EPA Progress Report 2005

Pacific Southwest Region

U.S. Environmental Protection Agency
Pacific Southwest/Region 9
EPA-909-R-05-001

Dear Readers,

For those of us fortunate enough to live in the Pacific Southwest, our world often seems a study in contradictions. We live, work and play in places that rightly boast great beauty and diverse natural resources, along with the liveliest, fastest-growing urban centers in the country. We also have some of the most complex environmental challenges in the nation, and their consequences are dramatic – surging rates of asthma in our children, beach closures, loss of habitat, contamination of our precious groundwater.

Our goals are clear — clean air, water, land and healthy communities. This, our sixth annual progress report shows how much can be done by combining a clear focus on the bottom line with creative partnerships with fellow regulators, advocacy groups, industry and elected officials. Strategic and disciplined use of regulatory tools — including credible enforcement — have helped create the platform for our innovative partnerships to speed the rate of environmental progress.

These partnerships have been the source of bold and productive approaches. To accelerate progress in reducing the health risks of diesel emissions, EPA helped convene the West Coast Diesel Emissions Reductions Collaborative, an ambitious partnership between federal, state, and local government, the private sector, and environmental groups in California, Oregon, Idaho, Washington, Alaska, British Columbia and Mexico. Innovative efforts to cut diesel pollution at West Coast ports and along the busy I-5 transportation corridor are already underway.

Along the U.S.-Mexico Border, we have continued our international collaboration with states, tribes and the government of Mexico with fundamental public health gains. In the outer Pacific islands, we have secured resources to begin much-needed wastewater treatment facility construction. With members of the agricultural communities, we have tested and proven innovative methods for improving their environmental stewardship. Our tribal partners have made great strides in building their own capacity, and together we have brought improved public health protections to Indian country in such basic areas as access to safe drinking water and closing open dumps.

Our partners and we have also used traditional tools to great effect. In 2004 the Los Angeles area recorded its cleanest air since smog measurements began. These improvements are due to decades of work to control sources of air pollution, efforts that continue in the South Coast, metropolitan areas such as Phoenix and Las Vegas, and in other high-growth areas like the San Joaquin Valley.

On the California Coast, EPA and state and local partners began a long-awaited restoration project for Southern California's largest remaining tidal wetland, the 1,247-acre Bolsa Chica. We settled enforcement actions against Los Angeles and Orange County for thousands of sewage spills, committing these urban areas to spend $2.6 billion on system improvements.

Our emergency response teams conducted 27 cleanups of oil spills, hazardous waste, mercury contamination, naturally-occurring asbestos, and radiation across the region, protecting and restoring the land. In support of homeland security, we continued an aggressive program of education and drills to guarantee the strength of emergency preparedness systems.

I hope you draw from this report the same lessons I do — together we can succeed in protecting the health of our families and the environment of this remarkable part of the world.

Wayne Nastri

Regional Administrator

EPA Pacific Southwest Region

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This report is also available on the Internet at www.epa.gov/region09/annualreport

Cover photos of Goat Rock and mouth of the Russian River, Sonoma County, California, by Dale Mead; Monument Valley, Arizona, by Michael Feeley.

Clean Air

Collaborating to Reduce Diesel Emissions

On June 15, 2004, EPA convened the first public meeting of the West Coast Diesel Emissions Reductions Collaborative, a consortium of federal, state and local government, industry, and non-government organizations from California, Oregon, Washington, British Columbia and Mexico. Its goals are to achieve cost-effective diesel emission reductions in the most affected communities, and to put strategies in place that work across transportation corridors, such as the West Coast's I-5, which stretches from Southern California to Seattle. The collaborative now includes representatives of over 300 organizations.

The West Coast has high levels of particulate pollution—microscopic airborne particles, sometimes visible as dust and soot. Diesel exhaust is a major contributor to this problem. Particulate matter penetrates deep into people's lungs, contributing to respiratory and heart disease, and premature mortality. In addition, diesel exhaust contributes to California's ground-level ozone (better known as smog), which is the nation's worst. Reducing diesel emissions can yield substantial health benefits.

On September 30, EPA and other participants announced diesel emission reduction projects at eight locations in California, Oregon and Washington. (An event in Bakersfield, Calif., is pictured above.) Some of the most exciting projects focused on electrification at truck stops and ports — allowing truckers to plug into electrical outlets for power during overnight stops, rather than run their diesel engines, and ships to do the same while docked at ports such as Los Angeles and Long Beach.

The collaborative's grants funded other innovative projects as well. Locomotives used in rail yards spend most of their time idling, rather than moving rail cars. This wastes fuel and pollutes the air; but

due to the nature of these engines, they cannot simply be turned off like cars. New retrofit technology will automatically shut down the engines most of the time the locomotives are idle. Meanwhile, in the San Francisco Bay, the collaborative worked with the Blue and Gold ferry fleet to test a fuel additive expected to reduce emissions that contribute to smog.

EPA provides funding to support the collaborative, also leveraging other federal, private, state, and local government funds. The collaborative builds on existing national strategies, like the new diesel engine standards set to take effect over the next few years, and voluntary programs like the Smartway Transport Partnership and Clean School Bus USA. It also builds on state initiatives like California's Carl Moyer program, which funds upgrades and replacement of diesel engines.

New Standards for Smog, Particulates Help Protect Health

In 2004, EPA devoted significant effort nationwide to the new 8-hour ozone and $PM_{2.5}$ (particulate matter 2.5 microns in diameter, or smaller) air quality standards. Coupled with efforts to reduce power plant and diesel emissions, the new standards are important steps toward achieving clean, healthy air for millions of people.

In the Pacific Southwest, EPA completed 8-hour ozone nonattainment area designations and proposed $PM_{2.5}$ nonattainment area designations, based on monitoring data and state and tribal recommendations (see maps).

Three areas in California — the San Joaquin Valley, South Coast and San Diego — fail to meet the new $PM_{2.5}$ health standard, while all other areas of the Pacific Southwest Region are in attainment. These tiny particles — approximately 1/30th the thickness of a human hair (see graphic, next page) have been scientifically linked to serious human health problems, including premature death from heart and lung disease, aggravation of heart and lung diseases, chronic bronchitis and asthma, increased hospital admissions and doctor and emergency room visits, and health-related absences from work and school.

Nationwide, meeting the new particulate standard will prevent at least 15,000 premature deaths, 75,000 cases of chronic bronchitis, 10,000 hospital admissions for respiratory and cardiovascular disease, hundreds of thousands of occurrences of aggravated asthma, and 3.1 million missed work days resulting from symptoms related to particle pollution.

The term "particulate matter" (PM) includes both solid particles and liquid droplets. Many man-

Areas that fail to attain the new national health standard for ground-level ozone (smog).

Areas that fail to attain the new national health standard for fine particulate pollution ($PM_{2.5}$).

Topography of California shows how San Joaquin Valley (in green) traps air pollution like a bowl.

made and natural sources emit PM directly or emit other pollutants that react in the atmosphere to form PM. Fine particles can be emitted directly, as in smoke from a fire, or they can form from chemical reactions in the air. Sources include cars, trucks, buses, construction equipment, industrial facilities and power plants. The major chemical constituents of $PM_{2.5}$ are sulfates, nitrates, and carbon compounds.

For the 8-hour ozone, or smog, standard, EPA worked closely with state and local partners in California, Arizona and Nevada to designate the areas not meeting the standard. Complex issues involving regional boundaries or topography arose in the Las Vegas and Phoenix areas and in five of California's mountain counties. In each case those partners were pleased with the successful outcome — a boundary designation that protects public health and the environment.

EPA developed the new national health standards for $PM_{2.5}$ and ozone after exhaustive reviews of health studies in the 1990s showed that exposure to these fine particulates, and prolonged exposure to ozone, are hazardous to human health. The national health standards existing prior to 2004 were based on PM_{10} (particulate matter between 2.5 and 10 microns in diameter), and one-hour exposure to ozone.

For more information about air quality standards, go to *www.epa.gov/ttn/naaqs*

Making mulch from old orchard trees, rather than burning them, reduces air pollution in the San Joaquin Valley.

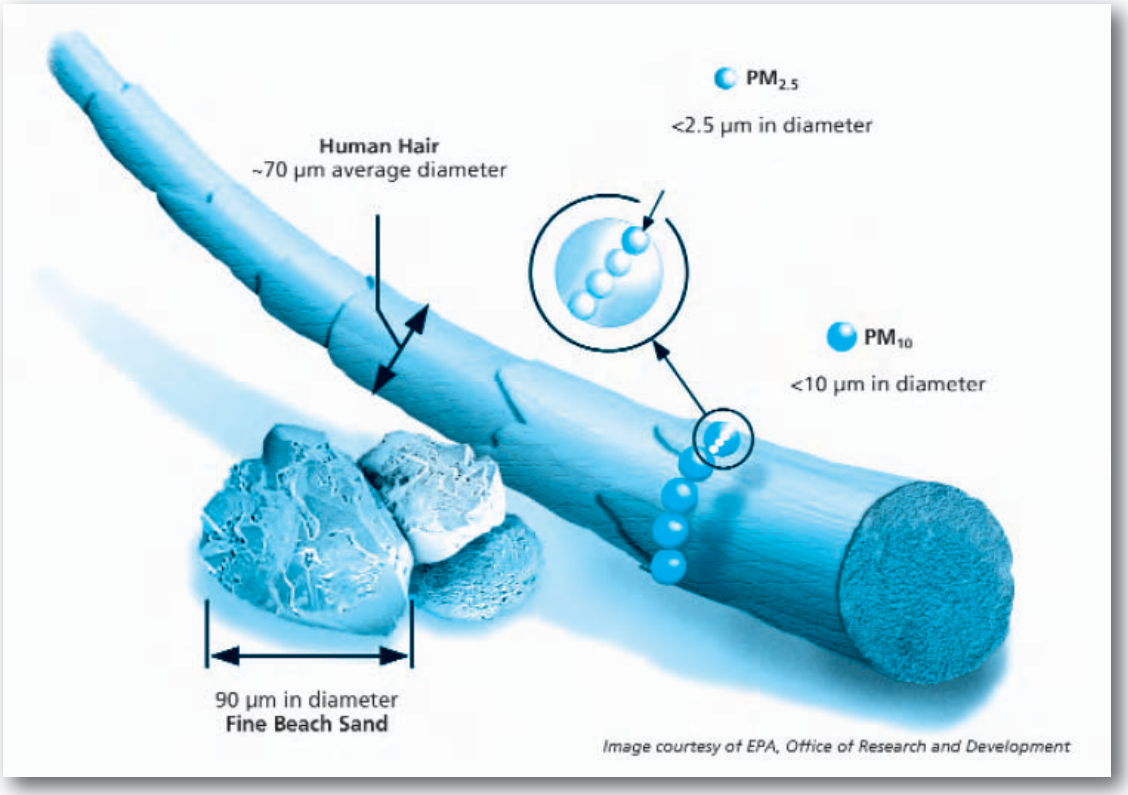
Air Quality Advances Across Region

San Joaquin Valley

California's San Joaquin Valley has some of the nation's most polluted air. After a decade of PM_{10} plans and litigation, EPA approved California's PM_{10} plan for the valley on April 28, 2004. The plan includes over 20 pollution control measures, including an agricultural measure that will reduce PM_{10} emissions 5% annually, and ultimately 34 tons per day (over half the reductions needed).

The PM_{10} plan includes the Conservation Management Practices (CMP) Program, a flexible, menu-driven approach to reducing PM emissions

Size of fine particulates ($PM_{2.5}$) compared to particulates regulated under earlier standard (PM_{10}), sand grains, and a human hair.



The metropolitan Los Angeles area had its best air quality ever in 2004.

from farms. Reduction measures will be tailored to each farming operation, to cut pollution while also making economic sense.

The valley's ground-level ozone, or smog, has been a problem for the past several decades. The valley's air exceeded the 1-hour ozone health standard 68 times in 2002 and 2003. In May 2004, EPA granted the state's request to reclassify the valley from "severe" to "extreme" nonattainment, which extends attainment deadlines but requires more stringent pollution control measures. In October, the valley's air district adopted a plan to meet the 1-hour ozone standard by 2010, and the state Air Resources Board approved it.

Also helping clean up the valley's air is an enforcement settlement which commits Silgan Containers Corp. to cut air emissions at six of its container manufacturing plants by as much as 118 tons per year, at an estimated cost of $1.57 million. The company also paid a fine of $659,900. The six facilities include one each in Stockton, Kingsburg, and Riverbank, and three in Modesto. The alleged violations involved failing to incorporate emission-reducing changes when installing new or modified equipment.

EPA is reviewing energy companies' proposals to build liquefied natural gas (LNG) terminals off the Southern California Coast.

