiatives

EPA's national enforcement initiatives are selected based on widespread non-compliance or significant impacts to human health and the environment. Region 9 will focus many of its enforcement resources on these six issues.

- **Raw sewage and contaminated stormwater:** Region 9 will continue its focus on ensuring that large municipal wastewater systems are in compliance with the Clean Water Act. Many of our largest cities are under consent decrees to implement major infrastructure improvements. Region 9 will work with municipal systems throughout the Region to ensure compliance, and inspect wastewater collection systems not yet evaluated. The Region will also continue targeted enforcement actions to ensure municipalities and industry are reducing or eliminating stormwater runoff.
- **Animal waste:** Concentrated animal feeding operations can have a significant impact on water quality. Region 9 is working closely with the California Water Boards to ensure that these facilities, and in particular the many dairies in the region, have adequate permits and are in compliance with federal and state requirements.
- **Toxic air pollution:** The Clean Air Act and EPA's regulations impose strict emission control requirements for all 187 hazardous air pollutants that pose significant threats to human health. Region 9 will focus on excess emissions caused by industrial and commercial facilities' failure to comply with EPA's leak detection and repair requirements and restrictions on flaring, and to address excess emissions during start-up, shutdown and malfunction events.
- **Widespread air pollution from large sources:** The Clean Air Act requires certain large industrial facilities to install state-of-the-art air pollution controls when they build new facilities or make "significant modifications" to existing facilities. However, many industries have not complied with these requirements, leading to excessive emissions of air pollutants such as sulfur dioxide, nitrogen oxides and particulate matter. Region 9 will work with our states to investigate and take enforcement action against non-compliers in the coal-fired utility sector, as well as the manufacturers of cement, glass and acid.
- **Minerals processing:** Mining and minerals processing facilities generate more toxic and hazardous waste than any other industrial sector, based on data compiled in EPA's Toxic Release Inventory. Region 9 has a significant number of mines, including the most gold mines in the nation. Region 9 will continue to address noncompliance in the mining sector, particularly at copper and gold mines.
- **Energy extraction:** As the nation expands its search for new forms and sources of energy, there is an urgent need to assure that we develop "clean energy" sources that protect our air, water and land. Some energy extraction activities, such as new techniques for oil and gas extraction and coal mining, pose a risk of pollution of air, surface waters and ground waters if not properly controlled. Region 9 is exploring the extent to which this sector impacts human health and the environment within our region.

Regional Priorities

- **Environmental justice:** Region 9, with state and local agencies, is engaged in a three year effort (2010 to 2012) to address non-compliance in communities along the I-710 freeway corridor in Los Angeles County. Inspections under multiple environmental statutes, including chemical risk management and emergency planning, are planned for this corridor. Hazardous waste inspections are targeted for heavily impacted areas in San Bernardino and Riverside. The Region will also be conducting inspections of multi-family buildings in socially vulnerable communities for lead disclosure violations. For additional objectives related to Environmental Justice, please see targets related to the I-710 Corridor Plan, below.
- **Tribal lands:** The Region will oversee inspections at underground storage tank facilities with federally-credentialed tribal inspectors and contract inspectors. Each underground storage tank facility will be inspected at least once every three years. On the Navajo Nation, the Region will identify and enforce against parties responsible for the cleanup of abandoned uranium mines.
- **Tribal lands and Pacific islands:** Region 9 focuses enforcement resources on jurisdictions not authorized to implement federal programs as is the case in many of our tribal lands and Pacific islands. The Region will continue to invest in enforcement activities across Indian country including inspections of underground storage tanks, pesticide applications and hazardous waste generation and storage facilities. Noncompliance with the Safe Drinking Water Act is relatively high in the Pacific islands and tribal communities, and is an important focus for Region 9. In addition, we are continuing our work in closing banned large capacity cesspools which threaten Hawaii's coastal waters.
- **Wetlands:** The Region brings enforcement actions for illegally filling wetlands, and requires restoration of damaged wetlands. We will inspect high-value wetlands, such as the Central Valley's vernal pools and the coastal streams of Hawaii and California.
- **Groundwater:** Compel companies responsible for pollution to design, construct and pay for treatment of contaminated groundwater. This implements EPA's policy wherein "the polluter pays" to preserve taxpayer dollars for the cleanup of abandoned hazardous sites where no financially responsible party exists.
- **Clean Air Act mobile sources:** In 2010 we settled the Region's first mobile source case, involving tampering with diesel particulate filters. We have three other investigations underway and in 2011 will initiate our first investigations of illegal engine imports through container ports.
- **Pesticides:** Our enforcement focus is on worker protection, soil fumigants, and pesticide imports. We are also actively engaged in cases of unsubstantiated claims of efficacy of products, including hospital grade disinfectants.
- **Asbestos in schools:** We are integrally involved in ensuring compliance by the Bureau of Indian Affairs with AHERA at tribal schools.
- **Oil spill prevention:** Due to a number of spills in recent years, Region 9 has dedicated significant enforcement resources to conduct Spill Prevention, Control, and Countermeasure inspections at oil production facilities in southern and central California. We will conduct inspections or exercises at

facilities that are required to prepare Facilities Response Plans.

- **Chemical safety:** A significant portion of Region 9's inspection resources are focused on refineries, anhydrous ammonia handlers, and other facilities that represent a high risk to surrounding communities in the event of an accidental chemical release. We will conduct EPCRA/Risk Management Program inspections and take enforcement action if warranted.
- **State enforcement program oversight:** Under the national State Review Framework, in 2012 Region 9 will complete the review for the State of Nevada's hazardous waste and water programs, and Clark County, Nevada's air program.

Environmental Justice

In January 2010, Administrator Lisa P. Jackson made *Expanding the Conversation on Environmentalism and Working for Environmental Justice* one of EPA's priorities. The Administrator directed the Agency to address the needs of overburdened communities by decreasing environmental burdens, increasing environmental benefits, and working alongside them to build healthy, sustainable and green communities.

February 2014 will mark the 20th anniversary of the Clinton Administration's Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. The Executive Order calls on each federal agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities..." In recognition of this anniversary, EPA has developed Plan EJ 2014, a comprehensive strategy to improve the environmental conditions and public health in overburdened communities. Plan EJ 2014 is a roadmap to help EPA integrate environmental justice into its programs, policies and activities.

Heart disease, cancer, and respiratory illnesses, such as asthma, are three of the top four deadliest health threats in America, and all three are linked to environmental causes including air pollution. All three also have an overwhelming impact on minority and low income communities. We will address these environmental justice issues through the following:

- By October 2012, use EJ small grants to support environmental problem solving in at least 16 Region 9 communities.
- By Spring 2012, screen two Region 9 geographic priority areas to identify communities with the highest social vulnerability, exposure to environmental pollutants, and health impacts for enhanced EPA oversight of state permitting and increased inspections.
- By October 2012, validate an Environmental Justice Screening Method, designed by academia to identify EJ hot spots, through support of three communities in ground-truthing the data.
- By 2013, improve the health of those who work in or around pesticides by reducing the number of people affected by moderate to severe pesticide exposure incidents by 10% by funding training for at least 50 trainers, who will in turn educate an additional 2,500 farm workers on pesticide safety.

Children's Health

Protecting children from environmental health threats is crucial to our mission as many children's health issues have reached epidemic proportions, from breath-taking asthma rates to alarming obesity rates. Children are often more vulnerable to environmental contaminants than adults since their respiratory, neurological, immunological and reproductive systems undergo rapid changes - from conception through the teen years. Children may also be more easily harmed by environmental factors during critical windows of development. In addition, developmental disorders and childhood cancers are on the rise. All of these issues have important environmental contributions which fall either within EPA's jurisdiction or our sphere of influence.

In 1997, EPA established the Office of Children's Health Protection to support the Agency in implementing the *President's Executive Order on the Protection of Children from Environmental Health Risks and Safety Risks*, as well as the national *Agenda to Protect Children's Health from Environmental Threats*. In January 2010 Administrator Lisa P. Jackson made Children's Health one of EPA's priorities and revitalized the Children's Health Office. As a result of this renewed focus on children's health, EPA is changing the way we carry out all of our work. The Region 9 Children's Health Program is contributing to this national priority and will accomplish the following in 2011-2012:

- Lead poisoning is the greatest direct environmental threat to children, affecting over one million children nationwide each year. We will develop the capacity of 16 local governments and tribes to train residents on lead hazards, conduct blood lead screenings and provide treatment information for any child who is lead poisoned. In 2011, we completed the screening of 5,000 children in Arizona for elevated blood lead levels. Our long-term goal is to support healthy homes outreach and training to protect children from exposures to lead-based paint in addition to indoor air pollutants, chemicals, and pests.
- Work with local and tribal partners to reduce environmental exposures of children at schools and daycare centers, where 20% of the U.S. population spends its days. This will be accomplished by working to implement EPA's Voluntary School Siting Guidelines and developing State School Environmental Health Guidelines.

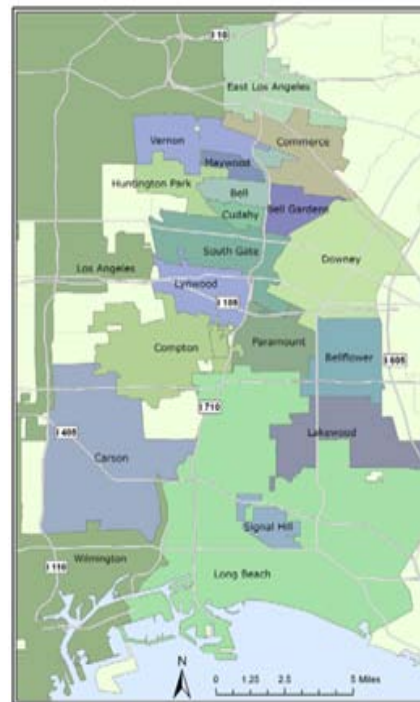
Geographic Areas of Focus

I-710 Freeway Corridor

Southern California's I-710 freeway passes through 15 cities and unincorporated areas with a population of over one million residents - about 70% of which are minority and low income populations. The area is dense with goods movement-related truck traffic, industrial facilities, residences, schools and day care facilities. The nearby ports of Long Beach and Los Angeles are the entry points for 40% of all imports to the U.S., and emit 20% of diesel particulates in Southern California. The region has persistently exceeded air quality standards for carbon monoxide, 1-hour and 8-hour ozone, and PM_{2.5} and PM₁₀.

- Improve compliance with environmental laws by targeting inspections and enforcement by local, state and federal jurisdictions.
 - By spring of 2012, identify vulnerable communities for enhanced oversight, inspection, and enforcement using the Social Vulnerability Index and environmental and health impacts.

- By fall of 2012, work with community leaders in Maywood and Wilmington, California to place 15 anti-idling signs in three impacted neighborhoods to support compliance with the California Air Resources Board's anti-idling regulation, which prohibits idling from heavy-duty diesel.
- By fall of 2012, take enforcement action at 10 or more facilities in the I-710 corridor area that are in violation of chemical release prevention, emergency planning, or chemical reporting requirements.
- Clean up and restore land and prevent pollution in the I-710 corridor.
 - By December 2012, assess risks to residents and drinking water resources of 25 sites in the I-710 corridor with the California Department of Toxic Substances Control to determine whether cleanup is required.
 - In partnership with state and local agencies, evaluate the leaking underground storage tank universe in the I-710 corridor to identify opportunities for use of federal Brownfields and Leaking Underground Storage Tank funding to conduct assessment and cleanup activities. Conduct field assessments at three to six of the highest priority sites by the end of 2012.
- Reduce air quality and public health impacts from mobile, stationary, and indoor air sources.
 - Reduce PM_{2.5} annual concentrations by 3% by December 2011 through regulatory action and accelerating the development of cleaner transportation and other clean air technologies.
 - Achieve a total reduction of 13% from 2009 levels to reach attainment of the PM_{2.5} standard by the end of 2014.
 - Reduce emissions through regulatory action on the South Coast air quality plan for reducing PM_{2.5} and on nine related rules targeting industrial boilers, refineries, coatings, and consumer products.
 - Partner with the California Department of Toxic Substances Control to conduct outreach to six schools along the I-710 corridor to improve awareness about the importance of indoor air quality by the fall of 2012.
 - Use our NEPA authority to influence the California State Department of Transportation's analysis of and planning for the expansion of the I-710 highway. We will focus on reducing adverse disproportionate environmental and public health impacts for the region and affected communities by ensuring that the best available technology is considered, such as zero-emission vehicles.
 - Partner with the Los Angeles Collaborative for Health and Environmental Justice in its *Clean Up Green Up* campaign to revitalize three Los Angeles communities by providing pollution prevention assistance and increased inspections by the end of 2012.