California's South Coast

The South Coast (Los Angeles area), notorious for smog but much improved over the past 20 years, recorded its cleanest year ever in 2004, due to additional pollution controls and favorable weather. There were only 27 days with violations of EPA's 1-hour ozone standard, compared to 64 in 2003. Eight-hour ozone violations also dropped.

Both the state and air district made progress in reducing people's exposure to toxic diesel exhaust. In April EPA contributed over $500,000 to expand the district's pioneering air toxics monitoring program. In July, EPA awarded the district $495,000 for clean school bus projects. In September, EPA awarded a $100,000 Smartway Transport Partnership grant to help truckers avoid idling at truck stops along I-5.

Liquefied Natural Gas Terminals Proposed

Energy companies are proposing to import liquefied natural gas (LNG) at deepwater ports to be developed off the Southern California coast. The U.S. Maritime Administration and the Coast Guard are the licensing authorities for deepwater ports, but EPA is the air emissions and wastewater discharge permitting authority.

EPA is reviewing the permit applications for BHP Billiton's proposed Cabrillo Port, which would be a new deepwater port about 14 miles offshore of Ventura County. Crystal Energy is expected to apply for permits for their proposed Clearwater Port at the existing Grace Oil Well Platform about 12 miles offshore in the same vicinity.

The natural gas from both ports would be transported via undersea pipelines to on-shore distribution in the Oxnard area. Since Ventura County is an ozone nonattainment area, the LNG terminals must offset certain air emissions by reducing pollution from other sources in the air basin.

Natural gas supplies from the southwestern U.S. are projected to decline over the next 20 years. But demand is expected to grow along with population, since natural gas is a relatively clean fuel for heating and generating electricity.

Other Areas

- The **San Francisco Bay Area** attained the national one-hour health standard for ozone, based on three years without violations of the standard. EPA reviewed air emission permits for five major Bay Area oil refineries, leading to stricter pollution limits for the Chevron, Conoco-Phillips, Shell, Tesoro, and Valero facilities.
- EPA published a final rule on Aug. 11, 2004, to reclassify the **Imperial Valley** nonattainment

area to serious nonattainment for PM_{10}. In 2005, EPA is working with Imperial County to develop a clean air plan to attain the health standard expeditiously.

- EPA approved **Arizona's** Cleaner Burning Gasoline program, which is a major part of the Phoenix area's plans to stay in attainment with carbon monoxide (CO) and 1-hour ozone health standards. In early 2005, EPA redesignated the Phoenix metropolitan area, which has a population of three million, to attainment of the CO health standard.
- In the **Tucson, Ariz.** area, EPA reviewed the Pima County Department of Environmental Quality's program for issuing industrial air emissions permits under Title V of the Clean Air Act. The findings from the evaluation were mostly positive. In 2005, EPA is evaluating the Title V program of the Maricopa County (Phoenix area) Environmental Services District. These reviews are important to ensure that large emitters follow regulations and install appropriate air pollution controls.
- In **Green Valley, Ariz.,** EPA found that mining company Phelps Dodge Sierrita Inc. had operated ore roasters without required sulfur dioxide monitors and bypassed pollution control equipment hundreds of times in the past decade, illegally emitting more than 1,000 tons of sulfur dioxide into the air. In settling the case with EPA, the company agreed to install monitors immediately, revamp its equipment to make such bypasses impossible, and pay a $1.4 million penalty. Sulfur dioxide emissions can cause respiratory illnesses, acid rain, and decreased visibility — a problem at many national parks, including Arizona's Grand Canyon.
- In **Nevada,** EPA approved Clark County's PM_{10} plan, which contains precedent-setting controls for fugitive dust sources. EPA staff worked closely with local air district personnel in drafting an entirely new plan for the area. The Las Vegas area's dust control program is now the most progressive in the country. Meanwhile, CO levels have not exceeded the national health standard since 1999. EPA also worked with the county to revise its New Source Review permitting rules, to reduce pollution from new or expanded industries.

U.S.-Mexico Border

EPA's efforts to reduce air pollution impacts along the U.S.-Mexico border in 2004 included:

- The Baja California Road Paving Project, which is paving 2.3 million square meters of roads in Ensenada, Mexicali, Rosarito, Tecate and Tijuana to reduce dust. The project is financed by 276 million pesos (about $25 million) from

EPA People

While most Air Division staff are focused on the complexities of helping to improve air quality for millions of residents in the large urban centers of EPA's Pacific Southwest Region, there are also many important air quality issues affecting the Region's 146 Indian tribes. Those are the issues **Doug McDaniel,** as Arizona project officer and EPA staff lead for tribal air issues, has been working on for the past eleven years.

Ensuring air quality protection in Indian country is sometimes a challenge. The Clean Air Act is designed so that states will develop most air pollution control regulations, and these state regulations generally do not apply on Indian lands; consequently, there is sometimes a gap in air quality protection for tribes. Doug's primary objective while at EPA has been to fill this gap, by working within EPA to develop policy and regulatory tools, and by working with tribal governments to build their capacity to develop their own air quality programs.

Currently, Doug is focused on helping the Navajo Nation and the Gila River Indian Community develop their new air programs. He also is representing EPA on the Joint Air Toxics Assessment Project, a groundbreaking effort to deploy an urban-scale air toxics monitoring network operated by the state, the county and the three Phoenix metropolitan area tribes. Relying on his extensive contacts with state and tribal environmental agencies in Arizona, Doug was instrumental in initiating this cooperative project, one of the first of its kind in the United States.

Over the years, Doug has developed and provided training for tribal environmental professionals, has represented EPA at tribal meetings and conferences, and has contributed to many significant initiatives aimed at protecting tribal air quality, including EPA's Tribal Authority Rule and the Tribal Air Monitoring Support Center. For many tribes he is the face of EPA's air program.

the North American Development Bank (NADBank).

- The Diesel Emission Reductions for Children's Health Project, which will retrofit at least 19 older diesel engines in Nogales, Ariz., school buses with particulate traps and/or diesel oxidation catalysts, and will make ultra-low sulfur diesel fuel more readily available.
- A project to characterize emissions from trucks crossing the San Diego-Tijuana border. This project will identify truck fleets to target for diesel emission reductions.
- Binational Air Quality Studies in the Arizona border region, in which EPA has funded installation of numerous air quality monitoring sites and performed emission inventories, health risk assessments and analyses of emission reduction techniques. The City of Agua Prieta, for example, was recently certified for a 31 km road paving project, based on these studies.
- A Bilingual Air Quality and Health Information Center, which will soon provide air quality and health information through an interactive Web site. The center will send air quality alerts to schools, activity centers and others when air pollution exceeds safe levels.

Navajo Nation Becomes First Tribe to Receive Air Permit Delegation

On October 15, 2004, EPA delegated authority to administer the federal Title V (industrial) air emission permits program to the Navajo Nation — the nation's first tribal government to gain such authority. Under an agreement between U.S. EPA and the Navajo Nation EPA, the tribe will take over Title V permitting responsibilities for twelve existing major stationary air pollution sources on the reservation. EPA determined that the Navajo Nation meets the eligibility requirements for treatment in the same manner as a state.

The permit fees collected by the tribe will help support the staff and resources for its Title V activities, an important step toward establishing a comprehensive air quality control program. This delegation of authority from EPA to the Navajo Nation will improve responsiveness to the public and regulated communities.

BioWatch Provides Early Warning

EPA has been a key partner in the U.S. Department of Homeland Security's BioWatch initiative. BioWatch is an early warning system in major urban centers to rapidly detect trace amounts of biological materials, either from natural sources or as a result of terrorist acts. EPA leads the field deployment of the network, and serves as the primary liaison to state and local environmental monitoring agencies. EPA's Emergency Response Program coordinates emergency planning with federal, state, and local agencies. In 2004, EPA awarded over $2.1 million in grant funds to local governments to deploy 45 BioWatch sampling sites in nine cities in the Pacific Southwest.

Navajo Nation EPA officials and U.S. EPA staff after meeting at Window Rock, seat of the Navajo Nation government.

Indoor Air Tools for Schools

EPA's Pacific Southwest Indoor Air Team developed the Student-Led Tools for Schools Program, which involves students in tracking down sources of indoor air contaminants at their schools. Two students from the region won awards at the annual Tools for Schools conference in Washington, D.C.

The California Portable Classroom Study found that Tools for Schools is being used in 11% of the state's schools. Thanks to work by grantees and partners, as well as EPA, the program was introduced at 97 new schools in 2004. EPA's Pacific Southwest Region received 23 proposals for Tools for Schools and Asthma Management (in schools and in homes) project grants, and funded 12, for a total of $210,000.

In California's Central Valley, the Fresno Unified School District was forced to put their Tools for Schools program on hold due to substantial budget cuts. Later, however, the EPA team helped convince district management of the program's cost-effectiveness in maintaining healthful indoor air. The school district is now moving ahead with the program, which is especially needed in a county with the highest asthma rates in the state. One-third of the district's 90 schools have Tools for Schools programs.

Clean Water

Upgrading Sewage Systems to Protect Public Health

$2 Billion Los Angeles Sewer Settlement Will Prevent Spills, Overflows

In one of the largest sewage enforcement cases in U.S. history, EPA, the Department of Justice, the Los Angeles Regional Water Quality Control Board, Santa Monica Baykeeper and a coalition of community groups reached a $2 billion settlement with the City of Los Angeles over thousands of sewage spills and overflows that violated the federal Clean Water Act.

Under the terms of the historic agreement, the City of Los Angeles will rebuild at least 488 miles of sewer lines, clean 2,800 miles of sewers annually, enhance its program to control restaurant grease discharges, increase the sewage system's capacity, and plan for future expansion. With approximately 6,500 miles of sewer lines serving almost 4 million residents, the city operates the nation's largest sewage collection system. Since 1994, the city has had over 4,500 sewage spills. Most of these spills or overflows caused raw sewage to flow down city streets, and in some cases pollute waterways.

The federal government and the regional board settled their civil penalty claims against the city for a total of $1.6 million, with the regional board directing its proceeds to local environmental improvement projects the city will perform. The settlement is a comprehensive effort to address all causes of sewage spills and odors in the City of Los Angeles. The terms require new measures to prevent blockages in the city's system, including more aggressive maintenance to identify and repair or replace problem sewers.

"This settlement recognizes the city's commitment to repair and replace its aging sewage in-

frastructure, to serve the needs of generations to come," said Wayne Nastri, administrator of the EPA's Pacific Southwest office in San Francisco. "This investment will protect neighborhoods and millions of beachgoers from the ill effects of sewage spills."

The city will perform $8.5 million worth of environmental projects in addition to the work required to improve its sewer system. These projects include stream and wetland restoration, and systems to capture and treat polluted storm drain flows.

Santa Monica Baykeeper filed its initial legal action against Los Angeles in 1998. EPA, the L.A. Regional Board and the community groups filed their action in 2001. The groups included Baldwin Hills Estates Homeowner's Association, Inc.; Baldwin Hills Village Garden Homes Association; United Homeowners Association; Village Green Owners Association; and Concerned Citizens of South Central Los Angeles.

EPA, Santa Ana Regional Board Announce $600 Million Sewage Treatment Upgrade

It may not have made headlines outside of Orange County, but it's a big deal for the coastal environment: EPA, the Santa Ana Regional Water Quality Control Board, and the Orange County Sanitation Districts finalized an agreement on Nov. 5, 2004, that commits the district to spend $600 million upgrading its two sewage treatment plants to achieve full secondary treatment by Dec. 31, 2012. The two sewage facilities discharge treated wastewater from 2.5 million people into coastal waters.

The upgrade will rid the district's discharges of approximately 8,500 metric tons of total suspended solids annually and approximately 14,700 metric tons of oxygen-depleting nutrients. In addition to the treatment upgrade, the district's 10-year plan includes spending $450 million on sewer pipe upgrades to prevent future spills and overflows. The 10-year plan also includes a joint effort with the county water district to construct the nation's largest water reuse facility — costing roughly $420 million — by July 2007. Secondary effluent currently being discharged to the ocean will be treated to tertiary levels and pumped into the ground to create a barrier to salt water intrusion.

EPA Wetlands Program Protects Vital Habitat

Southern California's Biggest Wetland Restoration Project Begins at Bolsa Chica

On October 6, 2004, officials from state and federal agencies and the City of Huntington Beach joined with local environmental groups to break

Preparing sections of new sewer pipe — part of Los Angeles' effort to curb sewage spills.

ground for the Bolsa Chica Wetland Restoration Project — at 1,247 acres, the largest wetland restoration in Southern California history. Once part of an extensive wetland complex spreading from Huntington Beach to Seal Beach, Bolsa Chica remained largely undeveloped, except for oil rigs and access roads that criss-crossed the site. Much of the property remains wetland, and supports waterfowl and shorebirds. The project is especially needed because more than 90% of Southern California's original coastal wetlands have been lost to development, making the remaining wetlands critical for migratory birds along the Pacific Flyway, wildlife and public recreation.