- By fall of 2012, convene East Yard Communities for Environmental Justice, the City of Commerce, and other stakeholders in support of the City of Commerce 2004 EJ Resolution to develop recommendations for land use to protect residential neighborhoods from the environmental impacts of industry.
- Through an EPA Brownfields Area-Wide Planning Grant to Communities for a Better Environment, work with the Huntington Beach, California community to complete an area-wide strategic plan and implementation plan to create a community vision for the reuse of brownfield sites by the end of 2012.

Tribal Partnerships

The United States has a trust responsibility to federally recognized Indian tribes. We work on a government-to-government basis with all 147 tribes in Region 9. Region 9 tribal lands comprise half of all Indian land in the country, and more than 80% of the tribes in the Region have an environmental presence. Economically disadvantaged populations in Indian country still suffer from critical environmental and health problems. We will protect the environment in Indian country by focusing on the following priorities:

- **Building Tribal Environmental Capacity through the General Assistance Program**
 - Work collaboratively with tribes to build and maintain environmental programs to protect 27 million acres of land and the health of more than 300,000 reservation residents.
 - Each year, award approximately 130 grants totaling more than \$15 million and technical support to over 125 tribes and inter-tribal consortia to build environmental protection programs.
 - Advance green building practices in tribal homes through two demonstration projects in 2012. Work with Kayenta Township, Pinoleville Pomo Nation, and one additional tribe to advance adoption of greener building codes.
 - Develop a Web-based green building code template with adaptations for various tribal cultural interests by the end of 2012.
- **Tribal Clean and Safe Water**

In 2012, we will reduce the number of tribal homes lacking safe drinking water and wastewater and restore tribal water quality.

 - Support approximately 50 tribal water infrastructure projects by investing \$12 million of EPA funds to create access to safe drinking water and basic sanitation.
 - Provide \$10 million and technical support to more than 100 tribes to protect and restore water quality.
- **Tribal Solid Waste Management**

Approximately 1,300 open dumps exist on tribal lands in Region 9. In partnership with tribes, we are identifying sites posing the greatest threat and closing them, and working to prevent their recurrence. The development of Tribal Integrated Solid Waste Management Plans

and adoption by tribal councils lead to long-term planning for safe solid waste disposal. We will partner with tribes to:

- Close, clean up, or upgrade at least 35 open dumps during 2012, and improve tribal solid waste management.
- Increase by two each year the number of tribes that will have an Integrated Solid Waste Management Plan in place, for a total of 39 plans region-wide by October 2012.
- **Tribal Underground Storage Tanks**
 - Work with federally-credentialed tribal inspectors and EPA contract inspectors to inspect 65 underground storage tank facilities on tribal lands during 2012. Each facility in Indian Country will be inspected at least once every three years.
 - Prevent releases from and close at least seven leaking underground storage tank sites on tribal lands during 2012.
- **Tribal Clean Air**
 - Support tribes in building capacity and protecting air quality through \$25 million in 2012 grant funds for training, education and outreach, monitoring, emission inventory development, and rule development.
 - Provide technical support to 25 tribes for emission inventories and air monitoring during 2012.

Navajo Nation

The Navajo Nation is the largest reservation in the country, with nearly 200,000 people living on more than 17.6 million acres – a land base the size of West Virginia. Forty-two percent of the residents live below the poverty line, with nearly 50% unemployment. Many live in remote areas that lack access to power, drinking water and wastewater infrastructure; more than 30% of the households on the Nation lack access to safe drinking water. In addition, the legacy of uranium mining continues to affect residents, including impacts from the mines themselves, contaminated landscapes, and homes constructed from contaminated materials. The Nation's environmental program has more than 60 staff, who focus their efforts on protecting the water, air, and land, including four programs delegated by the federal government.

- Region 9 will help develop and support government-wide strategies to improve the Navajo Nation's environment, public health, and economy.
 - During 2012, complete a renewable energy pre-feasibility evaluation for a reclaimed mine site and provide it to the Navajo Tribal Utility Authority, the utility for the Navajo Nation.
- Work with the Navajo Nation, Hopi Tribe, and other federal and state agencies to fully implement the multi-agency Five-year Plan to address the most urgent risks posed by more than 500 abandoned uranium mines.

- Provide grants to fund Navajo Superfund Program, Drinking Water Program, Public Outreach, and Department of Justice to work with EPA to implement the Five-year Plan.
- With the Navajo Superfund Program, assess at least 100 additional structures for uranium contamination in 2012.
- Clean up, remove, or replace 12 contaminated structures in 2012.
- Work with Navajo Department of Water Resources to implement an EPA-funded (\$2.6 million) water hauling program that will serve 3,000 families impacted by uranium in drinking water during 2011-2012.
- Complete the last round of 145 site screens of abandoned uranium mine sites, resulting in site screens of all 520 abandoned uranium mines to be completed by the end of 2012.
- Starting in 2012, begin to implement the cleanup plan for the Northeast Churchrock Mine, the largest abandoned uranium mine on the Navajo Nation.
- Develop and implement government-wide strategies to reduce the number of homes lacking safe drinking water and wastewater.
 - Initiate construction in 2011-2012 of \$22.5 million of federally funded infrastructure projects to provide access to safe drinking water and basic sanitation for over 400 homes. These improvements will start addressing the \$213 million total need for full access to safe drinking water and basic sanitation on the Navajo Nation as identified by the Indian Health Service in its 2010 annual report to Congress.

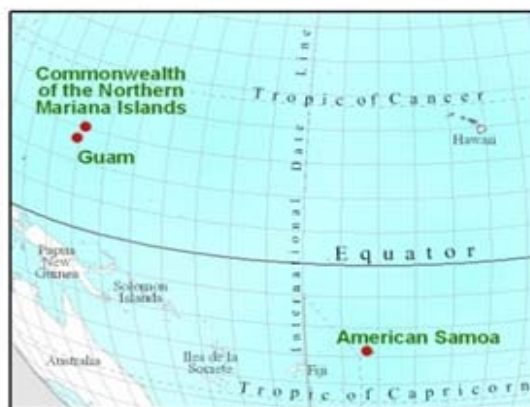
Hawaii and the Pacific Islands

Hawaii

The state of Hawaii, with 1.3 million residents, is one of the most remote archipelagos on the planet. Hawaii imports 90% of its energy and over 85% of its food. Seven million visitors are drawn to Hawaii each year to the beautiful beaches and coastal waters. There are 11 military bases in Hawaii utilizing the islands' resources for training and family housing for over 20,000 personnel. Through enforcement, resource management, and environmental awareness, Hawaii hopes to return to "minimal reliance on importing" and "positive use of land and water resources," according to Governor Abercrombie's "A New Day in Hawaii Plan."

Pacific Islands

The U.S.-affiliated Pacific islands, including the territories of American Samoa, the Commonwealth of the Northern Mariana Islands (CNMI), and Guam, as well as the Freely Associated States of the Marshall Islands, Palau, and the Federated States of Micronesia (FSM), face significant environmental challenges. Each island jurisdiction has its own local environmental agency working to protect public health and the environment. Due to the challenges presented by their remote locations and limited land-based



resources, the islands have a great need for better infrastructure to provide safe drinking water, treat sewage, and address garbage and hazardous waste. They are among the first to experience climate change impacts, including rising sea levels and threats to coral reefs. In addition, geo-political changes have heightened the strategic importance of U.S. Pacific islands, as underscored by the proposed construction of a new military base on Guam.

Hawaii

In 2012, the EPA's highest priorities are:

- To encourage integrating clean, renewable energy projects and alternative transportation systems;
- To protect streams, coastal waters, and coral reefs; and
- To move towards zero waste by promoting pollution prevention and reducing the accumulation of trash in the Pacific Gyre.

In addition to EPA staff time and resources, the Rewarding Internships for Sustainable Employment (RISE) program augments our resources by providing part-time, paid environmental internships. The RISE program is designed to provide green jobs and training while supporting Hawaii's sustainability goals. RISE interns work with public and private partners on a wide variety of projects. By 2015, we plan to expand the RISE program to all four counties in Hawaii.

Air Quality and Climate Change

EPA will support the Hawaii Clean Energy Initiative's (HCEI's) goal of achieving 70% clean energy by 2030. This goal includes renewable energy, energy efficiency and transportation, which in turn addresses air quality and climate change issues. To help create a clean energy economy, by 2013, EPA will:

- Align our Clean Air Act (CAA) regulatory authorities with HCEI. As part of this, EPA will complete a Federal Implementation Plan for Regional Haze and finalize a control technology standard for electric generating units.
- Assist Hawaii Department of Health (HDOH) in the development of greenhouse gas regulations.
- Chair the Alternative Transportation group to assist HCEI, Honolulu Clean Cities, and the rest of the coalition in their effort to reduce vehicle miles traveled by 3% or 40 million gallons.
- Partner with at least five Hawaii federal facilities under the Federal Green Challenge aimed at reducing GHG emissions by 5% by the end of 2013 in at least two of six areas: electronics, energy, purchasing, transportation, waste, and water.
- Provide EPA tools and planning assistance to the City and County of Honolulu. This will be done as part of the EPA Climate Showcase Community Grant (\$499,000) and the HUD-DOT-EPA Sustainable Community Challenge Grant (\$2,383,424) awarded in 2010.

Water Quality and Sustainable Infrastructure

Protecting streams, coastal waters, and coral reefs is a priority for EPA, HDOH, local governments, and the public. EPA will focus on addressing multiple types and sources of land-based pollution to protect and improve coastal water quality and unique environmental assets, such as coral reefs. To protect, enhance and restore Hawaii's coastal waters, by 2013, EPA will:

- Improve water quality in Lahaina by requiring full disinfection of wastewater from the Maui County's Lahaina Wastewater Reclamation Facility to protect groundwater and nearby coastal waters.

- Conduct compliance inspections at 110 facilities with surface water discharge permits and initiate compliance or enforcement action to address any CWA violations.
- Close up to 270 large capacity cesspools (LCCs). Over 1,100 active LCCs have been identified to date. We will focus on priority areas (such as West Maui and Waimanalo) and priority sectors (such as restaurants and apartment buildings). Approximately 170 of the 270 targeted LCCs will be closed through EPA enforcement actions.
- Develop storm water management controls for the Waimanalo Gulch Sanitary Landfill on Oahu.
- Review Hawaii Department of Transportation storm water consent decree deliverables, incorporate into a revised storm water permit, and close out the consent decree.
- Review and approve Kauai's Hanalei Bay Total Maximum Daily Load (TMDL).
- Work with the U.S. Army Corps of Engineers to approve a new Coral Reef Mitigation Program to restore coral reefs.
- Work with key stakeholders in West Maui, South Kohala, and Hanalei Bay watersheds to develop watershed management plans. Use federal authorities or funding to initiate a project to address land-based sources of pollution.

To promote sustainable water-related infrastructure by 2013, EPA will:

- Ensure EPA State Revolving Fund (SRF) capitalization grants are awarded to HDOH in a timely manner and that HDOH maintains a fund utilization rate within 5% of the national funding pace.
- Ensure City and County of Honolulu compliance with the universal consent decree for the wastewater collection system and treatment plant upgrades by tracking consent decree milestones.
- Hold up to four local workshops to showcase sustainable infrastructure projects funded by SRF.

Cleaning Up Communities and Advancing Sustainable Development

EPA will work closely with communities in Hawaii to facilitate property cleanup and reuse. Cleaning up previously contaminated properties for reuse can reinvigorate communities, protect natural resources, and prevent sprawl. The Pearl Harbor Naval Complex (PHNC) is an active military facility encompassing approximately 12,600 acres of land and water. The Harbor's four lochs provide an estuarine environment bordered by wetlands and marsh habitat. To advance cleanup at Pearl Harbor, by 2013, EPA will:

- Oversee the Navy's cleanup of the Makalapa Pesticide Rinsate Pit. The Navy has cleaned up approximately 340 tons of contaminated soils and will clean up 300 to 500 additional tons.
- Make two cleanup decisions at the PHNC and Naval Computer and Telecommunications Area Master Station Pacific sites, evaluating the environmental footprint of the cleanup and promoting the use of renewable energy.
- Proceed with investigations and cleanup work at the private ownership sites around Pearl Harbor: Waipahu Landfill and the Oahu Sugar property.