Prior landowners had proposed extensive filling for urban development in the 1970s, but none of the proposals received the needed permit under Section 404 of the Clean Water Act. The law allows destruction of wetlands only when there is no practicable alternative. EPA recommended alternatives to limit development to the dry upland areas of the property. Several local groups, including the Amigos de Bolsa Chica, Bolsa Chica Conservancy, and Bolsa Chica Land Trust have also consistently supported protecting the wetlands.

EPA's 24-Year Effort Pays Off

In 1980, EPA began a three-year effort to carefully map the extent of the wetlands under Clean Water Act jurisdiction. This study strengthened the positions of federal agencies working to protect and restore the wetlands. In the mid-1990s, EPA helped broker an interagency agreement to use mitigation funds from the Ports of Los Angeles and Long Beach to purchase the property and restore it. EPA and its partners in restoring the wetlands negotiated agreements with the oil rig operators to shut down any remaining oil wells, remove oil production infrastructure, and clean up contamination from oil production.

The State Lands Commission, the Coastal Conservancy and the U.S. Fish and Wildlife Service developed a wetland restoration plan under the guidance of the Bolsa Chica Wetlands Steering Committee — eight state and federal agencies,

Aerial view of the Bolsa Chica wetlands as they appeared before the restoration project.

including EPA. The plan was subject to environmental impact studies, hearings, and much scrutiny. The $65 million project is expected to be completed in 2007.

Regulatory agencies such as the Army Corps of Engineers, the California Coastal Commission, and the Regional Water Quality Control Board played significant roles, as did resource agencies such as the U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Game, Coastal Conservancy, and State Lands Commission. EPA officials recognized EPA attorney Hugh Barroll and EPA wetlands expert Tom Yocom, among others, for their outstanding work on Bolsa Chica over the past 20 years.

How EPA Protects Wetlands in the Pacific Southwest

Every year, EPA reviews hundreds of permit applications for projects that propose to fill wetlands for other uses. EPA also investigates cases where projects have already filled wetlands without the required permits. When there is no practicable alternative to filling wetlands, the Clean Water Act of 1972 requires a permit from the U.S. Army Corps of Engineers, which specifies mitigation—protection, restoration, or creation of similar wetlands elsewhere. Among the wetlands issues EPA resolved in 2004 were:

- The proposed **North Village** residential and commercial development in **Solano County, Calif.,** where an agreement was reached that allows the development to go forward, but requires the purchase of 540 acres (including 147 acres of wetlands) to expand the existing Jepson Prairie Vernal Pool Preserve in the same county.
- In **Tulare County** in the San Joaquin Valley, EPA reached a settlement in a case involving the conversion of a 240-acre tract with scattered vernal pool wetlands, along **Cottonwood Creek** north of Visalia, to cultivated

Even in its present condition, the Bolsa Chica wetlands provide important habitat for egrets, blue herons, and other shorebirds.

cropland. The landowner agreed to convey a nearby 300-acre parcel of land, containing rare alkali vernal pool wetlands, to a regional land trust for permanent protection and management.

- In **Las Vegas,** EPA reached an agreement with KB Home in which the developer will spend at least $193,000 on riparian restoration projects in the Bureau of Land Management's **Red Rock Canyon** National Conservation Area. The agreement came after EPA learned that KB Home had graded a 160-acre site west of Fort Apache Road in southwestern Las Vegas, filling tributaries of Las Vegas Wash, without the required permit.
- In **Mendocino County, Calif.,** EPA's review of the proposed **Willits Bypass** resulted in changes to the highway project that saved 60 acres of wetlands (see Communities and Ecosystems, p. 21).

Protecting Rivers, Reefs by Preventing Polluted Runoff

Polluted runoff, also known as nonpoint source pollution, has been the nation's biggest water pollution challenge for the past decade. Since it has no single source, it is difficult to control. Pollution prevention efforts must be tailored to specific pollution sources in each watershed.

Coral Reefs

In Hawaii and the Pacific Islands, EPA is working with other federal and local agencies to address priority threats to coral reefs. In Hawaii, reducing polluted runoff in three watersheds is part of a *Local Action Strategy to Address Land-Based Pollution Threats to Coral Reefs,* released in April 2004. (For more information, see EPA People, p. 13.)

EPA Nonpoint Source Grants

To help states take action, EPA also awards nonpoint source grants. In 2004, EPA awarded a total of $21.9 million to the four Pacific Southwest states and Pacific Island territories for projects including:

- California's Middle **Mattole River** Restoration in **Humboldt County,** which involves erosion control measures on 85 miles of abandoned roads, stream bank stabilization, and planting 72,000 trees along the river. The goal is to prevent an estimated 146,000 cubic yards of sediment from washing into the river annually, which can smother salmon eggs before they hatch.
- Arizona's Santa Fe Ranch Project on the **Santa Cruz River,** which involves bank stabilization, revegetation, fencing, and monitoring along 1,000 feet of the Santa Cruz River northeast of **Nogales,** to prevent about 28,000 tons of soil from choking the river each year.

Preventing polluted runoff is an important part of interagency efforts to protect coral reefs from land-based pollution.

EPA funded the Pyramid Lake Paiute Tribe's nonpoint source project, which fenced springs to keep out livestock and installed solar-powered pumps to draw well water instead. This has reduced levels of phosphorus, nitrates, and sediment in the Lower Truckee River, the main source of the lake's water.

- Nevada's McCarran Ranch Project along the **Truckee River** near **Reno.** This pilot project has already restored one mile of the river, including recontouring the channel, constructing two wetlands and four riffle/pool sequences to improve fish habitat, and revegetating seven acres of flood plain. Four more miles remain to be restored by the U.S. Army Corps of Engineers, using local matching funds.
- The **Waimanalo Stream** Restoration, completed in June 2004 by the University of Hawaii's Pacific Biomedical Research Center. This urban project on **Oahu** included revegetation of 750 feet of streambanks with native sedges, and community cleanups that raised public awareness about preventing polluted runoff.

Ensuring Safe Drinking Water

Ensuring the purity of drinking water is one of EPA's highest ongoing priorities. In 2004, the Pacific Southwest Office took part in a nationwide EPA effort to monitor drinking water quality on U.S. and foreign flag airlines that fly within the United States. In this region, EPA collected water samples from aircraft arriving at the San Francisco, Ontario, John Wayne, and Los Angeles airports. Of the 327 aircraft tested across the country, 15% tested positive for total coliform bacteria in either the lavatory, galley, or both. From these results, there was no pattern or trend to suggest that the coliform contamination was limited to a specific type of aircraft. The contamination was found on U.S. flag aircraft, foreign flag planes, domestic flights, international flights, and large and small aircraft.

EPA is working to require all U.S.-based airlines to take specific actions to ensure the drinking water on their planes is safe to drink. The agency will also place foreign flag carriers that provide service within the United States under similar requirements to the extent the law allows. EPA has initiated an accelerated rule-making process to develop specific regulations for all water onboard aircraft.

Other actions taken by EPA's Pacific Southwest Office in 2004 to ensure safe drinking water include:

- An enforcement case involving the owners of eight public water supply systems in the Monterey-Salinas, Calif., area, whom EPA found to have violated the Safe Drinking Water Act by submitting false water sampling data to regulatory agencies, among hundreds of other violations from the early 1990s to 2001. To protect water consumers, a federal court ordered the defendants, Alisal Water Corp., related companies and Robert and Patricia Adcock, to sell the companies. The court also imposed a record $500,000 penalty.
- 232 inspections of underground injection well sites, where brine from oil drilling or liquid wastes from auto shops or large-capacity septic systems are injected into the earth for disposal. Careless injection of such wastes can be disastrous if it pollutes clean ground water, which is used as a drinking water source by millions of people in the Pacific Southwest. Inspections ensure that operators of such wells obtain and comply with Underground Injection Control permits setting conditions for protecting drinking water sources. In one case, Mountain States Petroleum Corp. agreed to pay a $90,000 penalty for violations found in an earlier inspection of its injection wells on Navajo lands in southwest Utah.
- In response to the elevated levels of lead found in Washington, D.C. area drinking water, EPA worked closely with state water agencies to assess the lead rule's effectiveness in reducing lead exposure. EPA assessed state imple-

Nogales Wash near Arizona/Sonora border. EPA grants for wastewater and drinking water infrastructure projects in Nogales, Sonora and Nogales, Arizona will provide safe drinking water and reduce pollution in the wash (see story, p. 23).

mentation of the rule through regional data verification audits, collected data to ensure the completeness of lead data in the national database, and in some cases conducted system-specific reviews.

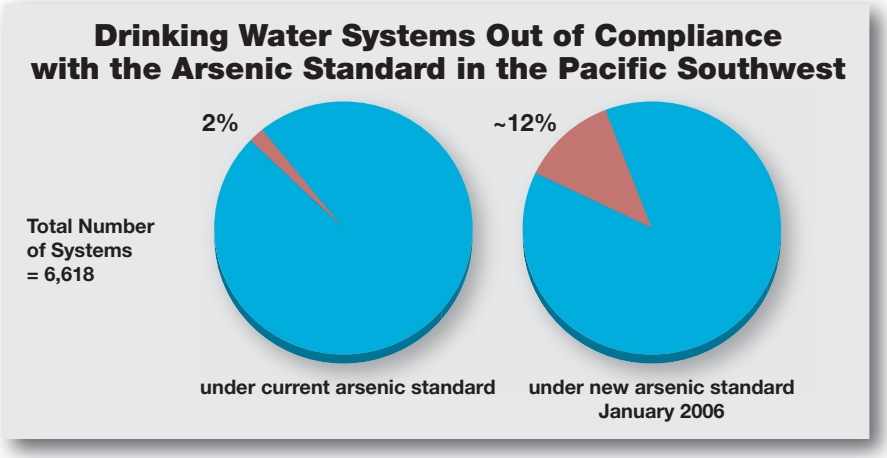
New Arsenic Standard to Take Effect in January 2006

About 12% of drinking water systems in Arizona, California, Nevada and tribal lands in these states will need to make modifications in order to meet the January 2006 deadline for compliance with the new arsenic standard of 10 parts per billion. Many will need to develop and install arsenic treatment systems. Most affected are smaller systems, where financial, technical and managerial capacity is limited. EPA will provide training to utilities, design engineers, the Indian Health Service and the regulatory community to assure that recent information on arsenic treatment and waste disposal technologies is accessible and understandable.

Financing Island Infrastructure

EPA and the Department of Interior are working with four U.S. Island Territories (American Samoa, Commonwealth of the Northern Mariana Islands, Guam, and the U.S. Virgin Islands) and federal partners to explore innovative methods of financing water and solid waste infrastructure. Given the economic climate in the islands, combined with the huge costs of such projects, it is very difficult for islands to secure affordable financing.

The effort brings together federal and island representatives with expertise in grant and loan programs, the bond market, island infrastructure plans, as well as an awareness of unique island needs. Currently the group is exploring the possibility of developing a region-wide bond bank and other potential financing mechanisms, including federal guarantees and public-private partnerships.



EPA People

In Hawaii and the Pacific Islands, coral reefs are essential to food supplies, economies, indigenous cultures, shoreline protection, and ecology. An estimated 20% of the world's coral reefs have already been destroyed and about half the remaining reefs are threatened. **Dr. Wendy Wiltse,** a marine ecologist in EPA's Honolulu office, plays a key role in EPA efforts to protect coral reefs in the Pacific Basin, which includes more than half of the the nation's coral reefs.

The multi-agency Coral Reef Task Force has identified activities harming coral reefs, such as land-based pollution, overfishing, coral disease, climate change, recreational overuse, and lack of public awareness. Within the task force, Wendy led a steering committee to develop Hawaii's Local Action Strategy. She also organized workshops that brought coral reef and water quality specialists together from islands as distant as Guam and Saipan to improve scientific tools for coral monitoring and protection.

Wendy also reviews coastal construction proposals that may impact coral reefs and supports enforcement actions involving coastal wetlands – which include coral reefs. Developing biological criteria guidance for coral reefs is EPA's newest initiative in coral protection. Wendy is organizing a workshop on this topic for the upcoming 2005 Pacific Islands Environmental Conference.

EPA grants now support over $1.1 million of coral reef protection projects in Hawaii. Wendy has been instrumental in encouraging qualified grant applicants. These projects include an assessment of coral reefs in polluted waters, and efforts to control invasive non-native seaweeds that can smother coral reefs.

Wendy enjoys the challenge of addressing environmental concerns in Hawaii, her home for the last 12 years. "Island people care deeply about reefs and fishing," she says. Her leadership, local perspective, technical expertise, and broad experience in water programs make her an effective advocate for protecting these vital ecosystems.

Clean Land

Responding to Environmental Emergencies

Readiness and Rapid Action

EPA's Emergency Response Program — with federal on-scene coordinators based in San Francisco and Los Angeles, Calif., and Carson City, Nev. — responds to environmental disasters, hazardous materials releases, time-critical removals, and inland oil spills that threaten human health or the environment. Other duties include participating in emergency preparedness drills, counter-terrorism drills and planning, and the Oil Spill Prevention, Control and Countermeasures program.

In 2004, EPA's Pacific Southwest Region initiated 27 emergency cleanups of hazardous materials posing imminent threats. In addition, EPA took part in multi-agency drills involving a simulated major oil spill off the Southern California Coast and a simulated detonation of a radioactive dispersion device (or "dirty bomb") at the port of LA/Long Beach. EPA also upgraded its response readiness in the region, taking delivery of a new mobile command post and new emergency response equipment stationed in the San Francisco and Los Angeles areas. Plus, EPA trained a regional 12-member Incident Management Team to support on-scene coordinators responding to nationally-significant emergencies.

Radiation in North Hollywood

During World War II and continuing into the 1950s, gauges in airplane instrument panels were often painted with radioactive paint to make them glow in the dark. The practice was discontinued when it became clear that people painting the dials were being dosed with dangerous levels of radiation. But a company in North Hollywood, Calif., Preservation Aviation Inc., stockpiled over a million radioactive dials and other equipment contaminated with radium and radon at its warehouse and yard in a residential neighborhood. When the company went bankrupt and abandoned the property, state and local agencies requested EPA's help with the

costly cleanup and removal of this unusual radioactive waste. In assessing the site, EPA found gamma radiation levels from 100 to 500 times the ambient level nearby.

EPA completed the first phase, removal of contaminated materials from an open yard, in December 2004. In January 2005, workers wearing air-purifying respirators sorted, packaged and removed hundreds of thousands of the dials and other radioactive materials inside the building. The materials were taken to licensed radioactive waste storage sites suitable for low, medium and high-level waste.

As the cleanup progressed, EPA constantly monitored the air at the site and took careful precautions to prevent any radioactive materials, in the form of dust or storm runoff, from moving into the surrounding neighborhood. Decontamination of the building and yard, including removal of radioactive soil, was expected to be completed by May 2005.

Cleaning Up Suisun Marsh and Preventing Future Oil Spills

On April 27, 2004, a corroded underground fuel pipeline running through Suisun Marsh in Solano County, Calif., ruptured and spilled over 103,000 gallons of diesel fuel into the state's largest tidal wetland, home to migratory waterfowl and the endangered salt marsh harvest mouse. The U.S. Coast Guard and the pipeline owner, Kinder Morgan Energy Partners, took initial measures to recover the fuel and prevent it from spreading, but called on EPA to clean up and restore the marsh. By September, after the work was done, 616 tons of contaminated soil had been removed. Tests showed that the mud remaining in the marsh no longer posed a threat to the environment. Over the course of 2004, EPA assisted with cleanup efforts in eight oil spills in the Pacific Southwest.

EPA took charge of the cleanup of contaminated sediments after a major oil spill in Suisun Marsh, one of California's largest remaining wetlands.

This new Mobile Command Post enhances EPA's capability to respond to environmental emergencies in the Pacific Southwest, including earthquakes and terrorist threats.

The Suisun Marsh incident spotlighted the vulnerability of oil and fuel pipelines which crisscross the nation unseen, just below the ground. To help prevent major spills from these pipelines, oil refineries and "tank farms," EPA conducted 12 surprise drills in 2004 at oil facilities in the region to test their readiness—including one at a Kinder Morgan facility near the Truckee River in Sparks, Nev. The drills involved deployment of company personnel and equipment, such as floating booms to corral oil in waterways. In the Reno/Sparks area, EPA also worked with local agencies to develop an emergency plan to respond to any toxic spill along the Truckee River. An interstate freeway, a rail line and pipelines — all of which transport fuel or hazardous liquids — run parallel to the river.

In 2004, EPA inspected 67 oil facilities in the Pacific Southwest to assess compliance with federal Spill Prevention, Control, and Countermeasure (SPCC) regulations developed under the Oil Pollution Act of 1990. The inspections targeted facilities with aboveground tanks near waterways. Most of the inspections found compliance with the regulations, indicating that these facilities can adequately prevent or respond to spills.

However, EPA's July 2004 surprise inspection and oil spill drill at Kinder Morgan's oil terminal in Sparks, Nev., found that the facility failed to adequately respond. A records check showed that the facility also failed to hold oil spill drills annually, as required by SPCC regulations. EPA filed a complaint seeking correction of the violations and up to $157,500 in penalties.

Mercury Cleanups in Nevada

Last year, EPA assisted with two mercury cleanups in Nevada involving youths who found containers of the highly toxic liquid metal and played with it, contaminating a home and a school.

In January 2004, dozens of middle school children in Gardnerville were exposed to the element and the vapors it gives off. Just a quarter cup of mercury brought to the school by a student contaminated not only classrooms and a school bus, but the clothing and belongings of more than 50 of his classmates. The state and federal governments spent more than $100,000 on decontami-

nation. The school was closed for more than a week. Local businesses made donations to those students whose belongings were contaminated and had to be destroyed.

Less than a week after the Gardnerville incident, severe poisoning from long-term exposure to mercury vapor sent a 17-year-old youth in Las Vegas to a hospital's intensive care unit for a week. The exposure may cause lifelong health problems. EPA and Clark County officials spent weeks decontaminating the boy's home because of extremely high levels of mercury vapor. Even the family dog suffered severe mercury poisoning.

In conjunction with the cleanup, EPA took advantage of widespread news coverage of the incidents to educate Nevada residents about the danger of mercury poisoning. In Nevada and Arizona, containers of pure mercury are sometimes found by children and teens at abandoned mining operations. To learn more about mercury, its health effects, regulations, and how to dispose of it, go to *www.epa.gov/mercury*

Asbestos in El Dorado Hills

Asbestos, a known human carcinogen, occurs naturally in certain rock and soil formations, often near earthquake faults in California's Coast Ranges and Sierra Nevada foothills. This naturally-occurring asbestos sometimes takes a fibrous form. Natural weathering, excavation or bulldozing can break the larger fibers down to microscopic fibers, easily suspended in air. When inhaled, these thin fibers can cause asbestos-related diseases.

Grading for soccer fields at Oak Ridge High School in El Dorado Hills (near Sacramento, Calif.) in 2002 disturbed a vein of naturally-occurring asbestos. Lack of water prevented the school district from covering the new fields immediately with sod, leading to concerns about dust or mud from the fields exposing students and school employees to asbestos.

In the wet months of February and March 2004, after assessing the problem, EPA oversaw the landscaping of areas of exposed soil that were of immediate concern. The next phase, covering exposed soil, took place over school vacation in April. Bare dirt areas next to classrooms were landscaped or paved, access roads were paved, and bare soil within the central area of the campus was covered with concrete. By July, the work was complete.

EPA also initiated a site assessment of three schools and a Community Services District park area in El Dorado Hills. The work involved activity-based air sampling and extensive coordination with state and county agencies.

For more details on asbestos and EPA actions in El Dorado Hills, go to *www.epa.gov/region09/toxic/noa*

Ground water treatment plant under construction in the San Gabriel Valley.

Cleanups Advance at Superfund Sites

At the 124 Superfund National Priorities List cleanup sites in the Pacific Southwest Region, cleanup is underway at 81% of the sites, and construction of cleanup facilities has been completed at 45%. Some highlights of recent Superfund accomplishments:

$78.5 Million Secured for San Bernardino Cleanup

EPA reached a $78.5 million settlement with the City of San Bernardino, Calif., the California Department of Toxic Substances Control and the U.S. Army for cleanup of the city's water supply, which is contaminated by the Newmark Superfund site. The settlement provides funds for cleanup of groundwater contamination from Army operations in the area during World War II.

More than 25% of the water supply for San Bernardino's 175,000 residents has been contaminated by volatile organic compounds (VOCs) such as solvents. Under the settlement, the City of San Bernardino will operate the Newmark site's newly-expanded groundwater treatment system to provide clean replacement water and prevent the contamination from spreading.

San Gabriel Valley Cleanup Forges Ahead

After four years of negotiations, 38 parties agreed to pay a total of $44.1 million for cleanup of groundwater contamination in the El Monte Operable Unit of the San Gabriel Valley Superfund sites. In addition to the cleanup, the settling par-

ties are required to reimburse EPA approximately $1.9 million.

The El Monte unit, one of four in the valley, is an area of 10 square miles of groundwater contaminated with VOCs in both the deep and shallow aquifers. Businesses owned or operated by the settling parties had used VOCs for degreasing, metal cleaning and other purposes.

The cleanup, already underway, involves using 14 separate groundwater treatment systems to pump approximately 2.4 million gallons per day of contaminated groundwater and treat it to remove VOCs and other chemicals, as necessary. This will control the movement of VOC-contaminated groundwater and protect downstream water supply wells.

Work Nearly Complete in Santa Fe Springs, Calif.

Most construction work at the Waste Disposal Inc. (WDI) Superfund site in Santa Fe Springs, Calif., is now complete. In 2004, work crews removed waste-filled drums and debris, and installed protective capping systems to prevent rain from seeping through buried waste and fouling groundwater or runoff. That portion of the WDI site is a 580-foot diameter concrete-lined reservoir which was used until the 1960s as a disposal area for petroleum wastes, construction debris and other materials.

The cleanup involved covering the buried waste with an impermeable multi-layered cap and installing a system to collect and treat liquids and gases emanating from the site. The capping system will isolate the waste and prevent the area groundwater from becoming contaminated. The liquid and gas collection systems will ensure that chemical contamination cannot reach the soil, water and air of the surrounding community.

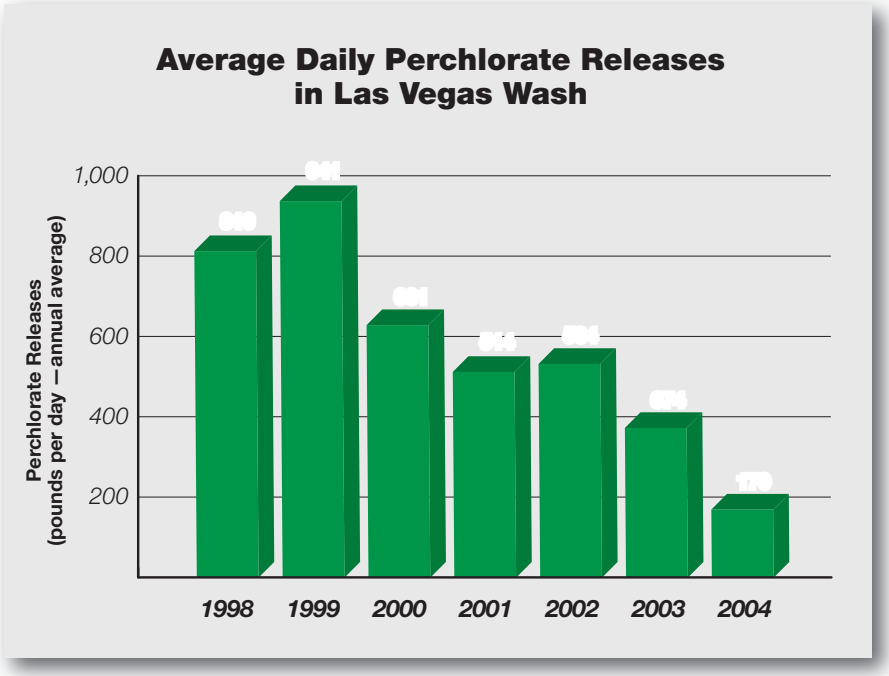
EPA is working with the community and the city government to facilitate redevelopment of the property under EPA's Revitalization Initiative.

Perchlorate Cleanup Successes

In 2004, EPA oversaw design and construction of drinking water treatment systems to remove perchlorate, a chemical found in rocket fuel, at ongoing Superfund cleanups in California. These included the NASA-Jet Propulsion Lab in Pasadena, Baldwin Park in San Gabriel Valley, and Rialto-Colton in Riverside County. In addition to the 30 sites where EPA and state agencies have responded to perchlorate contamination in the Pacific Southwest, EPA worked with California agencies to identify, prioritize and initiate site assessments at nine locations using state-of-the-art GIS mapping technology. To assist this effort, EPA produced a comprehensive map pinpointing the location of all known sites with perchlorate contamination of groundwater.