EPA and HDOH are overseeing cleanups at 13 high priority RCRA hazardous waste sites and 200 leaking underground storage tank sites. Approximately 15-25 new underground storage tank releases are reported each year. To enforce waste regulations and oversee hazardous waste and leaking underground storage tank cleanups, by 2013, EPA will:

- Partner with HDOH to oversee completion of approximately 20 leaking underground storage tank cleanups.

- Partner with HDOH to ensure that final cleanup remedies are constructed or completed at 6 RCRA hazardous waste cleanup sites. With these actions, remedies will be constructed or completed at 50% of the sites in Hawaii. In the next five years, final remedies will be constructed or completed at all 13 high priority RCRA sites in Hawaii.
- Lead federal inspections or provide technical assistance to HDOH at approximately 16 of the 54 RCRA large quantity generator hazardous waste facilities each year (30%). EPA will ensure that all appropriate enforcement is taken by either HDOH or EPA.

To promote renewable energy on contaminated lands, by 2013, EPA will:

- Create a Hawaii map of contaminated lands suitable for renewable energy projects.
- Work with HDOH to ensure the safe operation of photovoltaic cells recently installed on the former Hawaiian Western Steel site.

The Hawaiian archipelago acts as a giant “strainer,” collecting marine debris generated throughout the North Pacific region. This marine debris originates predominately from Pacific Rim countries, ocean vessels, and natural disasters. EPA is coordinating with the NOAA Marine Debris Program to reduce sources of marine debris, prevent trash from entering the oceans, and assess the human and ecosystem impacts and potential for cleanup. To reduce the accumulation and impact of trash in the Pacific Gyre, by 2013, EPA will:

- Work with the National Oceanic and Atmospheric Administration (NOAA), the University of Hawaii, and the Oceania Regional Response Team to assess the potential impacts of the 2011 Japan tsunami-generated debris. This work will include finding and recording associated macro and micro marine debris in the Pacific Gyre.
- Compile Hawaii-specific economic data to study the cost of addressing marine debris.
- Work with HDOH and CCH to ensure the trash reduction plan required by the National Pollutant Discharge Elimination System (NPDES) storm water permit is developed and implemented.
- Investigate potential sources of industrial plastic pellets and pursue Clean Water Act storm water inspections/enforcement, where appropriate.

Chemical Safety and Pollution Prevention

Pollution prevention strategies are especially important in island environments with constrained infrastructure and sensitive ecosystems. To help prevent pollution from solid and hazardous waste, by 2013, EPA will:

- Partner with three Hawaii colleges, schools, groceries, and/or venues under EPA’s Food Recovery Challenge to achieve at least a 5% reduction in food waste reaching landfills from each facility by the end of 2013.
- Reduce potential runoff of nutrients into coral reefs and other sensitive ecosystems from turf grass while conserving water through a pilot project grant to the University of Hawaii.
- Work in Waianae, Oahu to decrease the use of pollutants by reducing trash thrown into streams by 10% and increasing the use of disposal and recycling facilities by 10%.
- Approve HDOH’s “Model Accreditation Plan.” Once approved, the state can take responsibility for training and certifying asbestos abatement professionals.
- Assist the State of Hawaii’s Department of Business, Economic Development, and Tourism (DBEDT) add over 30 additional Green Business Program participants that commit to waste, water, and energy reduction in the hospitality sector.

Pacific Islands

Building Pacific Island Environmental Capacity

- In 2012 implement and manage a contract to increase engineering capacity at Guam Waterworks Authority, which will include planning and construction management training.
- Maintain the long-term placement of U.S. Public Health Service engineers with island environmental agencies and water utilities. Work with U.S. Public Health Service in 2011 and 2012 to recruit new engineers to replace outgoing staff based in the islands.
- In 2012 implement Memorandums of Understanding with Pacific Island colleges and universities to promote partnerships with EPA and environmental career opportunities for students.

Improve Pacific Island Solid Waste Management

- In Guam, continue to provide technical review and work with the federal court-appointed Receiver to open the new Layon landfill, cease the acceptance of waste at the old Ordot landfill, and begin closure activities and install a temporary cap at Ordot by the end of 2012.
- Collaborate with Guam EPA, DOD and island stakeholders to advance a framework for zero waste management and baseline recycling measurement; support efforts to increase Guam's recycling rates by 25% by 2014.
 - Support Guam's implementation of beverage container legislation and Guam's plastic bag elimination initiative by providing peer matching, tours, and technical support from EPA, Hawaii and California experts through 2013.

Increase green building practices and renewable energy, and improve sustainable practices in the territories:

- By 2012, work with territorial energy offices and energy task forces to identify and implement green building and energy efficiency measures, in support of local executive orders and codes.
- Support the construction of the first LEED-certified Gold building in American Samoa, to be completed in 2012.

Collaborate with the Government of Guam and Department of Defense to minimize the environmental impacts of an increased military presence.

- By 2012, work with DOD, the government of Guam, and other federal agencies to develop and sign an agreement on the implementation of the Civil Military Coordination Council and Adaptive Program Management as a way to prevent or reduce significant environmental impacts associated with the construction phase of the military buildup.
- During 2012, continue to collaborate with DOD, the government of Guam, and other federal agencies on the identification of water infrastructure needs, and prioritization of any external funding which may become available to address those needs.

U.S. - Mexico Border

The U.S.-Mexico Border region extends more than 2,000 miles from the Pacific Ocean to the Gulf of Mexico, and 62.5 miles on each side of the international border. It is home to more than 13 million people, and is characterized by social, economic, and political contrasts. Ninety percent of the population resides in 15 paired, inter-dependent sister cities.

Rapid population growth in the cities has resulted in unplanned development, demand for land and energy, increased traffic and waste generation, insufficient waste disposal facilities, and more frequent chemical emergencies. Many border residents suffer from exposure to airborne dust, pesticide use, and inadequate water supply and waste water treatment facilities.