An erosion control structure on Las Vegas Wash, near Las Vegas, Nev. Perchlorate contamination levels in the wash have decreased steadily over the last few years (see graph, below).

In Nevada, EPA and the state set stricter discharge limits for a perchlorate treatment system at the Kerr-McGee site in Henderson, significantly reducing its allowable discharges. During the last five years, Kerr-McGee's control strategy has reduced releases to the Las Vegas Wash by more than 85%, from over 900 pounds per day in 1999 to about 135 pounds per day in the second half of 2004. This has reduced perchlorate detected in downstream water supplies in Lake Mead and the Colorado River.



Acting EPA Administrator Steve Johnson (far left) and Regional Administrator Wayne Nastri (second from right) present "big checks" to Jimmy Torio of the Anahola Homesteaders Council, and Kauai, Hawaii Mayor Bryan J. Baptiste (far right) to clean up a redevelopment site contaminated with pesticides and herbicides.

Pioneering Redevelopment at Federal Facilities

At 31 closed military bases in the Pacific Southwest, 120,000 of a total 150,000 acres is now open for redevelopment. At **El Toro Naval Air Station** in Southern California, the Navy put 3,800 acres up for auction in February 2005, and the land was purchased by a developer for $650 million. The Navy will use the money for cleanups nationwide, including the remaining portions of El Toro, which will cost an estimated $72 million.

At the closed **Hunters Point Naval Shipyard** Superfund site in San Francisco, 76 acres known as Parcel 1A have been declared clean and ready for reuse — the first part of the site to be cleared for redevelopment.

At the defunct **McClellan Air Force Base** near Sacramento, Calif., EPA began discussions with the Air Force, state, and county about a plan to privatize a 60-acre parcel as a pilot project to demonstrate how cleanup and redevelopment can take place simultaneously, with the Defense Department paying a private entity to conduct the cleanup.

At **Pearl Harbor** in Hawaii, where the naval base remains in use, the Navy used a thermal desorption process to treat over 40,000 cubic yards of PCB-contaminated soil — saving $24 million by avoiding the cost of transporting and disposing of the material on the U.S. mainland.

Brownfields and Revitalization

In 2004, EPA awarded 39 grants totaling over $10 million to local governments to speed up revitalization of brownfields – unused commercial or industrial sites where potential contamination from past uses hinders redevelopment.

In Anahola, Kauai, in Hawaii, an EPA grant financed planning for a redevelopment project on 20 acres of vacant farmland used for years as an illegal trash dump. The Anahola Homesteaders Council's sustainable master plan calls for a senior care and independent living center, a charter school, and retail and office space, all designed to be pedestrian-friendly, conserve energy and incorporate other "green building" principles. In October 2004, EPA announced grants for the next phase: $200,000 to Kauai County to inventory potential brownfields sites, do site assessments and involve local communities, and $196,334 to the Anahola Homesteaders Council for cleanup of the 20 acres, which is also contaminated with pesticides and herbicides.

A $200,000 Brownfields grant to the Wiyot Tribe will be used to clean up a former dry dock and ship repair site contaminated by paint, solvents, metals, petroleum products, and pesticides. The site, on Indian Island in Humboldt Bay on California's North Coast, will then be restored as part of the tribe's sacred Tuluwat Village and dance grounds.

Successful Brownfields grants from previous years have been instrumental in redeveloping the harbor area of downtown Stockton, Calif., and the Fruitvale neighborhood of Oakland. The Fruitvale project, where EPA worked with many state and local partners, including Habitat for Humanity, won a national Phoenix Award in 2004 for excellence in redeveloping the area surrounding a Bay Area Rapid Transit (BART) station.

Enforcing Hazwaste, Storage Tank Rules

To protect the public and prevent costly hazardous waste cleanups in the future, compliance with federal regulations under the Resource Conservation and Recovery Act (RCRA) is essential. This includes Underground Storage Tank (UST) regulations, which prevent leaks and spills from underground fuel and chemical tanks.

United Airlines Starts Compliance System

As part of a settlement resolving hazardous waste violations at San Francisco International Airport, United Airlines agreed to develop an environmental compliance management system (ECMS), at an estimated cost of $500,000. The Bay Area facility, United's only aircraft maintenance center in the U.S., employs 5,200 people and operates continuously, seven days a week.

United worked with EPA to develop the ECMS and agreed to an independent environmental audit of the facility. (For more information on environmental management systems, go to *www.epa.gov/ems*)

Violations included failure to close hazardous waste containers, improper labeling of containers, and storage of hazardous waste for longer

than allowable limits. United also agreed to pay an $850,000 penalty.

Waste Catches Fire at Border Station

EPA charged that three hazardous waste firms, one in Tijuana, Baja California, and two in San Diego, violated federal hazardous waste law, after the companies sent two shipments of waste that burst into flame in transit — one at the U.S. customs port at Otay Mesa, San Diego County, and the other on a highway in Riverside County.

The three companies — Samex Environmental Services, Hazardous Materials Transportation, Inc. and Servicios Ambientales Mexicanos, S.A. de C.V. — were cited for violations involving improperly characterizing, manifesting and packaging hazardous waste that had been transported from Mexico into the United States.

"EPA will go after any company — U.S. or foreign — that violates hazardous waste laws in the U.S. We won't let a border be a shield against liability," said Jeff Scott, Waste Management Director of EPA's Pacific Southwest Region. The companies paid a fine of $25,000.

Samex collects, transports and arranges for the U.S. disposal of hazardous waste from "maquiladoras," foreign-owned assembly plants in Mexico. Under Mexican law, maquiladoras that obtain their raw materials in the U.S. must dispose of their hazardous wastes in the U.S.

EPA regulations specify that all shipments of hazardous waste in the U.S. must be properly characterized, packaged, labeled and manifested.

EPA People

California's Gold Rush is a distant memory, but its environmental impacts are continuing. At the Lava Cap Mine in California's Sierra Nevada foothills, northeast of Sacramento, mining began in 1861 and ended in 1943. Ore from the mine was crushed and treated with cyanide to extract gold and silver, then dumped into a creekbed behind a log dam. The cyanide dissipated long ago, but the ore pile contains high levels of the naturally-occuring but toxic mineral arsenic. In the mid-1990s, the log dam gave way, sending tons of arsenic-laced sediment downstream every rainy season since, contaminating Little Clipper Creek and Lost Lake. In 1999, EPA added the site to its Superfund National Priorities List for cleanup.

EPA's project manager at the site is **Dave Seter.** Originally from Chicago, Dave joined EPA's Philadelphia office in 1987 as an environmental engineer in the Water Management Division. He moved to San Francisco in 1993, where he has worked on a number of Superfund projects. As a licensed civil engineer in the states of New Jersey and California, he enjoys the technical challenges the job entails.

Over the past couple of years, Dave has led EPA's effort to protect residents living near the mine site from the arsenic hazard, while evaluating long-term cleanup options and drawing up a cleanup plan. In 2004, EPA relocated residents living in two homes on the property, and installed water filtration units at five homes nearby. The plan includes construction of a multi-layer cap over the tailings, surface water diversion channels, and a rock buttress to prevent contaminated runoff and keep the waste in place. The plan also provides for cleanup of homes and other buildings, and cleanup of a stretch of creekbed below the tailings pile. Work is scheduled to begin this summer.

Working behind the scenes on the Lava Cap and other sites is **Kim Muratore,** one of EPA's most experienced Superfund enforcement case developers. Kim has worked in EPA's Pacific Southwest office for 22 years. Her job is to identify parties who contributed to the hazardous waste problems at Superfund sites. Working with EPA's attorneys, she helps enforce the federal Superfund law, which requires responsible parties to clean up their sites, or pay EPA for the cleanup. Kim helps develop the government's case when litigation is necessary, so taxpayers don't get stuck with the cleanup bill. In addition, she participates in EPA's environmental education program, visiting classrooms to help students learn about environmental science and EPA's work.

Communities and Ecosystems

Environmental Review Fulfills the Promise of NEPA

With its high rates of growth and high percentage of federal lands, the Pacific Southwest is home to a large number of water, transportation, energy, mining and land management projects involving the federal government. Many of these projects have the potential to create significant environmental impacts.

The National Environmental Policy Act of 1969 (NEPA) requires federal agencies to integrate environmental values into their decisions by considering the environmental impacts of their proposed actions, as well as reasonable alternatives. For major actions with significant impacts, federal agencies must prepare a detailed environmental impact statement (EIS). EPA reviews and comments on EISs prepared by other federal agencies — as required by Section 309 of the Clean Air Act — and maintains a national filing system for all EISs.

Environmental review staff in EPA's Pacific Southwest office are responsible for about one of every five EIS reviews performed by the agency nationwide. EPA reviews and rates draft EISs based on their environmental impacts and quality of information, and provides written comments to the lead federal agency. EPA strives to work collaboratively with the lead agency to ensure the completeness of every EIS, especially regarding project alternatives and mitigation to better protect the environment. For more information on the NEPA process, go to *www.epa.gov/compliance/nepa*

Avoiding Wetlands Impacts of Willits Bypass

Highway projects, funded or approved by the Federal Highway Administration (FHWA) and frequently planned by state agencies, can have significant environmental impacts, including effects on air quality, water quality, and environmental justice. Whenever there may be substantial wetlands

impacts in California, EPA works collaboratively with FHWA and the state Department of Transportation to integrate NEPA review with Section 404 of the Clean Water Act, which protects wetlands. This approach is called for in EPA's 1994 NEPA/404 Integration Memorandum of Understanding for Surface Transportation Projects.

This collaborative approach avoids unnecessary damage to public resources such as air and water, fish and wildlife. In one project, a bypass around the city of Willits along Highway 101 in Mendocino County, the wetlands impacts were expected to affect 120 acres. Working in partnership, EPA and the transportation agencies identified a modified alternative that would address community concerns, reduce wetlands impacts, and meet transportation needs. The new alternative reduced the wetlands impacts by 60 acres from the original proposal. Unavoidable wetlands impacts will be addressed through compensatory mitigation, such as restoring or preserving wetlands elsewhere.

Reducing Air Quality Impacts at the Port of Long Beach

The U.S. Army Corps of Engineers and the Port of Long Beach are planning a major expansion of the port, dramatically increasing the number of ships using the port each year. The construction project, and later the smokestacks of additional ships, would increase air pollution in the Los Angeles area, which already fails to meet health standards for particulates and ozone.

In 2004, EPA reviewed the draft EIS and made recommendations to reduce air pollution: Construction contractors should use low-sulfur diesel fuel and electric-powered dredges, create ridesharing programs for construction workers, and minimize dust. The benefits of this construction mitigation are enormous, with peak emission reductions of 430 pounds per day for nitrogen oxides, 1,900 pounds per day for particulate matter, 69 pounds per day for carbon monoxide, 16 pounds per day for reactive organic gases, and 500 pounds per day for sulfur oxides.

Once operational, the expanded port agrees to use cargo-handling equipment that meets EPA's proposed non-road emission standards, cleaner alternative fuels, and advanced exhaust control technology. In addition, the port will provide electrical hookups for ships so that while berthed, ships can plug in to shore-based electric power, which is cleaner than running onboard diesel generators. This mitigation of operational emissions will provide peak reductions of 150 pounds per day for nitrogen oxides and 11 pounds per day for particulate matter.

Taken together, these measures will provide major reductions in particulate emissions, smog-forming ozone precursors, and air toxics. And the port expansion can go forward, bringing economic benefits to Southern California.

Tribes Get Results

EPA's Pacific Southwest Region has 146 Indian tribes — more than any comparable area of the U.S. Tribal lands are subject to federal as well as tribal environmental laws, but many tribes until recently have lacked the capacity or funding to carry out environmental programs. This is changing.

Over the past 10 years, 90% of the tribes in the region have developed environmental programs. As of late 2004, more than 500 EPA grant-funded projects were underway on tribal lands. EPA and tribal partners have made significant progress in protecting tribal lands, waters, and cultural resources. EPA's stewardship responsibility involves working with tribes as partners in compliance and enforcement, fostering cooperative relationships with other governments, and providing funding and technical assistance for capacity building, infrastructure improvements, and environmental cleanup and restoration projects.

For more details on tribal environmental accomplishments in the Pacific Southwest, go to *www.epa.gov/region09/cross_pr/indian/success*

Safeguarding Tribal Waters

Thousands of tribal homes still lack basic running water and sewage systems. Both must be considered, since inadequate sewage disposal can pollute ground water used as a drinking water source. In 2004, EPA provided funding to improve drinking water for 4,411 tribal homes and sewage systems for 2,000 tribal homes. EPA also

As part of the Port of Long Beach expansion, the port will provide electrical hookups for berthed ships. Air pollution will be reduced because the ships will no longer need to run diesel generators for electric power.

provided training for 140 operators of tribal drinking water programs, and helped analyze arsenic levels in nearly 500 drinking water systems. Over the past 15 years, EPA has funded drinking water or sewage systems for over 33,000 tribal homes.

On the Tohono O'odham Nation, at the Santa Rosa Village, EPA provided $779,000 to rehabilitate and expand the existing wastewater lagoon system. In addition, the tribe contributed funding for construction of bathroom additions and plumbing for the community. The Santa Rosa Village lagoon system was completed in April 2004 and is serving 78 tribal homes. Another EPA-funded project will bring a safer drinking water supply to the Quitovac Tohono O'odham Community, part of the Tohono O'odham Nation.

On the Torres-Martinez Reservation in Riverside County, Calif., EPA issued federal drinking water regulation compliance orders to four private trailer park owners. EPA also assisted the Bureau of Indian Affairs (BIA) and the Department of Justice in a BIA case involving another private trailer park on the reservation with 4,000 residents who are primarily migrant and service workers. BIA successfully settled the case, with the operator agreeing to get a BIA-approved lease and to bring all structures in the trailer park, including the drinking water and sewage systems, into compliance with applicable laws within 18 months.

Tribes that demonstrate the capacity to run their own programs under the Clean Water Act, like states, may apply to EPA for authorization. For example, EPA approved the Hualapai Tribe's Water Quality Standards Program. The Hualapai have lived near the Grand Canyon for centuries, and this program will protect their water for future generations.

In 2004, EPA assisted tribes with protecting their rivers, streams, and wetlands through 130 grants to 85 tribes totaling more than $12.3 million. The Salt River Pima-Maricopa Indian Community, in the Phoenix, Ariz., area, completed two phases of an important nonpoint source pollution control project to improve the Salt River's water quality and riparian habitat. The community created a treatment wetland, which prevents pollutants from agricultural and urban runoff from washing into the Salt River. These wetlands also provide ideal habitat for wildlife in the desert region.

Water supply tank at the Quitovac Tohono O'odham Community in the U.S.-Mexico border region.

Protecting Tribal Lands

In 2004, tribes closed 60 dumps, organized 19 recycling projects, created four household hazardous waste pickup projects, conducted seven pollution prevention assessments at tribal medical facilities, finished 11 metal waste cleanup projects, and sponsored eight abandoned auto and trailer removal events. EPA and tribal regulators inspected 69 gas stations and other fuel tank facilities and cleaned up five leaking underground tank sites. For example, the Navajo Nation EPA (the tribal agency) inspected more than 50 underground tank sites. Federal and tribal regulators issued 11 field citations to violating facilities.

One successful project was the Fort Independence Tribe's new curbside recycling program at their community in the Owens Valley, California. The project raises enough money from recycled materials to finance itself.

Other successes included removal and recycling of 219 abandoned cars from Karuk tribal land along the Klamath River near the Oregon-California border, and 174 junked cars from Pit River tribal land, in northeastern California. In Arizona the Havasupai Tribe cleaned up a half-acre dump on their land in the Grand Canyon using a helicopter to lift heavy metal items from the dump to the canyon rim.

Reducing Risks in Communities

In 2004, tribal staff inspected 800 agricultural pesticide spraying operations to ensure compliance with safety regulations. In addition, four tribes used EPA grants to test the blood lead levels of 256 children and pregnant women.

In 2004, four Northern California tribes brought together 70 tribal youth from many areas of Central and Northern California for a series of environmental summer camps on the Hoopa Reservation and at the Black Mountain Preserve in the Sierra Nevada. Many tribal kids also participated in trash cleanups and recycling projects in their home communities.

U.S.-Mexico Border 2012 Program

EPA's 10-year Border 2012 Program focuses on six goals: cleaner air, water and land; and improving environmental health, emergency response and planning, and environmental stewardship. The interagency effort encompasses a wide range of activities, including air quality improvements (detailed on p. 6), drinking water and wastewater infrastructure projects, hazardous waste management, and environmental health projects.

Improving Water Infrastructure

By the end of 2004, EPA's Pacific Southwest Region had allocated $77 million for drinking water and wastewater infrastructure projects soon to begin or already under construction in 10 cities in the border area, half in the U.S. and half in Mexico (see chart). The funds will be disbursed over several years as construction progresses.

These 10 Border Environmental Infrastructure Fund (BEIF) projects will benefit a total population of over 1.9 million residents of cities where water and sewage systems have not kept pace with rapid growth. The lack of safe drinking water and adequate sewage disposal systems poses an ongoing threat to public health on both sides of the border.

EPA is contributing $12.9 million to the Mexicali II wastewater treatment project, which will treat up to 20 million gallons of sewage per day before it is discharged into the New River, which originates in Mexicali, Baja California, crosses the U.S.-Mexico Border, and ends at the Salton Sea in California's Imperial Valley. Overall, EPA has supported over 50 drinking water and wastewater projects along the border, benefiting some 6.5 million area residents.

Assisting Tribal Communities

Twenty-six tribes on the U.S. side of the U.S.-Mexico border have serious drinking water, sanitation, and other environmental needs. For example, the Tohono O'odham Tribe has health effects from E. coli bacteria at 108 times the national average, tuberculosis at 17 times the national average, and shigellosis at 13 times the national average. To help meet these challenges, EPA's Tribal Border Infrastructure Program has brought better water or sanitation to over 8,000 tribal homes since 1996.

Border Inspectors Stage Hazwaste Drill

U.S. federal, Arizona, and Mexican environmental and customs agencies conducted a joint exercise at the Nogales, Ariz., border port of entry to improve coordination on inspecting hazardous waste shipments crossing the border. During the drill, a truck carrying simulated liquid hazardous waste crossed the U.S.-Mexico border in both directions. The truck first crossed towards Mexico, where Mexican customs officials stopped it so that environmental inspectors could investigate. They assessed the safety of the cargo area, took samples of the waste, and interviewed the driver as part of the simulation. The exercise was then repeated on the U.S. side. Afterwards, a debriefing session was held at the U.S. Customs complex. For more information, go to *www.epa.gov/region09/features/hazwaste*

EPA Water (W) and Wastewater (WW) Grants in CA/AZ Border Area

Location	Project	BEIF $
Gadsden, AZ	WW	$1.5M
Patagonia, AZ	WW	$1.3M
Somerton, AZ	WW	$3.9M
Bisbee, AZ	WW	$11.3M
Douglas, AZ	WW	$3.7M
Nogales, Sonora, MX	W/WW	$14.2M
San Luis Rio Col, Son., MX	WW	$5.9M
Mexicali, BC, MX	WW	$12.9
Tecate, BC, MX	WW	$3.7M
Tijuana, BC, MX	WW	$18M

EPA, Mexico Collaborate on Tijuana Hazardous Waste Cleanup

Since 1989, the community of Chilpancingo in Tijuana, Mexico, struggled with the health hazards of tons of lead-contaminated wastes from Metales y Derivados, an abandoned battery recycling operation. Metales was perceived as an example of the adverse environmental impacts of free trade agreements, even though the problem began well before the 1995 effective date of the North American Free Trade Agreement (NAFTA). The difficulty of cleaning up this site stemmed from the fact that the contamination resulted from a U.S.-owned business, yet U.S. hazardous waste laws did not apply in Mexico. EPA's Border 2012 Program prioritized the cleanup and restoration of sites like Metales. The Border 2012 Program is also developing policies to prevent similar problems in the future.

Consequently, in June 2004, EPA collaborated with Mexico to remove the hazardous waste, dispose of it in a permitted U.S. disposal facility, and create a technical assistance group involving Chilpancingo residents. This action was the first of several to reduce risks from the site and create a framework for longer-term cleanup and restoration. EPA will share with Mexico its institutional

EPA cooperated with officials of the Mexican environmental agency, SEMARNAT, in overseeing the cleanup of an abandoned battery recycling site, Metales Derivados, in Baja California.

Before

During

After

and technical expertise in conducting cleanups. This involves strengthening Mexican government capabilities with regard to cleanup technologies, as well as legal mechanisms for defining responsible party liability for cleanup costs, and community involvement.

Agriculture

FQPA Projects Assist Farmers in Adopting New Pesticide Strategies

EPA's Agriculture Program administers Food Quality Protection Act (FQPA) grants to help growers transition from older, more toxic pesticides to more sustainable chemistries and practices. These projects demonstrate ways to prevent or reduce the movement of pesticides from agricultural sites into water and air while helping farmers remain competitive. In 2004, EPA awarded five grants ranging from $38,000 to $50,000 to tree fruit, almond, lettuce and alfalfa growers.

In addition, EPA's Agriculture Program led the national effort to solicit projects that leverage U.S. Department of Agriculture (USDA) funds. In 2004, EPA awarded funds for two projects that also utilize the Natural Resources Conservation Service's Environmental Quality (EQIP) funds and USDA Conservation Innovation Grants, helping tree fruit, dried plum, walnut and almond growers make environmental progress in California's Central Valley.

Dairies: Preventing Pollution Can Reduce Costs

California produces more milk and dairy products than any other state, and most of the state's dairy cows are in the San Joaquin Valley—but the manure from all these cows can pollute ground water with nitrate and other salts. To help solve the problem, EPA is collaborating with the University of California, the dairy industry, and other agencies on the Dairy Biologically Integrated Farming System (BIFS) project. This project is demonstrating how dairies can apply the right amounts of liquid manure to their forage fields to maximize plant growth, reduce the use of chemical fertilizers, prevent pollution of ground and surface waters, and save money.

Participating dairies found they could reduce fertilizer use by 130 lbs./acre of nitrogen, 70 lbs./acre of phosphorus, and 45 lbs./acre of potassium, for a savings of $57 per acre annually—over $10,000 for the average dairy—while virtually eliminating ground water pollution.

But there's more manure in the valley than crops there can safely use. In late 2003, EPA, the USDA and Department of Energy, along with five state agencies, the dairy industry, and environmental groups, formed the Dairy Manure Collaborative to demonstrate ways manure can be used a resource — not only as fertilizer, but also as compost and organic soil amendments, and as a source of renewable energy. One way to turn manure into power is to ferment it anaerobically to produce methane, which can be burned to generate electricity. Five California dairies already have such systems in use, and 13 more were under construction by mid-2004.

In May 2004, Marin County dairy farmer Albert Straus switched on his new $280,000 methane power system, the first of 14 to receive matching funds from the California Energy Commission. His Straus Family Dairy, small by industry standards, has 270 cows, and generates 75 kilowatts—enough to meet the needs of the family home, the dairy and the associated creamery, and sometimes pump excess power into the utility grid.

Sonoma County Winegrapes Use Fewer Pesticides

Over the last few years, the Sonoma County Grape Growers received two FQPA grants to reduce the use of pesticides on winegrapes. As a result, the grape growers reported that their pesticide usage declined 16% between 1999 and 2003 while acreage increased 16%. In addition, methyl bromide use decreased 98% during this same period. Sulfur, a natural fungicide used by conventional and organic growers, comprised 81% of all pesticides used in 2003. Sonoma County grape growers are proud of their integrated pest management regime and committed to using as few pesticides as possible.

Protecting Farm Workers

Farm workers who apply pesticides or work in fields that have been sprayed are especially at risk of pesticide exposure. The federal Worker Protection Standard contains requirements for pesticide safety training, notification of pesticide applications, use of protective equipment, restricting reentry into fields where pesticides were applied, and access to decontamination supplies and emergency medical assistance. In Hawaii, EPA worked with the state agriculture department in 2004 to train field inspectors to check farms for compliance. In California, EPA worked with the state Department of Pesticide Regulation to upgrade that state's pesticide field posting rules.

Inspecting farms to ensure compliance with worker protection rules.

In Arizona, EPA filed a complaint against a Scottsdale, Ariz.-based company for allegedly failing to protect employees from pesticide exposure in its lettuce fields in Olathe, Colo. EPA sought penalties of up to $9,460 from Cactus Produce, Inc. for failing to provide required decontamination supplies and pesticide safety information to field workers. The complaint also alleged that the company failed to ensure that its workers were adequately trained in pesticide safety, and failed to notify them about recent spraying of the fields they worked in. The complaint was based on inspections done by the EPA's Colorado office and the Arizona Department of Agriculture's follow-up inspections. For more information on pesticides, go to *www.epa.gov/pesticides*

EPA People

Nancy Levin joined EPA in 2001. As a member of the Federal Activities Office, Nancy reviews and comments on National Environmental Policy Act (NEPA) documents prepared by the Federal Highway Administration for transportation projects in California. She also works extensively under an interagency memorandum of understanding to integrate NEPA and Section 404 of the Clean Water Act, which protects wetlands. In her work, Nancy seeks to reduce environmental impacts and streamline the environmental review process.