The 1983 La Paz Agreement between the U.S. and Mexico serves as the foundation for EPA's binational cooperation with Mexico on border environmental issues. Three binational environmental agreements have been signed and implemented since 1983. The *U.S.-Mexico Environmental Program: Border 2012* is latest and most ambitious agreement thus far. In the U.S., lead responsibility for the Border 2012 program and its progress, resides primarily within the Region 9 and 6 offices in San Francisco, California and Dallas, Texas. Both regions coordinate their efforts and work jointly with our federal, state and tribal partners in the U.S. and Mexico to address the environmental and public health challenges along the U.S.-Mexico border. The following objectives guide our work:

- Collaborate on a multi-stakeholder, long-term border plan
 - Complete the commitments under *Border 2012*, the current 10-year bi-national environmental program by December 2012, and work to develop a successor bi-national program by August 2012.
 - Fund environmental projects in border communities in 2012-2015 to clean up solid waste, improve binational air quality, improve watershed pollution in the Tijuana and New River watersheds, and increase the use of less toxic pesticides in agricultural operations.
- Improve water quality with increased priority for removal of untreated wastewater from binational watersheds and use of sustainable technologies and green building practices in border water infrastructure projects.
 - By the end of 2012, complete construction of three wastewater infrastructure projects and connect 1,500 homes that previously lacked service.
 - Fund additional border water infrastructure projects that produce the highest public health and environmental benefits.
 - By 2015, complete construction of 16 wastewater infrastructure projects and connect 41,000 homes that previously lacked service.
 - Issue a permit for the International Treatment Plant in San Diego by February 2013 to reduce pollutant discharges to the Pacific Ocean.
- Reduce air pollution at the border.

- Support Baja California's air monitoring network by providing technical assistance, training, performance audits, and developing an air monitoring action plan by November 2012.
- Support Baja California's Climate Action Plan by implementing one project from the Action Plan recommendations by the end of 2013.
- Reduce air pollutants through funding of one pilot project by the end of 2013 that addresses one of the following areas: diesel truck retrofits; small-scale renewable energy development; and/or energy efficiency retrofits.
- Clean up border solid waste.
 - Remove at least 25 tons of trash abandoned by migrants on the Tohono O'odham Nation by September 2012. Improve effectiveness of cleanups by working with federal and state agencies to share intelligence information on impacted areas, leveraging EPA funding by collaborating with BLM's Southern Arizona Project on targeted cleanups, and using interagency resources such as aerial surveillance and web-based mapping and information sharing tools.
 - Remove 15 tons of trash in Tijuana through community-based cleanup and training by September 2012. Inform residents, public school teachers, and leaders in order to build broader support for sustainable practices to collect and recover plastics, glass, and food scraps. Empower community members to work more closely with municipal officials to define needed infrastructure and local services, and take incremental steps to prevent unmanaged trash from entering their communities and the Tijuana River estuary.
- Focus on children's exposure to unhealthy air and pesticides.
 - During 2012, work with 12 Calexico schools to implement a flag notification program (and indoor activities curriculum) to reduce children's exposure to unhealthy air in California's Imperial Valley on bad air quality days.
 - By January 2012, develop, design, and test English/Spanish training modules on toxicology, environmental fate, and transport of pesticides, for use by health outreach workers (*promotoras*) to share with vulnerable communities along the border.
 - By December 2012, implement a pilot project that demonstrates and encourages the use of lower risk pest management practices, including the use of less toxic pesticides along the border region.
- Enhance joint readiness for emergency environmental response.
 - By January 2013, conduct two "table top" exercises and drills in Arizona and Sonora, Mexico to test the binational communication protocols and hazardous materials response capabilities.
 - By December 2012, revise and update the five sister city joint contingency plans in California/Baja California and Arizona/Sonora with preparedness and prevention related efforts, such as risk and consequence analysis, risk reduction, and counter-terrorism.

San Joaquin Valley

The San Joaquin Valley is California's top agricultural producing region, growing more than 250 unique crops and much of the nation's fruits, vegetables, and nuts. California is the nation's leading dairy state, with three-quarters of its dairy cows located in the Valley. The annual gross value of agricultural production in the Valley is more than \$25 billion.

The Valley owes much of its agricultural success to a remarkable water storage and distribution system that has the federal Central Valley Project at its heart. The Central Valley Project annually distributes roughly four million acre feet of water from the Bay-Delta and San Joaquin River throughout the Valley. Most of this diverted river water is utilized for agriculture, while Valley communities rely mostly on ground water to drink.

The Valley's extensively managed water systems also support critical wetlands that make the San Joaquin Valley one of the major regions for wintering waterfowl on the Pacific Flyway. The San Joaquin River boasted one of the largest salmon runs on the Pacific Coast before nearly 95% of the river water was diverted for irrigation. Water diversions leave 60 miles of the river to run dry in most years and have left little water for the Valley's remaining wetlands.



Combined with its unique topography and wind patterns, the Valley's successes have resulted in severe impacts to the health of its more than four million residents. The San Joaquin Valley is the home of the worst air quality in the country and has some of the highest rates of childhood asthma in California. Transportation, especially trucks, is the largest source of air pollution in the Valley. In addition, water system noncompliance with federal and state drinking water requirements disproportionately affects disadvantaged communities and small systems in San Joaquin Valley. Of the 2,354 community water systems in California that serve 3,300 or fewer persons, 568 reside in the San Joaquin Valley, of which 25% violate one or more health based drinking water standards, including arsenic and nitrate. Statewide, only 10% of small water systems violate one or more health based drinking water standards. Many of these systems serve economically disadvantaged communities, do not enjoy the economies of scale larger systems do, and need assistance in developing the technical, managerial and financial capacity necessary to address their noncompliance.

The Valley has some of the highest rates of poverty and unemployment (more than 16% in Fresno County in December 2011) in California. Job needs in the Valley are unique in that the economy is almost wholly driven by agriculture. High Speed Rail development, if approved, could bring a significant number of new jobs to the Valley, many of them green jobs.

The following principles will guide EPA's work in the San Joaquin Valley:

Environmental Justice: Environmental justice will be considered in regulatory actions that impact the Valley. We will ensure that EPA permitting, oversight, clean up, and risk assessment activities take into consideration, and are responsive to, vulnerable communities. We will also increase the transparency of the work of EPA and its partners, improve our responsiveness to community concerns, and increase community input into policymaking and regulatory actions.

Partnerships: We will strive to effectively join with our federal, state, and local partners and challenge ourselves to better focus our collective resources to improve the quality of life in the San Joaquin Valley. We will also convene local and private partners to tap their expertise and resources, as well as work closely with tribal governments, environmental organizations and community groups to address environmental challenges.