The Willits Bypass highway project in Mendocino County, Calif., originally included several alternatives with extensive destructive impacts to a large wetland/marsh complex in the path of the bypass. Working closely with EPA's Wetland Regulatory Office, Nancy has helped to identify project modifications that will meet the project purpose, but will save up to 60 acres of wetlands. Earlier, as part of the Lincoln Bypass Team, she earned a Regional Administrator's Award for an innovative approach to protect aquatic resources from indirect impacts of a new freeway. As a result of this work, the Federal Highway Administration agreed to purchase $3.9 million in conservation easements to protect sensitive aquatic resources in western Placer County from growth associated with the freeway.

As a participant in Mare Island Accord initiatives, Nancy works to advance partnership-building and streamlining goals among EPA, the Federal Highway Administration and the California Department of Transportation. Nancy is an active member of the Regional Facilitator's network, and has facilitated interagency meetings and retreats. She serves as regional co-chair of GLOBE, EPA's special emphasis employee group for lesbian, gay, bisexual and transgender employees.

Compliance and Stewardship

Advancing Compliance Through Enforcement and Assistance

Ensuring compliance with environmental laws and regulations through strong enforcement is critical to achieving a cleaner, healthier environment. Enforcement actions resulting in penalties also send a message that there are consequences for non-compliance — leveling the playing field for those who invest in meeting environmental requirements. EPA, state and tribal agencies all play important roles in inspecting facilities and enforcing environmental laws.

In addition to enforcement, EPA collaborates with its state, tribal, and industry partners to offer compliance assistance to facilities, especially small businesses. EPA also helps facilities find the most cost-effective methods not just to comply, but to set environmental goals beyond compliance that will benefit their employees, their communities, and their bottom line.

To learn more about EPA efforts to assist specific industry sectors, go to the agency's National Compliance Assistance Web site, at *cfpub.epa.gov/clearinghouse*

Enforcement Actions Bring Environmental Improvements

EPA's enforcement actions completed in the Pacific Southwest continued an upward trend, from 344 in 2003 to 622 in 2004. The largest settlements were two Southern California cases involving thousands of sewage spills and overflows, in which the responsible local government agencies committed a record $2.6 billion for sewer system upgrades to prevent future spills (see Clean Water chapter, p. 8).

Aside from these sewage cases, responsible parties committed over $100 million to correct violations, restore the environment and prevent additional damage. Some notable examples are featured on pp. 27-29; for additional information go to *www.epa.gov/region09/enforcement/2004.html*

In addition to civil enforcement actions, EPA's regional Criminal Investigation Division (CID) worked with its federal, state and local law enforcement partners to successfully prosecute serious environmental crimes. The CID maintains a strong

presence across the Pacific Southwest from its offices in San Francisco, Los Angeles, San Diego, and Sacramento, Calif., Phoenix, Ariz., and Honolulu, Hawaii. For contact information, go to *www.epa.gov/region09/enforcement/cid*

Arizona Area

EPA took 97 enforcement actions against polluters in Arizona, the Navajo Nation (which includes parts of Arizona, Utah, and New Mexico), and other tribal lands within Arizona in 2004. Some of the highlights:

Mobil Settles Aneth Oil Spills Case

In a Clean Water Act settlement with EPA, Mobil Exploration and Producing U.S. Inc. agreed to reduce its spills of oil and contaminated water and build a drinking water pipeline to remote homes in oil fields on the Navajo Nation, near Aneth in southeastern Utah. The settlement requires the company to spend about $4.7 million on improvements in oil field operations to reduce spills and includes a $515,000 penalty.

Mobil will also spend approximately $327,000 on environmental improvement projects that include sewage facilities and a drinking water pipeline extension that will provide running water to 17 remote homes. Currently, residents must drive up to an hour to fill 55-gallon drums with drinking water. The settlement stems from 83 spills of oil and oil/water mixtures at the company's wells along the banks of the San Juan River and its tributaries, on Navajo Nation lands. The tribe had requested EPA's assistance in resolving this case.

Reducing Hazardous Waste on Gila River

Another action involved hazardous waste violations at the Firebird International Raceway on the Gila River Indian Community in Maricopa County, Ariz. As part of the settlement with EPA, Firebird is required to purchase equipment to reduce hazardous waste generation and contract with an independent third party to perform monthly audits of the facility's waste management practices for at least one year. The company is also required to provide environmental compliance training seminars to at least 15 professional racing teams at the raceway. Firebird will also pay an $11,000 penalty.

California

In California, which has a larger population than the rest of the Pacific Southwest Region combined, EPA completed 437 enforcement cases in 2004, more than double the 195 cases in 2003. Some of the highlights:

PVC Firm Pleads Guilty to Felony Charges

A Los Angeles County company that made polyvinyl chloride (PVC) resin pled guilty to a series of federal felony charges involving environmental violations at its Saugus factory, and for lying about its employees' over-exposure to toxic chemicals.

EPA's Criminal Investigation Division discovered that the Keysor-Century Corp. knowingly released toxic wastewater into the Santa Clara River, emitted cancer-causing air pollutants at high levels, and falsified emission reports to state and federal agencies. The company also illegally stored and handled hazardous waste, and failed to maintain its plant safely. The company was banned from ever again producing polyvinyl chloride resin, and ceased operations in late 2003. Keysor-Century also paid more than $4 million in civil and criminal penalties and restitution.

Oil well on the Navajo Nation in the "Four Corners" area, where the borders of Utah, Arizona, Colorado, and New Mexico intersect. Under a legal settlement with EPA, an oil company will spend $4.7 million to prevent spills and leaks from oil fields in this area.

Shipping Fleet Pleads Guilty in Ocean Oil Dumping Case

Hoegh Fleet Services, a Norwegian operator of a fleet of cargo ships, pled guilty in federal court to seven felony counts in a case stemming from a ship that was discharging oil on the high seas. Vincent Genovana, second engineer on the MV Hoegh Minerva, admitted that he illegally ordered a pipefitter to create a bypass pipe to dump oil directly into the ocean, and made false entries into a log book to conceal the discharges.

Hoegh Fleet Services was ordered to carry out an environmental compliance plan, and spend about $1.6 million on environmental restoration projects. The company was also placed on probation for four years and fined $3.5 million. Genovana was sentenced to 30 days in prison for his role in the offense, which was revealed by a crew member to the U.S. Coast Guard during an annual inspection in California.

Preventing Pollution from Auto Wrecking Yards

As part of an enforcement settlement, Pick Your Part Auto Wrecking in Hayward, Calif., agreed to spend $40,000 to remove and recycle mercury switches from junked cars to prevent this mercury from contaminating the environment. Statewide, the company also started recycling mercury switches from about 60,000 salvaged vehicles at its nine junkyards, the first such program in the state. Nationwide, an estimated 10 tons of the silvery, highly toxic liquid metal are released each year from mercury-containing light switches during the shredding and crushing of old vehicles.

To prevent pollution from auto wrecking yards, the California Auto Dismantlers Association (SCADA) has created the "Partners in the Solution" program to ensure that its members adhere to strong environmental and safety standards. EPA supports this program, which provides the education and support needed to bring facilities into compliance. Nearly 200 auto recycling facilities currently participate. For more information, go to *www.epa.gov/region09/enforcement/auto-compliance.html*

UC Completes Hazwaste Audits

The University of California (UC) completed hazardous waste, risk management, and emergency preparedness audits of 47 facilities, including its agricultural research stations, medical and veterinary schools, and nine campuses. UC reported close to 100 violations of hazardous waste regulations, which were corrected at the time or shortly after the audit. As a result of the audits, UC has redirected resources to improve compliance at each stage of the hazardous waste management process. The University's Environmental Health and Safety offices devoted over 23,000 work-hours to the $1.8 million project, which was unprecedented in scope for an academic institution. Through the audits and subsequent preventive measures, the University has achieved greater environmental compliance throughout its system, and safer conditions for more than 200,000 students and employees.

Toxic fluids in junked cars, such as antifreeze and mercury, can be released to the environment unless removed before cars are crushed.

Ensuring Companies File Hazwaste Reports

Thirty-one California companies that use hazardous materials reported more than 36 million pounds of hazardous waste to EPA in 2004 as a result of an innovative approach — the nation's first expedited settlement involving failure to file biennial reports. Making sure facilities report their hazardous waste is important to nearby communities, especially residents of adjacent homes. The information is also available to firefighters and local police who are first to respond to emergencies at such sites. After discovering that numerous facilities had failed to file their reports, EPA streamlined the process of settling violations in order to increase compliance. For more information, go to *www.epa.gov/region09/enforcement/hazwaste.html*

Nevada

EPA took 26 enforcement actions against polluters in Nevada in 2004. In settling these actions with EPA, responsible parties committed $2.5 million for improvements to prevent future violations of environmental laws. They also paid a total of $731,200 in civil penalties. Some highlights:

Sand Mine, Furniture Maker, Asbestos Removal Cases

The J.R. Simplot Co. agreed to install air pollution control equipment worth $2 million to resolve violations of the federal Clean Air Act at its silica sand mining facility in Overton, Nev. The facility dries silica sand in a coal-fired dryer, which generates sulfur dioxide emissions. These emissions can cause respiratory illnesses, and can also cause acid rain. Acid rain damages aquatic life and vegetation, and also decreases visibility, which is a problem at many national parks, including the Grand Canyon.

EPA required Capital Cabinet Corp., a wood furniture manufacturer in Las Vegas, to spend $241,000 on technology to reduce emissions of smog-forming volatile organic compounds (VOCs) by 50 tons per year. This settlement benefits the fast-growing Las Vegas area since ozone (smog) levels there exceed the eight-hour ozone health standard, a violation of the Clean Air Act.

Dean Roberts, owner of Axis Environmental of Reno, Nev., was sentenced to six months in prison and three years of supervised release for knowingly violating the Clean Air Act by illegally removing asbestos-containing material from a commercial building. Roberts also failed to notify state inspectors about unprotected workers removing asbestos under his supervision.

Hawaii And Pacific Islands

EPA completed 35 enforcement actions in Hawaii in 2004. In settling these cases with EPA, polluters committed $80,652 to improve their facilities to prevent future violations. EPA also collected a total of $383,377 in civil penalties for clean water, hazardous waste, and pesticide violations. In the outer Pacific islands, EPA completed 27 enforcement actions — 14 in Guam, 11 in American Samoa, and two in the Commonwealth of the Northern Mariana Islands. Penalties in these actions totaled $234,204.

University of Hawaii Completes Hazwaste Prevention Projects

The University of Hawaii has spent $1.2 million to complete environmental projects that were part of a 2001 settlement with EPA and the Hawaii Department of Health for hazardous waste violations. The projects reduced hazardous waste generation at the university by more than 13,000 pounds annually. The university also reduced the amount of chemicals it has to purchase and store, and reduced the exposure to hazardous chemicals for students, faculty and staff. The university converted chemistry labs to microscale, which uses small amounts of chemicals and special glassware. The Honolulu Community College print shop was converted to a digital system, eliminating more than 11,000 pounds of silver-based developers, inks, solvents and other printing wastes. The university also replaced more than 1,300 pieces of equipment containing a total of about 10 pounds of highly toxic mercury, and adopted new technology to improve paint spraying in various campus auto body programs.

Multi-State Enforcement

Taking Action Against Mislabeled, Unregistered Pesticides

In 2004, EPA initiated a multi-state effort to protect consumers from illegal pesticide products, ultimately fining companies in three western states for trafficking counterfeit and/or unregistered pet products.

Three companies were cited for allegedly selling and distributing unregistered versions of "Frontline" or "Advantage" — popular flea and tick control products used on dogs and cats. State and federal inspectors discovered the illegal products at various retail stores in Oregon, California, Hawaii, Pennsylvania and Georgia, and traced the products to the three companies.

The counterfeit pesticides appeared to have been unlawfully imported and packaged to look like U.S.-registered pesticides. Packaged incorrectly and mislabeled, these products can endanger pets and their owners, and undercut legitimate businesses that have registered their products and included proper safety labeling. Registered pesticides have an EPA registration number on the label. EPA will register a pesticide only with proof that it will not pose an unreasonable risk when used as directed.

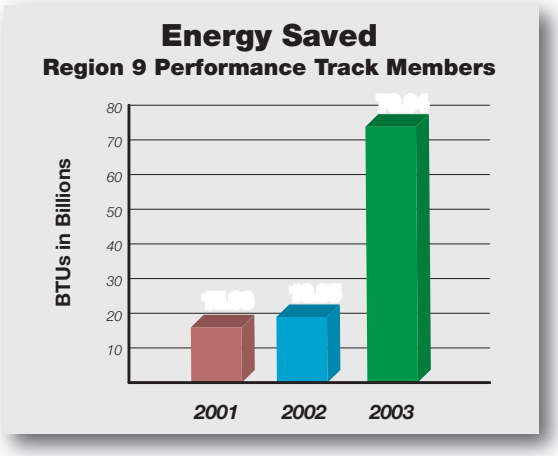
EPA sought fines of $357,000 from Rizing Sun, LLC, in Peoria, Ariz., and $341,000 from Pang & Son Distribution, LLC, in Honolulu, Hawaii. The third company, Tidalwave Distribution, Inc., of Torrance, Calif., settled a pesticide case, paying a $50,000 penalty.

Earlier, in March 2004, EPA took actions against 56 companies in seven states, ordering them to stop selling unregistered pesticide pet products. "Stop Sale" orders were issued to 56 retailers and distributors in California, Hawaii, Washington, Oregon, Texas, Louisiana and Oklahoma.

Preventing Pollution Before It Occurs

It's far more cost-effective to prevent pollution than to clean it up after the fact. EPA has a number of voluntary programs to promote pollution prevention. Among their accomplishments in the Pacific Southwest in 2004:

- Air toxics are a serious problem in many inner-city urban areas. EPA is working with community groups, state and local agencies, and industries to prevent pollution through the South Phoenix Multi-Media Toxics Reduction Project. Forty businesses and eight agencies are participating. The businesses have voluntarily agreed to reduce air emissions of 35 high-hazard chemicals by 20% between 2002 and 2007, and enhance site safety measures to prevent chemical accidents. Also, EPA is working with state and local partners to measure air toxics throughout the Phoenix metro-



Fifteen facilities that are members of EPA's National Environmental Performance Track in the Pacific Southwest saved more than 108 billion BTUs of energy in 2001-2003 compared to their 2000 usage — equivalent to the energy used by 1,000 homes in a year **(see Improving Performance, p.30).**

politan area in the Joint Air Toxics Assessment Project. In California, EPA is working with state and local partners and the community of West Oakland to reduce pollution from diesel trucks and engines in the neighborhood.

- An energy-saving lighting demonstration project at the Bay Area Rapid Transit (BART) system's Hayward parking garage cut the station's energy use by 25%, reducing CO_2 emissions by 130,198 pounds annually and providing an amazingly quick 1.8-year payback. This success is readily transferable to parking garages throughout the nation and is being used in all new BART construction.
- The University of Nevada, Reno, Business Environmental Program, funded by an EPA grant, helps businesses to reduce the hazardous waste they generate. In one year, participating companies cut their hazardous waste by over 47,000 pounds.
- The California Air Resources Board's Auto Body Project, an EPA-initiated effort to train body shop technicians about pollution prevention practices, trained 50 people, reducing air pollution emissions at their shops by an estimated 15,000 pounds per year.
- Training efforts included EPA's pollution prevention in hospitals workshop in Hawaii, attended by 70 healthcare employees; and EPA's hazardous waste training at the National Oil Recyclers Conference in San Diego.

Managing and Reducing Solid Waste

Ensuring proper solid waste disposal, whether in the Nevada desert or on the wet Hawaiian islands, continues to pose a challenge in the Pacific Southwest.

Hawaii has little room for landfills, and recycling and reuse infrastructure is badly needed. The state's "Bottle Bill" took effect on Jan. 1, 2005. An EPA grant is supporting administrative rule development for the new law, which encourages the return of all beer and soft drink containers through a refund program. Congressional grants of over $1 million are being spent on model waste, recycling and reuse facilities on the Big Island, where 920 tons of materials were recycled last year.

Nevada has one of the lowest recycling rates in the country, with little infrastructure or incentive for recycling. A $60,000 EPA grant to the Clark County Public Education Foundation's School Reuse project funded distribution of nearly 73,000 used computers and other reusable items to schools in the Las Vegas area. This kept 247,000 pounds of material out of the landfills.

California's local governments must meet the state's 50% recycling mandate. Last year, EPA hosted a national Deconstruction and Building Materials Reuse Conference in Oakland, focused on the reuse of building waste. Two hundred participants, including national experts in the field, shared new and cost-effective deconstruction and reuse opportunities. EPA also launched a stadium recycling partnership with the HP Pavilion in San Jose (*see www.epa.gov/region09/waste/stadiumrecycling*).

The Federal Electronics Challenge encourages federal agencies to set up state-of-the-art electronics recycling programs. The NASA Ames Research Center and the Lawrence Livermore National Laboratory in Northern California piloted the project, and won awards for initiating this difficult and innovative program as a model for other federal agencies. For details, go to *www.federalelectronicschallenge.net*

Event at Hoover Dam with EPA Regional Administrator Wayne Nastri, Administrator Mike Leavitt and Nevada Dept. of Conservation and Natural Resources Director Allen Biaggi (all sitting left of speaker) welcoming new Performance Track members.

Improving Performance with Environmental Management Systems

The National Environmental Performance Track is a voluntary partnership that recognizes environmental leaders in the public and private sectors. Facilities that demonstrate strong environmental performance beyond regulatory requirements are eligible to join. EPA's Pacific Southwest Region helped develop this innovative program by piloting the use of Environmental Management Systems (EMSs), which are required for members.

Since the program began in 2000, membership has grown steadily, with results ranging from air pollution reductions to waste minimization. Many members are leaders in water and energy con-

EPA People

As Senior Counsel for Administrative Enforcement for air and toxics in the Office of Regional Counsel, **Carol Bussey** is responsible for the enforcement of air, asbestos, lead, pesticides and toxics regulations. In addition to her own extensive case load, Carol oversees nine enforcement attorneys who prosecute these administrative enforcement actions in EPA's Pacific Southwest Region.

Carol's tireless efforts have significantly improved environmental compliance by the construction industry, federal and state agencies, pesticide manufacturers, and residential landlords. In cooperation with the U.S. Department of Housing and Urban Development, Carol brought precedential enforcement actions against landlords that improved compliance with lead disclosure requirements in the Los Angeles basin, and resulted in extensive lead abatement and a Child Health Improvement Project.

Carol's successes include innovative compliance initiatives, settlements with far-reaching environmental and community benefits, and winning favorable decisions at challenging administrative hearings. Carol continues to receive the highest accolades from her colleagues in both the Region and at EPA Headquarters. The EPA Air Enforcement office in Washington, D.C. praised Carol's oral argument before the Environmental Appeals Board as one of the best they had ever witnessed. Carol epitomizes the professionalism and excellence that characterizes EPA's workforce.

Mercury pollution in air, water and land is an issue that is gaining more and more public attention in recent years. EPA has proposed several new regulations regarding mercury as well as the recently finalized "Roadmap" outlining EPA's strategy for addressing these concerns.

In the Pacific Southwest, every EPA division is involved in resolving mercury emission and contamination issues, from developing cleanup plans for mercury-polluted waters, to reducing the use of mercury containing products and developing pollution prevention efforts, including voluntary industry partnerships. **Lisa McClain-Vanderpool** has coordinated this regional mercury team's efforts with EPA's National Mercury Workgroup.

In addition to her role as Mercury Coordinator for the Pacific Southwest Region, she has been the staff lead on the highly successful Voluntary Mercury Emission Reduction Program with four Nevada gold mining companies and the Nevada Department of Environmental Protection. The partnership has resulted in a 75% reduction in mercury air emissions — a reduction of over 8,300 pounds of mercury emissions from gold mining processes in Nevada. Lisa is assisting the national effort to transfer the successful mercury control technology from these gold mines to the international community through the United Nations Environment Programme (UNEP). She is also participating in national efforts to develop programs for the removal of mercury switches in old cars, the fourth largest source of mercury air emissions in the country.

Lisa leads the Innovative Industry Partnerships Team in the Waste Management Division's Strategic Planning and Partnerships Section. The team is working with industry to "green" large venues, develop partnerships for the use of waste oil in biodiesel, expanding BART's successful program for energy efficient lighting, and creating markets for recycled paint. Lisa also coordinated the highly successful and well-attended National Deconstruction and Building Materials Reuse Conference in September 2004.

servation (see graph, p. 29), and new pollution prevention technologies. The Pacific Southwest has 39 member facilities, which have made the program a meaningful venue for government-industry collaboration.

Benefits to members include public recognition, networking opportunities, low priority status for routine inspections, and other regulatory and administrative benefits. EPA accepts applications twice a year: February through April, and August through October. To learn more about the program and its participants, go to *www.epa.gov/region09/performancetrack*

In 2004, EPA brought the EMS concept south of the border with an EMS certification training seminar for industries in Tijuana.

EPA's Pacific Southwest Office has its own EMS. The system includes environmentally preferable purchasing policies to ensure that the office buys supplies and equipment that conserve energy and natural resources, such as 100% post-consumer recycled paper. Contracts with outside organizations have a "Green Meeting" clause, requiring waste from meetings to be recycled. And in 2004, EPA's Pacific Southwest regional office in San Francisco recycled an impressive 93% of its solid waste.

EPA Honors Environmental Heroes

At the Pacific Southwest Region's sixth annual **Environmental Awards Ceremony** in San Francisco on April 20, 2004, EPA Regional Administrator Wayne Nastri presented awards to 36 Western organizations and individuals in recognition of their efforts to protect and preserve the environment. Award categories included community and non-profit organizations, government agencies, individuals, businesses and industry, and news media.

One winner was the Honolulu community group Malama o Manoa. The group worked with the city Board of Water Supply to integrate water quality and conservation into local schools' curricula. Students surveyed neighbors about their awareness of these issues. The group then conducted an outreach program with 200 volunteers, who stenciled "Don't Dump" messages on storm drains, delivered brochures, produced a video, and sponsored tours of city water facilities.

Elementary, middle school, and high school students can also be nominated for the annual President's Environmental Youth Awards. For more information, go to *www.epa.gov/region09/enviroed*

Business owner Annie Chun of San Rafael, Calif., accepts an award from EPA's Laura Yoshii and Wayne Nastri. Annie Chun's All Natural Asian Cuisine was the first U.S. company to introduce a biodegradable/compostable bowl.

Entrance to EPA's Southern California Field Office, on Wilshire Boulevard in Los Angeles

Field Office Opens in Los Angeles

In June 2004, EPA opened a **Southern California Field Office** in downtown Los Angeles to more effectively manage environmental programs in this important part of the Pacific Southwest Region. The counties of Ventura, Los Angeles, Orange, and San Diego, along with the western portions of Riverside and San Bernardino Counties, together represent a constituency of nearly 20 million people, as well as the world's 11th-largest economy.

Field office staff work with state and local agencies, businesses, non-profits, the news media, and the public to address a variety of issues facing Southern California. These include clean air, proper management of dredged materials at Southern California's largest ports, preparation of Total Maximum Daily Loads (TMDLs) that contribute to cleaner beaches and waterways, cleanup of leaking underground tanks, community involvement at Superfund sites, responding to environmental emergencies, and criminal enforcement of environmental laws.

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U.S. GOVERNMENT PRINTING OFFICE: 2005—784-229

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Planning, Permits, Rulemaking
Enforcement, Technical Support
Radiation & Compliance Assurance
Grants & Program Integration

Superfund Division
415.947.8709
Keith Takata, *Director*

Site Cleanup, Brownfields, Oil Pollution
Federal Facilities and Base Closures
Emergency Response & Planning
Community Involvement, Site Assessment

Waste Management Division
415.947.8708
Jeff Scott, *Director*

Pollution Prevention, Solid Waste
RCRA Permits/Corrective Action
RCRA Inspections & Enforcement
RCRA State Program Development
Underground Storage Tank Program

Water Division
415.947.8707
Alexis Strauss, *Director*

Clean Water Act
Safe Drinking Water Act
Marine Sanctuaries Act

Communities and Ecosystems Division
415.947.8704
Enrique Manzanilla, *Director*

Agriculture Program, Environmental Justice
Pesticides, Toxics, TRI
Environmental Review/NEPA
Tribal Programs, Pacific Islands
U.S.-Mexico Border Program
Stewardship/Performance Track

Policy and Management Division
415.947.8706
Jane Diamond, *Director*

Budget, Finance/Grants/Contracts
Strategic Planning, Science Policy
Laboratory & QA/QC, Facilities
Information Resource Management
Health & Safety, Human Resources

Southern California Field Office (Los Angeles)	213.244.1800
Pacific Islands Contact Office (Honolulu)	808.541.2710
San Diego Border Office (San Diego)	619.235.4765

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