Enforcement: In addition to aggressively using our oversight responsibilities to ensure environmental and health standards can be met in the Valley, we will enhance inspection and enforcement. We will also increase public engagement by helping communities better understand federal, state and local roles in environmental rules, permitting, planning, and enforcement.

The EPA work outlined in this plan represents the highest cross-cutting priorities in the Valley for 2012, and is a subset of EPA's Valley work.

- **Air:** In partnership with the California Air Resources Board (CARB) and the San Joaquin Valley Air Pollution Control District (SJVAPCD), we will reduce PM_{2.5} annual concentrations by 7% per year through regulatory action and accelerating the development of cleaner transportation. Achieve a total reduction of 34% from 2009 levels to reach attainment of PM_{2.5} (fine particle matter) standards by the end of 2014. CARB predicts that on average 640 PM-related premature deaths will be avoided per year in San Joaquin Valley if the annual PM_{2.5} standard is attained.
 - Reduce emissions by working with CARB and the SJVAPCD to develop comprehensive plans for attaining the 2006 24-hour PM_{2.5} standard and the 0.75 ppm (parts per million) 8-hour ozone standard as early as possible. The PM_{2.5} plan is due to EPA by December 2012.
 - Act on at least 10 San Joaquin Valley rules that will help obtain air emission reductions, including those regarding CAA section 185 nonattainment area fees, fumigants, and petroleum production and distribution.
 - Convene government agencies and private companies in Bakersfield to accelerate the development and adoption of cleaner technology, including medium-duty battery-electric and hybrid trucks and vehicles.
- **Water:** Support efforts to address drinking water issues and work to restore the fish and wildlife habitat of the San Joaquin River.
 - California Department of Public Health (CDPH) and EPA will address by September 30, 2012, through formal enforcement or other appropriate means, all 28 community water systems in the San Joaquin Valley that are in significant noncompliance with federal and state drinking water requirements.
 - Work with other federal agencies (U.S. Department of Agriculture, U.S. Department of Housing and Urban Development) to leverage CDPH planning/design funding for 11 public water systems and construction funding for 4 public water systems that need infrastructure improvements and treatment to meet drinking water standards.
 - Work with the State Water Resources Control Board, Regional Boards, CDPH, and other parties to implement the recommendations that will be released this year as a part of the Nitrates Project required by California Water Code Section 83002.5 to reduce problems associated with nitrate contamination in the Tulare Lake Basin and Salinas Valley.

- Award a \$15,000 grant to California State University Fresno to support stakeholder forums for identifying regional solutions to water and wastewater challenges in rural communities.
- Update regulations to reduce toxic selenium by issuing draft criteria for selenium in the Bay Delta Estuary.
- Sponsor a public forum in February 2012 to further an integrated surface water quality monitoring and assessment program for the San Joaquin River basin to help target efforts to improve water quality and restore aquatic habitat and species.
- **Communities:** Engage with ongoing federal, state, local, and community-driven efforts to invest in the equitable and sustainable development of the San Joaquin Valley.
 - Contribute two full time federal employees to lead a multi-agency federal team to pilot the President's Strong Cities, Strong Communities (SC2) initiative in Fresno and partner with the City and local stakeholders to support the implementation of the City's downtown redevelopment plan and economic development vision, which is centered on intensifying downtown development.
 - Support more livable and vibrant communities that are environmentally and economically sustainable through reviewing the Final Environmental Impact Statements for the San Joaquin Valley portions of High Speed Rail and the station area development plans for Fresno and Merced. Coordinate technical assistance on a variety of sustainable planning, green building, energy and aquatic resource issues. The California High Speed Rail Authority estimates that the California High Speed Rail System will result in a reduction of 5.8 million barrels of oil being used annually, and will reduce over 1,000 tons of NOx and over 90 tons of PM_{2.5} emissions on an annual basis in the San Joaquin Valley Region during operation.
 - Partner with Greenaction for Health and Environmental Justice to provide educational outreach to 1,000 Kettleman City and Avenal residents on diesel emissions and health, educate at least 75 truck and bus drivers about diesel health issues and the laws regarding idling of diesel vehicles, secure at least five agreements from businesses that use diesel vehicles to educate truckers about reducing idling, and develop a bilingual community guide for how to implement a diesel education and emission reduction program.
 - Partner with Community Water Center to provide technical and educational assistance to at least 20 small rural communities in Tulare, Kern, Kings and Fresno Counties about drinking water pollution and facilitate meaningful participation of community members in public processes related to decisions on accessibility and safety of their drinking water.
 - Build community capacity to address environmental impacts by partnering with Californians for Pesticide Reform to build a Web-based real time system to monitor, track, and address environmental health hazards and improve children's health outcomes in Tulare and Kern counties and provide technical assistance to the South Kern community and the California Endowment to implement action plans that will improve air and water quality, and reduce the risk from pesticides.
 - Work with Fresno Youth Council's Brownfield to Urban Garden project to identify a potential site for a community garden in Southwest Fresno and to assess the site to ensure it is safe for gardening by September. Afterwards, facilitate a community-based process, including helping to secure partners, in order to design and plan the construction of the community garden.

- Support nine existing assessment or cleanup Brownfield Grants in the San Joaquin Valley, including a Brownfields Workforce Development Grant in Tulare that trains students to safely clean up hazardous materials in buildings and in soil to prepare them for jobs in local government, utilities and private firms. The City of Tulare will train and find employment for approximately 15 students with the help of their partner agencies.
- Partner with the City of Fresno, other federal agencies, community health centers, and housing assistance programs to launch a Weatherization plus Health pilot program in Fresno County that will upgrade homes to improve the health of asthmatic occupants and to reduce energy use.
- **Agriculture:** Reduce the environmental impacts of Valley animal and crop agriculture. The activities listed below are only a subset of Region 9's work related to agriculture.
 - To protect agricultural workers from improper application of pesticides, oversee state inspection and enforcement programs to ensure that the numbers of people impacted by high-level episodes are reduced by 10% in 2012 from 2009 levels. High-level episodes are incidents that involve illness or serious injury to five or more people.
 - To produce renewable energy and reduce greenhouse gases, help two additional dairy digesters come on line in California by promoting and implementing the policy recommendations of the state and federal working group that EPA, USDA, and CDFG are convening to address the barriers of digester implementation.
 - Develop partnerships to provide equipment and technical assistance to support adoption of conservation tillage, resulting in five additional growers experimenting with conservation tillage practices.
 - Work with California Air Districts and industry partners in 2011 to coordinate funding for replacement or retrofit of about 300 agricultural engines to reduce at least 5 tons of PM_{2.5}, 74 tons of NO_x, and 11,000 tons of CO₂ on an annual basis.
 - Work with SJVAPCD, CARB, and USDA to develop a framework to ensure that emission reductions from incentive programs that meet EPA's criteria could be fully credited in SIPs. Such programs could include, for example, about \$18 million that USDA made available in 2011 for agricultural engine retrofits which reduced about 450 tons of NO_x on an annual basis.
 - Organize a pesticide container recycling project with the goal of recycling at least 250 pesticide containers and 18,000 lbs. of plastic.
- **Communications:** Increase transparency, accountability, and support for the Valley work outlined in EPA's San Joaquin Valley Strategic Plan through enhanced outreach and communication with the public, media, and decision-makers.
 - Support and promote initiatives for the Valley by our federal, state, and local partners.
 - Convene a public event to showcase and promote the deployment of cutting-edge technologies needed to clean up the air from large emission sources, including diesel.

EPA Region 9 Support Services

Region 9's support programs govern budget, financial and grants management, science, information technology, health and safety, facilities, human resources and strategic planning for the Region. Key activities and priorities include:

Financial Management

Each year the Region manages approximately \$1.8 billion in operating and technical assistance resources and over \$3.2 billion in grants to states, tribes, and local agencies and nonprofit organizations.

- **Exercise sound stewardship of financial resources**
 - Manage approximately 900 active assistance agreements to 375 different recipients to ensure proper use of federal dollars.
 - Implement the national Recovery Act Stewardship Plan to ensure expenditures of Recovery Act dollars meet the highest fiduciary standards.
 - Award major contracts through the competitive process to support Region 9 programmatic and administrative functions, such as Superfund, hazardous waste and emergency response cleanups, and IT support.
 - Foster relationships with small businesses for federal procurement opportunities.
- **Streamline grants processes by the end of 2013**
 - Help pilot a national effort to promote 'green' grant conditions that emphasize paper reduction and use of environmentally preferable products and services.

Science

The Regional laboratory in Richmond, California, provides a full spectrum of chemical and biological testing to support regulatory monitoring and environmental decision-making.

- **Ensure the availability of high quality environmental data**
 - Perform 12,000 analyses annually and provide related quality assurance plan reviews, data validation, and field assistance to support regional programs.
 - Support partners through analyses for the national ambient air lead monitoring evaluation program, the U.S.-Mexico Border air monitoring program, and by training tribal governments in quality assurance methods.
- **Support emerging science needs**
 - Help develop a Climate Change 201 training class for EPA staff (webinar training, green travel planning, green remediation alternatives, etc.).
 - Build partnerships with states, communities and academic institutions around common science priorities and interests.
 - Work with the National Tribal Science Council, the Regional Science Tribal Science Council, and tribal programs to promote science and science innovation.
 - Complete development of the capability to analyze soil, water, and wipe samples for five chemical warfare agents identified as a priority by the Department of Homeland Security.

Abbreviations and Acronyms

BACT – Best Available Control Technology

CAA – Clean Air Act

Cal/EPA – California Environmental Protection Agency

CARB – California Air Resources Board

CARE – Community Action for a Renewed Environment

CBE – Communities for a Better Environment

CEC – California Energy Commission

CERCLA – Comprehensive Environmental Response, Compensation and Liability Act (Superfund)

CMCC – Civilian Military Coordination Counsel (Charter)

CNMI – Commonwealth of the Northern Mariana Islands

CWA – Clean Water Act

CWSRF – Clean Water State Revolving Fund

DDT – dichlorodiphenyltrichloroethane (insecticide)

DHHS – Department of Health and Human Services

DOD – Department of Defense

DOE – Department of Energy

DOI – Department of Interior

DOJ – Department of Justice

DOT – Department of Transportation

DTSC – Department of Toxic Substances Control (California)

DWSRF – Drinking Water State Revolving Fund

EMG – Emergency Management Guide

EBMUD – East Bay Municipal Utility District

EE – Energy Efficiency

EJ – Environmental Justice

EPCRA – Emergency Planning and Community Right-to-Know Act

EPEAT – Electronic Product Environmental Assessment Tool

FERC – Federal Energy Regulatory Commission

FGC – Federal Green Challenge

FIFRA – Federal Insecticide, Fungicide and Rodenticide Act

FSM – Federated States of Micronesia

FRP – Facility Response Plan

GAP – General Assistance Program

GHG – Greenhouse Gas

GWA – Guam Water Authority

HUD – Department of Housing and Urban Development

IHS – Indian Health Service

LCC – Large Capacity Cesspool

LID – Low Impact Development

LEED – Leadership in Energy & Environmental Design

MACT – Maximum Achievable Control Technology

MS4 – Municipal Separate Storm Sewer System

NEPA – National Environmental Policy Act

NGO – Non-governmental organization

NNDWR – Navajo Nation Department of Water Resources

NNEPA – Navajo Nation EPA

NOAA – National Oceanic & Atmospheric Administration

NPEP – National Partnership for Environmental Priorities

NRCS – National Resources Conservation Service

NREL – National Renewable Energy Laboratory

PCB – Polychlorinated Biphenyls

PM_{2.5} – Fine Particulate Matter (less than 2.5 micrometers diameter)

PM₁₀ – Coarse Particulate Matter (less than 10 micrometers diameter)

PUC – Public Utilities Commission (California)

PWS – Public Water System

RCRA – Resource, Conservation and Recovery Act

RE – Renewable Energy

RMP – Risk Management Plan

SDWA – Safe Drinking Water Act

SCAQMD – South Coast Air Quality Management District

SPCC – Spill Prevention, Control and Countermeasure

SRF – State Revolving Fund

TAG – Technical Assistance Grant

TASC – Technical Assistance Services for Communities (grants)

TBA – Targeted Brownfields Assessment

TMDL – Total Maximum Daily Load

TRI – Toxic Release Inventory

TSCA – Toxic Substances Control Act

UIC – Underground Injection Control

USDA – United States Department of Agriculture

VMT – Vehicle Miles Traveled